

Balochistan Digital Policy

SCIENCE & INFORMATION TECHNOLOGY DEPARTMENT

GOVERNMENT OF BALOCHISTAN

2021





Government of Balochistan

Balochistan Digital Policy 2021

**Science and Information Technology
Department**



Forward



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Chief Minister Balochistan



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Secretary S&IT

The strategic vision of this government is to leverage the power of IT to escalate the departmental capacities for efficient and effective delivery of services to its citizens leading to prosperity and economic growth in the Province. Balochistan's first Digital Policy 2021 is in line with this government's vision for the digital transformation of processes and revolutionizing the very concept of good governance in the Province.

The provincial administrative leadership believes in the fact, that it is IT and its innovations that can spin the wheels of the economy that could further lead to exciting opportunities and socio-economic growth.

Balochistan's Digital Policy 2021 will lead to e-Governance, which can further help the government in making the lives of the people easy and simple. The steps that are taken in this policy for e-commerce will help Balochistan's economy to prosper.

Digital platforms, the Internet of Things, cloud computing, and artificial intelligence are among the technologies affecting every field of life. Among measures to ensure safety online, this Digital Policy has also adopted new rules to translate digital strategies into actions. The execution of actions presented in the policy will be opted in true spirit for better Balochistan.



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Table of Contents

Definition of Key Terms	6
1 Vision and Mission.....	8
2 Objectives.....	8
3 Our Goals	9
4 Six Digital Policy Pillars	10
4.1 Digital Access and Infrastructure.....	10
4.2 Digital Literacy, Skills and Technology Use.....	11
4.3 Digital Services/Digital Cities/e-Governance.....	12
4.4 Digital Promotion and Transformation	13
4.5 Digital Security, Disaster, Rights and Responsibilities.....	14
4.6 Digital Economy	15
5 Policy Implementation	16
5.1 Digital Strategy.....	16
5.2 Responsibilities of the Implementation Partners	16
6 Action Plans.....	17
Short Term Action Plan (Digital Foundation)	17
Mid Term Action Plan (Progression).....	17
Long Term Action Plan (Full Transformation)	17



Definition of Key Terms

- **Digital access** is the ability to fully participate in a digital society. This includes access to tools and technologies, such as the Internet and computers, which allow for full participation.
- **Digital business** is one that uses technology as an advantage in its internal and external operations.
- **Digital kiosk** is terminal featuring specialized hardware and software that provides information and application for communication, commerce, entertainment, education, and a variety of other topics.
- **Digital citizen** is one who knows what is right and wrong, exhibits intelligent technology behavior, and makes good choices when using technology.
- **Digital economy** is a term for all of those economic processes, transactions, interactions, and activities that are based on digital technologies.
- **Digital government** services (also called e-Government) are defined as service delivery within government, as well as between government and the public using information and communication technologies.
- **Digital hub** is a shared workspace for a range of complementary activities, including commercial businesses, public sector, and community organizations. It offers high-speed and cutting-edge technical facilities and services, as well as meeting rooms, events, and training spaces, with a focus on bringing people together.
- **Digital literacy** refers to an individual's ability to find, evaluate, and compose clear information through writing and other media on various digital platforms.
- **Digital marketing** is the component of marketing that utilizes the Internet and online-based digital technology such as desktop computers, mobile phones and other digital media and platforms to promote products and services.



- **Digital network** is a network incorporating both digital switching and digital transmission to establish a connection for different services, i.e. telephone, data, e-mail, facsimile, etc.
- **Digital skills** are a range of abilities to use digital devices, communication applications, and networks to access and manage information. They enable people to create and share digital content, communicate and collaborate, and solve problems for effective and creative self-fulfillment in life, learning, work, and social activities at large.
- **Digital transformation** is the use of new, fast and frequently changing digital technology to solve problems. One of the examples of digital transformation is cloud computing.
- **Fiber to the home (FTTH)** also Fiber to the Premises (FTTP) is fiber optic communication delivery form where the fiber extends from a central office to the boundary of a home living space or business office.
- **Netizen** describes a user actively involved in online communities or the Internet in general.



1 Vision and Mission

Our vision is to make cities smarter and safer by providing effective, efficient, and accountable e-Services to make Balochistan a better place of choice for living and transforming it into a digital-based and knowledge-based economy. To harness the potential of Science and Information Technology (S&IT) as a key contributor to development of Balochistan.

The Government of Balochistan (GoB) intends to improve the quality of living standards of its citizens via systematic digital transformation using e-Governance, Information, and Communication Technologies (ICTs) for socio-economic growth, job creation, social connectivity, and achievement of United Nation's Sustainable Development Goals (SDGs). To support and facilitate automation and re-engineering of government business processes for efficient, transparent, and effective service delivery to public.

2 Objectives

The GoB aims the digital transformation across all government sectors in a phased manner to bring efficiency, effectiveness, and transparency in its processes for transforming towards socio-economic growth and knowledge-based economy. The broad policy objectives are not only limited to the infrastructure and e-Governance support but also promoting entrepreneurial spirit so that the fruits of this technology is available to every citizen. This policy is expected to:

- a) Warrant that all Districts and major towns of Balochistan have accessible and reliable Internet connectivity.
- b) Facilitate government establishments to implement digital technologies and innovation to improve service delivery mechanisms.
- c) Encourage the expansion of a digital economy through a thriving private sector and a digitally skilled human resource.
- d) Support digital literacy programs and digital skills training at all levels of education.
- e) Ensure the inclusion of marginalized groups such as women, youth, and minorities in the field of ICTs.
- f) Promotion of Public-Private Partnership (PPP).
- g) Provision for a justifiable share by the Provincial and Federal government for ICTs related services.



3 Our Goals

1. The main goal of GoB Digital Policy is to provide efficient and cost-effective infrastructure for using the Internet for rapid delivery of digital content, applications, and services to citizens and provides equitable access to national and international networks and markets. Make the GoB as a facilitator and an enabler to provide maximum opportunities to the private sector to lead the thrust in the development of IT in Balochistan.
2. Support ICT trainings at primary and higher levels and develop an extensive pool of trained IT manpower. Provide advanced ICT knowledge at all levels to meet local and export requirements.
3. Promote widespread use of IT applications in government organizations and departments for efficiency improvement, transparency in functioning/ service provision, and to organize/ facilitate public access to the information.
4. Develop an enable legislative and regulatory framework for IT-related issues.
5. To support the right of Balochistan's citizens in using all types of digital technology acceptably and appropriately.
6. The overall Digital Policy goal is to boost the economy by providing support to Small and Medium Enterprises (SMEs) and Startups for employment generation. Support the dormant manufacturing and Research and Development (R&D) in the province. Promote the development of the digital economy through a thriving private sector using PPP.



4 Six Digital Policy Pillars

The GoB Digital Policy consists of six pillars: “digital access and infrastructure”, “digital literacy, skills and technology use”, “digital services/ digital cities/ e-Governance”, “digital promotion and transformation”, “digital security, disaster, rights and responsibilities”, and “digital economy”.

4.1 Digital Access and Infrastructure

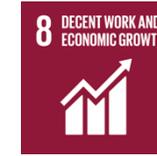


In this technological era, access to ICT and digital literacy are of paramount importance. Citizens are facing problems of low literacy, poor ICT infrastructure, and limited Internet connectivity when compared to the rest of the provinces. Digital access is an essential policy factor that narrows down the digital divide and eradicates poverty. The government intends to achieve the following key initiatives of digital access through the policy guidelines given below:

1. Liaise with the telecom industry to provide low-cost, reliable, and fast access to the Internet in Balochistan in consultation with the Federal government. Promote the phase-wise transformation to the latest enabling technologies of the digital network.
2. Creation of digital hub for the promotion of ICT companies to scale, grow, and foster an atmosphere of creativity and support in the province.
3. Facilitate and use of digital kiosk that empowers citizens to complete tasks at their pace and convenience.
4. Establish Software Technology Parks (STPs), IT Parks, and Rural Incubation Centers, equipped with the most modern facilities and matchless incentives, to provide a one-stop-shop for prospective investors in the IT industry.
5. Establishment of a state-of-the-art Centralized Data Center for facilitating provincial databases for coordinated and informed decision-making.
6. Framing policies for the right of ways for networks in consultation with the Federal Government and other Provincial Government.



4.2 Digital Literacy, Skills and Technology Use



Due to rapid changes in IT, the major human resource issue in Balochistan is quality education and training, nurturing, and retention of technically skilled manpower in advanced and demand-driven technologies. Manpower development is imperative for the local IT industry growth to take root on a large scale in Balochistan. Digital literacy and skills are of paramount importance towards not only forming digital citizens (Netizens) but also promotion of the economic growth. The GoB must invest in enhancing the capabilities of digital literacy and skills of citizens at various levels to boost employment and business outsourcing opportunities. The skills and knowledge in advanced technologies are highly needed for digital jobs. The government intends to achieve the following key initiatives of digital literacy, skills, and technology use through the policy guidelines given below:

1. A mechanism will be established to advice on current and emerging education, digital workforce, and training needs for the creation of digital jobs in consultation with entrepreneurs and academia. Incentives for the promotion of Startups, Digi Bizz: free lancing and entrepreneurship projects to boost economy.
2. A Demand-driven digital literacy and competency framework will be developed for the improvement of digital literacy across the province by converting the existing and prospective IT Institutes.
3. Set up electronic libraries to ensure economical and equitable access to information. Virtual classrooms, education programs, online Internet, and/or video facilities will be built to provide distance learning to a large number of individuals to bridge the digital divide.
4. Facilitate and encourage the training of women and marginalized groups in the IT sector to reduce unemployment and also utilize this largely untapped human resource.
5. Establish Provincial Accreditation Council to ensure quality IT education and training in the province, through specific need-based guidelines devised by it. The Council will be responsible for collecting data on educational institutions, rating the institutions, and disseminating information about the institutions. The Council will also establish curricula, testing guidelines, and other services for IT education and training. The council will consist of leading academics and IT experts and will be linked to other provincial departments/ IT Boards.
6. Promote the setting up of IT-related institutions of international standards. Encourage and catalyze collaboration between the government, private sector, and academia, and elicit the assistance of various foundations, multinational companies, foreign universities, and other social and welfare organizations to strengthen the existing institutions and to establish a number of IT community centers all across the province.



4.3 Digital Services/Digital Cities/e-Governance



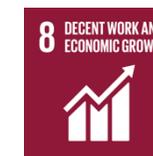
Digital governance is the need of the hour for better delivery of public services. However, e-Governance, when not put on priority area, leads to unaccountable, less productive, and inefficient delivery of service to the citizens. Proper re-engineering of various government departments' processes and use of IT is required to promote digital governance. The government needs to embark upon IT programs to improve efficiency and economy.

In this regard, a digital governance framework will be constituted to promote Government to Citizen, Citizen to Government, Government to Business, Government to Government, and Intra-government interventions. The government intends to achieve the following key initiatives of digital services/ Digital Cities/ e-Governance through the policy guidelines given below:

1. A minimum of 5% of the total budget shall be allocated for IT services, e-Governance support, infrastructure development, and conducting training at all levels in a phased manner.
2. Formation of a Smart Cities Authority and transformation of existing cities into smart cities' in a phased manner encompassing both safe and smart cities feature.
3. An Open-Data Framework will be implemented across government and advance technologies for distributed storage and retrieval will also be adopted to obtain data integrity, transparency, and accountability. In this regard, preference shall be given to open source software's Adoption.
4. All necessary steps required to safeguard government information, commutations, and citizen data will be ensured by implementing cybersecurity protocols and also formulating its regulations.
5. Reorganization of IT Directorate on the analogy of successful models adopted in other provinces.
6. Changes in Rules of Business for the input of the S&IT department for all IT initiatives for the system's integrity.
7. In order to curtail the IT infrastructure and maintenance costs where possible, clouds, fogs, and open-source based technologies will be adopted in case of databases not requiring official security regime.
8. Provision of Citizen-centric services, including Balochistan free WiFi hotspots, citizen facilitation Centre, and citizen's feedback monitoring programme, local / domicile management system, digital libraries, job portal, and driving license management system will be initiated.



4.4 Digital Promotion and Transformation



In ICT, new technologies and products continue to be introduced at a speedy rate. Further, rapid technological changes and the creation of new products are expected to continue every year. R&D is the best and reliable way to understand and act on the complexities of various issues and challenges that the department faces. The formation of R&D may not only oversee the scientific functions of the department but also play a significant role in the development of new processes and technologies. The government intends to achieve the following key initiatives of digital promotion and transformation through the policy guidelines given below:

1. An R&D framework shall be established with appropriate resources to carry out the advanced level R&D in the province focused on new trends and technologies. An environment of R&D including cooperation between the government, private sector, academia, and encouraging venture business will also be created for the promotion of the digital industry. For this aim, R&D Wing will be established.
2. Plan, organize and execute various promotional activities for the promotion IT Sector in the province.
3. Setup an Information Resource Center with on-line linkages to reputed scientific information repositories, accessible from all major cities within the country and word wide.
4. An incentivized scheme shall be devised to encourage and procure the interest of IT professionals in providing their expertise and high-end services which will lead to a speedy promotion of the IT Sector in the province.
5. Incentives for R&D and advanced studies in IT in consultation with the private sector and academia.



4.5 Digital Security, Disaster, Rights and Responsibilities



An increase in the use of the Internet opens the door for cyber-security, disaster risks within the framework of rights and responsibilities. Technology users need to understand the digital security and disaster risk environment vis-a-vis their rights and responsibilities. The government intends to achieve the following key initiatives of digital security, disaster, rights, and responsibilities through the policy guidelines given below:

1. A complete digital security regimen and disaster risk framework shall be made to protect and secure the safety of all the ICT infrastructure and communication setup along with software components to continue the seamless services and operations of the IT sector.
2. The necessary guidelines will be introduced to educate the Netizens on their responsibility, dignity, and respect when using ICT.
3. Digital Laws will be prepared for the electronic responsibility of netizens' actions and deeds in accordance with the other agencies.
4. Cyber Security policies that enhance individual and collective security while preserving citizen's right to privacy and fundamental values and freedom will be developed and implemented.
5. Hand-holding of all government agencies in securing their databases and IT presence.



4.6 Digital Economy



Advances in IT have facilitated economic and social changes that are transforming business and society. A new kind of economy called the 'digital economy' is emerging. In the digital economy, information is a critical resource and the basis for competition. Where the private sector can provide investment and services, the government acts as a catalyst for the formation of markets. The growth of the digital economy is tantamount to the growth of the overall economy. The digital markets and services have immense potential to not only grow the economy but also bring huge foreign direct investments in the country. The government intends to achieve the following key initiatives of the digital economy through the policy guidelines given below:

1. Establish an Electronic/ Mobile Commerce framework to govern all the electronic commerce affairs in the province in consultation with the Board of Investment.
2. Plan and implement the different aspects of e-Commerce, mobile-commerce, and allied digital businesses.
3. As a tool to enforce transparency and ensure documentation within the economy, all business transactions/ activities shall be facilitated and encouraged to use electronic means.
4. The role of PPP shall be encouraged for the enhancement of the digital economy.
5. Necessary guidelines shall be made regarding the provincial tax reliefs/ incentives to the ICT Industry for its promotion of IT-related activities and businesses in the province.
6. Building bridges between the private sector, academia, and government agencies for ensuring ease of doing business to digital interventions.



5 Policy Implementation

5.1 Digital Strategy

The digital policy of Balochistan 2021 translates holistically into a digital strategy for implementation. The digital strategy provides short, medium, and long-term action plans for a period of one, two to five, and more than five years, respectively as enclosed as Annex-I.

5.2 Responsibilities of the Implementation Partners

To ensure an effective and timely completion/ implementation of the short, medium, and long-term action plans of this policy, the head of the S&IT department or the proposed Balochistan Information Technology Board (BITB) shall present the periodical reports before the GoB for monitoring and evaluation of the benchmarks achieved against the set goals. The implementation of the Balochistan Digital Policy requires the involvement of various stakeholders across the federal and provincial governments, the private and development sectors, including the Balochistan Smart Cities Authority. In this regard, the Board of the proposed BITB shall be ultimately responsible for the ownership and implementation of the Digital Policy in accordance with the priorities and directives given by the GoB. In this regard, Balochistan government is also envisaging the creation of a smart cities authority, whose CEO can be considered for heading the proposed BITB in order to blend these organizations together. The Board of Directors of BITB shall empower its Chairman to undertake the following measures for the implementation of the policy:

1. Recommend the required financial resources for the implementation of the Digital Policy.
2. Ensure that Provincial Government departments help implement the Digital Policy.
3. Coordinate with private and development sector institutions for effective implementation of the Digital Policy.
4. Constitute sub-committees for specific tasks and recommendations.
5. Submit recommendations for revision of the Digital Policy.
6. Ensure that the progress reviews and recommendations of the Committees are placed before the Provincial Cabinet in a timely manner.



6 Action Plans

The S&IT proposes the following Action Plans: Short, Medium, and Long for its digital policy implementation.

1. Short Term Action Plan (Digital Foundation)
2. Mid Term Action Plan (Progression)
3. Long Term Action Plan (Full Transformation)



4.1 Digital Access and Infrastructure				
No.	Key Initiatives/ Sub-initiatives	Actions/ Plans	Impacts	Roles/ Responsibilities
01	Provide high speed, inexpensive / free broad band Internet to all citizens across the covered areas	<ul style="list-style-type: none"> • Framing of right of way policy on the analogy of other provinces for encouraging fiber cable networking 	<ul style="list-style-type: none"> • Fast, reliable and affordable connectivity/ internet • Unlimited consistent connectivity to information and online public services 	<ul style="list-style-type: none"> • S&IT Department • Federal Ministry of IT & Telecom (MoITT), Islamabad • Local Government • District Administrations
		<ul style="list-style-type: none"> • Provision of utility conduit in all the roads network existing in the cities • Provision for establishment of free Internet access points at public parks, Libraries, and suitable commercial centers 	<ul style="list-style-type: none"> • Ease of doing business for service providers • Protection of roads structure • Increase an access to connectivity 	<ul style="list-style-type: none"> • Planning & Development Department (P&D) Department • Communication & Works (C&W) Department • Local Government



	Access to Internet connectivity and Infrastructure for all	<ul style="list-style-type: none"> • Coordinate with MoITT/ Pakistan Telecommunication Authority (PTA) and other relevant organization for provision of internet connectivity to deprived areas 	<ul style="list-style-type: none"> • Improved quality of information and fast service delivery at citizens door steps 	<ul style="list-style-type: none"> • S&IT Department • Federal MoITT, Islamabad
02	Creation of digital hub	<ul style="list-style-type: none"> • Declaration of “Special Economic Zone” that serves as a global center for high technology and innovation on the pattern Zhongguancun, which is sometimes known as "China's Silicon Valley" • Establishment of “Balochistan Digital Marketplace” to make it easier for SMEs to compete for businesses and contracts 	<ul style="list-style-type: none"> • Create interlinkages among commercial businesses, public sector, and community organizations • Enhanced competition for businesses through Balochistan Digital Marketplace 	<ul style="list-style-type: none"> • Provincial Government • Local Government • Development authorities • S&IT Department
03	Facilitate and use of digital kiosk by providing better and transparent Government Citizen Centric Services to public through ICT	<ul style="list-style-type: none"> • Launching of public services automation projects across the province, including Balochistan Free WiFi Hotspots, Citizen Contact Centre, Citizen Feedback Monitoring Programme, Local and Overseas Complaint Management System, under an umbrella scheme of smart cities project • Feasibility study and re-engineering of the existing manual processes of public services delivery for automation 	<ul style="list-style-type: none"> • Enhanced, efficient, and transparent delivery of public services / application to citizens 	<ul style="list-style-type: none"> • S&IT Department • Planning & Development Department • Line Departments



04	Establishment of, software parks and IT parks	<ul style="list-style-type: none"> • Provision of projects to establish software parks, and IT parks at provincial headquarter Quetta and Gawadar. Federal Government will be approached for cost sharing under its digital proliferation policy 	<ul style="list-style-type: none"> • Promotion and growth of ICT Industry • Job creation in ICT • Promotion of R&D 	<ul style="list-style-type: none"> • S&IT Department, • Planning & Development Department • Finance Department
		<ul style="list-style-type: none"> • Extension of software parks and IT parks at various Divisional/districts levels in a phased manner 		
05	Establishment of a state-of-the-art Centralized Data Center	<ul style="list-style-type: none"> • Initiate project of creating Centralized Data Center of Tier 3 or Tier 4 level in the provincial head quarter along with disaster recovery 	<ul style="list-style-type: none"> • Centralized data management • Data integrity • Cost effective solution • Less human resource involvement 	<ul style="list-style-type: none"> • S&IT Department • Finance Department • P&D Department
		<ul style="list-style-type: none"> • Establishment of state-of-the art IT building equipped with all modern facilities under IT Parks Schemes 	<ul style="list-style-type: none"> • Improved service delivery 	<ul style="list-style-type: none"> • S&IT Department • Finance Department • P&D Department
06	Legislation in policy framework for appropriate legal and regulatory arrangement for the enablement of ICT environment and network	<ul style="list-style-type: none"> • Formulation / amendments of all necessary rules and regulation regarding ICT implementation, e-commerce, m-commerce, e-Governance, data privacy, & security • Adoption of all federal and provincial legislations like personal data protection and cyber security laws relating to various aspects of digital transformation 	<ul style="list-style-type: none"> • Improved ICT services with legal cover • Increased protection to e-commerce framework • Personal data / information security and safety 	<ul style="list-style-type: none"> • S&IT Department • S&GAD • Law and Preliminary Affair Department • Relevant Federal Ministry



4.2 Digital Literacy, Skills and Technology Use

No.	Key Initiatives/ Sub-initiatives	Actions/ Plans	Impacts	Roles/ Responsibilities
01	Creation of digital jobs, promote ICT Innovation, startups, incubations, Freelancing, and entrepreneurship projects	<ul style="list-style-type: none"> Initiate projects for the establishment of Incubation centers and promote entrepreneurship Asses the training needs for the creation of digital jobs in consultation with entrepreneurs and academia personals and design necessary online “Training for Jobs” Provision of “Balochistan Digital Internship” and conduct such trainings at various IT Institutes/ Centers available in the province Provision of “Digital Youth Summit” a technology focused conference that will takes place annually in Quetta Launching of DigiBizz Scheme PlanStartup for the training of 5000 youth of Balochistan in freelancing 	<ul style="list-style-type: none"> Improved employment opportunities in private sector 	<ul style="list-style-type: none"> S&IT Department Education Department
		<ul style="list-style-type: none"> To encourage an entrepreneurial spirit in school-age students, Kids Starters programme will introduce the startup ecosystem to children aged 8-18 to help them learn about 	<ul style="list-style-type: none"> Self-employment generation Boost up of economic activities Job/ employment creation 	<ul style="list-style-type: none"> S&IT Department MolTT, Islamabad Finance Department P&D Department



		<p>latest technologies as well as identify their strengths and interests in the IT.</p> <ul style="list-style-type: none"> • Universities Network Partnership Programme (UNPP) will be launched where partner universities receive an incubation manual which includes a format on the basis of which the university can run an incubation Centre. It also includes the criteria by which the incubator can select, mentor and graduate startups. • PlanAdvance programme empowers commercially viable mid-stage technology startups by providing access to multiple funding channels, specialized network of mentors and global exposure to establish high impact businesses. PlanAdvance will also bridge the gap between technology and businesses by regularly conducting specialized workshops and trainings that are open to startups and entrepreneurs. 		<ul style="list-style-type: none"> • Pakistan Software Export Board
		<ul style="list-style-type: none"> • Initiate Balochistan Chief Minister's e-Rozgaar Training Programme which will be catering to the strata of society that is educated but unemployed and aims to reduce the rate of 		



		<p>unemployment by encouraging self-employment through internet-based freelance work opportunities.</p> <ul style="list-style-type: none"> • Tax rebates/ tax holidays for ICT firms/ professionals • Soft loans regime for Startups 	<ul style="list-style-type: none"> • Boost up economic growth • Increased in foreign reserves 	<ul style="list-style-type: none"> • S&IT Department • MoITT, Islamabad • Line Departments • Universities
02	Establishment of digital literacy and competency framework	<ul style="list-style-type: none"> • Converting the existing and prospective IT Institutes/ Centers into modernized knowledge gateways/ digital libraries after consultation with all stakeholders • Make competency framework for the ranking of IT Institutes/ Centers based on their performance 	<ul style="list-style-type: none"> • Better knowledge and services delivery • Improved knowledge • Enhanced job skills and opportunities 	<ul style="list-style-type: none"> • S&IT Department • Education Department
03	Set up electronic libraries	<ul style="list-style-type: none"> • Subject to policy approval for IT Institutes, the present IT Institutes can be transformed into electronic libraries/ incubation centers/ community centers 	<ul style="list-style-type: none"> • Equitable access to information • Bridge the digital divide 	<ul style="list-style-type: none"> • S&IT Department • Education Department • Finance Department
	Virtual classrooms and e-Education	<ul style="list-style-type: none"> • Provision of e-Education at primary, secondary, and higher levels by Initiating projects like Real-time Monitoring of Public Schools across the Balochistan, School Information System for Public Schools, Measuring Student Learning Outcomes - Cost 	<ul style="list-style-type: none"> • Enhanced knowledge delivery in situation of pandemics or other disasters 	<ul style="list-style-type: none"> • S&IT Department • Education Department



		<p>Effectively, Automation of Large-Scale Examination Systems, Online College Admissions, and e-Learn Balochistan Solutions.</p> <ul style="list-style-type: none"> • Creation of virtual classrooms, education programs in collaboration with academia 		
04	ICT for youth, minorities, women and people with special needs	<ul style="list-style-type: none"> • To launch technical skills and development programs for minorities, youth, woman, and people with special needs • Provision of “Women Entrepreneurs in Balochistan” to empower women by acquainting them with opportunities in the entrepreneurship sector 	<ul style="list-style-type: none"> • Education for all • Employment for all • Equal opportunities for all 	<ul style="list-style-type: none"> • S&IT Department • MoITT, Islamabad • Youth Affairs, Social Welfare, and Women Development Departments
05	Establishment of Provincial Accreditation Council	<ul style="list-style-type: none"> • Create Council that will be responsible for collecting data on educational institutions, rating the institutions, and disseminating information about the IT institutions 	<ul style="list-style-type: none"> • Quality education for all • Public awareness and ranking of institutes 	<ul style="list-style-type: none"> • S&IT Department • Education Department • Industries Department
06	Promote the setting up of IT-related institutions of international standards	<ul style="list-style-type: none"> • Initiate projects of IT-related institutes of international standards to encourage and catalyze collaboration between the government, private sector, and academia via InfoHub Connect 	<ul style="list-style-type: none"> • Strengthen the existing institutions • Creation of job opportunities 	<ul style="list-style-type: none"> • S&IT Department • MoITT, Islamabad • Industries Department



		<p>Project. InfoHub Connect Project will also establish a Provincial Entrepreneurs Network (PEN) to foster communication and exchange of ideas among incubators, accelerators, co-working spaces, their managers, entrepreneurs, new ventures, and other stakeholders.</p> <ul style="list-style-type: none"> • The schemes for setting up IT Parks in various parts of the Province to house international IT companies in a safe and smart environment on consultation 		
	<p>Prioritize and promote local firms/ manufacturer / software companies to acquire core competencies and experience</p>	<ul style="list-style-type: none"> • To provide a conducive environment by providing tax rebate, offering space in STPs, and packages to local firms on the pattern of other provinces • Incentivize ICT firms to have their presence in province 	<ul style="list-style-type: none"> • Promote and support the growth of local ICT industry • Economic growth and job creation 	<ul style="list-style-type: none"> • S&IT Department • MoITT, Islamabad • Industries Department



4.3 Digital Services/Digital Cities/e-Governance

No.	Key Initiatives/ Sub-initiatives	Actions/ Plans	Impacts	Roles/ Responsibilities
01	A minimum of 5% of the total budget shall be allocated for IT services, e-Governance support, and infrastructure development along with Digital literacy programs for all citizens	<ul style="list-style-type: none"> To prioritize promotion of IT by allocation of 5% of budget for launching of digital literacy programs / courses at schools, Colleges, vocational, and Community Level along with digitization of all government process under smart cities/ programs 	<ul style="list-style-type: none"> Establishment of digitally literate community Bridge the digital divide 	<ul style="list-style-type: none"> S&IT Department MolTT, Islamabad Line Departments
	e-Governance in province	<ul style="list-style-type: none"> To lunch automated and processes re-engineering ICT projects (e-health, e-education, e-agriculture, e-environment, e-filling and office automation system, green-energy, land revenue management information system, online taxation system, Video Conferencing Facility, Smart Monitoring of Development Projects, Disaster Management System, Ease of Doing Business (Registration Portal), IT Based Profiling, Transport Department Automation System, Online Procurement System, Anti- 	<ul style="list-style-type: none"> Enhanced planning, implementation, monitoring and expansion of public service delivery Enhanced productivity and revenue generation Improved transparency 	<ul style="list-style-type: none"> S&IT Department MolTT, Islamabad Line Departments



		Corruption Case Management System, Improving Web Presence for Government, Restaurant Invoice Monitoring System, Smart Food Licensing System for Balochistan Food Authority, Fertilizer and Pesticide Monitoring System, Agriculture Market Information Application, Bulldozer Booking Management System, District Management Price Control etc.) in the province		
	e-Health Facilities	<ul style="list-style-type: none"> The projects of e-Health includes Tracking Vaccinators, Disease Surveillance System, Tracking System, Biometric Attendance System for Health Facilities, Monitoring System for Polio Campaign, Drug Inspection and Monitoring Evaluation System, Drug Testing Laboratory Automation, Medicine e-Procurement System, Electronic Medical Information Management System, Ensuring Health Service Standards, Maintenance and Cleanliness System, and Health Watch. 		
02	Formation of a Smart Cities Authority and transformation of existing	<ul style="list-style-type: none"> Initiate projects of smart and safe cities in Quetta and Gwadar by launching programs like e-FIR, HR 	<ul style="list-style-type: none"> Enhanced security and safety of citizens 	<ul style="list-style-type: none"> S&IT Department P&D Department



	cities into smart/safe cities	<p>management system for law enforcing agencies including police, levies and others, computerization of police stations, criminal identifier/record management system, crime mapping system, automation of Courts, Hotel eye management system, anti-vehicle lifting system, tenant registration system, smart police facilitation Centre, Legal disputes tracking system, prisons management information system, citizen biometric verification system, vehicles monitoring system and call data records-based crime analysis projects.</p> <ul style="list-style-type: none"> • Creation of Smart Cities Authority • Extend Smart Cities project at Divisional and District levels (Peaceful Balochistan) 	<ul style="list-style-type: none"> • Improved services • Peaceful Balochistan 	<ul style="list-style-type: none"> • Local Government
03	Preference to open source software's Adoption	<ul style="list-style-type: none"> • To promote and adopt open source software's in public sector i.e., LAMP (Linux, Apache, MySQL, and PHP) where possible 	<ul style="list-style-type: none"> • Standardization of Software • Cost Reduction 	<ul style="list-style-type: none"> • S&IT Department



04	Enhancement of information security by implementing cybersecurity protocols and also formulating its regulations	<ul style="list-style-type: none"> Establishment a “Cyber/information Security Wing” Implementation of cyber security protocols for safeguard of public information 	<ul style="list-style-type: none"> Secured and protected government and public data, services and application 	<ul style="list-style-type: none"> S&IT Department MoITT, Islamabad Law Department Relevant Federal Ministries
05	Reorganization of the IT Directorate	<ul style="list-style-type: none"> Conversion of IT Directorate into BITB 	<ul style="list-style-type: none"> Increased autonomy, performance, and delivery of user centric services 	<ul style="list-style-type: none"> S&IT Department S&GAD Department Law Department
06	Changes in Rules of Business for input of S&IT department for all IT initiatives for system’s integrity	<ul style="list-style-type: none"> Insertion of rule pertaining to S&IT Department input on all IT related interventions in Balochistan Rules of Business 2012 	<ul style="list-style-type: none"> Enhanced system’s integrity 	<ul style="list-style-type: none"> S&IT Department S&GAD Department Law Department
07	In order to curtail the IT infrastructure and maintenance costs where possible, clouds, fogs, and open-source based technologies will be adopted in case of databases not requiring official security regime	<ul style="list-style-type: none"> Initiate projects pertaining to transformation from conventional storage to cloud computing where information is relevant to public 	<ul style="list-style-type: none"> Highly secure, scalable, efficient data Agility and availability Cost-effective and geographically coverage 	<ul style="list-style-type: none"> S&IT Department MoITT, Islamabad Universities
08	Provision of Citizen-centric services	Initiate projects, including Balochistan free WiFi hotspots, citizen facilitation Centre, citizen’s feedback monitoring	<ul style="list-style-type: none"> Improve service delivery Transparency, accuracy, and efficiency of processes 	<ul style="list-style-type: none"> S&IT Department Planning & Development Department



		programme, local/ domicile management system, digital libraries, job portal, and driving license management system will be initiated		<ul style="list-style-type: none"> Line Departments



4.4 Digital Promotion and Transformation

No.	Key Initiatives/ Sub-initiatives	Actions/ Plans	Impacts	Roles/ Responsibilities
01	R&D in ICT and Science	<ul style="list-style-type: none"> Establishment of the R&D Wing along with the state-of the art research labs in the province Allocation of appropriate funds in R&D for scientific projects To develop a mechanism for linkage between industry, academia, and public sector, and provision of financial incentives to government servants for publication in impact factors journals 	<ul style="list-style-type: none"> Innovative production Enhanced product and services delivery Reduced production cost 	<ul style="list-style-type: none"> S&IT Department MoITT, Islamabad P&D Department Higher Education Commission
		<ul style="list-style-type: none"> Establishment of astronomical/ space observatory for science, educational, research, and recreational purpose in Balochistan 	<ul style="list-style-type: none"> Improved astronomical knowledge 	<ul style="list-style-type: none"> S&IT Department Planning & Development Department
02	ICT Promotion	<ul style="list-style-type: none"> To provide special/ professional allowance to ICT professionals and public servants working in ICT sector Recognition/ award / incentive schemes for ICT Firms and professionals 	<ul style="list-style-type: none"> Increase motivations of ICT professionals Improved service delivery 	<ul style="list-style-type: none"> Science & IT Department Finance Department



	Digital transformation initiatives at Divisional and Districts level	<ul style="list-style-type: none"> To initiate ICT projects at divisional and District Level for support of e-governance, including smart monitoring of projects, Automated Local System, etc. Conduct of feasibility studies to identify core areas for process reengineering for digital transformation 	<ul style="list-style-type: none"> Transparency, accuracy, and efficiency of processes Improved citizen-centric services with user-friendly interfaces 	<ul style="list-style-type: none"> S&IT Department Line Departments
03	Setup an Information Resource Center	<ul style="list-style-type: none"> To initiate projects for establishment of information resource centers like “Digital Libraries” and “Balochistan Information Gateways” 	<ul style="list-style-type: none"> Conducive environment for reading and research activates Free of cost information services 	<ul style="list-style-type: none"> S&IT Department Higher Education Commission
04	Speedy promotion of the IT Sector	<ul style="list-style-type: none"> Initiate an incentivized scheme to encourage and procure the interest of IT professional 	<ul style="list-style-type: none"> Rapid promotion of IT Sector in the province high-end services 	<ul style="list-style-type: none"> S&IT Department Finance Department Line Departments
	Capacity building of ICT-enabled HR	<ul style="list-style-type: none"> Initiate capacity building projects Incentivize qualified ICT public servants 	<ul style="list-style-type: none"> Improvement in public service delivery Availability of Skilled HR for future projects 	<ul style="list-style-type: none"> S&IT Department S&GAD Line Departments
05	Incentives for R&D and advanced studies in IT in consultation with private sector and academia	<ul style="list-style-type: none"> Incentives for R&D and advanced studies in IT in consultation with private sector and academia by provision of 	<ul style="list-style-type: none"> Promotion of R&D and advanced studies in IT across the province Availability of effective, efficient and productive human resource 	<ul style="list-style-type: none"> S&IT Department Finance Department Line Departments



		Science and Technology allowance for employees		



4.5 Digital Security, Disaster, Rights and Responsibilities

No.	Key Initiatives/ Sub-initiatives	Actions/ Plans	Impacts	Roles/ Responsibilities
1	Digital security regiment and disaster risk recovery	<ul style="list-style-type: none"> Establishment a cyber/information security wing / regiment in Science & IT Department Implementation of cyber security protocols framed by federal government for safeguard of information Establishment of “Balochistan Disaster Recovery System” 	<ul style="list-style-type: none"> Secured and protected government and public data, services and application Enablement of trusty & secure e-commerce platform Enhances existing privacy capabilities within agencies Builds greater transparency in information handling Fosters a culture of respect for privacy and the value of personal information 	<ul style="list-style-type: none"> S&IT Department Law Department MoITT, Islamabad Relevant Federal Ministries
2	Necessary guidelines for Netizens on their responsibility, dignity in using ICT	<ul style="list-style-type: none"> Formulate framework for netizens responsibility, dignity, and respect when using ICT 	<ul style="list-style-type: none"> Digital protection e-commerce promotion 	<ul style="list-style-type: none"> S&IT Department Line Departments
3	Preparation of Digital Laws for ICT	<ul style="list-style-type: none"> Prepare and propose insertion of digital laws for ICT 	<ul style="list-style-type: none"> Digital protection of sensitive information Enablement of e-commerce and mobile-commerce 	<ul style="list-style-type: none"> S&IT Department Law Department S&GAD Line Departments



4	Cyber security policies preserving citizen's right to privacy	<ul style="list-style-type: none"> • Prepare and recommend policies for cyber law 	<ul style="list-style-type: none"> • Protected and secure digital participation • Promotion of digital era 	<ul style="list-style-type: none"> • S&IT Department • Law Department • S&GAD • Line Departments
5	Hand-holding government agencies in securing their databases and IT presence	<ul style="list-style-type: none"> • Initiate projects for enhancing cyber security skills and IT presence 	<ul style="list-style-type: none"> • Secure and trusty digital presence • Promotion of online / digital services 	<ul style="list-style-type: none"> • S&IT Department • Line Departments



4.6 Digital Economy

No.	Key Initiatives/ Sub-initiatives	Actions/ Plans	Impacts	Roles/ Responsibilities
1	Establish an Electronic/ Mobile (e/m) Commerce framework to govern all e-Commerce activities	<ul style="list-style-type: none"> • Framing of right of way policy and propose legal status of e/m-commerce in the province • Provision of e/m-commerce promotional activities by initiating “business registration online” where people can register new businesses simply and quickly • Provision of emerging digital Balochistan portal (business.gob.pk) to deliver information to business owners and people starting a business • Purvey Mobile Apps development via revamping exiting IT Institutes and Centers • Schemes for introducing e-Payment System for all government services/ products 	<ul style="list-style-type: none"> • Promotion of mobile/e-commerce • Economic development 	<ul style="list-style-type: none"> • S&IT Department • Industries and Commerce Department • Line Departments
2	Plan and implement the different aspects of e/m-Commerce	<ul style="list-style-type: none"> • Formulate rules & regulation and propose amendments for the promotion of e/m-commerce in the province by establishing 	<ul style="list-style-type: none"> • Secure e-commerce platform • Economic growth • Improved coordination among ministers/ authorities 	<ul style="list-style-type: none"> • S&IT Department • Industries Department • Line Departments



		“Balochistan Digital Council” for providing convenient e-services delivery and improve policy outcomes on data and digital transformation initiatives	responsible for data and digital transformation	
	Promotion of e/m-Commerce	<ul style="list-style-type: none"> Regularization of e-Commerce platform in collaboration with chamber of commerce and relevant authorities Provision of digitalized financial transactions in all business 	<ul style="list-style-type: none"> Growth of e-Commerce industry Economic development 	<ul style="list-style-type: none"> S&IT Department Industries and Commerce Department MoITT, Islamabad Relevant Federal Ministries
3	Encourage businesses to use electronic transactions/ activities	<ul style="list-style-type: none"> Regularization of e/m-commerce platform in collaboration with chamber of commerce and relevant authorities by provision of “Single Digital Online Identity System” through myGovIdentity 	<ul style="list-style-type: none"> Easier and more convenient platform to use a single digital identity for all e-services Growth of e/m-Commerce industry Economic development 	<ul style="list-style-type: none"> S&IT Department Industries and Commerce Department MoITT, Islamabad Relevant Federal Ministries
4	Support and encouragement of PPP	<ul style="list-style-type: none"> Feasibility analysis and formulation of a policy framework for PPP to invest in ICT projects Provision of FTTH, surveillance, and smart cities deployment through PPP in major urban areas 	<ul style="list-style-type: none"> Economic growth with high speed Internet Job/ employment creation Better collaboration between public and private sectors 	<ul style="list-style-type: none"> S&IT Department Industries Department MoITT, Islamabad



5	Provincial tax reliefs/ incentives to the ICT Industry for its promotion	<ul style="list-style-type: none"> • Initiate projects to provide a conducive environment by providing tax rebate, offering space in STPs, and packages to local firms on the pattern of other provinces • Incentivize ICT firms to have their presence in province 	<ul style="list-style-type: none"> • Promote and support the growth of local ICT industry • Economic growth and job creation 	<ul style="list-style-type: none"> • S&IT Department • Finance Department • Line Departments
6	Ensuring ease of doing business to digital interventions	<ul style="list-style-type: none"> • Provision of special packages/ reliefs/ subsidies in provincial taxes to multinational companies investing in the province • Electronic payment systems for government services/ products • Provision of information and downloads through electronic systems 	<ul style="list-style-type: none"> • Promotion of ICT Sector • Increase in investment • Creation of job / employment opportunities 	<ul style="list-style-type: none"> • S&IT Department • Finance Department • Line Departments

