> *Please Answer:*
>
> **1: Is the definition of IoT mentioned previously complying with your vision and the services you provide . If not, please elaborate**
>
> ++++

> *Please Answer:*
>
> **2.1: Do you offer any IoT services in the Jordanian market? If Yes, answer the following:**
>
> **2.1.2: Kindly, list and briefly explain those services.**
>
> If your answer is no, please answer the below question:
>
> **2.2: Do you have future plans to offer new IoT services in Jordan? What services? And timeframe? Please elaborate.** ++++

1. Yes.
2.1 No.
2.3 Yes, Smart home/Building solutions.

Ey O.

3.1 IoT traffic will significantly increase in the coming years. .

3.2 Local traffic within the same LAN is expected to have the highest data rates. The new demand on Internet traffic will increase but not in the same behavior as LAN traffic.

3.3 1- The economic factor 2- Interoperability and standardization 3- Mobility/Coverage.

3.4 Sufficient in case the provided service if offered thru fiber cables.

3.5 Medical and surveillance solutions.

3.6 Latency factor is dependent on the application used. Some applications can work properly although the latency value is high. However, Jitter value should be taken into consideration if the applications are based on voice/video service.

3.7 Security and sensitivity of the data collected by IoT devices where it should not be vulnerable to be accessed from un-authorized entities.

Please Answer:

4.1: Do you think that at the current stage of time there should be a specific regulation for IoT and M2M?

4.1.1: If yes, what are the suggested topics that should be covered in the IoT regulation? If No,

4.1.2: From your point of view:

- What is the possible solution for handling the IoT issues at the current stage?

- Do you think that TRC should deal with the impacts of IoT services on security, privacy, numbering, spectrum and competition and be ready if companies chose to provide them at large? Or not doing anything until these issues become mature and regulated globally?

4.2: How can you solve the above mentioned challenges that face the consumers?

4.3: What indicators and when do you think is the right time to regulate IoT?

4.1 Yes.

    4.1.1   Customer security and privacy, Wireless spectrum and Minimum guaranteed bandwidth/latency required from the service providers.

4.2 Awareness sessions/presentation to consumers that clarifies the pros and cons of the service. Also, TRC has to check that IoT devices are complying with their rules.

4.3 Once the service is mature enough and regulated globally.

Please Answer:

4.4 Do you think at the current stage of time an intervention by TRC should be taken to regulate Licensing and spectrum management to enable/allow providing IoT service in the kingdom through allocating spectrum for IoT Services?

If Yes, how this can be achieved? Please elaborate. If no,

4.5 When the review should take place to specify the need of taking an action?

4.6 If you offering or planning to offer IoT services in the Jordanian market, Please list what type of connectivity methods and technologies you are using (or will use)?

4.7 Do you think that the spectrum and backhaul capacity you have will meet the demand of the IoT needs?

4.8 Regarding the millimeter wave bands, do you think they will be useful and meet the requirements of IoT?

****

4.4 No
4.5 Once the service is mature enough.
4.6 Wired.
4.7 NA
4.8 NA

> *Please Answer:*
>
> 4.6 When do you think such development of mobile networks as mentioned previously *(in section ii switching and roaming)* will be needed in Jordan?
>
> 4.7 Is there any need for a regulatory framework by the TRC to regulate the IoT roaming issues?
>
> 4.8 Do you think that the current signed roaming agreements are appropriate to encourage IoT services in Jordan? Or do those agreements need update?
>
> 4.9 Is your company welling to dedicate SIMs for M2M Communications? If Yes , will the cost rates vary from normal roaming services?
>
> 4.10 Is there any need to draw a distinction between person-to-person communications and IoT connected devices in terms of roaming?
>
> 4.11 Is there any need for the TRC to intervene in switching process, mechanisms, switching mechanisms, and cost for the purpose of achieving a competitive market for IoT services? If not, more explanation is needed.
>
> ****

4.6 NA
4.7 NA
4.8 NA
4.9 No
4.10 No
4.11 NA

Please Answer:

If you provide an IoT services,

4.11 Do you have a policy for visibility and secure management of "Things" on your network today?

4.12 Are you collecting management or visibility information from the "Things" on your network?

4.13 How are you collecting security and operations data about "Things" on your network?

4.14 How would you rate your ability to provide security to the "IoT" services?

4.15 What controls do you plan on deploying in the next 5 years to protect against security risks?

4.16 What do you think the greatest security threat to the IoT will be over the next 5 years?

Regardless if you do or not providing IoT services, please answer the following:

4.17 Who should take responsibility for managing the risk imposed by new "Things" connecting to the Internet and the local network? And when is the best time that to issue a regulation to protect security?

4.18 Do you think that there is a need for security protection regulation to be issued in the current time?

If No, when is the best time that a regulation to protect security should be issued?

4.19 Do you think that securing IoT will demand to restructure your current organization's security policies and directives? If yes please explain how. If No, how you are planning to handle IoT services and devices security?

4.20 Are you dedicating Gateways, IPS, and Network monitoring systems to your connected "Things"? Or you are utilizing your current Network infrastructure and systems?

4.21 What kind of encryption algorithms your organization uses for your network communications?

^^^^

4.11 Yes
4.12 No
4.13 NA
4.14 Ready.
4.15 To be inline with Firewall and security providers products and updates.
4.16 Data privacy.
4.17 The consumer and the service provider.
4.18 No.
4.19 No.
4.20 No dedicated equipment for IoT devices.
4.21 MD5

4.8 If exclusivity agreement exists between IoT appliances dealers and service providers.
4.9 Yes.
4.10 No.

By B.

Please Answer:

If you provide an IoT services,

4.19 Do you have a policy for data privacy and protection of "IoT" services today? If yes, how do you apply this policy? And do your consumers aware of such policies?

4.20 How would you rate your ability to protect privacy of the "IoT" data?

4.21 What controls do you plan on deploying in the next 5 years to protect data privacy?

4.22 Do you think that there is a need for data privacy protection regulation specific for IoT services to be issued?

4.23 From your point of view, do you think customers and end users should have any assurance of privacy when subscribing to IoT services? If yes, please mention how should this be achieved? If No, please elaborate.

****

NA.

64 O.

Please Answer:

4.23 IF you are providing IoT services, what do you are using to differentiate the numbers used for IoT services-Is there any specific numbers or ranges for IoT services- please List it if any?

4.24 Do you think that there is a need for specifying a numbering range (in the National Numbering Plan) for IoT services in the current time?
If yes, Please suggest a numbering range for IoT services.

4.25 Do you think that the late migration to IPv6 will limit the IoT expansion?

4.26 Do you agree to use a specific code (MCC) in IMSIs <u>permanently</u> for M2M services abroad?

4.27 In case MVNO, what are your arrangements to enable them to use your Network to provide the IoT services to their customer inside the Kingdom And outside?

4.28 What is the percentage of Internet addresses using version six that are used to provide IoT services to those using version four in your network?

4.29 List and Clarify the percentage of the IoT services interim their identifiers that used by your network (IP address, MAC address ...) to provide IoT services?

4.30 Any recommendation about the Addressing and Numbering for IoT services provided by non-telecommunication licensed companies?

****

4.23 NA

4.24 No

4.25 No, Private IP addresses can be used.

4.26 NA

4.27 NA

4.28 NA

4.29 NA