

Public Consultation Document on the Proposed Regulation for Internet Exchange Points in the Kingdom of Saudi Arabia

Issued by the Communications and Information Technology Commission (CITC) in Riyadh, Saudi Arabia

on 10/11/1439H corresponding to 23/07/2018 G

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I. Introduction

- 1.1. The Communications and Information Technology Commission ("CITC") is the entity authorized to regulate the Information and Communications Technology ("ICT") sector in the Kingdom of Saudi Arabia ("KSA"). The Telecommunications Act (the Act), enacted on 12/03/1422H (04/06/2001G), provides the legislative foundation for developing and regulating the sector. The CITC Ordinance, effective 12/03/1422H (03/06/2001G), created CITC and defines its functions, governance, and financing. The Telecommunications Bylaw (the Bylaw), effective 17/05/1423H (27/07/2002G), provides for the regulation of the ICT sector by CITC in the KSA.
- 1.2. CITC is in the process of drafting Internet Exchange Points (IXP) regulation to develop a world-class internet ecosystem, position Saudi Arabia as a regional hub for international internet traffic and improve the internet usage experience for customers in Saudi Arabia.
- 1.3. CITC conducted a study of the current market situation and regulatory environment in Saudi Arabia. Alongside, CITC also assessed global and regional best practice benchmarks. Conclusions of this study were considered while drafting the proposed IXP regulations.
- 1.4. This Public Consultation Document seeks comments from interested parties in a manner, which will support CITC in setting regulatory policies for the establishment of Internet Exchange Points (IXPs) in Saudi Arabia. CITC considers the participation of the public an important aspect of the process.

2. Providing comments on the public consultation

- 2.1. CITC's current views on IXP regulation are outlined in this Public Consultation Document, including Annexure III Draft proposed Regulatory Framework.
- 2.2. CITC hereby seeks comments from concerned parties on the proposed regulatory policies outlined in this Public Consultation Document, including Annex III Draft Regulatory Framework. CITC invites all interested parties to submit written comments on any issue they believe relevant regarding the proposed regulatory policies.
- 2.3. CITC encourages concerned parties considering participating in the Public Consultation process and intending to establish Internet Exchange Points in Saudi Arabia to provide detailed comments, supported by appropriate justifications, to the issues raised in this Public Consultation Document. These comments will be taken into consideration in shaping the Internet Exchange Points Regulatory Framework. CITC is under no obligation to adopt them.



3. Form of response, schedule and procedures

- 3.1. In providing comments, interested parties are requested to specify contact details including the name of the party (and all related parties if the respondent is part of a consortium) in addition to address(es) and phone number(s).
- 3.2. In providing comments, interested parties are requested to complete Annexure I. Interested parties are requested to clearly indicate the paragraph number or consultation questions (listed in section 8) which the comment or answer is referring to.
- 3.3. All comments must be received by CITC no later than 11th September 2018 corresponding to 01/01/1439.
- 3.4. Replies filed in relation to the present Public Consultation may be submitted in any one (or more) of the following ways:
 - 3.4.1. E-mail to: ixp_project@citc.gov.sa
 - 3.4.2. Delivery (hard and soft copy) by hand or courier:

Communications & Information Technology Commission (CITC) Al-Nakheel Quarter, Corner of Prince Turki Bin Abdul Aziz Road and Imam Saud Bin Abdul Aziz Road P.O. Box 75606 Riyadh 11588 Kingdom of Saudi Arabia

3.5. CITC may publish comments submitted by the Participants concerning this document on its website. Generally, CITC will not treat the statement of opinion on responses to this document as confidential. CITC encourages respondents to support all comments with relevant data, analysis, benchmarking studies, and information based on the national situation or on the experience in other countries. In providing comments, respondents are requested to indicate the number of the consultation questions to which the comment relates. Respondents are not required to comment on all consultation questions. These comments will be taken into consideration in shaping the Internet Exchange Points regulatory policies, but CITC is under no obligation to adopt them.

4. Objectives

- 4.1. Saudi Arabia's Vision 2030 incorporates a number of objectives with a spirit towards economic diversification and liberalization within the Kingdom. In particular, the Vision aims for a thriving, digital economy and attracting of foreign direct investment.
- 4.2. In line with Saudi Arabia's Vision 2030 objectives and CITC's official mandate, the policy objectives for IXP regulations are three fold:
 - 4.2.1. Support the development of a world-class internet ecosystem in Saudi Arabia, including attracting international investment in the field
 - 4.2.2. Establish Saudi Arabia as a regional hub for international internet traffic
 - 4.2.3. Improve internet usage customer experience in Saudi Arabia
- 4.3. CITC considers the development of IXPs along with associated regulations important elements in achieving its identified objectives.

5. Need for Internet Exchange Points

5.1. Internet exchange points have existed globally for more than 20 years. The first IXPs started as grassroots-level efforts in markets such as Finland, Norway, the USA, the UK and the Netherlands. Respective players agreed to set up IXPs as



a way to optimize the routes their traffic was using - i.e. direct exchange of traffic between networks, also known as peering, instead of using the services of another network to connect them, also known as transit. Over the years, many more IXPs followed; presently there are more than 500 functioning IXPs globally in around 100 countries.

- 5.2. The first IXP in Saudi Arabia was launched in 2018 by the Ministry of Communications and Information Technology. The government initiative of creating the Internet Exchange Point is considered as the first step towards ensuring localization of domestic traffic, improving the quality of services, and enabling digitalization in the country.
- 5.3. In this regard Saudi Arabia is lagging behind other countries in leveraging IXPs to develop internet ecosystem. In Bahrain, the first IXP was founded in 2003 and in UAE in 2012. Saudi Arabia, Bahrain and the UAE are the only GCC countries with functioning IXPs.
- 5.4. In light of the belated introduction of IXPs in Saudi Arabia and CITC's objectives stated in section 4 of this Document, CITC wishes to ensure rapid development of IXPs by issuing an enabling regulation.
- 5.5. CITC has conducted a study of the current market situation and regulatory environment in Saudi Arabia and selected other countries. Some of the key findings are stated below:
 - 5.5.1. CITC considers IXPs to be essential contributors to development of internet ecosystems of mature markets, attracting hundreds of members who exchange their traffic through IXP.
 - 5.5.2. Facilities-Based Providers (FBP) and Data Service Providers in Saudi Arabia have entered various arrangements for peering or transit. As a result, it is understood that a significant share of domestic traffic does not leave the Kingdom. Nevertheless, there are still reports of domestic traffic that is taking suboptimal paths or leaving the country.
 - 5.5.3. The market participants estimate the share of domestic traffic out of total internet traffic in Saudi Arabia is to be in the range of 10-15%. According to CITC analysis, the vast majority of websites popular with internet users in Saudi Arabia are hosted outside of the country. This includes multiple leading websites of Saudi media, retail and transportation companies.
 - 5.5.4. No major international content providers host their content in Saudi Arabia, despite the country having the region's largest population, being the largest consumer of content and contributing to the majority of traffic. Content delivery networks (CDNs) typically have presence in the region, some of them in Dubai. Only four major CDNs have presence in Saudi Arabia.
 - 5.5.5. In countries where IXPs did not develop organically, there are cases of regulators intervening to support IXP development. Various regulatory measures have been adopted, including outright IXP creation, financial support, participation requirements, requiring provision of International Cable Landing Points access for IXPs.
 - 5.5.6. Benefits of IXPs for the internet ecosystem in Saudi Arabia can potentially include decrease in transit costs and international capacity expansion requirements.
 - 5.5.7. Further benefits from IXP introduction could include increased localization of traffic and foreign investment by international content and/or cloud providers, resulting in increased job creation in the country.
 - 5.5.8. CITC considers it is necessary to introduce IXP regulation in order to support the development of the Saudi internet ecosystem in accordance with CITC's objectives.

6. Regulatory Approach

6.1. CITC is aware that many developed countries do not have dedicated IXP regulation. The development of IXPs is the result of initiatives taken by local internet and telecom providers. Such players have come together to form IXPs in order to exchange traffic directly. Alternatively, IXPs have been established by commercial organizations. In both cases the objectives have been to both reduce the IXP members' transit costs and improve the customer experience.



6.2. CITC aspires for a market-driven ecosystem and prefers to introduce relatively light IXP regulation. This involves regulating minimal areas of IXP activities, and leaving outcomes to market forces. Concurrently, CITC will constantly monitor the market and intervene in case of market inefficiencies.

7. Policy dimensions

- 7.1. CITC has considered a number of policy dimensions to support the achievement of the defined objectives by means of IXP regulation. The options considered reflect the approach for varying degrees of regulation in accordance with section 6 of the present Public Consultation Document. This consultation seeks public comment regarding the below stated key policy dimensions:.
- 7.2. The key policy dimensions whereby CITC is seeking public consultation are as follows:
 - 7.2.1. Number of IXPs and designation of Designated National IXP.
 - 7.2.2. IXP licensing
 - 7.2.3. IXP ownership
 - 7.2.4. Connection requirements
 - 7.2.5. Regulation of IXP operations
 - 7.2.6. IXP right to colocation and cross-connect at International Cable Landing Points
 - 7.2.7. IXPs' right to own other telecom licenses
- 7.3. Details of the key policy dimensions as listed in paragraph 7.2. and the regulatory options for CITC are as follows:
 - 7.3.1. Number of IXPs and designation of Designated National IXP.
 - 7.3.1.1. Various markets have different number of IXPs, ranging from one to dozens. In light of this, CITC could allow proliferation of IXPs or restrict the number of IXPs operating in the Kingdom. Furthermore, to ensure that there is a successful IXP on the market, CITC could choose to designate an IXP as "Designated National IXP" and support its setup and/or operations with funding or by other means. This may involve granting of specific rights and/or imposing of specific obligations on such Designated National IXP.
 - 7.3.1.2. Restricting the number of IXPs would serve to foster the clustering of the internet ecosystem participants in one or few IXPs in order to allow IXPs to reach critical mass. A typical challenge for a newly-created IXP anywhere in the world is to convince market participants that membership will yield benefits. The more IXP members, the higher the benefits for each individual member in terms of potential peering partners. Restricting the number of IXPs has not been observed in other markets some markets have a single IXP, others have several IXPs.
 - 7.3.1.3. Not restricting the number of IXPs in the Saudi market could allow development of different business models.
 - 7.3.1.4. Designating a Designated National IXP would create at least one viable IXP. CITC plans to designate the existing IXP established by MCIT as a Designated National IXP.
 - 7.3.1.5. CITC's current preference is not to restrict the number of IXPs in the country.
 - 7.3.1.6. CITC currently plans to designate a Designated National IXP and would encourage or require market participants to join. This shall not prevent market participants from joining any other IXP, which may be established in the Kingdom.



7.3.2. IXP licensing

- 7.3.2.1. The current Saudi Telecommunications Act and Bylaw require licensing of all telecommunications services offered to the public. Accordingly, CITC could choose one of two approaches require an existing type of license for provision of IXP services or create an IXP specific license. In addition, CITC could follow a very specific licensing or choose to go for registration with specific documentation and information requirements.
- 7.3.2.2. The majority of markets analyzed by CITC do not require a license for IXP operation, with the exception of Kenya and Bahrain. Registration approach has already been used by CITC as part of the Cloud Services Regulatory Framework. Such an approach would enable quicker and easier IXP setup. Furthermore, a easier licensing requirement would incentivize establishment of IXP(s), thereby helping to make up for the delayed introduction of IXPs in Saudi Arabia.
- 7.3.2.3. CITC's current preference is for registration requirement as described in Annexure III Draft Regulatory Framework.

7.3.3. IXP ownership

- 7.3.3.1. Defining the ownership of the IXPs is important for the future development of the market. Multiple entities other than Facilities Based Providers and Data Service Providers could be interested in providing an exchange point for peering services. Therefore, CITC could choose to allow such entities to own and operate IXPs in Saudi Arabia. At the same time, CITC shall allow foreign ownership of an IXP to the extent agreed under its WTO obligations.
- 7.3.3.2. Other markets typically have no restrictions on the type of entities that can provide IXP services. Allowing a maximum number of market participants to own and operate IXPs will allow different business models to flourish and contribute to healthy competition. Foreign ownership would further foster competition and support foreign investment into the country.
- 7.3.3.3. CITC's current preference is to allow, other players and new entities to own and operate IXPs. CITC prefers not to impose restrictions on foreign IXP ownership, at the same time adhering to Saudi Arabia's WTO commitment of maximum 70% foreign ownership.
- 7.3.4. Connection requirements
 - 7.3.4.1. In order for IXPs to become effective and bring meaningful benefits to their members, a critical number of participants is required. CITC could choose to support the accumulation of members by IXPs in two ways. On the one hand CITC could mandate existing entities who possess a Facilities-Based Provider (FBP) or Data Service Provider (DSP) license in Saudi Arabia to connect to IXP(s). In addition, CITC could mandate IXPs to accept all connection requests, regardless of the entity that requests the connection.
 - 7.3.4.2. Mandating of membership, including mandating IXPs to accept membership requests, may contribute towards rapid take-up of IXP membership. At the same time membership without member buy-in and that does not correspond to a member's own interests and strategy may not achieve meaningful results. For example, a member may decide not to exchange traffic at the IXP or not to advertise a significant share of its routes to the other IXP members. Furthermore, mandating membership would involve enforcement efforts from CITC.
 - 7.3.4.3. CITC's current preference is for not mandating entities, FBPs and DSPs to connect to IXPs. Similarly, CITC prefers not to mandate IXPs to accept all connection requests and let IXPs decide whether to accept any given connection request based on their own policies. At the same time membership eligibility criteria shall be communicated to interested parties and shall be made available on the IXP website. These criteria shall not discriminate against any potential member or member group.



- 7.3.4.4. Notwithstanding the provisions of paragraphs 7.3.4.1. to 7.3.4.3., in the case of designation of Designated National IXP by CITC, CITC could mandate market participants at its sole discretion to join the Designated National IXP and to connect and peer with each other and share all their routes and traffic.
- 7.3.5. Regulation of IXP operations
 - 7.3.5.1. An IXP's success may depend on the introduction of effective operations. Therefore, CITC could choose whether to regulate various components of IXP operations, including peering policies, route advertising, content filtering, products offered or pricing.
 - 7.3.5.2. Regulating IXP operations would be done with the intention to ensuring effective outcome of IXP membership for all members and the internet ecosystem as a whole. At the same time, if IXPs have the freedom to choose their respective operating models, strategic and commercial objectives, this can enable growth and investment in the IXP ecosystem of Saudi Arabia. Regulation of IXP operations is typically not encountered in other markets. Furthermore, regulating operations would involve increased regulatory burden on IXPs.
 - 7.3.5.3. CITC's current preference is to leave the right to determine operations with the IXPs themselves. Nevertheless, IXPs shall define and communicate their policies, products and pricing to all members and prospective members. Such policies, products and pricing should be fair and non-discriminatory against any IXP member or potential member or member group in accordance with section 3 of the Telecom Act.
 - 7.3.5.4. As IXPs' function is to exchange traffic rather than to serve end users, therefore adherence to Content Policy shall be the responsibility of the IXP participants and not of IXPs.
 - 7.3.5.5. Notwithstanding the provisions of paragraphs 7.3.5.1. to 7.3.5.4., in the case of designation of the Designated National IXP by CITC, CITC could regulate the operations of the IXP at its sole discretion.
 - 7.3.5.6. Independence from carriers refers to the ability of IXP members to choose from any of the available connectivity providers in order to connect to the IXP. Often called carrier neutrality, it is considered an important success factor for IXPs. IXPs often choose to locate their equipment in the premises of another entity, typically a data center provider, with whom they might have a complementary offering as well as similar physical needs. Independence from colocation providers means that an IXPs is able to freely relocate from one colocation space provider to another. CITC could choose to require IXPs operating in Saudi Arabia to offer independence from carriers and/or colocation providers.
 - 7.3.5.7. Independence from carriers would allow IXP members to select themselves the connectivity provider that they want to use. In the analyzed markets independence from carriers is almost universally applied and is considered a key part of the IXP proposition, however this is a result of IXP participants' preference for neutrality rather than a regulatory mandate. Independence from colocation providers is typically not regulated.
 - 7.3.5.8. CITC's current preference is for mandating IXPs to provide independence from carriers. In case any IXP has a single carrier, it shall accept the provision of connectivity by another carrier should this be requested by an existing or new member of the IXP. At the same time CITC prefers to not mandate independence from colocation providers.
 - 7.3.5.9. Notwithstanding the provisions of paragraphs 7.3.5.6.. to 7.3.5.8., in the case of designation of Designated National IXP by CITC, CITC could mandate independence of the Designated National IXP from carriers and colocation providers at its sole discretion.
- 7.3.6. IXP right to colocation and cross-connect at International Cable Landing Points



- 7.3.6.1. IXPs' ability to own International Cable Landing Points would enrich the universe of potential IXP members, allowing direct connection with international submarine cables without third-party intermediation. Therefore, CITC could choose to allow IXPs to own International Cable Landing Points in Saudi Arabia.
- 7.3.6.2. In accordance with the existing Rules for Access to Physical Facilities, FBPs and DSPs who own International Cable Landing Points in Saudi Arabia are required to enter into negotiations in case a third party requires access, however this does not automatically guarantee access. At the same time, access to International Cable Landing Points is considered an important factor for IXP success for CDNs planning to serve international/regional markets from KSA. CITC could choose to mandate FBPs and DSPs to provide any IXP with colocation and cross-connect at International Cable Landing Points that they own.
- 7.3.6.3. Mandating International Cable Landing Points access for IXPs is a regulatory intervention that has been undertaken in several of the markets that CITC has analyzed. This obligation on International Cable Landing Points owners will enable IXPs to offer international peering and will act as an important factor in attracting international content providers to peer at IXPs in Saudi Arabia. This will support the establishment of Saudi Arabia as a regional hub for international internet traffic.
- 7.3.6.4. CITC's current preference is to provide IXPs with the right to own International Cable Landing Points in Saudi Arabia, however IXPs shall purchase the required national connectivity services from any of the licensed providers. CITC's current preference is for mandating FBP and DSP license holders who own International Cable Landing Points in Saudi Arabia to provide cross-connects and colocation to IXPs on request.
- 7.3.7. IXPs allowed to own other telecom licenses
 - 7.3.7.1. As new participants in the Saudi ICT market, IXPs might have an interest in expanding the scope of their activities. As a result, CITC could choose to allow IXPs operating in Saudi Arabia rights beyond the strict definition of the IXP regulation, including the right to apply for other licenses in accordance with the Commission Statutes.
 - 7.3.7.2. Allowing IXPs to acquire other telecom licenses is in the spirit of liberalizing the Saudi ICT market and economy in general, and will contribute to competition, proliferation of different business models and development of the internet ecosystem in general.
 - 7.3.7.3. CITC's current preference is for providing registered IXPs with the right to apply for other licenses in Saudi Arabia. For this, IXPs shall follow the Commission statutes and licensing requirements for their application for telecom license.

8. Consultation questions

- 8.1. Should there be restrictions on the number of internet exchange point(s) that are permitted to operate in Saudi Arabia?
- 8.2. What are your views on the licensing requirement for operation of an IXP in Saudi Arabia? Do you think an IXP should be operated with a license, or do you think that a registration would suffice?
- 8.3. What are your views on the entities that should be permitted to own and operate IXPs in Saudi Arabia? (
- 8.4. In your view, what entities should be permitted or required (if any) to connect to IXPs operating in Saudi Arabia?
- 8.5. What are your views on mandating areas of IXP operations in Saudi Arabia such as peering policies, route advertising, pricing or products offered?



- 8.6. What are your views on mandating IXPs operating in Saudi Arabia to offer independence from carriers and colocation providers?
- 8.7. What are your views on mandating existing International Cable Landing Points owners to provide cross-connect and colocation at International Cable Landing Points? Should IXPs operating in Saudi Arabia be allowed to own International Cable Landing Points?
- 8.8. What are your views on allowing IXPs operating in Saudi Arabia to apply for FBP license or have dark fiber access?

9. Attachments

- 9.1. The following documents are attached to this Public Consultation Document:
 - 9.1.1. Template for providing comments
 - 9.1.2. Glossary of terms used
 - 9.1.3. Draft regulatory framework for internet exchange points in Saudi Arabia, including annexures



10. Attachment I: Template for providing comments

Response to Public Consultation Document on Regulatory Framework and Licenses of Internet Exchange Points in the Kingdom of Saudi Arabia				
Stakeholder name				
Date				
Comments				
Article number	Comments			
Ai	nswers to questions (listed in Article 8 of this document)			
Consultation questions	Answers			



II. Attachment II: Glossary

Internet	Physical infrastructure (one or more Ethernet switches) through which various players such as			
Exchange Point	internet service providers and content delivery networks exchange Internet traffic between			
(IXP)	their networks. Direct bilateral arrangements between players for exchange of traffic outside of			
	the IXP premises are not considered in this definition.			
Facilities-Based	Facilities-Based Providers in Saudi Arabia are service providers who own network infrastructure			
Provider (FBP)	and hold individual licenses in accordance with the Telecom Act. They are licensed to operate a			
	public telecommunications network and provide fixed voice telephone services, public mobile			
	cellular telecommunications services, fixed and mobile data communications services.			
Data Service	Data Service Providers in Saudi Arabia are service providers who own network infrastructure			
Provider (DSP)	and hold individual licenses in accordance with the Telecom Act. They are licensed to establish			
	wired and wireless networks in the Kingdom for data services.			
Carrier Service	Carrier Service Providers in Saudi Arabia are existing public utility providers such as electricity,			
Provider (CSP)	water and railways that have communication facilities (optical fiber cables or towers) in the			
()	Kingdom to lease surplus capacity within their facilities to facilities-based telecommunications			
	service providers (FBPs) that are licensed by the CITC to provide fixed and mobile			
communication services in the Kingdom of Saudi Arabia. This license does not				
	provide any other telecommunications and information technology service whatsoever.			
Internet	Internet Service Providers in Saudi Arabia are holders of Class B licenses which do not allow			
Service	them to own network infrastructure. Instead, they lease capacity from FBPs or DSPs to connect			
Provider (ISP) both to the end users and to the Internet. In particular, they can provide dialup and br				
internet access, email, IP allocation and assignment, web design and hostin				
monitoring, DNS registration, internet content publishing, internet advertising and				
	services.			
Designated	An IXP supported by the regulator for its setup and/or operations with funding or by other			
National IXP	means. Such an IXP might have specific rights and obligations, which might be different from the			
	rights and obligations of other IXPs on the market.			
Content	A Content Delivery Network is a geographically distributed group of servers which work			
Delivery	together to provide fast delivery of internet content. A CDN allows for the quick transfer of			
Network	assets needed for loading internet content including HTML pages, javascript files, images and			
(CDN) videos. CDNs improve website load times, reduce bandwidth costs and increase				
(•==:;)	availability.			
Interconnection	Interconnection means the physical and logical linking of telecommunications networks used by			
	the same or a different service provider in order to allow the users of one service provider to			
	communicate with users of the same or another service provider, or to access the facilities			
	and/or services of another service provider. Interconnection is a specific type of access			
	implemented between service providers.			
International	International Cable Landing Point means the location where an international submarine cable is			
Cable Landing	connected to the public telecommunications networks. Access to physical infrastructure of			
Point	International Cable Landing Point encompasses access by one Service Provider to the cable			
	landing point of another Service Provider. This service could encompass access to other			
	associated facilities such as collocation, power, air conditioning, etc. as well as related services			
	such as tie cabling and cross connectors.			
Independence	Degree to which an IXP is not limited to providing connectivity using one single carrier.			
from Carriers				
nom Carriers				
Index and				
Independence	Degree to which an IXP is not owned by a colocation space provider (data center operator)			
from	and is free to change location and/or enter in relationships with various colocation space			
Colocation	providers			
Providers				
-				
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12. Attachment III: Draft Regulatory Framework for IXPs in Saudi Arabia

Draft Regulatory Framework for Internet Exchange Points in the Kingdom of Saudi Arabia

Issued by the Communications and Information Technology Commission (CITC) in Riyadh, Saudi Arabia

on 10/11/1439H corresponding to 23/07/2018 G



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I. Introduction

- 1.1. Pursuant to Article 3 of the Telecom Act (the 'Act') the telecommunications sector must be regulated to, among other objectives, 'ensure creation of favourable atmosphere to promote and encourage fair competition in all fields of telecommunications'.
- 1.2. Council of Ministers Resolution no. 133 dated 21/5/1424H confirmed that the powers of the Communications and Information Technology Commission (CITC) extend into information technology, requiring CITC to:
 - 1.2.1. Implement the policies, plans and programs approved for the development of information technology and set out the appropriate procedures.
 - 1.2.2. Propose regulations and their amendments related to information technology, and pursue approval of these regulations from the appropriate authorities.
 - 1.2.3. Issue the necessary licenses in accordance with the terms and acts related to them.
- 1.3. The Information and Communications Technology (ICT) sector is undergoing rapid change. Adoption by the Communications and Information Technology Commission (CITC) of the present Regulatory Framework on Internet Exchange Points shall support the broader CITC objectives to develop world-class internet ecosystem in Saudi Arabia, position the country as regional hub for international internet traffic and improve customer experience from internet usage in the country.

2. Definitions

- 2.1. The terms and expressions defined in the Act and its Bylaw shall have the same meaning in the present Regulatory Framework.
- 2.2. In addition the following terms and expressions shall have the meaning assigned to them hereunder except where the context in this Regulatory Framework otherwise requires:
 - 2.2.1. 'Internet Exchange Points (IXPs)' shall mean the physical infrastructure through which Facilities-Based Providers, Data Service Providers, Internet Service Providers and other entities (such as content delivery networks, content providers, universities, enterprises and others as per Article 2.2.3 connect networks and exchange traffic (excluding private exchange through direct bilaterally arrangements) among their networks (Autonomous Systems).
 - 2.2.2. 'Internet Exchange Points Services' or 'IXP Services' shall mean services offered by the IXPs (depending on each IXP's policy as per Article 3.5.1 below). These services may include but shall not be limited to provision of Ethernet switch(es) for the purposes of peering or transit among IXP Members, supporting network operations centers for monitoring and fault detection, guaranteed service level agreements, internet security services and other services as deemed appropriate. IXPs, unless authorized through a separate process, shall not be offering any service that require specific license, registration or authorization from CITC.
 - 2.2.3. 'IXP Members' shall mean participants at any IXP who can benefit from services of IXP, including but not limited to peering and/or transit arrangements in line with the IXP policies. These members may include, but are not limited to, Facilities-Based Providers (FBPs), Internet Service Providers (ISPs), Data Service Providers (DSPs), other IXPs who wish to establish a connection within the Kingdom of Saudi Arabia, domestic or foreign content providers, content delivery networks, enterprises, government institutions and educational institutes.
 - 2.2.4. 'IXP Service Provider' shall mean any entity that owns and exercises direct control of an Internet Exchange Point for the provision of Internet Exchange Points Services in Saudi Arabia.



- 2.2.5. 'Peering Policy' shall mean rules defined by any IXP Service Provider regarding connecting and sharing internet traffic by IXP members at any IXP operated by the IXP Provider. These rules may include but are not limited to, ports used for peering, any requirement for mandatory peering or traffic exchange by members.
- 2.2.6. 'Data Center Service Providers' shall mean service providers that offer hosting or colocation services in Kingdom as per the existing legislation in the country. These could be existing FBPs, DSPs, and/or registered Cloud Service Providers.
- 2.2.7. "International Cable Landing Point" means the location where an international submarine cable is connected to the public telecommunications networks. Access to physical infrastructure of International Cable Landing Point encompasses access by one Service Provider to the cable landing point of another Service Provider. This service could encompass access to other associated facilities such as collocation, power, air conditioning, etc. as well as related services such as tie cabling and cross connectors.
- 2.2.8. 'Unlawful Content' shall mean content that is unlawful under the laws of the Saudi Arabia.
- 2.2.9. 'Infringing Content' shall mean content that infringes an existing intellectual property right.
- 2.2.10. 'Designated National IXP' shall mean an IXP Service Provider, which is supported by CITC with financial or other means for the purpose of development of Saudi Arabia's internet ecosystem. A Designated National IXP can have different rights and obligations compared to other IXPs on the Saudi market.
- 2.2.11. 'Colocation Provider shall mean an entity which owns and/or operates space in one or more colocation data center(s). A Colocation Provider may enter into an agreement with an IXP Provider for colocation of the equipment needed for provision of IXP Services in the Colocation Provider's data center(s).

3. Regulatory Framework

- 3.1. Scope
 - 3.1.1. The provisions of the present Regulatory Framework shall apply with regard to any IXP Services provided in the Kingdom of Saudi Arabia.
 - 3.1.2. The provisions of the present Regulatory Framework shall apply to any entities that currently have right to offer IXP Services in Saudi Arabia as part of their existing licenses.
 - 3.1.3. The registration obligation under the present Regulatory Framework shall apply to any entity engaged, in whole or in part, as an IXP Provider in the Kingdom of Saudi Arabia, except those identified in Articles 3.1.3.1. and 3.1.3.2.

3.1.3.1. All licensed Facilities-Based Providers (FBPs) in Saudi Arabia shall not need to register to provide IXP Services. Any licensed Facilities-Based Provider can provide IXP Services as part of its current license.

3.1.3.2. All licensed Data Service Providers (DSPs) in Saudi Arabia shall not need to register to provide IXP Services. Any licensed Data Service Provider can provide IXP Services as part of its DSP license.

- 3.1.4. International IXP Providers interested in providing of IXP Services in Saudi Arabia, shall register with CITC in a manner identical to local IXP Providers. Such international IXP Providers are required to meet the foreign ownership requirements as per this Regulatory Framework.
- 3.2. IXP Registration
 - 3.2.1. Any person or organization other than a licensed FBP or DSP that meets the definition of an IXP Provider shall make a complete and valid registration with CITC.



- 3.2.2. The information to be provided for the above registration, the form to be used, and the applicable procedure and time limits shall be determined by decision of CITC. All Applicants interested in registration with CITC for offering IXP Services in Saudi Arabia shall follow the procedure for registration and submit all required documents in accordance with Annexure I of this Regulatory Framework.
- 3.2.3. The registration for the provision of IXP Services shall not be used for provision of other services for which CITC requires a license or a registration of any kind. Any IXP Provider registered with CITC shall apply separately for any license in accordance with Commission Statutes.
- 3.2.4. In case an IXP Provider obtains any license in accordance with the Commission statutes, all revenue earned from provision of IXP Services shall be clearly indicated in all financial reporting.
- 3.2.5. For any revenue earned from provision of services other than IXP Services, for which license by CITC is required, the IXP Provider shall owe fees as per the conditions of the license held.
- 3.2.6. Under no circumstances shall IXP registration be used as reason for non-payment of fees as per the conditions of other license(s) held by the IXP Provider.
- 3.2.7. In case of designation of Designated National IXP by CITC, CITC could issue a notice to that effect, including an exemption from obligation to apply for registration.
- 3.3. IXP participation
 - 3.3.1. Every IXP Provider shall define and publish its membership policy and make it available to the public.
 - 3.3.2. Any IXP Provider is under no obligation to accept any membership application. In case an IXP Provider chooses not to accept a membership application by any entity, the IXP provider shall provide to the requester reasons for the non-acceptance in accordance with its membership policy as per Article 3.3.1 of the present Regulatory Framework, however CITC reserve the right to mandate accepting members depending on the importance to CITC objectives.
 - 3.3.3. Any entity that wishes to become IXP Member in accordance with Article 2.2.3 shall be allowed to apply for membership in one or more IXPs.
 - 3.3.4. In case of designation of Designated National IXP by CITC, CITC shall have the right to impose requirements at its sole discretion on market participants regarding participation in the Designated National IXP. The participation requirements for the Designated National IXP are detailed in Annexure 2, which may be amended by the CITC at its discretion.
- 3.4. IXP ownership and shareholding
 - 3.4.1. Licensed services providers and other entities shall be allowed to fully or partially own IXPs in Saudi Arabia.
 - 3.4.2. Entities in accordance with Article 3.4.1. of the present Regulatory Framework as well as foreign entities shall be allowed to form joint ventures or consortia for the ownership of IXPs in Saudi Arabia. The share of ownership in the joint venture or consortium participants shall be determined at the sole discretion of the participants.
 - 3.4.3. Foreign ownership in IXPs operating in Saudi Arabia shall be allowed in line with Saudi Arabia's WTO commitment of maximum 70% foreign ownership.
 - 3.4.4. In case of designation of Designated National IXP by CITC, CITC shall have the right to impose requirements on ownership of the Designated National IXP which may differ from the provisions of Articles 3.4.1. to 3.4.3. of the present Regulatory Framework.
- 3.5. IXP operations



- 3.5.1. IXP Providers shall have the right to offer any service listed in Article 2.2.2.
- 3.5.2. All infrastructure and personnel of the IXP Provider shall be located in Saudi Arabia
- 3.5.3. IXP Providers shall adhere to the Guidelines for Disaster Recovery Planning for the ICT Industry in the Kingdom of Saudi Arabia for the purpose of ensuring continuity of service.
- 3.5.4. IXP Providers shall not provide public voice services, being the provision of two-way voice call services between members of the public, nor actively facilitate the use of its facilities by third parties to offer such a service. Appropriate licenses must be obtained prior to the offering of such voice services.
- 3.5.5. IXP Providers shall offer the right redundancy and availability measures to their Members.
- 3.5.6. Every IXP Provider may create multiple nodes (peering locations) within the Kingdom upon its discretion.
- 3.5.7. Every IXP Provider shall define its Peering Policy, including rules regarding traffic exchange, and make it available to the public. This Peering Policy shall apply to every IXP Member without any discrimination.
- 3.5.8. Every IXP Provider shall define the technical requirements and statistics that shows the value of the provided services. The IXP provider shall be liable for the authenticity of the shared information and to have it up to date.
- 3.5.9. Every IXP Provider shall define its pricing policy, tariff mechanism and details and make it available to the public. The pricing policy shall include joining fee (if any), recurring membership fee (if any), and any other applicable charges. The pricing policy may include different packages or tiers upon the discretion of the IXP Provider. Notwithstanding any different packages or tiers, this pricing policy shall apply to every IXP Member without any discrimination.
- 3.5.10. CITC shall have the right to develop specific quality of service standards for IXP Providers, if the Commission so decides. In addition, IXP Providers may offer guaranteed service level agreements or quality of service in form of value added services and in accordance with the pricing policy as outlined in Article 3.5.9.
- 3.5.11. IXP Members shall be responsible for complying with national content and filtering regulations and policies applied in the Kingdom.
- 3.5.12. IXP Providers shall not incur any administrative or criminal liability based solely on the fact that Unlawful Content or Infringing Content has been uploaded, processed or stored on the IXP Providers' network.
- 3.5.13. Nothing in the present Regulatory Framework shall be interpreted as a legal obligation for IXP Providers to actively and constantly monitor their network for Unlawful Content or Infringing Content.
- 3.5.14. IXP Providers shall notify CITC and any other authorized entity, without undue delay, if they become aware of the presence of any content or other information on any IXP Member's network that may constitute a violation of Anti-Cyber Crime Law of Saudi Arabia.
- 3.5.15. IXP Providers shall refer any third parties complaining against Unlawful Content or Infringing Content on any IXP Member's network to the competent authorities in the Kingdom.
- 3.5.16. The provisions of Articles 3.5.8 to 3.5.15 shall be without prejudice to the IXP Providers' obligation to cooperate with the Kingdom's authorities, pursuant to any applicable law or any commitments undertaken in their registration, in law enforcement matters associated with Unlawful Content or Infringing Content.
- 3.5.17. Every IXP Provider shall define policies on provision of connectivity and location(s) of IXP, either separately or as part of its general terms and conditions, at its sole discretion and shall make them available to members and potential members. Such policies shall not discriminate against any IXP Member or potential IXP Member or member group.



- 3.5.18. IXP Providers shall report financial, technical, governance or any other information requested by CITC in a reasonable timeframe or in accordance with any timeframe requested by CITC.
- 3.5.19. In case of designation of Designated National IXP by CITC, CITC shall have the right to impose requirements on operations of the Designated National IXP, which may differ from the provisions of Articles 3.5.1. to 3.5.18. of the present Regulatory Framework.
- 3.6. International Cable Landing Point access
 - 3.6.1. Every IXP Service Provider registered in accordance with the provisions of the present Regulatory Framework shall have the right to build, own and operate their own International Cable Landing Point(s) in the Kingdom of Saudi Arabia at their own discretion. This shall include the right to enter into commercial agreements with submarine cable owners for landing in any IXP-owned International Cable Landing Point.
 - 3.6.2. Every IXP Service Provider shall have the right to request from the owners of any existing International Cable Landing Points in Saudi Arabia to provide cross-connect and colocation of equipment at International Cable Landing Point. Owners of existing International Cable Landing Points shall provide requested access to any IXP Provider in a reasonable timeframe at a cost oriented price and shall not deny any such requests.
 - 3.6.3. Every IXP Provider shall have the right to access the physical infrastructure of existing International Cable Landing Points. Owners of existing International Cable Landing Points shall provide requested access to any IXP Provider in a reasonable timeframe at an affordable price and shall not deny any such requests.
 - 3.6.4. Owners of existing International Cable Landing Points shall only be allowed to deny access to the IXP Provider to any International Cable Landing Point infrastructure due to technical reasons. In such cases the International Cable Landing Point owner shall provide necessary details to the satisfaction of the IXP Provider, CITC reserves the right to accept or reject any technical reasons being provided.
 - 3.6.5. In case any International Cable Landing Point owner denies any request for cross-connect and/or colocation of equipment at any International Cable Landing Point in accordance with Articles 3.6.1. and 3.6.2., this shall be considered as a violation of the present Regulatory Framework and shall be subjected to proceeding in accordance with Article 3.7.1.

3.7. CITC's powers

- 3.7.1. Any violation of the provisions of the present Regulatory Framework shall be subject to the penalties that the CITC may impose under Commission Statutes, without prejudice to any penalties that may be imposed under any other applicable law in the Kingdom. Such other applicable law includes, in particular: the Anti-Cyber Crime Law (issued under the Council of Ministers Decision No. 79, dated 7/3/1428 H, and approved by Royal Decree No. M/17, dated 8/3/1428H) and the Electronic Transactions Law (issued under the Council of Ministers Decision No. 80 dated 7/3/1428 H and approved by Royal Decree No. M/18 dated of 8/3/1428H), and any provisions that may amend or replace them in the future.
- 3.7.2. Unless specified otherwise in the present Regulatory Framework, mentioned provisions shall be mandatory and not subject to any modification through contractual agreement.
- 3.7.3. The present Regulatory Framework can be amended from time to time at the discretion of CITC.
- 3.7.4. CITC may issue guidelines, model IXP contracts or clauses, guides, recommendations or other texts aimed at:
 - 3.7.4.1. Clarifying any aspect of the present Regulatory Framework;
 - 3.7.4.2. Providing guidance to IXP Providers, members and the public in general on any aspect of IXP;
 - 3.7.4.3. Complementing the present Regulatory Framework through mandatory or voluntary detailed implementation provisions.



- 3.8. Entry into effect and transitional measures
 - 3.8.1. Subject to the provisions of Article 3.8.2, below, the present Regulatory Framework shall enter into force 30 calendar days after its publication on the CITC website, in the original Arabic version.
 - 3.8.2. The IXP Provider's obligation to register with CITC under Article 3.2 (Registration Requirement) shall enter into force 30 calendar days after the present Regulatory Framework's entry into force.
 - 3.8.3. Notwithstanding Article 3.8.2, eligible players may apply for a registration with CITC immediately upon the present Regulatory Framework's entry into force.



Annexure I: Registration Requirements

I. Fill out the registration application form, signed by the legal representative and authenticated by the Chamber of Commerce, as shown in the Article I of the present Annexure.

2. Attach a copy of the valid Commercial Registration, compatible with the registration period.

3. Provide a clear copy of the legal representative's identity documents (National Identity Document or proof of residence).

4. Provide a description of the type of IXP Service(s) that are planned to be provided or are already provided by the IXP Provider in Saudi Arabia to IXP Members in accordance with Article 2.2.2. of the present Regulatory Framework.

5. Provide a brief description of the operations, in Saudi Arabia and elsewhere, of the Applicant. This shall include any IXP Service(s) that the Applicant provides anywhere in the world, as well as a brief overview of non-IXP operations.

6. Provide the structure and ownership details of the Applicant.

7. Provide a brief description of the activities of the group that the Applicant belongs to (if available). This shall include a brief description of the activities of the Applicant's parent company (if available), as well as activities of companies owned by the same parent company.

8. Applicants shall ensure that documents are provided in Arabic, with the option of attaching other supporting documents in English.

9. Applicants shall fill in the checklist provided in the section II of the present Annexure, indicating that all requirement of the procedure have been met.

The application can be delivered by hand or sent by mail to one of the following addresses:

Riyadh: Communications & Information Technology Commission (CITC) P.O. Box 75606, Riyadh 11588 Phone: 011 4618000

CITC Branch in Makkah Region: Jeddah , Al Salamah District , Prince Sultan St. Opposite of Sultan Mall ZAHRAN Business Center The Northern tower , 12th floor , Office No 1205 P.O Box 17313,Jeddah 21484 Phone: 012-2638000

CITC Branch in Eastern Region: 2nd floor , Al Dosary Tower, Alashre'aa Road, Al shati District ,Dammam P.O. Box 2218 Dammam 31451 Phone: 0138441818

No later than 15 working days from the submission of the registration application form (or any subsequent submission of the registration application form if it has previously been deemed incomplete by CITC), CITC shall inform Applicant about the result of the examination of the submission:

a) that the Applicant's application of registration is complete and the Applicant is validly registered as an IXP Provider by CITC for a period of 5 years. The registration can be renewed after submitting the registration requirements referred to in this Annexure;



b) that the Applicant's registration application form is incomplete or otherwise deficient, with a reference to the information that is required to complete the registration; or

c) that the Applicant's registration application form cannot be accepted because the Applicant does not meet the relevant legal requirements for a registration.

CITC shall publish on its website and maintain up-to-date a list of the registered IXP Providers.

I. Registration Application Form for Provision of Internet Exchange Point Services

Name of Company or Corporation (in Arabic)		
Name of Company or Corporation (in English)		
Company Registration Number	Address of registration	
Registration date	Registration and expiry date	
Name of representative	Position	
ID Number	Location and date of issue	

P.O. Box:

P.O. Box	City	
ZIP Code	Street	
District		

Or postal address:

Building number		Street Name		
Quarter Name		City		
ZIP Code		Additional Number		
Landline	Fax		Mobile	
Website		e-mail		



- I, the undersigned, as the legal representative of the company or corporation declare the following:
- The company or corporation complies with the CITC statutes and its decisions related service to be provided and published on CITC's webpage (www.citc.gov.sa).
- The company or corporation complies with the provisions of the Regulatory Framework, any guidelines and regulations issued by CITC and all regulations of the Kingdom, as well as any future amendments.
- The company or corporation shall publish, not later than one month from the effective date of this Declaration, its terms and conditions to its existing IXP Members.
- The Applicant accepts that CITC may publish any of the information provided by the Applicant in this Application, with the exception of any such information reasonably qualifying as a confidential business secret.
- The company or corporation shall visit periodically the website to be updated on new regulations and conditions for service provision that may be applicable.
- The Applicant shall inform CITC immediately of any changes to the information provided.
- The information provided in this Application and its attachments is true and correct.
- The Applicant shall update information provided to CITC in the event of any change.
- The Applicant shall maintain the ID and password used on the CITC website once created by CITC, and bear the consequences and responsibility of any information or any action entered by this ID.

Name

Signature

Date

Seal:



II. Checklist for registration to provide IXP Services

Name of company:

#	Requirement	Matching (Yes/No)	Reference page number		
	Registration application form filled out, signed by the legal				
	representative and attested by the Chamber of Commerce				
2	Copy of the valid Commercial Registration attached				
	(compatible with the registration period)				
3	Clear copy of the legal representative's identity documents				
	provided (National Identity Document or proof of residence)				
4	Description of the type of IXP Service(s) that are planned to				
	be provided or are already provided by the IXP provider				
5	Brief description of the operations, in Saudi Arabia and				
	elsewhere, of the Applicant.				
6	Structure and ownership details of the Applicant provided				
7	Brief description of the activities of the group that the				
	Applicant belongs to (if available) provided				
8	Documents provided in Arabic				
	Notes				



Annexure 2: Rights and Obligations related to the operations of the Designated National IXP

Rights

- I. Licensed FBPs and DSPs are required to connect to the Designated National IXP.
- 2. Licensed FBPs and DSPs are required to peer with each other through the Designated National IXP and ensure to announce and accept all national routes and traffic as a primary path.
- 3. The Designated National IXP shall have the right to accept any members other than licensed FBPs and DSPs. There is no peering obligation on members other than licensed FBPs and DSPs.
- 4. The Designated National IXP has the right to choose locations and partners needed for maintaining its services with the required quality.
- 5. The Designated National IXP shall assign a governance council who shall have the right of final approval for any decisions impacting the service or governance of the Designated National IXP. The Designated National IXP shall communicate its pricing model clearly to the public. Revisions to the pricing model shall be effected after consultation with the governance council and the Designated National IXP's members.

Obligations

- I. The Designated National IXP shall be a carrier-neutral operation.
- 2. The Designated National IXP shall carry out its operations as a not-for-profit entity.
- 3. The Designated National IXP shall establish a governance model which shall be shared clearly with the public.
- 4. The Designated National IXP shall have assigned representatives from the members as part of their governance model. The process for representatives selection shall be shared clearly with all members of the Designated National IXP.
- 5. The Designated National IXP shall communicate any change to its processes, membership fees, or governance in a timely matter to its members.