CyberEdge Technologies

(Private) Limited

Your Shield in the Digital Age

COMPANY PROFILE

Cybersecurity | Digital Forensics | Enterprise Software
ICT Infrastructure | Security Screening | Hybrid Solarization

ISO 27001:2022 Certified · SECP Registered · PEC Licensed · PSEB Registered

Quetta, Balochistan, Pakistan · July 2026

Document control

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Notice

This profile describes capabilities the company holds and engagements it has delivered under signed work orders. Where a statement concerns a standard, a certification or a delivered engagement, documentary evidence is available on request. Client organisations are named only where the engagement is a matter of public procurement record; individual client officers are not named in this document.

Product names, trademarks and standards referenced remain the property of their respective owners. MOBILedit is a product of Compelson Laboratories; UNIQSCAN equipment is supplied under partnership with Shenzhen Unisec Technology. CyberEdge is an authorised distribution and support partner for both in Pakistan.

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How it is produced, and what it excludes

This profile is generated from the CyberEdge website, so the capabilities, credentials and delivery record it describes are the same ones published at cyberedgetechs.com. Contract values are deliberately excluded; they are recorded on the signed work orders and are available on request for a specific tender.

Executive summary

If you read nothing else in this document.

CyberEdge Technologies (Private) Limited is an ISO/IEC 27001:2022 certified technology partner based in Quetta, Balochistan, working for federal and provincial government departments and for private enterprise across Pakistan. The company was incorporated on 8 April 2024 and has since delivered 38 contracted engagements against signed work orders for 11 client organisations.

We are an end-to-end partner rather than a reseller or a body shop. On a typical engagement the same organisation scopes the requirement, handles the procurement compliantly, builds or installs, trains the staff who will use it, and holds the maintenance contract afterwards. That is deliberate: the most common failure we are called in to fix is a system assembled by three suppliers where none of them owns the outcome.

What we do

Practice	What it delivers
Cybersecurity & Digital Forensics	Managed monitoring, penetration testing, incident response, and turnkey forensic laboratories — seven established nationwide
Governance, Risk & Compliance	ISO 27001 implementation and certification support, risk registers, internal audit
Software Development	Custom web, mobile and enterprise applications built to departmental workflow
Enterprise Resource Planning	Finance, procurement, inventory, HR and asset modules on one auditable data model
Cloud & IT Infrastructure	Migration, managed services, disaster recovery, on-premise and air-gapped builds
AI & Data Science	Business intelligence, forecasting, computer vision and document intelligence
Training & Certification	CISA, CISM, CEH, OSCP, CISSP, PMP and ISO 27001 programmes
Digital Transformation Consultancy	Strategy, specification writing, independent assurance of other suppliers' work
Security Screening	UNIQSCAN detection equipment: explosives, liquids, X-ray, metal, vehicle inspection
Hybrid Solarization	Load-audited hybrid solar plants from 7 KVA to 35 KVA with storage and O&M

Why clients select us

- Named accountability. Five executives with direct operational ownership; clients deal with decision-makers rather than account managers.
- Evidence over assertion. Every engagement on our register is transcribed from a signed work order, and completion certificates are supplied with any bid.
- Current, named credentials. CISA, CISM, CRISC, CEH, PMP, ISO 27001 Lead Auditor and IBM Certified Data Scientist among others, held by individuals rather than claimed by the company.
- We say when you do not need us. Where the honest answer is that a cheaper or simpler approach will work, we say so at proposal stage rather than after award.
- You can try the software before you brief us. One hundred working demonstration applications are published, with sign-in, across ten industry domains.

Reading this document

Sections 1 to 5 cover the company, its leadership and its credentials. Sections 6 to 8 set out what we build and supply, in depth. Section 9 is the delivery record. Section 10 specifies all one hundred demonstration applications. Section 11 reproduces our published technical writing in full. Sections 12 to 14 cover method, organisation and contact. The appendices carry the standards register, certification register, a consolidated FAQ, the solution capability index, a bibliography and a glossary.

1. The company at a glance

Legal name	CyberEdge Technologies (Private) Limited
Trading name	CyberEdge Technologies
Founded	8 April 2024
Head office	H-No. F-261, Quetta Avenue Housing Scheme, Quetta, Balochistan, Pakistan
Telephone	+92 312 5463398 / +92 300 5463398
Email	support@cyberedgetechs.com
Website	https://cyberedgetechs.com
Certification	ISO/IEC 27001:2022 — Information Security Management
Registrations	SECP registered; PEC licensed; PSEB registered; FBR and PRA compliant
Engagements delivered	38 contracted engagements against signed work orders
Client organisations	11, across federal and provincial government and private enterprise
Sectors served	Law enforcement, civil service, healthcare, education, automotive, telecommunications and energy
Delivery footprint	Nationwide, with seven digital forensic laboratories established

What we do

CyberEdge Technologies is an end-to-end technology partner for government departments and enterprises. We scope the problem, procure compliantly, build or install, and then stay accountable for the system afterwards — rather than handing over at go-live and leaving the client to integrate the parts.

Cybersecurity & Forensics

Managed SOC, VAPT, incident response and full digital forensic laboratories with defensible chain of custody.

Enterprise Software

ERP, HRMS, dealer management, complaint and fuel systems — cloud or on■premise, built for audit and scale.

Surveillance & ICT

Aerial surveillance drones, CCTV command centres, networks, data centres and complete office automation.

Hybrid Solarization

7–35 KVA hybrid solar plants for critical facilities — uninterrupted power, lower diesel dependency, fast payback.

Military-Grade Screening

UNIQSCAN explosive and liquid detection, X-ray baggage scanning, metal detection and under-vehicle inspection — including a consignment of hand-held explosive detectors delivered to CTD.

Forensic Products

MOBILedit dealership for Pakistan — PRO and ULTRA editions, Cloud Forensic, Camera Ballistics, hardware kits and certified examiner training.

2. About CyberEdge

Origin and purpose

We started with a simple observation: the departments doing the hardest work in Pakistan were being served by vendors who sold boxes and disappeared.

CyberEdge was formed to be the opposite — a single partner that scopes the problem, procures compliantly, builds what is missing, deploys with its own engineers, trains the people who will use it, and stays for the maintenance contract. That is why our client list is short and our repeat-engagement rate is high: the Counter Terrorism Department alone has contracted us more than fifteen times.

Today the practice spans cybersecurity, digital forensics, enterprise software, artificial intelligence, data science, hardware management, digital marketing, military-grade security screening and hybrid solar energy — with over 2,000 businesses served, seven forensic laboratories established nationwide, the MOBILedit dealership for Pakistan, and in signed work orders.

Mission, vision and values

Mission

To empower organisations through technology that is secure by design, honestly scoped, and supported for its full working life — closing the capability gap between what institutions need and what the market usually delivers.

Vision

A nationally recognised centre of excellence for cybersecurity and digital transformation, built from Balochistan, exporting expertise rather than importing dependency.

Approach

One accountable partner across the whole lifecycle. No handoffs between a supplier, an integrator and a support vendor — because that seam is where projects fail.

How we are structured

Security Practice

SOC analysts, penetration testers and forensic examiners.

Software Practice

Architects, full-stack engineers, data and AI specialists.

Infrastructure Practice

Network, data centre, surveillance and field deployment teams.

Energy Practice

Solar design engineers, electricians and commissioning crews.

Management & leadership

Meet the executive team accountable for every engagement — Aman Faheem (Founder & CEO), Jeehan Malik (Managing Director), Maroosha Khushbhakat (Finance), Haider Ali (CTO) and Muhammad Zubair (Admin).

Team competence

CISA, CISM, CRISC, CEH, CISSP, PMP, ISO 27001 Lead Auditor, IBM Certified Data Scientist and more — held by working members of our delivery teams.

3. Growth and milestones

Period	Milestone	Detail
2024	ICT foundation	Computer systems, IT equipment, attendance devices and office automation delivered across CTD and Quetta Police, alongside the city's CCTV surveillance rollout.
Early 2025	Energy & software expansion	First 12 KVA hybrid solar plant commissioned for Balochistan Constabulary; HRMS and BCSA software engagements begin.
Mid 2025	Enterprise scale	12 KVA solarization for CTD; software, subscription and website programmes for the Civil Service Academy; National Police Bureau systems for the Ministry of Interior.
Mid 2025	Federal forensics & solar scale	forensic software and hardware capability delivered to the FCIU; 35 KVA solar plant commissioned for Toyota Zarghoon Motors.
Late 2025	Surveillance programmes	in surveillance drone procurement for CTD across two phases; e-lettering, S&GAD HRMS and the Toyota dealer management platform go live.
2026	Forensics at scale & screening	A complete digital forensic laboratory established for CTD; a consignment of hand-held explosive detectors delivered to CTD Balochistan; the CCTV programme and the CMDU deployment completed.

4. Leadership and management

A small executive group, each with direct operational ownership. Clients deal with decision-makers rather than account managers.

Aman Faheem

A certified cybersecurity and digital transformation expert with over 15 years of experience across cybersecurity, digital transformation and enterprise IT solutions. Aman leads innovative projects in ERP, AI, smart governance and national security infrastructure.
He was recognised in the EC-Council CEH Hall of Fame (2021) and awarded the highest score in ISACA certification exams. Under his direction CyberEdge has delivered forensic laboratories, surveillance programmes and enterprise platforms to federal and provincial institutions across Pakistan.

Jeehan Malik

Managing Director at CyberEdge Technologies and also CEO of Toyota Zarghoon Motors. With over 22 years of experience in corporate leadership, operations and enterprise development, he brings deep business acumen and strategic vision to the organisation.
A seasoned executive, Jeehan has successfully led automotive, technology and infrastructure projects with a focus on process efficiency, financial sustainability and organisational growth. At CyberEdge he plays a pivotal role in strategic partnerships, executive oversight and operational excellence.

Maroosha Khushbhakat

Maroosha leads CyberEdge's financial governance — contract costing, tax compliance and the transparent, well-structured financial system that underpins our public-sector work.
Her office maintains complete records of withholding tax, income tax and sales tax obligations, files through authorised financial consultants using the company's registered NTN and STRN, and generates digital tax invoices aligned with Federal Board of Revenue guidelines.

Haider Ali

Haider owns CyberEdge's technical direction — solution architecture, engineering standards and the security posture of everything the company builds and deploys.
His remit spans the cybersecurity, forensics, software and infrastructure practices, ensuring that platforms delivered to law enforcement and civil-service clients meet ISO/IEC 27001 and NIST expectations from design through to handover.

Muhammad Zubair

Muhammad Zubair runs company administration and procurement operations — the tendering, documentation and logistics discipline that public-sector delivery depends on.
His office manages PPRA-compliant bid submissions, work-order documentation, inspection reports, delivery coordination across Balochistan, and the completion certification that closes every engagement.
Five executives, clear ownership, and a documented approval path — so a client always knows who signs off and who to escalate to. We are happy to bring the relevant practice head to a scoping meeting — in Quetta or at your premises.

Accountability and escalation

Who runs CyberEdge

A small executive group, each with direct operational ownership. Clients deal with decision-makers, not account managers relaying messages.
He was recognised in the EC-Council CEH Hall of Fame (2021) and awarded the highest score in ISACA certification exams. Under his direction CyberEdge has delivered forensic laboratories, surveillance programmes and enterprise platforms to federal and provincial institutions across Pakistan.
A seasoned executive, Jeehan has successfully led automotive, technology and infrastructure projects with a focus on process efficiency, financial sustainability and organisational growth. At CyberEdge he plays a pivotal role in strategic partnerships, executive oversight and operational excellence.

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Muhammad Zubair

Muhammad Zubair runs company administration and procurement operations — the tendering, documentation and logistics discipline that public-sector delivery depends on.

How decisions get made

Five executives, clear ownership, and a documented approval path — so a client always knows who signs off and who to escalate to.

- Engagement ownership — every contract has a named executive sponsor and a named project manager from kick-off.
- Technical authority — architecture and security decisions sit with the CTO, independent of commercial pressure.
- Financial control — costing, invoicing and tax compliance run through the Finance directorate under FBR and BRA rules.
- Procurement discipline — tendering and documentation are administered separately from delivery, preserving audit integrity.

5. Team competence and certification

Capability is evidenced by named, current credentials rather than by claimed years of experience.

Four competence groups

Cybersecurity & IT Experts

- CISA — Certified Information Systems Auditor
- CISM — Certified Information Security Manager
- CRISC — Certified in Risk and Information Systems Control
- CEH — Certified Ethical Hacker
- CNSP — Certified Network Security Practitioner
- CNDA — Certified Network Defense Architect
- CCSE — Certified Cloud Security Engineer
- ISO/IEC 27001:2022 Lead Auditor
- ISO/IEC 27035:2023 Lead Auditor

Artificial Intelligence & Data Science

- AI Associate & AI Specialist
- IBM Certified Data Scientist
- Machine Learning & Neural Network Engineers
- Natural Language Processing (NLP) Experts
- Big Data Analysts

Business & Project Management

- PMP — Project Management Professional
- MBAs & Business Analysts
- Agile & Scrum Certified Practitioners
- ITIL V4 Certified — IT service management

Scholar, Software & Engineering

- MS in Computer Science — advanced expertise in AI, system development and computing
- Software Engineers & Full-Stack Developers — enterprise-grade applications and ERP systems

Professional credentials held across the company

Security & assurance

- CISA
- CRISC
- CISM
- CISSP
- CEH
- CNDA
- CCSE
- CNSP
- CompTIA Security+
- SOC Analysts
- DFIR Specialists

Cloud & platform

- Microsoft Azure Administrator
- Azure DevOps Expert
- Google Cloud Professional
- Kubernetes (CKA / CKAD)
- Docker Certified Engineers
- Terraform / Infrastructure-as-Code

Data, AI & delivery

- IBM Certified Data Scientist
- AI Associate
- AI Specialist
- Microsoft & Google AI Certified Engineers
- Power BI & Tableau Experts
- PMP
- ITIL V4
- Agile & Scrum

The rulebooks we work to

We are committed to upholding the highest levels of compliance, governance and ethical conduct, ensuring our solutions meet or exceed local and international industry standards.

- ISO/IEC 27001:2022 — information security management in solution design and deployment
- NIST Cybersecurity Framework — applied in designing secure IT architectures and forensic capabilities
- GDPR — data privacy for clients handling international operations
- PCI-DSS — used in secure financial and ERP modules
- ITIL Framework — IT service management and infrastructure support
- CRISC — GRC governance and IT risk control frameworks
- ISO 9001:2015 — quality management system
- ISO 14001:2015 — environmental management system

Certification programmes we deliver

The same competence is offered as training — for client teams who need the capability in house.

- CISA — IT audit, control and assurance certification
- CISM — enterprise security governance and risk management
- CEH — hands-on penetration testing and hacking techniques
- OSCP — advanced penetration testing and exploit development
- CISSP — advanced security architecture and leadership
- CCSP — cloud security implementation and compliance
- SOC Analyst training — practical SIEM implementation, monitoring and threat response
- DFIR training — handling cyber incidents, forensic analysis and evidence collection
- Zero-Trust Security & Network Defense — advanced zero-trust architectures
- Advanced Threat Intelligence & Malware Analysis — AI-driven security analytics and threat hunting
- CRISC — IT risk management and governance
- CIPP — global data privacy and compliance regulations
- ISO 27001 Lead Implementer & Auditor — ISMS training
- NIST CSF & Risk Management — implementing and assessing cybersecurity standards
- GRC Strategy training — GRC solutions, automated compliance monitoring and security frameworks
- GDPR, PCI-DSS and HIPAA compliance — industry-specific security and privacy frameworks
- PMP Certification — advanced project management techniques, risk handling and execution
- Certified Scrum Master & Agile Project Management — agile methodologies for software delivery
- Lean Six Sigma (Green Belt & Black Belt) — process improvement and efficiency optimisation
- ITIL training — best practices for IT service management
- Business Continuity & Disaster Recovery Planning — resilience in IT and business operations

Registered with every relevant national authority

We operate with complete legal compliance and are formally registered for governance, taxation, engineering and IT export. Legally incorporated under the Companies Act 2017 as CyberEdge Technologies (Private) Limited, with proper governance and audit compliance.

- SECP
- FBR
- BRA
- PSEB
- PEC
- Chamber of Commerce

6. Service practices

Eight practices, each with its own capability set, deliverables and delivered work. Every engagement is run by a named project manager against a milestone plan with dated acceptance gates.

6.1 Cybersecurity & Digital Forensics

Security is the practice CyberEdge was founded on. Our examiners have built forensic laboratories for federal investigators, our testers work under signed rules of engagement, and our analysts hold CISA, CISM, CRISC, CEH and CISSP. Everything below is delivered by our own staff.

What the practice covers

Ten service lines spanning prevention, detection, response and evidence — engaged individually or as a managed programme.

Threat Intelligence & Risk Assessment

Identifying cyber risks and vulnerabilities across your IT environment, mapped to the threats that actually target your sector rather than a generic catalogue.

Penetration Testing & Ethical Hacking

Simulating cyberattacks to test security defences across web, mobile, network and wireless estates — with reproducible evidence and a remediation plan your team can execute.

Zero-Trust Security Architecture

Implementing multi-layered security frameworks to prevent unauthorised access, replacing perimeter assumptions with continuous verification.

Incident Response & Digital Forensics

Rapid containment of security incidents, forensic investigation and evidence preservation with defensible chain of custody.

Network Security & Firewall Implementation

Intrusion detection and prevention for enterprise networks, including segmentation, hardening and rule-set review.

Cybersecurity Compliance & Auditing

Ensuring adherence to ISO 27001, GDPR, PCI-DSS and NIST frameworks, with gap analysis and evidence packs for auditors.

Red Team & Blue Team Training

Practical offensive and defensive cybersecurity operations training delivered to your own staff on your own systems.

Cyber Risk Quantification

Assessing the financial impact of security risks so the board sees exposure in rupees, not in severity colours.

Third-Party Risk Management

Assessing security risk introduced by vendors, contractors and integration partners across your supply chain.

What you actually receive

No engagement ends with a slide deck. Every cybersecurity assignment produces artefacts your team, your auditor and your minister can use.

- Executive summary written for non-technical decision-makers
- Technical findings with reproducible evidence and CVSS-rated severity
- Prioritised remediation roadmap with effort estimates
- Free re-test of remediated findings inside the engagement window
- Hardening standards and SOPs your team can maintain after we leave
- Incident response runbook tailored to your escalation structure

Certified people, recognised frameworks

Security work is only as credible as the people signing it. These credentials are held by working members of our delivery teams.

- CISA — Certified Information Systems Auditor
- CISM — Certified Information Security Manager
- CRISC — Risk and Information Systems Control
- CISSP
- CEH — Certified Ethical Hacker
- CNDA — Certified Network Defense Architect
- CCSE — Certified Cloud Security Engineer
- CNSP — Network Security Practitioner
- CompTIA Security+
- ISO/IEC 27001:2022 Lead Auditor
- ISO/IEC 27035:2023 Lead Auditor
- SOC Analysts
- DFIR Specialists
- NIST CSF

Delivered under this practice

Establishment of a complete digital forensic laboratory — imaging and extraction hardware, licensed analysis software and evidence-handling procedure.
Federal Cyber Crime Investigation Unit capability build, with chain-of-custody SOPs and analyst training.
Follow-on work extending the unit's examination capacity and toolchain coverage.

CTD Digital Forensic Laboratory

May 2026

FCIU Forensic Software & Hardware

July 2025

FCIU Forensic Establishment

February 2026

Explore next

Turn security findings into a certified management system.
The forensic toolchain we supply as Pakistan dealership.
Continuous monitoring under a defined SLA.

- GRC & ISO 27001
- MOBILedit Forensic
- Managed SOC

Questions clients ask first

Do you need our production systems to run a penetration test?
No. Testing runs under a signed rules-of-engagement document that defines scope, timing, exclusions and an emergency stop contact. Where a production test is too risky we test a staging replica and review the delta in configuration.

Can your forensic reports be used in court?
That is the point of them. We maintain documented chain of custody from acquisition through analysis, use licensed and validated tooling, and produce examination reports in a form suitable for legal proceedings. Our examiners can attend as expert witnesses.

What happens if you find something critical mid-engagement?
We stop and call you the same day. Critical findings are reported immediately under an out-of-band escalation path agreed at kick-off, not held back for the final report.

Do you handle classified or sensitive environments?
Yes. Our ISO 27001 information security management system governs personnel vetting, data handling and access control. Engineers on law-enforcement work operate under NDA and, where required, client-issued security clearance.

6.2 Governance, Risk & Compliance

Most compliance projects fail the same way: a consultant writes a policy set nobody reads, the certificate arrives, and the controls quietly stop operating. We implement management systems that survive the surveillance audit, because we run one ourselves.

From gap analysis to certificate

A complete implementation path, or any individual stage of it if you already have work in progress.

ISO 27001 Gap Assessment

A measured comparison of your current state against every Annex A control, producing a prioritised implementation backlog rather than a pass/fail verdict.

ISMS Design & Implementation

Scope definition, statement of applicability, risk methodology, and the full information security management system documentation set.

Risk Register & Treatment Plans

A living risk register with named owners, treatment decisions and review cadence — the artefact auditors examine first.

Policy & SOP Development

Security policies, standard operating procedures and business continuity documentation written in language your staff will actually follow.

Internal Audit & Management Review

Running the internal audit programme and management review cycle that the standard requires before certification.

Certification Support

Preparing evidence packs, coordinating with the certification body, and standing alongside your team through Stage 1 and Stage 2 audits.

Multi-Framework Compliance

Mapping a single control set across ISO 27001, NIST CSF, GDPR, PCI-DSS and SOC 2 so you implement once and report many times.

GRC Automation

Compliance monitoring, risk reporting and governance controls implemented as tooling rather than spreadsheets.

Security Awareness Programmes

Staff training that addresses the human controls the standard requires and auditors always sample.

What certification readiness looks like

We hand over a management system your team owns — not a document pack that decays the moment we leave.

- Scope statement and Statement of Applicability
- Risk assessment methodology, register and treatment plan
- Complete policy and procedure set, version controlled
- Asset inventory, access control matrix and supplier register
- Internal audit programme with completed first cycle
- Management review minutes and corrective action log
- Evidence pack indexed against every applicable Annex A control

Frameworks we implement and audit against

We are deeply committed to upholding the highest levels of compliance, governance and ethical conduct across every engagement.

- ISO/IEC 27001:2022 — Information Security Management
- ISO 9001:2015 — Quality Management
- ISO 14001:2015 — Environmental Management
- ISO/IEC 27035:2023 — Incident Management

- NIST Cybersecurity Framework
- GDPR
- PCI-DSS
- SOC 2
- ITIL Framework
- CRISC
- CIPP
- HIPAA

Explore next

The technical testing that feeds your risk register.
The certifications and standards behind the practice.
Wider digital transformation and governance advisory.

- Cybersecurity
- Team competence
- IT consultancy

Questions clients ask first

How long does an ISO 27001 implementation take?
For a mid-sized organisation with a contained scope, six to nine months from gap assessment to Stage 2 audit is realistic. The variable is not our effort — it is how quickly your own risk owners make decisions and evidence starts accumulating. The standard requires a period of operating records before certification.

Can you also certify us?
No, and no consultant honestly can. Certification is issued by an accredited certification body that must be independent of the implementer. We prepare you, coordinate the process and support you through the audit — but the auditor is theirs, not ours.

We failed a surveillance audit. Can you help?
Frequently. We start with the non-conformity report, establish whether the finding is a documentation gap or a genuine control failure, and build a corrective action plan against the audit deadline.

Do we need ISO 27001 to bid for government work?
Not always, but it increasingly appears in technical evaluation criteria and it removes an entire category of objection during bid scrutiny. It also gives you a defensible answer when a client asks how you protect their data.

6.3 Software Development

Departmental software fails when it is built for a specification instead of for the clerk who has to use it forty times a day. We spend time in the office before we write the schema, and we design for the awkward real-world cases the specification never mentions.

Development capabilities

Enterprise-grade applications and ERP systems, delivered by software engineers and full-stack developers with MS Computer Science backgrounds.

Custom Web Applications

Bespoke platforms built around your workflow — role-based access, complete audit trail and reporting designed for the person who signs off.

Mobile Applications

Android and iOS applications for field data capture, tracking and citizen-facing services, designed for intermittent connectivity.

Enterprise Systems Development

Large multi-module platforms such as dealer management, complaint management and fuel management, integrated with existing records.

E-Governance Platforms

Digital correspondence, file movement, approval workflow and paperless administrative processes for public sector departments.

API Development & Integration

Connecting new systems to the databases, devices and legacy applications you already run, rather than replacing everything at once.

Database Design & Migration

Schema design, data cleansing and migration from spreadsheets, paper registers and superseded systems.

Application Modernisation

Rebuilding or re-platforming ageing applications while keeping the institutional knowledge embedded in them.

Quality Assurance & Testing

Structured UAT, regression testing and security review before anything reaches a live department.

Maintenance & Support

Post-deployment support, enhancement releases and annual maintenance contracts for the life of the system.

How we build

Fixed-scope delivery with a named project manager, milestone plan and acceptance criteria agreed before kick-off. Weekly written status, no surprises at UAT.

- Requirements document signed off before development starts
- Milestone-based delivery plan with dated acceptance gates
- Weekly written progress reports, not verbal reassurance
- Data migration with reconciliation evidence
- User acceptance testing with your actual staff, on real cases
- Source code and full technical documentation delivered to you
- Role-based training and plain-language user manuals
- Warranty period followed by an optional maintenance contract

Engineering skills

Full-stack engineers, architects and QA specialists working to secure development practice.

- MS Computer Science
- Full-Stack Developers

- Enterprise Application Engineers
- PMP Project Managers
- Agile & Scrum Practitioners
- CCNA
- Secure SDLC
- ISO/IEC 27001:2022
- API & Integration Specialists
- QA & UAT Specialists

Delivered under this practice

Sales, service, parts and customer lifecycle platform for a national automotive dealership.
Digital correspondence and file movement for the Counter Terrorism Department, replacing paper dak registers.
Live vehicle tracking, geofencing and feedback workflow for the Balochistan Constabulary.

Toyota Dealer Management System

September 2025

E-Lettering System

September 2025

GPS Tracking & Feedback System

October 2024

Explore next

Multi-module enterprise platforms.
Intelligence layered onto your applications.
Digital workflow for public sector departments.

- ERP systems
- AI & data science
- E-governance

Working demonstrations of departmental software

Rather than describe a workflow system, here are six you can sign into. Every one has records, forms, reports and role-based access.
Sign in with admin@demo.local / demo1234. Demonstration builds on synthetic data — nothing is transmitted or stored.

Questions clients ask first

Who owns the software you build for us?
You own the delivered application and its data. Source code escrow or full source handover is available and is stated explicitly in the contract. Third-party licensed components remain under their own licence terms.

Can you integrate with our existing systems?
Usually yes. We build APIs against what you already run rather than demanding a clean slate. Where a legacy system has no integration surface, we work at the database or file-exchange level and document the coupling honestly.

What if requirements change mid-project?
They always do. Changes go through a written change request with an impact assessment on scope, cost and date. Small clarifications are absorbed; genuine scope additions are priced before work starts, never after.

Can you take over an abandoned project?
Yes, and we have. We audit the existing codebase and data, give you a written assessment of what is salvageable, and quote only the remediation actually required.

6.4 Enterprise Resource Planning

An ERP succeeds or fails on whether the finance office trusts the number on the screen more than the number in their own ledger. That trust is earned through migration accuracy and audit trail, which is where we concentrate the effort.

ERP by sector

Industry-specific platforms with AI-powered analytics, delivered as modules or as a complete institutional system.

Government & E-Governance ERP

Paperless administrative workflows, public services and legal document automation designed around departmental service rules.

Healthcare ERP & HMS

Automating medical records, billing and patient data — hospital management, electronic health records and practice management.

Human Resource Management (HRMS)

Digital payroll processing, performance tracking, attendance integration and employee self-service portals.

Finance & Accounting ERP

Financial planning, forecasting and automated invoicing with a complete audit trail for every posting.

Supply Chain & Inventory ERP

Tracking procurement, logistics and stock movement across multiple warehouses and distribution points.

Retail, E-commerce & POS

Integrated sales, payment processing and digital storefront solutions with real-time stock synchronisation.

Automobile Dealership ERP

Inventory and vehicle tracking, sales and CRM integration, service and maintenance tracking, and payment processing.

Custom ERP Development

Industry-specific platforms where no off-the-shelf product fits the regulatory or operational reality.

Cloud ERP Hosting

Managed cloud deployment with backup, disaster recovery and role-based access built into the service.

Implementation done properly

The technical build is rarely the risk. Migration, parallel running and user adoption are where ERP projects are won or lost.

- Process mapping of how the department actually works today
- Module configuration against your service rules, not a generic template
- Data migration with line-by-line reconciliation against source records
- Parallel running period before the old system is retired
- Role-based access matrix and complete audit trail
- Cloud hosting with managed backup and disaster recovery
- Role-based training and reference manuals in plain language
- Formal handover with completion certification

Delivery discipline

ERP work is run by certified project managers against a milestone plan you can hold us to.

- PMP — Project Management Professional
- Agile & Scrum Practitioners
- ITIL V4
- MBAs & Business Analysts
- ISO/IEC 27001:2022

- PCI-DSS for financial modules
- Database Specialists
- Full-Stack Engineers

Delivered under this practice

Institution-wide cloud ERP unifying finance, procurement, inventory and academic administration.
Human resource management system for the Services & General Administration Department, Government of Balochistan.
Departmental HRMS covering employee records, attendance, leave and payroll workflow.

PGMI Enterprise Resource Planning

February 2026

S&GAD HRMS

December 2025

C&W PH&E HRMS

February 2024

Explore next

Custom development beyond the ERP core.
Where the ERP runs, backed up and recoverable.
Human resource platforms in detail.

- Software development
- Cloud hosting
- HRMS solutions

ERP modules you can open and use

Procurement, inventory, finance and asset modules, built as working demonstrations with the role structure a department actually needs.
Sign in with admin@demo.local / demo1234. Demonstration builds on synthetic data — nothing is transmitted or stored.

Questions clients ask first

How long does an ERP implementation take?
For a single department with a contained module set, three to six months. Institution-wide implementations run longer, and the pacing is set by data migration and by how quickly your staff can be released for UAT and training — not by development speed.

Cloud or on-premise?
Cloud unless there is a data residency rule or a connectivity reality that forbids it. Cloud gives you managed backup and disaster recovery that most departments cannot staff internally. Where the site connection is unreliable, we deploy on-premise with a replicated cloud backup.

What happens to our existing records?
They are migrated and reconciled. We do not go live until the balances in the new system match the source records line by line, and we keep the legacy system readable throughout the parallel running period.

Can the system be extended later?
Yes — modules are designed to be added. The PGMI and HRMS platforms were both scoped so that further modules could be introduced without re-implementing the core.

6.5 Cloud & IT Infrastructure

Infrastructure is judged on the days it fails, not the days it works. We design for the failure case first: redundancy where it matters, recovery objectives agreed in writing, and monitoring that tells you before your users do.

Infrastructure services

Design, migration, operation and recovery — across on-premise, cloud and hybrid estates.

Cloud Migration & Deployment

Seamless transition to AWS, Azure and Google Cloud environments, with workload assessment and a rollback plan for every migration wave.

Managed IT Services

24×7 network monitoring, IT support and server maintenance under a defined SLA with measured response and resolution times.

Hybrid & Multi-Cloud

Distributing workloads across private and public clouds for resilience, flexibility and cost control — avoiding single-vendor lock-in.

Data Centre Design & Optimisation

Deploying secure, scalable and energy-efficient data centres — racks, power, cooling, structured cabling and physical access control.

Software-Defined Networking

SDN and network virtualisation to enhance network flexibility and security without re-cabling the building.

Disaster Recovery & Continuity

IT disaster recovery and business continuity planning, ensuring high availability and rapid recovery against agreed RPO and RTO targets.

DevOps & IT Automation

CI/CD pipelines, automated testing and IT process automation so releases stop being events.

Database Management & Optimisation

Ensuring high-speed, scalable and secure data storage, with backup verification that is actually tested.

IT Governance & Risk

Establishing governance, risk management frameworks and regulatory compliance across the technology estate.

Built to keep running

Balochistan's operating conditions are unforgiving — power interruption, distance and heat. Our infrastructure work accounts for all three.

- As-built documentation, rack elevations and IP schema
- Monitoring and alerting configured before handover, not after
- Documented RPO and RTO targets with a tested recovery runbook
- Backup verification schedule with restore evidence
- Capacity and cost baseline for cloud workloads
- Named escalation path and on-site response commitment
- Optional hybrid solarization to remove grid dependency entirely

Platforms and credentials

Certified engineers across the major cloud platforms and the container tooling that runs on top of them.

- Microsoft Azure Administrator
- Azure DevOps Expert
- Google Cloud Professional
- Kubernetes (CKA / CKAD)

- Docker Certified Engineers
- Terraform / Infrastructure-as-Code
- ITIL V4
- AWS
- SDN & network virtualisation
- ISO/IEC 27001:2022

Delivered under this practice

Institution-wide ERP delivered on managed cloud with backup and disaster recovery built into the service.
ICT equipment supply and installation for the Counter Terrorism Department, including office automation rollout.
7 KVA to 35 KVA hybrid plants keeping critical infrastructure powered through grid interruption.

PGMI Cloud ERP Hosting

February 2026

ICT Equipment & Automation

February 2025

Hybrid Solarization Programme

2025

Explore next

Securing the infrastructure once it is running.
Power that does not depend on the grid.
The applications that run on this infrastructure.

- Cybersecurity
- Hybrid solarization
- ERP systems

Questions clients ask first

Should we move to the cloud or stay on-premise?
It depends on data residency obligations, connectivity reliability at your sites, and whether your workload is steady or spiky. For several Balochistan clients the honest answer has been hybrid: cloud for resilience and collaboration, on-premise for anything that must keep working when the link drops.

Can you take over infrastructure another vendor built?
Yes. We start with an independent technical audit, document what actually exists versus what was specified, and give you a written assessment of what is salvageable before quoting any remediation.

What does your managed service actually cover?
Coverage is defined per contract — typically monitoring, patching, backup verification, incident response and periodic health review, with agreed response and resolution times by severity. We publish the SLA before you sign, not after.

Do you support sites outside Quetta?
Yes. We deploy and support across Balochistan and have delivered for federal bodies nationwide. Remote diagnostics handle most issues; on-site response times vary by location and are stated explicitly in the contract.

6.6 Artificial Intelligence & Data Science

The useful AI question is rarely “which model?” It is “which decision is being made badly today, and would better information change it?” We start there, and we will tell you when the answer is a well-built dashboard rather than a neural network.

Applied AI capabilities

Delivered by IBM Certified Data Scientists, machine learning engineers, NLP specialists and big data analysts.

AI-Powered Business Intelligence

Interactive data visualisation and automated insights, surfacing what changed and why without waiting for a monthly report cycle.

Predictive Analytics & Forecasting

Leveraging big data to predict trends and business opportunities — demand, caseload, consumption or risk.

Fraud Detection & Risk Management

Identifying anomalies and fraud patterns using AI, applied to fuel issuance, procurement and financial transactions.

Computer Vision

Automated analysis of surveillance and CCTV feeds — object detection, facial recognition and behaviour analytics for security operations.

Natural Language Processing

Document intelligence for records digitisation, correspondence classification and search across large unstructured archives.

Machine Learning Engineering

Model development, training pipelines, evaluation and deployment — including the monitoring that catches drift after go-live.

Big Data Analytics

Ingesting, cleaning and modelling operational data at scale so analysis stops being a manual export exercise.

Crime Pattern & Predictive Policing

AI-powered crime pattern detection, suspect profiling and risk assessment tools for law enforcement agencies.

Dashboards & Reporting

Power BI and Tableau dashboards built for the person making the decision, not for the person building the dashboard.

From pilot to production

Most AI projects die between a promising notebook and a system somebody depends on. We plan for that gap from the first workshop.

- Use-case assessment with an honest feasibility verdict
- Data quality audit before any modelling begins
- Baseline comparison — does the model beat the current rule of thumb?
- Model documentation, evaluation metrics and known limitations
- Deployment pipeline with monitoring for accuracy drift
- Human-in-the-loop design for any decision affecting a person
- Handover training for your analysts

Skills and certifications

Our AI and data practice is staffed by certified specialists, not generalists experimenting on client budgets.

- IBM Certified Data Scientist
- AI Associate
- AI Specialist
- Microsoft & Google AI Certified Engineers
- Machine Learning Engineers

- Neural Network Engineers
- NLP Experts
- Big Data Analysts
- Power BI Experts
- Tableau Experts
- MS Computer Science

Explore next

Where models become working applications.
The platforms that train and serve models.
AI applied to law enforcement, healthcare and more.

- Software development
- Cloud infrastructure
- Industry solutions

Questions clients ask first

We have data but it is messy. Is that a blocker?
It is normal, and it is where most of the work goes. We run a data quality audit first and tell you plainly whether the data supports the question you are asking. Sometimes the honest deliverable is fixing collection before any modelling starts.

How do you handle AI decisions that affect individuals?
Any model informing a decision about a person is designed human-in-the-loop: the system recommends, a named official decides, and the reasoning is logged. This matters especially in law enforcement contexts, where an unexplainable output is not usable evidence.

Will you tell us if we do not need AI?
Yes, and we often do. A large share of “AI problems” are reporting problems. If a scheduled query and a clear dashboard solve it, that is what we will quote.

Who owns the model and the data?
You do. Client data remains yours throughout and is handled under our ISO 27001 controls. Trained models and pipelines built for you are delivered to you, with source and documentation.

6.7 Training & Certification

Capability that leaves when one person transfers is not capability. Our training programmes exist so that the systems we build stay operable, and so that departments can develop their own specialists rather than renting ours indefinitely.

Programme tracks

Three certification tracks plus operational training on the systems and equipment we deploy.

Cybersecurity Certification

CISA, CISM, CEH, OSCP, CISSP and CCSP preparation — audit and assurance, security governance, penetration testing, exploit development and cloud security.

SOC Analyst Training

Practical SIEM implementation, monitoring and threat response, taught on a working environment rather than a slide deck.

DFIR Training

Digital forensics and incident response — handling cyber incidents, forensic analysis and evidence collection with defensible procedure.

Zero-Trust & Network Defense

Implementing advanced zero-trust architectures and network security strategies in real estates.

Threat Intelligence & Malware Analysis

AI-driven security analytics, threat hunting and cyber intelligence for mature security teams.

GRC & Compliance Training

CRISC, CIPP, ISO 27001 Lead Implementer & Auditor, NIST CSF, and GDPR, PCI-DSS and HIPAA compliance.

Project Management

PMP certification, Certified Scrum Master and Agile project management, Lean Six Sigma Green and Black Belt, and ITIL.

Business Continuity Planning

Ensuring resilience in IT and business operations through tested continuity and disaster recovery planning.

Operator & System Training

Hands-on training on the platforms and equipment we deploy — forensic toolchains, screening equipment and departmental systems.

How training is delivered

Training is scheduled around operational reality — shift patterns, court dates and posting cycles — not around our convenience.

- Role-based curriculum mapped to the trainee's actual job
- Hands-on labs on real tooling, not screenshots
- Course materials and reference manuals in plain language
- Assessment and certificate of completion
- Support through the official certification exam where applicable
- Post-training helpdesk access during the bedding-in period
- Refresher sessions when staff rotate

Taught by certified practitioners

Every programme is delivered by staff who hold the credential they teach and use it in live engagements.

- CISA
- CISM
- CRISC
- CISSP
- CEH

- OSCP
- CCSP
- CIPP
- ISO 27001 Lead Implementer & Auditor
- NIST CSF
- PMP
- CSM / Agile
- Lean Six Sigma
- ITIL V4
- CompTIA Security+

Explore next

The credentials our trainers hold.
The practice the security training comes from.
Join the team and get certification support.

- Team competence
- Cybersecurity
- Careers

Questions clients ask first

Do you train at our premises or yours?
Either. On-site delivery is usually better for operational teams because it avoids travel and lets us train on your actual systems. Certification-track courses sometimes run better away from the office, where trainees are not pulled into daily work.

Do you guarantee an exam pass?
No, and be wary of anyone who does. We prepare candidates thoroughly, run mock assessments, and support them through the official exam — but the certifying body sets the paper and the standard.

Can you train non-technical staff?
Yes. Security awareness training for general staff is one of the highest-value programmes we run, because the human controls are where most incidents actually begin.

Is training included when you deploy a system?
Role-based training and handover documentation are included in every deployment as standard. Formal certification programmes are priced separately.

6.8 Digital Transformation Consultancy

Good consultancy narrows the options. Departments frequently arrive with a shopping list assembled from vendor presentations; our job is to work back from the operational problem and tell you which items on that list you genuinely need, and in what order.

Advisory services

Independent assessment, architecture and roadmaps — frequently used by departments preparing PC-1 documents and tender specifications.

Digital Transformation Strategy

Roadmaps for business automation and modernisation, sequenced so that each phase delivers standalone value rather than requiring the whole programme to land.

Cybersecurity Risk & Compliance Consulting

Assisting organisations with ISO, NIST and PCI-DSS compliance, from gap assessment to audit readiness.

IT Governance & Risk Management

Establishing IT governance and regulatory compliance frameworks with clear ownership and review cadence.

Cloud & Infrastructure Consulting

Optimising enterprise cloud adoption and network infrastructure, including honest cost modelling before commitment.

Software Development Consulting

Optimising enterprise development practices and application architecture for teams that build in house.

Blockchain Strategy Consulting

Implementing secure, decentralised ledger solutions and identifying when a database would serve you better.

Procurement & Specification Advisory

Preparing technical specifications, bills of quantity and evaluation criteria for PPRA-compliant tendering.

Vendor & Programme Assurance

Independent review of work delivered by other suppliers, including recovery assessment for stalled projects.

Feasibility & PC-1 Support

Technical input to feasibility studies and planning documents, grounded in what has actually been deliverable in Balochistan.

What advisory produces

A document you can act on and defend in front of a procurement committee — not a slide deck of industry trends.

- Current-state assessment with evidence, not assertion
- Target architecture and a sequenced implementation roadmap
- Costed options with trade-offs stated plainly
- Technical specification and bill of quantities for tendering
- Risk register covering delivery, security and operational risk
- Evaluation criteria that let you compare bids objectively
- A named consultant available through the procurement cycle

Advisory grounded in delivery

We advise on work we also do. That keeps recommendations tethered to what is genuinely deliverable in this province, with these budgets and these timelines.

- CISA
- CRISC
- CISM
- PMP
- ITIL V4

- ISO/IEC 27001:2022
- NIST CSF
- GDPR
- PCI-DSS
- MBAs & Business Analysts
- PEC registered
- PSEB registered

Explore next

Turning a roadmap into a certified management system.
The full engagement model and delivery method.
What we have actually delivered, with values and dates.

- GRC & ISO
- All services
- Delivery register

Questions clients ask first

Will you recommend products you do not sell?
Yes. We hold the MOBILedit dealership and a UNIQSCAN supply partnership, and we declare that on every relevant recommendation. Where a competing product fits better, we say so — a specification written to suit our own catalogue would not survive procurement scrutiny anyway.

Can you write our tender specification?
We can, and we frequently do. Note that in many procurement regimes the party writing a specification may be restricted from bidding against it. We will flag that conflict before you engage us, so you can decide which role you want us in.

We have a stalled project. What now?
Start with an independent assurance review. We assess what was contracted, what exists, and what is recoverable, then give you a written position you can take to the vendor or to your own management.

Do you work with organisations outside government?
Yes — our client list includes Toyota Zarghoon Motors and over 2,000 businesses served. The advisory method is the same; the compliance context differs.

7. Solution pillars

Capability areas across security, software, infrastructure, energy and physical screening — each proven on live government and enterprise deployments.

Cybersecurity & Digital Forensics

Protecting the systems that public safety depends on and reconstructing what happened when something goes wrong.

Managed SOC & Threat Monitoring

Continuous monitoring of endpoints, network and cloud with tuned detection rules, triage by named analysts, and escalation paths agreed with your operations team. Monthly threat reporting written for both engineers and executives.

VAPT & Red Teaming

Authorised vulnerability assessment and penetration testing across web, mobile, network and wireless estates. Findings come with reproducible evidence, business-risk rating and a remediation plan your team can actually execute.

Digital Forensics Laboratories

Turnkey forensic capability: write-blockers, imaging stations, mobile and cloud extraction, licensed analysis suites, and the documented chain-of-custody procedure that keeps evidence admissible. Seven labs established to date, including a laboratory for CTD and of capability for the FCIU. CyberEdge is also the MOBILedit dealership for Pakistan.

Governance, Risk & Compliance

Policy frameworks, risk registers and control implementation mapped to ISO 27001 — the standard we hold ourselves. We prepare organisations for certification and stay through the audit.

- SIEM deployment, log onboarding and detection engineering
- Incident triage, containment and post-incident reporting
- Threat intelligence tailored to the public-sector threat landscape
- Black, grey and white-box testing under signed rules of engagement
- Configuration review and secure architecture hardening
- Free re-test of remediated findings within the engagement window
- Lab design, hardware procurement, installation and validation
- Evidence acquisition, analysis and expert witness reporting
- Analyst training and continuing technical support
- ISO 27001 gap assessment and implementation roadmap
- Security policy, SOP and business continuity documentation
- Staff security awareness programmes

Enterprise Software & Cloud

Systems of record for institutions where an error is not a rounding difference — it is a public accountability problem.
Reference: PGMI · Feb 2026
References: S&GAD · C&W PH&E
References: Balochistan Constabulary · CTD · Quetta Police
References: CTD E-Lettering · Quetta Police CMS
Reference: Toyota Zarghoon Motors
Emerging practice

ERP & Cloud Platforms

Finance, procurement, inventory, assets and administration on a single data model with role-based access and full audit trail. Delivered as managed cloud or on-premise, with backup and disaster recovery built in.

HRMS & Payroll

Employee master records, attendance integration, leave, transfers, promotions, payroll and statutory reporting — configured to departmental service rules rather than generic HR templates.

Fleet, Fuel & GPS Tracking

Live vehicle tracking, geofencing, route history, driver behaviour and fuel issuance controls that close the gap between authorised and actual consumption.

E-Governance & E-Lettering

Digital correspondence, file movement, approval workflow and complaint management — replacing paper dak registers with searchable, time-stamped, accountable records.

Custom Application Development

Web, mobile and desktop applications engineered to your workflow — including the Toyota Zarghoon Motors dealer management platform covering sales, service, parts and customer lifecycle.

AI & Data Science

Computer vision for surveillance feeds, document intelligence for records digitisation, and analytics dashboards that turn operational data into decisions leadership can defend.

Surveillance & ICT Infrastructure

From a single attendance terminal to a multi-million rupee aerial surveillance programme — procured, installed and supported by one accountable vendor.

Aerial & CCTV Surveillance

Surveillance drone fleets with ground control stations and operator certification; IP CCTV networks with command-centre video walls, storage and analytics. Two phases of drone capability were delivered to CTD in 2025.

ICT Supply & Office Automation

Workstations, servers, printing solutions, biometric attendance devices and peripherals — supplied under public procurement rules with warranty, deployment and lifecycle support.

Networks & Data Centre

Structured cabling, switching, firewalls, wireless, server rooms, racks, UPS and cooling — designed for uptime targets you set and we measure.

Hybrid Solarization

Security installations cannot wait for load-shedding to end. Our hybrid solar plants combine PV generation, battery storage and grid or generator fallback so critical operations simply never stop.

- Load audit, sizing and payback modelling before a single panel is quoted
- 7 KVA to 35 KVA systems with hybrid inverters and lithium or tubular storage
- Structure, wiring, protection, net-metering support and commissioning
- Annual maintenance contracts with performance reporting

Military-Grade Security Screening

Physical detection capability supplied in partnership with UNIQSCAN — for checkpoints, entrances, borders and perimeters where the threat is not a packet.

Explosive & Liquid Detection

Hand-held trace detectors for explosives and narcotics (SF-ZT002) and bottled liquid inspection (SF-100Y), delivered to CTD Balochistan in May 2026.

X-Ray Baggage Screening

Tunnel sizes from SF5030A to SF150180D with AI automatic threat recognition, Threat Image Projection, network remote control and self-diagnosis.

Metal Detection

Walk-through gates in 6, 12, 18 and 33-zone configurations — waterproof PC/ABS, integrable with turnstiles, access control, CCTV and AI face recognition — plus hand-held wands.

Vehicle & Perimeter

Under-vehicle surveillance (flush, surface, mobile and mirror), smart turnstiles, automatic bollards, hydraulic road blockers and boom barriers.

Every pillar has an application you can open

These are the same systems described above, built as working demonstrations. Sign in and use them — the modules, roles and reports are all live.
Sign in with admin@demo.local / demo1234. Demonstration builds on synthetic data — nothing is transmitted or stored.

8. Products and authorised distribution

8.1 Distribution overview

Direct dealership means genuine licences, factory warranty, current firmware and a support path that does not end at a foreign reseller's inbox.

In May 2026 CyberEdge delivered a consignment of hand-held explosive detectors to the Counter Terrorism Department, Balochistan — supplied, commissioned and supported with operator training.

Two authorised lines, one supply chain

Direct dealership means genuine licences, factory warranty, current firmware and a support path that does not end at a foreign reseller's inbox.
Full product line →
Full equipment range →

MOBILedit Forensic product line

All-in-one physical and logical extraction from phones, smartwatches, dive computers and cloud accounts — with the best application data parsing in the field, deleted-data recovery and court-ready reporting.

UNIQSCAN security inspection

Seventeen years of manufacturing for airports, metro, railways, customs, prisons and large-scale events — X-ray imaging, metal detection, explosive and liquid detection, and vehicle inspection.

- PRO and ULTRA editions (security bypassing, brute force, FDE/FBE decryption)
- Connection Kit, Smartwatch Kit and Dive Kit hardware
- Cloud Forensic downloader and Camera Ballistics
- Online and hands-on hardware training with certification
- Hand-held explosive and drug detectors (SF-ZT002), liquid detector (SF-100Y)
- X-ray baggage scanners from SF5030A to SF150180D with AI threat recognition
- Walk-through metal detectors, 6 to 33 zones
- Under-vehicle surveillance, smart turnstiles, bollards and boom barriers

Hand-held explosive detectors for CTD Balochistan

In May 2026 CyberEdge delivered a consignment of hand-held explosive detectors to the Counter Terrorism Department, Balochistan — supplied, commissioned and supported with operator training.

- Trace detection of explosive compounds in seconds
- Field-portable, battery-operated, single-operator use
- Calibration, consumables and maintenance cover included
- Operator training delivered on site

Equipment is the easy part

Authorised channel, valid activation keys, and update entitlements registered in your organisation's name.
Our engineers install, calibrate and validate on site — not a courier drop and a PDF manual.
Certified training so the capability survives staff transfers and posting changes.
Consumables, calibration, spares and annual maintenance across Balochistan and beyond.

- Genuine licensing
- Local commissioning

- Operator training
- Sustained support

The software behind the hardware

Detection and screening equipment is only half the system. These demonstrations show the command-side software that turns sensors into decisions.
Sign in with admin@demo.local / demo1234. Demonstration builds on synthetic data — nothing is transmitted or stored.

Request a quotation or a live demonstration

Tell us the use case and the number of operators. We will propose the right edition or model and say so if you do not need the top of the range.

8.2 MOBILedit Forensic — Compelson, Czech Republic

MOBILedit Forensic extracts data from phones, smartwatches and clouds using both physical and logical acquisition. It has excellent application analysis with the best application data parsing in the field, deleted-data recovery, a wide range of supported devices, fine-tuned reports, concurrent processing and an easy-to-use interface.

With the ULTRA edition, MOBILedit Forensic is much stronger in security bypassing than ever before.

All-in-one physical and logical analysis

MOBILedit Forensic extracts data from phones, smartwatches and clouds using both physical and logical acquisition. It has excellent application analysis with the best application data parsing in the field, deleted-data recovery, a wide range of supported devices, fine-tuned reports, concurrent processing and an easy-to-use interface.

Physical & logical acquisition

Both acquisition methods in one tool, with concurrent processing when time is critical.

Application data parsing

Best-in-field parsing of application data, plus recovery of deleted content.

Fine-tuned reporting

Configurable reports built for case files and disclosure, not raw dumps.

PRO or ULTRA

With the ULTRA edition, MOBILedit Forensic is much stronger in security bypassing than ever before.
Keeping the licence updated is essential: device support and bypass techniques change constantly, and an out-of-date installation quietly stops delivering the best possible results.

Software updates

Updates are available in 12-month packages — order one, two, three or more years at once. Every package includes all updates and upgrades, including Live Updates.

- Licence typePerpetual
- Included updates12 months, all updates & upgrades
- Live Updates serviceIncluded
- Connected phonesUnlimited — no per-phone fee
- ActivationOnline key, or dongle for isolated PCs

Field kits

Purpose-built hardware that turns a laptop into a working extraction bench.

Connection Kit

A special collection of custom-made USB cables covering the vast majority of phones ever manufactured — including discontinued and even ancient models.

Smartwatch Kit

Essential hardware for smartwatch forensics — special readers, cables and accessories for smartwatch forensic analysis.

Dive Kit

Essential hardware not just for coastal countries but also for those with lakes and deep waters — essentially covering almost all nations worldwide.

- Short, well-labelled cables designed for trouble-free work
- Lightweight briefcase built for rugged everyday usage
- Used alongside MOBILedit Forensic to extract valuable information
- Supports Apple Watch, Garmin, Samsung, Alcatel, TCL and others
- Requires MOBILedit Forensic software
- Complete, detailed dive logs from over 200 models
- Suunto, Oceanic, Mares, Aqualung and other major manufacturers

Cloud evidence and image attribution

Supported services include: Dropbox, Box, Microsoft OneDrive, Google Drive, Facebook, Instagram, LinkedIn, Twitter, Facebook Messenger, Slack and more.

MOBILedit Cloud Forensic

A complete cloud data forensic downloader and report generator for the most popular services. It can start downloads immediately when authentication information is found in a phone, and run multiple extractions concurrently when time is of the essence.

Camera Ballistics

Unique software that uses advanced algorithms and cutting-edge technology to determine whether a photo was truly taken by a suspected camera. Camera Ballistics compares the photos under investigation against the sensor fingerprint to determine if there is a match.

- LicensingSubscription based
- EditionsIntegrated with Forensic, or standalone
- InteroperabilityWorks with UFED and other tools
- LicensingOne-time licence fee

Certified examiner training

Software without a trained examiner is shelfware. Both official MOBILedit training routes are available through CyberEdge, alongside our own lab-establishment programmes.

- Online training with certification — self-study on the MOBILedit Academy platform combined with online consultations with the training team, concluding with an exam and a Certificate of Completion.
- Hardware training — in-person, hands-on instruction led by experienced field specialists covering ISP and Chip-off hardware methods.
- Advanced security bypassing — expert strategies with MOBILedit Forensic.

Forensic capability we have delivered

Establishment of a full digital forensic laboratory for the Counter Terrorism Department — the largest single forensic engagement on our register.
Digital forensic software and hardware capability for the Federal Cyber Crime Investigation Unit, with chain-of-custody procedure and analyst training.
Follow-on establishment work extending the FCIU's examination capacity and toolchain coverage.

CTD Digital Forensic Laboratory

May 2026

FCIU Forensic Software & Hardware

July 2025

FCIU Forensic Establishment

February 2026

Book a MOBILedit demonstration

We will run a live extraction against a test device at your premises and quote the edition your case load actually requires.

Capability	PRO Edition	ULTRA Edition
Advanced application analysis	Included	Included
Smartwatch forensics	Included	Included
Face and object recognition	Included	Included
Malware detection	Included	Included
UFED compatibility	Included	Included
Application downgrade	Included	Included
Security bypassing	—	Included
Brute force attacks	—	Included
Chipset attacks	—	Included
Exploit utilisation	—	Included
Full Disc Encryption decryption (FDE)	—	Included
File Based Encryption decryption (FBE)	—	Included

8.3 UNIQSCAN security inspection equipment

CyberEdge delivered a consignment of hand-held explosive detectors to CTD Balochistan in May 2026 — supplied, commissioned, calibrated and backed by on-site operator training.

Used for security checks and detection of prohibited items such as guns, knives, explosives, liquid explosives and other dangerous items. Combined with AI image automatic recognition software, the system marks potential dangerous objects and saves image records to facilitate subsequent security tracing and event analysis.

Hand-held explosive detectors

CyberEdge delivered a consignment of hand-held explosive detectors to CTD Balochistan in May 2026 — supplied, commissioned, calibrated and backed by on-site operator training.
Portable trace detection lets a single officer screen persons, baggage, vehicles and surfaces at a checkpoint in seconds, without a fixed installation. For counter-terrorism operations in Balochistan's dispersed geography, mobility is the capability.

Portable explosive & drug detector

Hand-held trace detector for explosives and narcotics, intended for checkpoints, patrols, event security and facility entrances where fixed screening is impractical.

Liquid detector

Detection of dangerous and prohibited liquids at security checkpoints — screening sealed containers without opening them.

- Trace detection of explosive compounds and narcotics
- Field-portable and battery operated for checkpoint and patrol use
- Single-operator workflow with rapid clear-down between screenings
- Consumables, calibration and maintenance supplied locally
- Portable explosives and drug detection
- Suited to transportation, customs, prisons and large-scale events
- Deployed at scale with CTD Balochistan
- Bottled liquid inspection for airports, metro and government buildings
- Pairs with baggage X-ray for full checkpoint coverage

X-ray baggage scanners

Used for security checks and detection of prohibited items such as guns, knives, explosives, liquid explosives and other dangerous items. Combined with AI image automatic recognition software, the system marks potential dangerous objects and saves image records to facilitate subsequent security tracing and event analysis.
Potential threats marked automatically and recorded for later tracing.
TIP inserts test images to keep operator vigilance measurable.
Centralised operation and monitoring across multiple screening lanes.
Built-in fault detection to reduce downtime at live checkpoints.
From compact desktop parcel units through to dual-view pallet and cargo systems. We size the tunnel to your throughput and item profile.

- AI automatic recognition
- Threat Image Projection
- Network remote control
- Self-diagnosis
- Available tunnel sizes

Metal detection

Walk-through metal detectors

Multi-functional: integrated with turnstile gate, access control, CCTV and AI face recognition.

- Detection zones6 / 12 / 18 / 33 zones
- ConstructionPC / ABS material
- SensitivityHigh sensitivity
- EnvironmentWaterproof
- ManufacturingOEM & ODM available

Hand-held metal detectors

Secondary screening wands for checkpoint, event and facility security — the standard companion to a walk-through gate.

Vehicle inspection & access control

Under-vehicle scanners

Under-vehicle surveillance systems for gate and perimeter inspection, in flush-mount, surface-mount, mobile and mirror configurations.

Smart turnstiles

Smart Turnstile is all about management of people. General management methods include access control systems and visitor management systems using intelligent turnstiles — with AI integration available.

Road block management

Perimeter denial and traffic control for high-value sites: automatic bollards, hydraulic automatic road blockers, and boom barrier gates with parking lot management.

Built for high-standard checking

UNIQSCAN's advantages are in high-quality government projects — environments that need high-level standards for security checking.
Passenger, baggage and staff screening lanes.
High-throughput transit checkpoints.
Cargo, parcel and vehicle inspection.
Visitor, contraband and vehicle control.
Temporary perimeters and crowd entry points.
Parcel screening in sorting facilities.
Entrance screening and access control.
Checkpoints, patrols and counter-terrorism operations.

- Airports
- Metro & railway
- Customs & borders
- Prisons
- Large-scale events
- Logistics & express
- Government buildings
- Law enforcement

Specify a checkpoint, not just a device

Send us the site, the threat profile and the expected throughput. We will propose a complete screening line and train the officers who will run it.

9. Delivery record

Every engagement below is transcribed from a signed work order. Contract values are held on the work orders and are available on request for a specific tender.

Category	Engagements
ICT, Surveillance & Hardware	17
Software, Forensics & Cloud	16
Hybrid Solarization	4
Security Screening	1
Total	38

9.1 ICT, Surveillance & Hardware (17 engagements)

Engagement	Client organisation	Completed	Status
ICT Equipment Supply & Installation	Counter Terrorism Department (CTD)	8 Feb 2025	Completed
ICT CCTV Deployment	Chief Minister's Delivery Unit (CMDU)	7 May 2026	Completed
Supply of Computer Systems	Counter Terrorism Department (CTD)	6 Jun 2024	Completed
Supply of Computer Systems	Counter Terrorism Department (CTD)	6 Jun 2024	Completed
Supply of Computer Systems	Counter Terrorism Department (CTD)	6 Jun 2024	Completed
Supply of Computer Systems	Counter Terrorism Department (CTD)	4 Jun 2026	Completed
IT Office Automation	Counter Terrorism Department (CTD)	26 Jul 2024	Completed
Supply of Machinery Items	Counter Terrorism Department (CTD)	26 Jul 2024	Completed
Supply of IT Equipment	Counter Terrorism Department (CTD)	26 Jul 2024	Completed
Procurement of Surveillance Drones	Counter Terrorism Department (CTD)	22 Sep 2025	Completed
Supply of CCTV Surveillance System	Quetta Police	22 Jul 2024	Completed
Procurement of Surveillance Drones	Counter Terrorism Department (CTD)	20 Aug 2025	Completed
Supply of Computer Systems	Counter Terrorism Department (CTD)	11 Jun 2024	Completed
Supply of Computers	Counter Terrorism Department (CTD)	11 Jun 2024	Completed
Supply of Attendance Devices	Counter Terrorism Department (CTD)	11 Jun 2024	Completed
Supply & Installation of CCTV Systems	Counter Terrorism Department (CTD)	1 Jun 2026	Completed
Supply of Printing Solutions	Counter Terrorism Department (CTD)	1 Jun 2025	Completed

Programme detail

What this category covers

Everything from a single attendance terminal to a multi-phase aerial surveillance programme — procured under public procurement rules, installed by our own engineers and supported afterwards.

Aerial Surveillance Drones

Surveillance drone fleets with ground control stations, operator certification and maintenance cover, delivered to CTD across two phases in 2025.

CCTV & Command Centres

IP CCTV networks with command-centre video walls, storage and analytics — deployed for CTD, Quetta Police and the Chief Minister's Delivery Unit.

Computer Systems Supply

Workstations and desktop systems supplied against departmental specification with warranty, deployment and lifecycle support.

Printing Solutions

Departmental printing and document handling equipment, supplied and commissioned on site.

Biometric Attendance

Attendance devices integrated with departmental HR records for verifiable staff presence.

Office Automation

Complete IT office automation rollouts — hardware, configuration, network and user onboarding.

Every contract in this category

Transcribed from signed work orders, highest value first. A dash means the figure was not stated on the work order. Completion certificates and client references available to prospective clients on request.

The engagements that defined this category

Two-phase procurement and commissioning of surveillance drone fleets and — including ground control stations, operator certification and ongoing maintenance cover.
Large-scale CCTV supply and installation programme, our second-largest ICT contract, extending surveillance coverage across departmental facilities.
Supply and installation of ICT equipment across departmental sites, covering workstations, networking and peripherals with full inspection documentation.
ICT and CCTV deployment for the Chief Minister's Delivery Unit, bringing monitoring capability to provincial oversight functions.
City-policing CCTV surveillance rollout — one of our earliest large deployments and the foundation of the Quetta Police relationship.
Eleven separate supply contracts covering computer systems, printing solutions, IT equipment, machinery items, attendance devices and office automation.

Surveillance Drone Programme

CTD · Aug–Sep 2025

CCTV Supply & Installation

CTD · June 2026

ICT Equipment Supply

CTD · February 2025

CMDU CCTV Deployment

CMDU · May 2026

Quetta Police CCTV

Quetta Police · July 2024

Departmental Supply Programme

CTD · 2024–2026

Procurement and deployment discipline

Public-sector hardware supply lives or dies on documentation. Every contract in this category carries a complete audit trail from tender to completion certificate.

- PPRA-compliant tendering with technical compliance sheets
- Authorised sourcing with warranty transferred to the department
- Delivery, installation and inspection reports for every consignment
- Configuration and user onboarding by our own engineers, on site
- Operator certification for specialist equipment such as drones
- Completion certification and post-deployment maintenance cover

Organisations served in this category

Explore next

Explosive detection equipment for the same client base.
The capability behind these deployments.
Networks and data centres that support the estate.

- Security screening
- Surveillance solutions
- IT infrastructure

Questions on this category

Can you supply against an existing tender specification?
Yes — that is how most of these contracts were awarded. We submit technical compliance sheets against your BOQ. If a specification contains an item we think is wrong for the use case, we say so in writing rather than quietly quoting it.

Do you handle drone operator training?
Yes. Surveillance drone deliveries include ground control station setup and operator certification, because an uncertified fleet is an expensive shelf ornament.

What warranty applies to supplied hardware?
Manufacturer warranty is transferred to the department, and we coordinate claims on your behalf. Beyond warranty, annual maintenance contracts cover preventive visits, spares and priority on-site response.

How quickly can you deploy across multiple sites?
It depends on the consignment and the site geography, but we deploy across Balochistan with our own field teams rather than subcontracting. Multi-site rollouts are scheduled in waves with written progress reporting each week.

9.2 Software, Forensics & Cloud (16 engagements)

Engagement	Client organisation	Completed	Status
Digital Forensic Establishment	Federal Cyber Crime Investigation Unit (FCIU)	5 Feb 2026	Completed
Human Resource Management System (HRMS)	C&W Public Health Engineering	4 Feb 2024	Completed
Fuel Management System	Counter Terrorism Department (CTD)	30 Sep 2025	Completed
E-Lettering / Digital Correspondence System	Counter Terrorism Department (CTD)	29 Sep 2025	Completed
National Police Bureau Digital Systems	Ministry of Interior	2 Jun 2025	Completed
Website Development Service	Balochistan Civil Service Academy (BCSA)	19 May 2025	Completed
Human Resource Management System (HRMS)	Services & General Administration Department (S&GAD)	19 Dec 2025	Completed
Enterprise Resource Planning (ERP) Software / Cloud	Post Graduate Medical Institute (PGMI)	18 Feb 2026	Completed
Technical Services Engagement	Quetta Police	17 May 2024	Completed
Complaint Management System	Quetta Police	17 May 2024	Completed
Fuel Management System	Quetta Police	17 May 2024	Completed
Procurement & Subscription of Software & Memberships	Balochistan Civil Service Academy (BCSA)	16 May 2025	Completed
GPS Tracking & Feedback System	Balochistan Constabulary (BC)	14 Oct 2024	Completed
Dealer Management System	Toyota Zarghoon Motors	13 Sep 2025	Completed
Digital Forensic Laboratory Establishment	Counter Terrorism Department (CTD)	11 May 2026	Completed
Digital Forensic Software & Hardware	Federal Cyber Crime Investigation Unit (FCIU)	1 Jul 2025	Completed

Programme detail

What this category covers

Our broadest category by client count: ten organisations across law enforcement, civil service, healthcare, public works and private enterprise.

Digital Forensic Laboratories

Complete forensic capability — imaging and extraction hardware, licensed analysis suites, chain-of-custody procedure and analyst training.

Enterprise Resource Planning

Institution-wide cloud ERP unifying finance, procurement, inventory and administration on a single auditable data model.

Human Resource Management

HRMS platforms configured to departmental service rules — records, attendance, leave, transfers, promotions and payroll.

E-Governance & E-Lettering

Digital correspondence, file movement and approval workflow replacing paper dak registers with searchable, time-stamped records.

Fleet, Fuel & GPS Tracking

Live vehicle tracking, geofencing, route history and fuel issuance controls that close the gap between authorised and actual consumption.

Dealer & Complaint Management

Sales, service, parts and customer lifecycle platforms, and citizen complaint systems for public-facing departments.

Every contract in this category

Transcribed from signed work orders, highest value first. A dash means the figure was not stated on the work order.
Completion certificates and client references available to prospective clients on request.

The engagements that defined this category

The single largest engagement on our entire register — establishment of a complete digital forensic laboratory with imaging and extraction hardware, licensed analysis software and full evidence-handling procedure.
Digital forensic software and hardware (, July 2025) followed by a forensic establishment package (, February 2026) extending examination capacity for the federal unit.
Sales, service, parts and customer lifecycle platform for a national automotive dealership — inventory tracking, CRM integration, service reminders and payment processing.
Live vehicle tracking, geofencing, route history and a feedback workflow giving command staff visibility of deployed resources.
Institution-wide enterprise resource planning on managed cloud, unifying finance, procurement, inventory and academic administration for a medical institute.
Digital correspondence and file movement platform replacing paper registers with accountable, searchable, time-stamped records.

CTD Digital Forensic Laboratory

CTD · May 2026

FCIU Forensic Capability

FCIU · 2025–2026

Toyota Dealer Management System

Toyota Zarghoon Motors · Sep 2025

GPS Tracking & Feedback System

Balochistan Constabulary · Oct 2024

PGMI Cloud ERP

PGMI · February 2026

E-Lettering System

CTD · September 2025

Built for audit, not for demo

Departmental software succeeds when the finance office trusts the screen more than their own ledger. That trust comes from migration accuracy and audit trail.

- Process mapping of how the department actually works today
- Configuration against your service rules, not a generic template
- Data migration with line-by-line reconciliation against source records
- Role-based access with a complete audit trail on every transaction
- Parallel running before the old system is retired
- UAT with your actual staff on real cases, not scripted demos
- Source code and documentation delivered to the client

Organisations served in this category

Explore next

The practice behind these builds.
Enterprise platforms in depth.
The forensic toolchain we supply and support.

- Software development
- ERP systems
- MOBILedit Forensic

Questions on this category

Who owns the software you build for us?
You own the delivered application and its data. Source code escrow or full source handover is available and stated explicitly in the contract. Third-party licensed components remain under their own licence terms.

Are your forensic reports admissible?
That is the design goal. We maintain documented chain of custody from acquisition through analysis, use licensed and validated tooling, and produce examination reports suitable for legal proceedings. Our examiners can attend as expert witnesses.

Why does the register not show contract values?
Publishing what we charged each department invites competitors to undercut those rates and invites clients to renegotiate against each other's pricing. The values are recorded on the signed work orders and we supply them, with the completion certificates, for any specific tender or pre-qualification that requires them.

Can these systems integrate with what we already run?
Usually. We build APIs against existing databases and applications rather than demanding a clean slate. Where a legacy system has no integration surface we work at database or file-exchange level and document the coupling honestly.

9.3 Hybrid Solarization (4 engagements)

Engagement	Client organisation	Completed	Status
12 KVA Hybrid Solarization	Balochistan Constabulary (BC)	7 Mar 2025	Completed
07 KVA Hybrid Solarization	Counter Terrorism Department (CTD)	4 Oct 2025	Completed
35 KVA Hybrid Solar Power Plant	Toyota Zarghoon Motors	21 May 2025	Completed
12 KVA Hybrid Solarization	Counter Terrorism Department (CTD)	2 Jun 2025	Completed

Programme detail

What this category covers

Security installations cannot wait for load-shedding to end. These plants combine PV generation, battery storage and grid or generator fallback so critical operations simply do not stop.

Load Audit & Sizing

Measured load profiling and payback modelling before a single panel is quoted — so the plant matches the actual demand curve, not an optimistic estimate.

Hybrid Inverter Systems

Hybrid inverters managing PV, battery and grid or generator input, with automatic changeover that critical equipment never notices.

Battery Storage

Lithium or tubular storage banks sized for the outage duration your site actually experiences.

Structure & Installation

Mounting structure, DC and AC wiring, protection, earthing and commissioning to PEC standards.

Net Metering Support

Documentation and coordination for net-metering approval where the site and tariff allow it.

Maintenance Contracts

Annual maintenance with performance reporting — because an unmonitored solar plant quietly underperforms for years.

Every contract in this category

Transcribed from signed work orders, highest value first. A dash means the figure was not stated on the work order. Completion certificates and client references available to prospective clients on request.

The engagements that defined this category

Our largest solar installation — a 35 KVA hybrid plant for a commercial automotive facility, delivered alongside the dealer management platform for the same client.
A 12 KVA hybrid solarization securing uninterrupted power at a Counter Terrorism Department installation, cutting generator fuel dependency.
Our first hybrid solar engagement — a 12 KVA plant for the Balochistan Constabulary that opened the energy practice and led directly to the CTD contracts.
A 7 KVA hybrid system for a smaller departmental facility, sized against a measured load profile rather than a standard package.

Toyota 35 KVA Solar Plant

Toyota Zarghoon Motors · May 2025

CTD 12 KVA Hybrid Plant

CTD · June 2025

Balochistan Constabulary 12 KVA

Balochistan Constabulary · Mar 2025

CTD 07 KVA Hybrid Plant

CTD · October 2025

Sized against measured load, not guesswork

Most underperforming solar installations were mis-sized on day one. We measure before we quote, and we tell you when a smaller plant would serve you better.

- Load audit with measured consumption over a representative period

- Payback modelling against your actual tariff and diesel spend
- System sizing for the outage duration the site really experiences
- PEC-standard installation, protection and earthing
- Commissioning with performance verification against design output
- Annual maintenance with periodic performance reporting

Organisations served in this category

Explore next

The energy practice in detail.
Keeping the estate powered and running.
Hardware deployments at the same sites.

- Solar solutions
- IT infrastructure
- ICT projects

Questions on this category

How do you size a system?
By measuring, not estimating. We profile your actual load over a representative period, establish which circuits are genuinely critical, and size PV and storage against that. Departments are often surprised how much of their connected load does not need to be on backup.

What is a realistic payback period?
It depends on your tariff, your current diesel spend and your outage frequency. We model it explicitly before you commit, and we show the assumptions so you can challenge them. For sites running generators heavily, payback is usually the strongest part of the case.

Lithium or tubular batteries?
Lithium costs more upfront, lasts longer, tolerates deeper discharge and needs less maintenance. Tubular is cheaper and more forgiving of poor ventilation. We recommend based on your site conditions and maintenance capacity, not on margin.

Who maintains it afterwards?
We do, under an annual maintenance contract with performance reporting — or we train your facilities staff to handle routine checks and keep us for the annual service. Either way, an unmonitored plant degrades silently, so somebody should be watching the numbers.

9.4 Security Screening (1 engagements)

Engagement	Client organisation	Completed	Status
Hand Held Explosive Detectors (UNIQSCAN)	Counter Terrorism Department (CTD)	19 May 2026	Completed

Programme detail

What this category covers

Physical detection capability supplied in partnership with UNIQSCAN — for checkpoints, entrances, borders and perimeters where the threat is not a data packet.

Explosive Trace Detection

Hand-held detectors identifying explosive compounds in seconds, for checkpoint, patrol and facility screening without a fixed installation.

Narcotics Detection

The same portable platforms extend to narcotics detection, giving a single officer dual capability at the point of contact.

Commissioning & Calibration

Equipment commissioned and calibrated on site, with baseline verification before it enters operational use.

Operator Training

On-site training so officers can operate, interpret and clear down between screenings without waiting for a specialist.

Consumables & Support

Calibration standards, consumables and maintenance supplied locally rather than through a foreign reseller.

Wider Screening Range

X-ray baggage scanners, walk-through and hand-held metal detectors, liquid detectors, under-vehicle scanners and road blockers are available on the same supply channel.

Every contract in this category

Transcribed from signed work orders, highest value first. A dash means the figure was not stated on the work order. Completion certificates and client references available to prospective clients on request.

The engagement

A consignment of hand-held explosive detectors supplied to the Counter Terrorism Department — commissioned, calibrated and backed by on-site operator training. For counter-terrorism operations across Balochistan's dispersed geography, portability is the capability: a single officer can screen persons, baggage, vehicles and surfaces at a checkpoint in seconds.

Hand-Held Explosive Detectors

CTD Balochistan · May 2026

Equipment is the easy part

Detection hardware delivered without commissioning, calibration and trained operators is a procurement line item, not a capability.

- Authorised supply channel with genuine equipment and factory warranty
- End-user documentation handled before order placement
- On-site commissioning and calibration with baseline verification
- Operator training delivered to the officers who will use it
- Consumables and calibration standards supplied locally
- Maintenance cover across Balochistan, not from an overseas inbox

Organisations served in this category

Explore next

The full UNIQSCAN range in detail.
Both authorised product lines.
Surveillance and CCTV for the same client base.

- Screening equipment
- All products
- ICT projects

Questions on this category

Who can buy this equipment?
Detection and screening equipment is supplied to government, law-enforcement and licensed security buyers only. End-user certification is required before we can quote, and delivery timelines depend on export clearance.

Can you supply a complete checkpoint, not just detectors?
Yes. The same channel covers X-ray baggage scanners from SF5030A to SF150180D, walk-through metal detectors in 6 to 33-zone configurations, liquid detectors, under-vehicle scanners, turnstiles and road blockers. Send us the site and expected throughput and we will specify a full screening line.

Is training included?
Operator training is included in the delivery. Detection equipment mis-operated produces false confidence, which is more dangerous than no equipment at all.

What about consumables and calibration?
Supplied locally under the support arrangement. This is the part most procurements forget, and it is the part that determines whether the equipment is still working in eighteen months.

9.5 Client organisations

The organisations named on our delivery register. References and completion certificates are supplied on request for a specific tender.

Client organisation	Engagements
Counter Terrorism Department (CTD)	21
Quetta Police	4
Toyota Zarghoon Motors	2
Balochistan Civil Service Academy (BCSA)	2
Balochistan Constabulary (BC)	2
Federal Cyber Crime Investigation Unit (FCIU)	2
Services & General Administration Department (S&GAD)	1
Post Graduate Medical Institute (PGMI)	1
Chief Minister's Delivery Unit (CMDU)	1
C&W Public Health Engineering	1
Ministry of Interior	1

9.6 Flagship programmes

Two engagements that show the shape of the work: the largest single programme we have delivered, and the enterprise platform that replaced parallel paper registers with one auditable system.

Digital forensics that stands up in court

Our largest single engagement: a digital forensic laboratory for the Counter Terrorism Department — write■blockers, imaging stations, mobile extraction, licensed analysis suites and the procedures that keep evidence admissible.

- Hardware and licensed toolchain procured, installed and validated
- Documented chain-of-custody and evidence-handling SOPs
- Analyst training and post-deployment technical support
- Seven forensic labs established nationwide, including one for the FCIU

Enterprise platforms for institutions that cannot stop

A cloud ERP for the Post Graduate Medical Institute unified finance, procurement, inventory and academic administration — replacing parallel registers with a single auditable source of record.

- Finance, HR, procurement and asset modules on one data model
- Role-based access with a complete audit trail
- Cloud hosting with managed backup and disaster recovery
- Extended to HRMS rollouts at S&GAD and C&W PH&E

9.7 Evidence supplied with a bid

- Completion certificates for the engagements relevant to the tender.
- Copies of the signed work orders, including contract values where the procuring agency requires them.
- Client references, with the name and contact details of the officer who held the contract, released with that officer's consent.
- Technical compliance sheets mapped line by line to the tender specification.

- Registration evidence: SECP incorporation, PEC licence, PSEB registration, FBR and PRA status, and the ISO/IEC 27001:2022 certificate with its scope statement.
- Certification evidence for the named individuals proposed for the engagement.

10. Software demonstration catalogue

One hundred working demonstration applications, one per solution. Each has role-based sign-in, a dashboard, a records register, a create form, reports and configuration, and runs on synthetic data. Published at cyberedgetechs.com/software-solutions.html

10.1 Index by domain

Business & Enterprise (10)

Application	Solution
CyberEdge AssetTrack	Asset & Equipment Tracking
CyberEdge Claim	Real-Time Expense Approval
CyberEdge Covenant	Contract & SLA Monitoring
CyberEdge Facility	Facility & Energy Management
CyberEdge FieldOps	Workforce & Field-Force Management
CyberEdge FuelGuard	Fleet Fuel Monitoring
CyberEdge Insight	Business Intelligence Platform
CyberEdge Procure	Procurement & Vendor Management
CyberEdge Queue	Queue Management System
CyberEdge Signage	Digital Signage & Menu Boards

Retail & E-commerce (10)

Application	Solution
CyberEdge FlashSale	Flash Sale & Auction Platform
CyberEdge Fulfil	Order Fulfilment & Picking
CyberEdge LiveShop	Live Shopping & Social Commerce
CyberEdge Loyalty	Loyalty & Points Redemption
CyberEdge PriceEngine	Dynamic Pricing Engine
CyberEdge Recommend	Product Recommendation Engine
CyberEdge Recover	Cart Abandonment Tracking
CyberEdge Returns	Returns & Refund Tracking
CyberEdge ShelfSense	Shelf Stock Sensors
CyberEdge WalkOut	Checkout-Free Store

Healthcare (10)

Application	Solution
CyberEdge BioMed	Medical Equipment Management
CyberEdge BloodBank	Blood Bank Management
CyberEdge LabLink	Laboratory Information System

Application	Solution
CyberEdge OPD	Appointment & OPD Management
CyberEdge Pharmacy	Pharmacy Inventory & Dispensing
CyberEdge Sentinel	Epidemic & Outbreak Tracking
CyberEdge TeleICU	Remote Intensive Care
CyberEdge Transplant	Organ Donation Matching
CyberEdge Triage	Emergency Room Triage
CyberEdge VitalLink	Wearable Health Monitoring

Finance & Fintech (10)

Application	Solution
CyberEdge AML	Anti-Money-Laundering Monitoring
CyberEdge ATMWatch	ATM Network Monitoring
CyberEdge AlgoDesk	Algorithmic Trading Platform
CyberEdge Exchange	Digital Asset Exchange
CyberEdge FX	Foreign Exchange Platform
CyberEdge Lend	Loan Origination & Approval
CyberEdge Portfolio	Robo-Advisory & Portfolio Tracking
CyberEdge Score	Real-Time Credit Scoring
CyberEdge Settle	Real-Time Settlement
CyberEdge Wallet	Digital Wallet Platform

Transportation & Logistics (10)

Application	Solution
CyberEdge ColdChain	Cold Chain Monitoring
CyberEdge Freight	Cargo & Freight Matching
CyberEdge LastMile	Last-Mile Delivery Routing
CyberEdge Parking	Parking Availability System
CyberEdge Port	Container & Port Tracking
CyberEdge Share	Bike & Scooter Sharing
CyberEdge SkyDrop	Drone Delivery Operations
CyberEdge Toll	Electronic Toll Collection
CyberEdge Traffic	Traffic Signal Control
CyberEdge Transit	Public Transit Tracking

Communication & Collaboration (10)

Application	Solution
CyberEdge CoEdit	Collaborative Document Editing

Application	Solution
CyberEdge Comments	Comment & Reaction System
CyberEdge Feed	Social Feed Platform
CyberEdge Notify	Push Notification Service
CyberEdge Poll	Live Polling & Q&A
CyberEdge Presence	Presence & Status Service
CyberEdge Stream	Live Streaming Platform
CyberEdge Translate	Real-Time Translation
CyberEdge Voice	VoIP Telephony Platform
CyberEdge Webinar	Webinar Platform

Emergency & Public Safety (10)

Application	Solution
CyberEdge CrowdSafe	Crowd Density Monitoring
CyberEdge FireWatch	Fire Alarm & Detection
CyberEdge FloodWatch	Flood & Water-Level Monitoring
CyberEdge Frontier	Border Surveillance
CyberEdge Maritime	Maritime Domain Awareness
CyberEdge SAR	Search & Rescue Coordination
CyberEdge SOS	Panic Button & SOS
CyberEdge SeismicAlert	Earthquake Early Warning
CyberEdge ShotSpot	Gunshot Detection
CyberEdge Trace	Contact Tracing

Industrial & IoT (10)

Application	Solution
CyberEdge AirSense	Air Quality Monitoring
CyberEdge AquaControl	Water Treatment & Distribution
CyberEdge CellControl	Robotic Cell Control
CyberEdge FleetAMR	Warehouse Robotics Coordination
CyberEdge Grid	Smart Grid Load Balancing
CyberEdge Pipeline	Pipeline Monitoring
CyberEdge Predict	Predictive Maintenance
CyberEdge Renew	Wind & Solar Farm Monitoring
CyberEdge SafetyPLC	Safety-Instrumented Monitoring
CyberEdge VisionQA	Quality Inspection

Smart City & Infrastructure (10)

Application	Solution
CyberEdge Access	Building Access Control
CyberEdge Charge	EV Charging Management
CyberEdge Irrigate	Smart Irrigation
CyberEdge LiftWatch	Elevator Monitoring
CyberEdge Livestock	Livestock Tracking
CyberEdge MeterLink	Smart Water Metering
CyberEdge NoiseWatch	Noise Pollution Monitoring
CyberEdge StreetLight	Smart Street Lighting
CyberEdge Waste	Waste Collection Management
CyberEdge Weather	Weather Station Network

Gaming, Media & Sports (10)

Application	Solution
CyberEdge Arena	eSports Tournament Platform
CyberEdge Bid	Live Auction Platform
CyberEdge CloudPlay	Cloud Gaming Platform
CyberEdge Fantasy	Fantasy Sports Scoring
CyberEdge Immerse	AR/VR Multiplayer Platform
CyberEdge InteractTV	Interactive Television
CyberEdge Odds	In-Play Odds Platform
CyberEdge Ranks	Real-Time Leaderboards
CyberEdge ScoreFeed	Live Score & Stats Distribution
CyberEdge Studio	Music Collaboration Platform

10.2 Application specifications

Each entry below states what the application is for, the operational measures on its dashboard, the register it maintains, the roles it ships with and the rules that can be configured. The same structure is the starting point for a production build, which is then fitted to the client's workflow, integrations and compliance regime.

Business & Enterprise

1. CyberEdge AssetTrack

Asset & Equipment Tracking — Know where every tagged asset is, and who has it.

Passive RFID and barcode reads pinned to a live asset register, with custody, location and a complete audit trail.

Operational measure	Indicative value
Tagged assets	12,480
Reads today	18,220
Unlocated	6
Custody transfers	84

Register: **Assets**

Tag	Asset	Category	Custodian	Location	Status
0x8F21C4	Dell PowerEdge R750	Server	IT wing	Data centre	In service
0x2B90AA	Toyota Hilux GLD-4471	Vehicle	Operations	Motor pool	In service
0x71DD03	MOBILedit forensic kit	Forensic	CTD lab	Lab 2	Issued out
0x5A1180	APC Symmetra UPS 40kVA	Power	Facilities	Plant room	Service due
0x9C4471	HP LaserJet M712	Printer	Admin	Floor 2	In service
0x3E7712	Cisco Catalyst 9300	Network	IT wing	Comms room	Unlocated

Roles: Administrator (full access); Manager (no configuration); Store operator (read-only)
Configurable rules:

- Unregistered tag alarm — Raise an alert when an unknown tag is read
- Gate-out authorisation — Block asset exit without an approved gate pass
- Automatic stock count — Reconcile from reader sweeps each night

Reporting: 12,480 assets tagged; 96.4% audit coverage; 37 write-offs.

2. CyberEdge Claim

Real-Time Expense Approval — Clear the compliant claims instantly. Route only the exceptions.

A policy engine that settles compliant claims on submission and sends only genuine exceptions to a human approver.

Operational measure	Indicative value
Claims today	148
Auto-approved	71%
Awaiting approval	23

Register: **Expense claims**

Claim	Employee	Purpose	Amount (PKR)	Submitted	Status
EXP-8841	M. Nawaz	Field survey fuel	18,450	12 Jun 2026	Auto-approved
EXP-8842	S. Baloch	Client travel, air	96,200	12 Jun 2026	Awaiting approval
EXP-8843	H. Khan	Site meals	6,300	13 Jun 2026	Auto-approved
EXP-8844	A. Jan	Equipment hire	142,000	13 Jun 2026	Policy exception
EXP-8845	R. Baloch	Courier charges	2,150	14 Jun 2026	Auto-approved
EXP-8846	F. Achakzai	Hotel, two nights	54,800	14 Jun 2026	With finance

Roles: Administrator (full access); Manager (no configuration); Employee (read-only)
Configurable rules:

- Instant clearing — Settle compliant claims without a human step
- Receipt OCR — Read amounts and dates from the uploaded receipt
- Duplicate detection — Block the same receipt being claimed twice

Reporting: 4,180 claims processed; 612 policy exceptions; 1.4 days avg settlement.

3. CyberEdge Covenant

Contract & SLA Monitoring — Every contractual clock, computed continuously.

Response, resolution, uptime and penalty exposure tracked against each contract, with renewal warnings before the date passes.

Operational measure	Indicative value
Active contracts	62
SLA breaches (30d)	7
Renewals due 90d	9

Register: **Contracts**

Contract	Client	Service	Uptime	Expiry	Status
CTR-1180	Provincial Health Dept	Managed SOC	99.62%	31 Dec 2026	Within SLA
CTR-1181	Counter Terrorism Dept	Forensic lab support	99.94%	30 Jun 2027	Within SLA
CTR-1182	Civil Service Academy	Campus network	98.80%	15 Mar 2027	Breached
CTR-1183	Metropolitan Corporation	Surveillance O&M	99.41%	01 Sep 2026	At risk
CTR-1184	Balochistan Board	ERP maintenance	99.71%	31 Oct 2026	Within SLA
CTR-1185	Toyota dealership	DMS support	99.20%	12 Aug 2026	At risk

Roles: Administrator (full access); Manager (no configuration); Service desk agent (read-only)
Configurable rules:

- Automatic credit calculation — Compute service credits from measured breaches
- Renewal warnings — Notify the owner 90, 60 and 30 days out
- Pause clocks out of hours — Honour the contracted service window

Reporting: 62 contracts managed; 99.42% uptime achieved; 9.2 hrs avg resolution.

4. CyberEdge Facility

Facility & Energy Management — HVAC, lighting and load, managed to a setpoint.

Building telemetry with setpoint control and demand-based scheduling across an estate, so plant runs when it is needed and not otherwise.

Operational measure	Indicative value
Building load	512 kW
Energy today	6,240 kWh
Open faults	5
Power factor	0.94

Register: **Plant & zones**

Asset	Zone	Type	Setpoint	Reading	Status
CHW-01	Block A	Chiller	7.0 C	7.2 C	Normal
AHU-04	Block A floor 2	Air handler	23.0 C	24.8 C	Above setpoint
LTG-11	Car park	Lighting	Auto	Dimmed 40%	Normal
GEN-01	Plant room	Generator	Standby	Standby	Normal
CHW-02	Block B	Chiller	7.0 C	11.4 C	Fault
AHU-07	Block B floor 1	Air handler	23.0 C	23.1 C	Normal

Roles: Administrator (full access); Manager (no configuration); Facility operator (read-only)
Configurable rules:

- Demand scheduling — Shift non-critical load away from the peak tariff
- Occupancy-linked HVAC — Set back cooling in unoccupied zones
- Automatic fault tickets — Raise a work order when plant alarms

Reporting: 12 sites monitored; 18.4% energy saved; 184 work orders raised.

5. CyberEdge FieldOps

Workforce & Field-Force Management — Dispatch, track and prove every visit.

Job dispatch, geo-fenced attendance and proof-of-visit for teams that never see an office, with offline capture on the phone.

Operational measure	Indicative value
On shift now	34
Open jobs	19
SLA met	94%
Avg travel time	23 min

Register: **Job cards**

Job	Team	Site	Type	Due	Status
JOB-77120	Team Alpha	Jinnah Town grid	Installation	Today 16:00	Completed
JOB-77121	Team Bravo	Sariab Road tower	Fault repair	Today 18:30	In progress
JOB-77122	Team Charlie	Airport Road hub	Preventive	Tomorrow 09:00	Not started
JOB-77123	Team Alpha	Zarghoon Road	Survey	Today 14:00	Overdue
JOB-77124	Team Delta	Samungli cantt	Installation	Tomorrow 11:00	Not started
JOB-77125	Team Bravo	Hanna Urak link	Fault repair	Today 20:00	In progress

Roles: Administrator (full access); Manager (no configuration); Field technician (read-only)
Configurable rules:

- Geo-fenced attendance — Only allow check-in inside the site boundary
- Photo proof of visit — Require a timestamped photo to close a job
- Offline capture — Queue work on the device until coverage returns

Reporting: 3,880 jobs completed; 88% first-visit fix; 62,400 km distance logged; 412 overtime hours.

6. CyberEdge FuelGuard

Fleet Fuel Monitoring — Stop paying for fuel that never reached the tank.

Tank-level telemetry against odometer and route data, so pilferage, siphoning and abnormal consumption surface within the hour.

Operational measure	Indicative value
Vehicles monitored	86
Fuel drawn today	4,120 L
Pilferage alerts	2

Register: **Fuel transactions**

Vehicle	Driver	Station	Litres	Odometer	Status
QTA-4471	M. Nawaz	Sariab Road depot	62.4	184,210	Reconciled
QTA-8830	A. Jan	Airport Road PSO	48.0	96,442	Reconciled
LES-9902	S. Ahmed	Sariab Road depot	110.5	241,880	Level drop detected
QTA-1192	R. Baloch	Zarghoon Road Shell	38.2	62,015	Odometer mismatch
QTA-7701	K. Marri	Sariab Road depot	71.8	150,330	Reconciled
QTA-5563	F. Achakzai	Samungli Road PSO	55.0	88,760	Pending review

Roles: Administrator (full access); Manager (no configuration); Transport clerk (read-only)
Configurable rules:

- Siphon detection — Alert on a level drop while the engine is off
- Geo-fenced refuelling — Only accept fills at approved stations
- Driver mobile capture — Require an odometer photo at each fill

Reporting: 128,400 litres issued; 412,900 km distance covered; 64 alerts raised.

7. CyberEdge Insight

Business Intelligence Platform — One canvas for every number the board asks about.

Warehoused and streaming data on a single canvas, with executive KPIs that refresh without anyone exporting a spreadsheet.

Operational measure	Indicative value
Orders	1,284
Gross margin	31.4%
Active users	942

Register: **Dashboards**

Dashboard	Owner	Department	Refresh	Views (30d)	Status
Executive scorecard	CFO office	Finance	15 min	4,820	Live
Sales funnel	Sales ops	Commercial	Hourly	3,110	Live
Inventory ageing	Supply chain	Operations	Nightly	1,640	Source lagging
Collections & ageing	Treasury	Finance	15 min	2,290	Live
Service desk SLA	IT wing	Technology	5 min	980	In development
Fuel & fleet cost	Transport	Operations	Hourly	1,205	Refresh failed

Roles: Administrator (full access); Manager (no configuration); Analyst (read-only)
Configurable rules:

- Scheduled refresh — Pull from source systems every 15 minutes
- Row-level security — Filter every dashboard by the viewer's branch
- Anomaly detection — Flag metrics outside their expected band

Reporting: 38 dashboards live; 14 data sources; 42 s refresh latency; 9,120 report runs.

8. CyberEdge Procure

Procurement & Vendor Management — Every tender, bid and purchase order in one register.

Requisition to purchase order with PPRA-aligned tendering, sealed bid comparison and a scored vendor register.

Operational measure	Indicative value
Open tenders	14
Registered vendors	268
Average cycle	11 days

Register: **Purchase orders**

Reference	Vendor	Category	Value (PKR)	Raised	Status
PO-22910	Bolan Traders	IT hardware	2,480,000	12 Jun 2026	Approved
PO-22911	Quetta Power Systems	Electrical	1,145,000	14 Jun 2026	Awaiting approval
PO-22912	Chiltan Office Supplies	Stationery	218,400	15 Jun 2026	Approved
PO-22913	Makran Fibre Networks	Networking	6,920,000	18 Jun 2026	Under evaluation
PO-22914	Zarghoon Engineering	Civil works	3,310,000	21 Jun 2026	Rejected
PO-22915	Sibi Motors	Vehicles	8,750,000	24 Jun 2026	Awaiting approval

Roles: Administrator (full access); Manager (no configuration); Operator (read-only)
Configurable rules:

- Sealed bid mode — Bids stay encrypted until the opening date
- Auto-disqualify late bids — Reject submissions after the deadline
- Vendor blacklist check — Screen against the debarred suppliers list

Reporting: 64 tenders floated; 318 bids received; 141 pos raised.

9. CyberEdge Queue

Queue Management System — Fair order, honest waiting times.

Token issue, counter routing and display boards, with wait-time prediction computed from actual service rates rather than guesses.

Operational measure	Indicative value
Waiting now	27
Avg wait	14 min
Served today	412
Counters open	4 of 6

Register: **Tokens**

Token	Service	Counter	Issued	Waited	Status
B-101	Account opening	Counter 1	09:12	6 min	Served
B-102	Bill payment	Counter 2	09:14	4 min	Served

Token	Service	Counter	Issued	Waited	Status
B-103	Complaint	Counter 3	09:15	18 min	Waiting
B-104	Account opening	-	09:18	21 min	Waiting
B-105	Bill payment	Counter 2	09:21	2 min	Called
B-106	Certificate issue	-	09:24	31 min	Abandoned

Roles: Administrator (full access); Manager (no configuration); Counter clerk (read-only)
Configurable rules:

- Wait-time prediction — Publish a live estimate to the display boards
- Priority tokens — Fast-track elderly and disabled visitors
- SMS on approach — Text the visitor three tokens before their turn

Reporting: 8,420 tokens issued; 12.8 min average wait; 4.1% abandonment; 11:00-12:00 peak hour.

10. CyberEdge Signage

Digital Signage & Menu Boards — Change every screen from one desk.

Central playlist control with per-screen scheduling, live price sync and offline playback when the network link drops.

Operational measure	Indicative value
Screens online	142
Playlists live	27
Offline screens	3
Content updates	84

Register: **Screens**

Screen	Location	Playlist	Resolution	Last sync	Status
SCR-001	Cafeteria, Quetta HQ	Lunch menu	1920x1080	2 min ago	Online
SCR-002	Reception, Quetta HQ	Corporate loop	3840x2160	1 min ago	Online
SCR-003	Branch, Jinnah Road	Promotions Q3	1920x1080	4 hrs ago	Offline
SCR-004	Counter, Airport Road	Queue + offers	1920x1080	3 min ago	Online
SCR-005	Lobby, Karachi office	Corporate loop	1920x1080	38 min ago	Sync delayed
SCR-006	Canteen, Lahore office	Lunch menu	1920x1080	2 min ago	Online

Roles: Administrator (full access); Manager (no configuration); Branch admin (read-only)
Configurable rules:

- Offline cache — Keep playing the last playlist when the link drops
- Live price sync — Pull prices from the POS on every render
- Emergency override — Interrupt all screens for safety messages

Reporting: 145 screens deployed; 98.9% uptime; 1,240 assets in library; 62 scheduled campaigns.

Retail & E-commerce

11. CyberEdge FlashSale

Flash Sale & Auction Platform — Survive the first sixty seconds.

Queue-fair inventory locking under burst load, with anti-sniping extensions and a fully audited bid history.

Operational measure	Indicative value
Live lots	12
Bidders online	1,844
Peak requests/s	9,200
Oversells	0

Register: **Lots**

Lot	Item	Category	Current bid (PKR)	Bids	Status
LOT-04	Flagship handset 256GB	Electronics	25,750	142	Open
LOT-07	Ultrabook 14in	Computing	98,500	88	Open
LOT-09	Tablet 11in	Computing	41,200	61	Closing soon
LOT-12	Smartwatch series 8	Wearables	22,900	37	Open
LOT-15	Noise-cancelling headset	Audio	18,400	24	Closed
LOT-18	Action camera 4K	Imaging	34,100	52	Reserve not met

Roles: Administrator (full access); Manager (no configuration); Auction moderator (read-only)
Configurable rules:

- Anti-sniping extension — Push the clock out on a late bid
- Fair queue — Admit shoppers in arrival order under load
- Proxy bidding — Bid automatically up to a hidden maximum

Reporting: 412 lots sold; 12,400 peak concurrency; 88% reserve met.

12. CyberEdge Fulfil

Order Fulfilment & Picking — From order to courier, scanned at every step.

Wave planning, optimised pick paths and pack verification, with courier handover scanned against the manifest.

Operational measure	Indicative value
Orders today	1,284
Lines per hour	1,240
Pick accuracy	99.6%
Cut-off risk	12 orders

Register: **Orders**

Order	Customer	Lines	Wave	Courier	Status
ORD-77120	A. Rahman	4	W-118	TCS	Dispatched
ORD-77121	S. Baloch	2	W-118	Leopards	Packing
ORD-77122	H. Khan	9	W-119	TCS	Picking
ORD-77123	F. Achakzai	1	W-119	M&P	Dispatched
ORD-77124	R. Baloch	6	W-120	TCS	Short pick

Order	Customer	Lines	Wave	Courier	Status
ORD-77125	M. Nawaz	3	W-120	Leopards	Picking

Roles: Administrator (full access); Manager (no configuration); Picker (read-only)
Configurable rules:

- Wave planning — Batch orders into optimised picking waves
- Pack verification — Scan every item into the carton before sealing
- Short-pick substitution — Offer an equivalent SKU when stock is short

Reporting: 38,400 orders shipped; 142,900 lines picked; 99.6% pick accuracy; 97.2% on-time dispatch.

13. CyberEdge LiveShop

Live Shopping & Social Commerce — Sell on stream, check out in stream.

Low-latency video with in-stream checkout, pinned SKUs and host-side inventory awareness so nothing oversells on air.

Operational measure	Indicative value
Concurrent viewers	8,420
Orders this stream	316
Conversion	3.8%
Stream latency	2.4 s

Register: **Streams**

Stream	Host	Category	Peak viewers	Orders	Status
LS-2201	Sara K.	Beauty	8,420	316	Live
LS-2202	Bilal A.	Electronics	12,900	482	Ended
LS-2203	Hina M.	Fashion	6,180	241	Scheduled
LS-2204	Usman T.	Home	3,420	98	Ended
LS-2205	Zoya R.	Beauty	18,600	620	Ended
LS-2206	Ahmed S.	Fitness	2,140	54	Low engagement

Roles: Administrator (full access); Manager (no configuration); Stream moderator (read-only)
Configurable rules:

- In-stream checkout — Buy without leaving the player
- Stock guard — Unpin a SKU automatically when it sells out
- Chat moderation — Filter abuse and spam in real time

Reporting: 184 streams hosted; 24,800 peak viewers; 18,400 orders placed.

14. CyberEdge Loyalty

Loyalty & Points Redemption — Earn and burn in the same transaction.

Tier maths, expiry and fraud velocity checks applied at the till, so points settle in the same second as the sale.

Operational measure	Indicative value
Active members	412,900
Points outstanding	88.4M
Redemption rate	23%
Velocity flags	6

Register: **Members**

Member	Name	Tier	Points	Last activity	Status
MBR-44021	A. Rahman	Gold	24,180	Today 11:04	Active

Member	Name	Tier	Points	Last activity	Status
MBR-19077	S. Baloch	Silver	8,420	Today 10:12	Active
MBR-88113	H. Khan	Gold	31,900	Yesterday	Active
MBR-23310	F. Achakzai	Blue	1,240	12 Jun 2026	Points expiring
MBR-55902	R. Baloch	Gold	62,400	Today 09:48	Velocity flag
MBR-70044	M. Nawaz	Blue	480	02 May 2026	Dormant

Roles: Administrator (full access); Manager (no configuration); Cashier (read-only)
Configurable rules:

- Instant burn — Allow redemption in the same transaction as the earn
- Velocity checks — Flag abnormal earn or burn patterns
- Points expiry — Expire unused points after 24 months

Reporting: 412,900 members enrolled; 184M points issued; 42M points redeemed.

15. CyberEdge PriceEngine

Dynamic Pricing Engine — Reprice the catalogue continuously, inside your floors.

Rules plus demand signals reprice every SKU continuously, always within the price floors and ceilings you set.

Operational measure	Indicative value
SKUs repriced today	3,412
Margin lift	+4.1%
Active rules	27
Floor breaches blocked	18

Register: **Priced SKUs**

SKU	Product	Category	Current (PKR)	Floor (PKR)	Status
SKU-44120	Fast charger 65W	Accessories	2,450	1,980	Optimised
SKU-44121	Wireless earbuds	Audio	6,900	5,600	Optimised
SKU-44122	Non-stick wok set	Kitchen	4,200	3,900	Near floor
SKU-44123	Laptop sleeve 15in	Accessories	1,850	1,400	Optimised
SKU-44124	Resistance band kit	Fitness	2,100	2,050	At floor
SKU-44125	Smart LED bulb	Home	1,320	980	Rule paused

Roles: Administrator (full access); Manager (no configuration); Category analyst (read-only)
Configurable rules:

- Competitor tracking — Ingest rival prices and react within the guard rails
- Hard price floor — Never publish below the configured margin floor
- Approval for >10% moves — Large swings need a category manager

Reporting: 18,400 skus managed; 94,200 price changes; 4.1% margin lift.

16. CyberEdge Recommend

Product Recommendation Engine — The right SKU, inside the render budget.

Collaborative filtering plus session context, scored and served fast enough to appear in the first paint of the page.

Operational measure	Indicative value
Recommendations/s	2,480
Click-through	6.8%

Operational measure	Indicative value
Model latency	18 ms

Register: **Placements**

Placement	Page	Model	CTR	Revenue (PKR)	Status
PLC-01	Product detail	Collaborative v4	7.4%	3,120,000	Live
PLC-02	Cart page	Complementary v2	9.1%	2,480,000	Live
PLC-03	Home rail	Trending v3	4.2%	1,640,000	Live
PLC-04	Category page	Personalised v4	5.8%	980,000	A/B running
PLC-05	Order confirmation	Cross-sell v1	2.1%	212,000	Underperforming
PLC-06	Search results	Ranking v5	6.0%	1,180,000	Live

Roles: Administrator (full access); Manager (no configuration); Merchandiser (read-only)
Configurable rules:

- Session context — Blend live browsing signals into the score
- Stock-aware filtering — Never recommend an out-of-stock SKU
- A/B testing — Hold back a control group for measurement

Reporting: 18.4M impressions; 1.24M clicks; 62,400 attributed orders; +11.2% uplift vs control.

17. CyberEdge Recover

Cart Abandonment Tracking — Catch the basket before it cools.

Session-level funnel telemetry that fires a recovery journey the moment purchase intent decays.

Operational measure	Indicative value
Abandon rate	68%
Carts recovered	14%
Journeys live	9

Register: **Abandoned carts**

Session	Customer	Channel	Cart value (PKR)	Abandoned at	Status
sess_9a12	Guest	Mobile web	12,400	Payment	Journey running
sess_4c70	MBR-19077	Android app	4,860	Checkout	Recovered
sess_2f88	Guest	Desktop	31,200	Cart	Lost
sess_bb31	MBR-44021	iOS app	8,940	Payment	Recovered
sess_71ea	Guest	Mobile web	2,150	Cart	Suppressed
sess_5d09	MBR-88113	Desktop	18,600	Checkout	Journey running

Roles: Administrator (full access); Manager (no configuration); Growth analyst (read-only)
Configurable rules:

- Email recovery — Send a reminder 40 minutes after abandonment
- SMS second touch — Follow up once after 24 hours
- Discount escalation — Offer a code only on the third touch

Reporting: 412,900 sessions tracked; 38,400 carts abandoned; 5,380 recovered.

18. CyberEdge Returns

Returns & Refund Tracking — The customer sees the same status you do.

RMA intake, condition grading, disposition and refund release, with one shared status between the warehouse and the customer.

Operational measure	Indicative value
Open RMAs	184
Avg turnaround	4.2 days
Return rate	6.8%

Register: **Return requests**

RMA	Order	Reason	Value (PKR)	Raised	Status
RMA-3391	ORD-77012	Wrong size	4,200	10 Jun 2026	In transit
RMA-3392	ORD-77018	Damaged in transit	18,900	11 Jun 2026	Graded
RMA-3393	ORD-77021	Changed mind	2,650	11 Jun 2026	Refunded
RMA-3394	ORD-77030	Not as described	33,400	12 Jun 2026	Under review
RMA-3395	ORD-77044	Faulty on arrival	9,750	13 Jun 2026	Graded
RMA-3396	ORD-77051	Late delivery	6,100	13 Jun 2026	Refunded

Roles: Administrator (full access); Manager (no configuration); Returns clerk (read-only)
Configurable rules:

- Auto-approve low value — Refund small claims without inspection
- Condition grading — Require a grade before disposition
- Refund on receipt — Release funds when the parcel scans in

Reporting: 4,180 rmas raised; 4,920 items graded; 62% resale recovery.

19. CyberEdge ShelfSense

Shelf Stock Sensors — Know the gap before the customer sees it.

Weight and vision sensors per facing, driving out-of-stock alerts and planogram compliance as the shelf empties.

Operational measure	Indicative value
Facings monitored	1,240
Out-of-stock alerts	18
Planogram compliance	96%
Replenishment tasks	42

Register: **Shelf facings**

Facing	Product	Aisle	Fill level	Last read	Status
FCG-0412	Milk 1L	Aisle 4	82%	1 min ago	Full
FCG-0413	White bread	Aisle 4	24%	1 min ago	Low
FCG-0414	Basmati rice 5kg	Aisle 2	0%	2 min ago	Empty
FCG-0415	Cooking oil 3L	Aisle 2	64%	1 min ago	Full
FCG-0416	Tea 950g	Aisle 6	18%	3 min ago	Low
FCG-0417	Sugar 1kg	Aisle 2	91%	1 min ago	Full

Roles: Administrator (full access); Manager (no configuration); Shelf assistant (read-only)
Configurable rules:

- Auto replenishment tasks — Raise a pick task when a facing runs low
- Planogram check — Flag product placed in the wrong facing
- Vision verification — Confirm the gap with a camera before alerting

Reporting: 1,240 facings monitored; 3,840 alerts raised; 97.8% availability.

20. CyberEdge WalkOut

Checkout-Free Store — Take it and go. The basket keeps itself.

Sensor fusion of camera, shelf weight and entry token builds a virtual basket and charges the shopper on walk-out.

Operational measure	Indicative value
Shoppers in store	23
Baskets open	17
Basket accuracy	99.1%
Disputes today	1

Register: **Sessions**

Session	Shopper	Items	Basket (PKR)	Entered	Status
SHP-1120	Token 4471	6	2,480	11:02	Charged
SHP-1121	Token 8830	2	620	11:08	In store
SHP-1122	Token 1192	11	6,140	11:12	In store
SHP-1123	Token 7701	1	310	11:14	Charged
SHP-1124	Token 5563	4	1,880	11:19	Review queued
SHP-1125	Token 3092	3	940	11:22	Disputed

Roles: Administrator (full access); Manager (no configuration); Store host (read-only)
Configurable rules:

- Walk-out billing — Charge the stored card when the shopper exits
- Dispute auto-review — Replay the session footage on a dispute
- Age-restricted check — Require a host approval for restricted items

Reporting: 18,400 visits; 17,900 baskets charged; 99.1% accuracy.

Healthcare

21. CyberEdge BioMed

Medical Equipment Management — Uptime, utilisation and the calibration date.

Uptime, utilisation and calibration due-dates for every ventilator, pump and imaging unit in the estate.

Operational measure	Indicative value
Devices tracked	1,240
Uptime	97.2%
Service due	42
Down now	7

Register: **Devices**

Asset	Device	Department	Utilisation	Service due	Status
BME-4471	Ventilator Drager V500	ICU	84%	12 Aug 2026	In service
BME-8830	Infusion pump B.Braun	Ward 4	62%	04 Jul 2026	Service due
BME-1192	Ultrasound GE Logiq	Radiology	71%	18 Nov 2026	In service
BME-7701	Defibrillator Zoll R	Emergency	12%	22 Jun 2026	Out of service
BME-5563	Patient monitor Mindray	ICU	94%	30 Sep 2026	In service
BME-3092	X-ray portable Siemens	Radiology	48%	09 Jul 2026	Awaiting parts

Roles: Administrator (full access); Manager (no configuration); Biomedical technician (read-only)
Configurable rules:

- Calibration reminders — Warn 30 days before the due date
- Downtime tracking — Measure availability per device and per ward
- Vendor SLA linking — Attach the AMC response clock to each fault

Reporting: 1,240 devices tracked; 3,180 work orders; 97.2% uptime.

22. CyberEdge BloodBank

Blood Bank Management — Every unit, grouped, screened and in date.

Group-wise unit inventory with shelf-life countdown, cross-match records and inter-facility transfer requests.

Operational measure	Indicative value
Units in stock	285
Expiring 48 hrs	11
Open requests	5
Donations today	42

Register: **Blood units**

Unit	Group	Component	Collected	Expires	Status
BU-44120	O+	Whole blood	02 Jun 2026	07 Jul 2026	Available
BU-44121	A-	Packed cells	04 Jun 2026	09 Jul 2026	Expiring soon
BU-44122	B+	Platelets	12 Jun 2026	17 Jun 2026	Expired
BU-44123	AB+	Plasma	20 May 2026	20 May 2027	Available

Unit	Group	Component	Collected	Expires	Status
BU-44124	O-	Packed cells	08 Jun 2026	13 Jul 2026	Reserved
BU-44125	A+	Whole blood	10 Jun 2026	15 Jul 2026	Available

Roles: Administrator (full access); Manager (no configuration); Lab technician (read-only)
Configurable rules:

- Mandatory screening — Block issue until all five screens pass
- Shelf-life alerts — Warn 72 hours before a unit expires
- Inter-facility transfer — Publish surplus stock to partner hospitals

Reporting: 8,420 units collected; 7,180 units issued; 2.4% wastage; 12,900 donors registered.

23. CyberEdge LabLink

Laboratory Information System — Analyser to clinician, without the paper.

Analyser integration, validation workflow and instant delivery to the clinician, patient portal and SMS.

Operational measure	Indicative value
Reports today	1,842
Critical values	9
Avg turnaround	2h 14m
Pending validation	48

Register: **Lab orders**

Order	Patient	Test	Result	Collected	Status
LAB-88421	PT-4471	Complete blood count	Within range	08:12	Released
LAB-88422	PT-8830	Serum potassium	6.9 mmol/L	08:20	Critical
LAB-88423	PT-1192	HbA1c	7.8%	08:34	Abnormal
LAB-88424	PT-7701	Dengue NS1	Negative	09:02	Released
LAB-88425	PT-5563	Troponin I	0.41 ng/mL	09:15	Critical
LAB-88426	PT-3092	Urine culture	Pending	09:40	In progress

Roles: Administrator (full access); Manager (no configuration); Lab technician (read-only)
Configurable rules:

- Auto-validation — Release normal results without a human step
- Critical value call — Require a phone call and log for panic values
- Patient SMS — Text the patient when a report is ready

Reporting: 184,000 tests processed; 1,240 critical calls; 2h 14m avg turnaround; 1.2% rejection rate.

24. CyberEdge OPD

Appointment & OPD Management — Slots, walk-ins and rooms on one board.

Slot booking, walk-in tokens and consultation-room routing on a single board patients can read from the corridor.

Operational measure	Indicative value
Waiting now	41
Avg wait	18 min
Seen today	612
No-show rate	9.2%

Register: **Appointments**

Token	Patient	Department	Room	Slot	Status
OPD-101	A. Rahman	General medicine	Room 1	09:00	Seen
OPD-102	S. Baloch	Orthopaedics	Room 2	09:15	In consultation
OPD-103	H. Khan	Paediatrics	Room 3	09:30	Waiting
OPD-104	F. Achakzai	ENT	Room 4	09:45	Waiting
OPD-105	R. Baloch	General medicine	Room 1	10:00	No show
OPD-106	M. Nawaz	Orthopaedics	Room 2	10:15	Waiting

Roles: Administrator (full access); Manager (no configuration); Receptionist (read-only)
Configurable rules:

- Walk-in tokens — Issue tokens alongside booked appointments
- SMS reminders — Text the patient the day before
- Auto room routing — Send the next patient to the first free room

Reporting: 38,400 appointments booked; 18,200 walk-ins; 18 min average wait; 9.2% no-show rate.

25. CyberEdge Pharmacy

Pharmacy Inventory & Dispensing — Batch, expiry and narcotics, all accounted for.

Batch and expiry aware stock with prescription validation, a narcotics register and automatic reorder points.

Operational measure	Indicative value
Items in stock	2,180
Below reorder	38
Expiring 90 days	112
Dispensed today	846

Register: **Stock items**

Code	Medicine	Category	On hand	Expiry	Status
MED-4471	Ceftriaxone 1g inj	Antibiotic	420	11 Nov 2026	In stock
MED-8830	Insulin glargine 100IU	Endocrine	38	03 Mar 2027	Below reorder
MED-1192	Paracetamol IV 100ml	Analgesic	1,180	08 Aug 2027	In stock
MED-7701	Morphine 10mg inj	Controlled	64	01 Jan 2027	Controlled
MED-5563	Amoxicillin susp 125mg	Antibiotic	96	05 Aug 2026	Expiring soon
MED-3092	Metformin 500mg tab	Endocrine	2,400	14 Dec 2027	In stock

Roles: Administrator (full access); Manager (no configuration); Dispenser (read-only)
Configurable rules:

- Narcotics register — Require witness sign-off for controlled drugs
- Expiry blocking — Refuse to dispense stock past its expiry
- Automatic reorder — Raise a purchase request at the reorder level

Reporting: 38,400 prescriptions filled; 1.8% stock-out rate.

26. CyberEdge Sentinel

Epidemic & Outbreak Tracking — See the cluster before it becomes an outbreak.

Case reporting from facilities aggregated into geographic clusters, with threshold alerting for the health department.

Operational measure	Indicative value
New cases 24h	137
Active clusters	4
Reporting units	212
Districts affected	7

Register: **Case reports**

Report	District	Condition	Cases	Reported	Status
EPI-1180	Quetta	Acute watery diarrhoea	42	Today 08:00	Cluster confirmed
EPI-1181	Pishin	Measles	18	Today 09:20	Under investigation
EPI-1182	Mastung	Dengue	31	Today 10:05	Cluster confirmed
EPI-1183	Ziarat	Influenza-like illness	12	Today 11:00	Within baseline
EPI-1184	Kalat	Acute watery diarrhoea	8	Today 11:40	Within baseline
EPI-1185	Chaman	Suspected polio	1	Today 12:15	Sample sent

Roles: Administrator (full access); Manager (no configuration); Surveillance officer (read-only)
Configurable rules:

- Threshold alerting — Alert when a district exceeds its baseline
- Automatic clustering — Group cases by time and geography
- Public dashboard — Publish an anonymised summary feed

Reporting: 18,400 cases reported; 62 clusters detected; 94% reporting compliance; 6 hrs response time.

27. CyberEdge TeleICU

Remote Intensive Care — One intensivist desk, every bed in view.

Bedside monitors streamed to a central intensivist desk with early-warning scoring computed across every bed.

Operational measure	Indicative value
Beds monitored	48
High EWS	6
Interventions today	22
Avg response	3.2 min

Register: **ICU beds**

Bed	Patient	Unit	EWS score	SpO2	Status
ICU-04	PT-4471	Medical ICU	3	96%	Stable
ICU-07	PT-8830	Medical ICU	8	89%	Deteriorating
ICU-09	PT-1192	Surgical ICU	5	94%	Watch
ICU-11	PT-7701	Cardiac ICU	2	98%	Stable
ICU-14	PT-5563	Surgical ICU	6	92%	Watch
ICU-16	PT-3092	Medical ICU	1	99%	Step down

Roles: Administrator (full access); Manager (no configuration); Ward nurse (read-only)
Configurable rules:

- Early warning scoring — Compute a NEWS2 score on every reading
- Auto escalation — Page the intensivist when the score crosses 7

- Two-way audio — Allow the remote desk to talk to the bedside

Reporting: 12,400 bed-days monitored; 3,180 interventions; 11% mortality reduction; 3.2 min avg response.

28. CyberEdge Transplant

Organ Donation Matching — Allocation you can defend line by line.

Compatibility scoring across blood group, HLA, size and ischaemic time, with a fully auditable allocation trail.

Operational measure	Indicative value
On waiting list	1,284
Offers open	6
Matched this month	24
Median wait	14 months

Register: **Waiting list**

Reference	Organ	Blood group	Match score	Listed	Status
RCP-4471	Kidney	O+	92	12 Jan 2026	Offer open
RCP-2290	Liver	A+	88	04 Mar 2026	Awaiting match
RCP-7712	Cornea	B+	85	18 Feb 2026	Allocated
RCP-3308	Kidney	AB+	81	22 Apr 2026	Awaiting match
RCP-9904	Liver	O-	78	09 May 2026	Medically unfit
RCP-1120	Kidney	A-	74	30 May 2026	Awaiting match

Roles: Administrator (full access); Manager (no configuration); Coordinator (read-only)
Configurable rules:

- Blind allocation — Hide recipient identity until the offer is accepted
- Ischaemic clock — Auto-expire offers as cold time runs down
- Full audit trail — Record every score and override with a reason

Reporting: 1,284 recipients listed; 312 transplants performed; 78% offer acceptance; 14 months median wait.

29. CyberEdge Triage

Emergency Room Triage — The queue re-orders itself as patients change.

Five-level triage scoring that re-orders the queue continuously as vitals and waiting time change.

Operational measure	Indicative value
In department	31
Category 1 waiting	0
Door to doctor	12 min
Beds available	8

Register: **Attendances**

Reference	Patient	Complaint	Category	Waited	Status
ER-4471	A. Rahman	Chest pain	Category 1	0 min	Resuscitation
ER-4472	S. Baloch	Ankle injury	Category 4	48 min	Waiting
ER-4473	H. Khan	Breathlessness	Category 2	6 min	In assessment
ER-4474	F. Achakzai	Laceration	Category 3	24 min	Waiting
ER-4475	R. Baloch	Abdominal pain	Category 2	11 min	In assessment
ER-4476	M. Nawaz	Minor rash	Category 5	62 min	Discharged

Roles: Administrator (full access); Manager (no configuration); Triage nurse (read-only)
Configurable rules:

- Continuous re-triage — Re-score waiting patients every 15 minutes
- Category 1 alarm — Alert the resus team the moment a P1 arrives
- Bed availability link — Show live inpatient bed state to the ED

Reporting: 42,800 attendances; 6,120 category 1-2; 12 min door to doctor; 2.1% left without being seen.

30. CyberEdge VitalLink

Wearable Health Monitoring — Continuous vitals, per-patient baselines.

Continuous vitals ingestion from consumer and clinical wearables, with per-patient baselines and deviation alerts.

Operational measure	Indicative value
Patients monitored	1,204
Devices connected	1,382
Alerts today	18
Data completeness	97.2%

Register: **Monitored patients**

Patient	Name	Device	Heart rate	Last sync	Status
PT-4471	A. Rahman	Wrist band v3	78 bpm	2 min ago	Normal
PT-8830	S. Baloch	Chest patch	104 bpm	1 min ago	Above baseline
PT-1192	H. Khan	Wrist band v3	62 bpm	4 min ago	Normal
PT-7701	F. Achakzai	Clinical monitor	138 bpm	1 min ago	Critical
PT-5563	R. Baloch	Wrist band v2	71 bpm	18 min ago	Sync delayed
PT-3092	M. Nawaz	Chest patch	84 bpm	3 min ago	Normal

Roles: Administrator (full access); Manager (no configuration); Nurse (read-only)
Configurable rules:

- Baseline learning — Learn each patient's normal range over 14 days
- Night-time escalation — Route alerts to the on-call after 22:00
- Family notifications — Share summary readings with a nominated contact

Reporting: 1,204 patients enrolled; 18.4M readings ingested; 2,840 alerts raised; 312 escalated.

Finance & Fintech

31. CyberEdge AML

Anti-Money-Laundering Monitoring — Alerts that arrive with the evidence attached.

Typology rules and behavioural models raising alerts with the evidence bundle a compliance officer actually needs.

Operational measure	Indicative value
Alerts today	214
Escalated	17
False positive rate	31%
STRs filed (30d)	9

Register: **Alerts**

Alert	Customer	Typology	Risk score	Raised	Status
AML-4471	CUS-88120	Structuring	84	Today 08:12	Escalated
AML-4472	CUS-19077	Rapid movement	61	Today 09:04	Under review
AML-4473	CUS-44510	High-risk geography	72	Today 09:48	Under review
AML-4474	CUS-77120	Cash intensity	45	Today 10:22	Closed, no action
AML-4475	CUS-33091	PEP exposure	91	Today 11:06	Escalated
AML-4476	CUS-51120	Round-sum transfers	38	Today 11:44	Awaiting evidence

Roles: Administrator (full access); Manager (no configuration); Compliance analyst (read-only)
Configurable rules:

- Behavioural models — Score against the customer's own history
- Sanctions screening — Check every counterparty against the lists
- Automatic case bundling — Group related alerts into one case

Reporting: 18,400 alerts raised; 1,240 cases opened; 184 strs filed; 31% false positive rate.

32. CyberEdge ATMWatch

ATM Network Monitoring — Cash, faults and connectivity on one board.

Cash levels, device faults, journal reconciliation and connectivity across the whole ATM estate on a single board.

Operational measure	Indicative value
Machines online	92 of 96
Availability	98.4%
Refills due	11
Open faults	6

Register: **ATM estate**

Terminal	Location	Region	Cash level	Last refill	Status
ATM-4471	Jinnah Road branch	Quetta	62%	12 Jun 2026	Healthy
ATM-4472	Airport Road kiosk	Quetta	18%	08 Jun 2026	Cash low
ATM-4473	Sariab Road branch	Quetta	0%	02 Jun 2026	Out of cash
ATM-4474	Clifton branch	Karachi	84%	14 Jun 2026	Healthy

Terminal	Location	Region	Cash level	Last refill	Status
ATM-4475	DHA Phase 5	Lahore	41%	11 Jun 2026	Offline
ATM-4476	Saddar branch	Peshawar	73%	13 Jun 2026	Healthy

Roles: Administrator (full access); Manager (no configuration); Field engineer (read-only)
Configurable rules:

- Cash forecasting — Predict refill dates from withdrawal patterns
- Auto fault dispatch — Raise a field ticket the moment a device errors
- Journal reconciliation — Match the electronic journal nightly

Reporting: 96 machines; 1.2M transactions; 98.4% availability.

33. CyberEdge AlgoDesk

Algorithmic Trading Platform — Deterministic execution, with a kill switch.

Deterministic execution paths, co-located feed handlers and risk controls that stop a strategy in microseconds.

Operational measure	Indicative value
Strategies live	6
Order latency	94 us
Fill ratio	88.2%
P&L today	+42 bps

Register: **Strategies**

Strategy	Instrument	Type	P&L (bps)	Fill ratio	Status
STR-01	KSE100 futures	Market making	42	91.2%	Live
STR-02		Arbitrage	18	84.0%	Live
STR-03	OGDC equity	Momentum	-11	88.4%	Underperforming
STR-04	T-bill 3M	Basis	26	94.1%	Live
STR-05	HBL equity	Mean reversion	-38	79.8%	Risk halted
STR-06	Gold futures	Momentum	31	86.6%	Shadow mode

Roles: Administrator (full access); Manager (no configuration); Trader (read-only)
Configurable rules:

- Pre-trade risk — Reject orders that breach position limits
- Kill switch — Halt every strategy on a single command
- Shadow mode — Run new strategies without sending live orders

Reporting: 18.4M orders sent; 88.2% fill ratio; 4 risk halts.

34. CyberEdge Exchange

Digital Asset Exchange — Matching, custody and surveillance in one stack.

A matching engine with segregated custody and market surveillance, streaming the order book to every connected client.

Operational measure	Indicative value
Trades/min	12,400
Pairs listed	48
Surveillance alerts	4

Register: **Trading pairs**

Pair	Asset	Last price	24h change	Volume	Status
	Bitcoin	18,420,000	+2.4%		Trading

Pair	Asset	Last price	24h change	Volume	Status
	Ethereum	982,000	+3.9%		Trading
	Solana	62,400	-1.8%		Trading
	Ripple	184	+0.6%		Volatile
	Cardano	142	-2.7%		Halted
	Polkadot	2,180	+1.2%		Trading

Roles: Administrator (full access); Manager (no configuration); Operations analyst (read-only)
Configurable rules:

- Segregated custody — Hold client assets separately from treasury
- Market surveillance — Flag wash trading and spoofing patterns
- Circuit breakers — Pause a pair after an extreme move

Reporting: 184M trades executed; 48 pairs listed; 99.98% uptime.

35. CyberEdge FX

Foreign Exchange Platform — Streaming quotes with the limits enforced pre-trade.

Streaming quotes, aggregated liquidity and margin monitoring with per-client exposure limits enforced before the trade.

Operational measure	Indicative value
Volume today	USD 84.2M
Active clients	412
Margin calls	3
Avg spread	0.11%

Register: **Trades**

Trade	Client	Pair	Notional (USD)	Rate	Status
FX-88120	Bolan Textiles		250,000	278.42	Settled
FX-88121	Quetta Traders		120,000	301.16	Confirmed
FX-88122	Makran Exports		480,000	352.87	Settled
FX-88123	Chiltan Imports		90,000	75.79	Margin call
FX-88124	Sibi Motors		1,200,000	278.51	Confirmed
FX-88125	Zarghoon Mills		64,000	74.21	Rejected

Roles: Administrator (full access); Manager (no configuration); Dealer (read-only)
Configurable rules:

- Pre-trade limit check — Block trades that breach the client limit
- Auto margin call — Notify the client at 80% utilisation
- Liquidity aggregation — Blend quotes from all connected providers

Reporting: 184,000 trades executed; USD 4.2B notional volume; 184 margin calls.

36. CyberEdge Lend

Loan Origination & Approval — Application to disbursement, fully evidenced.

Automated verification, four-eyes approval and a complete decision audit from application through to disbursement.

Operational measure	Indicative value
Applications today	418
Auto-decisioned	62%

Operational measure	Indicative value
Avg turnaround	36 min

Register: **Loan applications**

Reference	Applicant	Product	Amount (PKR)	Stage	Status
LN-88120	A. Rahman	Personal loan	500,000	Disbursed	Completed
LN-88121	S. Baloch	Auto finance	1,800,000	Underwriting	In progress
LN-88122	H. Khan	SME term loan	8,400,000	Sanction	Awaiting sign-off
LN-88123	F. Achakzai	Housing finance	6,500,000	KYC	In progress
LN-88124	R. Baloch	Personal loan	300,000	Scoring	Declined
LN-88125	M. Nawaz	SME working capital	2,200,000	Disbursed	Completed

Roles: Administrator (full access); Manager (no configuration); Loan officer (read-only)
Configurable rules:

- Automatic KYC — Verify identity against the national database
- Digital sanction letter — Issue the letter without a branch visit

Reporting: 42,800 applications; 26,400 approved; 36 min avg turnaround.

37. CyberEdge Portfolio

Robo-Advisory & Portfolio Tracking — Model portfolios that rebalance themselves.

Risk-profiled model portfolios with drift monitoring, automatic rebalancing and plain-language client reporting.

Operational measure	Indicative value
Accounts	6,412
Drift breaches	3
Avg return YTD	11.2%

Register: **Portfolios**

Account	Client	Model	Value (PKR)	Drift	Status
PF-4471	A. Rahman	Balanced	4,820,000	1.2%	On target
PF-4472	S. Baloch	Growth	12,400,000	6.4%	Rebalance due
PF-4473	H. Khan	Conservative	2,180,000	0.8%	On target
PF-4474	F. Achakzai	Aggressive	31,900,000	9.1%	Drift breach
PF-4475	R. Baloch	Balanced	6,140,000	2.1%	On target
PF-4476	M. Nawaz	Income	8,900,000	3.4%	Review due

Roles: Administrator (full access); Manager (no configuration); Relationship manager (read-only)
Configurable rules:

- Automatic rebalancing — Restore target weights when drift exceeds 5%
- Suitability review — Re-profile the client every 12 months
- Tax-aware selling — Prefer lots that minimise realised gains

Reporting: 6,412 accounts; 18,400 rebalances; 11.2% avg return.

38. CyberEdge Score

Real-Time Credit Scoring — A decision, and the reasons behind it.

Bureau data, transaction history and alternative signals scored on submission, with reason codes attached to every decision.

Operational measure	Indicative value
Scored today	1,840
Approval rate	62%
Avg score	712
Model confidence	91%

Register: **Applications**

Application	Applicant	Product	Score	Requested (PKR)	Status
APP-4471	A. Rahman	Personal loan	712	500,000	Approved
APP-4472	S. Baloch	Auto finance	648	1,800,000	Referred
APP-4473	H. Khan	Credit card	584	150,000	Declined
APP-4474	F. Achakzai	SME working capital	755	4,200,000	Approved
APP-4475	R. Baloch	Personal loan	521	300,000	Declined
APP-4476	M. Nawaz	Housing finance	690	6,500,000	Documents pending

Roles: Administrator (full access); Manager (no configuration); Credit officer (read-only)
Configurable rules:

- Reason codes — Attach the top four factors to every decision
- Alternative data — Use utility and telecom history where available
- Manual override logging — Require a written reason for any override

Reporting: 184,000 applications scored; 62% approval rate; 2.8% default rate; v4.2 model version.

39. CyberEdge Settle

Real-Time Settlement — Netting, clearing and irrevocable finality.

Netting, clearing and final settlement with liquidity monitoring and irrevocable finality on every cycle.

Operational measure	Indicative value
Cycles today	22
Queued	1
Liquidity buffer	18.4%

Register: **Settlement batches**

Batch	Participants	Net value (PKR)	Cycle	Submitted	Status
STL-4471	18 banks	2,140,880,000	Cycle 14	11:00	Settled
STL-4472	18 banks	1,908,220,000	Cycle 15	11:30	Settled
STL-4473	17 banks	2,441,090,000	Cycle 16	12:00	Liquidity short
STL-4474	18 banks	1,772,650,000	Cycle 17	12:30	Settled
STL-4475	16 banks	3,010,410,000	Cycle 18	13:00	Clearing
STL-4476	18 banks	2,284,300,000	Cycle 19	13:30	Queued

Roles: Administrator (full access); Manager (no configuration); Settlement officer (read-only)
Configurable rules:

- Multilateral netting — Net across all participants before settling
- Liquidity monitoring — Warn when a participant nears its cap
- Irrevocable finality — Settlement cannot be reversed once booked

Reporting: 6,180 cycles run; 0 failed cycles; 94 s avg cycle time.

40. CyberEdge Wallet

Digital Wallet Platform — Ledger-first, and it balances every cycle.

A double-entry wallet with instant P2P, merchant QR and reconciliation that balances to the paisa on every cycle.

Operational measure	Indicative value
Transactions/sec	1,840
Success rate	99.3%
Avg response	141 ms

Register: **Transactions**

Reference	Wallet	Type	Amount (PKR)	Channel	Status
TXN-771200	WLT-4471	P2P transfer	12,500	Mobile app	Settled
TXN-771201	WLT-8830	Merchant QR	3,400	QR scan	Settled
TXN-771202	WLT-1192	Bill payment	8,900	Mobile app	Processing
TXN-771203	WLT-7701	Cash-in	50,000	Agent	Settled
TXN-771204	WLT-5563	P2P transfer	220,000	Mobile app	Held for review
TXN-771205	WLT-3092	Merchant QR	1,850	QR scan	Reversed

Roles: Administrator (full access); Manager (no configuration); Support agent (read-only)
Configurable rules:

- Double-entry ledger — Every movement books both sides
- Velocity limits — Cap transfers per hour by KYC tier
- Instant reversal — Auto-reverse failed merchant captures

Reporting: 2.4M wallets active; 184M transactions; 99.3% success rate.

Transportation & Logistics

41. CyberEdge ColdChain

Cold Chain Monitoring — A signed temperature record for every consignment.

Continuous probe telemetry with excursion alerts and a signed temperature record for every consignment.

Operational measure	Indicative value
Consignments live	48
Excursions 24h	1
Probes online	192
Compliance	99.4%

Register: **Consignments**

Consignment	Vehicle	Product	Set point	Current	Status
CC-4471	Reefer 07	Vaccines	-20 C	-19.4 C	In range
CC-4472	Reefer 11	Frozen meat	-18 C	-12.1 C	Excursion
CC-4473	Reefer 03	Dairy	+4 C	+4.2 C	In range
CC-4474	Reefer 09	Insulin	+5 C	+7.8 C	Drifting
CC-4475	Reefer 14	Fresh produce	+2 C	+2.1 C	In range
CC-4476	Reefer 02	Vaccines	-20 C	-20.2 C	Loading

Roles: Administrator (full access); Manager (no configuration); Transport clerk (read-only)
Configurable rules:

- Excursion alerts — Alert the moment temperature leaves the band
- Door-open detection — Log every door event against the route plan
- Signed record — Issue a tamper-evident temperature certificate

Reporting: 8,420 consignments; 184 excursions; 99.4% compliance.

42. CyberEdge Freight

Cargo & Freight Matching — Match the lane, vet the carrier, book the load.

Load boards matched to available capacity by lane, equipment and rate, with carrier vetting built into the booking.

Operational measure	Indicative value
Open loads	184
Carriers available	312
Match rate	78%

Register: **Loads**

Load	Lane	Equipment	Weight	Rate (PKR)	Status
LD-4471	Karachi to Quetta	Flatbed	22 t	184,000	Booked
LD-4472	Lahore to Multan	Container	14 t	96,000	Open
LD-4473	Quetta to Chaman	Flatbed	8 t	48,000	Booked
LD-4474	Islamabad to Peshawar	Reefer	18 t	142,000	Awaiting carrier
LD-4475	Sukkur to Karachi	Tanker	26 t	212,000	Cancelled
LD-4476	Quetta to Karachi	Container	20 t	168,000	Open

Roles: Administrator (full access); Manager (no configuration); Booking agent (read-only)
Configurable rules:

- Carrier vetting — Check licence and insurance before booking
- Lane-based matching — Prioritise carriers already on the lane
- Rate benchmarking — Flag quotes outside the market band

Reporting: 18,400 loads posted; 14,400 loads matched; 1,240 carriers vetted.

43. CyberEdge LastMile

Last-Mile Delivery Routing — Routes that re-sequence themselves.

Capacity and time-window aware route optimisation, re-sequenced live as traffic and failed attempts come in.

Operational measure	Indicative value
Riders active	142
Stops today	3,880
First-attempt rate	91%
Avg stop time	4.2 min

Register: **Consignments**

Consignment	Rider	Area	Attempts	Promised	Status
CN-77120	Rider 04	Jinnah Town	1	Today 14:00	Delivered
CN-77121	Rider 09	Sariab Road	2	Today 16:00	Out for delivery
CN-77122	Rider 11	Cantt area	1	Today 12:00	Delivered
CN-77123	Rider 04	Airport Road	3	Today 18:00	Failed
CN-77124	Rider 16	Samungli Road	1	Tomorrow 10:00	At hub
CN-77125	Rider 09	Zarghoon Road	1	Today 17:00	Out for delivery

Roles: Administrator (full access); Manager (no configuration); Rider (read-only)
Configurable rules:

- Live re-sequencing — Reorder the route as traffic changes
- Time-window respect — Never schedule outside the promised slot
- Proof of delivery — Capture a signature or photo at the door

Reporting: 184,000 deliveries; 91% first-attempt rate; 412,000 km distance.

44. CyberEdge Parking

Parking Availability System — Bay-level truth, published everywhere.

Bay-level occupancy from sensors or cameras, published to signage, mobile apps and the reservation engine.

Operational measure	Indicative value
Bays free	164 of 620
Occupancy	73%
Avg stay	1h 42m

Register: **Parking levels**

Level	Zone	Capacity	Free bays	Occupancy	Status
LVL-B2	Basement 2	180	48	73%	Available
LVL-B1	Basement 1	160	22	86%	Filling
LVL-G	Ground	120	6	95%	Nearly full
LVL-01	Level 1	80	31	61%	Available
LVL-02	Level 2	80	57	29%	Available

Level	Zone	Capacity	Free bays	Occupancy	Status
LVL-VIP	Reserved	20	0	100%	Full

Roles: Administrator (full access); Manager (no configuration); Attendant (read-only)
Configurable rules:

- Live signage feed — Publish free-bay counts to the entrance boards
- App reservations — Let drivers hold a bay for 15 minutes
- Overstay charging — Apply the penalty tariff automatically

Reporting: 620 bays managed; 184,000 sessions; 73% occupancy.

45. CyberEdge Port

Container & Port Tracking — One status the consignee can rely on.

Container events from gate, yard, vessel and customs unified into a single status the consignee can act on.

Operational measure	Indicative value
Containers in yard	1,840
Avg dwell	41 hrs
Customs holds	24
Gate moves today	612

Register: **Containers**

Container	Vessel	Location	Dwell (hrs)	Consignee	Status
MSKU4471120	MV Karachi Star	Vessel	6	Bolan Textiles	On vessel
TGHU8830112	MV Karachi Star	Yard C-14	41	Quetta Traders	In yard
CSQU1192004	MV Gwadar Pearl	Customs bay	88	Makran Exports	Customs hold
OOLU7701338	MV Indus	Gate out	2	Chiltan Imports	Released
HLXU5563901	MV Indus	Yard A-02	19	Sibi Motors	In yard
TCNU3092447	MV Gwadar Pearl	Gate out	4	Zarghoon Mills	Released

Roles: Administrator (full access); Manager (no configuration); Yard planner (read-only)
Configurable rules:

- Customs status link — Pull clearance status from the customs system
- Dwell alerts — Flag containers held beyond free time
- Consignee portal — Publish live status to the cargo owner

Reporting: 184,000 containers handled; 41 hrs avg dwell; 4,180 customs holds; 212,000 gate moves.

46. CyberEdge Share

Bike & Scooter Sharing — Rebalance from demand, not from a roster.

Dock and free-floating fleet state with rebalancing tasks generated from live demand patterns.

Operational measure	Indicative value
Vehicles available	512 of 740
Rides today	2,190
Rebalance jobs	9
Battery below 20%	48

Register: **Stations**

Station	Zone	Capacity	Available	Battery avg	Status
STN-101	Jinnah Town	24	18	82%	Balanced

Station	Zone	Capacity	Available	Battery avg	Status
STN-102	Cantt area	20	3	64%	Near empty
STN-103	Airport Road	30	0	-	Empty
STN-104	Sariab Road	24	24	91%	Full
STN-105	Zarghoon Road	18	11	74%	Balanced
STN-106	Samungli Road	20	14	88%	Balanced

Roles: Administrator (full access); Manager (no configuration); Field operative (read-only)
Configurable rules:

- Demand-led rebalancing — Generate van tasks from predicted demand
- Low battery lockout — Stop hiring below 15% charge
- Geo-fenced parking — Only end a ride inside an approved zone

Reporting: 740 fleet size; 184,000 rides; 3.2 rides/day utilisation.

47. CyberEdge SkyDrop

Drone Delivery Operations — Corridors, geo-fences and battery margin.

Corridor planning, geo-fence enforcement and battery-aware return-to-home under continuous ground supervision.

Operational measure	Indicative value
Airborne now	3
Flights today	48
Min battery	41%
Geo-fence breaches	0

Register: **Flights**

Flight	Aircraft	Corridor	Payload	Battery	Status
FLT-1180	UAV-01	Corridor A	2.4 kg	68%	In flight
FLT-1181	UAV-02	Corridor B	1.8 kg	41%	Returning
FLT-1182	UAV-03	Corridor A	3.1 kg	82%	In flight
FLT-1183	UAV-04	Corridor C	0.9 kg	12%	Emergency landing
FLT-1184	UAV-05	Corridor B	2.2 kg	100%	Pre-flight
FLT-1185	UAV-01	Corridor C	1.4 kg	95%	Completed

Roles: Administrator (full access); Manager (no configuration); Ground supervisor (read-only)
Configurable rules:

- Geo-fence enforcement — Refuse to enter restricted airspace
- Battery return margin — Return home at 25% remaining charge
- Weather hold — Ground the fleet above 30 km/h wind

Reporting: 8,420 flights flown; 12,400 kg payload delivered; 112 aborts; 96.2% availability.

48. CyberEdge Toll

Electronic Toll Collection — Read the tag, debit the balance, open the lane.

RFID and ANPR lane transactions with instant balance debit, violation capture and operator reconciliation.

Operational measure	Indicative value
Vehicles/hr	3,840
Tag read rate	99.2%

Operational measure	Indicative value
Violations today	26

Register: **Lane transactions**

Reference	Lane	Vehicle	Toll (PKR)	Method	Status
TL-771200	Lane 2 North	QTA-4471	120	RFID tag	Debited
TL-771201	Lane 4 North	LES-9902	480	RFID tag	Debited
TL-771202	Lane 1 South	KHI-1180	120	RFID tag	Low balance
TL-771203	Lane 3 South	ISB-7734	300	RFID tag	Debited
TL-771204	Lane 2 North	Unread	120	ANPR	Violation
TL-771205	Lane 5 North	PES-5510	120	Cash	Manual

Roles: Administrator (full access); Manager (no configuration); Plaza operator (read-only)
Configurable rules:

- ANPR fallback — Bill from the plate when the tag fails
- Violation capture — Photograph and record every non-payment

Reporting: 1.2M transactions; 99.2% tag read rate; 8,420 violations.

49. CyberEdge Traffic

Traffic Signal Control — Phase timing that answers to the queue, not the clock.

Adaptive phase timing driven by loop and camera counts, with corridor green-wave coordination.

Operational measure	Indicative value
Junctions online	40
Avg delay	-18%
Adaptive mode	34 of 40
Faults open	2

Register: **Junctions**

Junction	Corridor	Mode	Cycle time	Queue	Status
JCT-101	Zarghoon Road	Adaptive	92 s	12 veh	Normal
JCT-102	Jinnah Road	Adaptive	104 s	31 veh	Congested
JCT-103	Sariab Road	Fixed time	120 s	48 veh	Oversaturated
JCT-104	Airport Road	Adaptive	88 s	8 veh	Normal
JCT-105	Samungli Road	Flashing	-	-	Maintenance
JCT-106	Hanna Urak link	Adaptive	96 s	18 veh	Normal

Roles: Administrator (full access); Manager (no configuration); Control room operator (read-only)
Configurable rules:

- Adaptive phasing — Set green time from live queue length
- Green wave — Coordinate progression along the corridor
- Emergency preemption — Give ambulances a green on approach

Reporting: 40 junctions; 4.2M vehicles counted; 18% delay reduction; 184,000 L fuel saved.

50. CyberEdge Transit

Public Transit Tracking — Arrival times people can actually rely on.

Vehicle positions matched to route and schedule, giving true arrival predictions rather than timetable fiction.

Operational measure	Indicative value
Fleet live	64
On time	87%
Avg headway	8 min
Breakdowns today	1

Register: **Vehicles**

Vehicle	Route	Driver	Next stop	Delay	Status
BUS-12	Route 1 Sariab	M. Nawaz	Jinnah Town	+2 min	On time
BUS-27	Route 3 Airport	A. Jan	Airport gate	+11 min	Delayed
BUS-33	Route 2 Samungli	S. Ahmed	Cantt board	0 min	On time
BUS-41	Route 1 Sariab	R. Baloch	Depot	-	At depot
BUS-52	Route 4 Hanna	K. Marri	Urak valley	+24 min	Breakdown
BUS-58	Route 3 Airport	F. Achakzai	Zarghoon Rd	+4 min	On time

Roles: Administrator (full access); Manager (no configuration); Controller (read-only)
Configurable rules:

- Live arrival prediction — Predict from position, not the timetable
- Headway management — Hold a bus that is bunching
- Passenger app feed — Publish positions to the public app

Reporting: 64 vehicles tracked; 18,400 trips completed; 87% on-time performance; 1.2M passengers.

Communication & Collaboration

51. CyberEdge CoEdit

Collaborative Document Editing — Several people, one document, nothing lost.

Operational transform and CRDT merging so several people edit the same document without locking or losing work.

Operational measure	Indicative value
Documents	12,400
Editing now	84
Merge conflicts	0
Sync latency	48 ms

Register: **Documents**

Document	Title	Owner	Collaborators	Modified	Status
DOC-4471	Forensic lab scope of work	A. Rahman	4	2 min ago	Being edited
DOC-4472	Tender response CTD	S. Baloch	3	18 min ago	Published
DOC-4473	ISO 27001 statement	H. Khan	2	1 hr ago	In review
DOC-4474	Solar plant handover	F. Achakzai	5	3 hrs ago	Published
DOC-4475	Fuel system user manual	R. Baloch	1	Yesterday	Draft
DOC-4476	Annual compliance report	M. Nawaz	6	2 days ago	In review

Roles: Administrator (full access); Manager (no configuration); Contributor (read-only)
Configurable rules:

- Conflict-free merge — Merge concurrent edits without locking
- Version history — Keep every revision with author attribution
- Comment resolution — Require comments closed before publishing

Reporting: 12,400 documents; 18.4M edits merged; 0 conflicts lost; 3.2 avg collaborators.

52. CyberEdge Comments

Comment & Reaction System — Threads and counters that stay consistent.

Threaded comments with optimistic UI, moderation queues and reaction counters that stay consistent under load.

Operational measure	Indicative value
Comments today	18,420
Reactions per sec	240
In moderation	36
Removal rate	0.8%

Register: **Comments**

Comment	Author	Thread	Reactions	Reports	Status
CMT-77120	A. Rahman	Product launch	142	0	Published
CMT-77121	S. Baloch	Traffic advisory	88	0	Published
CMT-77122	anon_4471	Rate commentary	12	18	Removed

Comment	Author	Thread	Reactions	Reports	Status
CMT-77123	H. Khan	Admissions open	204	1	Published
CMT-77124	anon_8830	Product launch	6	4	In moderation
CMT-77125	F. Achakzai	Rain warning	312	0	Published

Roles: Administrator (full access); Manager (no configuration); Community moderator (read-only)
Configurable rules:

- Optimistic posting — Show the comment before the server confirms
- Automatic moderation — Hold flagged comments pending review
- Thread locking — Allow authors to close a thread

Reporting: 4.2M comments posted; 18.4M reactions; 84,000 moderated; 0.8% removal rate.

53. CyberEdge Feed

Social Feed Platform — Timelines that hold up under viral load.

Fan-out-on-write timelines with ranking, rate limits and abuse controls that survive a viral post.

Operational measure	Indicative value
Posts per sec	620
Fan-out per sec	1.4M
Blocked posts	88
Feed latency	94 ms

Register: **Posts**

Post	Account	Topic	Reach	Reports	Status
PST-88120	@quetta_updates	Traffic advisory	12,400	0	Published
PST-88121	@ce_techs	Product launch	3,120	0	Published
PST-88122	@spam_bot_991	Repeated link	84	42	Removed
PST-88123	@balochistan_wx	Rain warning	22,800	1	Published
PST-88124	@campus_news	Admissions open	5,600	0	Published
PST-88125	@market_watch	Rate commentary	8,900	6	Under review

Roles: Administrator (full access); Manager (no configuration); Moderator (read-only)
Configurable rules:

- Fan-out on write — Pre-compute timelines at publish time
- Rate limiting — Cap posts per account per hour
- Abuse classification — Score every post for policy violations

Reporting: 18.4M posts published; 4.2B timeline writes; 184,000 abuse blocked; 99.97% availability.

54. CyberEdge Notify

Push Notification Service — Segmented, throttled and receipted.

Segmented campaigns and transactional pushes across APNs, FCM and web, with delivery receipts and throttling.

Operational measure	Indicative value
Sent per minute	84,000
Delivery rate	97.8%
Open rate	12.4%
Failed tokens	1,840

Register: **Campaigns**

Campaign	Message	Channel	Audience	Delivered	Status
CMP-4471	Order shipped	FCM Android	18,420	97.9%	Completed
CMP-4472	Flash sale 40% off	APNs iOS	62,100	98.4%	Completed
CMP-4473	New message waiting	Web push	4,180	84.2%	Partial
CMP-4474	OTP transactional	FCM Android	1,240	99.6%	Completed
CMP-4475	Payment failed	APNs iOS	840	62.1%	Throttled
CMP-4476	Weekly digest	All channels	142,000	0%	Scheduled

Roles: Administrator (full access); Manager (no configuration); Campaign operator (read-only)
Configurable rules:

- Delivery receipts — Record acknowledgement from the device
- Rate throttling — Cap send rate to protect downstream systems
- Quiet hours — Hold non-urgent pushes between 22:00 and 07:00

Reporting: 184M messages sent; 97.8% delivered; 12.4% opened; 4,180 campaigns run.

55. CyberEdge Poll

Live Polling & Q&A — Voting and questions that hold up on stage.

Audience voting and upvoted questions rendered live on stage, resilient to sudden participation spikes.

Operational measure	Indicative value
Participants	611
Votes cast	1,842
Questions	48
Response rate	82%

Register: **Polls**

Poll	Question	Session	Votes	Opened	Status
PLL-1180	Is the current SLA adequate?	WBR-1181	611	11:04	Open
PLL-1181	Preferred deployment model?	WBR-1181	584	11:18	Closed
PLL-1182	Biggest security concern?	WBR-1182	0	-	Scheduled
PLL-1183	Training format preference?	WBR-1180	412	10:22	Closed
PLL-1184	Budget cycle timing?	WBR-1184	298	09:40	Closed
PLL-1185	Rate this session	WBR-1181	142	11:52	Closing soon

Roles: Administrator (full access); Manager (no configuration); Moderator (read-only)
Configurable rules:

- One vote per device — Prevent repeat voting from the same client
- Question moderation — Hold questions for approval before display
- Live result reveal — Show the tally as votes arrive

Reporting: 1,240 polls run; 412,000 votes cast; 18,400 questions asked; 82% response rate.

56. CyberEdge Presence

Presence & Status Service — Accurate presence without melting the socket budget.

Heartbeat and subscription fan-out that keeps presence accurate without exhausting the connection budget.

Operational measure	Indicative value
Connections	18,400
Fan-out per sec	1,240
Heartbeat interval	15 s
Stale sessions	12

Register: **Sessions**

Session	User	Device	Node	Last beat	Status
SES-88120	A. Rahman	Desktop web	node-01	3 s ago	Online
SES-88121	S. Baloch	Android app	node-02	8 s ago	Online
SES-88122	H. Khan	iOS app	node-01	4 min ago	Away
SES-88123	F. Achakzai	Desktop web	node-03	1 s ago	Busy
SES-88124	R. Baloch	Android app	node-02	38 min ago	Offline
SES-88125	M. Nawaz	Desktop web	node-03	92 s ago	Stale

Roles: Administrator (full access); Manager (no configuration); Platform operator (read-only)
Configurable rules:

- Heartbeat expiry — Mark a session offline after two missed beats
- Subscription fan-out — Only push to clients that subscribed
- Last seen — Publish a coarse last-seen time when offline

Reporting: 62,000 peak connections; 184M presence updates; 1,240 fan-out per sec; 99.99% availability.

57. CyberEdge Stream

Live Streaming Platform — Ingest, transcode and deliver at the edge.

Ingest, a transcode ladder and edge delivery with adaptive bitrate and chat at broadcast scale.

Operational measure	Indicative value
Concurrent viewers	24,800
Egress	18.4 Gbps
Glass-to-glass	3.1 s
Rebuffer ratio	0.4%

Register: **Streams**

Stream	Channel	Region	Viewers	Bitrate	Status
STRM-01	Main channel	Pakistan	18,420	6.0 Mbps	Healthy
STRM-02	Sports feed	Pakistan	24,800	8.0 Mbps	Healthy
STRM-03	News channel	Gulf	4,120	4.0 Mbps	Rebuffering
STRM-04	Event stage A	Pakistan	1,840	6.0 Mbps	Healthy
STRM-05	Backup feed	Pakistan	0	-	Standby
STRM-06	Regional relay	Europe	612	2.5 Mbps	Ingest lost

Roles: Administrator (full access); Manager (no configuration); Broadcast operator (read-only)
Configurable rules:

- Adaptive bitrate — Serve the ladder rung the viewer can sustain

- Low-latency mode — Trade buffer for glass-to-glass latency
- Automatic failover — Switch to the backup ingest on loss

Reporting: 18,400 streams delivered; 4.2M watch hours; 62,000 peak concurrency; 99.96% availability.

58. CyberEdge Translate

Real-Time Translation — Streaming translation that keeps your terminology.

Streaming speech and text translation with domain glossaries, so terminology stays correct across languages.

Operational measure	Indicative value
Sessions today	184
Words translated	412,000
Glossary hits	96%
Latency	480 ms

Register: **Translation jobs**

Job	Source	Pair	Words	Confidence	Status
TRN-4471	Board meeting audio	EN to UR	8,420	94%	Published
TRN-4472	Tender document	UR to EN	12,100	88%	In review
TRN-4473	Training session	EN to UR	6,180	96%	Published
TRN-4474	Field interview	Balochi to EN	2,400	71%	Low confidence
TRN-4475	Policy circular	EN to UR	4,900	92%	Published
TRN-4476	Live briefing	EN to UR	1,840	89%	In progress

Roles: Administrator (full access); Manager (no configuration); Reviewer (read-only)
Configurable rules:

- Domain glossaries — Force approved terminology in the output
- Human review queue — Route low-confidence segments for review
- Speaker diarisation — Label who said what in the transcript

Reporting: 8,420 sessions; 42M words translated; 96% glossary accuracy; 12 language pairs.

59. CyberEdge Voice

VoIP Telephony Platform — SIP trunks, call quality and every CDR.

SIP trunking, media quality scoring and call-detail records for contact centres and internal telephony.

Operational measure	Indicative value
Concurrent calls	148
MOS score	4.2
Packet loss	0.3%
Abandoned calls	18

Register: **Calls**

Call	Extension	Trunk	Duration	MOS	Status
CAL-771200	Ext 2041	Trunk A	4m 12s	4.4	Completed
CAL-771201	Ext 2088	Trunk A	1m 38s	3.2	Poor quality
CAL-771202	Ext 2103	Trunk B	12m 04s	4.5	Completed
CAL-771203	Ext 2041	Trunk B	0m 08s	-	Dropped

Call	Extension	Trunk	Duration	MOS	Status
CAL-771204	Ext 2210	Trunk A	6m 44s	4.1	Completed
CAL-771205	Ext 2088	Trunk C	2m 19s	4.3	In progress

Roles: Administrator (full access); Manager (no configuration); Agent (read-only)
Configurable rules:

- Quality scoring — Compute a MOS score for every call leg
- Call recording — Record and retain calls per the policy
- Automatic failover — Reroute to the backup trunk on failure

Reporting: 184,000 calls handled; 412,000 talk minutes; 4.2 avg mos; 3.1% abandonment.

60. CyberEdge Webinar

Webinar Platform — Registration, stage control and real engagement data.

Registration, entitlement, stage control and engagement analytics for sessions of any size.

Operational measure	Indicative value
Registered	1,842
Live now	640
Show rate	38%
Avg watch time	41 min

Register: **Sessions**

Session	Title	Presenter	Registered	Scheduled	Status
WBR-1180	ISO 27001 in practice	S. Baloch	412	18 Jun 2026	Completed
WBR-1181	Digital forensics primer	A. Rahman	618	22 Jun 2026	Live now
WBR-1182	Cloud migration clinic	H. Khan	284	25 Jun 2026	Scheduled
WBR-1183	Fuel monitoring demo	F. Achakzai	142	28 Jun 2026	Scheduled
WBR-1184	Tender writing workshop	R. Baloch	386	12 Jun 2026	Completed
WBR-1185	Solar O&M briefing	M. Nawaz	94	30 Jun 2026	Cancelled

Roles: Administrator (full access); Manager (no configuration); Session host (read-only)
Configurable rules:

- Entitlement checking — Only admit registered attendees
- Automatic recording — Record every session to the library
- Engagement scoring — Score attendees on polls, chat and dwell

Reporting: 612 sessions hosted; 84,200 registrations; 38% show rate; 41 min avg watch.

Emergency & Public Safety

61. CyberEdge CrowdSafe

Crowd Density Monitoring — Warning before the crush, not after.

Camera-based density estimation per sector with flow direction, giving stewards warning before a crush forms.

Operational measure	Indicative value
Estimated crowd	18,400
Peak density	4.1 p/m2
Sectors alerting	2
Stewards deployed	84

Register: **Sectors**

Sector	Area	Capacity	Occupancy	Density	Status
SEC-A1	North stand	4,000	3,180	2.4 p/m2	Comfortable
SEC-A2	North concourse	1,200	1,140	4.1 p/m2	Dense
SEC-B1	East stand	5,000	3,900	2.8 p/m2	Comfortable
SEC-B2	East entrance	800	742	3.6 p/m2	Busy
SEC-C1	South stand	4,500	2,100	1.6 p/m2	Comfortable
SEC-C2	Main gate	600	580	4.4 p/m2	Dense

Roles: Administrator (full access); Manager (no configuration); Steward (read-only)
Configurable rules:

- Density thresholds — Alert above 4 persons per square metre
- Flow direction — Detect counter-flow and pinch points
- Gate throttling — Advise holding entry when a sector saturates

Reporting: 184 events monitored; 62,000 peak attendance; 412 alerts raised; 0 incidents.

62. CyberEdge FireWatch

Fire Alarm & Detection — Addressable loops, supervised end to end.

Addressable loop monitoring with zone escalation, sounder control and a supervised path to the fire service.

Operational measure	Indicative value
Detectors online	412
Zones in alarm	0
Faults open	3
Days since test	6

Register: **Zones & devices**

Device	Zone	Type	Building	Last test	Status
DET-4471	Zone 1 Lobby	Optical smoke	Block A	12 Jun 2026	Normal
DET-4472	Zone 2 Server room	Aspirating	Block A	12 Jun 2026	Normal
DET-4473	Zone 3 Store	Heat	Block B	05 Jun 2026	Fault
DET-4474	Zone 4 Kitchen	Optical smoke	Block B	12 Jun 2026	In alarm
DET-4475	Zone 5 Roof plant	Heat	Block C	28 May 2026	Test overdue
DET-4476	Zone 1 Lobby	Call point	Block A	12 Jun 2026	Normal

Roles: Administrator (full access); Manager (no configuration); Security officer (read-only)
Configurable rules:

- Two-stage alarm — Investigate before full evacuation sounds
- Fire service link — Signal the brigade automatically on confirmation
- Weekly test reminder — Prompt the duty officer for the call-point test

Reporting: 412 detectors; 184 alarms handled; 12 false alarms; 100% test compliance.

63. CyberEdge FloodWatch

Flood & Water-Level Monitoring — Staged warnings, issued before the water arrives.

River and nullah gauges with rainfall correlation, driving staged warnings to the district administration.

Operational measure	Indicative value
Gauges online	34
Rainfall 24h	62 mm
Districts warned	1
Gauges above alert	3

Register: **Gauge stations**

Station	Watercourse	District	Level (m)	Alert level	Status
GAU-101	Hanna Urak nullah	Quetta	2.4	3.5	Normal
GAU-102	Bolan river	Kachhi	4.1	3.8	Above alert
GAU-103	Pishin lora	Pishin	1.8	3.2	Normal
GAU-104	Nari river	Sibi	3.6	3.5	Approaching
GAU-105	Mula river	Khuzdar	2.9	4.0	Normal
GAU-106	Zhob river	Zhob	0.0	3.0	Sensor offline

Roles: Administrator (full access); Manager (no configuration); Duty officer (read-only)
Configurable rules:

- Staged warnings — Issue advisory, alert and evacuation levels
- Rainfall correlation — Combine gauge level with upstream rainfall
- Mass SMS — Broadcast to registered numbers in the district

Reporting: 34 gauges deployed; 184 warnings issued; 4.2 hrs lead time; 7 districts covered.

64. CyberEdge Frontier

Border Surveillance — Thermal, radar and ground sensors, fused.

Thermal, radar and unattended ground sensor fusion along a linear frontier, with tracks handed to the response post.

Operational measure	Indicative value
Sensor posts	42
Active tracks	3
Frontage covered	68 km
Detections 24h	18

Register: **Tracks**

Track	Sector	Sensor	Classification	Detected	Status
TRK-1180	Sector 4	Thermal post 12	Group, 3 persons	02:14	Under intercept
TRK-1181	Sector 2	Radar post 05	Vehicle	03:40	Tracking
TRK-1182	Sector 7	Ground sensor 22	Animal	04:12	Dismissed

Track	Sector	Sensor	Classification	Detected	Status
TRK-1183	Sector 1	Thermal post 03	Single person	05:02	Tracking
TRK-1184	Sector 5	Radar post 11	Vehicle	05:48	Cleared
TRK-1185	Sector 4	Thermal post 12	Group, 5 persons	06:20	Assessing

Roles: Administrator (full access); Manager (no configuration); Sector operator (read-only)
Configurable rules:

- Sensor fusion — Correlate thermal, radar and ground sensor hits
- Automatic classification — Separate person, vehicle and animal tracks
- Track handover — Pass the track to the nearest response post

Reporting: 42 sensor posts; 68 km frontage; 4,180 detections; 312 interceptions.

65. CyberEdge Maritime

Maritime Domain Awareness — AIS and radar, correlated to find the dark ones.

AIS and radar correlation to spot dark vessels, zone violations and distress within the maritime zone.

Operational measure	Indicative value
Vessels tracked	184
Dark contacts	2
Zone violations	4
Distress calls	1

Register: **Vessels**

Vessel	Type	Flag	Speed (kn)	Zone	Status
MV Gwadar Pearl	Cargo	Pakistan	12.4	Transit lane	Compliant
FV Sindh Star	Fishing	Pakistan	4.1	Restricted	Zone violation
Unknown contact	Radar only	Unknown	18.7	EEZ	No AIS
MT Indus	Tanker	Panama	9.8	Transit lane	Compliant
FV Makran	Fishing	Pakistan	0.4	EEZ	Distress
MV Bolan Trader	Cargo	Pakistan	11.2	Approach	Inbound

Roles: Administrator (full access); Manager (no configuration); Watchkeeper (read-only)
Configurable rules:

- Dark vessel detection — Flag radar contacts with no AIS transmission
- Zone enforcement — Alert on entry to restricted or fishing zones
- Distress correlation — Link EPIRB signals to tracked vessels

Reporting: 18,400 vessels tracked; 1,240 violations logged; 312 dark contacts; 84 rescues.

66. CyberEdge SAR

Search & Rescue Coordination — No sector searched twice, none missed.

Sector tasking, asset assignment and cleared-area tracking so no ground is searched twice or missed.

Operational measure	Indicative value
Assets deployed	14
Sectors cleared	22 of 31
Elapsed	9h 40m
Persons located	2

Register: **Search sectors**

Sector	Terrain	Asset	Coverage	Tasked	Status
SAR-1180	Ridge north	Team Alpha	100%	06:00	Cleared
SAR-1181	Valley floor	Helicopter 2	100%	06:30	Cleared
SAR-1182	Scree slope	Team Bravo	62%	07:15	Searching
SAR-1183	River bank	K9 unit	88%	07:40	Searching
SAR-1184	Forest block	Drone 1	0%	-	Not tasked
SAR-1185	Summit approach	Team Charlie	100%	05:20	Person located

Roles: Administrator (full access); Manager (no configuration); Team leader (read-only)
Configurable rules:

- Cleared-area tracking — Lock a sector once it has been searched
- Asset capability matching — Task assets by terrain and capability
- Probability mapping — Prioritise sectors by likelihood of presence

Reporting: 184 operations run; 4,180 sectors searched; 312 persons located; 11 hrs avg duration.

67. CyberEdge SOS

Panic Button & SOS — One press, live location, nearest unit.

One-press distress with live location, audio capture and escalation to the nearest responding unit.

Operational measure	Indicative value
Active alerts	3
Avg response	6m 20s
Units available	18
Alerts today	24

Register: **SOS alerts**

Alert	User	Location	Unit	Elapsed	Status
SOS-4471	USR-4471	Jinnah Road	Unit 12	2m 14s	Active
SOS-4472	USR-8830	Sariab Road	Unit 04	5m 40s	Unit en route
SOS-4473	USR-1192	Airport Road	Unit 09	8m 02s	On scene
SOS-4474	USR-7701	Zarghoon Road	-	1m 08s	Unassigned
SOS-4475	USR-5563	Samungli Road	Unit 07	22m 30s	Resolved
SOS-4476	USR-3092	Cantt area	Unit 12	31m 12s	Resolved

Roles: Administrator (full access); Manager (no configuration); Control room operator (read-only)
Configurable rules:

- Live location streaming — Track the caller until the unit arrives
- Audio capture — Record ambient audio for the responder
- Silent mode — Raise the alert without any device sound

Reporting: 8,420 alerts raised; 8,380 responded; 6m 20s avg response; 42,000 registered users.

68. CyberEdge SeismicAlert

Earthquake Early Warning — Seconds of warning, bought at the sensor edge.

P-wave detection at the sensor edge, broadcasting seconds of warning before the damaging S-wave arrives.

Operational measure	Indicative value
Stations online	28

Operational measure	Indicative value
Detection time	1.8 s
Events 30 days	12
Warning lead	8.4 s

Register: **Seismic events**

Event	Epicentre	District	Magnitude	Depth (km)	Status
EQ-4471	24 km NW Quetta	Quetta	4.2	18	Logged
EQ-4472	62 km S Mastung	Mastung	5.1	12	Warning issued
EQ-4473	18 km E Ziarat	Ziarat	3.4	24	Logged
EQ-4474	88 km W Kalat	Kalat	4.8	9	Under review
EQ-4475	12 km N Pishin	Pishin	2.9	31	Logged
EQ-4476	44 km SW Chaman	Chaman	3.8	16	Confirming

Roles: Administrator (full access); Manager (no configuration); Duty seismologist (read-only)
Configurable rules:

- P-wave detection — Trigger on the primary wave at the edge
- Multi-station confirmation — Require three stations before broadcasting
- Mass alerting — Push to cell broadcast and sirens

Reporting: 28 stations; 184 events detected; 22 warnings broadcast; 3 false positives.

69. CyberEdge ShotSpot

Gunshot Detection — Location and time, straight to dispatch.

Acoustic sensor arrays triangulating discharge location and pushing it straight into the dispatch console.

Operational measure	Indicative value
Sensors online	94 of 96
Detections 24h	3
Localisation	18 m
Alert to dispatch	4 s

Register: **Detections**

Detection	Location	Sector	Rounds	Confidence	Status
GSD-1180	Jinnah Road junction	Sector 2	3	94%	Confirmed
GSD-1181	Sariab Road market	Sector 4	1	62%	Under review
GSD-1182	Airport Road bypass	Sector 1	5	97%	Confirmed
GSD-1183	Zarghoon Road	Sector 3	2	41%	Dismissed
GSD-1184	Samungli Road	Sector 5	1	88%	Unit en route
GSD-1185	Cantt boundary	Sector 2	4	91%	Resolved

Roles: Administrator (full access); Manager (no configuration); Dispatch operator (read-only)
Configurable rules:

- Automatic dispatch — Push confirmed detections to the nearest unit
- Acoustic classification — Separate gunshots from fireworks and backfire
- Audio retention — Retain the clip for evidential review

Reporting: 96 sensors; 412 detections; 184 confirmed incidents; 18 m avg localisation.

70. CyberEdge Trace

Contact Tracing — Exposure notification without exposing identity.

An exposure graph built from proximity and venue check-ins, with notification that preserves identity privacy.

Operational measure	Indicative value
Index cases	3
Contacts traced	214
Notified	198
Trace completion	92%

Register: **Contacts**

Reference	Index case	Exposure type	Risk	Notified	Status
CT-4471	IDX-01	Household	High	Yes	Isolating
CT-4472	IDX-01	Workplace	Medium	Yes	Monitoring
CT-4473	IDX-02	Venue check-in	Low	Yes	Cleared
CT-4474	IDX-02	Transport	Medium	No	Unreachable
CT-4475	IDX-03	Household	High	Yes	Isolating
CT-4476	IDX-03	Workplace	Low	Yes	Cleared

Roles: Administrator (full access); Manager (no configuration); Contact tracer (read-only)
Configurable rules:

- Privacy-preserving IDs — Use rotating anonymous identifiers only
- Venue check-in — Include venue-based exposure windows
- Automatic notification — Notify contacts without a manual call

Reporting: 412 index cases; 18,400 contacts traced; 17,200 notified; 92% completion.

Industrial & IoT

71. CyberEdge AirSense

Air Quality Monitoring — Calibrated readings, published honestly.

PM, gas and meteorological sensing with calibration drift correction and public-facing index publication.

Operational measure	Indicative value
Stations online	18
City AQI	158
PM2.5 average	68 ug/m3
Calibration due	3

Register: **Monitoring stations**

Station	Location	Zone	PM2.5	AQI	Status
AQ-101	Jinnah Road	Central	68 ug/m3	158	Unhealthy
AQ-102	Sariab Road	South	42 ug/m3	118	Moderate
AQ-103	Airport Road	East	31 ug/m3	92	Moderate
AQ-104	Hanna Urak	Outskirts	18 ug/m3	64	Good
AQ-105	Industrial estate	West	94 ug/m3	184	Unhealthy
AQ-106	Cantt area	Central	0 ug/m3	-	Calibration due

Roles: Administrator (full access); Manager (no configuration); Environment officer (read-only)
Configurable rules:

- Drift correction — Apply the calibration curve to every reading
- Public index publication — Publish AQI to the citizen portal
- Exceedance alerts — Notify when a station exceeds the standard

Reporting: 18 stations; 4.2M readings; 84 exceedance days; 412,000 public reach.

72. CyberEdge AquaControl

Water Treatment & Distribution — Treated to the standard, not to a guess.

Process stage control with residual chlorine, turbidity and pressure managed to the standard on every batch.

Operational measure	Indicative value
Throughput	42 MLD
Turbidity	0.6 NTU
Chlorine residual	0.8 mg/L
Compliance	99.8%

Register: **Treatment batches**

Batch	Stage	Zone	Turbidity	Chlorine	Status
BT-1180	Distribution	Zone A	0.4 NTU	0.9 mg/L	Released
BT-1181	Disinfection	Zone B	0.6 NTU	0.8 mg/L	In process
BT-1182	Filtration	Zone A	1.8 NTU	0.2 mg/L	Above target
BT-1183	Coagulation	Zone C	4.2 NTU	0.0 mg/L	In process
BT-1184	Distribution	Zone B	0.3 NTU	1.0 mg/L	Released
BT-1185	Disinfection	Zone C	2.4 NTU	0.4 mg/L	Held

Roles: Administrator (full access); Manager (no configuration); Plant operator (read-only)

Configurable rules:

- Automatic dosing — Adjust coagulant from raw water turbidity
- Compliance blocking — Hold water that fails the standard
- Pressure zone control — Balance pressure across distribution zones

Reporting: 15,400 ML water treated; 4,180 batches; 99.8% compliance; 12 zones supplied.

73. CyberEdge CellControl

Robotic Cell Control — Cycle time, interlocks and tool changes.

Cell-level cycle orchestration with interlocks, tool changes and cycle-time telemetry per station.

Operational measure	Indicative value
Cycle time	14.2 s
Units per hour	253
Station OEE	87.4%
Interlock trips	2

Register: **Stations**

Station	Cell	Operation	Cycle time	Units/hr	Status
STN-01	Cell A	Pick and place	12.4 s	290	Running
STN-02	Cell A	Welding	18.2 s	198	Running
STN-03	Cell B	Inspection	9.8 s	367	Running
STN-04	Cell B	Assembly	22.1 s	163	Above target
STN-05	Cell C	Packing	14.0 s	257	Interlock trip
STN-06	Cell C	Palletising	16.4 s	219	Tool change

Roles: Administrator (full access); Manager (no configuration); Line operator (read-only)
Configurable rules:

- Safety interlocks — Halt the cell when a guard opens
- Automatic tool change — Swap the end effector on program demand
- Cycle-time alerting — Flag stations drifting above target

Reporting: 412,000 units produced; 87.4% oee; 184 interlock trips; 1,240 tool changes.

74. CyberEdge FleetAMR

Warehouse Robotics Coordination — Traffic management for the robot fleet.

Traffic management and task allocation across an AMR fleet, with deadlock avoidance on shared aisles.

Operational measure	Indicative value
Fleet active	21 of 24
Tasks per hour	640
Charging	3
Deadlocks	0

Register: **Robots**

Robot	Zone	Task	Battery	Distance today	Status
AMR-01	Aisle 4	Pick to station 2	82%	18.4 km	Working
AMR-02	Aisle 7	Replenish bay 12	64%	22.1 km	Working
AMR-03	Charge dock	-	31%	26.8 km	Charging

Robot	Zone	Task	Battery	Distance today	Status
AMR-04	Aisle 2	Pick to station 1	91%	12.2 km	Working
AMR-05	Aisle 9	Blocked by pallet	78%	16.0 km	Blocked
AMR-06	Maintenance bay	-	0%	0.0 km	Out of service

Roles: Administrator (full access); Manager (no configuration); Warehouse supervisor (read-only)
Configurable rules:

- Deadlock avoidance — Reserve aisle segments before entering
- Opportunity charging — Top up during idle gaps rather than deep cycles
- Dynamic task allocation — Assign to the nearest capable robot

Reporting: 24 fleet size; 412,000 tasks completed; 62,000 km distance; 96.8% availability.

75. CyberEdge Grid

Smart Grid Load Balancing — Demand, generation and reserve on one screen.

Feeder-level demand against generation and reserve, with automatic shedding priorities set by policy.

Operational measure	Indicative value
System demand	1,840 MW
Reserve margin	8.4%
Frequency	49.98 Hz
Feeders shed	0

Register: **Feeders**

Feeder	Grid station	Region	Load (MW)	Capacity	Status
FDR-101	Quetta North	Quetta	42.4	60	Normal
FDR-102	Quetta South	Quetta	58.1	60	Near capacity
FDR-103	Sariab	Quetta	31.2	45	Normal
FDR-104	Pishin	Pishin	62.8	60	Overloaded
FDR-105	Mastung	Mastung	18.4	40	Normal
FDR-106	Ziarat	Ziarat	0.0	25	Shed

Roles: Administrator (full access); Manager (no configuration); Dispatcher (read-only)
Configurable rules:

- Automatic load shedding — Shed by policy priority when reserve falls
- Frequency response — Trigger fast reserve below 49.8 Hz
- Feeder-level telemetry — Poll every feeder at 4-second intervals

Reporting: 212 feeders; 2,140 MW peak demand; 18 shedding events; 4.2 TWh energy served.

76. CyberEdge Pipeline

Pipeline Monitoring — Flow balance that finds the leak.

Segment pressure and flow balance for leak detection, with SCADA integration and valve isolation control.

Operational measure	Indicative value
Length monitored	180 km
Flow balance	-0.4%
Leak alarms	1
Valves remote	38 of 42

Register: **Segments**

Segment	Section	Length	Pressure (bar)	Flow balance	Status
SEG-01	Terminal to KP1	32 km	62	-0.1%	Normal
SEG-02	KP1 to KP2	28 km	58	-0.2%	Normal
SEG-03	KP2 to KP3	34 km	34	-2.8%	Leak suspected
SEG-04	KP3 to KP4	30 km	55	-0.3%	Normal
SEG-05	KP4 to KP5	26 km	60	-0.1%	Normal
SEG-06	KP5 to depot	30 km	57	-0.6%	Watch

Roles: Administrator (full access); Manager (no configuration); Control room operator (read-only)
Configurable rules:

- Flow balance leak detection — Compare inlet and outlet mass flow
- Remote valve isolation — Allow the control room to close a section
- Pigging schedule — Track inspection pig runs per segment

Reporting: 180 km pipeline length; 6 segments; 24 leak alarms; 1,840 m3 product saved.

77. CyberEdge Predict

Predictive Maintenance — Call the failure before it stops the line.

Vibration, thermal and current signatures modelled per asset, so failures are called before they stop the line.

Operational measure	Indicative value
Assets monitored	284
Health below 60%	12
Work orders open	24
Unplanned downtime	1.2%

Register: **Monitored assets**

Asset	Equipment	Line	Health	Remaining life	Status
AST-4471	Motor M4 drive	Line 1	68%	42 days	Degrading
AST-4472	Pump P2	Line 1	92%	180 days	Healthy
AST-4473	Gearbox G7	Line 2	34%	9 days	Critical
AST-4474	Compressor C1	Utilities	81%	120 days	Healthy
AST-4475	Conveyor CV3	Line 2	57%	28 days	Degrading
AST-4476	Fan F5	Utilities	96%	240 days	Healthy

Roles: Administrator (full access); Manager (no configuration); Maintenance technician (read-only)
Configurable rules:

- Remaining life estimation — Predict days to failure per asset
- Automatic work orders — Raise a job when health crosses the threshold
- Vibration analysis — Run FFT on the raw accelerometer stream

Reporting: 284 assets monitored; 412 failures predicted; 1,840 hrs downtime avoided.

78. CyberEdge Renew

Wind & Solar Farm Monitoring — Underperformance shows up the day it starts.

String and turbine level yield against expected output, so underperformance is visible the day it begins.

Operational measure	Indicative value
Output now	8.9 MW

Operational measure	Indicative value
Performance ratio	0.82
Strings faulted	4
Yield today	62 MWh

Register: **Inverters & strings**

Inverter	Block	Capacity	Output	Performance	Status
INV-01	Block A	500 kW	412 kW	0.86	Nominal
INV-02	Block A	500 kW	318 kW	0.64	Underperforming
INV-03	Block B	500 kW	0 kW	0.00	Faulted
INV-04	Block B	500 kW	448 kW	0.90	Nominal
INV-05	Block C	500 kW	380 kW	0.78	Curtailed
INV-06	Block C	500 kW	431 kW	0.87	Nominal

Roles: Administrator (full access); Manager (no configuration); O&M; technician (read-only)
Configurable rules:

- Expected yield modelling — Compare against irradiance-based expectation
- Soiling detection — Flag gradual loss consistent with dust
- Curtailment logging — Record grid-instructed output reductions

Reporting: 12.4 MWp capacity; 18,400 MWh yield; 0.82 performance ratio; 98.4% availability.

79. CyberEdge SafetyPLC

Safety-Instrumented Monitoring — Redundant channels and rationalised alarms.

Safety-instrumented monitoring with redundant channels, alarm rationalisation and hard-wired trip paths.

Operational measure	Indicative value
Channels healthy	96 of 96
Reactor power	98%
Standing alarms	2
Trip tests due	1

Register: **Safety channels**

Channel	Parameter	System	Reading	Trip point	Status
CH-4471	Reactor power	Neutron flux	98%	106%	Normal
CH-4472	Coolant temperature	Primary loop	292 C	328 C	Normal
CH-4473	Primary pressure	Primary loop	155 bar	174 bar	Normal
CH-4474	Containment radiation	Containment	1.2 uSv/h	25 uSv/h	Normal
CH-4475	Feedwater flow	Secondary loop	412 kg/s	300 kg/s	Approaching
CH-4476	Steam pressure	Secondary loop	68 bar	78 bar	Test due

Roles: Administrator (full access); Manager (no configuration); Shift operator (read-only)
Configurable rules:

- Redundant channels — Require 2-out-of-3 voting before a trip
- Alarm rationalisation — Suppress consequential alarms during a trip
- Bypass logging — Record every maintenance bypass with an expiry

Reporting: 96 safety channels; 18,400 alarms handled; 0 spurious trips; SIL 3 sil compliance.

80. CyberEdge VisionQA

Quality Inspection — Defects classified at line speed.

In-line camera inspection classifying defects at line speed, with rejected parts traced back to the batch.

Operational measure	Indicative value
Inspected per hour	2,880
First-pass yield	96.4%
Rejects today	104
Model version	v4.2

Register: **Inspections**

Part	Batch	Station	Defect class	Confidence	Status
PRT-88120	BATCH-441	Vision 1	None	99.4%	Pass
PRT-88121	BATCH-441	Vision 1	Surface scratch	96.2%	Reject
PRT-88122	BATCH-441	Vision 2	None	99.8%	Pass
PRT-88123	BATCH-442	Vision 2	Weld porosity	88.1%	Rework
PRT-88124	BATCH-442	Vision 1	None	99.1%	Pass
PRT-88125	BATCH-442	Vision 3	Dimensional	94.6%	Reject

Roles: Administrator (full access); Manager (no configuration); Quality inspector (read-only)
Configurable rules:

- Automatic rejection — Divert failing parts without operator input
- Batch traceability — Link every reject back to its production batch
- Model drift alerts — Flag falling confidence for retraining

Reporting: 1.2M parts inspected; 42,000 defects caught; 96.4% first-pass yield; 0.02% escape rate.

Smart City & Infrastructure

81. CyberEdge Access

Building Access Control — Cards, biometrics and a tamper-evident log.

Card, biometric and mobile credentials with anti-passback, zone rules and a tamper-evident event log.

Operational measure	Indicative value
Readers online	47 of 48
Events today	3,120
Denials	26
Credentials active	1,840

Register: **Credentials**

Credential	Holder	Department	Type	Zones	Status
CRD-4471	A. Rahman	IT wing	Card + biometric	All zones	Active
CRD-4472	S. Baloch	Finance	Card	Zones 1-3	Active
CRD-4473	H. Khan	Operations	Mobile	Zones 1-2	Active
CRD-4474	Visitor 2201	Visitor	Temporary card	Zone 1	Escort required
CRD-4475	F. Achakzai	Contractor	Card	Zone 4	Expired
CRD-4476	R. Baloch	Facilities	Card + biometric	Zones 1-5	Under review

Roles: Administrator (full access); Manager (no configuration); Security officer (read-only)
Configurable rules:

- Anti-passback — Refuse re-entry without a matching exit
- Zone rules — Restrict rooms by role and time of day
- Tamper-evident log — Hash-chain every access event

Reporting: 48 readers; 1.2M access events; 18,400 denials; 1,840 credentials.

82. CyberEdge Charge

EV Charging Management — OCPP sessions with the site load under control.

OCPP session control, dynamic load sharing across chargers and tariff-based billing per connector.

Operational measure	Indicative value
Chargers online	18 of 20
Sessions today	84
Site load	184 kW
Energy delivered	1,240 kWh

Register: **Charge points**

Charger	Connector	Site	Power	Session	Status
CHG-01	CCS 60 kW	Jinnah Road	58 kW	42 min	Charging
CHG-02	CCS 60 kW	Jinnah Road	30 kW	18 min	Load shared
CHG-03	Type 2 22 kW	Airport Road	22 kW	1h 12m	Charging
CHG-04	Type 2 22 kW	Airport Road	0 kW	-	Available
CHG-05	CCS 120 kW	Sariab Road	0 kW	-	Faulted
CHG-06	CCS 60 kW	Cantt area	48 kW	8 min	Charging

Roles: Administrator (full access); Manager (no configuration); Site attendant (read-only)

Configurable rules:

- Dynamic load sharing — Split available capacity across active sessions
- Tariff billing — Charge by kWh with time-of-use rates
- Idle fee — Charge for occupying a bay after the session ends

Reporting: 20 chargers; 18,400 sessions; 412 MWh energy delivered.

83. CyberEdge Irrigate

Smart Irrigation — Water where the crop actually needs it.

Soil moisture and evapotranspiration driven valve scheduling, so water is applied where the crop needs it.

Operational measure	Indicative value
Zones managed	24
Water saved	34%
Zones below target	3
Tank level	64%

Register: **Irrigation zones**

Zone	Crop	Area	Soil moisture	Last irrigated	Status
ZN-01	Apple orchard	42 acres	32%	Today 05:00	Adequate
ZN-02	Wheat	88 acres	18%	3 days ago	Below target
ZN-03	Grapes	24 acres	28%	Yesterday	Adequate
ZN-04	Alfalfa	62 acres	22%	2 days ago	Low
ZN-05	Apple orchard	38 acres	35%	Today 05:30	Adequate
ZN-06	Vegetables	16 acres	41%	Today 06:00	Irrigating

Roles: Administrator (full access); Manager (no configuration); Farm operator (read-only)
Configurable rules:

- ET-based scheduling — Compute demand from evapotranspiration
- Rain skip — Cancel irrigation when rainfall is forecast
- Low pressure alarm — Alert when line pressure drops below 1.5 bar

Reporting: 24 zones; 18,400 irrigation events; 34% water saved; 412 acres area covered.

84. CyberEdge LiftWatch

Elevator Monitoring — Fault codes and entrapments, straight from the controller.

Car position, door cycles and fault codes streamed from the controller, with entrapment alerting to the help desk.

Operational measure	Indicative value
Lifts monitored	48
Trips today	1,842
Entrapments	0
Faults open	4

Register: **Lifts**

Lift	Building	Floors	Trips today	Last service	Status
LFT-01	Block A	1-14	412	12 May 2026	In service
LFT-02	Block A	1-14	388	12 May 2026	In service
LFT-03	Block B	1-9	241	02 Apr 2026	Service due

Lift	Building	Floors	Trips today	Last service	Status
LFT-04	Block B	1-9	196	02 Apr 2026	In service
LFT-05	Block C	1-6	0	18 Jun 2026	Out of service
LFT-06	Block C	1-6	184	18 Jun 2026	Door fault logged

Roles: Administrator (full access); Manager (no configuration); Building attendant (read-only)
Configurable rules:

- Entrapment alerting — Call the help desk the moment a car stalls
- Predictive door maintenance — Flag door cycles trending out of spec
- Traffic analysis — Report peak demand by floor and hour

Reporting: 48 lifts monitored; 1.2M trips; 18 entrapments; 99.2% availability.

85. CyberEdge Livestock

Livestock Tracking — Grazing, health and the fence line.

Collar telemetry for grazing patterns, heat detection and geo-fence breaches across open rangeland.

Operational measure	Indicative value
Animals collared	412
Outside fence	2
Health flags	5
Avg grazing time	7.2 hrs

Register: **Animals**

Tag	Animal	Herd	Activity	Location	Status
LS-4471	Cow 112	Herd A	Grazing	North pasture	Normal
LS-4472	Cow 118	Herd A	Resting	North pasture	Normal
LS-4473	Cow 204	Herd B	Low activity	South pasture	Health flag
LS-4474	Bull 09	Herd B	Walking	Outside fence	Geo-fence breach
LS-4475	Cow 221	Herd C	Grazing	East pasture	Heat detected
LS-4476	Cow 233	Herd C	Grazing	East pasture	Normal

Roles: Administrator (full access); Manager (no configuration); Herdsman (read-only)
Configurable rules:

- Geo-fence alerts — Notify when an animal leaves the boundary
- Heat detection — Flag oestrus from activity patterns
- Health scoring — Score rumination and movement for illness

Reporting: 412 animals tracked; 1,240 geo-fence alerts; 184 health flags; 96 calves born.

86. CyberEdge MeterLink

Smart Water Metering — Reads, leaks and tampering, without a meter reader.

AMI meter reads with leak signatures, tamper flags and consumption billing straight from the network.

Operational measure	Indicative value
Meters online	18,400
Leak alerts	84
Tamper flags	6
Read success	98.6%

Register: **Meters**

Meter	Consumer	Zone	Flow (L/min)	Monthly (m3)	Status
MTR-44120	A. Rahman	Zone A Jinnah Town	12.4	18.2	Normal
MTR-88301	S. Baloch	Zone B Sariab	31.8	62.4	Continuous flow
MTR-11920	H. Khan	Zone A Jinnah Town	8.1	14.0	Normal
MTR-77013	F. Achakzai	Zone C Samungli	0.0	0.0	Tamper flag
MTR-55639	R. Baloch	Zone B Sariab	15.7	24.8	Normal
MTR-30924	M. Nawaz	Zone C Samungli	22.1	41.2	High usage

Roles: Administrator (full access); Manager (no configuration); Meter technician (read-only)
Configurable rules:

- Continuous flow detection — Flag meters with no zero-flow period
- Tamper detection — Alert on reverse flow or magnetic interference
- Automatic billing — Generate bills from network reads

Reporting: 18,400 meters deployed; 42M reads collected; 4,180 leaks found; 1.2M m3 water saved.

87. CyberEdge NoiseWatch

Noise Pollution Monitoring — Calibrated levels against the statutory limit.

Calibrated sound level meters logging LAeq against statutory limits, by zone and time of day.

Operational measure	Indicative value
Monitors online	12
Current level	68 dB(A)
Breaches today	6
Limit	75 dB(A)

Register: **Monitors**

Monitor	Location	Zone type	LAeq	Limit	Status
NZ-101	Zarghoon Road	Commercial	68 dB(A)	75	Within limit
NZ-102	Jinnah Town	Residential	62 dB(A)	55	Breach
NZ-103	Industrial estate	Industrial	78 dB(A)	85	Within limit
NZ-104	Civil hospital	Silence zone	58 dB(A)	50	Breach
NZ-105	Airport Road	Commercial	72 dB(A)	75	Approaching
NZ-106	Cantt area	Residential	48 dB(A)	55	Within limit

Roles: Administrator (full access); Manager (no configuration); Environment officer (read-only)
Configurable rules:

- Statutory limits by zone — Apply residential, commercial and industrial limits
- Night-time weighting — Apply a stricter limit between 22:00 and 06:00
- Complaint correlation — Match public complaints to measured breaches

Reporting: 12 monitors; 4.2M measurements; 8,420 breaches logged; 184 notices issued.

88. CyberEdge StreetLight

Smart Street Lighting — Per-pole dimming, per-pole faults.

Per-pole dimming schedules, fault reporting and energy accounting across a municipal lighting network.

Operational measure	Indicative value
Poles online	61 of 64
Energy saved	38%
Faults open	3
Burn hours today	11.2

Register: **Light poles**

Pole	Road	Ward	Output	Burn hours	Status
POL-4471	Jinnah Road	Ward 1	100%	4,182	On
POL-4472	Jinnah Road	Ward 1	40%	4,180	Dimmed
POL-4473	Sariab Road	Ward 4	0%	6,240	Lamp fault
POL-4474	Airport Road	Ward 2	100%	3,918	On
POL-4475	Zarghoon Road	Ward 3	60%	5,102	Dimmed
POL-4476	Samungli Road	Ward 5	0%	2,840	Comms lost

Roles: Administrator (full access); Manager (no configuration); Field electrician (read-only)
Configurable rules:

- Astronomical clock — Switch on sunset, off at sunrise
- Adaptive dimming — Reduce output on low-traffic roads after midnight
- Lamp fault reporting — Report failed lamps without a night patrol

Reporting: 1,240 poles managed; 38% energy saved; 4,180 faults resolved.

89. CyberEdge Waste

Waste Collection Management — Collect where it is full, not where the roster says.

Bin fill sensors and vehicle telemetry producing collection routes that match actual need, not a fixed roster.

Operational measure	Indicative value
Bins monitored	1,240
Overflow alerts	17
Route saving	22%
Collections today	412

Register: **Bins**

Bin	Location	Ward	Fill level	Last collected	Status
BIN-4471	Jinnah Road market	Ward 1	42%	Today 07:12	Normal
BIN-4472	Sariab Road stop	Ward 4	88%	Yesterday	Due
BIN-4473	Airport Road plaza	Ward 2	100%	3 days ago	Overflowing
BIN-4474	Cantt gate	Ward 3	18%	Today 06:40	Normal
BIN-4475	Zarghoon Road	Ward 3	76%	Yesterday	Due
BIN-4476	Samungli Road	Ward 5	0%	Today 08:02	Sensor offline

Roles: Administrator (full access); Manager (no configuration); Route supervisor (read-only)
Configurable rules:

- Fill-level routing — Only route to bins above 70% full
- Proof of collection — Scan the bin tag at the lift
- Overflow escalation — Raise a priority job above 95% fill

Reporting: 1,240 bins monitored; 184,000 collections; 22% route saving; 62,000 L fuel saved.

90. CyberEdge Weather

Weather Station Network — Local observations, local advisories.

Automatic weather stations feeding local forecasting, agriculture advisories and disaster management.

Operational measure	Indicative value
Stations online	22 of 24
Temperature	31.4 C
Rainfall 24h	0 mm
Advisories live	1

Register: **Stations**

Station	District	Elevation	Temperature	Wind	Status
WX-101	Quetta	1,680 m	31.4 C	18 km/h	Reporting
WX-102	Ziarat	2,450 m	24.1 C	12 km/h	Reporting
WX-103	Sibi	130 m	43.8 C	22 km/h	Heat advisory
WX-104	Pishin	1,540 m	29.6 C	9 km/h	Reporting
WX-105	Kalat	2,010 m	22.4 C	31 km/h	High wind
WX-106	Chaman	1,320 m	-	-	Offline

Roles: Administrator (full access); Manager (no configuration); Observer (read-only)
Configurable rules:

- Automatic advisories — Issue frost and heat advisories by threshold
- Agriculture bulletins — Publish a daily bulletin to extension officers
- Data archive — Retain raw observations for 20 years

Reporting: 24 stations; 8.4M observations; 412 advisories issued; 97.8% uptime.

Gaming, Media & Sports

91. CyberEdge Arena

eSports Tournament Platform — Brackets, servers and prize payout.

Bracket generation, match servers, anti-cheat integration and prize distribution across thousands of entrants.

Operational measure	Indicative value
Teams registered	412
Matches live	2
Anti-cheat flags	3

Register: **Matches**

Match	Teams	Round	Score	Server	Status
QF-1	Zarghoon vs Hanna	Quarter final	11-8	srv-01	Live
QF-2	Bolan vs Chiltan	Quarter final	8-6	srv-02	Live
QF-3	Makran vs Sibi	Quarter final	0-0	srv-03	Queued
QF-4	Khuzdar vs Turbat	Quarter final	16-12	srv-01	Completed
SF-1	TBD	Semi final	0-0	-	Queued
GRP-8	Quetta vs Pishin	Group stage	13-9	srv-04	Under review

Roles: Administrator (full access); Manager (no configuration); Tournament admin (read-only)
Configurable rules:

- Anti-cheat enforcement — Auto-forfeit on a confirmed detection
- Automatic seeding — Seed brackets from ranking points
- Prize automation — Release prize money on result confirmation

Reporting: 184 tournaments; 8,420 teams; 42,000 matches played.

92. CyberEdge Bid

Live Auction Platform — Proxy bids, reserves and provenance.

Timed and live-agent auctions with proxy bidding, reserve handling and provenance records per lot.

Operational measure	Indicative value
Lots live	8
Registered paddles	412
Reserve met	6 of 8

Register: **Lots**

Lot	Item	Category	Current bid (PKR)	Reserve	Status
LOT-22	Antique brass compass	Instruments	76,500	70,000	Reserve met
LOT-31	Vintage rangefinder camera	Photography	148,000	120,000	Reserve met
LOT-40	Rare coin set, 1947	Numismatics	310,000	400,000	Below reserve
LOT-44	Hand-knotted Balochi rug	Textiles	182,000	150,000	Reserve met
LOT-51	Colonial survey map	Maps	42,000	60,000	Passed
LOT-58	Silver tea service	Silver	96,000	90,000	Bidding open

Roles: Administrator (full access); Manager (no configuration); Auction clerk (read-only)

Configurable rules:

- Proxy bidding — Bid automatically up to a hidden maximum
- Reserve handling — Pass the lot if the reserve is not met
- Provenance record — Attach ownership history to every lot

Reporting: 184 auctions held; 8,420 lots sold; 84% reserve met.

93. CyberEdge CloudPlay

Cloud Gaming Platform — Under the perception threshold, or it does not ship.

GPU session streaming with encoder tuning and input prediction to keep the loop under the perception threshold.

Operational measure	Indicative value
Sessions active	184
Frame rate	59 fps
Input latency	42 ms
GPU utilisation	78%

Register: **Sessions**

Session	Player	Node	Frame rate	Latency	Status
CG-4471	player_4471	gpu-node-01	60 fps	38 ms	Streaming
CG-4472	player_8830	gpu-node-01	58 fps	44 ms	Streaming
CG-4473	player_1192	gpu-node-02	42 fps	88 ms	Degraded
CG-4474	player_7701	gpu-node-02	60 fps	31 ms	Streaming
CG-4475	player_5563	gpu-node-03	22 fps	142 ms	Poor connection
CG-4476	player_3092	gpu-node-03	60 fps	36 ms	Migrating

Roles: Administrator (full access); Manager (no configuration); Platform operator (read-only)
Configurable rules:

- Encoder tuning — Adapt bitrate and preset to the measured link
- Input prediction — Predict input locally to mask network latency
- Session migration — Move a session to another node under load

Reporting: 412,000 sessions; 184,000 stream hours; 42 ms avg latency; 99.4% availability.

94. CyberEdge Fantasy

Fantasy Sports Scoring — A million teams, rescored every ball.

Per-ball scoring applied to millions of teams with leaderboard recomputation inside the same over.

Operational measure	Indicative value
Entries	1.2M
Contests live	4,180
Recompute time	1.8 s

Register: **Contests**

Contest	Fixture	Entry fee	Entries	Prize pool (PKR)	Status
CST-4471	Quetta vs Karachi		184,000	12,400,000	Live
CST-4472	Quetta vs Karachi		42,000	18,200,000	Live
CST-4473	Lahore vs Multan		312,000	9,800,000	Settled
CST-4474	Peshawar vs Islamabad	Free	620,000	500,000	Upcoming

Contest	Fixture	Entry fee	Entries	Prize pool (PKR)	Status
CST-4475	Sibi vs Kalat		18,400	2,900,000	Live
CST-4476	Chaman vs Zhob		8,200	620,000	Refunding

Roles: Administrator (full access); Manager (no configuration); Contest operator (read-only)
Configurable rules:

- Per-ball scoring — Rescore every team on each delivery
- Late entry lock — Freeze teams at the first ball
- Automatic payouts — Release winnings on result confirmation

Reporting: 12M entries; 42,000 contests; 184M recomputes.

95. CyberEdge Immerse

AR/VR Multiplayer Platform — One consistent world across every headset.

Shared spatial state with interest management, so a hundred headsets see one consistent world.

Operational measure	Indicative value
Players in world	48
State updates/s	1,440
Motion-to-photon	18 ms
Desyncs	0

Register: **Worlds**

World	Experience	Region	Players	Update rate	Status
WLD-01	Training arena	Pakistan	48	90 Hz	Healthy
WLD-02	Museum tour	Pakistan	22	72 Hz	Healthy
WLD-03	Design review	Gulf	6	90 Hz	Healthy
WLD-04	Safety simulation	Pakistan	31	60 Hz	Degraded
WLD-05	Sports arena	Europe	0	-	Idle
WLD-06	Site walkthrough	Pakistan	12	90 Hz	Desync detected

Roles: Administrator (full access); Manager (no configuration); Session host (read-only)
Configurable rules:

- Interest management — Only replicate objects the player can perceive
- Client prediction — Predict motion locally to hide latency
- Desync recovery — Snap the client back to authoritative state

Reporting: 18,400 sessions; 62,000 player hours; 412 peak concurrency; 12 desyncs.

96. CyberEdge InteractTV

Interactive Television — Second screen, synchronised to the broadcast.

Second-screen voting, live overlays and personalised ad insertion synchronised to the broadcast timeline.

Operational measure	Indicative value
Second-screen users	61,400
Votes per min	8,900
Overlay CTR	4.1%
Sync drift	220 ms

Register: **Broadcasts**

Broadcast	Programme	Channel	Viewers	Interactions	Status
BC-4471	Talent final	Channel 1	612,000	84,200	On air
BC-4472	Evening news	Channel 1	412,000	12,400	Completed
BC-4473	Sports round-up	Channel 2	184,000	22,100	Completed
BC-4474	Quiz show	Channel 2	0	0	Scheduled
BC-4475	Morning show	Channel 3	96,000	6,800	Completed
BC-4476	Live debate	Channel 1	284,000	41,000	Sync drift

Roles: Administrator (full access); Manager (no configuration); Production assistant (read-only)
Configurable rules:

- Timeline sync — Align overlays to the broadcast clock
- Personalised ad insertion — Serve ads by viewer segment
- Live voting — Open and close votes from the gallery

Reporting: 1,240 broadcasts; 4.2M second-screen sessions; 42M votes cast; 184M ad impressions.

97. CyberEdge Odds

In-Play Odds Platform — Prices that suspend the instant something happens.

In-play odds compilation with liability management, market suspension on events and a full audit of every price.

Operational measure	Indicative value
Markets open	184
Suspensions today	42
Margin	6.4%

Register: **Markets**

Market	Selection	Fixture	Odds	Liability (PKR)	Status
MKT-4471	Quetta to win	Quetta vs Karachi	1.85	1,240,000	Open
MKT-4472	Karachi to win	Quetta vs Karachi	2.05	980,000	Open
MKT-4473	Over 168.5 runs	Quetta vs Karachi	1.92	412,000	Open
MKT-4474	Next wicket caught	Quetta vs Karachi	2.40	184,000	Suspended
MKT-4475	Top batter A. Khan	Quetta vs Karachi	4.60	96,000	Limited
MKT-4476	Match winner	Lahore vs Multan	1.44	620,000	Settled

Roles: Administrator (full access); Manager (no configuration); Trader (read-only)
Configurable rules:

- Automatic suspension — Suspend the market on any scoring event
- Liability limits — Cap exposure per market and per customer
- Price audit trail — Record every price change with a timestamp

Reporting: 18,400 markets offered; 412,000 bets placed; 6.4% margin.

98. CyberEdge Ranks

Real-Time Leaderboards — A million players, ranked in a millisecond.

Sorted-set ranking at write time, so a million-player board answers rank queries in a millisecond.

Operational measure	Indicative value
Players ranked	1.4M
Rank query	0.8 ms

Operational measure	Indicative value
Writes per sec	18,400
Season	S7 day 12

Register: **Leaderboard**

Rank	Player	Region	Score	Matches	Status
1	ShadowFox	Pakistan	18,420	412	Ranked
2	NovaStrike	Pakistan	18,110	388	Ranked
3	IronPeak	Gulf	17,980	402	Ranked
4	QuettaKing	Pakistan	17,640	371	Under review
5	BoloWave	Pakistan	17,320	356	Ranked
6	RedZephyr	Europe	16,980	344	Suspended

Roles: Administrator (full access); Manager (no configuration); Community manager (read-only)
Configurable rules:

- Write-time ranking — Maintain the sorted set on every score write
- Season resets — Archive and reset the board each season
- Anti-abuse screening — Flag impossible score progressions

Reporting: 1.4M players ranked; 184M score writes; 620M rank queries; 7 seasons run.

99. CyberEdge ScoreFeed

Live Score & Stats Distribution — Sub-second scores to every downstream partner.

Sub-second score and event distribution to apps, broadcast graphics and downstream data partners.

Operational measure	Indicative value
Matches live	4
Events per min	42
Feed latency	480 ms
Partners connected	18

Register: **Matches**

Match	Fixture	Competition	Score	Overs	Status
MT-4471	Quetta vs Karachi	T20 Cup	142-4	16.2	Live
MT-4472	Lahore vs Multan	T20 Cup	188-7	20.0	Completed
MT-4473	Peshawar vs Islamabad	T20 Cup	0-0	0.0	Scheduled
MT-4474	Sibi vs Kalat	Regional	96-3	12.4	Live
MT-4475	Pishin vs Ziarat	Regional	204-8	20.0	Completed
MT-4476	Chaman vs Zhob	Regional	44-2	6.1	Rain delay

Roles: Administrator (full access); Manager (no configuration); Scorer (read-only)
Configurable rules:

- Sub-second distribution — Push events as they are entered
- Correction propagation — Push retrospective corrections downstream
- Partner rate limits — Cap each partner's request rate

Reporting: 4,180 matches covered; 18.4M events published; 18 partners; 99.98% uptime.

100. CyberEdge Studio

Music Collaboration Platform — Players in different cities, still in time.

Shared session state with clock sync and stem streaming, so players in different cities stay in time.

Operational measure	Indicative value
Sessions live	12
Collaborators	48
Clock drift	3 ms
Stems streamed	184

Register: **Sessions**

Session	Project	Host	Collaborators	Tempo	Status
SN-4471	Quetta Nights EP	Bilal A.	4	104 BPM	Recording
SN-4472	Folk fusion single	Sara K.	3	92 BPM	Mixed
SN-4473	Documentary score	Hina M.	2	72 BPM	Recording
SN-4474	Advert jingle	Usman T.	5	128 BPM	Published
SN-4475	Live album mix	Zoya R.	6	116 BPM	Sync issue
SN-4476	Demo sketch	Ahmed S.	1	88 BPM	Draft

Roles: Administrator (full access); Manager (no configuration); Collaborator (read-only)
Configurable rules:

- Clock synchronisation — Keep all clients within 5 ms of the master
- Stem streaming — Stream individual stems rather than a mixdown
- Version snapshots — Snapshot the session on every bounce

Reporting: 8,420 sessions; 1,240 tracks produced; 4,180 collaborators; 62,000 stems stored.

11. Knowledge and publications

We publish technical writing on the problems we are called in to solve. Every factual claim carries a link to its primary source. The complete text of each article is reproduced below.

11.1 Editorial standard

Articles by topic

Filter by practice area or search by keyword.
No article matches that search yet. Try a broader term, or ask us the question directly.

What you can expect from an article here

A short editorial standard, published so you can hold us to it.

Written, not assembled

Every article is written by the practice that does the work. Nothing here is spun from another site's content or generated to fill a page count.

Sourced and linkable

Claims about standards, deadlines and figures carry a link to the primary source. Where we cannot source it, we do not assert it.

Dated and revisable

Each article carries its publication date. Guidance ages — a piece about a transition deadline is only useful if you know when it was written.

Useful before it is promotional

If the honest answer is that you do not need what we sell, the article says so. We would rather be trusted than briefly persuasive.

11.2 Index

Article	Practice area	Published
Mobile forensics in 2026: why extraction keeps getting harder	Digital Forensics	2026-07-14
ISO 27001:2022 after the transition deadline: where organisations stand	GRC & ISO Compliance	2026-07-08
What a penetration test report should actually contain	Cybersecurity	2026-07-02
When you do not need machine learning	AI & Data Science	2026-07-01
A chain of custody that survives cross-examination	Digital Forensics	2026-06-27
Why departmental software fails, and what the specification never says	Software Development	2026-06-19
Ransomware readiness for a public sector department	Cybersecurity	2026-06-11
Cloud migration: modelling the running cost honestly	Cloud & Infrastructure	2026-06-05
Are you ready for ERP? Five questions to answer before the tender	ERP & Enterprise Systems	2026-05-30
Retiring the paper dak register without losing the audit trail	E-Governance	2026-05-21

11.3 Full text

11.3.1 Mobile forensics in 2026: why extraction keeps getting harder

Digital Forensics · Digital Forensics Practice · 7 min read

Handsets now carry the bulk of evidential value in criminal cases, and they are also the hardest devices to open. What has actually changed, and what it means for a provincial lab.

If you run a forensic laboratory, the shape of your caseload has changed. Mobile handsets are no longer one exhibit among several — for most investigations they are the investigation. Industry surveys through 2026 put mobile devices in the overwhelming majority of criminal cases, and the number of devices submitted per case keeps climbing rather than levelling off.

That would be manageable if extraction had got easier. It has not. Three forces are pulling in the opposite direction at once.

Encryption is now the default, not the exception

Full-disk encryption tied to a hardware-backed key is standard on every current handset. The practical consequence is the Before First Unlock state: a device seized and powered on but never unlocked since boot holds its data in a form that no amount of chip-level work will read. The passcode is the whole problem, and a six-digit alphanumeric passcode is not something a conventional workstation brute-forces in a useful timeframe.

This is why acquisition discipline at the point of seizure now matters more than anything that happens in the lab. A device kept alive, isolated and charged is a different exhibit from the same device delivered flat.

The evidence has moved off the handset

The second shift is that a phone is increasingly a window onto data held elsewhere. Messaging history, document collaboration, location timelines and backup images sit in cloud services, and the handset holds tokens rather than content. Investigators who treat the device as the boundary of the evidence are now routinely missing the most probative material.

Cloud acquisition brings its own problems, and they are legal rather than technical: which jurisdiction holds the data, who owns it, what authority is needed to compel it, and whether the provider will respond to a request from your jurisdiction at all. These questions need answering in your standard operating procedure before a case turns on them.

Tool sprawl is a real operational cost

Laboratories are running more tools per case than they used to — the industry average moved from roughly five and a half to just over seven in a single year. Each additional tool is another licence, another validation exercise, another training requirement and another output format your examiners must reconcile. Tool count is not a measure of capability; validated coverage of your actual caseload is.

What this means for a lab being built now

- Budget for seizure-side capability — Faraday containment, portable power, and first-responder training — not only for lab equipment.
- Write the cloud acquisition authority question into your SOP before you need the answer.
- Validate each tool against exhibits representative of your caseload, and record the validation. An unvalidated tool is a defence submission waiting to happen.
- Plan examiner time around triage. When device counts rise faster than headcount, prioritisation is the only lever you control.
- Treat AI-assisted review as a triage aid whose output an examiner must be able to explain, not as an answer.

None of this is an argument against building capability locally. It is an argument for building it with the current threat model in mind rather than the one that applied when the first generation of laboratories was specified.

Sources and further reading

- Cellebrite — 2026 Digital Forensics Industry Trends — https://cellebrite.com/en/2026-industry-trends/
- Magnet Forensics — 2026 State of Enterprise DFIR Report — https://www.magnetforensics.com/blog/state-of-enterprise-dfir-report-the-top-trends-shaping-digital-investigations-in-2026/
- MSAB — Mobile Forensics in 2026 — https://www.msab.com/blog/mobile-forensics-comprehensive-guide/

11.3.2 ISO 27001:2022 after the transition deadline: where organisations stand

GRC & ISO Compliance · GRC Practice · 6 min read

The transition window for the 2013 edition closed on 31 October 2025. If your certificate still references the old edition, it is no longer valid — and auditors have changed what they look for.

The transition period from ISO/IEC 27001:2013 to the 2022 edition ended on 31 October 2025. Certificates issued against the 2013 edition ceased to be valid at that point rather than quietly continuing until their printed expiry date. Organisations discovering this in a tender response are discovering it late.

What actually changed in the 2022 edition

The control set was restructured from fourteen clauses into four themes and reduced in number, but the reduction is a consolidation rather than a relaxation. Several genuinely new controls were introduced, and they reflect where incidents were actually occurring: threat intelligence, information security for cloud services, ICT readiness for business continuity, configuration management, data leakage prevention, monitoring activities, web filtering and secure coding.

If your Statement of Applicability was mapped across mechanically from the old edition, those new controls are where an auditor will start.

The audit emphasis has moved to evidence of effect

The clearest shift reported through 2026 is that auditors are less interested in whether a policy exists and more interested in whether a control demonstrably reduces risk. Expect to be asked for measurements rather than documents: time to patch, frequency of access reviews, detection and containment times for incidents, and evidence that management reviewed those numbers and acted.

> “A policy nobody measures is a document. A control with a metric attached is a management system.”

If you have let certification lapse

- You cannot transition a lapsed certificate. Recertification is a fresh Stage 1 and Stage 2 audit.
- Plan for the internal audit and management review cycle to be complete before Stage 2 — auditors will ask for the records, and they cannot be produced retrospectively.
- Check your contracts. Many public and enterprise contracts name certification as a continuing obligation, not a one-off qualification.

Building a system you can actually operate

The most common failure we are called in to fix is an ISMS built by a consultant for an audit rather than for the organisation. It passes, then decays, because nobody internally understands why any of it exists. A management system that survives its second surveillance audit is one where the risk register is owned by people with the authority to act on it, and where the documentation set is small enough to be read.

Sources and further reading

- ISO/IEC 27001:2022 — Information security management systems — https://www.iso.org/standard/27001
- IAF MD 26 — Transition Requirements for ISO/IEC 27001:2022 — https://iaf.nu/en/iaf-documents/?id=21
- LRQA — Preparing for the ISO 27001:2022 transition — https://www.lrqa.com/en-us/insights/articles/preparing-for-iso-270012022-transition-by-october-2025/

11.3.3 What a penetration test report should actually contain

Cybersecurity · Cybersecurity Practice · 6 min read

A scanner output with a logo on it is not a penetration test. Here is how to tell the difference before you pay for one.

Procurement departments buy penetration tests by the day rate, which means the market has learned to sell days rather than findings. The clearest way to judge a supplier is to ask for a redacted sample report before you award, and to know what you are looking for when it arrives.

Two documents in one

A usable report separates the executive summary from the technical detail completely. The summary should be readable by someone who will never open the technical section: what was tested, what the material risks are in business terms, and what the organisation should do first. The technical section is written for the engineer who has to fix it.

If the two are interleaved, neither audience is served, and it usually means the report was assembled from tool output rather than written.

Every finding needs reproducible evidence

- The exact request or action that triggered the issue, not a description of it.
- The response or observed behaviour that demonstrates the impact.
- The affected hosts or endpoints, enumerated rather than summarised as 'various'.
- A severity rating with the reasoning behind it, not just a CVSS number copied from a database.
- Remediation advice specific to your stack, not a paragraph of generic guidance.

A finding you cannot reproduce is a finding your engineers will dismiss, and rightly so.

Scope should be argued about before, not after

The most common cause of a disappointing test is a scope that excluded the thing you were actually worried about. Insist on a scoping document that names the systems, the testing window, the credentials provided, and explicitly what is out of scope and why. Where the supplier proposes to exclude something, make them say what risk that leaves unmeasured.

The re-test is the point

A test that is not followed by a re-test measures nothing durable — you know what was wrong on one day. A supplier confident in their work will include remediation verification within a defined window at no additional cost. Ask for that in writing, and ask how long the window is.

Questions worth asking a prospective supplier

- What certifications do the testers hold, and will those named individuals do the work?
- How do you handle a finding that puts a live service at risk during testing?
- What happens to our data and your notes after the engagement closes?
- Can we see a redacted report from an engagement of comparable size?
- Is the re-test included, and for how long after delivery?

The answers separate firms that test from firms that scan. As an ISO 27001 certified organisation we security-test our own builds before they reach a client's acceptance testing, and we are happy to be asked the same questions.

Sources and further reading

- OWASP Web Security Testing Guide — https://owasp.org/www-project-web-security-testing-guide/
- NIST SP 800-115 — Technical Guide to Information Security Testing — https://csrc.nist.gov/pubs/sp/800/115/final

- PTES — Penetration Testing Execution Standard — http://www.pentest-standard.org/

11.3.4 When you do not need machine learning

AI & Data Science · AI & Data Practice · 5 min read

A significant share of the analytics problems we are asked to solve with a model are better solved with a query, a threshold and a well-designed dashboard.

We are regularly approached for a machine learning project and conclude that the client does not need one. This is not modesty. A model carries costs — training data, validation, monitoring for drift, explainability, and a permanent dependency on someone who understands it — and those costs are only worth paying when the problem genuinely requires inference.

Three questions that usually settle it

- Can the rule be written down? If an experienced member of staff can state the decision as a set of conditions, encode the conditions. It will be faster, cheaper and defensible in an audit.
- Is the outcome you want to predict actually recorded? Models learn from labelled history. If nobody has been recording which cases turned out to be fraudulent, there is nothing to learn from yet.
- What happens when it is wrong? If a wrong answer has consequences for a citizen or a patient, you need explainability, and that constrains which techniques are acceptable regardless of accuracy.

The dashboard that answered the question

One retail client came to us for demand forecasting. The underlying question was which lines were running out before replenishment. That is a stock-cover calculation against sales velocity — arithmetic, not inference. A dashboard answered it in a fortnight, was understood by the buying team without explanation, and required no retraining.

Where models do earn their keep

Genuine pattern problems where the rule cannot be articulated: document classification across inconsistent formats, anomaly detection in high-volume transaction streams where normal behaviour differs per account, computer vision for defect detection at line speed, and forecasting where the seasonality is real and the history is long enough to learn it.

If you do build one, build the monitoring first

A model degrades as the world moves away from its training data, and it does so silently. Decide before deployment what you will measure, what threshold triggers retraining, and who is responsible for looking. A model in production without drift monitoring is a decision system that nobody is checking.

The most useful thing a data practice can tell a client is that the expensive option is unnecessary. It costs us a larger project and buys a client who returns.

Sources and further reading

- NIST AI Risk Management Framework — https://www.nist.gov/itl/ai-risk-management-framework
- Google — Rules of Machine Learning: Best Practices for ML Engineering — https://developers.google.com/machine-learning/guides/rules-of-ml

11.3.5 A chain of custody that survives cross-examination

Digital Forensics · Digital Forensics Practice · 6 min read

Most chain-of-custody failures are not dramatic. They are a missing signature, an unexplained time gap, or a hash recorded once and never checked again.

Evidence is rarely excluded because someone tampered with it. It is excluded because the prosecution cannot demonstrate that nobody could have. Those are different standards, and the second one is met with paperwork discipline rather than technology.

The four questions a custody record must answer

For any exhibit, at any moment from seizure to disposal, your record should answer: who held it, where it was, what was done to it, and how you know it did not change. If any of those has a gap, that gap is the cross-examination.

Hashing is a control, not a ritual

Computing a hash at acquisition is standard practice. Recomputing it is where laboratories get lazy. A hash taken once at imaging and never verified again proves only that the image was internally consistent at the moment it was made. Verify on receipt, verify before analysis, verify before export, and record each verification with the value, the algorithm and the examiner.

Use an algorithm that is still respectable. MD5 remains in wide use for legacy compatibility, but a report that rests on MD5 alone invites an argument you do not need to have. Record SHA-256 alongside it.

Time is the detail that catches people out

Device clocks drift, are set to the wrong zone, or are deliberately altered. Record the device time and the true time at seizure, and note the difference. Every timestamp in the eventual report inherits that offset, and an unexplained discrepancy between the exhibit's timeline and an independent record — CCTV, call data, a bank log — is the fastest way to lose a tribunal's confidence.

Working copies, not originals

- Analyse a verified working copy. The original image is archived and untouched.
- If a tool must write to the exhibit, record that it does, why it was necessary, and what changed.
- Store the original and the working copy on separate media, and record where both live.
- Log every access to the archive, including reads.

Write the report for the person who will challenge it

A forensic report has two audiences: the investigator who needs the finding, and the expert the other side will instruct to attack it. Separate them explicitly. An executive summary that states the finding in plain language, and a technical section with the method, the tool versions, the hashes and enough detail for the finding to be reproduced by someone who does not trust you.

> “If your method cannot be reproduced by a hostile examiner, it is an opinion rather than a finding.”

This is procedural discipline, and it costs examiner hours. It is also the difference between a laboratory that produces intelligence and one that produces evidence.

Sources and further reading

- NIST — Computer Forensics Tool Testing Program — https://www.nist.gov/itl/ssd/software-quality-group/computer-forensics-tool-testing-program-cftt
- NIST SP 800-86 — Guide to Integrating Forensic Techniques into Incident Response — https://csrc.nist.gov/pubs/sp/800/86/final
- SWGDE — Best Practices for Digital Evidence — https://www.swgde.org/documents/published-complete-listing/

11.3.6 Why departmental software fails, and what the specification never says

Software Development · Software Practice · 6 min read

Systems are rarely abandoned because the code was wrong. They are abandoned because the workflow in the specification was not the workflow in the office.

Walk into a department that has quietly stopped using a system it paid for, and you will usually find the same story. The software does what the specification said. The specification described how the process was supposed to work. Nobody wrote down how it actually works.

The workarounds are the requirements

Every long-running manual process accumulates exceptions: the register that is filled in at the end of the week rather than at each event, the approval that is taken verbally and recorded afterwards, the form that has a box everyone leaves blank because the information arrives later. These are not sloppiness. They are the process adapting to reality.

A system built strictly to the documented process makes every one of those adaptations impossible, and the staff who depended on them go back to the register. This is why we spend time in the office before writing a schema. The question that matters is not 'what is the procedure' but 'what do you do when the procedure cannot be followed'.

Who signs off is a design constraint

Approval authority in a public sector department is rarely a straight line, and it changes with the value of the transaction, the absence of the approver, and the delegation in force that month. If the system encodes a single fixed approval chain, the first leave application by an approving officer will stall the whole department.

Data migration is where the schedule dies

- Historical records are inconsistent, and the inconsistency is not random — it changes at the points where the process or the staff changed.
- Reconciliation must be line by line and signed off by someone who knows the data, not a row count comparison.
- Budget for the cleaning as its own workstream. It is normally larger than the module that consumes the data.
- Agree in advance what happens to records that cannot be cleaned. There will be some.

Design for the person doing it forty times a day

Most departmental software is designed for the reviewer who opens it monthly, because that is who attends the requirements meetings. The clerk performing the same entry forty times a day is the user whose experience determines whether the system is adopted. Count their keystrokes. Removing three fields they never use is worth more than any feature on the roadmap.

What we insist on

A working prototype on your data shape before the full build, so that scope disagreements happen against something visible. Milestone acceptance with dated gates. Weekly written status rather than verbal reassurance. And user acceptance testing performed by the actual staff on real cases, because the fastest way to discover a wrong assumption is to watch someone try to use it.

Sources and further reading

- UK Government Service Manual — Understanding users and their needs — https://www.gov.uk/service-manual/user-research
- Standish Group — CHAOS Report on project outcomes — https://www.standishgroup.com/

11.3.7 Ransomware readiness for a public sector department

Cybersecurity · Cybersecurity Practice · 7 min read

The question is not whether your antivirus will stop it. It is whether you can restore a working service without paying, and how long that takes.

Ransomware planning goes wrong when it is treated as a prevention problem. Prevention matters, but it is a probability exercise — you are reducing the chance of an event you cannot reduce to zero. Recovery is a capability question, and it has a testable answer.

The only backup that counts is a restored one

Every organisation we assess reports that backups are running. A materially smaller number can state when they last restored a complete service from those backups and how long it took. Those are different claims, and only the second one is useful during an incident.

Run a restore test on a schedule, restore to isolated infrastructure rather than over production, and time it. The number you get is your actual recovery time objective, whatever the policy document says.

Offline or immutable, not merely off-site

Modern ransomware operators look for the backup system first, because encrypting or deleting backups is what converts an incident into a payment. A backup reachable from a compromised domain account with the credentials in use during the attack is not a backup. You need at least one copy that is offline, or on immutable storage where deletion is prevented by the storage layer rather than by permissions.

Decide the payment question before the day

A department that has not decided its position on payment will decide it under pressure, badly, with a countdown running. Put the position in writing, get it approved at the level that would have to approve a payment, and record who is authorised to communicate with an attacker if anyone is. Note that payment does not reliably return data and may carry its own legal consequences.

The plan needs to work without your systems

- Contact lists on paper or a phone, not in the email system that will be down.
- A pre-agreed out-of-band channel for the response team.
- Named authority to disconnect a network segment without seeking approval first.
- A holding statement for staff and the public that does not require sign-off from six people.
- Your incident response supplier's number, and confirmation they will answer it.

Segmentation limits the blast radius

Flat networks are why a single compromised workstation becomes a departmental outage. Segmenting administrative traffic, restricting lateral movement between offices, and removing standing domain administrator rights are unglamorous projects that do more for survivability than most security product purchases.

None of this requires exotic technology. It requires deciding that recovery is a service the organisation owes itself, and funding it as one.

Sources and further reading

- CISA — StopRansomware Guide — https://www.cisa.gov/stopransomware
- NIST SP 800-61 — Computer Security Incident Handling Guide — https://csrc.nist.gov/pubs/sp/800/61/r3/final
- NCSC — Mitigating malware and ransomware attacks — https://www.ncsc.gov.uk/guidance/mitigating-malware-and-ransomware-attacks

11.3.8 Cloud migration: modelling the running cost honestly

Cloud & Infrastructure · Cloud Practice · 6 min read

Most cloud business cases compare a capital purchase against an operating subscription and quietly omit the costs that only appear in month four.

A migration business case that shows a saving is easy to produce and easy to disprove twelve months later. The discipline that makes the number trustworthy is including the costs that are invisible at the point of comparison.

What gets left out

- Egress. Moving data out is charged in a way that moving it in is not, and reporting or analytics workloads can make this the largest single line.
- Inter-zone and inter-region traffic between components you have deliberately separated for resilience.
- Storage growth. On-premise storage is a step cost every few years; cloud storage is a continuous line that rises with your data whether or not anyone reviews it.
- Backup retention, which is separately charged and separately growing.
- Non-production environments left running outside business hours.
- The support plan tier you will actually need, which is rarely the free one.

Reserved capacity is a forecast, not a discount

Committing to one or three years lowers the unit price substantially, and it converts a variable cost into a fixed one. That is a good trade if your forecast is sound and a poor one if the workload is being re-architected. Do not commit capacity for systems you intend to change.

Lift and shift is a decision, not a failure

Re-architecting during a migration doubles the risk surface: if something breaks you cannot tell whether the cause was the move or the redesign. Moving as-is, stabilising, then optimising is slower on paper and usually faster in practice. It also gives you real consumption data to optimise against rather than estimates.

Where the money is actually recovered

Genuine savings tend to come from decommissioning, not from the cloud being cheaper per unit. The migration is the only time an organisation systematically inventories what it runs, and the discovery that a material share of servers support nothing anyone can name is common. Capture that saving explicitly, because it is the part of the business case that is real.

Sovereignty and latency are constraints, not preferences

Where data must remain in-country, or where a system serves users over links that make round-trip latency material, those constraints define the architecture before cost does. We have delivered on-premise and hybrid because that was the correct answer, and we will say so before a tender rather than after.

Sources and further reading

- NIST SP 800-145 — The NIST Definition of Cloud Computing — https://csrc.nist.gov/pubs/sp/800/145/final
- Cloud Security Alliance — Cloud Controls Matrix — https://cloudsecurityalliance.org/research/cloud-controls-matrix/

11.3.9 Are you ready for ERP? Five questions to answer before the tender

ERP & Enterprise Systems · ERP Practice · 6 min read

ERP projects fail on organisational readiness far more often than on software capability. These are the questions worth answering before you write the specification.

An ERP implementation replaces the way an organisation records what it does. That is an organisational change with a software component, not a software project with a change component, and the sequence matters because it determines who has to be in the room.

1. Does one number have one owner?

Ask three departments for the value of current inventory and see whether you get one answer. If you get three, the ERP will not fix that — it will force the disagreement into the open on day one, at which point somebody must be empowered to decide which definition is correct. Nominate data owners before go-live, not during it.

2. Is your chart of accounts fit to build on?

A chart of accounts that has accumulated ad-hoc codes for fifteen years will carry that mess into the new system permanently, because nobody wants to renumber during a migration. Restructuring is painful once and cheap afterwards. Doing it as part of the implementation is the only realistic opportunity you will get.

3. Who can stop a process?

- If the system enforces that a purchase requires a budget line, and a genuine emergency has no budget line, what happens?
- Who can override, what is recorded when they do, and who reviews the overrides?
- An ERP with no override path gets bypassed. An ERP with an unlogged override path fails audit.

4. Are you buying modules you will actually operate?

Module count is the easiest thing for a vendor to sell and the hardest thing for an organisation to absorb. Every module needs an owner, trained users, and a reason to exist on the day it goes live. A finance and procurement core that works is worth more than nine modules where six are unused and quietly diverge from reality.

5. Have you costed the year after go-live?

Implementation budgets routinely stop at go-live. The year afterwards contains the enhancement requests that emerge once people use the system properly, the reporting nobody specified because they did not know it was possible, and the staff turnover that requires retraining. Budget for it explicitly or it will be funded by cannibalising something else.

The parallel running argument

Running the old and new systems together for a period is expensive and unpopular, and it is the single control that most reliably catches a migration error before it becomes a year-end problem. We insist on it. Clients rarely thank us during the parallel period and regularly do afterwards.

Sources and further reading

- ISACA — Governance and management of enterprise IT (COBIT) — https://www.isaca.org/resources/cobit
- Panorama Consulting — ERP Report on implementation outcomes — https://www.panorama-consulting.com/resource-center/erp-report/

11.3.10 Retiring the paper dak register without losing the audit trail

E-Governance · E-Governance Practice · 5 min read

File movement systems succeed or fail on one question: can a clerk find a file faster than they could by walking to the record room?

Digitising correspondence and file movement is among the most requested public sector projects and among the most frequently abandoned. The abandonment pattern is consistent: the system is introduced alongside the paper register, both are maintained for a while, and the paper one wins because it is faster for the person under time pressure.

Speed at the counter is the whole battle

If marking a file in the system takes longer than writing a line in the register, the system will lose, regardless of policy. That means the receiving screen must open in one action, default sensibly, and require the minimum viable fields. Everything else — categorisation, linkage, scanning — can be enriched afterwards by someone not standing at a counter.

Delay becomes visible, and that is political

The genuine value of a file movement system is that it makes the location and age of every pending file visible. This is also why it is resisted. Introduce the reporting deliberately: start with aggregate ageing by branch rather than by individual, let the organisation adjust, and phase in accountability. A system deployed as a surveillance tool on day one generates creative compliance.

Design decisions that matter

- Every movement is an append-only record. Nothing is edited, corrections are new entries with a reason.
- Physical file location and digital record must reconcile — a barcode or QR label on the physical file is worth the cost.
- Offline capability, or at minimum graceful queuing, for offices where connectivity is not continuous.
- Urdu and English interface labels, and support for the actual mix of scripts your correspondence arrives in.
- Retention and disposal rules encoded from the start, because government records have statutory retention periods.

Training is for non-technical staff

Adoption correlates almost entirely with whether the counter staff were trained in plain language on the tasks they actually perform, rather than given a manual. Role-based training, short sessions, and a named person in the building who can answer questions in the first fortnight will determine whether the system is used in month three.

Sources and further reading

- UN E-Government Survey — https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2024
- National Archives — Records management principles — https://www.nationalarchives.gov.uk/information-management/manage-information/

12. How we engage

Six stages, every engagement

The same disciplined sequence whether the contract is a single supply or a multi-department programme.
Site visit, stakeholder interviews and a written understanding of the operational problem — not just the shopping list.
Architecture, bill of quantities, risk register and an implementation schedule you can hold us to.
Authorised sourcing with full documentation, inspection and warranty transfer under public procurement rules.

Engagement models

Pick the structure that fits your procurement route. We will tell you honestly which one costs you least.
Defined scope, defined price, milestone-linked payments. Best for tenders, procurements and clearly specified deployments.
Monthly fee for an agreed service level — monitoring, administration or support. Best for ongoing operational cover.
Rate-card engineering capacity for evolving scope or staff augmentation. Best for exploratory and R&D work.

Fixed-price project

Defined scope, defined price, milestone-linked payments. Best for tenders, procurements and clearly specified deployments.

Retainer / managed SLA

Monthly fee for an agreed service level — monitoring, administration or support. Best for ongoing operational cover.

Time & materials

Rate-card engineering capacity for evolving scope or staff augmentation. Best for exploratory and R&D work.

Contact

Head office	H-No. F-261, Quetta Avenue Housing Scheme, Quetta, Balochistan
Telephone	+92 312 5463398 / +92 300 5463398
Email	support@cyberedgetechs.com
Website	https://cyberedgetechs.com
Tenders	Completion certificates, audited references and technical compliance sheets are supplied with every bid on request.

13. The organisation and how we staff it

How the practice is structured, how engineers are recruited and developed, and what a client can expect from the team assigned to them.

Small teams, serious systems

You will not be the ninth engineer on a maintenance rota. Our teams are small enough that your work reaches production and a real operations room — within weeks.
Systems used daily by law enforcement, hospitals and civil service institutions.
Funded training and exam support for security, cloud and forensic certifications.
A serious technology career without leaving Balochistan.
Move between security, software, infrastructure and energy practices as you grow.

- Real deployments
- Certification support
- Local roots
- Range

Where we are hiring

Apply to support@cyberedgetechs.com with the role title in the subject line. We reply to every application.
Monitor, triage and escalate security events across client environments; tune detection rules and contribute to incident reports.
Acquire and analyse digital evidence from disks, mobile devices and cloud sources; maintain chain of custody and produce examination reports fit for legal proceedings.
Build ERP, HRMS and workflow platforms used by government departments — from database schema through to the screens clerks use every day.
Deploy and support switching, firewalls, CCTV networks and server rooms across client sites in Balochistan.
Size and design hybrid solar systems from 5 KVA to 50 KVA; prepare BOQs, supervise installation and commission plants.
Three to six month paid internships for final-year and recently graduated students. Structured mentoring, a real project, and a written reference at the end. Strong interns are offered permanent roles.

- 2+ years in a SOC, NOC or IT operations role
- Working knowledge of SIEM, EDR and network protocols
- Security+, CySA+ or equivalent is an advantage
- Hands-on experience with forensic imaging and analysis suites
- Meticulous documentation discipline
- Willingness to undergo security vetting
- Strong SQL plus a modern backend and frontend stack
- Experience shipping systems with real users and real audit requirements
- Urdu and English communication with non-technical users
- CCNA-level networking knowledge
- Hands-on structured cabling and rack build experience
- Valid driving licence and willingness to travel
- Electrical engineering background
- Hybrid inverter and battery bank design experience
- Load audit and payback modelling skills

Four steps, about two weeks

We read every CV ourselves. You hear back either way within five working days.
A working discussion about problems you have actually solved — no trick questions.
A short, paid or time-boxed task representative of the real job.

Written offer, security briefing and a named mentor for your first ninety days.

- Application review
- Technical conversation
- Practical exercise
- Offer & onboarding

No role that fits? Send us your CV anyway.

We keep strong applications on file and contact people first when a matching role opens.

Recruitment questions

SOC Analyst (L1 / L2) Quetta · Full-time
Monitor, triage and escalate security events across client environments; tune detection rules and contribute to incident reports. 2+ years in a SOC, NOC or IT operations roleWorking knowledge of SIEM, EDR and network protocolsSecurity+, CySA+ or equivalent is an advantage

Digital Forensic Examiner Quetta · Full-time
Acquire and analyse digital evidence from disks, mobile devices and cloud sources; maintain chain of custody and produce examination reports fit for legal proceedings. Hands-on experience with forensic imaging and analysis suitesMeticulous documentation disciplineWillingness to undergo security vetting

Full-Stack Software Engineer Quetta · Full-time
Build ERP, HRMS and workflow platforms used by government departments — from database schema through to the screens clerks use every day. Strong SQL plus a modern backend and frontend stackExperience shipping systems with real users and real audit requirementsUrdu and English communication with non-technical users

Network & Infrastructure Engineer Quetta · Field-based
Deploy and support switching, firewalls, CCTV networks and server rooms across client sites in Balochistan. CCNA-level networking knowledgeHands-on structured cabling and rack build experienceValid driving licence and willingness to travel

Solar Design Engineer Quetta · Full-time
Size and design hybrid solar systems from 5 KVA to 50 KVA; prepare BOQs, supervise installation and commission plants. Electrical engineering backgroundHybrid inverter and battery bank design experienceLoad audit and payback modelling skills

Internships — Security, Software & Data Rolling intake
Three to six month paid internships for final-year and recently graduated students. Structured mentoring, a real project, and a written reference at the end. Strong interns are offered permanent roles.

14. Offices, contact and procurement routing

Tell us what you are trying to solve

The more concrete the scope, the more useful our first reply. Attachments can follow by email once we acknowledge.
Call +92 312 5463398 directly and state “incident response”. Do not send credentials or evidence by email before we advise you on handling.
By submitting you consent to CyberEdge Technologies contacting you about this enquiry. We do not share your details with third parties.

- A named engineer, not a call-centre ticket
- Written technical approach and indicative timeline
- Response within one business day
- Enquiries treated as confidential under our ISO 27001 policy

Quetta Avenue Housing Scheme

Visitors are welcome by appointment. Please call ahead so the right engineer is available.

Appendix A. Standards and frameworks referenced

The standards, frameworks and guidance our practices work to. Where a client's regime differs, we work to theirs and say so at proposal stage.

Standard or framework	Applied by	Used for
ISO/IEC 27001:2022	GRC, Cybersecurity	Information security management system design, implementation and certification support
ISO/IEC 27035:2023	Cybersecurity	Information security incident management
ISO 9001:2015	All practices	Quality management across delivery
NIST SP 800-61	Cybersecurity	Computer security incident handling
NIST SP 800-86	Digital Forensics	Integrating forensic techniques into incident response
NIST SP 800-115	Cybersecurity	Technical security testing and assessment
NIST SP 800-145	Cloud	Definition of cloud service and deployment models
NIST AI RMF	AI & Data Science	Risk management for machine learning systems
OWASP WSTG / ASVS	Cybersecurity, Software	Web application testing and secure coding
PTES	Cybersecurity	Penetration testing execution and reporting structure
SWGDE best practices	Digital Forensics	Digital evidence handling and examination
Cloud Security Alliance CCM	Cloud, GRC	Cloud control assurance
ITIL v4	Cloud, Support	Service management and support processes
PPRA rules	All practices	Public procurement compliance for government tenders

Appendix B. Certification register

Credentials held across the company. Certification is by individual and is current at the date of this profile; evidence is supplied on request for pre-qualification.

Cybersecurity & IT Experts

- CISA — Certified Information Systems Auditor
- CISM — Certified Information Security Manager
- CRISC — Certified in Risk and Information Systems Control
- CEH — Certified Ethical Hacker
- CNSP — Certified Network Security Practitioner
- CNDA — Certified Network Defense Architect
- CCSE — Certified Cloud Security Engineer
- ISO/IEC 27001:2022 Lead Auditor
- ISO/IEC 27035:2023 Lead Auditor

Artificial Intelligence & Data Science

- AI Associate & AI Specialist
- IBM Certified Data Scientist
- Machine Learning & Neural Network Engineers
- Natural Language Processing (NLP) Experts
- Big Data Analysts

Business & Project Management

- PMP — Project Management Professional
- MBAs & Business Analysts
- Agile & Scrum Certified Practitioners
- ITIL V4 Certified — IT service management

Scholar, Software & Engineering

- MS in Computer Science — advanced expertise in AI, system development and computing
- Software Engineers & Full-Stack Developers — enterprise-grade applications and ERP systems

Security & assurance

- CISA
- CRISC
- CISM
- CISSP
- CEH
- CNDA
- CCSE
- CNSP
- CompTIA Security+
- SOC Analysts
- DFIR Specialists

Cloud & platform

- Microsoft Azure Administrator
- Azure DevOps Expert
- Google Cloud Professional
- Kubernetes (CKA / CKAD)
- Docker Certified Engineers
- Terraform / Infrastructure-as-Code

Data, AI & delivery

- IBM Certified Data Scientist
- AI Associate
- AI Specialist
- Microsoft & Google AI Certified Engineers
- Power BI & Tableau Experts
- PMP
- ITIL V4
- Agile & Scrum

Appendix C. Delivery method

Eight practices, each with real depth

Every practice below has its own page setting out the full capability list, deliverables, credentials, delivered work and the questions clients ask first.

Cybersecurity & Forensics

Threat intelligence, penetration testing, zero-trust architecture, incident response and digital forensics.

GRC & ISO Implementation

ISO 27001 implementation, risk registers, policy development, internal audit and certification support.

Cloud & IT Infrastructure

Cloud migration, managed services, data centre design, SDN, disaster recovery and DevOps automation.

AI & Data Science

Business intelligence, predictive analytics, fraud detection, computer vision and natural language processing.

Software Development

Custom web, mobile and enterprise applications, e-governance platforms, APIs and application modernisation.

Enterprise Resource Planning

Government, healthcare, HRMS, finance, supply chain, retail and dealership ERP — cloud or on-premise.

Training & Certification

CISA, CISM, CEH, OSCP, CISSP, CCSP, PMP, ISO 27001 and Lean Six Sigma programmes plus operator training.

Digital Transformation & Consultancy

Transformation strategy, compliance consulting, cloud advisory, specification writing and programme assurance.

Six ways to work with us

Whichever practice you engage, the commercial shape is one of these.

Advisory & Consultancy

Independent assessment of your current estate, a target architecture, and a costed roadmap. Frequently used by departments preparing PC■1 documents or tender specifications.

Implementation & Integration

Fixed-scope delivery with a named project manager, milestone plan and acceptance criteria agreed before kick-off. Weekly written status, no surprises at UAT.

Managed Services

We run it so your team does not have to — SOC monitoring, cloud operations, application administration and infrastructure management under a defined SLA.

Support & Annual Maintenance

Post-deployment cover for hardware, software and solar assets — preventive visits, spares management, remote diagnostics and on-site response across Balochistan.

Procurement & Supply

Compliant supply of ICT hardware, licensed software, forensic tools and energy equipment — with the documentation public-sector audit requires.

Training & Capacity Building

Operator, analyst and administrator training delivered on the systems we install — including forensic analyst programmes and drone operator certification.

- Current-state and risk assessment
- Solution architecture and sizing
- Specification and BOQ preparation
- Milestone-based delivery plan
- Data migration and integration
- UAT, sign-off and handover documentation
- 24×7 or business-hours coverage tiers
- Defined response and resolution SLAs
- Monthly service review and reporting
- Preventive and corrective maintenance
- Spare parts and warranty coordination

- Priority escalation for critical sites
- PPRA-compliant tendering support
- Authorised sourcing and warranty transfer
- Delivery, installation and inspection reports
- Role-based hands-on training

Six stages, every engagement

The same disciplined sequence whether the contract is a single supply or a multi-department programme.
Site visit, stakeholder interviews and a written understanding of the operational problem — not just the shopping list.
Architecture, bill of quantities, risk register and an implementation schedule you can hold us to.
Authorised sourcing with full documentation, inspection and warranty transfer under public procurement rules.
Installation, configuration, integration and migration by our own engineers, with weekly written progress.
User acceptance testing, role-based training, SOPs and formal handover with completion certification.
Warranty, AMC, monitoring and periodic health reviews for the life of the asset.

- Discover
- Design
- Procure
- Deploy
- Enable
- Sustain

Engagement models

Pick the structure that fits your procurement route. We will tell you honestly which one costs you least.

Fixed-price project

Defined scope, defined price, milestone-linked payments. Best for tenders, procurements and clearly specified deployments.

Retainer / managed SLA

Monthly fee for an agreed service level — monitoring, administration or support. Best for ongoing operational cover.

Time & materials

Rate-card engineering capacity for evolving scope or staff augmentation. Best for exploratory and R&D work.

See what we build, before you brief us

A cross-section of the hundred demonstration applications — healthcare, finance, transport, industry. Each one signs in and works.
Sign in with admin@demo.local / demo1234. Demonstration builds on synthetic data — nothing is transmitted or stored.

Send us the scope of work

You will get a named engineer, a written technical approach and an indicative timeline within one business day.

Appendix D. Frequently asked questions

Collected from across the site, grouped by the page they appear on. These are the questions clients actually ask before awarding.

Engagement and delivery

Do you work outside Balochistan?
Yes. We are headquartered in Quetta and have delivered for federal bodies including the Federal Cyber Crime Investigation Unit and the Ministry of Interior's National Police Bureau. Forensic labs have been established in seven locations nationwide.

Are you eligible for public tenders?
CyberEdge Technologies (Pvt) Ltd is SECP registered, FBR and PRA compliant, and enlisted for public procurement. We routinely supply completion certificates, audited references and technical compliance sheets with our bids.

Who owns the software you build for us?
For custom development the client owns the delivered application and its data; source code escrow or full source handover is available and is stated explicitly in the contract. Third-party licensed components remain under their own licence terms.

How do you handle sensitive or classified environments?
Our ISO 27001 information security management system governs personnel vetting, data handling, and access control. Engineers working on law-enforcement engagements operate under non-disclosure agreements and, where required, client-issued security clearance.

What support do we get after handover?
Every deployment includes a warranty period. Beyond that, annual maintenance contracts cover preventive visits, remote diagnostics, spares and priority on-site response — with agreed response and resolution times for critical sites.

Can you take over a project another vendor abandoned?
Frequently, yes. We start with an independent technical audit of what exists, give you a written assessment of what is salvageable, and quote only the remediation actually required.

Working with us

SOC Analyst (L1 / L2) Quetta · Full-time
Monitor, triage and escalate security events across client environments; tune detection rules and contribute to incident reports. 2+ years in a SOC, NOC or IT operations roleWorking knowledge of SIEM, EDR and network protocolsSecurity+, CySA+ or equivalent is an advantage

Digital Forensic Examiner Quetta · Full-time
Acquire and analyse digital evidence from disks, mobile devices and cloud sources; maintain chain of custody and produce examination reports fit for legal proceedings. Hands-on experience with forensic imaging and analysis suitesMeticulous documentation disciplineWillingness to undergo security vetting

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Internships — Security, Software & Data Rolling intake
Three to six month paid internships for final-year and recently graduated students. Structured mentoring, a real project, and a written reference at the end. Strong interns are offered permanent roles.

Software and demonstrations

Are these demos your delivered systems?
No, and we would not claim otherwise. The demos are illustrative prototypes running on synthetic data in your browser. Our delivered work — 38 contracted engagements against signed work orders — is listed in full on the project register, with dates and client departments.

Can you build something not on this list?
Yes. The hundred entries are patterns we have implementation experience with, not a menu limit. Most enquiries turn out to be a variation on one of the nine patterns above, and the ones that are genuinely new get an honest answer about what we do and do not know.

How long does a real build take?
A single-domain system with one integration typically runs eight to sixteen weeks from discovery to UAT. Multi-department platforms with legacy data migration run longer, and we will say so at proposal stage rather than at month four.

Who owns the source code?
You do, on final payment, together with the technical documentation and database schema. We do not hold client systems hostage through undisclosed dependencies, and we will hand over to another vendor cleanly if you ever need us to.

Can it run without internet, or on our own servers?
Yes. We have delivered on-premise and air-gapped systems for law-enforcement forensic work, and offline-first mobile capture for field teams operating outside coverage. Deployment model is decided against your security requirement, not our convenience.

How is security handled?
Role-based access, complete audit trail and encrypted transport are baseline, not extras. As an ISO 27001:2022 certified organisation with an in-house VAPT practice, we security-test our own builds before they reach your acceptance testing — see cybersecurity services.

Competence and certification

Cybersecurity training
CISA — IT audit, control and assurance certification CISM — enterprise security governance and risk management CEH — hands-on penetration testing and hacking techniques OSCP — advanced penetration testing and exploit development CISSP — advanced security architecture and leadership CCSP — cloud security implementation and compliance SOC Analyst training — practical SIEM implementation, monitoring and threat response DFIR training — handling cyber incidents, forensic analysis and evidence collection Zero-Trust Security & Network Defense — advanced zero-trust architectures Advanced Threat Intelligence & Malware Analysis — AI-driven security analytics and threat hunting

Governance, Risk & Compliance (GRC) training
CRISC — IT risk management and governance CIPP — global data privacy and compliance regulations ISO 27001 Lead Implementer & Auditor — ISMS training NIST CSF & Risk Management — implementing and assessing cybersecurity standards GRC Strategy training — GRC solutions, automated compliance monitoring and security frameworks GDPR, PCI-DSS and HIPAA compliance — industry-specific security and privacy frameworks

Project management & business leadership training
PMP Certification — advanced project management techniques, risk handling and execution Certified Scrum Master & Agile Project Management — agile methodologies for software delivery Lean Six Sigma (Green Belt & Black Belt) — process improvement and efficiency optimisation ITIL training — best practices for IT service management Business Continuity & Disaster Recovery Planning — resilience in IT and business operations

Appendix E. Solution capability index

The full catalogue of solutions we build, with the capability tags that describe each one. Every entry has a working demonstration application.

Business & Enterprise (10)

#	Solution	Capabilities
1	Procurement & Vendor Management	Tendering, Bid evaluation, Vendor scoring
2	Asset & Equipment Tracking (RFID)	RFID, Custody chain, Audit trail
3	Fleet Fuel Monitoring	Fuel sensors, Pilferage alerts, GPS
4	Business Intelligence Live Dashboards	ETL, Live KPIs, Drill-down
5	Workforce / Field-Force Management	Dispatch, Geo-fencing, Offline capture
6	Contract & SLA Monitoring	SLA clocks, Penalty exposure, Renewals
7	Real-Time Expense Approval	Policy engine, Instant clearing, Mobile approval
8	Digital Signage / Menu Boards	Playlists, Price sync, Offline cache
9	Queue Management Systems	Token routing, Wait prediction, Display boards
10	Facility & Energy Management (BMS)	HVAC, Load control, Setpoints

Retail & E-commerce (10)

#	Solution	Capabilities
11	Dynamic Pricing Engines	Elasticity, Price floors, Competitor feed
12	Flash Sale / Auction Platforms	Burst load, Fair queue, Anti-sniping
13	Cart Abandonment Tracking	Funnel, Recovery flows, Attribution
14	Live Product Recommendation Engine	Collaborative filter, Session context, A/B tested
15	Order Fulfilment & Picking	Wave picking, Pack verify, Manifest
16	Loyalty & Points Redemption	Tiering, Instant burn, Velocity checks
17	Live Shopping / Social Commerce	Low latency, In-stream checkout, Host tools
18	Returns & Refund Tracking	RMA, Grading, Refund release
19	Shelf Stock Sensors (Smart Retail)	Planogram, Out-of-stock, Weight sensing
20	Checkout-Free Stores	Sensor fusion, Virtual basket, Walk-out billing

Healthcare (10)

#	Solution	Capabilities
21	Pharmacy Inventory & Dispensing	Batch/expiry, Narcotics register, Reorder
22	Blood Bank Management	Group inventory, Shelf life, Cross-match
23	Organ Donation Matching	HLA scoring, Ischaemic clock, Audit trail

#	Solution	Capabilities
24	Wearable Health Trackers	Continuous vitals, Baselines, Deviation alerts
25	Remote ICU (Tele-ICU)	Bedside streams, EWS scoring, Central desk
26	Lab Test Result Delivery	Analyser link, Critical values, Portal + SMS
27	Appointment & OPD Queue	Slots, Walk-in tokens, Room routing
28	Epidemic / Outbreak Tracking	Case reporting, Cluster detection, Thresholds
29	Medical Equipment Monitoring	Utilisation, Calibration, Breakdown alerts
30	Emergency Room Triage	Triage scoring, Re-prioritisation, Bed assignment

Finance & Fintech (10)

#	Solution	Capabilities
31	Algorithmic / High-Frequency Trading	Low latency, Risk kill-switch, Backtesting
32	Forex Trading Platforms	Streaming quotes, Margin engine, Exposure limits
33	Real-Time Credit Scoring	Reason codes, Bureau feed, Model governance
34	Loan Approval Systems	Auto-verification, Four-eyes, Decision audit
35	ATM Network Monitoring	Cash forecast, Fault alerts, Reconciliation
36	Digital Wallet Apps	Double-entry ledger, QR payments, Reconciliation
37	Cryptocurrency Exchanges	Matching engine, Custody, Market surveillance
38	Robo-Advisors & Portfolio Tracking	Model portfolios, Drift rebalance, Client reporting
39	Anti-Money-Laundering Monitoring	Typologies, Case management, STR filing
40	Real-Time Settlement Systems	Netting, Liquidity, Finality

Transportation & Logistics (10)

#	Solution	Capabilities
41	Traffic Signal Control	Adaptive phasing, Green wave, Corridor control
42	Toll Collection (FASTag / e-Toll)	RFID lanes, ANPR, Violation capture
43	Parking Availability Systems	Bay sensors, Signage feed, Reservations
44	Public Transit Live Tracking	Route matching, Arrival prediction, Passenger apps
45	Shipping & Port Container Tracking	Yard events, Customs status, ETA
46	Cold Chain Temperature Monitoring	Excursion alerts, Probe telemetry, Compliance record
47	Last-Mile Delivery Routing	Route optimisation, Time windows, Proof of delivery
48	Drone Delivery Navigation	Geo-fencing, Battery margin, Corridor plan
49	Bike / Scooter Sharing	Rebalancing, Dock state, Ride sessions
50	Cargo & Freight Matching	Load board, Lane matching, Carrier vetting

Communication & Collaboration (10)

#	Solution	Capabilities
51	Live Streaming Platforms	Transcode ladder, Edge CDN, Adaptive bitrate
52	Webinar Platforms	Registration, Stage control, Engagement
53	Collaborative Editing	CRDT, Multi-cursor, Version history
54	Live Polling & Q&A	Live voting, Upvoted Q&A, Moderation
55	Push Notification Services	APNs / FCM, Segmentation, Delivery receipts
56	Presence / Online-Status Systems	Heartbeats, Fan-out, Last seen
57	VoIP Calling Systems	SIP trunks, MOS scoring, CDR
58	Real-Time Translation	Streaming ASR, Glossaries, Urdu / English
59	Social Media Live Feeds	Timeline fan-out, Ranking, Abuse controls
60	Comment & Reaction Systems	Threading, Optimistic UI, Moderation

Emergency & Public Safety (10)

#	Solution	Capabilities
61	Fire Alarm & Detection	Addressable loops, Zone escalation, Supervised
62	Flood & Water-Level Monitoring	Gauge network, Rainfall model, Staged warnings
63	Earthquake Early Warning	P-wave detection, Edge compute, Mass alerting
64	Gunshot Detection Systems	Acoustic array, Triangulation, Dispatch link
65	Panic Button / SOS Apps	Live location, Escalation, Responder app
66	Crowd Density Monitoring	Density estimation, Flow vectors, Sector alerts
67	Border Surveillance	Sensor fusion, Thermal + radar, Track handover
68	Coast Guard / Maritime Tracking	AIS + radar, Dark vessels, Zone violations
69	Search & Rescue Coordination	Sector tasking, Asset assignment, Cleared areas
70	Pandemic Contact Tracing	Exposure graph, Privacy-preserving, Notification

Industrial & IoT (10)

#	Solution	Capabilities
71	Predictive Maintenance	Vibration analysis, Remaining life, Work orders
72	Smart Grid Load Balancing	Feeder telemetry, Reserve margin, Load shedding
73	Oil & Gas Pipeline Monitoring	Leak detection, SCADA, Valve isolation
74	Water Treatment & Distribution	Process control, Residual chlorine, Pressure zones
75	Wind Turbine & Solar Farm Monitoring	String monitoring, Performance ratio, Curtailment
76	Robotic Arm & Assembly Control	Cell orchestration, Interlocks, Cycle time
77	Quality Inspection (Computer Vision)	Defect classes, Line speed, Batch traceability
78	Warehouse Robotics Coordination	Task allocation, Deadlock avoidance, Charging
79	Environmental & Air-Quality Sensors	PM2.5 / PM10, Drift correction, Public index
80	Nuclear Plant Control Systems	SIL-rated, Redundant channels, Alarm rationalisation

Smart City & Infrastructure (10)

#	Solution	Capabilities
81	Smart Street Lighting	Per-pole control, Fault reporting, Energy accounting
82	Waste Collection Tracking	Fill sensors, Dynamic routes, Proof of collection
83	Smart Water Metering	AMI reads, Leak detection, Tamper flags
84	EV Charging Station Management	OCPP, Load sharing, Tariff billing
85	Building Access Control	Biometric, Anti-passback, Zone rules
86	Elevator Monitoring Systems	Fault codes, Entrapment alerts, Trip counts
87	Weather Monitoring Stations	AWS network, Advisories, Historical archive
88	Noise Pollution Monitoring	LAeq logging, Statutory limits, Zone reporting
89	Smart Irrigation (Agri-Tech)	Soil moisture, ET scheduling, Valve control
90	Livestock & Farm Animal Tracking	Collar telemetry, Heat detection, Geo-fence

Gaming, Media & Sports (10)

#	Solution	Capabilities
91	eSports Tournament Platforms	Brackets, Anti-cheat, Prize payout
92	Live Sports Score & Stats Feeds	Event feed, Broadcast graphics, Partner API
93	Sports Betting Platforms	In-play odds, Liability limits, Market suspension
94	Fantasy Sports (Live Scoring)	Per-ball scoring, Mass recompute, Contest tiers
95	AR/VR Multiplayer Experiences	Spatial state, Interest management, Motion-to-photon
96	Live Auction & Bidding for Collectibles	Proxy bidding, Reserve, Provenance
97	Interactive Live TV	Second screen, Ad insertion, Timeline sync
98	Music Collaboration & Streaming	Clock sync, Stem streaming, Session state
99	Real-Time Leaderboards	Sorted sets, Rank queries, Seasons
100	Cloud Gaming	GPU sessions, Encoder tuning, Input prediction

Appendix F. Bibliography

Every external source cited in our published articles, consolidated. Listed so a reader can verify any claim we make independently.

Source	Location
CISA — StopRansomware Guide	https://www.cisa.gov/stopransomware
Cellebrite — 2026 Digital Forensics Industry Trends	https://cellebrite.com/en/2026-industry-trends/
Cloud Security Alliance — Cloud Controls Matrix	https://cloudsecurityalliance.org/research/cloud-controls-matrix/
Google — Rules of Machine Learning: Best Practices for ML Engineering	https://developers.google.com/machine-learning/guides/rules-of-ml
IAF MD 26 — Transition Requirements for ISO/IEC 27001:2022	https://iaf.nu/en/iaf-documents/?id=21
ISACA — Governance and management of enterprise IT (COBIT)	https://www.isaca.org/resources/cobit
ISO/IEC 27001:2022 — Information security management systems	https://www.iso.org/standard/27001
LRQA — Preparing for the ISO 27001:2022 transition	https://www.lrqa.com/en-us/insights/articles/preparing-for-iso-270012022-transition-by-october-2025/
MSAB — Mobile Forensics in 2026	https://www.msab.com/blog/mobile-forensics-comprehensive-guide/
Magnet Forensics — 2026 State of Enterprise DFIR Report	https://www.magnetforensics.com/blog/state-of-enterprise-dfir-report-the-top-trends-shaping-digital-investigations-in-2026/
NCSC — Mitigating malware and ransomware attacks	https://www.ncsc.gov.uk/guidance/mitigating-malware-and-ransomware-attacks
NIST AI Risk Management Framework	https://www.nist.gov/itl/ai-risk-management-framework
NIST SP 800-115 — Technical Guide to Information Security Testing	https://csrc.nist.gov/pubs/sp/800/115/final
NIST SP 800-145 — The NIST Definition of Cloud Computing	https://csrc.nist.gov/pubs/sp/800/145/final
NIST SP 800-61 — Computer Security Incident Handling Guide	https://csrc.nist.gov/pubs/sp/800/61/r3/final
NIST SP 800-86 — Guide to Integrating Forensic Techniques into Incident Response	https://csrc.nist.gov/pubs/sp/800/86/final
NIST — Computer Forensics Tool Testing Program	https://www.nist.gov/itl/ssd/software-quality-group/computer-forensics-tool-testing-program-cftt
National Archives — Records management principles	https://www.nationalarchives.gov.uk/information-management/manage-information/
OWASP Web Security Testing Guide	https://owasp.org/www-project-web-security-testing-guide/
PTES — Penetration Testing Execution Standard	http://www.pentest-standard.org/
Panorama Consulting — ERP Report on implementation outcomes	https://www.panorama-consulting.com/resource-center/erp-report/
SWGDE — Best Practices for Digital Evidence	https://www.swgde.org/documents/published-complete-listing/
Standish Group — CHAOS Report on project outcomes	https://www.standishgroup.com/

Source	Location
UK Government Service Manual — Understanding users and their needs	https://www.gov.uk/service-manual/user-research
UN E-Government Survey	https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2024

External links are provided for verification. CyberEdge is not responsible for third-party content, and inclusion does not imply endorsement by the cited organisation.

Appendix G. Glossary

Term	Meaning
AMC	Annual maintenance contract — post-warranty support at an agreed service level
AMI	Advanced metering infrastructure — utility meters read over a network
AMR	Autonomous mobile robot, used in warehouse automation
ANPR	Automatic number plate recognition
BFU	Before First Unlock — a handset state in which encrypted data is unreadable
BMS	Building management system — HVAC, lighting and load control
CDR	Call detail record
Chain of custody	The documented record of who held an exhibit, when, and what was done to it
CRDT	Conflict-free replicated data type, used for collaborative editing
DFIR	Digital forensics and incident response
EWS	Early warning score — a clinical deterioration index
Geo-fence	A virtual boundary that raises an event when crossed
GRC	Governance, risk and compliance
HRMS	Human resource management system
ISMS	Information security management system, as defined by ISO/IEC 27001
MOS	Mean opinion score — a measure of voice call quality
OCPP	Open Charge Point Protocol, used by EV charging infrastructure
OEE	Overall equipment effectiveness
PPRA	Public Procurement Regulatory Authority
RMA	Return merchandise authorisation
RTO / RPO	Recovery time and recovery point objectives for disaster recovery
SIEM	Security information and event management
SLA	Service level agreement
SOC	Security operations centre
STR	Suspicious transaction report, filed under anti-money-laundering rules
UAT	User acceptance testing
VAPT	Vulnerability assessment and penetration testing

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Every material claim in this profile can be checked independently. We would rather you did.

Claim	How to verify it
Incorporation and legal status	Search the SECP company register for CyberEdge Technologies (Private) Limited. Incorporation certificate supplied on request.
ISO/IEC 27001:2022 certification	Request the certificate and check its number and scope statement directly with the issuing certification body. Ask specifically for the scope — a certificate that excludes the service you are buying is worth nothing to you.
PEC licence	Verify the licence number on the Pakistan Engineering Council register.
PSEB registration	Verify on the Pakistan Software Export Board register of registered companies.
Tax status	FBR active taxpayer status and PRA registration are verifiable online against our NTN, supplied on request.
Delivered engagements	Request the completion certificate and the signed work order for any engagement in section 9. Where the client is a public body, the award is normally a matter of public procurement record.
Client references	We will provide the name and contact details of the officer who held the contract, with that officer's consent. Contact them directly and without us present.
Individual certifications	Credential holders can be verified against the issuing body's register — ISACA for CISA, CISM and CRISC; EC-Council for CEH; PMI for PMP.
Product distribution rights	Confirm our MOBILedit dealership directly with Compelson Laboratories, and the UNIQSCAN supply partnership with Shenzhen Unisec Technology.
Published article claims	Every factual claim in section 11 carries a link to its primary source. The full bibliography is at Appendix F.
Demonstration applications	Open any of the hundred applications described in section 10 at cyberedgetechs.com/software-solutions.html and use it yourself.

Appendix I. About this document

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