

E-Solutions



Government of Pakistan
Ministry of Information Technology
& Telecommunication

Year Book 2024-25

**Social
Doorway**

3G/4G

E-Office

**Human
Resources**

Globalization

Information Highway

Government of Pakistan
Ministry of Information Technology and
Telecommunication (IT and Telecom Division)



Year Book 2024-2025

FOREWORD



The Ministry of Information Technology and Telecommunications (MoITT) is mandated to formulate policies aimed at strengthening the national Information and Communication Technology (ICT) infrastructure and enhancing related services, with the goal of transforming Pakistan into a knowledge-based economy through the provision of reliable and affordable ICT-enabled services.

Rule 25 of the Rules of Business, 1973 requires each Division and Ministry of the Federal Government to prepare a Year Book highlighting its activities and achievements during the year. This The annual publication of this Year Book reflects the Government's commitment to the public's right to information.

In fulfillment of this obligation, the Ministry of Information Technology and Telecommunications has prepared its Year Book for the year 2024–25. The main purpose of this publication is to inform the public about the key initiatives and activities undertaken by the Ministry and the organizations, companies, and departments operating under its administrative control.

It is sincerely hoped that this Year Book will serve as a useful reference for the general public, researchers, and scholars interested in learning about the activities carried out by MoITT during the year.

(ZARRAR HASHAM KHAN)
Secretary IT

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Functions of the Ministry of Information Technology and Telecommunications

FUNCTIONS OF MINISTRY OF IT & TELECOM (MAIN)

Under Schedule II of the Rules of Business, 1973, the following responsibilities are assigned to the Ministry of Information Technology and Telecommunications:

1. To prepare comprehensive and integrated plans, and to formulate policies for the development, expansion, and modernization of information technology and telecommunications, including supporting infrastructure, across Pakistan.
2. To coordinate with Provincial Governments, autonomous and statutory bodies, the private sector, international organizations, and foreign governments on matters relating to information technology and telecommunications.
3. To promote and support human resource development in the fields of information technology and telecommunications.
4. To encourage and facilitate the adoption and use of information technology applications in public and private sectors.
5. To issue guidelines and frameworks for the standardization of software used within Government organizations.
6. To undertake planning, policy formulation, and legislative work covering all aspects of telecommunications and to issue related policy directives.

7. To deal with all affairs concerning the National Telecommunication Corporation (NTC), Universal Service Fund (USF), Pakistan Software Export Board (PSEB), Ignite, Special Communications Organization (SCO), Ignite, Pakistan Digital Authority (PDA) Telecommunications Foundation (TF), Pakistan Telecom Employees Trust (PTET) National Information Technology Board (NITB), Electronic Certification Accreditation Council (ECAC).

Administration Wing

The Administration Wing oversees the overall administrative and logistical functions of the Ministry including Human Resource Management. Its principal responsibilities encompass:

- Recruitment, promotions, disciplinary actions, and other service-related matters
- Professional development and capacity enhancement programs
- Ensuring effective coordination among various Wings of the Ministry
- Maintaining liaison with organizations working under the administrative purview of the Ministry of IT & Telecom (MoITT)
- Oversight of financial affairs, including utilization of allocated funds
- Budget management, monitoring of expenditures, reconciliation with AGPR, and re-appropriation of funds where required

- Management of parliamentary affairs and coordination with the National Assembly, Senate, and their respective committees

Activities During 2024–2025

During the fiscal year 2024–2025, MoITT accomplished a major advancement in administrative modernization through the implementation of the e-filing system, adopting a core module of the e-Office application suite.

Major actions undertaken included:

- Organizing extensive training sessions for Ministry staff
- Promoting an enabling and encouraging work environment for both IT-proficient and non-IT-proficient employees
- Streamlining file movement, submission, and disposal procedures to enhance operational efficiency
- Providing essential hardware resources to support digital transformation

This initiative significantly contributed to strengthening transparency, improving efficiency, and modernizing internal administrative workflows.

2. Administrative and Financial Initiatives

Throughout the year, the Administration Wing implemented various institutional reforms aimed at improving governance and operational effectiveness, including:

- Revision and enhancement of the Delegation of Financial Powers framework to promote accountability and efficient financial control

- Internal reorganization of the Wing to improve performance and service delivery
- Appointment to critical vacant positions, including:
 - Chief PMO
 - Director General (Multilateral Organizations) and
 - IT Specialists

DEVELOPMENT WING, MOITT

Development Wing is headed by a Joint Secretary, and assisted by a Deputy Secretary, Two Section Officers, This Wing is responsible for processing of Development projects with various fora like Departmental Development Working Party (DDWP), Central Development Working Party (CDWP), and Executive Committee of National Economic Council (ECNEC). Development Wing processes release of funds to the executing agencies and follows up their utilization as well as dealing the administrative matters of National Information Technology Board (NITB) and Pakistan Software Export Board (PSEB).

During the year 2024-25, five (05) new projects were approved by DDWP/CDWP. And Sixteen (16) ongoing projects were carried forward. The funds amounting to Rs. 23,929.000 million were allocated for the projects.

Following is the detail of projects successfully completed during FY-2024-25: -

S. No	Name of Projects	Outcomes
1	Certification of IT Professionals	8,593 candidates were trained/certified in various IT fields like AWS Certified Solution Architect, Azure Data Scientist Associate, Certified Ethical Hacker, Digital Marketing, Games Development, PMP etc.
2	Establishment of 25 STPs in Pakistan with rental Subsidy	25 STPs were established in Karachi, Lahore, Islamabad secondary and tertiary cities and towns of Pakistan, accommodating 200+ IT and ITeS companies generating in annual export revenue of USD 22 million.
3	High Impact Skills Bootcamp	200 trainings were imparted in the fields of Data Science, Block Chain, Cyber Security and Cloud Computing and 100 trainers were certified in their respective fields.
4	Crime Analytics and Smart Policing	Successfully automated 184 police station in capital cities across the country.

		Following Module were deployed: - i. Complaints Management System ii. Record Management System iii. HR Management System iv. Crime Mapping v. Hotel Eye vi. Anti-Vehicle Lifting System vii. Establishment of Police Khidmat Markaz.
5	Hybrid Power Solution for Remote Sites in AJK & GB	157 Remote Sites (BTS Towers) of Special Communication Organization (SCO) were shifted to on the Solar Energy for provision of round the clock coverage and to reduce the carbon footprint in AJK & GB.
6	Expansion of GPON FTTH Services in existing and new cities of AJK and GB	Broadband services to 12000 subscribers were provided through expansion of the GPON FTTH services in AJK & GB.

Following new projects were initiated during FY-2024-25:

S. No	Name of Projects	Objectives
1	Digital Economy Enhancement Project	• Development of key enablers for whole-of-government approaches • Development and Implementation of Data Exchange Layer • National Digital Portal and Digital Services Collaboration • National Digital ID and Digital Vaults • Civic Innovation & Technology Lab • Pakistan Business Portal
2	Expansion of Cellular Services in AJK and GB Phase-IV	Expansion of Cellular Services in AJ&K and GB by installing 28 Cellular Sites along with civil infrastructure
3	NGMS Core Upgradation	Project is proposed for up-gradation of NGMS PR / DR Core Network of Cellular Network of AJ&K and GB
4	National Semiconductor HR Development	• Creation of a critical mass of qualified IC designers in Pakistan will drive a fabless chip design ecosystem, leading to revenue generation through research and innovation.

S. No	Name of Projects	Objectives
	Program	• Consolidation of essential chip design resources (EDA tools, compute infrastructure, tape-out access, and expert knowledge) under one program will offer significant cost savings and prevent duplication of efforts. • Availability of skilled IC designers is expected to stimulate the establishment of new fabless design centers, attract foreign direct investment (FDI), and foster growth of existing companies and new startups, enhancing financial value within the ecosystem. • Fabless chip design contributes over 50% of the global semiconductor market, largely driven by skilled human resources. Top global companies (e.g., Nvidia, Qualcomm, Broadcom) operate in this model. • The program's economic impact lies in producing skilled professionals who can support services-based fabless companies and attract multinational companies to establish offshore design centers in Pakistan, driving significant FDI inflows. • Supports entrepreneurship and startups through built-in incubation opportunities across all program components, fostering economic diversification and job creation.
5	Revamping of IT Industry Landscape	The Revamping IT Industry Landscape project aims to transform Pakistan into a globally competitive IT hub. The initiative focuses on strengthening the national IT ecosystem through targeted skills development, improved industry-academia linkages, and enhanced digital capacity. The project's scope is to increase IT exports to USD 400–450 million by the project's end, contributing to the broader national goal of achieving USD 10–15 billion in exports by 2028–29. The project addresses sectoral challenges such as workforce readiness, infrastructure gaps, and global market visibility. Through 20,950+ specialized trainings, leadership programs, bootcamps, BPO upskilling, and an intern apprenticeship program, the project aims to significantly expand and upgrade Pakistan's IT talent pipeline. Overall, it provides a strategic foundation to attract investment, boost competitiveness, and position Pakistan as a preferred global tech destination.

Telecom Wing

Introduction

The year 2024–25 marked a significant phase for Pakistan’s telecommunications sector, characterized by sustained growth, accelerated infrastructure development, and transformative regulatory reforms. The Ministry of IT and Telecommunication (MoITT), the sector continued to strengthen its role as a key enabler of economic activity, digital inclusion, and national connectivity. Building on the momentum of previous years, targeted policy interventions, enhanced investment climate, and forward-looking frameworks laid the groundwork for next-generation services, while expanding access to digital opportunities across the country. This report presents an overview of the sector’s performance, key achievements, and policy milestones that collectively underscore telecom’s growing contribution to Pakistan’s digital and economic future.

Sector Performance and Economic Impact

The telecom sector continued to demonstrate resilience and expanding economic significance. Sector revenues reached **PKR 1,075 billion** during the year, reflecting **12% growth** over the previous year and a cumulative increase of nearly **68% percent** since 2021. The sector’s contribution to the national exchequer **increased to PKR 402 billion**, registering **21% annual growth** and more than **81% growth** over the last five years. These trends underscore the growing fiscal relevance of telecommunications within the national economy.

Average revenue per user **improved to PKR 306**, indicating increased consumption of data and value-added services. Total sector investment in 2024-25, reached **USD 838 million**, while foreign direct investment rose sharply to **USD 97 million**, more than doubling compared to the previous year. This increase in FDI reflects improved regulatory certainty, renewed investor confidence, and the sector’s readiness for future technologies.

Connectivity Expansion and Broadband Growth

Expanding access to telecommunications services across the country remained a core priority. Overall tele-density remained **stable at 81%**, while Azad Jammu and Kashmir and Gilgit-Baltistan recorded tele-density of over **100%**, reflecting targeted interventions to enhance connectivity in previously underserved regions. Broadband penetration increased to **60.6 %**, representing **16% growth** since 2021.

Total broadband subscriptions reached **150 million**, with mobile broadband accounting for **146 million subscribers**, underscoring the central role of mobile networks in extending internet access. Fixed broadband subscriptions remained steady at approximately four million, providing a stable foundation for enterprise and high-capacity connectivity needs.

Network Infrastructure and Technology Modernization

Significant progress was made in modernizing telecom infrastructure and enhancing network quality. **97%** of cellular sites are now 4G-enabled, supporting improved data speeds and service reliability. Between July 2024 and June 2025, **2,646 new cellular sites** were deployed, expanding coverage and capacity nationwide. The total number of cellular sites **increased to 58,423**, with nearly **18% fiberized**, strengthening backhaul networks and future readiness.

Data consumption reached **27,727 petabytes**, more than **doubling over** the last five years. This rapid increase reflects changing consumer behavior, increased digital service adoption, and the growing importance of telecommunications in economic and social activity.

Pakistan's domestic fiber backbone also continued to expand. The **total length of optical fiber laid within the country reached 228,940 km**, comprising **77,851 km of long-haul fiber** and

151,089 km of metro fiber, strengthening national backhaul capacity and enabling higher- capacity broadband expansion across urban and intercity corridors.

Pakistan's international connectivity and digital backbone were further strengthened through a robust and resilient infrastructure base. The country is currently served by **six active submarine cable systems**, providing an aggregate international bandwidth capacity of **approximately 17 Tbps**, which ensures redundancy, service continuity, and support for rising data demand. This connectivity is complemented by a growing domestic digital infrastructure, with **more than 20 operational data centers** supporting cloud services, content hosting, and enterprise connectivity, collectively enhancing network resilience, data localization, and the overall readiness of Pakistan's digital ecosystem.

In addition, Pakistan's strategic cross-border connectivity remains a key enabler for international and regional traffic. The **Pak-China Optical Fiber Cable (OFC)** has a **capacity of 1 Tbps**, with **current utilization at 650 Gbps**, reflecting strong demand and the growing importance of resilient cross-border routes for international bandwidth and service continuity.

Local Manufacturing and Digital Financial Services

The domestic telecom ecosystem continued to mature through increased local manufacturing and expansion of digital financial services. Locally manufactured mobile devices reached an estimated **32.7 million units**, including **17.6 million smartphones**, contributing to device affordability, import substitution, and employment generation.

Mobile financial services recorded strong growth during the year. Mobile wallet **accounts increased to 136 million**, reflecting sustained expansion over the past five years. Female mobile wallet accounts grew at a faster pace, increasing by **more than 120%**

since 2021, demonstrating tangible progress toward gender-inclusive digital finance. The volume of mobile banking transactions **reached 6.7 billion**, while the total value of transactions **increased to PKR 31,324 billion**, nearly **four times** the level recorded in 2021.

Service Quality, Consumer Protection and Inclusion

Improving quality of service and safeguarding consumer interests remained an important focus of regulatory oversight. Cellular consumer complaints **declined by thirteen percent** on a year-on-year basis, reflecting improvements in service delivery and enforcement mechanisms. These gains were complemented by targeted efforts to enhance affordability, coverage, and accessibility.

Pakistan also achieved notable progress in digital inclusion at the international level. The gender gap in mobile internet usage narrowed significantly from **38% to 25%**, representing the largest reduction globally, as highlighted in the GSMA Gender Gap 2025 assessment. This achievement reflects the combined impact of expanded network coverage, affordable services, and inclusive policy interventions.

Smart Village Connectivity

During 2024–25, **MoITT** advanced rural digital inclusion through the **Smart Village Pakistan** initiative, implemented in collaboration with the **International Telecommunication Union (ITU)** and **Huawei Technologies**. Building on earlier pilots in **Gokina** and **Sambrial**, the **third Smart Village was inaugurated in Swabi in April 2025** to expand digital access and service delivery in underserved areas. The initiative is designed to narrow the **rural and urban digital divide** by integrating connectivity with community-facing digital services, including **digital education, telehealth, and skills development**, with a particular focus on empowering **women and farmers** through training in **basic digital literacy, online marketing, e-commerce, and digital financial tools**. The program is supported by implementation partners

TeleTaleem (digital education), **Sehat Kahani** (telehealth services), and **Baidarie** (community engagement and center operations), and is positioned as a **replicable framework** to scale **digital inclusion** and **socio-economic opportunities** across Pakistan's rural communities.

Policy and Regulatory Reforms

The year 2024–25 marked a milestone in telecom policy and regulatory reform. More than **600 MHz of spectrum** was made available, ensuring readiness for next-generation mobile broadband services. The Economic Coordination Committee approved the auction of IMT spectrum, and the **auction process is formally underway**, providing long-term clarity to operators and investors.

Following extensive international consultation, the **Mobile Virtual Network Operator (MVNO)** framework was approved and issued, enabling new market entrants and fostering service innovation. The **abolition of Right of Way fees** and the soft launch of a centralized Right of Way portal significantly reduced deployment costs and administrative barriers for network expansion. **Revisions to RBS charges**, and notification of the **Radio Local Area Network regulatory framework** further strengthened the enabling environment for efficient infrastructure deployment and expanded Wi-Fi connectivity. In parallel, **telecom equipment standards regulations** were notified, aligning Pakistan's networks with international quality, safety, and security benchmarks.

A comprehensive **Satellite Services Licensing Regime**, along with a **dedicated Fixed Satellite Services (FSS) Framework**, is being finalized to enable the orderly entry of satellite operators and the provision of satellite-based connectivity services. These initiatives are expected to **expand broadband access** in remote and underserved areas, strengthen network resilience and redundancy, and create an enabling environment for investment in satellite communications while ensuring alignment with national regulatory and security requirements.

In addition, MoITT is advancing upcoming consumer- and investment-enabling initiatives, including an **Uninterrupted Internet Policy** to strengthen service continuity and resilience, and a **smartphone on installments** program to improve device affordability and accelerate digital inclusion, particularly for low-income segments and new broadband users.

Expanding Digital Access in Education and Public Services

Targeted connectivity initiatives were implemented to strengthen digital inclusion and support technology-enabled public services in the Islamabad Capital Territory. High-speed internet connectivity was provided to **432 Federal Directorate of Education (FDE) schools**, enabling EdTech interventions, digital learning platforms, and improved access to online educational resources.

In addition, internet services were extended to selected **public spaces** and **Basic Health Units (BHUs)** across ICT, supporting digital health applications, public access to online services, and enhanced service delivery. These initiatives underscore the role of telecommunications in advancing education, healthcare, and inclusive access to digital opportunities.

To expand public access to reliable internet services and support the “Digital Nation” vision, **NTC**, in coordination with **CDA** and under **MoITT’s facilitation**, progressed the rollout of **free public Wi-Fi** in Islamabad using **Wi-Fi 7** technology. A plan for **82** access points covered key public locations, including Metro Stations (Red Line), sectors’ markaz, Sunday bazaars, parks, and selected public spaces and a hospital site, supported through NTC–CDA arrangements for bandwidth and coverage. User access was planned through the “AFAQ” authentication application, with priority activation sites including Fatima Jinnah Park (F-9), CDA Hospital, and Metro Station (Pak Secretariat).

Conclusion and Outlook

The performance of Pakistan's telecommunications sector during 2024–25 reflects the successful convergence of sustained economic growth, accelerated infrastructure development, and comprehensive regulatory reform. Strong gains in revenue, investment, broadband penetration, and digital service adoption reaffirm the sector's role as a key enabler of economic activity, fiscal contribution, and inclusive digital access. Improvements in service quality, consumer protection, gender inclusion, and local manufacturing further demonstrate the maturity and resilience of the telecom ecosystem.

Looking ahead, the availability of substantial spectrum resources, the ongoing IMT spectrum auction, and the introduction of progressive frameworks such as MVNOs, RoW charges abolishment, RLAN, and satellite services are expected to drive the next phase of sectoral growth. Continued focus on network modernization, fiberization, digital public infrastructure, and inclusion-oriented initiatives will support emerging technologies, expand connectivity to underserved areas, and strengthen Pakistan's position in the regional and global digital economy.

The foundations laid during 2024–25 position the telecommunications sector to play a central role in enabling innovation, investment, and sustainable digital transformation in the years ahead.

IT Wing

1. Record ICT Export Growth and Historic Monthly Peak

ICT export remittances have reached a historic FY level of about USD 3.8 billion by June 2025, with year-on-year growth of roughly 18% against a USD 4.1 billion target. In Q1 FY2025-26, exports crossed USD 1.05–1.06 billion, a 20–21% annual increase; September 2025 alone hit a record USD 366 million, up about 25% YoY and representing the highest monthly IT exports in Pakistan's history. These gains have pushed ICT to nearly half of Pakistan's total services exports and delivered the highest trade surplus among services sectors.

2. Expansion and Formalization of the IT Ecosystem via PSEB Registrations

By 30 June 2025, the Pakistan Software Export Board (PSEB) has registered 22,374 entities: 7,038 IT companies, 1,496 call centres, and 13,840 freelancers. This comprehensive registration drive formalizes the tech ecosystem, improves sector visibility, and underpins better policy support and export reporting. It also strengthens the pipeline for targeted incentives, compliance programmes, and access to global markets.

3. Digital Nation Pakistan Act 2025 and Pakistan Digital Authority (PDA)

The Digital Nation Pakistan Act 2025 (Act No. 1 of 2025) has been enacted, creating the National Digital Commission (chaired by the Prime Minister) and the Pakistan Digital Authority as the central body to implement the national digital masterplan. The Act establishes a unified governance framework for Digital Public Infrastructure (DPI), including data exchange, identity and service platforms, reducing fragmentation across federal and provincial tiers. Appointment of the PDA Chairperson and members and vetting of PDA rules progressed through 2025, consolidating

institutional capacity for whole-of-government digital transformation.

4. Approval and Roll-out of the National AI Policy 2025

The Federal Cabinet approved the Artificial Intelligence (AI) Policy 2025, which establishes an AI Council, AI Directorate and a National AI Fund to drive ethical and inclusive adoption. The policy targets training around 200,000 people per year and aims to create 1 million AI-skilled resources by 2030, alongside government-wide deployment of AI solutions by 2027. Implementation has begun through an interim cell, AI hubs, training programmes and R&D support, positioning Pakistan as a serious AI player in both public and private sectors. Around 170 probationary officers have completed AI training under MoITT's AI-policy implementation. Furthermore, a "local LLM" (large language model) has been built under MoITT.

5. Advancement of the Personal Data Protection Bill / Act

The Personal Data Protection Bill (PDPB) has been updated in consultation with local and international stakeholders and cleared by the Inter-Ministerial Committee and Cabinet. It is now under legal vetting with the Ministry of Law & Justice, after which Parliamentary enactment will establish a Data Protection Commission and a robust legal basis for citizens' digital privacy, cross-border data transfers, and compliance with global norms. This framework underpins trust in e-government, cloud adoption and export-oriented IT services.

6. National Cybersecurity Framework and CERT Institutionalization

MoITT has significantly strengthened cyber resilience by notifying telecom Critical Information Infrastructures (CIIs), establishing the National CERT (NCERT) and a CERT Council, and nominating 6 governmental and 3 sectoral CERTs with 8 additional sectoral CERTs

identified. Over 3,000 participants were trained across 16 cities through workshops, awareness sessions, cyber-drills and CTF competitions, and Pakistan actively engaged in ITU Global CyberDrills and regional collaborations. These steps are supported by a draft Cyber Security Act, moving the country toward a comprehensive legal and operational cyber defence posture.

7. Top-Tier Standing in Global Cybersecurity and E-Government Indices

Pakistan has achieved Tier-1 “Role Modelling” status in the ITU Global Cybersecurity Index (GCI) 2024 and entered the “High EGD” category in the UN E-Government Development Index. These recognitions reflect improvements in legal, technical and organizational cybersecurity measures as well as progress in online services, telecommunication infrastructure and human capital. They also enhance Pakistan’s international credibility as a secure and reliable digital partner.

8. Implementation of Cloud First Policy and Cloud Board

The Cloud First Policy and its procurement framework have been operationalized, with accreditation criteria defined and adoption done by all the provinces. A Cloud Board has been formally notified and held its first meeting to steer government cloud migration and Cloud Service Provider (CSP) accreditation. This reduces fragmented infrastructure, improves data security, and allows scalable, cost-efficient hosting of e-government applications.

9. Launch of the Digital Economy Enhancement Project (DEEP)

DEEP, a USD 78 million World Bank-funded programme, has become the flagship vehicle for modernizing government service delivery and DPI. Project Management Units and Implementing Units have been established and are rolling out interoperability enablers such as the National Data Exchange Layer (NDEL) and digital ID components. DEEP’s focus on one-stop digital services for

citizens and businesses directly supports economic efficiency, transparency, and improved policy-making.

10. National Data Exchange Layer (NDEL) and Citizen Services Portal (Pak App)

Under DEEP, NITB and NADRA have shortlisted 10 high-impact services, developed and tested a pilot portal, and integrated Single Sign-On (SSO) with NDEL. The “Pak App” has been published on Android and iOS with SSO and initial integrated services, and NDEL is expected to have its first agencies live by end-2025. This creates the backbone for seamless, secure data sharing and eventually a unified citizen services interface.

11. Digital ID and Secure Document Wallet (PakID Vault)

MoITT, NITB and NADRA have piloted a secure digital ID system with six official documents (including CNIC, NICOP, POC and key federal and provincial licences) enabled in digital vaults accessed via the Pak App. Public launch is sequenced with data integration from mobile operators and revised APIs. This will enable legally recognized digital identities and documents, cutting fraud, reducing service delivery time and enabling advanced e-services such as e-KYC and digital signatures.

12. Near-Universal E-Office Adoption Across Federal Ministries

E-Office has been almost fully adopted across federal ministries, transforming internal workflows from paper-based files to digital processing. Departments report up to 70% reduction in decision-making time due to faster file movement, integrated approvals and audit trails. This shift significantly improves administrative efficiency, transparency and institutional memory within the federal government.

13. National ICT Internship Programmes and Industry Placements

Since February 2024, over 1,000 interns have been placed in leading IT companies and startups under ICT internship schemes, with an internship-to-employment conversion rate of around 30%. A fully paid 6-month internship model with a PKR 30,000 monthly stipend has been adopted for scaling, with more than 9,000 additional placements planned over the next three years. This ensures computing graduates are “zero-day employable” and closely aligned to real industry needs.

14. Emerging Technology Bootcamps and Large-Scale Digital Skills Training

MoITT and its partners have run national bootcamps in cloud computing, cybersecurity, blockchain and AI, successfully delivering over 12,600 specialized certifications with a plan to reach 20,000. Parallel programmes such as DigiSkills.pk have offered over 600,000 free online training sessions in freelancing and digital skills. This combination significantly upgrades the talent pipeline for both domestic innovation and global outsourcing markets.

15. Professional and Firm-Level Certifications for Export Competitiveness

More than 1,500 IT professionals have obtained certifications in AI, cybersecurity and cloud, with about 70% reporting career advancement. On the firm side, at least 30–40 companies have achieved GDPR and related ISO certifications, with certified firms reporting around 10% higher exports and revenues. MoITT subsidizes up to 70% of certification costs, directly improving compliance, data protection and access to high-value markets, particularly in the EU.

16. Expansion of National Incubation Centers (NICs) and Startup Ecosystem

MoITT, through Ignite, has established eight NICs in Islamabad, Lahore, Karachi, Quetta, Peshawar, Faisalabad, Hyderabad and Rawalpindi. These centres collectively host 166 startups, have created roughly 5,000 jobs, generated PKR 392 million in revenue and attracted PKR 260 million in investment. Additional initiatives such as NIC Women and ITU-backed Digital Transformation Acceleration Centers further deepen entrepreneurial support, especially for women-led and regionally dispersed ventures.

17. Pakistan Startup Fund and BridgeStart Pakistan

In 2024, the Pakistan Startup Fund and BridgeStart Pakistan were operationalized to provide early-stage risk capital and soft-landing support for startups. BridgeStart issued its first grant call in April 2024, with an expert committee evaluating applications to help companies expand globally. These instruments complement NICs by addressing the funding gap and accelerating internationalization of high-potential Pakistani startups.

18. Digital Public Service Platforms: Apostille, Hajj App and One Patient One ID

MoITT has enabled multiple flagship digital public services, including an Apostille platform for the Ministry of Foreign Affairs that drastically cuts processing times and aligns Pakistan with global document authentication standards. A Hajj mobile application now serves over 500,000 Pakistani pilgrims with real-time updates, navigation and emergency support. The "One Patient One ID" system allows unified medical records across public hospitals, improving care quality and reducing administrative delays.

19. E-Rozgar Centers and Freelancing Promotion

Twenty e-Rozgar centres have been established to train youth in freelancing and entrepreneurship. Graduates of these centres are

generating significant income on global platforms, reducing unemployment and contributing to foreign exchange earnings. These initiatives complement national freelancer policies and digital skills programmes, positioning Pakistan as a leading global freelancing hub.

20. National Freelancers Facilitation Policy

A dedicated National Freelancers Facilitation Policy has been drafted, consulted with stakeholders and released for public feedback. The policy aims to simplify taxation, banking, and compliance frameworks for freelancers and remote workers, including facilitation of export remittances through formal channels. Once approved, it will structurally recognize freelancing as a mainstream export segment and lower entry barriers for millions of digital workers.

21. Expansion of Software Technology Parks and Dedicated IT Parks

Pakistan now has about 43 Software Technology Parks, with an additional 10 STPs established on subsidized rents that host over 200 IT/ITeS companies. Islamabad's IT Park (approx. 720,000 sq. ft.) is expected to generate 7,500 jobs and USD 70 million in annual exports, while Karachi IT Park— whose foundation has been completed—is projected to create 15,000 jobs and USD 90 million in annual exports once operational. These facilities provide modern, affordable infrastructure to anchor IT growth in major cities.

22. Record IT Export Remittances and “Tech Destination Pakistan” Branding

Beyond aggregate export growth, MoITT has supported targeted marketing through the “TechDestination Pakistan” campaign and participation in at least five major international expos, securing around USD 10 million in export deals. These efforts, combined with incentives via Special Technology Zones (including 10-year tax and

duty relief for strategic investments), have strengthened Pakistan's brand as an attractive IT offshoring and investment destination.

23. Digital FDI Initiative and USD 700 Million Investment Commitments

Pakistan became the first country to operationalize the World Economic Forum–DCO Digital FDI Initiative, which focuses on improving the regulatory environment for digital foreign direct investment. Through this work, the country has secured around USD 700 million in digital investment commitments, enhancing global trust and integrating Pakistan into high-value digital value chains.

24. Global Tech Partnerships for AI, Cloud and Digital Innovation

In 2025, MoITT deepened collaboration with global technology leaders, including launching the ALIF Urdu AI assistant with Meta and announcing a "new era of digital innovation" partnership with Google to expand digital skills and products. Frameworks have also been advanced with Huawei and strategic partners in the UAE to promote cloud, AI, and smart governance solutions. These alliances bring cutting-edge technology, training and investment into Pakistan's digital ecosystem and align national initiatives with global platforms.

25. Local Chromebook Assembly Line and Device Manufacturing with Google

The Ministry of IT & Telecom, in collaboration with Google, Tech Valley, NRTC, and Allied, has launched Pakistan's first Chromebook assembly line at Haripur. The facility targets production of up to 500,000 Chromebooks annually by 2026, reducing device costs and improving digital access for students and public sector users. This initiative marks a major step toward local hardware manufacturing, technology transfer, and future device exports.

26. Google Career Certificates Training for Public Sector Officers

MoITT has launched Google Career Certificate (GCC) courses in collaboration with Google and Tech Valley to upskill 10,000 public sector officers, with 7,000+ already enrolled/completed key modules including AI Essentials and Prompting Essentials. The programme provides job-ready training across cybersecurity, UX/UI design, data analytics, IT support, agile and digital marketing via Coursera. All MoITT officers are required to complete at least two AI-related courses by September 2025, strengthening digital governance capacity nationwide

27. Large-Scale ICT Skills Program with Huawei — 300,000 Youth Target

Under a national MoU, the government has partnered with Huawei to upskill 300,000 Pakistani youth in ICT and emerging technologies (AI, cloud, cybersecurity, networking). As of late 2025, more than 70,000 individuals have registered/enrolled in the programme, marking substantial early uptake toward the full target. This initiative aims to build a large, technology-ready workforce, reduce digital skills gaps, and support the national push toward an export-oriented, innovation-driven ICT economy.

LEGAL WING MoITT for FY 2024-25

1) The legal wing of the Ministry of Information Technology & Telecommunication has been performing the following responsibilities:

- Drafting primary & secondary legislation related to the IT and Telecom sector
- Reviewing, and vetting MoUs, Agreements and Contracts of MoIT&T and its attached departments, Federal Government Organizations and companies
- Providing legal support to affiliated departments of MoIT&T, as well as examining and evaluating their rules and regulations
- Resolving Right of Way (ROW) disputes under the ROW Policy Directive, 2020
- Overseeing MoIT&T's litigation
- Drafting, vetting, and filing of reports / para-wise comments in courts
- Briefing the Attorney General's office on MoIT&T cases
- Appearance in Courts as Ministry's representatives

2) The legal wing has also extended support to the following organisations:

- i. National Information Technology Board (NITB).
- ii. National Telecommunication Corporation (NTC).
- iii. Electronic Certification and Accreditation Council (ECAC)
- iv. Universal Service Fund Company (USF Co).

- v. Ignite (National Technology Fund).
- vi. Telecom Foundation (TF).
- vii. Pakistan Telecommunication Company Limited (PTCL).
- viii. Pakistan Telecommunication Authority (PTA).
- ix. Pakistan Software Export Board (PSEB).
- x. Special Communication Organization (SCO).
- xi. Pakistan Digital Authority (PDA)

3) Following is the pending Legislation with the updated status on which the legal wing is working:

- **Personal Data Protection Bill, 2026**
 - The draft Bill prepared
 - Initial consultation with domestic and international stakeholders concluded
 - Law and Justice Division has vetted the draft Bill
 - Again consultation with the stakeholders
- **Amendments in Pakistan Telecommunication (Re-organization) Act, 1996**
 - The amendments were drafted and shared with the finance and establishment division and then the law and justice division for legal vetting in line with the rules of business, 1973, the amendments were then sent to the CCLC and have now been approved by the CCLC and ratified by the cabinet and now have been introduced in the National Assembly/parliament.

- **Reviewing amendments in Electronic Certification Accreditation Council Regulations, 2023**

- ECAC established under section 18 of Electronic Transaction Ordinance, 2002
- Certification Service Providers Accreditation Regulations, 2023
- Security Audit Regulation, 2023
- Crypto Apparatus Accreditation Regulations, 2023
- ECAC Business regulations, 2023
- Discussion on issues to be held with ECAC after Eid

INTERNATIONAL COOPERATION (IC) WING

YEAR BOOK (2024–2025)

ITU AND UN (INCLUDING APT)

- **APT Preparatory Group for PP-26 (January 28–29, 2026):** Pakistan participated in the 2nd Virtual Meeting for the **2026 ITU Plenipotentiary Conference (PP-26)** to align regional positions on satellite and radio regulations.
- **APT Management Committee MC-49 (December 9–12, 2025):** Attended the 49th session in Bangkok, Thailand, to approve the 2026 work programme and secure technical training fellowships for Pakistani ICT professionals.
- **ITU World Telecommunication Development Conference (WTDC-25) (November 17–28, 2025):** Represented the nation in Baku, Azerbaijan, where global ministers adopted the "**Baku Action Plan**" to accelerate digital inclusion.
- **APT Ministerial Meeting (Tokyo 2025):** Held from **May 30–31, 2025** in Tokyo, Japan. The delegation comprising **Additional Secretary** and **Member Telecom** contributed to the adoption of the "**Tokyo Statement**" for regional digital transformation.
- **Regional Acceleration Centre MoU (April 16, 2025):** Signed a landmark MoU with the ITU for the establishment of a **Regional Acceleration Centre** in Pakistan. The signing took place during the visit of **H.E. Cosmas Zavazava** (Director, BDT) at the Swabi Smart Village inauguration.
- **Inauguration of Swabi Smart Village (April 16, 2025):** Launched Pakistan's third Smart Village and closing of Smart

Village pilot project in partnership with the ITU and Huawei to provide e-health and digital education to rural KP.

- **ITU Child Online Protection (March 10–14, 2025):** **Director ITU** and **Director PTA** participated in the **ITU Council Working Group on Child Online Protection (CWG-COP)** in Geneva. The delegation successfully presented Pakistan's national assessment report, which was integrated into the ITU's Global COP Initiative.

BILATERAL

- **Pakistan-China Digital Corridor MoUs (September 3–4, 2025):** During the Prime Minister's official visit to China, landmark MoUs were signed during the **B2B Forum**. In the presence of the **Honorable Prime Minister**, these MoUs established the pragmatic **Digital Corridor**, focusing on AI research, large-scale fiberization, and cloud computing.
- **Pakistan-Russia 10th IGC (November 25–27, 2025):** Hosted the Russian delegation in Islamabad for the **10th Intergovernmental Commission**, concluding with agreements for Space Technology and ICT cooperation.
- **Joint Action Plan CPEC 2.0 (October 2025):** Orchestrated tech outcomes of bilateral exchanges with China, focusing on a five-year roadmap for AI research and semiconductor training.
- **14th CPEC Joint Cooperation Committee (September 26, 2025):** Represented by the Secretary IT in Beijing, where the "**Digital Corridor**" was formally integrated as a core pillar of CPEC Phase-II.
- **Joint Working Group (JWG) on IT (July 23, 2025):** Conducted a pivotal virtual session where **six Sub-Working**

Groups successfully signed off on collaborative frameworks for AI, Infrastructure, and Cybersecurity.

- **Pakistan-Kazakhstan Startup Corridor (June 2025):** Signed a strategic partnership between Ignite and the Astana Hub to bridge the tech ecosystems of Pakistan and Kazakhstan.
- **Pakistan-Russia Tech Protocol (May 2025):** Convened a specialized JWG online to establish a bilateral protocol for cybersecurity and technical data protection.

National Telecommunication Corporation

1. Introduction:

NTC was established under the Pakistan Telecommunication Re-Organization Act 1996 to provide telecommunication and data services to the Armed Forces, defence projects, Federal and Provincial Governments, and other government institutions as designated by the Federal Government.

Beginning with limited and outdated infrastructure—five TDM exchanges, old 143 MW stations, and ten coaxial cable routes—NTC received no financial grants from the Federal Government. Today, through its own resources, NTC has developed a robust national ICT infrastructure to fulfill its mandated services, which includes:

- Two Tier-III compliant National Data Centers along with an International Gateway
- Modern IP-based NGN system comprising 603 exchanges
- PSTN and broadband capacity of 400,000 and 60,000 subscribers respectively
- 4,343 km long-haul optical fiber backbone
- 2,155 km metro optical fiber network

2. Strategic Level Changes:

- i. NTC Act is being amended to align with the SOE Act:
 - The composition of the NTC Management Board will be revised in accordance with the requirements of the SOE Act.

- Various operational practices, procedures, and employee regulations will also be updated to reflect these changes.
- ii. A government-appointed consultant is currently reviewing the existing NTC organizational structure for potential reforms and rightsizing.

3. Special Initiatives by NTC:

- **Prime Minister's Ramzan Relief Package (2025) – Helpline 9999**

NTC successfully established and operated the Call Centre for the Prime Minister's Ramzan Relief Package 2025 using short code 9999. The center became fully functional on **1 March 2025** and received **commendation from the Prime Minister during his visit to NTC Headquarters.**

- To manage the nationwide surge in public queries, **NTC scaled operations to 165 call agents, handling over 1.7 million inbound, outbound, and IVR calls.** The month-long operation (till 30 March 2025) **generated PKR 17.97 million in revenue.** The initiative highlighted NTC's strong technical capability, rapid deployment, and effective coordination with BISP, Mol&P, and telecom partners.

- **SMS Gateway Service**

NTC enhanced its service offerings by launching a secure and reliable SMS Gateway Platform for government and semi-government entities, enabling automated delivery of bulk and transactional SMS to support major national programs such as the Pakistan Citizen Portal, CM Punjab Roshan Gharana Program, State Bank of Pakistan, and National Savings.

For the **flagship Roshan Gharana Free Solar Panel Program**, NTC provided hosting infrastructure, connectivity, and SMS integration via short code **8800**, facilitating citizen registration and outreach. **Over 7 million SMS were processed**, generating approximately PKR 19 million in revenue.

- **High-speed internet connectivity to all educational and healthcare facilities in Islamabad**

NTC, under the Ministry of IT and Telecommunication, is implementing a project to provide uninterrupted, seamless, and high-speed internet connectivity to all educational and healthcare facilities in Islamabad, in line with the **Prime Minister's strategic vision of a Digital Nation Pakistan**. The initiative will cover **432 schools and 24 Basic Health Units**.

- **Provision of PTA compliant free Wi-Fi in Public Places / Areas of Islamabad**

With a project cost of **Rs. 98.203 Million**, NTC is deploying public Wi-Fi services at 30 different locations in Islamabad. Optical Fiber Networks and DRS links will ensure **free, fast, reliable, and secure internet access**, supporting digital inclusion and government digitization initiatives.

- **Establishments of National Cyber Defence Control Center** during May 2025 conflict with India with collaboration with all stakeholders like NCERT, PTA, NTISB and National level security agencies. This control center played a pivotal role in ensuring cybersecurity of all private and governmental networks.
- **Establishment of Data Server Farm Quetta:** A small Data Center facility of six racks is designed to meet the

requirements of the provincial Govt. and to bridge the digital gap in Baluchistan. This will offer IaaS, backup, disaster recovery, and co-location services for public-sector organizations from their region. This Data Center facility will be fully functional in 1st quarter of 2026.

4. **Cybersecurity Landscape of NTC**

Provisioning **secure and trusted data and IT services** is a prime concern of the **NTC**. In pursuance of this objective, NTC established a dedicated **Cybersecurity Department in August 2025**. This department plays a pivotal role in safeguarding the organization's IT infrastructure and ensuring uninterrupted digital services for government and strategic projects.

Recognizing the evolving cyberspace landscape and exponential growth of cyber threats, NTC's Cybersecurity Department operates under the leadership of a **Chief Information Security Officer (CISO)**. The team of cybersecurity experts employs a **multifaceted approach** to bridge security gaps, enhance the security posture, and increase vigilance across NTC's IT infrastructure. Key initiatives include:

- **Enhanced Cyber Vigilance on National Days**
- **Revision of Cybersecurity Strategy, Policies, and Procedures** to align with the latest developments, threats, and global best practices.
- **24/7 Monitoring of Digital Assets** through a dedicated **Security Operations Center (SOC)**

5. Major Projects executed in 2024-25:

- **TDM to IP Migration of NTC Exchanges**

NTC has undertaken the replacement of its -legacy Time Division Multiplexing (TDM) network with a fully IP-based Next Generation Network (NGN) at a cost of Rs. 222.334 Million. It includes deployment of 24 exchanges (MSAGs & OLTs) along with associated optical fiber and underground copper cable networks across Pakistan.

- **Installation & Upgradation of Session Border Controllers (SBCs) – Lahore & Islamabad**

At an investment of **Rs. 120.051 Million**, NTC has implemented state-of-the-art Session Border Controllers in both the Central Region (Lahore) and Islamabad. These upgrades strengthen NTC's network reliability, improve QoS for voice services for government and enterprise clients.

6. Ongoing Projects (ADP 2025-26)

The following projects under ADP 2025-26 are currently under execution. These projects were endorsed by the NTC Management Board in its 114th meeting after thorough review and approval by the NTC Development Working Party (DWP) and Project Appraisal Committees. These initiatives aim to enhance NTC's ICT infrastructure, provide high-quality digital services, and support the Government's digitalization agenda across Pakistan.

i. **Establishment of NTC Data Center Karachi**

At a cost of **Rs. 786.352 Million**, a new Data Center will be established in Karachi to serve southern Pakistan, supporting the financial sector and provincial

governments. This facility will **improve latency-sensitive services, enable AI and micro services**, and enhance overall NTC data infrastructure performance.

ii. Replacement / Upgradation of NTC's Long Haul DWDM Network

The obsolete DWDM/SDH network is being replaced with an **OTN system at a cost of Rs. 2,308.571 Million**. This upgrade will provide **600 Gbps protected capacity** on main long haul routes, meeting increased bandwidth demand, ensuring faster data transfer, and improving network resilience.

iii. Establishment of Call Centre Infrastructure at Rawalpindi & Lahore

At a total cost of **Rs. 83.209 Million**, NTC will establish **Call Centre with 90 seats in Rawalpindi and 50 seats in Lahore**, addressing the growing demand for customer support from BISP, PM Citizen Portal etc.

iv. Installation of NGN Core Redundant Routers (Islamabad, Lahore & Karachi)

For **Rs. 96.700 Million**, NTC will deploy **1+1 high-availability routers** to eliminate single points of failure. This ensures **24/7 service availability** for VOIP, SIP traffic, intranet, and mitigating network risks and enhancing QoS.

v. Upgradation of Junction Network Lahore

With an investment of **Rs. 140.651 Million**, NTC is upgrading **26 km of OFC Junction Network** from 12 to 96 fibers, extending services to new government departments.

vi. Installation of Intranet Circuits in PMAD Offices (Gujranwala, Jacobabad, Karachi & Quetta)

NTC is providing 10 **intranet circuits** and PSTN / GPON connections at a cost of **Rs. 35.813 Million** for PMAD offices in Gujranwala, **Jacobabad, Karachi & Quetta** enhancing secure connectivity for their financial operations.

vii. Secure Access Management System for NTC Data Centers

NTC is implementing a **Privileged Access Management (PAM) system at a cost of Rs. 28.497 Million** to centrally manage privileged accounts across servers, databases, and virtual environments, enhancing security and compliance with government IT standards.

viii. Deployment of GPON Network across multiple regions

NTC is upgrading key government facilities by replacing old copper networks with modern GPON fiber infrastructure. Major projects include new GPON deployments at Parliament Lodges, the South Punjab Secretariat and GOR Multan, Commissioner Offices in Multan and D.G. Khan, and a large-scale GPON migration at the Punjab Civil Secretariat and GOR-I Lahore. Together, these initiatives—worth over Rs. 250 million.

ix. Small Development Works

NTC besides above projects, **110 small development works** were executed to enhance government ICT footprint and improve efficiency through expanded network coverage and services since financial year 2024-25 to date.

7. Establishment of Disaster Recovery (DR) E-Office Setup

at DRDC Lahore Disaster Recovery (DR) environment for the E-Office system has been successfully established at the DRDC Lahore. Connectivity, data backup/replication, and both partial and full DR drills were conducted to validate operational readiness. These drills confirmed that services can be fully shifted from the Primary Data Center (NTC DC Islamabad) to the DR site in Lahore.

8. Secure Mobile Communication

As an initiative of NTC, a custom-built secure mobile communication platform has been proposed to provide encrypted, reliable, and controlled voice and data services for government officials, ensuring the protection of sensitive national information. The solution offers end-to-end encrypted messaging, file transfers, and VoIP supported by a dedicated and isolated network infrastructure. It operates on hardened, tamper-resistant devices and features a resilient, decentralized architecture that ensures high availability and removes single points of failure. NTC plans to take this forward through a pilot deployment to meet the national requirement for a sovereign secure communication system.

9. NTC's Solar Power Initiative for Sustainable Energy Savings

NTC, with its widespread operational footprint and multiple technical and administrative facilities across Pakistan, faces substantial electricity expenses significantly impacting its annual budget. To reduce these costs and align with the Federal Government's renewable energy agenda, NTC aims to deploy solar energy systems at its facilities. The initiative follows a BOOT model, where the vendor will finance, install, and operate the solar systems for a specific period before transferring ownership to NTC. NTC will only pay for the electricity it consumes at rates significantly lower than

IESCO/DISCO tariffs, while the vendor manages any surplus production. This approach ensures long-term financial savings, enhanced energy resilience, reduced carbon emissions, and sustainable operations—all without requiring upfront capital investment from NTC.

10. Projects Under Approval (ADP 2025-26)

NTC is progressing with 11 major projects in the process of approval. A key component of these projects is the deployment of GPON fiber networks across multiple regions—including the Diplomatic Enclave, Red Zone Islamabad, Peshawar Cantt, Karachi, Hyderabad, Quetta, Attock, and Sujawal—to replace outdated MSAG and copper systems. This transition will deliver high-bandwidth, secure, and reliable internet and IPTV services for government and VVIP users.

Additional projects include laying aerial and underground optical fiber to enhance intranet connectivity at MAG Murree and PAF-IAST Haripur, addressing bandwidth gaps and improving network stability for critical facilities. NTC has also prepared a Rs. 250 million Umbrella PC-I for Small Development Works to accelerate strategic ICT deployments.

11. NTC Business Collaborations & Strategic Initiatives:

In 2025, the organization has significantly expanded its collaboration footprint — both internationally and nationally — to transform itself into a modern, agile ICT enabler for the Government of Pakistan. Through strategic partnerships with foreign technology giants and local agencies, NTC has reinforced its commitment to deliver robust fiber infrastructure, cutting-edge data centers, sovereign cloud capabilities, satellite-based connectivity, and comprehensive ICT services.

➤ **CSCC on Terrestrial & Submarine Fiber Infrastructure and Datacenters**

Ministry of Information Technology & Telecom (MoITT), Pakistan, and the China Submarine Construction Company (CSCC) signed an MoU during the **2nd Pak-China B2B Conference in Beijing**, aimed at strengthening cooperation in terrestrial fiber, submarine cable systems, and datacenter development.

To push the collaboration forward, a **ministerial working group** has been established to evaluate project options and define a strategic roadmap. NTC has signed a **Non-Disclosure Agreement (NDA)** with CSCC and has initiated detailed technical and commercial consultations in the following areas:

- **Terrestrial Optical Fiber Backhaul Network / Land Cable Project**
- **International Submarine Cable System**
- **AI-Enabled Data Center Project**

➤ **Joint Establishment of an SEO Platform – NTC & Jinan Gaotong NetData**

Jinan Gaotong NetData Big Data Co. Ltd. (Shandong, China) submitted an **Expression of Interest (EOI)** to NTC for jointly developing and operating a **Search Engine Optimization (SEO) Platform**. Both organizations have now signed an **NDA**, and a **dedicated working group** has been set up to manage the collaboration framework. **MoU** between NTC and Gaotong is expected to be finalized **by December 2025**.

➤ **Collaboration Between NTC & Huawei Technologies Pakistan**

Huawei has shown strong interest in partnering with NTC across **five major strategic technology domains**. An MoU has been signed to formalize this interest. A joint **Innovation Center Working Group** will be established to define a comprehensive **2–3 year execution plan**, including project milestones, timelines, and budget requirements in the following areas of collaboration:

- a. National Fiber Optic Backbone Modernization
- b. National IP Core Upgrade
- c. Sovereign Cloud Infrastructure & Data Governance
- d. Expansion & Development of New Datacenters
- e. Implementation of AI-Driven Capabilities
- i. **MoU Between NTC & SUPARCO for Satellite-Based Government Services**

NTC and SUPARCO have signed an MoU to jointly deliver **voice, internet, video, mapping/imagery, and TV services via satellite**.

The collaboration aims to support **government and strategic national projects**, especially in **remote and**

underserved regions where traditional connectivity is limited.

ii. **MoU with SECP**

NTC has signed an MoU with Securities & Exchange Commission of Pakistan (SECP) to collaborate exclusively in the field of Cybersecurity. Both the organizations are adamant to undertake Cybersecurity initiatives in close collaboration by harvesting the competencies and infrastructure of each other.

iii. **Business Collaborations currently under process with other Organizations**

MoUs with the followings have been finalized:

- **Sky47:** Exploring collaboration for **Data Center as a Service (DCaaS)** and the development of new datacenter facilities, including potential joint-venture opportunities.
- **Cybernet:** Working toward partnership on providing **ICT services** to government and high-priority strategic projects.
- **Survey of Pakistan:** Planning to utilize the **NTC National Data Center (Islamabad)**

for hosting and processing **imagery and mapping services**.

- **NRTC:** The partnership aims to leverage shared expertise, infrastructure, and technology frameworks which include:
 - Safe City project planning and execution
 - Co-development and manufacturing of **CIT-related equipment**
 - Collaboration on **satellite platform components**

12. Strengthening Provincial Collaboration and ICT Partnerships:

In a strategic move to enhance organizational collaboration and strengthen ties with provincial administrations, the MD of NTC conducted official visits to the provincial headquarters of Punjab, KPK, Balochistan, and Sindh. During these visits, he engaged with key office holders, including Chief Secretaries and heads of relevant ICT organizations, to discuss avenues for joint initiatives, digital infrastructure development, and the provision of advanced telecommunication services. These interactions have paved the way for closer coordination between NTC and provincial governments, ensuring more effective implementation of ICT projects and fostering a unified approach towards the digitalization goals of the country.

13. Audit Performance:

During the reporting period, **seven DAC meetings** and **five PAC meetings** were conducted. A total of **143 audit paras** were reviewed, out of which **54 were successfully settled**.

14. NTC Financial Performance 2024-25:

NTC is not a Commercial entity, however, it endeavors to maintain its sustainability with the given restricted mandate and limited resources. During the **F.Y 2024-25**, NTC made a financial profit of **Rs. 247.98** Million before taxation.

USF Yearbook 2024-25

FY 2024–25 stands as a defining year for the Universal Service Fund (USF), marked by transformative progress in expanding digital connectivity, advancing digital inclusion, and empowering underserved communities across Pakistan. Through strategic investments, impactful partnerships, and a steadfast commitment to national priorities, USF continued to bridge connectivity gaps and enable meaningful access to digital opportunities. Building on these achievements, USF remains firmly focused on scaling innovation, deepening inclusion, and shaping a more connected, equitable digital future for the country.

PROGRAMS

NG-BSD Program

Through the Next Generation Broadband for Sustainable Development Program, USF is providing voice and high-speed mobile broadband (at the minimum rate of 512 kbps) to the un-served and under-served mauzas across Pakistan. These projects have a notable role in the socio-economic progress of the people at grassroots level and opening the doors of opportunities for the marginalized communities. In FY 2024-25, USF provided access and connectivity to 584,810 un/underserved population residing in 500 mauzas across the country. In the same period, USF successfully completed 10 NG-BSD projects.

NG-BSD for National Highways s Motorways Program

USF aims to provide voice and high-speed broadband data services to commuters on un- served road segments of National Highways and Motorways in Pakistan. The program is first of its kind as it targets commuters and offers a unique feature of National Roaming, which means commuters will get continuous services in USF served areas, irrespective of their subscribed networks. Broadband connectivity on highways and motorways is broadening

digital access, boosting the economy, and laying the foundation for an intelligent transportation system in Pakistan.

In FY 2024-25, USF provided seamless access and connectivity to 164 Kms of unserved road segment for commuters on National Highways C Motorways. In the same period, USF successfully completed its project NHCMW Lot 10 (M-8 Rato Dero - Gwadar).

NG-BSD for Tourist Destination Program

USF aims to provide voice and high-speed mobile broadband services in tourist destinations and their respective unserved/under-served routes to promote tourism in Pakistan. The provision of ICT services will help the visiting tourists, and local citizenry and support them in income-generating activities. It will also play a significant role in sending timely responses to the agencies concerned in case of an emergency. The tourist locations include Babusar Top, Lake Saif Ul Malook and Sharan Forest in Mansehra district, Kumrat Valley in Upper Dir district, Mahodand Lake in Swat district, and Galiyat. Two USF projects remained under implementation during FY 2024-25.

NG-OF Network and Services Program

Optic Fiber cable connectivity to Union Council is essential for bridging the digital divide in Pakistan and is considered integral across the globe for paving the way to provide ICT services. These projects will open avenues for access to digital apps and will guarantee their maximum utilization. Moreover, optic fiber will also help Pakistan in preparing for 5G. Our extensive fiber optic cable networks allow us to typically deliver redundant, end-to-end connectivity in unserved union councils of Pakistan. In FY 2024-25, USF successfully deployed 1,825 kms of optic fiber cable connecting 136 UCs in the provinces of Balochistan, Khyber Pakhtunkhwa, Sindh and Punjab. In the same period, USF successfully completed 6 OFC projects.

YEAR AT A GLANCE

Targets Achieved in FY 2024-25

Access Program (NG-BSD) & OFC Program



PAKISTAN SOFTWARE EXPORT BOARD



PSEB PERFORMANCE REPORT 2025

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Strategic Vision

The Pakistan Software Export Board (PSEB) has strategically positioned itself to accelerate the digital transformation of Pakistan's economy through innovation, talent development, and global outreach. Our focus in FY 2024–2025 remained on enhancing digital exports, developing globally competitive talent, and establishing infrastructure to support IT industry growth, aligning with the broader vision of making Pakistan a USD 15 billion IT export economy by 2030.

Major Accomplishment

S. No	Project Name	Project Summary / Initiatives / Objectives
1	Digital FDI Forum	Hosted Pakistan's first DCO Forum; secured \$700M digital investment.
2	GITEX Global 2024	Pakistan was recognized as Tech Destination of the Year.
3	Export Facilitation	Facilitated \$3.471B (Jul 2024 – May 2025) in IT export remittances which is the 25.5% growth from last year.
4	Freelancer Support	Freelancer remittances reached \$708 (Jul 2024 – May 2025), marking a 97% YoY increase.
5	International Events	Organized 20 global events; 294 firms generated 4,248 leads worth \$62.03M.
6	Women STP (AJK)	Pakistan's first women-led Software Technology Park launched.
7	Skills Training	Trained and certified 8,600 professionals in emerging technologies.
8	Current Registration Stats	14,538 Registered Companies, 7,275 BPOS, 13,913 Freelancers

First Ever DFDI Forum 2025 Held in Pakistan



Pakistan Secures \$700 Million in Digital Investment, Cementing Status as a Tech Investment Destination

The **Digital Foreign Direct Investment (DFDI) Forum 2025** marked a watershed moment for Pakistan's digital economy, delivering **unprecedented investment outcomes and global recognition**. Organized by the Ministry of IT & Telecom (MoITT), in collaboration with the **Digital Cooperation Organization (DCO)** and the **Special Investment Facilitation Council (SIFC)**, the two-day summit positioned Pakistan at the heart of the global digital investment landscape.

Key Achievements:

- **\$700 million in digital investment commitments** announced on Day 1- Pakistan's highest-ever digital investment inflow from a single forum.
- **30+ ministerial delegations** from DCO countries, **75+ international investors**, and **100+ Pakistani IT companies** participated.

- **6 thematic panels** conducted on AI, fintech, startups, telecom, policy, and workforce development, offering clear roadmaps for collaboration.
- **40+ local tech startups** directly pitched to global investors, unlocking funding and partnership opportunities.
- Launch of the **DFDI Insight Report**, a strategic guide for foreign investors and policy architects.
- **Ministerial Roundtable** on tech workforce development featured **representatives from 7+ countries**, driving consensus on digital skill-sharing.

Impact & Global Positioning:

- The DFDI Forum catalyzed **record-breaking investment inflows** across **AI, healthtech, fintech, and digital infrastructure** sectors.
- Positioned Pakistan as a **top-tier emerging market for digital FDI** within the Global South.
- Signaled a strong vote of confidence from the international community in **Pakistan's economic reforms, digital readiness, and investment climate**.

With its exceptional outcomes, the DFDI Forum 2025 has redefined Pakistan's role on the global tech investment map, **from potential to performance**.

HR Skills And Capacity Building Projects

Key Highlights

PM-Endorsed National IT Capacity Framework

- Targeting **\$15B in IT exports by 2030** through HR development in Freelancing, BPO, IT Services, and Products.

- Programs in the approval phase include **bootcamps, internships, and certifications**.

Nationwide IT Skills Consensus

- **4 meetings** conducted under the National Committee on ICT Skills.
- A **unified public-private roadmap** is being developed in alignment with global market needs.
- The **PM-endorsed framework** is set to be made public soon.

China-Pakistan Collaboration on IT Skills

- Joint training and degree programs in **AI, digital leadership, and ICT** launched under the **CPEC HRD group**.
- **Student and employee exchange programs** are underway.

Qatar-Pakistan IT HR Partnership

- PSEB-led **market needs assessment** completed.
- **Qatar-specific skill programs** being developed for IT graduates and resource companies.

Semiconductor Training Launch

- Pilot program launched to build Pakistan's **global chip design talent pipeline**.
- Taps into a **\$1 trillion semiconductor market opportunity** by 2030.

Youth Employment Support

- Aligned with the PM's youth agenda to train youth in **high-employability IT skills**.
- Developed in coordination with **Youth Affairs and federal partners**.

Key Projects: Outcomes and Impact

Ongoing Project Title	Outcome	Impact
Certification IT Professionals	- 8,600 professionals trained and certified in AI, Cybersecurity, Cloud Computing, and Data Analytics. - 95% project scope achieved, completed in June 2025. - Certifications aligned with global standards.	- 72.8% participants secured new employment. - 44% received promotions or salary increases. - 92.3% gained foreign job offers or immigration opportunities. - 98.9% would recommend PSEB training. - 94.2% interested in future initiatives.
Component-III: Specialized IT Industry Capacity Building (PM's Initiative)	- 1,354 certifications in high-demand IT domains. - Training for 7,446 professionals in AI, Cloud, Cybersecurity. - 1,000 industry placements.	- 60–70% apprentices expected to secure jobs. - 30–40% likely to pursue freelancing or entrepreneurship. - Boosts national employment and per capita income.

Upcoming Projects: Outcomes and Impact

Upcoming Project Title	Impact	Expected Impact
Semiconductor Skills Development Initiative	- CDWP-approved project with Rs. 4,844 million allocation. - Target of 7,200 skilled professionals. - Training through 2,200 university students and 5,000 upskilling tracks.	- Support growth of fabless design centers. - Attract FDI and boost startup ecosystem. - Align with global tech leaders (e.g., Nvidia, Qualcomm, Broadcom). - Enhance Pakistan's position in global semiconductor value chain.
Revamping IT Industry Landscape	- CDWP-approved project worth PKR 6,948 million (2025–2028). - Training of 20,950 individuals in leadership and emerging skills. - Initiatives in policy, branding, and export facilitation.	- USD 600–800M increase in IT exports. - Creation of approx. 13,000 jobs. - Stronger academia–industry–government collaboration. - Enhanced global positioning and sustainable digital growth.
ISO & GDPR Certifications for 50 IT Firms	- Certified companies expanded market reach and gained EU contracts. - 77% reported export growth after ISO certification. - Improved client confidence and global competitiveness.	- Certify 50 additional IT/ITeS companies (Phase 2). - Promote sustainable, compliance-driven export growth. - Enhance trust, data security, and market access.

Infrastructure Development

Key Highlights

- **43 Software Technology Parks (STPs)** and **16 e-Rozgaar Centers** established across Pakistan.
- Total **covered space** of **1.9 million square feet** developed to support the IT ecosystem.
- **357 IT/ITeS companies** are currently operating from these facilities.
- **18,000+ IT professionals** are employed and working within the STPs.
- **20% of the workforce** in these parks consists of **female IT professionals**, indicating growing gender inclusivity.
- Major STP clusters and IT Parks mapped across **Islamabad, Karachi, Lahore, Peshawar, Quetta, Jamshoro, Faisalabad, and more**, enabling nationwide digital infrastructure reach.

Infrastructure Projects

Project Name	Key Points
IT Park Islamabad	- Flagship project by PSEB under MoITT, opening in Q1 of next financial year - Located in Chak Shehzad, Islamabad; 12-storey building with 2 basements - Facilities include office space for 120+ startups/SMEs, testing labs, classrooms, and academia linkage center - Includes latest level-III data center; supported by Exim Bank of Korea - Aims to boost exports, innovation, R&D, FDI, and tech commercialization - Expected to contribute USD 70M annually in IT exports and generate thousands of jobs
IT Park Karachi (The Biggest IT Park of Pakistan)	- World-class facility for IT companies, startups, and freelancers; completion by June 2027 - Design phase completed; boundary wall constructed; 10% physical progress achieved - Korean contractor tendering initiated; construction to begin in Q1 of next financial year - Will drive IT exports, job creation, foreign investment, and innovation - Aims to position Karachi as a global tech hub with transformative economic impact

Establishment of 25 Software Technology Parks (STPs)	- All 25 STPs completed as per PC-1 timeline and requirements - Facilities include IT-enabled office space, training rooms, meeting spaces, and uninterrupted internet/power - Focused on enabling startups and SMEs in various cities across Pakistan - Generated approx. 5,000 jobs (20% women); contributing over USD 20M in IT exports - Promotes regional tech entrepreneurship and a competitive digital economy
Launch of National Co-Working Space Program (NCSP)	- Formerly e-Rozgaar; 16 centers launched to support freelancers and startups - Provides accessible co-working spaces to enhance collaboration and digital skills - 62 nationwide Open House events conducted to raise awareness - Expanded to 90 districts across Punjab, Sindh, KP, Balochistan, and AJK - Bridges regional digital gaps, empowering youth and promoting inclusive growth

Global Engagements



Event	Key Highlights
London Tech Week 2025	14 companies showcased innovation in AI, SaaS, fintech, digital health, and cybersecurity 5 MoUs signed 323 business leads generated \$1.55M in projected business - Largest-ever Pakistani presence at LTW - Branded black cabs and digital displays as part of the 'Think Tech, Think Pakistan' campaign - Covered in 1,000+ global publications
Pakistan-U.S. Tech Investment Conference 2025	- Held in Dallas, New York, and Washington D.C. 15 top tech firms participated \$5M in projected deal 58 investor leads 7 MoUs and 6 formal contracts signed \$10M tech fund announced in Dallas - Featured in New York Times and Washington Post

GITEX Global 2024 – Dubai, UAE	• Pakistan named 'Tech Destination of the Year' • 200+ companies and delegates participated • \$10.54M in business generated • 1,231 leads secured • 9 MoUs signed
LEAP 2025 – Riyadh, Saudi Arabia	• 100+ companies and 1,000 delegates participated • Multiple MoUs and contracts signed • 400+ attendees at Pak-Saudi Business Forum
GITEX Europe 2024 – Berlin, Germany	• 150+ Pakistani companies participated • Highlighted AI, fintech, cloud, gaming, and cybersecurity innovations • Strengthened digital expansion and global credibility
Japan IT Week Spring 2025 – Tokyo, Japan	• Strategic entry into APAC region for IT outsourcing • Targeted partnerships with Japanese firms facing tech talent shortage
World Economic Forum 2025 – Davos, Switzerland	• PSEB promoted Pakistan's tech potential on a global stage • Focused on AI, growth, and collaboration under theme 'Collaboration for the Intelligent Age'
AI Everything Global 2025 – Dubai, UAE	• Pakistan named a Global AI Partner • \$10M investment pledge by Suleyman Khan (Hong Kong-based CEO) • High-level engagements by PSEB CEO Mr. Abu Bakar
Web Summit 2025 – Doha, Qatar	• 11 tech firms showcased emerging tech • \$10M investment pledge by investor • Private meetup with 60+ Pakistani professionals and investors

GDC 2025 – San Francisco, USA	• 60+ member Pakistani delegation • Networking Lounge set up • Gaming sector projected at \$424B by 2033 • 540+ leads and \$5.5M from 2024 participation
Black Hat MEA 2024 – Riyadh, Saudi Arabia	• 4 Pakistani cybersecurity firms participated • 60% exhibition subsidy provided by PSEB • Strong cross-border partnership opportunities
TechCrunch Disrupt 2024 – San Francisco, USA	• \$545,000 in business generated • 63 leads secured • 1 MoU signed
AI & Big Data Expo 2024 – Amsterdam, Netherlands	• \$220,000 in business generated • 11 leads secured • 4 MoUs signed
Tech Week Singapore 2024	• \$60,000 in business generated • 94 leads secured
24 Fintech 2024 – Riyadh, Saudi Arabia	• \$2.8M in business generated • 109 leads secured • 3 MoUs signed
QSTP Global Innovation Link Program – Doha, Qatar	• 5 Pakistani startups participated • Sessions with unicorns like Musherib, Naseh, MICETribe • Strengthened Pakistan–Qatar innovation ties
GDEC 2024 – Beijing, China	• 25 Pakistani companies participated • 100+ B2B meetings held • 2 MoUs signed • Engagements with Alibaba Cloud, Peace Cable, and CAICT
Tree of SCO Training – Beijing, China	• 21 Pakistani companies received advanced IT training • Focused on computing power, big data, and cross-border collaboration

Local Engagements

Event Name	Key Highlights
25th ITCN Asia 2024 – Karachi	• Held from August 27–29 at Karachi Expo Centre • Gathered entire tech ecosystem of Pakistan • PSEB subsidized 50% exhibition costs for 47 member companies • Focused on AI, cloud, cybersecurity, fintech, healthtech, etc. • PSEB led sessions on IT branding and BPO capacity building • Minister Shaza Fatima emphasized scaling the IT sector • Concluded as Pakistan’s largest tech showcase
Pakistan Travel Mart (PTM) 2025 – Karachi	• Held from January 31 to February 2, 2025 • Pakistan’s largest tourism expo • PSEB hosted Tech Destination Pakistan Pavilion • 10 IT companies received subsidized exhibition space (Rs. 70,000) • Platform for travel tech visibility and partnerships
CEO MEETUP KARACHI 2025 (FREELANCERS)	• First Freelancer Meetup session by PSEB • Facilitated dialogue among freelancers and stakeholders • Addressed growth opportunities and upcoming initiatives
CEO MEETUP KARACHI 2025 (COMPANIES)	• Consultative session with CEO PSEB Mr. Abu Bakar • Focused on challenges and strategic opportunities • Discussed \$15 billion IT/ITeS export target
CEO MEETUP ISLAMABAD 2025	• Held in Islamabad with CEO PSEB Mr. Abu Bakar • Engaged CEOs from leading IT firms • Reinforced commitment to industry collaboration and policy-driven growth

Virtual Engagements

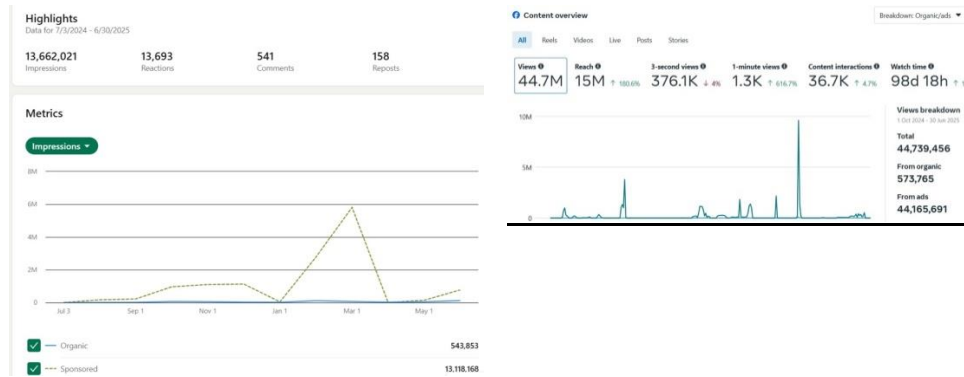
Webinar Title	Key Highlights
GDC 2025 Introductory Webinar	Held on January 16, 2025. Led by Luuk Fokke (GDC Organizer), Raheel Iqbal (P@SHA), and Shahbaz Hameed (PSEB). Focused on maximizing visibility and business opportunities at GDC.
Pakistan–Netherlands IT Trade & Investment Webinar	Held on January 22, 2025. Explored bilateral IT collaboration opportunities between Pakistan and the Netherlands. Included trade, market access, and innovation discussions.
Entering the Japan Market for ICT Companies	Held on January 6, 2025. Offered strategic insights into Japan's tech ecosystem in preparation for Japan IT Week 2025.
Market Opportunities for IT Sector in Sweden	Held on April 11, 2025. Organized by TDAP and Trade & Investment Counselor in Stockholm. Attended by over 80 Pakistani companies.
Exploring Opportunities in the Oman Tech Industry	Held on May 29, 2025. Focused on Oman's tech landscape, COMEX 2025 trends, and Vision 2040 opportunities in AI, fintech, and sustainability.
Digital Economy Trends 2025	Held on May 22, 2025. Jointly hosted by PSEB and DCO. Examined global digital policy, innovation, and regulation for inclusive growth.

Social Media Engagement

- Techdestination media channels posted around 1000+ posts this year, with impressions reaching 3Billion.
- Social Media: 125,000+ followers, 12,000+ website click-throughs/month
- 70+ content pieces/month, 1,500+ service calls handled monthly.

Metric	Details
Total Followers on Social Media	125k
Content Frequency	70 Posts/Month
Click-throughs to pseb.org.pk	12,000 Avg/month
Leads/Enquiries via Social	600–700 Msgs/Comments
Leads/Enquiries via Call	1,500 Calls Avg (includes PSEB Registration, Offerings, FBR & State Bank matters)
Most Common Issues/Topics	Company/Freelancer Registrations and Event Participation Queries

Techdestination Pakistan Social Media Analytics



PSEB ORGANIZATIONAL UPDATES

HR & Training Summary (FY 2024–25)

During FY 2024–25, the Pakistan Software Export Board (PSEB) made significant strides in strengthening its internal capacity and talent development framework:

- **Total headcount** increased to **51**, up from 46 in the previous year.
- **1 CEO and 2 Directors** were onboarded, contributing to stronger strategic leadership.
- **5 key role transitions** took place to optimize organizational performance.
- **Gender representation** stood at **54.1% male, 7% female** among the total activities highlighting ongoing efforts toward inclusive hiring.
- A total of **10 professional trainings** were conducted, with **18 employees** participating overall, **8 of whom were at the managerial level**.

Financial Summary

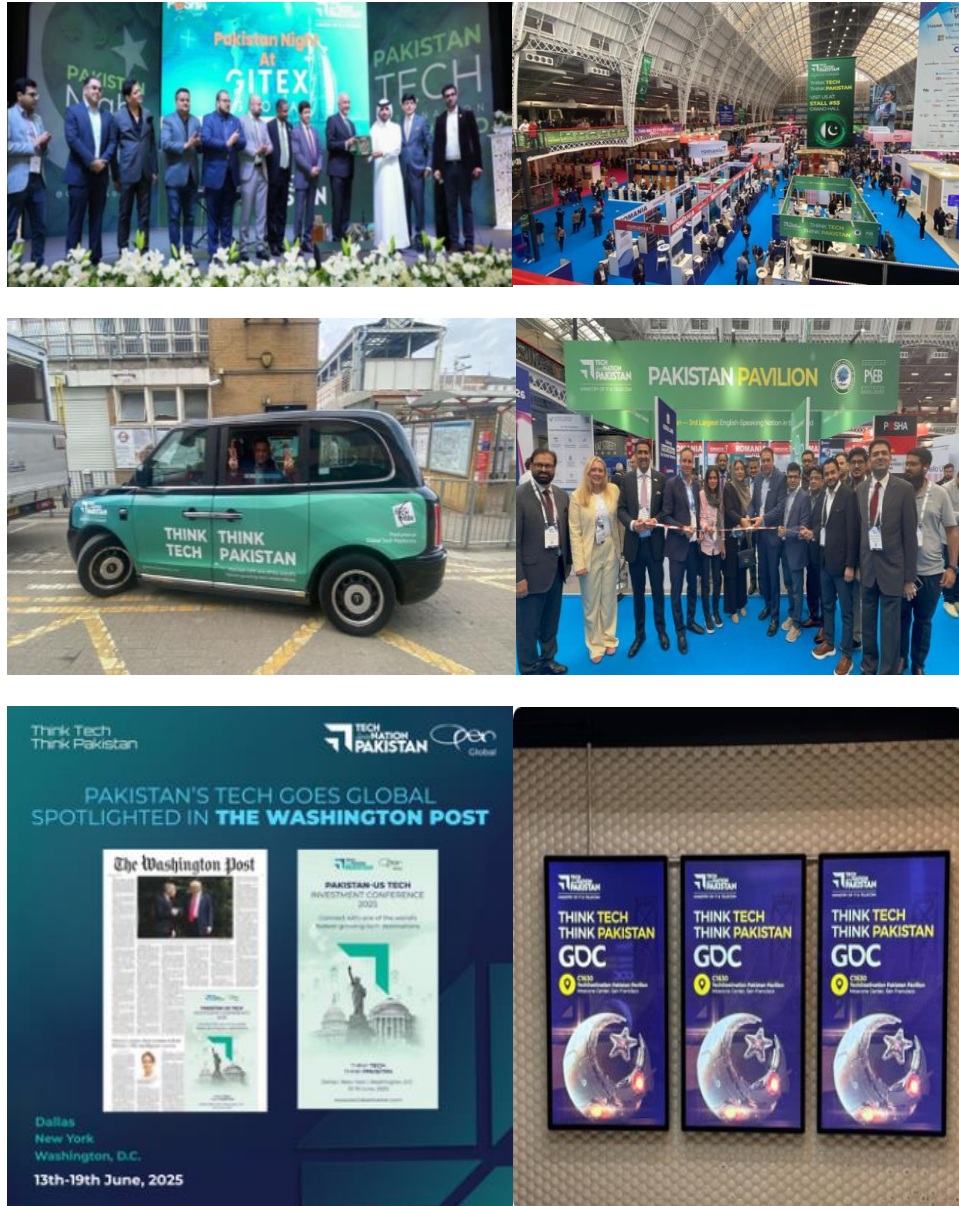


Budget Versus Actual 2024-25

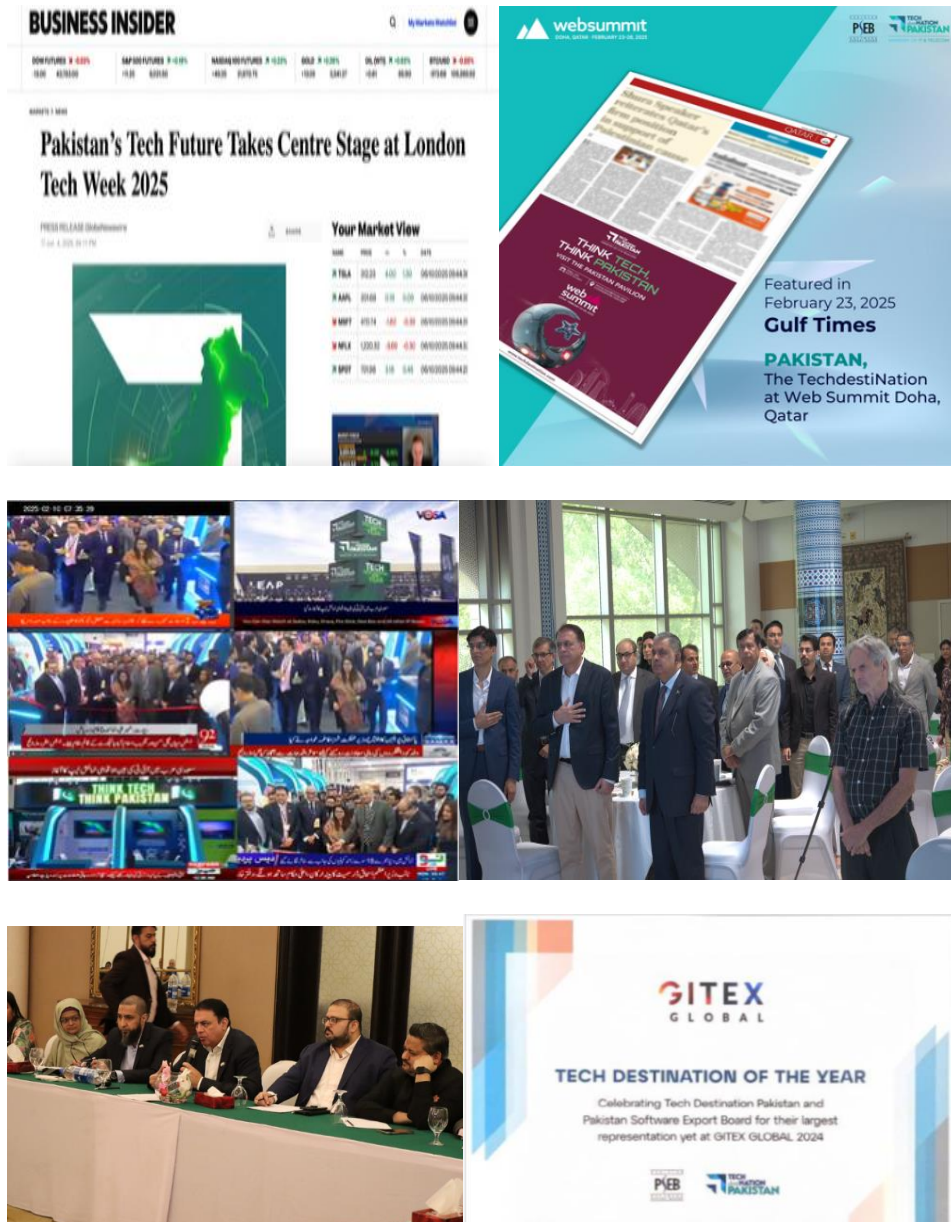


Accounts Head	Final budget estimates 2024-25	Actual June 30, 2025	Over/ (Under)	Percentage Over/(under)
Final Government Grant	1,425.551	1,425.551	-	-
Registration & renewal fee receipts	130.000	171.223	41.223	31.71%
Bandwidth & related receipts	118.800	112.500	(6.300)	(5.304%)
Companies Participation fee & Interest Income/others	75.000	79.122	4.122	5.496%
Total Revenue / receipts	1,749.351	1,788.396	39.045	2.232%
Expenditures				
Employee related expenses	285.974	267.687	(18.287)	(6.395%)
Marketing, Branding and research studies	1,119.285	1,062.972	(56.313)	(5.031%)
Portal Development Charges	24.397	24.397	-	-
HR Readiness Programs	18.460	-	(18.460)	(100%)
Pending liability – (STP at Women University Bagh)	8.1000	-	(8.1000)	(100%)
Bandwidth & related expenses	51.198	50.970	(0.228)	(0.445%)
General & Operating Expenses	194.352	184.009	(10.343)	(5.321%)
Physical assets (equipment's & furniture etc)	27.673	19.950	(7.723)	(27.908%)
Purchase of Vehicles	17.400	16.866	(0.534)	(3.069%)
Total Expenditure	1,746.839	1,626.851	(119.988)	(6.869%)
Surplus/(Deficit)	2.512	161.545	159.033	

Visual Documentation











Press Coverage

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ANNUAL PERFORMANCE REPORT – SCO

1. Context

- a. SCO is a versatile, dynamic and the largest telecommunication organization in Azad Jammu Kashmir (AJK) and Gilgit Baltistan (GB) providing various **blends of communication services** (fixed telephone line, cellular communication, Broadband Internet Services, Wireless local loop & IPTV services). Despite financial challenges, harsh weather and extremely difficult terrain, SCO is efficiently providing the telecom services in the regions. SCO has been ranked 1st by PTA in Quality of Services (QoS) survey in GB in December 2023.
- b. SCO is faced with multiple challenges in provision of stable communication and internet services in GB and AJK; particularly **focusing on underserved and unserved areas**. The challenges, mainly due to lack of development (PSDP) funds owing to overall financial constraints in the country, have restricted SCO for consolidating and expanding the telecom network and ensuring round the clock network availability due to high power outages and high OPEX cost.
- c. Since last major network upgradation in 2016, SCO's subscribers have increase 4 times and network usage has grown **160 times**. Meanwhile, **budgetary constraints / non-approval** of (PSDP) development projects created **technological gaps** and **capacity issues** in SCO's Network.

2. Revenue. It has been observed that over period of time SCO revenue mainly depends on NGMS services. Despite no major NGMS project last year, SCO has surpassed **100%** assigned revenue target by Ministry. Target assigned by MOIT&T was **Rs. 6,000**

million and non tax revenue (FCF) **6,745.37 million** was achieved, which is 112% with 16% YoY growth.

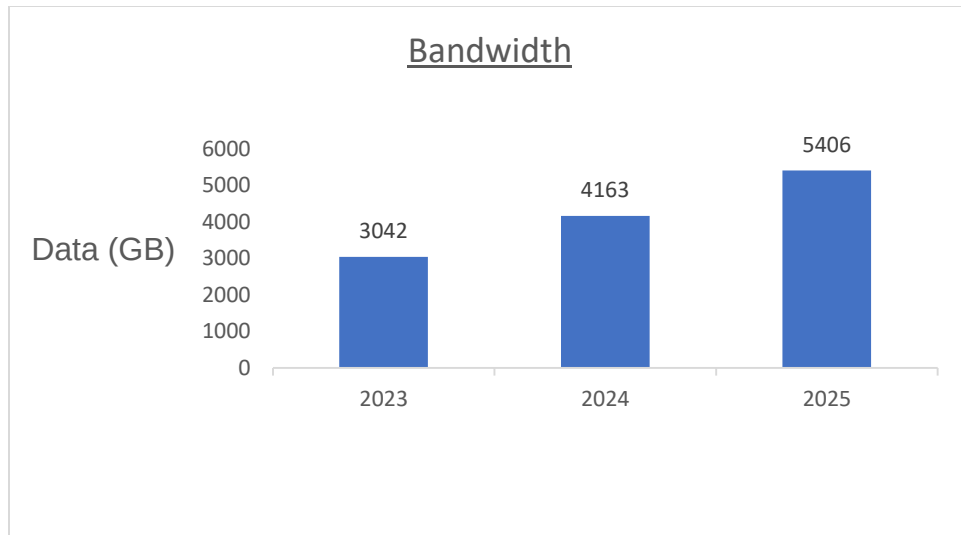
3. **Network Optimization**

- a. Network wide Audit and Evaluation was carried to identify possible optimization areas to improve network QoS in following areas:-
 - (1) Identification of network congestion at individual cell and site level.
 - (2) Identification of low utilization cells and sites.
 - (3) Less than optimum parameters/ configuration relative to SCO's scenarios.
- b. **Optimization efforts** have resulted in improvement of over **70% data** and **19.6% voice** traffic since last year.

4. **Subscribers Growth**

Ser	Subscribers	2023	2024	2025
a.	NGMS Users	1,853,231	1,962,801	2,002,231
b.	Broadband Customers	32,120	44,556	54,902
c.	PSTN	40,753	37,639	33,307
d.	Corporate Clients	50	210	786

5. **Growth in Media/ Leasing.** 30% growth in leasing and co-location business through industry reach-out policy, flexible rates and effective negotiations.



6. **HPS**

- a. Extremely low voltages, load shedding and increase in electricity tariffs has increased the Network OPEX; affecting Network Uptime.
- b. HPS includes solar system, battery backup, generator set and remote monitoring system.
- c. Dividend
 2. Green energy manifestation.
 3. Reduced Network OPEX.
 4. Reduction in POL overhead.
 5. Increase service availability.
- d. 157x mobile sites have been solarized in GB and AJK.

7. **Expansion of FTTH Services**

- a. Extension of Fiber to The Home (FTTH) services in 3x cities of Azad Jammu and Kashmir (AJK) and Gilgit Baltistan (GB) by adding 15,000 subscribers to existing system thus enhancing footprint in the area.

- b. After completion of GPON Phase III, GPON Phase IV was initiated and successfully computed to further extend services in 11x cities of Azad Jammu and Kashmir (AJ&K) and Gilgit Baltistan (GB) to support tourism, education and freelancers.

8. **Socio-Economic Development initiatives of SCO (Youth Empowerment)**

- a. Through "Swift Action Plan" SCO envisioned "Youth Empowerment through provision of sustained IT environment" by establish network of Software Technology Parks (STP) and Free Lancing Hubs (FLH) across region.
- b. Concept is based on "Hub and Spoke Model" wherein IT Hub (main District level) is established, which is connected with few spokes (mini local IT centers).
- c. SCO has established 80x STPs/ FLHs in the region in last 16x months.

Facility	Established		Planned		Total
	AJK	GB	AJK	GB	
STP	7	8	5	-	20
FLH	32	33	7	8	80
Total	39	41	12	8	
G Total	80		20		100

9. **Future Roadmap**

- a. **Vision.** Build a **digitally inclusive** AJK and GB through high speed secure/ assured connectivity, enabling socio-economic development and meeting evolving needs of both communities and tourists alike.

b. **3-Years Objectives**

1. **Broadband Accessibility.** Expand fixed broadband internet coverage to all districts, tehsils, and union councils throughout AJK and GB.
2. **High Speed Mobile Data Rate in Urban Centers.** Ensure mobile data speeds of 6 Mbps or higher in major cities and towns of AJK & GB.
3. **Assured Data Speed Across Regions.** Assured mobile data rate of at least 3 Mbps throughout AJK and GB.
4. **Comprehensive Highway Coverage.** Achieve cellular network coverage along major highways across AJK and GB.
5. **Facilitate Tourism.** Enhance mobile network coverage to provide seamless roaming services for all tourists visiting AJK and GB.
6. **Optimized Network Reliability.** Aim for 100% network uptime across the service area.
7. **IT Infrastructure Development.** Establish a robust network of IT setups throughout AJK and GB:-
 - (a) **District-Level.** Establish main Software Technology Park (STP) or a Freelancing Hub (FLH) at each district level.
 - (b) **Tehsil-Level.** Establish medium size Freelancing Hubs (FLHs) at each tehsil.
 - (c) **Sub-Tehsil/Union Council Level.** Set up Mini Freelancing Hubs (Mini FLHs) at each sub-tehsil or union council.

c. **Impact**

(1) **Socio-Economic Uplift (Indirect Effect)**

- (a) Better access to online education resources, fostering better learning outcomes and skill development through enhanced internet connectivity.
- (b) Growth of IT and freelancing sector by realizing untapped youth potential.
- (c) Forex remittances through Freelancing Hubs/ Software Technical Parks.
- (d) Support for realizing full potential of a sustainable green tourism industry.
- (e) Job opportunities through provision of IT services & Tourism.
- (f) Enhancing communication and IT services in the region will help mitigate growing public discontent in AJK/ GB.

(2) **Revenue Generation (Direct Effect).** The proposed development plan is expected to generate the following cumulative net revenue by expanding network access, boosting data usage and increased subscribers:-

- (a) **Over 5 Years.** Over PKR 43,000 Million in net cumulative revenue.
- (b) **Over 10 Years.** Over PKR 100,000 Million in net cumulative revenue.

(3) **Envisioned Projects.** To realize above mentioned objectives, list of envisioned projects for next 3-year cycle are as below:-

CRITICAL DEVELOPMENT PROJECTS - 3 YEARS ROADMAP

Major Projects	Rationale	Budgetary Cost Estimate (Rs in Million)
IP Core Upgrade	- Capacity & Protection enhancement - IPv6 Migration	1,500
NGMS PR Core Upgrade	- Obsolete Hardware - Approaching EOL/ Support	1,950
NGMS DR Core Upgrade	- Installation of missing Elements - Future Readiness	850
Billing System Upgrade	- Contemporary feature requirements - Approaching EOL/ Support	1,900
Business Intelligence and Revenue Assurance System	Revenue Assurance & Fraud Management Feature	1,000
<u>NGMS RAN Enhancements</u> - Upgrade of 61x Existing BTSs - Addition of 153x BTSs	- Upgrade of 61x urban sites for capacity enhancement - Installation of 153 x new sites in urban/ rural areas for coverage enhancement	13,000
Expansion of Broadband Services in Major Towns/ Union Councils	Expansion and addition of 40K GPON subscribers capacity	3,000
OFC and Txmn Equipment	- Approx 900 Km of Planned OFC Laying projects - Extension of OTN Network	3,800
CTDISR Implementation	Essential Network Security Enhancement	2,000
Total (Rs in Million)		29,000

10. **New Projects (PC-1s)** In order to follow above mentioned roadmap and accrue maximum benefits following projects (PC1s) have been submitted to Ministry of Information Technology and Telecommunication. **Availability of funds** for these projects is of **paramount importance** to meet the **objectives for next FY** as per envisaged of 3 Year Roadmap.

- a. Provision of **Cellular Services** in AJK and GB by installation of essentially required 51 cellular sites in unserved and underserved areas.
- b. Up-gradation of **billing system** which will support 4,000,000 subscribers of all services (Cellular, WLL, DXX, LDI, Cloud & FTTH).
- c. **Hybrid Power Solution** for additional 50x remote telecom sites of AJK and GB to improve the system uptime and control long loading shedding hours.
- d. **Transition from IPv4 to IPv6** to support the latest IP based equipment for better internet services in accordance with PTA regulation.

11. **Annual Plan**

- a. **Objectives / Initiatives**. Core objective of SCO is to improve quality of ICT services by giving priority to serviceability over profitability. Major steps taken to achieve the desired objectives are:-
 - (1) Operation of 3G/4G services in AJ&K and GB.
 - (2) Compatibility / adoptability with futuristic technologies in AJ&K and GB.
 - (3) Provision of ICT services along Karakoram Highway (in support of CPEC).
 - (4) Migration of PSTN / TDM based technologies to IP Based technologies.
 - (5) Expansion and up-gradation of transmission networks.
 - (6) Replacing legacy power system with hybrid / green energy.
 - (7) Undertaking of strategic communication projects like Pak-China OFC connectivity.

- (8) Develop a high-quality skilled workforce relevant to current and emerging employment market needs.
- (9) FTTH Project in 47 cities / towns of AJ&K and GB to meet the data requirement of local.

b. **Programs for 2025-26**

- (1) Migration from traditional DSL to Fiber to Home (FTTH), providing triple play services in urban and rural areas of AJ&K and GB (under completion).
- (2) Transformation of legacy power systems with Hybrid / green energy system at 157 remote cellular sites of AJ&K and GB (Under completion).
- (3) Expansion of 3G / 4G cellular services in 28 remote, un-served and under- served area of AJ&K and GB (under deployment).
- (4) NGMS Core Up-gradation (under deployment).
- (5) Migration of Existing Billing System to Convergent Billing System (CvBS) (under approval).
- (6) Transition from IPV4 to IPV6 (under approval).
- (7) Hybrid Power Solution at 50 additional ICT sites of AJ&K and GB (Phase- II) (under approval).
- (8) Establishment of Call Center (under approval).
- (9) Expansion of 3G / 4G cellular services in 51 remote, un-served and under- served area of AJ&K and GB (under approval).

c. **Ongoing Projects**

Ser	Project	Cost	Demand for 2024-25
(1)	Hybrid Power Solution (Solarization) for Remote Sites of SCO in AJ&K	707.000	221.042
(2)	Hybrid Power Solution (Solarization) for Remote Sites of SCO in GB	690.000	206.097
(3)	Expansion of GPON FTTH Services in New & Existing Cities	567.000	169.212
(4)	Expansion of GPON FTTH Services in Existing 11 Cities Phase-IV	780.000	403.000
(5)	Expansion of Cellular Services in AJ&K and GB Phase-IV	1997.000	444.000
(6)	NGMS Core Up-gradation	715.000	200.00
G.Total			1643.351

12. **Proposed Projects (2025-26)**

S/No	Project	Cost	Demand for 2025-26
a.	Migration of Existing Billing System to Convergent Billing System	1888	614.455
b.	Hybrid Power Solution (HPS) for AJ&K and GB Phase-II	870.000	347.000
c.	Transition from IPV4 to IPV6	920.000	460.000
d.	Communication Services For Unserved And Underserved Areas Of AJ&K And GB	3759.8	1,499.030
e.	Establishment of Call Center	116.3	59.308
G. Total			2,979.793

13. **Context of Pak China OFC Project (Phase-1).** The project was completed in 2018 by deploying 1885 kilometers OFC and related infrastructure from Rawalpindi to Khunjerab (**Annex A**). The project is of great strategic significance as it makes Pakistan a

regional connectivity hub with **great revenue potential**. This includes **transit internet traffic from China to international destinations** (ME, Africa and Europe) and **bilateral traffic between Pakistan and China**.

14. **Operation and Maintenance Status of Pak China OFC Project**. Project is operational and presently carrying 580 G internet traffic from China to Pak/ Europe

15. **Benefits for China and Pak**

- a. Located at the intersection of Arabian Sea, *Pak provides shortest, secure and alternate route for connectivity from China to Middle East (ME), Europe and Africa.*
- b. *Available of dedicated and alternate digital corridor (OFC link) passing through Arabian Sea will serve geo-strategic interests of both Pak and China.*
- c. Due to less reliance on Western/Indian dominated submarine cables, **cyber security concerns will be adequately addressed.**
- d. OFC Link can also be utilized for internet connectivity to / from Central Asian Republics (CARs).
- e. **Recent Initiatives**. SCO engaged Chinese operators (CMI & CTG), for bringing internet traffic from China to Pakistan & Europe. Following milestones have recently been achieved: -
 - (1) 200 G capacity contract signed with CMI/ PEACE.
 - (2) 200 G capacity contract signed with CTG/PTCL.

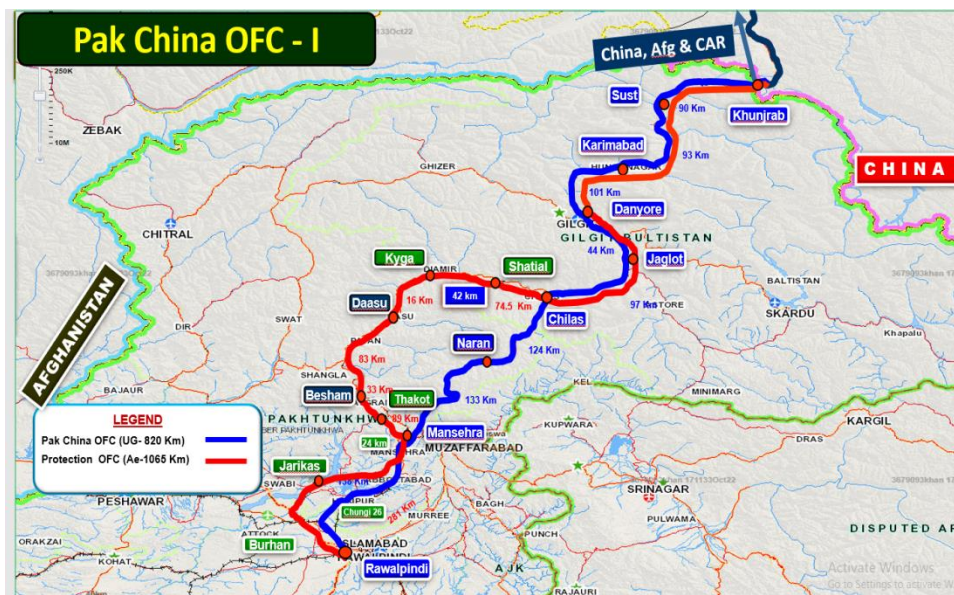
16. **Way Forward**. Chinese state-owned operators (CMI, CTG & CU) are main user of this OFC link. Chinese operators are not using this link to its optimum capacity. Following is requested from Chinese Govt: -

- a. Chinese state-owned operators (CMI, CTG & CU) be persuaded to bring maximum internet traffic to ME, Europe, Africa and Far East on Pak China OFC Phase-1.

Annex A



Annex B



IGNITE

National Initiatives for ICTs (IT & Telecom)

Ignite – National Technology Fund Year Book 2024–25

A. Center of Excellence in Gaming and Animation (CEGA)

The Center of Excellence in Gaming and Animation (CEGA) was established to address challenges faced by Pakistan’s gaming and animation industry. The initiative provides training resources, incubates startups, hosts industry events, and serves as a platform for collaboration, enhancing innovation and global competitiveness.

Two centers have been established in Lahore and Karachi in collaboration with HUM Network Ltd. Multiple pitching sessions were conducted in October and November 2024, and orientation ceremonies were held on 17 November (Lahore) and 26 November (Karachi). Cohort-01 received 426 applications, and 22 startups were selected, including 12 at NASTP Lahore (2 female-led) and 10 at NED Karachi (4 female-led).

B. Peoples Development Programs

i. DigiSkills.pk 3.0 – Training Program for Freelancing

Launched on 1 June 2025, DigiSkills.pk 3.0 provides youth, freelancers, students, and professionals with in-demand digital skills to access local and international online markets. The program enhances employability, promotes entrepreneurship, and strengthens the digital economy.

Key objectives include increasing the number of freelancers, working hours, earnings, household income, financial inclusion, IT exports, and availability of specialized skills. Over 4.87 million trainings have been conducted, with 71% male and 29% female participation, including 56,317 overseas Pakistanis. Freelancers have earned USD 1.65 billion up to December 2025.

DigiSkills.pk 3.0 introduces 10 new courses and upgrades 15 existing courses, covering areas such as freelancing, digital marketing, SEO, graphic design, WordPress, video editing, e-commerce management, cybersecurity, UI/UX design, web and mobile app development, AI and machine learning, data analytics, and programming fundamentals.

During Batches 01 and 02, there were 627,187 enrollments, including 244,539 women and 254 X-Gender participants. Province-wise enrollments (July–December 2025) were: Punjab 397,694; Sindh 101,851; Khyber Pakhtunkhwa 71,327; Islamabad 27,883; Balochistan 9,705; Azad Kashmir 7,746; Gilgit-Baltistan 5,240; Overseas 5,741.

C. Training in Integrated Circuit Design and Verification

This pilot program trained 30 professionals in advanced chip design and verification, building local capacity and reducing reliance on foreign expertise. The 14-month project began on 1 July 2025 and included outreach, trainee selection, technical training, and tape-out activities. A rigorous merit-based process selected 33 candidates through testing and interviews. Module-2 is scheduled to commence from 12 January 2026.

D. Bilingual Urdu Screen Reader – Rehnuma Awaz

Rehnuma Awaz supports visually impaired individuals through a bilingual Urdu and English screen reader, developed following user-centered research in Lahore, Karachi, Islamabad, and Gilgit. The project commenced on 1 November 2024 and spans three years.

Within five months, a Windows version was developed as an NVDA add-on, featuring three natural Urdu voices and adjustable speech parameters. The Android version has been released with over 100 downloads. Plans for nationwide outreach and an iOS version are scheduled for mid-2026.

E. Prime Minister's Cloud Program for Startups

The program reduces financial and technical barriers to cloud adoption for up to 100 technology startups through merit-based selection and reimbursements of up to 60%. The program includes tier-based support, guidance from cloud experts, and collaboration with local and global cloud providers. It is currently being rolled out nationwide.

F. Digital Pakistan Speed Programming Competition 2025

The competition promoted problem-solving, teamwork, and programming skills. Over 25 training sessions were held in six cities, training 3,400 participants in C/C++, Java, .NET, and Python. The online round included 1,375 teams from 192 institutions across 56 cities, and 57 finalist teams competed in Islamabad. The awards ceremony was attended by the Minister of State for Federal Education and Professional Training.

G. AI Wrapper Competition 2025

This initiative accelerated AI adoption in education, health, governance, climate and agriculture, and finance sectors. Strategic partnerships with Google Cloud, PSEB, NICs, universities, and industry bodies resulted in 1,712 team registrations from 106 cities. Regional rounds culminated in a National Grand Finale on 11 November 2025, with winners recognized on 13 November 2025.

H. Digital Pakistan Cybersecurity Hackathon 2025

Nationwide cybersecurity workshops, awareness sessions, and hackathons engaged over 1,450 teams and 3,300 participants across eight cities. The program included capacity-building for government employees and public awareness campaigns in 16 cities. The Board approved awards totaling PKR 51.5 million.

I. Sponsorships for International Competitions

Three teams from Ignite's cybersecurity programs represented Pakistan at the Black Hat International Competition 2025 in Riyadh,

competing against 125+ international teams and securing top rankings.

J. Participation in International Events

During 2024–25, Pakistani startups engaged in global technology forums to showcase innovation and access international markets:

- 10 startups at LEAP 2025, Riyadh
- 2 startups at Web Summit Vancouver
- 2 startups at London Tech 2025
- 7 startups at GISEC 2025
- 4 startups at GITEX Africa 2025, Morocco
- 3 startups during the Prime Minister's delegation to China
- 1 startup at AI & Big Data Expo, Amsterdam
- 10 startups at GITEX Expand North Star, Dubai
- 4 startups at TechCrunch Disrupt USA 2025
- 5 startups at Singapore FinTech Festival 2025

K. NIC Islamabad Designated as ITU Regional Acceleration Centre

On 16 April 2025, NIC Islamabad was designated as a Regional Acceleration Centre by the International Telecommunication Union, joining its global network. The agreement enables NIC Islamabad to serve as a hub for entrepreneurship, digital innovation, policy experimentation, and capacity building, offering mentorship, funding access, R&D support, and guidance on policy innovation.

L. Ignite and TDAP MoU to Accelerate Export-Ready IT Startups

On 30 May 2025, Ignite and TDAP signed a five-year MoU to support mature, export-ready IT startups through mentorship, global event participation, and the establishment of Pakistan's first expo-focused accelerator. The partnership strengthens the export ecosystem, bridges incubation-to-scaling gaps, and connects startups to international markets.

TELECOM FOUNDATION

Strategic Vision:

In November 1991, Telecom Foundation was established under The Charitable Endowment Act, 1890, as a self-supporting trust to provide social welfare services for retired and serving employees of telecom sector organizations. Affiliated with the Ministry of IT & Telecom, it generates revenue through telecom, engineering, real estate services and through dividends from its subsidiaries, in turn reinvesting in education and healthcare programs.

After many years of stagnation and decline, the Foundation has been transformed recently following the introduction of a 5-year strategic master plan in the organization in the year 2020 by the new President & CEO. Under the Vision of "Transforming Communities", Telecom Foundation now formulates and updates strategies annually as part of its dynamically updated strategic master plan. As part of the plan, in education, TF added three new schools after a gap of 21 years and is now modernizing all of its 15 campuses (with completion by June 2026), incorporating smart classrooms, digital labs, energy-efficient systems, and automated attendance. In healthcare, TF has incorporated health units after a gap of 10 years and is now working on leveraging AI, telemedicine, and IoMT to improve accessibility and affordability. By upgrading healthcare units and integrating digital health solutions, TF aims to enhance service delivery, particularly in rural areas. These improvements are being further supported by the attainment of a tax exemption certificate after 30 years, enabling the Foundation to save millions of rupees that are being reinvested in the digitalization of schools and health units. Alongside social sector reforms, Telecom Foundation has achieved major financial and operational milestones that underpin the sustainability of its mission. These include the highest-ever annual turnover of Rs. 1.6 billion and a record share price of Rs. 420 in its subsidiary Pak Datacom Ltd., compared to around Rs. 40 five years ago, reflecting

strong institutional recovery and investor confidence. Additionally, the revival of TF Pipes' production facility after a dormancy of five years has restored an important industrial asset, contributing to employment and economic activity. Looking ahead, the Foundation has also planned for the development of a Smart Digital Green Knowledge and Industrial Park in Islamabad, further extending the long-term benefits of its strategic transformation. By prioritizing sustainability and community engagement, the Foundation aims to drive positive change, improving the quality of life for Pakistan's most vulnerable populations and fostering a brighter, healthier future for all.

Aiming to empower underprivileged communities by transforming education and healthcare through innovative technologies and holistic development, Telecom Foundation continued the same path this year as well.

Our Mission:

- Become the most credible welfare organization in Pakistan.
- Become a major ICT brand in Pakistan.
- Become the number one green brand in Pakistan.
- Become a benchmark for world class organizational practices.

Our Core Values:

- Integrity
- Professionalism
- Care

Initial Status:

At the beginning of the FY 2024-25, the Foundation was in planning stages of implementing smart and digital facilities for its beneficiaries, but none of its schools had been operational smart

facilities. The year 2024-25 saw the Foundation establish its first smart school (with smart boards-based teaching medium) with digital facilities. The organization was carrying out its operations on manually based procedures at the beginning of the year. By the end of the year, the Foundation had implemented a beta version of its planned digital transformation platform (including a KPI based performance management system), taking it towards a paperless unit. Apart from expanding its contribution in national fibreization through the deployment of GPON lines as well as reduction in carbon foot print through its Green energy projects during the year, the Foundation also continued to increase its financial standing in 2024-25, by posting an increase in its as well as its subsidiaries' revenues, including revival of TF Pipes manufacturing facility after a dormancy of over five years.

Major Achievements:

The 2024-25 annual review show cases Telecom Foundation's achievements in revolutionizing education and healthcare delivery across Pakistan.

Academic Excellence & Innovation:

The Islamabad campus has been transformed **into Pakistan's first smart digital green school**, featuring digitally equipped laboratories, interactive smart boards and energy-efficient system, complemented by automated attendance and advanced surveillance infrastructure. Similar transformations have been planned for all our 15 schools across the country by June 2026.

Significant infrastructure developments include complete renovation of six campuses - Jangle, Rawalpindi, D.I. Khan, Malir Karachi, Orangi and Islamabad - along with partial upgrades to facilities in Bannu, Mianwali, and Faisalabad. The developments encompass digitally equipped laboratories, interactive smart board, and energy-efficient system. The transformation has been particularly notable in the implementation of automated

attendance systems and advanced surveillance infrastructure, creating modern learning environments across all facilities.

Through strategic collaborations with Virtual University, strategic partnerships have strengthened **STEM** initiatives and **3D** animation workshops. Trainings for Students:

STEM summer boot camp ARDUINO programming organized by professional development center Virtual University.

STEM winter boot camp ARDUINO programming Workshop on 3D animations and graphics (conducted on 17-Dec-2024 at Malir Campus)

Trainings for Teachers:

Jolly Phoenix Training

Teachers' trainings on 3 Ps

The launch of **HSSC-I** classes at Malir Karachi marks another significant educational advancement from TF's expansion from schools to college level.

Telecom Foundation Education System (TFES) Trainings Demographics:

Training Topic	Audience	Trainings	Organizer
Leader In Me Program by Franklin Covey	TFES Islamabad (510) TFES Karachi Malir (210) TFES Orangi (105)	825	Franklin Covey
Girls In ICT VU Collaborative Training	Teachers & Students (Islamabad, Lahore, Orangi)	194	Virtual University (VU)
Certified Training in Core Subjects	Subject-Specific Teachers	100	Oxford, Paramount, Franklin Covey, Google
Continuous Professional Development	All Teachers	208	Various

Training Topic	Audience	Trainings	Organizer
Space Education Training	TFES Campuses	2,500	Attock Astronomical Society & Astrobots
Internet Safety, Digital Safar Training	TFES Teachers	191	Google CS
First Aid & Emergency Response Training	Islamabad Teachers and students	25	Red Crescent
Early Years Day Plan	Early Years Campus Heads and Teachers	45	TFES HQ Academic Team
3Ps: Lesson Planning & Class Management	All Teachers and Campus Heads	208	TFES HQ Academic Team
Total		4,296	

Healthcare Services:

Telecom Foundation has revamped the two adopted primary health care units with upgraded infrastructure, deployment of full-time qualified medical officers, and implementation of digital Health Kiosks, strengthening continuity of care and service delivery

The Foundation is deploying advanced digital solutions in partnership with FitWell Hub through its e-Doctor platform, integrated Electronic Medical Records (EMR), telemedicine services, and remote patient monitoring technologies, enabling digitally enabled primary healthcare delivery.

Healthcare initiatives have expanded through strategic partnerships with MedXol, Citi Lab and IDC Diagnostics, enhancing medical service accessibility for TF staff, TFES employees, students, parents, and dependents through discounted pathology, radiology, and imaging services and nationwide diagnostic coverage.

Telecom Foundation has conducted medical camps and school health initiatives at Telecom Foundation Schools in Islamabad and Rawalpindi, including general health screenings, dental and vision checks, hygiene education, nutrition awareness, and preventive healthcare sessions, strengthening school-based health promotion.

First Aid and Basic Life Support Training: In collaboration with **Pakistan Red Crescent Society** More than 100 individuals (including staff, students, and community individuals) completed first aid and basic life support training programs, strengthening institutional and community emergency response capacity.

The Foundation has implemented structured community health awareness programs, including dog bite and snake bite prevention and first aid awareness sessions at TF adopted health units, led by Telecom Foundation doctors, integrating maternal and child health, hygiene promotion, nutrition education, disease prevention, public health awareness, and preventive care, thereby strengthening long-term community resilience and improving health literacy.

Business Segment Achievements:

Telecom Foundation also made significant progress during the year 2024-25 in its contribution to national fiberization (FTTH / GPON lines), reduction of carbon foot print in the country through green energy projects as well digital transformation of schools and offices. These included the following:

Telecom Sector: Development of Infrastructure in underserved areas of the country:

National Fiberization: Telecom Foundation advanced national fiberization efforts in 2024-25 through deployment **of 8,287 FTTH and GPON project lines with a revenue of PKR 65.5 million**, strengthening connectivity across the country. Below are the project details:

Sr. No.	Project Name	Area	Lines	Revenue (M) PKR	Status
1	PTCL FTTH Sialkot Site Exchange	Sialkot	3427	19.4	Continued Project and Completed in FY 2024-25
2	PTCL FTTH Model Town Sambrial	Sambrial	444	1.8	Project Started and Completed in FY 2024-25
3	PTCL FTTH Jatakabad Quetta	Quetta	3216	31.5	Continued Project and Completed in FY 2024-25
4	Transworld-H13 Islamabad Project	Islamabad	1200	12.8	Project Started and Completed in FY 2024-25
Total			8,287	65.5	

Green Energy & reduction in carbon foot print: Telecom Foundation successfully completed the following significant solarization projects in the government, residential, and corporate sectors comprised of **1,834.6 KW, with a revenue of PKR 223.8 million:**

Sr. No.	Project Name	kW	Revenue (M) PKR	Status
1	Solarization of Ministry of Defence, Rawalpindi	265	38	Project Started and Completed in FY 2024-25
2	Solarization of Pakistan Railways, Rawalpindi Division	189	26.8	Project Started and Completed in FY 2024-25
3	Solarization of NHMP, Sheikhpura	500	56	Continued Project and Completed in FY 2024-25

Sr. No.	Project Name	kW	Revenue (M) PKR	Status
4	Solarization of KPT Karachi,	300	35	Project Started and Completed in FY 2024-25
5	Solarization of IRSA, Islamabad,	78.8	12	Continued Project and Completed in FY 2024-25
6	Solarization of HDIP Lab, Karachi	51.8	11	Continued Project and Completed in FY 2024-25
7	Solarization of Engineering Development Board, Islamabad	100	11.3	Continued Project and Completed in FY 2024-25
8	Solarization of the National Institute of Public Administration Karachi	250	33.7	Continued Project (Net Metering left)
9	Solarization of Telecom Foundation Complex,	100		Project Started and Completed in FY 2024-25
Total		1,834.6	223.8	

Digital Transformation (DX) – paperless environment:

The Foundation has developed its ERP Odoo platform (beta version), aimed at transforming the organization into a fully paperless entity. The platform encompasses key modules including Performance Management (Appraisal), Project Management, HR, Payroll, Finance & Accounting, Budgeting, Procurement, Document Management, Asset Management, Sales, Inventory and CRM.

A beta version of the Odoo platform has been deployed and is currently undergoing testing phase to identify and resolve bugs.

Digitalization of Annual Confidential Reports (ACRs) via Digital Office - Odoo ERP Platform for the first time in year 2025.

TF has launched the 'Smart Digital RFID Employee Card', a key step in its digital transformation.

Implemented Face Recognition Attendance System across headquarters, regional offices and health unit for multi-layer security and accurate tracking of work hours.

Deployment of Smart Attendance Management System (Geo-tracking) for field employees to monitor and ensure proper work hours tracking.

Institute of Professional Training (IPT):

One hundred and Ninety-Four (194) trainings delivered under IPT programs for the courses of Optical Fiber Splicing, GPON, Management Soft skills and CCTV Technician.

Sr. No.	Course	Trainings
1	Optical Fibre Splicing	72
2	GPON	63
3	CCTV	13
4	Management Soft Skills	46
Total		194

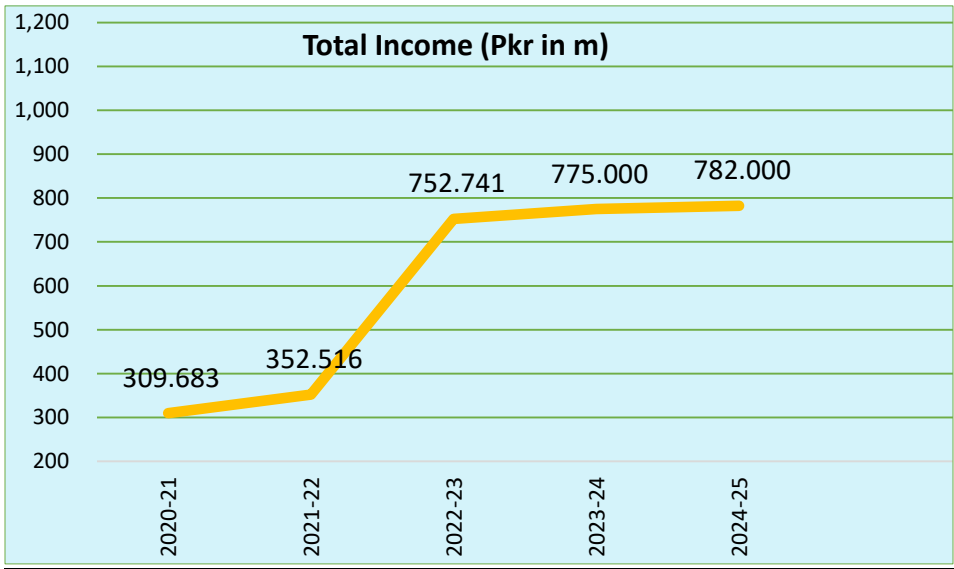
Launch of Soft Skills Training Programs: These courses are designed to develop essential interpersonal and professional skills, such as effective communication, leadership, teamwork, and emotional intelligence, ensuring participants are well- groomed for today's dynamic workplace challenges.

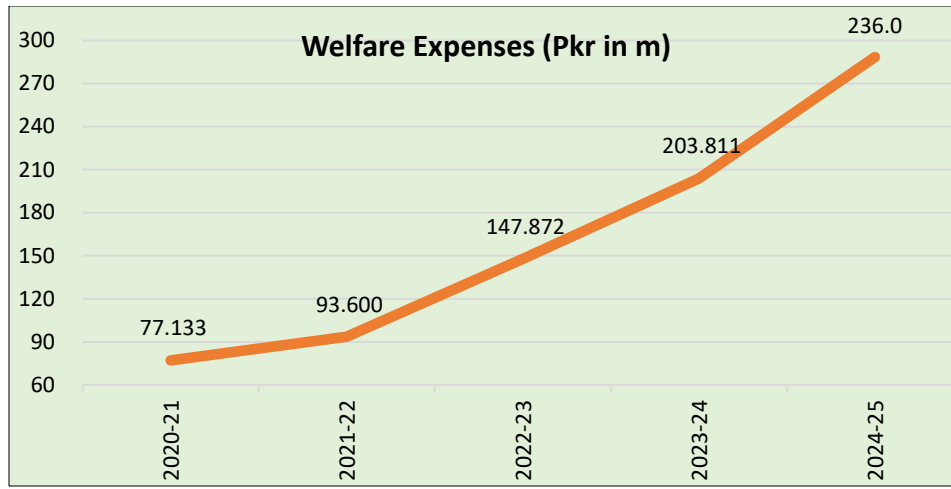
Revamping the Institute for Professional Training (IPT): The Foundation is revamping its historical institute into a state-of-the-art facility. This initiative will enable the delivery of high-quality professional training education both on-site and online, ensuring an enhanced learning experience for students. Additionally, by offering advanced IT courses

(Customized and Industry specific AI, Blockchain, IoT, etc) the Foundation aims to play a pivotal role in developing skilled professionals who can meet the growing demand for IT expertise both locally and internationally. **The Foundation signed a comprehensive MoU with NUST during the year for developing industry specific AI and other cutting edge IT courses.**

Financial Summary: Growth in the Top line & Mandated welfare spending (education, health) over 5 years (financial turnaround):

Telecom Foundation’s continuous progress and growth in the year 2024-25 is also reflected in its financial performance where it has taken its total income from Rs. 775 M in 2024 to Rs. 782 M in 2025, reflecting a **152.5 % growth over five years** and its spending on schools and health units from Rs. 204 M in 2024 to Rs. 236 M in 2025, reflecting a **206 % growth over five years.**





Policy and Legislative Developments:

New policies were introduced by Telecom Foundation for the welfare of its employees and underprivileged students. Details are mentioned below:

Free of cost Umrah Policy for two TF Employees annually.

Continuation of free education policy for orphans across all 15 schools.

Implementation of 'Zero Tolerance Policy' on misbehavior/disrespect with other employees.

Hajj policy - Foundation sponsors the Mahram as well accompanying a female employee selected through the Hajj lucky draw, enabling her to perform Hajj without any hindrance.

Pakistan Telecommunication Employees Trust (PTET)

PTET is the largest corporate pension fund operating in the country. As a body corporate, its prime objective is to manage & invest funds to earn optimum income which is meant to safeguard the continued monthly pension payments over life span of beneficiaries. These 43,000 beneficiaries include pensioners and dependents who were the retirees & transferred employees of former PTC/T&T.

Established in 1996, PTET has grown to over PKR 162 Billion and owns two state of the art high rise buildings in Islamabad. Telecom Tower (Ufone Tower) in Blue Area while Tele House is located in Mauve Area, G-10, Islamabad. The buildings are well maintained and earning handsome rental income of over a billion rupees per annum. Additionally, Fund has completed the architectural layout plans for another high rise building on a plot recently purchased in E-Sector of Islamabad. CDA Approvals have been obtained as of now.

Financial and operational highlights:

a. Fund Size, Annual Pension & Pension Enhancement

- It has grown to over PKR 162 B in fund size and contributing towards over 43,000 beneficiaries.
- In FY 2024, over PKR 11 billion was disbursed as pension to around 37,000 current pensioners.
- Effective July 2024, 16% annual pension increase was approved to benefit 15,100+ Regular retiree pensioners while 12% for those retired under voluntary separation scheme.
- Special pension was introduced during the year for Pensioners' daughter marriage.
- Special pension has also been introduced for funeral & burial charges of self-pensioner's death.

b. Going Digital & Digital Collaboration

- Cloud-backed digital records and processes herein have set newer trends for other pension funds in market. The digital record has fast-paced processing & response time for pensioners strata dispersed across the county. This is largely reducing carbon footprint as a contribution towards climate change.
- PTET has recently introduced a digital solution for the pensioners to replace the lengthy process of furnishing “life certificate” or “biometric verification”. This application allows the pensioners to take a selfie and adds the location, date and time. Pensioners can send their selfie on WhatsApp which is considered as life certificate, thus eliminating the hassle of physical verification
- Collaboration with NADRA: VeriSys System was installed in coordination with NADRA for identity verification of pensioners’ family conversion process and continued data cleansing.
- PTET aims to have more digital transformation & collaboration to benefit the Fund & beneficiaries.

c. Transformation and Reforms

The governance & working standards are continuously improving and the organization is ISO recognized for system improvements. The Fund is on a continuous growth trajectory. The aim is to extend maximum benefits for welfare of beneficiaries without burdening the national exchequer. Helping the nation foster ahead, the Trust does not receive federal budget allocation and is self-sustainable.

NATIONAL INFORMATION TECHNOLOGY BOARD

Major Achievements & Milestones

1. Hajj Portal and App

There are 12 different systems which are intact and functional in Hajj matters and procedures with three major activities:

1. Development of Hajj Application (Complete journey from Hajj Application submission till return of haji)
2. Accounts and Finance System (Cash Book, Vendors management including banks, airlines etc)
3. Decision Making System with real time dashboards
<https://www.figma.com/design/kksZUCTlt1gQGclCdp3yQf/Hajj-app--Copy---Copy-?node-id=0-1&p=f&t=qQDIx5tBJa4Uie6g-0>

2. NVC Portal and App

National Volunteer Corps is a digital platform where volunteers can get them registered and a central repository will be developed based on region and age group. Same volunteers can be used at National Level in case of any emergency, disaster or any National Cause.

In parallel organizations will also get themselves registered
<https://www.figma.com/design/fbbXJSc1AAhzQUyznQ2bc9/National-Volunteer-Corp--Copy-?node-id=0-1&p=f&t=Bbepc5KKUIk3nFR2-0>

3. Enhancements of HRMIS with Reporting and Case Tracking

Enhancements of HRMIS with features of case tracking system, ticketing system and dashboards for Secretary level

4. Digitization of Punjab Probation and Parole Services (PP&PS)

Customization and Roll Out of HRMIS

5. Central Dashboard of NITB

A digital portfolio of NITB where all projects / activities executed by NITB are showcased for general access to public with dynamic CMS from where details against each activity can be managed.

<https://www.figma.com/design/TsJhPIU6rm2Beb9gQnd0UP/CD-NITB?node-id=0-1&p=f&t=4TIOh50pNNJ5QYzM-0>

6. Collaboration Portal for KSA-PAK Investment Conference 2024

PSEB shared the source code of system which was developed by Third Party. Meetings Calendar, Backend CMS, Provision for listings of companies with profile, Responsive issues were incorporated

<https://www.figma.com/design/sFZgTHQSsmtJ4LsW6VV3o1/PSEB-Portal?node-id=0-1&p=f&t=VHVblugiw1umNEiX-0>

7. Automation of Islamabad Food Authority (IFA)

Development of Customized website for Islamabad Food Authority

8. Digitization of Pakistan Sports Board

Customization and Roll Out of PMS App and HRMIS in Pakistan Sports Board

9. Training Registration Portal

An online portal where applicants can get themselves registered and able to apply for scholarships available abroad under umbrella of MNFSR. In addition, ministry will have real time analytical view to keep an eye on applicants, their applications status and for any correspondence with clients within system (if required)

10. e-Licensing System

Digitization of existing procedures for license issuance for Hotel Registrations, Travel Agency Registration, Travel Guide Registration, Restaurants Registration and their renewals

11. Prevention of Extreme Violence in Islamabad

To develop a dynamic dashboard with backend forms from where up to date data along with their status may be updated.

This dashboard has analytics of multiple levels with drill down provision till ground level.

12. Task Management System

To deploy TMS instance with minor changings as per requirements for Ministry of Climate Change

13. HRMIS for PBRR

To deploy HRMIS instance with minor changings as per requirement.

14. Task Management System

To deploy TMS instance with minor changings as per requirements for Plant Breeder's Rights Registry (PBRR), MNFSR

15. e-Portal for PSB

An online portal where citizens can apply for membership, renew their membership, avail all facilities under Pakistan Sports Board.

In addition information related to PSB will be accessible and visible to citizens. Citizens can pay their fees and dues online.

16. BNIP (Ba-Ikhtiar Nojwan Internship Program) Portal

Ba-Ikhtiar Nojwan Internship Program is initiative of Ministry of Planning to develop an online portal for Post Graduates to get them engaged in Public and Private Sector for Paid Internships. Portal has below 04 modules:

1. Candidates Application Submission
2. Mentor and Employer Login
3. Placement of Internees
4. KPI's and Performance Monitoring leading to Payments

Phase 2

1. KPI evaluation of Internee
2. Skill Development Courses
3. Internee Report Submission to SBP
4. Stipend Disbursement
5. NADRA Integration

Phase 3

1. Changes in the profile of internees, employers and super admin
2. Reopening of registration for 6000 internees
3. Auto placement feature of internee
4. Complaint Management System
<https://www.figma.com/design/kAdqZ1QsA3TVI9hAJNHl1/BNIP-Revamp?node-id=0-1&p=f&t=vkmmKchKkhHmBlcN-0>

17. Complaint Management System

A digital platform where any citizen of Pakistan can complaint or raise concern over any content aired on live stream media. Same will be evaluated by PEMRA immediately and respond will be sent to complainant.

18. e-Licensing for OGRA

Existing licensing process for all categories that fall under domain of OGRA i.e. LNG, CNG, Refinery, Oil Sector etc. are digitized from start till end with zero human interaction at any stage. In addition, real time integration with FBR, SECP, NADRA and other stakeholders to have real time data and monitoring.

End user will have real time visibility over any action taken on his submitted application.

19. Stipend Management System

A digital platform where stipend applications are submitted by federal employees and are compiled and processed by SWO within this platform to ensure transparency and efficiency in approval processes with provision for applicant to check their application status whenever they want.

20. IPD Portal

A Central Dashboard for enterprises where relevant PoC's of Ministry can have visibility of Cash Flows, Profit and Loss Statement, Balance Sheet of each enterprise with analytics and reporting mechanism to have real time visibility of assets and liabilities of each enterprise.

<https://www.figma.com/design/eJ9u83MBNviOQoqD87ywDZ/INDUSTRIES---PRODUCTION-DIVISION--I-PD-?node-id=0-1&p=f&t=hG2uBDwCHpMjPALj-0>

21. Collaboration Portal for PSEB

A web portal where all delegations of KSA and Business Identities of Pakistan can get themselves registered. This portal is working on match making methodology and KSA delegations can see portfolio and details of Paki Business owners along with their expertise and vice versa.

Any correspondence between Pakistan and KSA will be executed via said portal

22. Quran App

Mobile application for Muslims where the vetted Quran version by ulama of all sects is available along with Namaz timings, Ahadis and Ayat of day option and different dua's

23. Jama Punji

A digital collaboration portal between Citizens and SECP where there will be provision of Webinars, Discussion Forums, Surveys, Quizzes, Different Calculators, Latest News, FAQ's, Awareness and Protect yourself financially modules.

The purpose behind is to give awareness and digital handholding of any citizen who is willing to strengthen and manage their financials <https://www.figma.com/design/eNh5mU4fHSR6EqGoJNwYjs/Jama-Punji?node-id=0-1&p=f&t=k1VI9ueexRjhcNL2-0>

24. Embassies QR Based Feedback & Complaint Management System

An online portal where citizens of Pakistan can initiate any complaint while visiting any Pakistani's Embassy Globally. Citizen will simply scan QR code placed on Embassy entrance and will straight away land on complaint page without any hassle. Once complaint is lodged, its tracking ID is shared via email to user for tracking in future. On admin side there are different roles with

restricted access managed by Admin role to all departments and they will update the status with provision of comments against said complaint. Top management is having real time visibility of dashboards with advanced filter options for track and trace in addition to decision making and performance evaluation of relevant departments and Embassies.

<https://www.figma.com/design/TeyGoo8EcGnFcyGn3Vd0Qc/Embassy-Complaint-Admin?node-id=0-1&p=f&t=sBtz3qqIsppJ7XII-0>

25. PM Dashboard for IT Skills

An online portal where all institutes and departments submit their real time stats on completed, ongoing and upcoming stats against different training schemes. The purpose behind was to have a real time central dashboard where top office can view the real time status of trainings and have provision of advance search and filtering option leading to enhanced drill down visibility. This system is basically a decision-making system and have provision of integration with existing systems of all stake holders.

26. National Assembly Website and Mob App

An interactive website and mob app where citizens will have access to real time sessions and generic information related to national assembly matters.

<https://www.figma.com/design/ode3Bgk9jsd2sZ4nGdqmYB/National-Assembly-of-Pakistan--Copy-?node-id=0-1&t=tqbe8GheTg6Tlcq7-1>

27. e-Portal for SDG's

An online portal where users of different agencies can submit their monthly report against defined sectors defined by Cabinet Division. Cabinet Division can have access of all information on dashboard and is supportive for Decision Making and real time progress evaluation on given grants.

<https://www.figma.com/design/6NLLotr1W890nT4hzGTVod/SDGA?node-id=0-1&p=f&t=JeiVxrz5gbxbLdjA-0>

28. e-Licensing for Solar Companies

Digitization of existing procedures of license issuance for Registered Solar Companies and their renewals with real time log's view, Analytics, online payments, complaints management and e filing

29. Integrated Social Welfare System (ISWS)

A digital platform where citizens can apply for request of issuance of disability certificate. After request initiation by citizens, MoHR will screen the application and then recommend to Medical Board. Once approved; medical board will call that citizen and grant approval for certificate if found valid. Digital certificate will be issued within portal and can be verified from said portal. Same data will be used by NADRA for issuance of disable CNIC and social welfare used the same data for issuance of multiple grants.

<https://www.figma.com/design/DWL0sqMC4TviW2HRw0aEul/Integrated-Social-Welfare-System-Portal?node-id=0-1&p=f&t=fUwQ2HwemR1fQvQe-0>

30. Progress Management System

A portal where progress on each assigned directive to or by Ministry can be tracked real time including PM Directives, Minister Directives, Dev and Non-Dev Directives.

Where details are visible to top management including real time financial and physical stats against all directives, milestones and tasks. Dashboards with real time analytics and trends with drill down and drill through features for Top management.

<https://www.figma.com/design/4xGVSLfRw9GV9k0d36pdGR/Moitt--Budget-Dashboard--Copy-?node-id=2628-8059&t=5l9X87pCNWDQyICG-0>

31. Complaint & Information Management System

A digital platform where any citizen of Pakistan or foreigner can complaint or raise concern over any issue faced by Pakistan Customs on Airport arrivals or departures. Same will be evaluated

by Pakistan Customs immediately and respond will be sent to complaint upon resolving. This platform is basically a bridge between passengers and Pakistan Customs resulting in facilitation of passengers

32. Umrah & Ziarah Management System

An online portal where Umrah and Ziarah Operators will get themselves registered and get Operator's License / Certificate along with feature of renewal.

Data of Zaireen will be uploaded there along with logistics details to ensure transparency. Central Complaint Management System is also part of that system where zaireen can complaint over any mis-commitment by operator during their visit to Holy Places.

Mobile App is also part of said system which is available only for Zaireen.

<https://www.figma.com/design/ahcMDnnh9qVgFzD3akf4ZA/Umrah-and-Ziarah-Portal?t=iDU3TsykQFn1KS9f-0&fuid=1085499687603092643>

33. Revamping of NJP

To revamp NJP look and feel initially and then keep on enhancing using best market trends including but not limited to Payment Gateway, AI and other integrations

<https://www.figma.com/design/y6nsedNxmSsQts9Cxssya0/National-Jobs-Portal-Website?node-id=487-1133&t=7x4aJcRLOADOzDWD-1>

34. City App and PAK App

To keep on adding multiple services of all departments with integrations with multiple stakeholders initiating from Federal to all provinces across Pakistan with Payment Gateway, AI and other integrations

35. Mobile App for HRMIS and Enhancements in HRMIS

To develop a mobile application for already developed HRMIS of Estab Division, where all roles will have access to view and update record as per permissions granted by Admin.

In addition multiple enhancements that are requested by Estab Division from time-to-time e.g. ACR, PER, Peer Review and other modules

36. Automation of Cabinet Procedures

Automation of Cabinet Meetings and related forums and committees with ongoing enhancements and add ones in existing system including integration with PMOS, e-office and other platforms as per directions

37.FSA Portal

A digital platform where applicant apply for available trainings. User based roles are defined with limited access of system as per mandate. Specific users for screening and shortlisting within portal, HEC user for degree verification and issuance of PAL etc., Embassy role for visa processing and interaction with applicants, University role for assessments with Ministry role to have a real-time high-level view of all ongoing activities with drill down and drill through provision.

38. Pak Tok

Revamping of existing Pak Tok Mob App with a broader vision of 2-way communication between overseas Pakistanis and Public Sector Departments in Pakistan. It will be the single point of contact for Pakistan Diaspora to coordinate with their home country.

Real Time integrations with all stake holders are ensured e.g. Pakistan Citizens Portal, SBP, OPF, NADRA etc.

<https://www.figma.com/design/sP2u1nxOWJrJi5NVYUsn0H/PAKTOK?node-id=0-1&p=f&t=pkRorPPwJFZv1wqX-0>

39. PEMF (Pakistan Emigration Framework) Portal

A portal where end to end process of foreign jobs or immigration is handled for both applicants and OEP's (Overseas Employment Promoters). Real time integrations with all stakeholders involved are indicted including but not limited to NADRA, Passport, FIA, IB, HEC, IBCC, PMDC, PEC, NAVTTC etc.

40. e-Portal for Workers Welfare Fund

An online platform where field workers (labor category only) can apply for welfare fund for education, marriage or any such event. Applicant can check their real time status on application. Internal approval, verifications and approvals are processed on same portal and real time verifications with different stakeholders including but not limited to SECP, EoBI, Social Security etc. through integrations is also part of that platform.

41. FOSPAH Complaint Portal

An online portal where citizens can submit their complaints regarding to harassment and property. Cause list, Hearings decisions and hearings dates are communicated to applicants through said portal. Citizens can track and trace their application with real time status on their application

<https://www.figma.com/design/FXvmgtLBzLRThZ429GvkEU/FOSPAH?node-id=0-1&p=f&t=0xnJWJhykfFa18LV-0>

42. Economic Affairs Division (EAD)

A centralized digital platform providing information on economic cooperation, foreign aid, development financing, and international partnerships.

<https://www.ead.gov.pk/>

43. Ministry of Information Technology & Telecommunication (MOITT)

The MOITT website serves as an authoritative source for national IT policies, digital initiatives, telecom regulations, and innovation programs. It supports Pakistan's digital transformation agenda by enabling stakeholder engagement and policy dissemination.

44. Marine Fisheries Department (MFD)

This website provides data and services related to marine fisheries regulation, export facilitation and sustainable fishing practices, supporting the fisheries sector and international trade compliance.

<https://www.mfd.gov.pk/>

45. Gilgit-Baltistan Council (GB Council)

A governance-focused platform that publishes legislative matters, council decisions, notifications, and regional governance information, strengthening institutional communication and transparency.

<https://gbcouncil.gov.pk/>

46. Federal Prosecutor General (FPG)

The FPG website supports the justice system by offering information on prosecution services, legal mandates, notifications, and official updates, enhancing accessibility and institutional credibility.

<https://fpg.gov.pk/>

47. Cannabis Control & Regulatory Authority (CCRA)

A regulatory website developed to manage policy, compliance, and regulatory frameworks related to cannabis control. It ensures lawful oversight and transparency in a newly regulated domain.

<https://ccra.gov.pk/>

48. Jinnah to Quaid Platform

A dedicated informational website focused on Quaid-e-Azam Muhammad Ali Jinnah, covering his life, leadership, ideology, and national contributions. It serves educational, historical, and public awareness objectives.

<https://fromjinnahitoquaid.gov.pk/>

49. National Institute of Rehabilitation Medicine (NIRM), Islamabad

A healthcare-focused website providing information on rehabilitation services, medical facilities, patient guidance, and institutional updates, improving service accessibility for patients and professionals.

50. Pakistan Post

A public service website offering access to postal services, tracking, rates, financial services, and official announcements, modernizing citizen interaction with Pakistan Post services.

51. Law and Justice Commission of Pakistan (LJCP)

The Law and Justice Commission of Pakistan (LJCP) website serves as a key institutional platform for law reform and justice sector improvement initiatives.

It provides access to reports, research studies, draft laws, judicial statistics, notifications, and commission activities, supporting evidence-based legal reforms and strengthening the rule of law.

<https://ljcp.gov.pk/>

52. Pakistan Hockey Federation

A digital platform providing updates on national hockey activities, tournaments, selections, achievements, and administrative matters, promoting sports development and public engagement.

<https://phf.gov.pk/>

53. Directorate General of Trade Organizations

The DGTO website facilitates information related to trade organizations' registration, regulation, compliance, and notifications, supporting transparency and effective trade governance <https://dgto.gov.pk/>

54. Human Organ Transplant Authority

This website supports regulatory oversight of organ transplantation, including policies, guidelines, licensing, public awareness, and ethical compliance.

<https://hota.gov.pk/>

55. Ministry of Federal Education and Professional Training

An official portal offering access to education policies, reforms, institutions, notifications, and professional training initiatives, supporting national education governance.

<https://ncc.gov.pk/>

56. Directorate General of basic Education Community Schools

The platform provides information on community school programs, enrollment initiatives, educational outreach, and policy implementation, particularly for underserved areas.

<https://becs.gov.pk/>

57. Ministry of Climate Change and Environmental Coordination

A centralized source for climate policies, environmental initiatives, international commitments, notifications, and public awareness, supporting Pakistan's climate action goals. <https://mocc.gov.pk/>

58. National Commission for Human Development (NCHD)

The NCHD website highlights human development programs, focusing on education, literacy, health, and community development initiatives across Pakistan.

<https://www.nchd.org.pk/>

59. Trade Dispute Resolution Commission

A service-oriented platform providing information on trade dispute resolution mechanisms, case procedures, guidelines, and decisions, supporting exporters and traders

<https://tdrc.gov.pk/>

60. Pakistan Information Commission

This portal promotes transparency by providing information on Right of Access to Information laws, complaints handling, decisions, and awareness resources.

<https://rti.gov.pk/>

61. Pakistan Mint

An official website showcasing coinage production, commemorative coins, medals, and institutional information, enhancing public awareness of mint operations. <https://pakistanmint.gov.pk/>

62. Akhtar Hameed Khan National Center for Rural Development

The website focuses on rural development research, training programs, publications, and policy support, promoting sustainable rural governance.

<https://ncrd.gov.pk/>

63. Pakistan Institute of Education (PIE)

A research-oriented platform providing access to education data, assessments, policy research, reports, and analytical studies supporting evidence-based decision-making.

<https://pie.gov.pk/>

64. Directorate General Research & Development Establishment (DGRDE)

The DGRDE website presents information on industrial research, product development, standards, and innovation support for national industry.

<https://rde.gov.pk/>

65. Federal Ombudsperson Secretariat for Protection Against Harassment at Workplace

A citizen-centric portal enabling online complaint registration, publication of judgments, codes of conduct, and guidance on workplace harassment laws.

66. Engineering Development Board (EDB)

A strategic platform providing information on industrial policy, engineering sector development, incentives, projects, and stakeholder facilitation.

ELECTRONIC CERTIFICATION ACCREDITATION COUNCIL (ECAC)

ECAC has been established by the Federal Government of Pakistan under Section-18 of the Electronic Transactions Ordinance (ETO), 2002 as an autonomous body and operates under the Ministry of Information Technology & Telecom (MoITT), Government of Pakistan. It provides a legal framework to recognize and facilitate documents, records, information, communications, and transactions in the electronic form enabling digital signatures to be accepted at par with handwritten (wet) signatures. ECAC is mandated to grant accreditation to any Certificate Service Provider who intends to work as an Accredited Certificate Service Provider. All companies, individuals or firms engaged in the business of electronic services are required to get themselves accredited with ECAC in their own business interests. The Certificate of Accreditation aims to make electronic transactions more secure, more reliable and worldwide acceptable.

Vision

A conducive environment for electronic transactions through trust, legal and stringent policy framework in the Country.

Mission

Establishing trust and acceptability in digital transactions.

ECAC Council:

The composition of the ECAC Council, as approved by the Federal Government w.e.f 16th January, 2026 is as follows:

- | | | |
|----|---------------------------|----------|
| 1. | Major Gen. (R) Ali Farhan | Chairman |
| 2. | Mr. Jawad Habib | Member |
| 3. | Mr. Abdul Wahid Khan | Member |
| 4. | Mr. Nadeem Ahmed Awan | Member |

Objectives

1. To facilitate secure E-Commerce.
2. To ensure security of the E-Commerce / E-Governance through enforcement and regulation of Encryption/PKI (Public Key Infrastructure).
3. To establish *TRUST* through use of Accredited Digital Signatures.
4. To advise all Regulators and Appropriate Authorities such as SBP, NADRA, SECP, FBR, PTA, ECP, etc. using Digital Identity for integrity of electronic transactions as per guidelines spelled out in ETO-2002 and global best practices.

Role & Functions of ECAC

ECAC being a regulatory body have enforcement powers to regulate electronic transactions in Public and Private sectors. It grants and renew accreditation certificates issued to Certification Service Providers (CSPs) including their cryptography services and security procedures. Moreover, ECAC also endeavors for keeping the nation abreast with the ever-changing trends of e-commerce while protecting the interests of related stakeholders. ECAC monitors compliance, establish and manage the repository for certificates and digital documents. Functions of ECAC as defined in ETO 2002 are as follows:

Accreditation	Monitoring	Advisory & Research Role
• Grant and renew accreditation certificates to certification service providers, their cryptography services and security procedures • Recognize or Accredited foreign certification service providers	• Monitor and ensure compliance by ACSP with the terms of their accreditation and revoke or suspend accreditation in the manner and on the grounds as may be specified in regulations • Monitor compliance of ACSP with the provisions of this ordinance • Establish and manage Repository	• Carry out research and studies in relation to cryptography services and to obtain public opinion in connection therewith • Encourage uniformity of standards and practices • Give advice to any person in relation to any matter covered under this ordinance • Make recommendations to an Appropriate Authority in relation to the matters covered under this ordinance

Figure 1: Functions of ECAC as per ETO 2002

ECAC understands the importance of international collaborations for development of internationally acceptable regulations and mechanisms for secure electronic transactions. In the context, ECAC's delegation participated in-person in 62nd UNCITRAL (United Nations Commission on International Trade Law) Session held in Vienna, Austria for the first time. Pakistan's representation depicted a strong commitment to develop a strong platform to secure and protect the Electronic Transactions rapidly growing under Digital Pakistan policy of the Ministry of IT & Telecom (Govt. of Pakistan).

The inaugural session was attended in person by several nations including Pakistan, India, Russia, Algeria, Qatar etc. and rest through virtual participation. The sessions focus was on reliability of 'IdMS' (Identity Management System) and TSPs (Trusted Service Providers) consisting of managing identity proofing or electronic identification and verification of persons in electronic form. Taking benefit from the platform, ECAC included the ongoing latest subject of Identity Management & Cross Border Recognition in the amendments of ETO-2002.

Achievements:

1. Successful International WebTrust Audit for ECAC's National Public Key Infrastructure (NPKI)

i. Second WebTrust Audit: The ECAC team has successfully completed the second WebTrust audit for its National Root Certificate Authority (NRCA), a critical milestone in maintaining compliance with global standards for trusted digital certification services. This audit, mandated to be completed before October 2024, was essential for the continued validity of ECAC's WebTrust Seals. By completing the audit well ahead of the deadline, the ECAC team has not only ensured uninterrupted trust in its public key infrastructure (PKI) services but also reaffirmed its commitment to operational excellence, security, and transparency. This achievement strengthens ECAC's position in the digital trust ecosystem and reinforces stakeholder confidence in our certification processes. This success reflects the team's technical diligence, rigorous compliance management, and effective collaboration across internal and external stakeholders.

ii. Upgradation of ECAC CAs as per latest requirements:

The ECAC team has successfully designed and deployed an upgraded Public Key Infrastructure (PKI) hierarchy to align with evolving global compliance requirements set forth by major root programs, including Google and Apple. This proactive initiative ensures continued recognition and trust of ECAC's certification services in widely used platforms and browsers. Single-Purpose Root CAs have been established to grant and renew accreditation certificates for Certificate Service Providers (CSPs) in accordance with the legal mandate under ETO Article 21(2)(a). ECAC issuing CAs are also made part of

this updated PKI hierarchy for issuing end-entity digital certificates for secure and authenticated communication.

This strategic upgrade ensures ECAC's continued eligibility in major trust stores, reduces audit complexities, and enhances the scalability and security of its PKI infrastructure. It also ensures seamless compliance with both industry and regulatory requirements, reinforcing ECAC's leadership in digital trust services. This milestone underscores the ECAC team's technical foresight, regulatory responsiveness, and commitment to maintaining a robust and future-proof digital certification environment.

iii. Issuance of Final WebTrust Audit Reports and Seals:

The ECAC team has successfully completed the final WebTrust audit cycle for its Root & Issuing CAs in March 2025, achieving a significant compliance milestone by securing six WebTrust Seals, including two new categories—S/MIME and Network Security for the first time.

Completed WebTrust Seals:

- a. WebTrust for Certification Authorities (CA)
- b. WebTrust for Code Signing & Extended Validation (EV) Code Signing
- c. WebTrust for Extended Validation SSL
- d. WebTrust for SSL Baseline Requirements
- e. WebTrust for Network Security (New)
- f. WebTrust for S/MIME Certificates (New).

The inclusion of S/MIME and Network Security seals demonstrates ECAC's expanded capability and compliance with the latest

CA/Browser Forum and WebTrust audit criteria. These new seals are critical to enabling trusted issuance of S/MIME certificates for secure email communication and ensuring robust network infrastructure security controls for ECAC's Certificate Authority operations.

This positions ECAC among a select group of globally recognized CAs that meet the comprehensive requirements across all major trust categories. Achieving this enhanced WebTrust validation strengthens ECAC's credibility, increases global interoperability, and reinforces confidence among relying parties, partners, and end-users. It also ensures continued recognition in major root programs (Microsoft, Apple, Google, Mozilla) and supports strategic objectives in offering secure digital identity and communication services. This accomplishment is a testament to the ECAC team's commitment to excellence, operational rigor, and leadership in trusted digital certification services.



2. **Revision of ECAC's Laws & Regulations:**

The following regulations of ECAC, for efficient functioning, have been finalized and submitted to MoIT&T for approval from relevant forums:

- i. The Certification Service Provider's (CSPs) Accreditation Regulations.
- ii. Security Audit Regulations.
- iii. Crypto Apparatus Accreditation Regulations.
- iv. ECAC Business Regulations.

3. Registration of Information Security Auditors:

Risk Associate is currently registered with ECAC as a Registered Auditor. As per ECAC regulations, auditor registration is valid for a specified period and is subject to renewal upon expiry, provided the auditor submits the required application, documents, and renewal fee within the prescribed timeframe. The auditor is required on panel of ECAC for audit of Certificate Service Provider (CSP) on behalf of ECAC Council's. The Risk Associate has been successfully renewed for 1 year of duration.

4. Development and Launch of New ECAC Website & Repository:

ECAC fulfilling one of its core mandate as per the ETO-2002, has established the Digital Repository to store all the Digital Certificates under the National PKI. Moreover, as per the WebTrust Requirements, a second online portal has been established at <https://ecac.pki.gov.pk> to host the CP/CPS, Certificates, CRLS, OSCP Certificates, etc. Moreover, the WebTrust-issued seals are also placed on this online portal. ECAC has also launched its new website <https://ecac.gov.pk/> New website provides a user-friendly interface and contains all the updated information about ECAC. Besides others, the website also provides details about the mandate, functions, Law and Regulations of the Council.

5. Incorporation of the New WebTrust/CAB forum standards/guidelines:

Since the establishment and WebTrust audit of the National PKI, new standards have been introduced by the CA-Browser Forum and CPA Canada. An extensive effort has been made by the ECAC team to review these standards/guidelines and compare them with the deployed setup. An implementation plan based on the results of this gap analysis has been finalized, which will be incorporated before the forthcoming WebTrust Audit.

Government of Pakistan
Ministry of Information Technology
& Telecommunication



Printing Corporation of Pakistan Press, Islamabad.

