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1. Introduction

1.1 The Context of the Policy

(1) Under the Constitution, the Telecommunications Law No. 13 for 1995 and its amendments (Telecommunications Law) and the Postal Services Law No. 34 for 2007 (Postal Law), the Ministry of Information and Communications Technology (the Ministry) has responsibility for the Telecommunications, Information Technology and Postal Sectors in the Kingdom.

(2) 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 a biennial national strategic plan in accordance with the general policy. Article 3 of the Postal Law stipulates that the Ministry shall prepare the general policy and the working plan for the Postal Sector.

(3) This General Policy for the Telecommunications, Information Technology and Postal Sectors 2018 (the Policy) has a specific legal status since it sets the context within which the Telecommunications Regulatory Commission (the Commission) must operate in order to meet its obligations under the Telecommunications Law and the Postal Law. In addition, the Policy provides important information for stakeholders in the respective sectors and for others who might consider entry into, or investment in, those sectors.

(4) Regarding the Commission, 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.” Similarly, Article (9) of the Postal Law assigns to the Commission the responsibility to regulate postal services in accordance with the general policy approved by the Council of Ministers. Further, Article (23) of the Electronic Transactions Act No. 15 for 2015 gives the Commission the authority to license and accredit Electronic Authentication organisations and to regulate their work. The same Article gives the Ministry the authority to administer the electronic authentication system for the root certificate. The Ministry is also made the principal

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authentication authority for government entities.

(5) Regarding e-government, the mandate for implementing the e-government programme was assigned to the Ministry when launching the programme in March 2001.

(6) Accordingly, the purpose of this document is to specify government policy for the Telecommunications, IT and Postal Sectors, and E-Government.

(7) Upon its approval by the Council of Ministers, the 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 the Policy is intended to detract from or affect the validity of any regulatory decision or action taken during the periods that any of the 2012, 2007 or the 2003 Policy Statements were in effect. Hence any such actions and decisions remain valid inasmuch as they are not required to be modified in accordance with the Policy.

1.2 Policy goals

(8) This Policy is intended to seize the opportunities of the Fourth Industrial Revolution with the primary goal being the development of a digital economy leading to renewed economic development and increased income and wealth of individual Jordanians. The government is keen for Jordan to harness existing and emerging digital technologies including but not limited to Artificial Intelligence (AI), Blockchain and the Internet of Things (IoT) provided by the Telecommunications, Information Technology and Postal sectors for economic and social development.

(9) The development of a digital economy is dependent on the use of information and communications technology by individual Jordanians, the public sector and the private sectors of the economy. Therefore, the Policy aims to facilitate the use of such technologies in all sectors and to revitalise Government’s own Digital Transformation Programme by which it adopts digital technologies for Government administration, provision of government services and communication with citizens.

(10) A digital economy is reliant on the provision of a digital identity for all legal persons. Such formal digital identities are already available. However, for day to day transactions other digital identities, such as mobile telephone numbers, may also be used. The Policy facilitates their use.


(6) وبهذا، فإن الغرض من هذه الوثيقة هو تحديد سياسة الحكومة لقطاعات الاتصالات وتكنولوجيا المعلومات والبريد والحكومة الإلكترونية.

(7) بمجرد إقرار مجلس الوزراء لهذه السياسة، تصبح هي السياسة الحصرية لقطاعات الاتصالات وتكنولوجيا المعلومات والبريد والحكومة الإلكترونية، وذلك تحل محل سياسة الحكومة لعام 2012 وبالتالي تصبح غير سارية المفعول وغير نافذة. إلا أنه لا تعني هذه السياسة إلى الانتقاص من أو التأثير على صلاحية أي قرار أو إجراء تنظيمي تم اتخاذه خلال الفترات التي كانت فيها أي من وثائق السياسة العامة لعام 2012 أو 2007 أو 2003 سارية المفعول. ولذلك، فإن أي من هذه القرارات والإجراءات تبقى سارية المفعول لما لم يتم تعديلها وفقا لهذه السياسة.

1.2 أهداف السياسة

(8) تهدف هذه السياسة إلى استغلال الفرص التي تتيحها الثورة الصناعية الرابعة بهدف تطوير اقتصاد رقمي يؤدي إلى تطوير اقتصاد مستدام وزيادة نجاح الفرد الأردني. وتتحقق أبعاد التنمية الاقتصادية والاجتماعية للأفراد تحريض الحكومة على تطوير التكنولوجيا الرقمية الحديثة والناشئة على سبيل المثال لا الحصر الذكاء الاصطناعي (Artificial Intelligence - AI) وسلسلة الكتل (Blockchain) التي توفر قطاعات Internet of Things- IoT، والذكاء الاصطناعي وتقنية البورصة الأوروبية وغيرها.

(9) تعتمد التنمية الاقتصادية الرقمية على استخدام الأفراد وميزات القطاعات العام والخاص للاتصالات وتكنولوجيا المعلومات. ولذلك تهدف السياسة إلى تشجيع استخدام هذه التكنولوجيا في كافة القطاعات، وتشبب برامج التطور الإلكتروني للحكومة التي يوجهها تنفيذ الحكومة التكنولوجيا الرقمية في الإدارة الحكومية وتوفير الخدمات والتواصل مع المواطنين.

(10) تشير السياسة استخدام الهويات الرقمية ل كافة الأفراد في المعاملات اليومية وذلك لتعزيز الاقتصاد الرقمي عليها. ولا تقترض الهويات الرقمية على الهوية الرسمية المستخدمة حالياً بل تتضمن أيضاً الهويات الرقمية أخرى مثل أرقام الهواتف المحمولة.
(11) The digital economy requires an efficient means of delivering mail and packages throughout the Kingdom. Therefore, the provision of efficient postal services is central to the Policy.

(12) Government is cognisant of the divide in the availability of digital services between urban and rural areas. Therefore, the Policy provides measures intended to ensure that such services are accessible with the same speed and quality across the Kingdom to all income groups.

(13) Finally, the digital economy requires that law and regulation takes account of new digitally enabled products and services and new digitally enabled methods of producing and selling products and services. Therefore the Policy sets out requirements for a review of law and regulation to ensure that it is fit for purpose in the digital economy and that such law facilitates the development of the digital economy.

1.3 Governance

(14) Government requires that this Policy will be implemented using a strong governance model. Government requires that individual policy implementation projects are undertaken in a manner that enables timely, flexible and rapid implementation.

(15) Government will set direction and priorities, and through the Commission manage scarce resources and regulate appropriately. Government will 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.

(16) Government hereby assigns overall responsibility for monitoring and managing the delivery of the Policy to the Ministry. Government requires that the Ministry provides an annual report to the Council of Ministers on the delivery of the Policy.

(17) Government requires that all Ministries and other public sector organisations act in accordance with this Policy and report to the Ministry regarding their achievements in delivering Policy measures for which they are responsible.

(18) Government continues to require that the Commission monitors the delivery of the Policy measures for which it is responsible, publishes an annual report on its achievements in delivering those measures on its website, and provides the Ministry with an annual report of these achievements.

1.3 الحوكمة

(14) تطلب الحكومة تنفيذ السياسة تبني نموذج حكومي متين يضم تنفيذ متطلبات هذه السياسة في وقت مناسب وبشكل سريع ومرن.

(15) ستقوم الهيئة بتحديد الأولويات ورسم التوجهات، وتنظم الهيئة بإدارة وتسيير الموارد النادرة بالشكل المناسب. وستدعم الهيئة توفير الخدمات في المناطق غير المدفوعة وغير مكتملة الخدمات. وستحكم عام سيتم تحديد وتوفير البنية التحتية وتوفير الخدمات بناءً على قوى العرض والطلب في السوق التي تخصص للتنظيم المناسب.

(16) يتطلب النظام الوزاري الشاملة عن مراقبة وإدارة تنفيذ السياسة إلى الوزارة. وعلى الوزارة تقديم تقرير سنوي بواقع حال تنفيذ متطلبات السياسة إلى مجلس الوزراء.

(17) تطلب الهيئة من كافة الوزارات ومؤسسات القطاع العام العمل وفقًا لهذه السياسة وتقديم تقارير عن إنجازاتها في تنفيذ البنود المطلوبة منها وفقًا لهذه السياسة إلى الوزارة.

(18) على الهيئة الاستمرار بمتابعة تنفيذ بنود السياسة العامة المتعلقة بالمنها، ونشر تقرير سنوي عن إنجازاتها في تنفيذ تلك البنود على موقعها الإلكتروني، وتزويد الوزارة بتقرير سنوي عن هذه الإنجازات.
(19) With respect to all decisions that are likely to have a material impact on the market, Government continues to require that the Commission engages in a transparent and open public consultation process. In this process, consultations and submissions made to the Commission will be made publicly available so that others may make their own submissions before decisions are announced. The Commission will publish "reasoned decisions" for all decisions that are likely to have a material impact on the market, setting out not only why the decision was made but also providing the full objective legal and necessary analysis that underlies that conclusion, an assessment of the impact on affected parties of the resulting regulatory burdens and to observe the gradual application of these decisions.

(20) Government continues to require that the Commission website makes available in an easily accessible manner up to date information and documents including all current policy statements, consultative documents, instructions and regulatory decisions, licences and licence applications, and indicators related to the sectors. Government also continues to require that the Commission website permits citizens, businesses, and government entities to have immediate access to information that is not commercially confidential concerning applications for and grants of various licenses and type approvals for telecommunication equipment.

(21) Government requires the Commission to review its instructions and regulatory decisions periodically and, where market conditions allow and where, in the judgment of the Commission it is appropriate, to amend such instructions and regulatory decisions in line with these conditions. In this respect, Government requires that the Commission will favour a presumption of withdrawal of ex ante regulation where market conditions allow.
2. Telecommunications sector

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

(23) Furthermore, for the digital economy to develop in Jordan, the telecommunications services offered to the users in the Kingdom need to be affordable, universally available, secure and reliable. Affordability and universal availability of such services will ensure that all Jordanians are included in the digital economy and that the full range of e-government applications can be used.

(24) In addition, for Jordanian start-up and innovative companies to be able to offer digital economy services, the telecommunications services which they use need to be offered in accordance with the net neutrality principle: telecommunications service providers treat all data on the Internet equally, and do not discriminate or charge differently by user, content, website, platform, application, type of attached equipment, or method of communication.

(25) In Jordan, telecommunications networks and services are provided by licensed commercial telecommunication operators and service providers in a regulated market. In light of this, the Policy aims to encourage these licensees to deploy the infrastructure and to develop the services needed to support the vision for delivering the digital economy that the Policy envisions.

(26) 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. Measures 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.

(27) The essential position promoted in the Policy is for telecommunications operators and service providers to generate a rate of return on investment that will encourage network development whilst protecting the interests of beneficiaries. If operator profitability is squeezed, it is likely that investment will be inhibited and the sector will stagnate.
Ready access to essential resources and infrastructure at an economically justifiable cost is essential to ensure that the telecommunications sector evolves. The introduction of attractive and innovative services for the digital economy is critically dependent on operators having such access in a manner that promotes sector growth. Hence the availability of spectrum for assignment to operators, the sharing of towers, masts, ducts and other physical infrastructure and the grant of rights of way are all vital enablers.

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 shall be enhanced by supportive regulation.

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-line infrastructure and a high uptake of services. It is Government’s intention that the Policy builds on past success and provides operators with the latitude and support to further develop the networks and services needed for the digital economy. Therefore, the Policy specifies a number of measures to support the achievement of providing the foundation for the digital economy in the Kingdom. These measures are specified below.

2.1 Promote effective competition

2.1.1 Removal of barriers to subscribers switching operators

Government requires without delay the removal of barriers to consumer switching between operators by enabling Fixed and Mobile Number Portability. This action conforms to international best practice. Barriers to switching between operators reduce 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 by enabling them to use their phone numbers as a de facto means of identification in many digital services.

Government therefore requires the Commission to revise as necessary the regulation on Mobile Number Portability and implement by 2020 enabling beneficiaries to port their mobile numbers to another operator by the end of that year.

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Government therefore requires the Commission to revise as necessary the regulation on Mobile Number Portability and implement by 2020 enabling beneficiaries to port their mobile numbers to another operator by the end of that year.

2.1.1 إزالة العوائق التي تحول دون تبديل المشترين للمشغلين

تطلق الحكومة دون أي إبطاء، أن يتم إزالة المعينات التي تحول دون نقل المستخدمين بين المشغلين من خلال تمكين خاصة قابلية نقل الأرقام في الأنظمة المنطقتة والثابتة، حيث يتماشى هذا الإجراء مع أفضل الممارسات الدولية. إن وجود المعينات التي تحفظ قابلية نقل الأرقام بين المشغلين تخفض من الرغبة في السوق، وتشجع على تحسين المشغلين من خلال أسلوب أخر، على سبيل المثال، من خلال المنافسة في الأسعار. هذا بالإضافة إلى أن ارتفاع الأسعار بأرقام هواتفهم سيساهم في تمكينهم من استخدام أرقام هواتفهم كهوية رقمية وكوسيلة تعريف في العديد من الخدمات الرقمية.

government therefore requires the Commission to revise as necessary the regulation on mobile number portability and implement by 2020 enabling beneficiaries to port their mobile numbers to another operator by the end of that year.

unlike the previous amendment, and a new regulation was introduced enabling the telecommunications commission to set a different number for each new operator. This measure was implemented in 2020 and has been successful in allowing beneficiaries to keep their phone numbers.

the introduction of mobile number portability is critical to ensure that the telecommunications sector evolves. through the availability of spectrum for assignment to operators, the sharing of towers, masts, ducts and other physical infrastructure and the grant of rights of way are all vital enablers.
Government further requires the Commission to prepare a regulation on Fixed Number Portability and implement by 2022 enabling beneficiaries to port their fixed numbers to another operator by the end of that year.

The regulations should take due note of implications for the security of communications and networks and, in this regard, Government expects that best practice from the countries that have implemented Number Portability is followed.

Levies and taxes on new SIM cards may also be considered as a barrier to switching between operators. Therefore, Government is also committed to remove such a barrier by the removal of levies and taxes on new SIM cards.

**2.1.2 Market reviews**

Government requires market reviews to be undertaken by the Commission in a timely manner 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. A specific issue to be covered in forthcoming market reviews will be telecommunications-like services provided over the Internet by service providers lying outside the domain of the current telecommunications law and by foreign companies that are difficult to regulate, Government requires the Commission to consider, amongst other factors determined by the Commission, whether particular regulation of licensees places them at a disadvantage in comparison with such service providers in particular product markets.

Government requires that the Commission undertakes these market reviews in accordance with the Commission’s established rules and guidelines and completes them by the end of 2019.

In addition, Government requires a review of the Instructions on the Competition Safeguards in the Telecommunications Sector to determine whether they still conform to best international practice and cover appropriate product and geographic markets. Therefore, Government requires the Commission supported by the Competition Directorate at the Ministry of Industry &
Trade & Supply to conduct a review of the established instructions and guidelines to assess their adequacy for market reviews to be carried out during the period 2021 to 2025. This action should be completed by the end of 2019.

(39) In order to ensure transparency, Government requires that the Commission publishes criteria that it will use to determine the timing of subsequent market reviews. Government also requires that the Commission applies these criteria to prepare a list of product and geographic markets that it plans to review and the timetable for the reviews. This action should be completed by the end of 2019.

2.2 Plan spectrum availability for assignment to licensees

(40) 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 specifying what spectrum in the civilian portion of the National Plan for Frequency Allocations will be available for assignment to telecommunications licensees so 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 availability to licensees by quarter for each of the succeeding three years. Government requires that the Commission reviews and if necessary revises the rolling plan every six months, and then publishes the revised rolling spectrum plan on the Commission website. Government requires that the Commission’s spectrum plan will allocate spectrum in a manner consistent with the output of the respective ITU World Radio Conferences.

2.3 Support network development and the provision of new services

(41) Government requires that telecommunications licensees are able to implement telecommunications networks at a reasonable cost across the Kingdom to meet the needs of the digital economy. A number of factors affect operators’ ability to do so. These factors include the availability of rights of way, 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.
2.3.1 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 for example 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 through the Ministry will introduce an appropriate legal framework to encourage the development of telecommunications networks through the management and regulation of rights of way for the deployment of the necessary infrastructure by licensees.

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

(44) Government requires the Commission to determine what changes to the regulatory regime are necessary and sufficient for infrastructure sharing to take place, and to make those changes. Government requires the Commission to enforce its decisions regarding mandatory infrastructure sharing.

2.3.3 Availability of spectrum

(45) Government requires specific actions in relation to spectrum in order to ensure that the full range of leading edge telecommunications services are available in Jordan.

(46) First, Government requires that spectrum required for the Internet of Things (IoT) and 5th Generation mobile services but occupied by non-commercial parties is made available as appropriate for commercial use.

(47) Secondly, Government requires technology neutrality to be applied to new spectrum assignments for use in the provision of Public Telecommunications Services by licensed operators.

(48) Thirdly, Government requires the Commission to investigate how technology neutrality for spectrum holdings already assigned can be introduced in a fair and non-discriminatory manner, and in a manner that safeguards existing services provided within the assignment before it can be used for any new service. The Commission should then proceed with the approach that it determines meets the requirement. The introduction of such technology neutrality would minimize the possibility of obsolescence and hence inefficient use of particular bands as service usage changes.
Fourthly, Government requires the Commission to use methods for valuing spectrum assignments that ensure that spectrum fees are consistent with its economic value in the Jordanian market.

Fifthly, Government requires the Commission to investigate requirements for spectrum sharing and to determine whether the introduction of spectrum sharing is practical and would reduce the cost of provision and increase the quality and availability of telecommunications services to consumers.

2.4 Review universal service policy

Government through the Ministry will review the universal service policy and revise accordingly to ensure that the universal service enables the digital economy as it develops. The review will cover 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. Upon completion of the review, Government will require the Commission to replace the universal service instructions in accordance with the new policy.

2.5 Rationalise regulation on convergence

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 requires the Ministry together with other interested parties to review the applicability of the measures in the Green Paper on Convergence against current and anticipated conditions in the media and telecommunications services markets, and international best practice. Having reviewed the Green Paper and made appropriate changes, the Ministry will determine what changes if any are needed to telecommunications and media law and regulation.

Government also requires that the Central Bank of Jordan continues to ensure that adequate measures are in place for the regulation of financial services delivered over telecommunications networks. (See also Section Stimulating the use of electronic payment services)

These measures are consistent with the measures specified in Section regarding the regulation of digital economy products and services.

1 The Green Paper on the Convergence of Media and Telecommunications in Jordan, the result of a twinning project between the Commission and the European Union, JO10/ENP-AP/TE/13
2.6 Increase the attractiveness of Jordan as a location for hosting services

(55) Government requires the Commission to encourage the installation of alternative international transmission routes and increased capacity.

(56) Government also requires the Commission to encourage the establishment of commercial Internet Exchange Points (IXPs).

(57) These two measures will give additional resilience for the provision of services to customers in other countries, thereby improving the attractiveness of Jordan as a location for hosting services and call centres.

2.7 Enable effective market operation

(58) Government will, through the Ministry and in cooperation with the Commission, review the need for enforcement of decisions made by the Commission and determine what if any changes to the enforcement legal references are needed. In order to determine any changes to be made, this review will consider the frequency of the application of enforcement powers by the Commission, the arguments made by licensees for failing to act in accordance with the Commission’s decisions, the actual penalties imposed by the Commission, their impact on the penalized licensee, and a benchmark of the Commission’s enforcement powers against those of similar regulators.

(59) Effective operation of the telecommunications market also requires an effective dispute resolution mechanism. Disputes between licensees and the Commission have often been protracted by court delay. The Specialized Economic Chamber is responsible for judging cases in the ICT sectors. Government therefore requires that all judges in the Specialized Economic Chamber and lawyers who appear before the Chamber are provided with appropriate training in relation to the Telecommunications Law, applicable regulations, and the nature of the telecommunications and information technology, services and markets. The training shall be provided by recognized international experts and funded from the 1% annual licensing fees paid by the licensees.

2.8 Protection of critical and other telecommunications infrastructure

(60) Telecommunication services must continue to operate in the face of emergency, unrest or disaster. Hence Government requires the protection of Public Telecommunications Networks and Services in accordance with policy specified in Para. (90).
3. IT sector

(61) Government recognizes the important role of the IT sector in Jordan in the development of the digital economy, and the intellectual property and high value jobs that are its basis noting that Jordan is already contributing to the development of emerging technologies including artificial intelligence, distributed ledgers (blockchains) and the Internet of Things. Accordingly, Government is, through the Policy, renewing its support for the development and growth of the sector with the aim of maintaining and developing Jordan’s position as a strong regional IT services hub, an enabler of the digital economy and a leading exporter, with the strength to develop intellectual property of its own that will be the basis for its future revenue.

(62) Government also recognizes that the development of the digital economy is reliant on the transformation of domestic industries that serve both Jordanian and international markets in a highly competitive world through the widespread use of IT. Government, through the Policy, is supporting this digital transformation. As part of this transformation, Government is promoting “Smart” digital zones where public utilities and services are delivered using smart technologies.

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

(64) Government, through the Policy also addresses the availability of IT skills necessary for the IT sector and the wider economy, the increased need in a digital economy to safeguard information, IT infrastructure and IT services, and the need to maintain statistics necessary for monitoring progress in the development of the digital economy.

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

3.1.1 Export marketing of the IT sector

(65) Government requires the Jordan Investment Commission (IC) 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.

Government requires IC to continue to promote foreign direct investment in the IT sector. In this respect IC 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.

3.1.2 Consolidation of IT businesses

There is 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 will, through its procurement of IT services, encourage the consolidation of businesses in the IT sector in order 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.

3.1.3 Financing and other support for start-ups in the IT sector

Government is committed to the exemptions adopted in 2016 to stimulate the IT sector, attract new investments and increase the number of jobs available in Jordan.

Government through the Innovative Start-up and SME Fund (ISSF) operated by the Central Bank of Jordan will continue to provide financial support to qualifying businesses.

In addition, Government will, through IC, develop a financing and support programme for start-up IT firms with the aim of developing and commercializing intellectual property associated with emerging information technologies. This programme will provide a framework for angel investors and others to put in place finance and incubation for start-up IT firms including those that are

The government plays a role in investing and facilitating new businesses through various programs and initiatives. It encourages companies to collaborate and form larger entities through mergers and acquisitions. For start-ups, there are financial support programs to help them develop and commercialize intellectual property. Furthermore, there are programs to attract angel investors and others to provide funding and support to start-up IT firms. The government's role in these areas is crucial in fostering innovation and growth in the technology sector.
aimed at commercialization of academic research in information technology.

(71) 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. Such exemption will encourage more entrepreneurs to start businesses.

3.2 Digitally transformed domestic industries

3.2.1 Use of e-commerce

(72) Government believes that the widespread use of e-commerce between Jordanian businesses and between Jordanian businesses and consumers will be an important part of the digital economy. Measures in the Policy that support e-commerce comprise: the stimulation of the use of electronic payments (see Para. (81) and the revitalisation of the postal sector in part to satisfy the requirements of e-commerce (see Section 4).

(73) In addition to these measures, Government will through the Ministry of Industry and Trade and Supply in collaboration with the Ministry develop a policy for e-commerce in Jordan. This policy will take account of the e-commerce strategy published in 2007.

3.2.2 Facilitating the e-transformation of business

(74) Many new IT applications and services have been introduced since the 2012 policy was released. As in the IT sector, other sectors of the economy can and should benefit from the opportunities and the prospect of developing intellectual property assets from the application of new IT technologies. It is important that Jordanian businesses grasp these opportunities to ensure that they maintain and improve their competitive position in their domestic market and in export markets. If they are not grasped by Jordanian business, such opportunities will be exploited by businesses from other countries instead.

(75) 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.

3.2.2 تيسير التحول الإلكتروني للأعمال

(74) يتضمن ذلك العديد من التطبيقات والخدمات تكنولوجيا المعلومات في السوق منذ صدور سياسة عام 2012، ستستفيد كافة قطاعات الاقتصاد من الفرص ومن احتمالات تطوير أصول الملكية الفكرية ومن طبق تطبيقات تكنولوجيا المعلومات الجديدة كما ستدفع تطبيقات تكنولوجيا المعلومات منها ومن أجل أن تنطلق الشركات الإدارية من الفرص والتطورات لكي تتحسن على مركزها التنافسي وتطرده في أسواق المحلية وفي أسواق التصدير تجنباً لاستغلالها من قبل شركات من دول أخرى.

(75) بينما تأتي هذه التطبيقات الجديدة مع فوائد، فإن الحكومة تدرك أنها سوف تؤدي أيضًا إلى تغيير جوهري في التوظيف واختصار في أسواق المنتجات والخدمات، حيث ستتشمل التغييرات في التوظيف إزالة مستويات الإدارية، وإلغاء الوظائف المتعددة من خلال البرامج التدريبية وطلب مهارات جديدة ووظائف أخرى. أما التغييرات في السوق فسوف تشمل استبدال المنتجات والخدمات بعوامل جديدة، ربما تكون مقدمة من شركات غير عربية، ومنخفضة الأمانة الحكومية هنا في ضمان الانتقال السلس إلى هذا الاقتصاد الرقمي بما يفيد الأردن.
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.

### 3.2.3 Regulation of digital economy products and services

It is important that the use of IT applications and services as components in products and services and in the way those products and services are delivered is accommodated by Jordanian law and regulation. Such change has already been anticipated in the case of electronic media. 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 and the regulation of those sectors may also need to change.

In the Policy, a distinction is made between those areas of the digital economy that are properly regulated by the Commission through the application of the Telecommunication Law and Postal Law, and areas of the digital economy that are regulated by other entities through other laws.

Government requires the Commission to continue to maintain expertise in the regulation of technologies, applications and services that fall within the scope of the Telecommunications and Postal Laws governing its activities, assess whether or when changes to laws and regulations is needed, and develop and implement such regulation in accordance with relevant law.

Government 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 so doing each ministry will assess the law for which it has responsibility to determine 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 to Cabinet every two years on the status of law at the time of reporting. Government will revise law and regulation in accordance with such review. To avoid misunderstanding, this measure is not intended to cause, and neither should it be used to justify, an increase in the regulatory burden. Its purpose is to ensure that the law and regulation can be applied as IT is increasingly adopted.
in products and services or their provision.

3.2.4 Stimulating the use of electronic payment services

(81) Government through the Central Bank of Jordan will stimulate the use of electronic payment through multiple channels, bank and non-banking, including mobile payment through electronic wallets and other electronic payment methods. Jordan has multiple electronic payment channels, but use is still limited. The Central Bank of Jordan will encourage banks and companies offering financial services (payment service providers) to work and cooperate with telecommunications operators and payment card services companies to promote the use of electronic payments. In doing so, the Central Bank of Jordan will target all segments of society, including traders and consumers. The Central Bank will also study and analyze the reasons for using existing electronic payment channels and take the necessary measures with its partners in the sector to overcome difficulties in order to meet the needs of users.

3.2.5 “Smart” digital zones

(82) 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.

(83) Government through the Ministry working in conjunction with the Greater Amman Municipality (GAM) and other municipalities 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.
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.

### 3.3 Ready availability of IT skills

#### 3.3.1 Alignment of university curricula with commercial requirements

Government intends that the skills necessary for the IT sector and for the wider digital economy are readily available. Jordanian universities have for many years provided a large number of graduates in IT and IT-related disciplines. There has been some criticism of business and communication skills, including English language skills, amongst these graduates. Also, their technical training has not always met business requirements. 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.

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. In order to strengthen the relationship, Government requires universities to provide internships for students in IT companies, include representatives from the IT industry in committees reviewing university IT curricula and allow secondment of IT lecturers and professors to IT companies.

Government through the Ministry of Higher Education & Scientific Research 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.

#### 3.3.2 Working from Home

Government through the Ministry of Labour and concerned municipalities 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.
3.3.3 Training

(89) 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 the Ministry 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.

3.4 Security and protection of critical national IT and telecommunications infrastructure within the private sector

(90) Widespread adoption of safeguards for the physical security of IT and telecommunications systems and for cyber security is now essential to the economy and for the protection of critical national infrastructure in the private sector as well as in the public sector. A failure in IT systems or telecommunications networks can lead to economic dislocation and large losses for individuals, businesses and government. It is therefore important that all IT systems and telecommunications networks in the public sector and the private sector are secure. Government requires the protection of critical national information technology and telecommunications infrastructure in a manner that is consistent with the National Cyber Security Strategy (NCSS) (2018-2023). To this end, Government will issue a bylaw to set up a national Cyber Security commission responsible for national cyber security. Government will through this commission determine policy for the protection of critical national telecommunications and IT infrastructure.

3.5 Statistics

(91) Government 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.
4. Postal sector

(92) The overarching aim of the Policy in relation to the postal sector is the provision of quality postal services at a reasonable price within Jordan and between Jordan and the rest of the world.

(93) The postal sector in Jordan comprises Jordan Post Company (JPC), the designated provider of the universal postal service, and a number of national and international private courier service providers licensed by the Commission. While the private courier service providers have been effective in delivering excellent services to their customers, JPC has not. Indeed the improvement in performance in JPC required under previous policies has not been accomplished.

(94) Further, the Policy in relation to the postal sector needs to take account of the changing requirements for postal and other delivery services arising from the rapid growth in e-commerce. Indeed, the postal sector is the primary means of delivering goods purchased through e-commerce. Therefore, the postal sector must aim to satisfy the logistics requirements of evolving e-commerce services.

(95) Given the importance of improving JPC’s performance and the need to facilitate the delivery of packages arising from e-commerce, the first goal of the Policy is a transformed JPC that is able to participate fully in the provision of postal services for e-commerce and able to deliver letter mail and packages across Jordan, as well as internationally, in accordance with its mandate as the designated universal service provider (Designated Operator).

(96) The second goal of the Policy is the completion of the street addressing scheme that covers all locations across Jordan and all buildings. Courier service providers currently provide delivery to the premises, and e-commerce relies on such delivery. Doorstep delivery services, and indeed utility services and emergency services, require a clear building addressing scheme based on digital maps that include street names and individual building numbers. 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 building premises will be greatly improved by the completion of the scheme.

(97) The third goal of the 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 by the government of Jordan.
elsewhere in the Policy. These goals will require changes to the JPC estate.

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

(98) 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 postal service and 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.

(99) The market analysis will also determine the characteristics of JPC’s market and will be used for revising JPC’s performance contract, for improving JPC’s operations, and for enhancing JPC’s estate in terms of location, infrastructure and services provided from post offices.

(100) This analysis must precede many of the other actions required under the Policy in the postal sector, and therefore Government requires that it is completed by the end of 2019.

4.2 Address the performance of JPC

(101) Government requires that the performance of 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.

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

4.2.1 Review JPC’s governance

(103) Government through the Ministry will review the constitution of JPC’s Board of Directors and Board processes and make the necessary changes to ensure that JPC’s Board contains the relevant mix of expertise and has the necessary processes to govern JPC effectively. Government will consider best practice identified in transformed Designated Operators in other countries in determining the mix of expertise and Board processes.
4.2.2 Undertake the transformation of JPC

(104) Government requires the JPC Board 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-2020.

(105) The evaluation of JPC’s ability 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.

(106) Government requires that this evaluation considers and evaluates 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. The options identified should take account of best practice in Designated Operators in other countries.

(107) 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. 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.

(108) Government requires that the business plan is prepared with the objective of enabling JPC to meet its obligations and requirements while minimising any subsidy it receives as Designated Operator. The business plan will provide a plan to improve management, operations and systems within JPC.

(104) يُطلب من مجلس إدارة شركة البريد الأردني تقييم قدرة الشركة على الوفاء بالتزاماتها، ووضع وتقييم خطة التحول بعد مراجعة الحكومة لها، على أن يتم الانتهاء من تقييم قدرات الشركة وخطة التحويل بحلول منتصف عام 2020.

(105) يجب أن يغطي التقييم مقدرة شركة البريد الأردني على الوفاء بالالتزامات، وتقييمها وترقية الإدارة، وبيئتها التنظيمي لها، وبيئتها التنظيمي الداخلية، وأنظمة تكنولوجيا المعلومات والإدارة اليدوية، والتكنولوجيا والمحاسبة، وأنظمة التشغيل والرقابة، وتقييمها على القيمة بالبازار التجارية للمساعدة المالية وحساب التكاليف والتضريب، وميزات الشركة السعرية لتشغيل المكاتب البريدية الحديثة، والمنافسة مع التحديات في معرفة قيمة شركة البريد الأردني على تلبية متطلبات السوق المحددة في التقييم، بهدف مراجعة التزاماتها بموجب قانون الخدمات البريدية والأنظمة المنبثقة عنه ومن أجل الوفاء بعد أداءها، وكذلك ستكون تزامن الهيئة بالعلومات التي تعالجها وفقاً لقانون الخدمات البريدية وتقييم تعليمات الهيئة التنظيمي بالإضافة إلى ذلك من خلال استناد التقييم إلى قياس قدرة شركة البريد الأردنية على القيام بإعمالها في مجال تطوير الأعمال وخدمات التوزيع والعمليات والرقابة، وتحسين الأداء.

(106) يجب أن يشمل هذا التقييم دراسة وتقييم الخيارات المختلفة المتصلة بتدوير الخدمات البريدية الشاملة والخدمات الأخرى التي تقدمها شركة البريد الأردنية، ويرجى أن يأخذ التقييم في الاعتبار الكلفة الإضافية لكل خيار، وتقييم تلك على الوظائف وأصول مكاتب البريد، بالإضافة إلى نظرة القوة والضعف والامتيازات المحتملة، وكذلك أفضل الممارسات في شركات البريد الهيمنة المشابهة في الدول الأخرى.

(107) على مجلس إدارة شركة البريد الأردنية تقدم تقرير إلى وزير الإصلاحات وتكنولوجيا المعلومات عن تقييم أداء الشركة والخيارات للاستمرار في توفر الخدمات التي تقدمها، وعلى مجلس الإدارة إعداد خطة عمل وفقاً للنتائج ذلك التقييم بعد مراجعته من قبل الحكومة.

(108) يجب أن تهدف خطة العمل إلى تمكن شركة البريد من الوفاء بالالتزاماتها ومتطلباتها بشكل أفضل تقدم الدعم المالي الذي تتحمل عليه من الحكومة كمكمل مهم، وسوف تتوفر هذه الخطة إجراءات تحسين الإدارة والعمليات والأنظمة لشركة البريد الأردنية.
(109) Government requires the JPC Board to provide it with the business plan. 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.

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

4.2.3 Review the JPC estate

(111) Government requires the JPC Board to undertake a review of the JPC 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 the Policy. The review should consider 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 JPC and to the economy.

(112) Since the post offices will be providing e-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. The report shall include fully costed evaluations of each option.

4.2.4 Introduce financial control and cost accounting

(113) Financial control and cost accounting are of critical importance. Therefore Government requires that the necessary processes and systems are operational by the end of 2019. Government requires that the financial control and cost accounting system provides sufficient information for activity based costing to be undertaken thereby enabling regulatory cost accounts to be prepared.

4.3 Review and revise the Universal Postal Service

(114) 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 through the Ministry will review the universal postal service...
service and prepare a new universal postal service policy taking account of standards defined by the Universal Postal Union and the postal market appraisal.

4.4 Develop cost oriented tariffs for the reserved services provided by JPC

(115) Government requires the Commission to regulate the price caps for the reserved services in accordance with the Regulatory Decision on the “Implementation of a Regulatory Regime for the Prices of the Reserved Services of the Jordan Post Company (JPC)” until JPC has implemented cost accounting systems that enable the costs of providing the reserved services to be properly and accurately estimated.

(116) Once JPC has implemented cost accounting systems, Government will require the Commission to review the framework mechanism for regulating the prices of the reserved services provided by JPC in order that the pricing basis is cost oriented in the medium term. Government anticipates that at the minimum this review will lead to a revision of the “investment incentives adjustment factor” for each basket of reserved services as defined in the Regulatory Decision on the “Implementation of a Regulatory Regime for the Prices of the Reserved Services of the Jordan Post Company (JPC)”. However, in its review, the Commission may determine that further action is necessary to enable cost oriented tariffs for JPC’s reserved services in which case Government expects the Commission to take that action. Government requires that the Commission undertakes the review and makes any required changes to the framework mechanism following the receipt of the necessary cost and volume information during the first quarter 2020.

4.5 Revise JPC’s performance contract

(117) Government will through the Ministry and with the JPC Board review and revise the performance contract between the Minister and JPC in accordance with the business plan agreed with Government and in accordance with international standards.

(118) 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 Streamline customs clearance for mail and parcels handled by JPC

(119) Government requires that by the end of 2020 Jordan Customs, jointly with concerned parties including JPC, develops and implements a customs clearance process for international postal services that eliminates 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.

4.7 Complete street addressing

(120) Government requires the Greater Amman Municipality and other 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. Government Digital transformation

Government aims to make digitally provided services the primary means of interacting with beneficiaries. To do this, Government will make its services universally available from anywhere, at any time for all beneficiaries.

Government aims also to minimise the need to collect information from beneficiaries and to simplify the procedures to be followed. It will achieve this in part by reducing the number of duplicate requests for information and documents. If information or a document has been provided in association with one service, Government will make it available for use within another service without recourse to the service beneficiary.

Government needs to continue to develop and administer its own secure Digital Transformation Infrastructure.

Finally, Government will manage data collected by government entities in such a way that multi-factoral data analysis may be carried out on comprehensive datasets to support future policy development. The availability of such data will also support the provision of government data for research in a manner that safeguards security and privacy. The availability of such data is an integral part of the digital economy.

5.1 Digital transformation programme

Government will continue with the digital transformation programme that is currently the responsibility of the Ministry. 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.

5.1.1 Governance model

The Government emphasises on the need to move forward in Digital Transformation. The Government will through the Ministry design and adopt a simple, innovative and effective governance model for Digital Transformation that defines clear roles and responsibilities for all involved parties, improves the transformation process, enhances citizen engagement and enhances cooperation between the public and private sectors. The governance model will adopt best practice and will cover all stages of Digital Transformation including monitoring and evaluation of services provided.
Government will ensure that the Ministry has the skills to procure services for, to manage and to implement digital transformation projects. The Ministry will therefore maintain skills in IT, in public sector reform, and in the development and maintenance of digital transformation processes and guidelines. In addition, Government, through the Ministry will work in partnership with the private sector and government administrations in other countries so that Jordan may benefit from their expertise, experiences and best practices.

Government will through the Ministry develop and maintain standards for digital transformation technology to ensure the interoperability between all public sector entities. These standards will cover ICT systems, devices, applications, and services, and business processes, data and security architectures.

Government requires that each ministry, governorate, municipality and other public sector entity establishes a Digital Transformation Skill Centre. The Skill Centres will be responsible for their respective entity’s business processes, electronic services and IT systems and applications. The skill centre will therefore provide the leadership for digital transformation projects for the entity.

5.1.2 Digital Transformation Plan

Government through the Ministry will prepare and maintain a Digital Transformation Plan covering the introduction or modification of digital government services and process simplification and improvement. The plan will be prepared in consultation with the individual public sector entities whose services and processes will be the subject of digital transformation. The Digital Transformation Plan will thereby specify priorities for new and improved digital government services with the aim of maximising service take-up by individuals and businesses.

5.2 Government Digital Correspondence

Government will determine how electronic communications services such as electronic mail may be used for formal correspondence within Government and between Government and external parties and develop the necessary processes. Government will then require all Government Ministries, Municipalities and agencies to adopt the necessary technology and processes to enable universal adoption.
5.3 E-government services availability to beneficiaries

5.3.1 Electronic Payment

(132) To ease payment for Government services, improve the traceability and reduce the leakage of government payment, Government requires that multiple payment options are provided in a secure environment to all beneficiaries by 2020.

(133) Government through the Ministry will ensure seamless integration among its services, where all government entities have multiple online channels for payments for their services through which beneficiaries can apply to services and pay for them via the same portal.

5.3.2 Citizen Service Centres

(134) Government will through the Ministry and Jordan Post Company (JPC), implement Citizen Service Centres within Knowledge Stations and post offices. Citizen Service Centres will be in locations where beneficiaries can access digital 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.

(135) The digital 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 beneficiaries 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.

(136) Some beneficiaries 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.

5.3.3 Change management

(137) The development of digital government services will not provide benefit unless they are used. Therefore, beneficiaries will need to be aware of their availability, understand their benefits, and have the know how to use them. Government will therefore develop and promote the use of digital government services and the use of Citizen Service Centres. Government will make effective use of prevailing electronic media and traditional media to promote general awareness, launch
of new services and use of particular services. Government will, similarly, use prevailing media for announcements of all kinds.

(138) In cases where it is anticipated that beneficiaries are ready, Government may provide its services in a digital form only in order that the cost of duplicate paper based and digital processes can be avoided. However, Government requires that such digital services are also made available with support through Citizen Service Centres.

5.4 Government Data

(139) Government data collected and stored over the years represents a valuable resource that can, if made available in an appropriate manner, contribute to community and economic development and enable citizens and other stakeholders to participate in decision-making and in developing policies. The release of government data can also lead to greater trust in government and the public sector through the increased transparency and accountability its release provides.

(140) Nevertheless, the storage, circulation and release of government data must be undertaken in a manner that ensures national security and individuals’ privacy is maintained. This means that government data must be managed in accordance with a data classification scheme and the release of data for publication must be subject to data policies that maintain security and privacy.

(141) Government is keen to support academic and commercial research through the publication of disaggregated datasets. Such datasets can be used for medical research and research in many other fields to the benefit of everyone. Nevertheless, Government understands the need to maintain the privacy of the subjects of such data. Such data cannot be released as open government data, since combinations of such datasets my enable individual subjects to be identified. Therefore, Government will provide anonymized datasets (datasets with all identifying information about legal persons removed) to selected trusted public sector organisations and private businesses within a privacy policy that maintains anonymity of the data taking account of other such datasets that have been released by Government and datasets available from other sources.

(142) Government requires that Government entities will continue to disclose, publish and update aggregated data subject to availability, national security and privacy constraints and in accordance with the Open Government Data Policy.
Government requires government data to be classified in accordance with the impact on Government, citizens, businesses and other beneficiaries of its loss, corruption or disclosure. Such classification will be used in order to determine where data is held, what controls over its storage, management, use and disposal are required, to whom it may be circulated or disclosed, and by whom it may be accessed.

5.5 Big Data

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.

5.6 Digital Transformation Infrastructure

Government will continue to develop, upgrade and update its digital transformation infrastructure to ensure that it has the required capacity, availability, performance, reliability and security for effective use by all public sector entities.

Government will use cloud services to expand Government-owned storage capacity and to benefit from the data management and application services available in the cloud.

Government information systems and telecommunications networks will be managed in accordance with the National Cyber Security Strategy under the policy specified in Para. (90) of this Policy.
5.7 Government Operations Centre of Digital Transformation

(149) Government will designate the Ministry as being responsible for government digital transformation operations.

5.8 The National Broadband Network

(150) National Broadband Network (NBN) is a national telecommunications Governmental owned private network intended to provide connectivity to enable telecommunications services to Government.

(151) Government believes that additional benefit can be extracted from the NBN by enabling it to be used to carry public telecommunications services provided by licensed telecommunications operators. Therefore, Government through the Ministry and the Public-Private-Partnership unit 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 in a non-discriminatory manner. This review will take account of national security implications arising from this shared use in addition to other technical and commercial options. Government will require that the NBN is made available without distorting the telecommunications infrastructure and services markets and without significantly increasing risks to government security.