

GENERAL POLICY FOR THE ICT AND POSTAL SECTORS 2025



Ministry of Information and Communication Technology

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1. INTRODUCTION

1.1 The Context of this Policy

(1) The Ministry of Information and Communications Technology (Ministry) in line with the Constitution, the Telecommunications Law No. 13 and its amendments (Telecommunications Law) and the Postal Services Law No. 34 of 2007 (Postal Law) has responsibilities for the Telecommunications, Information Technology and Postal Sectors in the Kingdom.

(2) The Ministry also has specific responsibilities to prepare the general policy for these sectors, to be approved by the Council of Ministers, where Article 3 of the Telecommunications Law assigns to the Ministry the duty for preparing the general policy of the Telecommunications and Information Technology Sectors in the Kingdom and to set a national strategic plan in accordance with this policy. In addition, Article 3 of the Postal Law stipulates that the Ministry shall prepare the general policy and the strategic plan for the Postal Sector.

(3) The setting and issuance of a general policy document has important effects for the availability of necessary information for stakeholders in the Telecommunications, Information Technology and Postal sectors, and for others who might consider entry into, or investment in, those sectors. In addition, this [General Policy for the ICT and Postal sectors 2025 \(this Policy\)](#) has a specific legal status since it sets the context within which the Telecommunications Regulatory Commission (Commission) must operate in order to meet its obligations under the Telecommunications Law and the Postal Law.

(4) Article 6 of the Telecommunications Law provides as follows in relation to the obligations of the Commission: “To regulate telecommunications and information technology services in the Kingdom in accordance with the established general policy so as to ensure the provision of high quality telecommunications and information technology services to users with high standards and reasonable prices and which realizes the optimal performance of the telecommunications and information technology sectors.”

(5) Similarly, Article (9) of the Postal Law assigns to the Commission the responsibility to regulate postal services in accordance with the general policy set by the Council of Ministers. Accordingly, the purpose of this document is both to meet the informational needs of stakeholders and to meet the legal obligations of the Ministry. This Policy should be read in conjunction with the Telecommunications Law, the Postal Law and the Deployment of Information Technology Resources in Government Organizations Law. Amongst other things, those Laws define the respective roles of the Ministry and of the Commission.

(6) It is important also to note that this Policy, while cognizant of and following on from the Statement of Government Policy 2012 on the Information and Communication Technology Sectors and Postal Sector, is intended to replace that earlier document in its entirety. Upon its approval by the Council of Ministers, this Policy shall be the exclusive Government Policy on the Telecommunications and Information Technology and Postal Sectors, and the 2012 Policy Statement will no longer be of any force or effect. However, nothing in this Policy is intended to detract from or affect the validity of any regulatory decisions or actions taken during the periods that any of the 2012, 2007 or the 2003 Policy Statements. Hence any such actions or decisions remain valid inasmuch as they are not modified in this Policy.

(7) In adopting this Policy, the Government is cognizant of the commitments the Kingdom has made in international agreements to which it is a signatory, such as the general undertakings made as part of the World Summit on the Information Society (WSIS) plans and the United Nations (UN) Sustainable Development Goals, as well as the more specific obligations it has assumed under other international treaties, as well as by virtue of its membership in the World Trade Organization.

1.2 Background

(8) In 1994, the Kingdom started a progressive reform of its Telecommunications, Information Technology and Postal Sectors. In the following years, a Telecommunications Law was issued, Jordan Telecom was privatised, the Commission was instituted, two mobile operators were licensed, a Postal Services Law was

issued, Jordan Post was transformed into a Company, private sector Courier, Express and Parcels (CEP) services started, and the Jordan Post Company (JPC) Performance Contract was formulated.

(9) In 2003, in recognition of the important role played by the Telecommunications, Information Technology and postal sectors, the Government adopted a “Statement of Government Policy on the Telecommunications, Information Technology and Postal Sectors,” which focused on market liberalization. Under that 2003 Policy, the then-existing duopoly in the mobile telecommunications market was eliminated, an integrated licensing regime was defined and a third mobile operator was licensed. Moreover, Jordan Telecom’s monopoly in the fixed telecommunications sub-sector was terminated at the end of 2004.

(10) In 2007, the Government approved the 2007 Policy under which there were numerous accomplishments. The Commission successfully completed its review of markets for the purpose of identifying cases of dominance and issued regulatory decisions designed to mitigate the effects of that dominance, the numbers of telecommunications and postal licensees rose considerably, mobile telephony take-up rose quickly, internet penetration, including broadband, grew significantly, and the Information system’s crime Law was adopted.

(11) In 2012, the Government issued the 2012 Policy, which resulted in significant advances in the development and deployment of e-Government services both intergovernmental and for the use of all citizens. The ‘At your service’ portal, launched in 2017 provided a range of e-services that allowed digital completion of a wide range of processes. Furthermore, licensing procedures were simplified and the process for allocation and licensing of spectrum released as a result of the transition from analogue to digital broadcasting was implemented. Despite some areas of growth in the ICT sector, overall performance over the last five years has been mediocre and there is a pressing need for revitalisation.

1.3 Policy principles

(12) For all the progress that has been made towards fulfilling the goals stated in the 2012 Policy, there are areas in which little or no progress has been made. There are two reasons for this. First and foremost, some of the statements of Policy have been so high level as to make it difficult to report against them in a meaningful way. Second, the resources required to tackle Policy goals have not always been made available. In some instances this was a lack of available budget, in others it was due to the designated responsible organisation’s lack of authority over the essential elements of the goal.

(13) Hence, this Policy aims to provide a strong governance model for specific individual policy implementation projects. This is set within an overall programme with a timely, flexible and rapid approach for implementation, results oriented project monitoring and staged release of funding depending on successful completion of earlier phase. Government will show leadership, set direction and priorities, manage scarce resources, regulate appropriately, and support the provision of services in underserved and unserved areas. Infrastructure provision and service delivery will generally be determined by market forces and subject to appropriate regulation.

(14) The primary issues to be addressed in this Policy are the provision of a digital identity for all legal persons, as required for an evolving digital economy, the promotion of the ICT sectors as providers for economic development, the development of a digital based economy with increased GDP/capita and the regeneration of the Postal sector. In addressing these issues, the digital divide in the availability and use of ICT needs to be addressed and changes to the Law may be required to implement or to be consistent with the new Policy.

1.4 Policy targets

(15) The main part of this Policy sets out goals and targets in the Telecommunications, Information Technology, Postal and e-Government sectors.

(16) The issues to be addressed under this Policy in the Telecommunications sector are:

- The revision of the regulatory regime to accommodate Over-the-Top (OTT) services when they are in competition with embedded telecommunications services.

- Appropriate assignment of regulatory responsibility for OTT services other than telecommunications services. The regime should enable Jordanian telecommunications, IT, media and other firms to develop and sell innovative OTT services.
- Measures to cope with OTT services provided by international companies that may not have presence in Jordan. Business is diverted away from Jordanian telecommunications operators thereby reducing their revenues and also the taxes they pay under the present net neutrality regime.
- A need for taxes and other levies paid by Jordanian telecommunications companies to be reasonable and to enable licensees to profit from their investment.
- Measures that enable operators to compete more effectively without resorting to the aggressive pricing that harms profitability and puts investment at risk.
- Improved access and transmission infrastructure through infrastructure sharing. Obligatory infrastructure sharing would enable lower cost service provision for all operators.
- Support for the development of fixed fibre broadband access through improved availability and pricing of rights of way. Measures associated with pricing and availability of rights of way are needed to ensure that the benefits of fixed broadband infrastructure flow to consumers and investors. Unless they do, fixed broadband service coverage is may be limited.
- The development of alternative international routes. As access to Syria and Iraq improves, land routes to Europe and to the Arabian Gulf need to be explored once again to increase capacity and to increase reliability of international transmission.
- The protection of critical national telecommunications infrastructure and cyber security in telecommunications networks.

(17) The issues to be addressed in the Information Technology sector are:

- Revitalization of the IT sector, particularly software development, mobile applications development, cloud and other value added services, call centre and IT enabled (ITES) services provided in Jordan for the domestic and export markets. Export of IT services should be promoted aggressively.
- Involvement of Jordanian companies in the development and exploitation of new IT applications and services to ensure value remains in Jordan.
- The need for Jordanian firms to adopt e-commerce rapidly to fend off competition from international e-commerce brands and thereby to ensure value remains in Jordan.
- The need for all sectors of the economy and Government to invest in IT to improve productivity, to develop new business opportunities and to defend the economy from IT driven competition from other countries. Such investment would support and grow the IT sector itself and provide the large number of graduates in IT with employment opportunities across the economy.
- Strengthened bonds between universities and the IT sector. University curricula and research needs to be closely aligned to the present and future needs of the IT sector in Jordan. The aim should be to provide a range of graduate with commercial and “soft” skills as well as technical skills, and technical skills associated with the most modern development environments and applications
- The need for mature firms to work together or consolidate their businesses in order to bid for large projects and to develop the scale and reliable revenue streams necessary for investment led growth.
- Renewed emphasis on IT start-ups. Innovation often arises in start-up firms. Projects and a support framework would help their development.
- Promotion of and support for women home-workers. Such home workers may be able to undertake IT development and support work for the IT sector. They might also create new e-commerce or IT businesses from home.
- Promotion of electronic payment systems. The development of the digital economy will need individuals to adopt electronic payment.
- Regulation of new IT-based products and services. A comprehensive review of law and regulation will be needed to ensure that it supports and accommodates them.
- Review of customs levies on re-exported goods. International e-commerce from Jordan can be facilitated if customs levies on re-exported goods are removed
- The protection of critical national IT infrastructure and cyber security more generally.

(18) The issues to be addressed in the Postal sector are:

- The need to reverse Jordan Post's (JPC) continued poor performance. A decision regarding the continued independent existence of JPC or rigorous restructuring and capacity building is urgently needed and is perhaps the single most important element of this Policy.
- The ability of JPC to provide the Commission with adequate cost information necessary for the calculation of its regulated prices. This issue arises because JPC has inadequate understanding of the cost of its activities.
- The lack of track and trace systems or point of sales systems in JPC which means that JPC cannot compete with private courier services in high value market segments including e-commerce parcel delivery.
- The lack of relevant quality standards in JPC which makes the monitoring of performance ineffective and inconclusive. A modern postal operator cannot compete with private sector competitors without such standards and performance levels that conform to the standard.
- The naming of all streets and roads, and the numbering all the buildings and apartments necessary for courier services and for JPC to deliver to premises in the future if required.
- The need for digital maps that show street names and building numbers or a postal code system. Digital maps or post codes would be used by couriers, utility companies, emergency services and others to identify locations and to demarcate routes reducing journey times and enabling route planning to be carried out.
- The need for Post Offices to be located where they may best serve customers and to provide services that customers need.
- Revision of the approach taken to customs clearance by Customs and JPC. The present process is leading to inefficiency, delay, and inconvenience for the customer.
- The need for transparent accounting arrangements for the Postal Fund once it has been merged with JPC.

(19) The issues to be addressed in the e-Government sector are:

- Increased access to government services and increased government efficiency brought about through the continued, coordinated and rapid implementation of e-government services and government IT.
- A need to promote e-government services through a properly planned marketing exercise including the use of social media in order to fully realize increased access and government efficiency.
- The requirement for staff in knowledge stations and post offices to be skilled in the provision of - government services and the support of their users so that they can support universal access to government services.
- Improvement in the effectiveness of Government policy and service provision brought about through the use of comprehensive data sets:
- Exploitation of government data by the private sector for the benefit of Jordan through its increased availability in a form that safeguards the privacy of individuals and organisations
- The need for improved peer level communication amongst developers of e-government services and government IT developers to ensure that projects are coordinated and benefits of digitalisation maximised.
- The need to determine and plan for the future role of the National Broadband Network (NBN) including its possible use by licensed telecommunications operators.

(20) The remainder of this Policy states the goals and actions required in the Telecommunications, IT and Postal sectors as well as those for e-Government. Consequential changes to the Law are included

2. TELECOMMUNICATIONS SECTOR

(21) Government recognises that the state of development of Information and Communication Technology (ICT) in any country is a major contributor to that country's competitiveness. More specifically, an efficient, capable and resilient telecommunications network provides the essential foundation for the development of Jordan's digital economy and of its evolving e-government services.

(22) The major proportion of this foundation is not provided directly by Government but rather by commercial telecommunication operators in a regulated market. In light of this, the aim of this Policy is the encouragement and, if necessary, mandate through regulation, for these operators to install the infrastructure and to develop the services needed to support the vision for delivering the Digital Economy that this Policy envisages for 2025.

(23) In order to ensure that a strong and growing telecommunications sector is maintained, it is essential that appropriate regulation is in place, that relevant fiscal measures are enacted and that competition and trade policy enables the sector to thrive. Actions listed in this section are intended to guarantee that the environment in which the providers of telecommunications services operate is conducive to the growth of the sector and to the continued development of a sound network infrastructure.

(24) In addition to the above, the network services that are offered to users in Jordan need to be affordable, universally available, secure and reliable. These criteria apply to both basic and broadband telecommunications services. Achievement of these criteria will ensure that all Jordanians are included in the digital economy and that the basic fabric that supports the digital economy is trusted. A further goal for the telecommunications sector is that there should be universal penetration of broadband services to ensure that the full range of e-government applications can be used.

(25) Ready access to scarce resources and infrastructure at economically justifiable cost is essential to ensure that the telecommunications sector evolves to support this Policy. The introduction of attractive and innovative services for the digital economy is critically dependent on operators having such access at prices and in a manner that promotes sector growth. Hence the allocation of electromagnetic spectrum, the sharing of towers, masts, ducts and other physical infrastructure and the grant of rights of way are all vital enablers.

(26) The essential position that needs to be struck in this Policy is to enable telecommunications providers to generate adequate profit to encourage network development whilst protecting the interests of beneficiaries. If operator profitability is squeezed too hard, it is likely that investment will be inhibited and the sector will stagnate. Likewise, if the sector is over-regulated or if insufficient controls are applied, network efficiency or quality can be compromised. In this respect, the powers of the regulator are key as the effectiveness of network developments can be enhanced by supportive regulation.

(27) The telecommunications sector in Jordan has for many years been one of the most competitive and innovative in the region. These characteristics have enabled the establishment of high-quality mobile networks, a sound fixed infrastructure and a high uptake of services. The essential goal of this Policy should be to build on past success and to provide operators with the leeway and support to further develop the networks and services needed for the digital economy.

(28) In order to achieve the goals that are set out above, a number of actions have been identified, as listed below. In each case, a statement of the proposed action is given along with its intended impact.

2.1 Sector profitability

(29) In recognition of the need to ensure the continued development of, and investment in, telecommunications networks and services, Government through the Commission will conduct an economic impact study designed to assess the impact on the sector, the overall economy and taxation of:

- Telecoms-like services offered by service providers lying outside the domain of the current telecommunications law and by foreign companies that are difficult to regulate

- Net neutrality on the sector in the context of (i) related requirements of high bit rate and low latency applications for value added services such as traffic prioritisation and local caching, and (ii) the impact of such services on operators' networks and on other applications
- Taxes, levies, and utility prices consistent with those of other sectors that may create market distortions and damage for a key enabler of economic growth

(30) The study will provide a rational basis for determining how regulation (particularly for over-the-top (OTT) services) should be framed and how economic control over the market should be introduced in the best interests of operators, consumers, businesses and Government revenues.

(31) The issue of net neutrality and the way in which OTT services are regulated are issues that regulators worldwide are currently addressing. With no firm consensus on regulatory approach, it would be to Jordan's advantage to ensure that any measures taken are soundly based in likely economic outcomes.

(32) The balance between the incomes derived from a sector and the contribution that sector makes to a country's overall economic growth can be difficult to determine. In order to ensure the continuation of Jordan's competitive telecommunications market, it is vital to determine where an appropriate balance lies. The study would ensure focus on an overall economic strategy rather than disparate elements.

(33) Following on from the above action, Government will, having reviewed the study findings, ensure that consequential changes to both taxation and regulation are subsequently implemented.

2.2 Promote effective competition

2.2.1 Removal of barriers to subscribers switching operators

(34) Government requires the removal of barriers to consumer switching between operators by enabling mobile number portability and by removing government levies and taxes on new SIM cards. These actions conform to international best practice. Barriers to switching between operators reduce the market competitiveness and causes operators to compete in other ways, for example, through price competition. The ability of beneficiaries to retain their phone numbers will also contribute to the vision of all citizens and businesses having a digital identity. Government therefore requires the Commission to implement regulations on Mobile Number Portability as a priority. Government further requires that the Ministry of Finance evaluates the impact of removal of the special tax on new SIM cards on government finances and acts recommends action in accordance with the outcome of the review.

2.2.2 Timely market reviews

(35) The continued undertaking of market reviews by the Commission will be necessary to ensure that the telecommunications market remains competitive. Market reviews have not been carried out for a considerable period of time yet market conditions have changed significantly. Government therefore requires the Commission, as a matter of great urgency, to carry out such market reviews. Specifically, Government requires that these market reviews identify relevant product markets, determine the market power of individual operators within those markets and specify remedies to mitigate the effects of dominance or significant market power. Government requires that the Commission undertakes these market reviews in the period 2019 and 2020 in accordance with the Commission's established rules and guidelines.

(36) In order to ensure transparency, Government requires that the Commission publishes a programme of market reviews. This action should be completed by the end of 2018 and should include all market reviews to be carried out in 2019 and 2020. A specific issue to be covered in market reviews will be the migration to over-the-top services and the impact this has in determining product markets.

(37) In addition, Government requires a review of the established competition instructions and guidelines. Further, best practice in conducting market reviews may have changed. Therefore Government requires the Commission and the Competition Directorate to conduct a joint review of the established instructions and guidelines on public consultations to assess their adequacy for market reviews to be carried out during the period 2021 to 2025. Government requires the Commission to publish a list of market reviews to be carried

out during that period once the review of established instructions and guidelines has been completed and any revisions published.

2.3 Optimise Spectrum allocation

(38) The ever increasing capabilities of telecommunications networks, the range of services that these networks carry, and the value of the applications that they enable make it vital to ensure that the electromagnetic spectrum on which they rely is managed to best advantage. Hence Government requires that the Commission publishes a rolling plan for the release of spectrum in order that telecommunications licensees can conduct business and operational planning related to their spectrum usage in a timely manner. Government requires that the rolling plan has a three year time horizon and indicates spectrum release by quarter for the succeeding three years. To ensure visibility, plans will be revised and re-issued on the Commission website every six months.

(39) This action will ensure that operators are made aware of the coming availability of a scarce but essential telecommunications resource and can plan their network and service developments accordingly.

2.4 Support network development

(40) The capabilities of fixed and mobile networks are continually increasing and it is important to ensure the continued ability of telecommunications licensees to implement technologies that are in keeping with best international practice at a reasonable cost. A number of factors may lead to increased network implementation costs. These factors include the availability of rights of way without any undue regulatory or cost burden, the possibility of sharing infrastructure and thereby spreading the costs over several operators, and the availability of spectrum at economically justifiable prices, Government therefore requires the following.

2.4.1 Enforcement of a realistic framework for infrastructure sharing with fair and reasonable contract terms

(41) (40) Government requires the Commission to develop a voluntary framework in consultation with licensees for infrastructure sharing applicable to all licensed operators. Given the reciprocal nature of such agreements, the framework should include fair and reasonable contract terms. With respect to operators that are dominant or have significant market power in a relevant product or geographic market, the Commission may consider the application of cost oriented tariffs with respect to the application of this framework.

2.4.2 Development of measures to ensure that operators are able to access rights of way priced at a level to promote fibre roll out

(42) Rights of way are considered to include rights to space for towers, cabinets and other infrastructure placed above ground on buildings or on land itself, and space for cabling ducts and cable underground.

(43) Government recognises that the Commission's power over municipalities and other agencies is limited under the Telecommunications Law to facilitation of operators as seekers of rights of way. Municipal governments, nevertheless, need to understand the benefit of excellent telecommunications on their municipalities. Therefore Government requires the Commission to sponsor a report on the economic impact of alternative policies for the provision and pricing of rights of way and to publish the report in a timely manner.

(44) Further, Government through the Ministry of Municipalities will evaluate the impact of a change in the Municipalities Law to give municipalities an obligation to provide rights of way within reasonable timescales and terms and conditions, in accordance with a pricing mechanism that places a fair value on the rights of way. The evaluation will include an analysis of the impact on the financing of municipalities and the overall economy.

(45) Having investigated the economic impact of alternative options for the provision of rights of way, Government will make the necessary changes to the Telecommunications Law or associated bylaws as appropriate to promote the provision of rights of way under reasonable terms and pricing.

2.4.3 Use of measures that ensure economically justifiable spectrum fees

(46) Government requires the Commission to use methods for valuing spectrum that ensure that spectrum fees are consistent with its economic value in the Jordanian market, for example by setting floor prices in spectrum auctions at a level determined by modelling the business opportunity arising from using the spectrum and by assessing the overall economic and fiscal impact.

2.5 Promote new services

(47) In order to ensure that the full range of leading edge telecommunications services are available in Jordan, Government requires action to be undertaken by the Commission.

(48) Firstly, spectrum required for the Internet of Things (IoT) and 5th Generation mobile services, currently occupied primarily by the Jordanian Armed Forces but also by other relevant entities, will be taken back in to commercial use.

(49) Secondly, technology neutrality will be respected for spectrum holdings already assigned and for new assignments. In the former case, the continued supply of existing services must be safeguarded within the band before it can be used for new services.

(50) Together, these actions provide the conditions under which operators can introduce the new services that ensure that the telecommunications sector in Jordan is in line with international best practice.

2.6 Review universal service policy

(51) Government requires Ministry to review the universal service policy and revise accordingly. This review will include revision of the universal service itself, the method of providing the universal service and the method of covering any net cost that may arise in its provision. The review will take account of the current and likely future availability and use of mobile and fixed telecommunications networks, the emerging requirements of the economy for coverage away from roads and inhabited areas, the use of telecommunications networks for autonomous devices, and the needs of disabled people. Upon completion of the review, Government will require the Commission to replace the universal service instructions in accordance with the new policy.

2.7 Rationalise regulation on convergence

(52) Government requires the Commission to implement the green paper on convergence. The aim of this action is to ensure that all services delivered over telecommunications networks are regulated in a consistent and appropriate manner and that there are no regulatory loopholes that can be exploited. Government also requires that the Central Bank continues to ensure that adequate measures are in place for the regulation of financial services delivered over telecommunications networks.

2.8 International capacity

(53) Government requires the Commission to encourage the installation of alternative international transmission routes and increased capacity to reduce the chance of failure, thereby improving the attractiveness of Jordan as a location for hosting services and call centres.

2.9 Enable effective market operation

(54) Effective market operation relies on having regulatory and other mechanisms in place that enable the Commission to enforce its decisions. Government considers that the Commission, under the Telecommunications Law, does not have an appropriate range of graded enforcement powers. Therefore Government will modify the Commission's powers of enforcement either through changes to the law or through secondary regulation so that it is possible to impose penalties in proportion to the violation.

(55) Effective market operation also requires an effective dispute resolution mechanism. Disputes between licensees and the Commission are often protracted by court delay. Government through the Ministry has evaluated options for reducing delay. Government therefore requires that the Economic Court is from now on

responsible for judging cases between licensees and the Commission. Further, Government requires that all judges in the Economic Court and lawyers who appear before the court are provided with appropriate training in relation to the Telecommunications Law and regulation, and the nature of the telecommunications market.

2.10 Critical infrastructure

(56) Telecommunication services must continue to operate in the face of emergency, unrest or disaster. Hence Government requires the Commission to develop a strategy for the protection of critical national infrastructure that is in accordance with the National Cyber Security (NCS) Strategy (2018-2023). The strategy will include identification of threats and risks to telecommunications services and the steps that can be taken to mitigate them. This action will be carried out as soon as the NCS strategy is issued..

3. IT SECTOR

(57) Government recognizes the important role of the IT sector in Jordan. Not only is it a significant economic sector in its own right, but for other sectors of the economy, both public and private, are increasingly reliant on the domestic and international IT sector as information technology is increasingly used for internal processes and infrastructure, for transacting with beneficiaries and stakeholders of all kinds, and, indeed, for component elements in products and services.

(58) Accordingly, the Government is, through this Policy, renewing its support for the development and growth of the IT sector in Jordan with an emphasis on export markets and the development of intellectual property that will be the basis for future revenue. Further, Government is intending to provide practical support for the diffusion and use of IT throughout all sectors of the economy.

(59) Government continues to require that the IT sector is managed with the minimum of restrictive regulations but is aware that new technologies and new applications of technology may require regulatory oversight in order that appropriate safeguards are provided.

(60) Finally, Government is aware of the need for information security.

(61) In light of the above points, Government aims in this Policy to:

- Maintain and grow an IT sector that is a strong regional IT services hub
- Enable finance and practical support for IT start-up businesses to promote innovation in the sector
- Promote the digital transformation of domestic industries
- Promote “Smart” digital zones, areas of the country where public utilities and services are delivered using smart technologies
- Ensure the availability of IT and related skills for the IT and other sectors

(62) In order to meet these aims, the Government will undertake the actions detailed below in the remainder of this section.

3.1 An IT sector that is a strong regional IT services hub

(63) The performance of the IT sector has been variable since 2012, although recently it has started to recover and grow once again. Government will aim to ensure that this growth continues so that the sector can once again be a driver of the economy as a whole. Government recognizes that such growth will be achieved only with a stable economic environment and predictable fiscal policy.

(64) Despite its variable performance, the IT sector in Jordan has a strong regional presence and delivers a strong export performance. Nevertheless, IT businesses need scale to address large contracts, particularly in export markets, to enable innovation and investment in new products and services, and to build corporate capacity.

(65) The IT sector also needs a pipeline of start-up companies founded around innovation and new ideas to keep the sector at the forefront of developments.

(66) Government therefore aims for the IT sector to maintain and develop its position as a strong regional IT services hub, as the enabler of the digital economy and as a leading exporter. By 2025 the IT sector will comprise a number of companies with the resources and skills to invest in the development of intellectual property, to implement projects and to provide IT services for government and businesses of all sizes across the Arab region. The IT sector will be able to support the development of innovation in IT products and services, and will create intellectual property in IT and media products and services that has been developed and is then owned and controlled by Jordanian businesses, thereby ensuring that all wealth created accrues in Jordan.

3.1.1 Export marketing of the IT sector

(67) Government requires the Jordan Investment Commission (JIC) to develop and manage an export marketing programme for the IT sector. This programme will, with the support of IT associations and Jordanian embassies, target countries where there is a shortage of IT skills, where there is a need for the solutions sold by Jordanian IT companies, and where there are opportunities for business process outsourcing. In addition, the marketing programme will target international IT firms and large national IT firms that may act as channels for Jordanian IT solutions or use IT firms for specific in-house development or systems integration associated with their own products and services. Government anticipates that IT associations will maintain an understanding of developments in IT markets and sectors worldwide, with an emphasis on markets where Jordanian businesses have already established a presence, and will ensure that local companies are kept aware of such developments.

(68) Government requires the JIC to continue to promote foreign direct investment in the IT sector. In this respect JIC may promote the particular advantages of Jordan as a skill centre, as a location for call centres and for business process outsourcing and as a location for national and international data centres.

(69) Government requires through the Commission that an IT quality certification programme is developed to promote the adoption of recognised IT quality certification by IT businesses. This certification programme should identify internationally recognised IT quality assurance schemes and provide guidelines for IT businesses in Jordan related to their certification. Such certification would provide evidence to prospective customers of the quality of Jordanian IT firms and would assist in international and domestic sales by those companies.

3.1.2 Consolidation of IT businesses

(70) There are a large number of small companies in the IT sector. These companies are not able to invest to develop new products or services, or to take on large projects by themselves because of their limited size and financial resources. Government procurement contracts can encourage such companies to form joint ventures, merge or find other ways of creating scale. Experience of success in working with other companies would then lead joint ventures to work together on other projects and potentially to merge.

(71) Where products or services from international companies are needed for particular developments, the involvement of Jordanian companies can provide local presence including local implementation teams, support and project management, and can provide continuity, once the project has been completed. The involvement of a large international partner with smaller Jordanian firms in large projects can bring the benefits of relatively long contracts and continuous revenue streams that might otherwise be missed.

(72) Government will encourage the consolidation of businesses in the IT sector to create businesses with sufficient scale to invest in the development of intellectual property, to implement projects and to provide IT services for government and businesses of all sizes across the Arab region. Government procurement processes for large IT development and business process outsourcing contracts will be designed so that smaller Jordanian companies may join together to form entities with the scale and range of skills and expertise to bid jointly for such contracts. Government anticipates that the experience of working together on such contracts will encourage the formation of larger entities through formal mergers between participating companies. Government procurement will also encourage the inclusion of local IT companies in international consortia bidding for public sector contracts subject to Jordan's obligations as a member of the World Trade Organization, and its other international commitments.

3.2 Financing and support for start ups

(73) Government through the JIC will develop a financing and support programme for start-up IT firms. This programme will provide a framework for angel investors and others to put in place finance and incubation for start-up IT firms.

(74) Government will enable a period of exemption for start-up IT firms from social security payments. Firms often suffer from limited or no revenue in their start-up phase yet are burdened with statutory payments that are not related to their revenue or profit. By exempting businesses from such payments, Government will

reduce the financing requirements and risks associated with starting an IT business. Such exemption should have negligible impact on Government finances but will encourage more entrepreneurs to start businesses.

(75) Government will support start-up IT firms through projects and procurement processes designed specifically for them. Some IT projects will necessarily require substantial resources from the contracting party. Other IT projects, those concerned with prototyping and other forms of innovation, or that have limited scope, may be let to smaller firms and even to groups of individuals that have yet to form a company but are interested in doing so. Government will identify such projects and develop a tendering and project management framework that will enable these small or emerging businesses to bid successfully and will ensure that such projects are completed satisfactorily. The framework will provide business incubation services and fund projects in such a way as to allow micro and small businesses to complete projects without recourse to external financing. This programme will assist the incorporation of new IT firms and will contribute to the development of the IT sector particularly in new and innovative areas.

3.3 Digitally transformed domestic industries

(76) Government aims by 2025 to have substantially transformed the standing and capabilities of domestic industries that serve both Jordan and international markets in a highly competitive world through the widespread use of IT.

3.3.1 Use of e-commerce

(77) . Increasingly businesses are participating in e-commerce, particularly with other businesses. Government aims for widespread use of e-commerce between Jordanian businesses and between Jordanian businesses and consumers by 2025. To achieve this aim, the use of e-commerce will need to be extended to smaller businesses and consumers, and businesses and consumers will need to adopt electronic payments.

(78) In addition, the postal service will need to be adapted to the needs of e-commerce. Policy actions related to that requirement are specified elsewhere in this Policy (see section 5.8: Promotion of e-services and general communication by government to external parties).

3.3.2 Adoption of new technology

(79) Many new IT applications and services have been introduced since the 2012 policy was released. Social networks have become the principal means by which young people in particular communicate. New methods of establishing trust, such as blockchain, have been established. The Internet of Things and artificial intelligence have developed to a point where they are enabling the development of autonomous devices such as self-driving cars. 3D printing may lead to the transformation of manufacturing. . The capture of data electronically is enabling big data sets to be created, leading to new opportunities for data analysis across many sectors of the economy. This data analysis will lead to improvements in the performance of many sectors. It is likely that between now and 2025, further developments in IT applications and services will take place that will provide further exciting opportunities. It is important that Jordanian businesses grasp these opportunities to ensure that they maintain and improve their competitive position in their domestic market as well as in export markets. If they are not grasped by Jordanian business, they will be exploited by businesses from other countries. As in the IT sector, other sectors of the economy can and should benefit from the revenue opportunities and the prospect of developing intellectual property assets from the application of new IT technologies.

(80) While many of these new applications will provide benefits, Government is aware that they will also lead to substantial change in employment and in particular product and service markets. The changes in employment will include the removal of layers of management, the removal of some operative jobs through automation, the reduction in the level of skill required in some jobs and requirements for new skills in others. Market changes are likely to include substitution of established products and services by new ones, possibly provided by companies that are not even resident in Jordan. An important task of Government will be to ensure that there is a smooth transition to this digital economy and that this transition benefits Jordan.

(81) Further, new applications and technologies may also lead to a revised, and possibly increased, need for data protection, protection of privacy, consumer protection and personal, corporate and national security.

Government will need to take account of new regulatory requirements and develop and apply regulations in a way that promotes development of the digital economy.

3.3.3 Digital transformation

(82) In light of the above, Government through the Ministry will set up a Special Unit in cooperation with industry associations for the digital transformation of domestic industries. This Unit will develop and manage a digital transformation programme that will:

- Identify key digital economy technologies and applications and review opportunities for deployment in Jordanian commerce and industry with or without government support;
- In conjunction with the Commission, review the need to revise regulations for business and consumer products and services in order to ensure that they cover digital substitutes and take account of the differences in procuring and using those services;
- Develop an awareness building programme to be undertaken by centres of excellence within Government ministries, IT associations and Chambers of Commerce and Industry associated with innovative IT and its benefits.
- Support the development of training in specific new technologies to be carried out by Chambers of Commerce and Industry to develop skills for the digital economy.

Centres of excellence for e-transformation

(83) Government requires all ministries with a business sector focus to develop centres of excellence for the e-transformation of their respective sectors with support from the Special Unit. These units will work with Chambers of Commerce and Industry and IT associations to provide training and to publish guides on the opportunities, benefits, use and regulation of IT in the sector. Government requires all such ministries to review with the support of the Special Unit the scope of technologies and applications considered, and the advice and the published guides provided annually. Government requires that in preparing and delivering such advice and guidance, the differing requirements of micro, small, medium and large businesses is taken into account, and material developed accordingly.

(84) Government will through the Ministry of Industry and Trade develop a centre of excellence for e-commerce with support from the Special Unit. This centre of excellence will work with Jordan Chamber of Commerce and IT associations to provide awareness training and to publish guides on the opportunities, benefits, use and regulation of e-commerce across the whole economy. Government will through the Ministry of Industry and Trade review the scope of e-commerce technologies and applications considered, and the advice and the published guides provided annually. Government requires that in preparing and delivering such advice and guidance, the differing requirements of micro, small, medium and large businesses is taken into account, and material developed accordingly.

3.3.4 Regulation of digital economy products and services

(85) The inclusion of IT applications and services as components in products and services may fundamentally change the way those products and services are delivered. It will be important, that such change is accommodated by Jordanian law. Such change has already been anticipated in the case of electronic media. Elsewhere in this Policy is a requirement for such change to be implemented through changes to the Telecommunications Law and the Audio Visual and Media Law. Similarly, the regulation of financial services accommodates extensive use of IT in the delivery of financial services. Other sectors of the economy will face similar change as products develop and evolve with the use of IT.

(86) In this Policy, a distinction is made between those areas of the digital economy that are properly regulated by the Commission through the application of the Telecommunications Law and the Postal Services Law, and areas of the digital economy that are regulated by other agencies through other law.

(87) Government requires the Commission to continue to maintain expertise in the regulation of technologies, applications and services that fall within the scope of law governing its activities, assess whether or when

changes to law and regulation is needed, and develop and implement such regulation in accordance with relevant law.

(88) Government through relevant ministries will ensure that law and legislation covering activities of government and of all sectors of the economy accommodates changes arising from the use of IT technologies and applications. In doing so ministries will assess whether the intent of the law and its effectiveness are maintained as the use of IT is extended. Such assessment will need to consider amongst other things, digital content, data privacy, data protection, consumer protection, law associated with third party liabilities, and product liability. Government requires that each ministry reports every two years on the status of law at the time of reporting. Government will revise law and regulation in accordance with such review.

3.3.5 Customs

(89) Government will promote the potential for Jordanian businesses to provide international e-commerce services by implementing arrangements that allow for e-commerce businesses to import in bulk and export in small quantities without incurring customs duties on the re-exported goods. Government believes that such businesses should be promoted since they will create value and jobs for the Jordanian economy.

3.3.6 Mobile payments

(90) Government through the Central Bank will stimulate the use of mobile wallets and other forms of electronic payments. Electronic payments, including mobile wallets are readily available in Jordan, yet use is low. The Central Bank will encourage banks to work with mobile telecommunications operators and card services companies to promote the use of electronic payments. Such promotion will target both traders and consumers. The Central Bank will identify the characteristics of existing electronic payments channels that inhibit their use and take action with the providers of the channels to resolve issues and meet the needs of users.

3.3.7 Security

(91) Government will provide and publicise guidelines and instructions, training and support in cyber and physical security for the private sector. Widespread adoption of safeguards for cyber security is now essential to the economy. A failure in IT systems can lead to economic dislocation and large losses for individuals, businesses and government. It is therefore important that all IT systems are secure, both physically and digitally.

3.3.8 Statistics

(92) Government through the Department of Statistics will continue to collect statistics and monitor progress regarding e-readiness of consumers and businesses and statistics about the IT sector itself. It will do so on a regular basis. Government, through the Ministry will review these statistics regularly to identify areas for improvement. The statistics collected should as far as practicable include those that are commonly used in relevant international comparisons.

3.4 “Smart” digital zones

(93) Many countries are in the process of establishing “smart cities”. A smart city is one where a large number of services are provided through digital channels and where IT is deployed to manage and operate resources and services. Smart city services cover, inter alia, utilities, transport, local government services, environmental services, health, financial and education services. In Jordan, these services are provided by many different entities, some by government, some by municipality, and some by private companies, and it is therefore difficult to plan for a smart city environment in a particular place. Nevertheless, Government aims to establish “Smart” digital zones in cities across Jordan where utilities, transportation, financial and other services are operated and managed using advanced IT to provide an efficient and well managed city environment.

(94) Government through the Ministry working in conjunction with municipalities and Greater Amman Municipality will assess the feasibility and scope of smart zones in selected cities across Jordan, identifying

the smart services that would be implemented, stakeholders and their responsibilities, regulatory requirements and constraints, budgetary constraints, opportunities, benefits, security issues and other threats, costs and approaches to implementation. The assessment will identify key applications of IT in Jordan that will lead to improved delivery of public services and utilities. It will also identify a short list of locations where these applications may be used in combination to create smart zones.

(95) Government through the Ministry will implement short listed smart zones in accordance with budgetary and other constraints in partnership with utilities, municipalities and the private sector. Government through the Ministry will monitor the implementation and subsequent performance of the smart zones to determine the economic and social impact of the investment made.

3.5 Ready availability of IT skills

(96) The IT sector and other sectors of the economy require IT skills. Jordanian universities have for many years provided a large number of graduates in IT related disciplines. While there has been some criticism of business and communication skills amongst these graduates, generally their technical training has met business requirements. Nevertheless, it is important that universities and businesses keep current in their theoretical knowledge and practical skills, and that new employees gain the business skills necessary for them to progress and take on new responsibilities. Therefore, Government intends that the skills necessary for the IT sector and for the wider digital economy are readily available.

3.5.1 Homeworking

(97) Government through the Ministry of Labour will facilitate and promote the opportunity for IT workers, particularly women, to work from their homes as employees. Women may be lost from employment once they become mothers, and their skills are often lost from the economy thereafter. Women comprise a relatively high proportion of employees in the IT sector, therefore their loss is particularly noticeable there.

(98) The nature of the IT sector and IT related work is such that with modern telecommunications services, it is possible to work at any location provided the workplace is suitable for employment and any legal and other obligations, such as the provision of employee related insurance, can be met. It is already possible to set up a home based business covering intellectual work, handicrafts, food processing and domestic services. However, it is not currently possible for employees to use their home as their formal workplace. Government through the Ministry of Labour will therefore ensure that legal and other obligations associated with employees may still be met when the employee's workplace is their home. Regulations about the working environment will be reviewed and necessary changes made to ensure that working from home is possible for IT workers, and that it will be possible to compensate employees for any expenses that they incur in doing so.

3.5.2 Training

(99) Government requires that knowledge stations and post offices provide training and support for e-business and effective use of IT by micro and small businesses. Many leaders of micro and small businesses do not have the time or the opportunity to attend training in the business use of IT. They need awareness and skills training associated with common horizontal business applications including development of websites and e-commerce enabled websites. This training needs to be provided at convenient locations in short time slots to minimise the cost of travelling and time away from their business. Knowledge stations and post offices can provide convenient locations but require staffing with IT specialists who would be able to provide the training and support local businesses in using basic business applications. Government through NITC will provide the necessary trained staff to provide these training and support services. Service take up and performance will be monitored and the scope and method of providing the services will be modified accordingly to ensure that the service remains relevant as IT requirements of micro and small businesses evolve.

3.5.3 Alignment of university curricula

(100) Government requires that the relationship between university IT departments and the IT sector is strengthened to ensure that graduates have appropriate skills and universities are teaching appropriate

subjects. Many universities already have strong links with business. What is needed is for all universities to adopt the practices of the best including:

- Provision of internships for students in IT companies
- IT industry representatives on university committees for IT curricula
- Secondment of university professors to IT companies
- Involvement of university IT departments in Government sponsored studies of innovation in IT

(101) Government through the Ministry of Higher Education requires all universities offering IT related courses adopt such practices. It is intended that these practices will motivate students and demonstrate the opportunities available in the IT sector, focus courses on IT sector related requirements and enable university staff themselves to develop their own knowledge in innovative areas of IT.

4. POSTAL SECTOR

(102) The overarching aim of the postal sector is to provide quality postal services at a reasonable price on a universal basis within Jordan and between Jordan and the rest of the world. With the anticipated rapid evolution of e-commerce, the postal sector is becoming the effective physical interface for delivering e-commerce solution. Therefore postal and courier services must aim to satisfy the logistics requirements of evolving e-commerce services.

(103) While the private courier service providers have been effective in delivering excellent services consistent with the aims stated above, Jordan Post Corporation (JPC) has not. Indeed the reform of the postal sector required under previous policies has not been accomplished. Therefore, the first goal of this Policy is the establishment of a transformed Jordan Post Corporation that is able to participate fully in e-commerce and deliver letter mail and packages across Jordan, as well as internationally, in accordance with its mandate as the designated universal service provider (Designated Operator).

(104) The second goal of this Policy is the completion of a street addressing scheme that covers all locations across Jordan and all buildings. Couriers currently provide delivery to the premises. Such services, and indeed services provided in other markets such a services and emergency services, require a clear building addressing scheme based on digital maps that include street names and a number that identifies an individual building. Jordan started to establish such a scheme more than ten years ago. The efficiency of doorstep delivery services and any other service that requires frequent visits to new premises would be greatly improved by the universal adoption of such a scheme.

(105) The third goal of this Policy is the provision of access to postal, financial and government services across the country and to all segments of society through Post Offices and Knowledge Stations. This goal is related to the transformation of government services prescribed elsewhere in this policy and requires the transformation of the Post Office estate and actions related to the Postal Fund.

4.1 Conduct an analysis of the market a for postal and related services

(106) Government requires the Commission to conduct a comprehensive analysis of the market for postal services and services that may be provided through Post Offices. The purpose of this market analysis is to provide the information necessary for reviews of the universal service and JPC's performance contract, for transforming JPC's operations, and for transforming the Post Office estate in terms of location, infrastructure and services provided.

(107) The market analysis will determine the characteristics of JPC's market, the requirements of the universal service, the wider requirements of postal, express mail and parcel services, the locations of post offices to best serve the needs of local communities and the range of services that post offices should provide. The analysis will provide forecasts for different categories of mail and volumes of business by service that may be provided through Post Offices. Forecasts of geographic distribution of mail and other services will also be made.

(108) This analysis must precede many of the other actions required under this Policy in the postal sector, and therefore Government requires that it is completed within the first half of the 2019 year.

4.2 Address the performance of JPC

(109) Government requires that JPC is transformed in order that it is able to carry out the functions required of it as the Designated Operator and provide the services that the market requires in an efficient manner and with the minimum of intervention by Government.

(110) Government therefore requires a number of specific actions to be undertaken to achieve this transformation:

4.2.1 Appoint a qualified postal advisors

(111) Government will appoint a qualified postal advisor to provide expert input and to guide and manage the transformation process. Government requires that the advisor reports to the Minister of ICT who is the

representative of JPC's shareholder with responsibility for JPC. The advisor will have Board level experience of successfully commercialising the management and operations of postal operators in order that they may participate fully in commercial markets for postal and courier services similar to the Jordanian market.

4.2.2 Review JPC's governance

(112) Government will require the advisor to appraise JPC's Board to determine whether it contains the relevant mix of expertise and has the necessary processes to govern JPC effectively, and to propose options for improving Board representation and processes. Following this appraisal, Government through the Ministry will review the constitution of the Board and make any necessary changes.

4.2.3 Undertake the transformation of JPC

(113) Government requires the JPC Board, working with the advisor, to evaluate JPC's capacity to meet its obligations, to develop a plan to transform JPC that will be reviewed by Government, and to implement that plan subject to the Government review. Government requires that the evaluation of JPC's capacity and the transformation plan are completed by mid-2019.

(114) The evaluation of JPC's capacity to meet its obligations will cover JPC's managerial capacity and organisational model, its internal infrastructure, its IT systems and manual processes, costing, accounting, planning, operational and monitoring systems, and its ability to undertake the commercial functions of financial and cost accounting, marketing and sales essential to a modern postal operator. This evaluation will be required to assess JPC's ability to address the market requirements identified in the market appraisal, to address its obligations under the Postal Law and subsidiary regulation, to satisfy its performance contract, to provide the Commission with the information it requires for its own purposes under the Postal Law, and to act on instruction by the Commission. In addition, the evaluation of JPC's capacity will need to assess its capacity in business and service planning, provisioning, operations, monitoring and performance improvement.

(115) Government requires this evaluation to consider and evaluate options for the provision of the universal service and other services provided by JPC. Government requires that the options considered should be wide ranging. Government requires that the evaluation of options considers the net cost of each option, the impact on staffing and post office assets, as well as the likely strengths, weaknesses, opportunities and threats.

(116) Government requires the JPC Board to report on the performance of JPC and the options for continued provision of the services provided by JPC to the Minister of ICT. Government will review this performance appraisal. Government will then require the JPC Board to prepare a business plan in accordance with the outcome of that review.

(117) Government requires the JPC Board to prepare a business plan with the objective of enabling JPC to meet its obligations and requirements while minimising any subsidy it receives as Designated Operator. The preparation of the business plan should start once the market appraisal has been completed and once the JPC Board has reported to the Minister of ICT on JPC's current performance and ability to satisfy its obligations and requirements.

(118) The business plan will provide a plan to improve management, operations and systems within JPC. and will include the following minimum requirements:

- the introduction of marketing and sales functions with related processes, systems and expertise.
- address the need to re-orientate JPC so that it is focussed on the provision of services to customers.
- a financial model of JPC that will include an income statement, a balance sheet, and a cash-flow statement, and thereby provide estimates of revenue, capital expenditure, operating costs, costs of sale, financing costs, gross margin, earnings before interest, tax, depreciation and amortisation, earnings before interest and tax, net earnings and free cash flow.
- address the critical requirements for financial control and regulatory cost accounting.

- include a change management programme intended to re-orient staff at all levels and in all functions to working in a commercial environment with a customer orientation.
- specify the funding requirements associated with the transformation programme.

(119) Financial control and regulatory cost accounting are of critical importance. Therefore Government requires that the necessary processes and systems are operational by the end of 2019.

(120) Government requires the JPC Board to provide the business plan to the Minister of ICT. Government will review the business plan and the funding requirement. Government will require the JPC Board to act in accordance with the outcome of that review having allocated the necessary funding to the plan.

(121) Government requires that the JPC Board regularly reports to the Commission on progress on implementing the plan.

4.2.4 Review the Post Office estate

(122) Government requires the JPC Board to undertake a review of the Post Office estate. The aims of this review are (1) to determine the locations of Post Offices that best serve business and consumers, (2) to determine the facilities and staffing required to enable them to provide the range of postal services identified in the postal market appraisal and the range of government services arising from the government e-transformation programme described elsewhere in this Policy. The review should consider fully costed options that enable colocation of Post Offices with local businesses, with benefits to JPC and the local business, as well as other options in order to determine the most cost effective means of delivering Post Office related services. The review should include an economic impact assessment to determine the benefits and costs of alternatives to the economy.

(123) Since the Post Offices will be providing government services, it is important that the Ministry, with its responsibility in that area, is informed of the JPC Board's proposals. Therefore Government requires the JPC Board to provide a report on the review to the Minister of ICT providing fully costed evaluations of each option. Government will advise the JPC Board on its conclusions. Government will then require the JPC Board to implement the results of the review taking due consideration of the Government's conclusions.

4.3 Review and revise the Universal Service

(124) Government requires that the Universal Service meets the requirements of postal service users in the digital economy while safeguarding the Designated Operator from unfair competition. Therefore, Government requires the Ministry to review the universal postal service and prepare a new universal postal service policy taking account of standards defined by the Universal Postal Union and the postal market appraisal. The draft policy will be subject to public consultation.

(125) On approval, Government will require the Commission to implement the universal postal service policy.

4.4 Develop cost oriented tariffs for the Universal Service

(126) Once JPC has implemented cost accounting systems, Government will require the Commission to approve revised postal rates for universal service products and services based upon the provision by JPC of the necessary cost information during the first quarter 2020.

4.5 Revise JPC's performance contract

(127) Government requires the Ministry and the JPC Board to review and revise the performance contract between the Commission and JPC in accordance with the business plan agreed with Government and international standards.

(128) Government requires that the performance contract specifies measurable performance criteria associated with the provision of the universal service, customer satisfaction, financial performance, the implementation of the business plan, and the availability of Post Offices and services provided at post offices.

4.6 Maintain the independence of the Postal Fund

(129) Government requires that the Postal Fund is subject to separate financial accounting and regulation within JPC. Despite the inclusion of the Postal Fund within JPC's business, the Postal Fund and JPC's other businesses are different in kind. Therefore, Government requires that the financial accounts of the Postal Fund and of JPC's other businesses are separate and independent of each other. Government requires that any transfers between the Postal Fund and JPC's other businesses, and any use of JPC's facilities and services by the Postal Fund are shown in the Postal Fund accounts and in JPC's accounts for its other businesses.

4.7 Streamline customs clearance for mail and parcels handled by JPC

(130) Government requires that the JPC Board and the Ministry of Finance jointly develop and implement a customs clearance process for international postal services that emulates that used with licensed international couriers. Such a process will eliminate the requirement for attendance by the recipient of inbound mail and parcels during customs clearance. The process should reduce turnaround time and enable alternative methods of payment of customs dues by the recipient. Customs will continue to be empowered to inspect mail and parcels to protect the interests of the country and Jordanian society.

4.8 Complete street addressing

(131) Government requires municipality authorities to complete street addressing in their municipalities by assigning names to streets and numbers to buildings, and publishing updated digital maps that include these names and numbers. Government then requires that the digital maps are updated frequently and regularly to take account of new and changed streets and buildings.

5. EGOVERNMENT

(132) The transformation of the delivery of government services and the means by which government interacts with citizens, residents, businesses, other public entities and other governments is an integral part of the digitalisation of the economy. Government itself needs to interact digitally and exploit information technology to enhance its performance and efficiency.

(133) Therefore, Government aims to make digitally provided services the primary means of interacting with external parties. To do this, Government will make its services universally available digitally, including via common types of electronic device, such as the smartphone. To ensure that those who are unable to use such devices, the digital services will also be available with support by trained personnel through Citizen Service Centres in Knowledge Stations and Post Offices.

(134) Government aims also to simplify and minimise the information required from users and the procedures to be followed, and to eliminate duplicate requests for information or documents. If information or a document has been provided in association with one service, Government aims for it to be used within another service when it is required without recourse to the service beneficiary.

(135) E-transformation will have benefits for beneficiaries of government services and for Government itself. It will result in less effort being expended in using a service and undertaking the front and back office processing associated with a service. The number of interactions between users and government offices will be reduced and the elapsed time for completing service administration will be reduced. In addition, the structuring of services around life events will mean that requirements for information and documents and the service itself is more readily justifiable and evident to beneficiaries.

(136) The introduction of e-services has other benefits for beneficiaries and for Government. For beneficiaries, an e-service can be available anywhere and at any time and does not require a visit to an office or submission of forms on paper. Therefore, e-services are more convenient and eliminate the cost of visiting an office. For Government, an e-service reduces the time taken to receive information and documents. There is no keying of information and validation may be undertaken through the design of an application. Documents provided by beneficiaries need only be validated once and only one file copy is required. Back office service automation can then lead to further reduction in costs, and in addition, provide automatic performance monitoring, leading to improved service quality. Thus, the migration from manual to e-services and electronic processes should provide significant improvements in performance and may reduce costs for government and for beneficiaries.

(137) Such benefits will not arise however, unless beneficiaries adopt e-services. Government aims for rapid take up of e-services as they become available with the intention, by 2020, of having reducing paper based services as far as it is feasible to do so. Government aims for the overwhelming majority of beneficiaries of government services to use e-services where available by 2025, and those who cannot, proposed Citizen Centres within knowledge stations and post offices will provide access to the services with support and training.

5.1 Role of NITC

(138) Government will designate NITC as the body responsible for e-government operations in addition to the NBN and knowledge stations.

5.2 Cybersecurity

(139) JoCERT will continue to be responsible for cyber security and will also consider physical security in the public sector.

5.3 E-transformation programme

(140) Government will continue with the e-transformation programme that is currently under development in the Ministry and the Ministry of Public Sector Development. This programme aims to implement public administration reform through the simplification and re-engineering of business processes and the

development of government services delivered via telecommunications networks and information technology devices. The programme will cover all government ministries and other public sector bodies.

5.3.1 Agency for e-transformation

(141) Government will set up an e-transformation agency to deliver the programme. However, the Ministry will continue to have responsibility for the development and implementation of e-government and the Ministry of Public Sector Development will continue to have responsibility for business process reform until the agency comes into existence at which point those responsibilities will transfer to the agency.

(142) The agency will have the skills to procure services for and to manage e-transformation projects. The agency will therefore maintain skills in IT and in public sector reform, develop and maintain e-transformation processes and guidelines. It is Government's intention that the agency will work in partnership with the private sector in order to simplify procurement, recruitment and other administrative procedures.

(143) The agency will maintain a set of infrastructure standards and application standards, including standards for interoperability between IT systems and applications for the delivery of Government IT and e-services.

(144) The agency will maintain a set of standards for systems procurement, development and documentation.

5.3.2 E-transformation plan

(145) Government will through the Agency prepare and maintain an e-transformation plan covering the introduction or modification of e-government services and process simplification and improvement. The plan will be prepared in consultation with ministries, governorates and municipalities whose services and processes will be the subject of e-transformation. The agency will thereby set priorities for new and improved e-government services with the aim of maximising take-up by individuals and businesses.

(146) Government requires that each Ministry, government agency, governorate and municipality establishes an E-transformation Skill Centre. The Skill Centres will be responsible for their respective organisation's business processes, electronic services and IT systems and applications. The skill centre will therefore provide the leadership for e-transformation projects for the organisation.

5.4 Citizen Service Centres

(147) Government will through NITC implement Citizen Service Centres within knowledge stations and post offices. Citizen Service Centres will be locations where individuals and businesses can access e-government services with support from staff in the Centre. The staff will have the training necessary to provide support and will be able to call upon second line support within the relevant Skill Centre should it be necessary to complete a transaction.

(148) The e-services provided through the Citizen Service Centres will be identical to the services available elsewhere. The purpose of providing the services in such Centres is to provide access to individuals and businesses who do not themselves have a suitable device or do not have the skills or aptitude to be able to use the service. Therefore, the Centres will be important for universal access to government services at convenient locations.

(149) Some individuals and businesses may need support in using their e-services through their own devices. The staff in the Citizen Service Centres will in addition provide support and training for individuals and businesses in the use of particular e-services.

5.5 Government IT and telecommunications

(150) Common infrastructure (IT systems and applications) is necessary to provide e-services such as electronic mail, and to enable interoperability between disparate IT systems. The common infrastructure provides a sound and extensible basis for Ministerial systems and applications and for Ministerial e-services.

It also provides the facilities for inter-Ministry communication. Government through the Ministry and later the Agency will develop and implement this common infrastructure.

5.6 Government data

5.6.1 Common standards

(151) Just as in the private sector, the use of “big data” by government and the public sector more generally can lead to improvements in analysis, forecasting, and operational performance. Facilities for sharing data between applications have already been developed. However, as such sharing increases, differences will arise between the definitions of individual data elements common to a number of data sets. These differences may preclude the production of integrated datasets or use of such data across applications. Therefore, Government requires that all government entities participate in the development of common standards and where possible enable exchange of data between applications and the development of integrated data sets. Nevertheless, a pragmatic approach is needed to avoid excess complexity and cost where major inconsistencies arise. Government will avoid such excess complexity and cost.

5.6.2 Analytical tools

(152) The ability to create and maintain big datasets brought about by the use of common data standards and the ability to join individual datasets together will enable sophisticated analytical tools to be used in policy development and implementation, and in managing the operational performance of government. Government through the Ministry will identify requirements for analytical tools and identify tools that meet the requirements. Government will then develop capability in the tools associated with large data sets including access and the necessary expertise to exploit them.

5.6.3 Open Government Data

(153) Government entities will continue to disclose and publish all data subject to disclosure rules in open formats as datasets. The data published will cover all vital sectors to the benefit of the economy and society.

(154) Government will provide anonymized datasets to selected trusted public sector organisations and private businesses within a security policy that maintains anonymity of the data.

5.7 The National Broadband Network

(155) National Broadband Network (NBN) is a national telecommunications network intended to provide telecommunications services to Government. The NBN will be completed in 2019.

(156) Government believes that additional benefit can be extracted from the NBN by enabling it to be used for public telecommunications services. Therefore, Government through the Ministry will review the future roles of the NBN for the provision of services to Government and also as an infrastructure that may be made available to licensed telecommunications operators. This review will consider technical and commercial options for making it available to licensed telecommunications operators, and the prospective value and risks to the licensees and to Government in doing so. Government will evaluate the conclusions and recommendations of the review and implement accordingly. Government will require that the NBN is made available to licensed telecommunications operators without distorting the telecommunications infrastructure and services markets and without significantly increasing risks to government security.

(157) The NBN has considerable capacity and has spare ducts and fibres. The NBN covers the whole of the populated areas of Jordan with access from many public buildings. Therefore, in principle, there is an opportunity for this capacity to be used in the delivery of public services across many populated areas, interlinked with licensed operators’ own infrastructure, thereby reducing public service delivery costs and providing revenue to government.

5.8 Promotion of e-services and general communication by government to external parties

(158) The development of e-government services will not provide benefit unless they are used. Government services will therefore need to be readily available but in addition, individuals and businesses will need to be aware of their availability, understand their benefits, and know how to use them. Government will therefore develop and implement a marketing programme to promote the use of the smart ID card, e-government services, e-payments to government and commercial entities. The marketing programme will also promote the use of Citizen Service Centres. This marketing programme will make effective use of prevailing electronic media and traditional media and will promote general awareness, launch of new services, use of individual services, and publish “how to guides” in video and other forms. Government will, similarly, use prevailing media for announcements of all kinds.

6. CHANGES TO LAW

(159) Government will, through the Ministry:

- i. Review and accordingly drafting and/or redrafting of necessary legislation (whether current laws, secondary instruments such as regulations and/or instructions or specific policies) for better efficiency, as delineated in the table in Annex 2.
- ii. Implement the Green paper on the Convergence of Media and Telecommunications in Jordan, the Analysis of the comments to the Green paper on the Convergence of Media and Telecommunications in Jordan, the Analysis of the Audio Visual Media Law No. 26 for the year 2015.

ANNEX 1: WTO OBLIGATIONS

Upon becoming a member of the World Trade Organization (WTO) in April, 2000 Jordan agreed to accept obligations associated with membership.

Government reaffirms its commitment to those obligations. This Policy is fully consistent with those obligations and Government requires that in the implementation of policy, whether through its own action, or those of others, specific WTO obligations are met.

In the telecommunications sector Jordan has agreed to various key principles by means of a reference paper. The following is a broad summary:

- To forbid and eliminate anticompetitive practices relating to control over essential facilities or use of a position established in a market, with specific reference to anti-competitive cross subsidisation, use of the information of a competitor for anticompetitive purposes and denial of technical and commercial co-operation.
- To ensure that interconnection between competing networks is facilitated, at any feasible point in a timely and non-discriminatory manner, and, that interconnect services are supplied at cost oriented rates that are transparent, reasonable and so unbundled as to ensure that network components that are not used are not subject to charge. Further, that the procedures that apply to interconnect negotiation are made publicly available
- With regard to Universal Service, to ensure that any action is fully justified and that market distortions are minimized.
- To ensure that criteria applied in the granting of licenses to operate are made publicly available.
- The Regulatory body is separate from, and not accountable to, any supplier of basic telecommunications services. The decisions of and the procedures used by the regulators shall be impartial with respect to all market participants.
- To allocate any necessary scarce resources for the purposes of the sector in an objective, timely, transparent manner

ANNEX 2: CHANGES TO LAW

Related law and requirements for change	Proposed change
The Telecom Law	
Maintain Administrative and financial independence of the Commission	Amendment to Article (4) and (18) emphasizes such independence.
Effective enforcement authority of the Commission	More detailed provisions in Articles (12) and (40) reflects effective enforcement.
Forbear from regulation where appropriate.	More detailed provisions in Articles (6/i&r) and (12/b) reflects forbearance from regulation where appropriate
Rapid entry of new competitors in the telecommunications sector and the rapid introduction of new services by those entities	Amend Article (25) so as to vest the authority of licensing with the Commission and not the Cabinet of Ministers in order to be able to facilitate the rapid entry of new competitors
Shift from primarily ex-ante to primarily ex-post remedies directed against specific instances of anticompetitive conduct or practices	Article (61/2 repeated) includes a provision to this effect.
Spectrum management	Articles (30) onwards include amendments related to spectrum management, such as: 1) Article (31/b) where it added a provision that the frequency used by military and security bodies for “non-military, non-security” purposes should fall under the licensing rules and fees; 2) Article (31/c) clarified that the Commission is the body that licenses the use of frequency for radio and television broadcast and rebroadcast; 3) Article (31/d) allowed the Commission to relief from licensing requirements certain frequency for use in low transmission capacity; 4) Article (36/a) confirmed that military and security bodies should acquire a license to use a radio frequency station if the use is for non-military, non-security purposes; 5) added Article (37 repeated) where it allowed the Commission, while executing its frequency management duties, to allow different ways for the use of this frequency if the board thinks that these ways are appropriate and the market circumstances requires it.
Access to, use of (including shared use), amounts of payment for use of right of way by Telecom providers	Article (29) “conditions in licenses” included amendments where it emphasizes the necessity of cooperation among licensees in making available their infrastructure to each other
Convergence between Telecom and Media	To reflect the recommendations in the "green paper on convergence between media and telecommunication in Jordan" ¹ the following amendments are considered: i) redefining radio and TV broadcasting and re-broadcasting in Article (2); ii) added in Article (6) the responsibility of regulating prohibition of access to content on Public Telecom Networks as per Regulations to be issued in this regard; and

¹ “Green paper on the convergence of media and telecommunication in Jordan”, the result of a Twinning JO10/ENP-AP/TE/13 “Twinning project for the Commission in 2013”.

Related law and requirements for change	Proposed change
	regulating sending of audio or visual content over Public Telecom Networks; iii) added in Article (20) the necessity to have a license for sending or transferring audio or visual content by whichever means; iv) added a condition to the license in Article (29) where licensees should abide by the regulations related to rules and conditions of sending or transferring content over Public Telecom Networks; v) added in Article (61) a prohibition on Public Telecom Licensees to allow access to pornographic content (as defined in Article (2)), as per the instructions that will be issued in that regard.
Regulation of electronic content and regulation of access to it through public telecommunication networks.	Detailed provisions of such framework to regulate the electronic content, as required by the 2012 Policy were included in the law, such as: i) added in Article (6) the responsibility of regulating prohibition of access to content on Public Telecom Networks as per Regulations to be issued in this regard; and regulating sending of audio or visual content over Public Telecom Networks; ii) added in Article (20) the necessity to have a license for sending or transferring audio or visual content by whichever means; iii) added a condition to the license in Article (29) where licensees should abide by the regulations related to rules and conditions of sending or transferring content over Public Telecom Networks; iv) added in Article (61) a prohibition on Public Telecom Licensees to allow access to pornographic content (as defined in Article (2)), as per the instructions that will be issued in that regard.;
The Audio Visual and Media Law	According to the Analysis of the Audio Visual Media Law, the following amendments are needed. This list is non-exhaustive
Standards for broadcasting equipment	To add a clause that the MC should collaborate with the Commission and set standards for broadcasting equipment and impose these standards as a legal requirement on broadcasters through the licensing process, but not otherwise issue permits or licenses for individual pieces of equipment
Licensing of digital terrestrial television	Consideration should be given to putting in place a proper system of licensing digital terrestrial television;
Reserving a portion of the frequency spectrum for community radio	Properrulesandprocedureshouldbeputinplacetosupportcommunitybroadcastersincludingbyreservingaportionofthefrequencyspectrumforcommunityradiosand by establishing less onerous licensing procedures and fees for this category of broadcaster
Postal Law	
Enable the Commission to collect annual licence fees from all licensees in the Postal Sector in order to cover its costs for regulating the Postal Sector	Amendment to that effect is a must.
Postal sector product development	Amendments to include articles for the development, diversity and expansion of the products of the service provider in the postal sector, telecommunications and information technology to be able to support the electronic government and electronic commerce.
Postal Saving Fund	Amending the law to Include the Postal Saving Fund under the umbrella of the Public Post Provider. Changes may be needed under

Related law and requirements for change	Proposed change
	the Postal Law and the Postal Savings Fund Law.
Postal Saving Funds Law	Amending the law to Include the Postal Saving Fund under the umbrella of the Public Post Provider
The National Information Technology Centre Law	Th Ministry of ICT is the legal successor to NITC from 2 nd April 2018.