

# CRA

Communications Regulatory Authority  
State of Qatar

هيئة تنظيم الاتصالات  
دولة قطر

CRA NEWS ISSUE 01

## THE FUTURE IS NOW - IOT

WHAT WILL 5G CHANGE?

MOST COMMON CONSUMER COMPLAINTS

CRA THIS QUARTER

Interview with

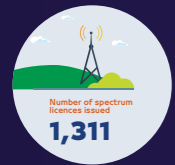
**Faisal  
Al-Shuaibi**



# TABLE OF CONTENTS



**03**  
PRESIDENT'S  
MESSAGE



**04**  
CRA THROUGHOUT  
2017  
Number of spectrum  
licenses issued  
**1,311**



**06**  
CRA IN THE NEWS  
THIS QUARTER  
ITU official  
sector develop



**14**  
INTERVIEW WITH  
FAISAL AL SHUAIBI



**16**  
THE FUTURE  
IS NOW - INTERNET  
OF THINGS



**18**  
WHAT WILL 5G CHANGE?



**19**  
MOST COMMON  
CONSUMER COMPLAINTS

# PRESIDENT'S MESSAGE



**MOHAMMED ALI AL-MANNAI**  
PRESIDENT

The ICT sector is experiencing a period of rapid macro change, as such, our role as regulator is always changing and expanding presenting many interesting challenges.

Recently the amendments to the Telecom Law 36 of 2006, ratified by His Highness Sheikh Tamim Bin Hamad Al-Thani see the implementation of important measures allowing CRA and the Ministry of Transport and Communications (MoTC) to more effectively regulate and develop the ICT sector. For example, the amendments will give CRA new enforcement powers to address anti-competitive practices, promote a fair market place, safeguard consumers and support Qatar's transition to a smart, connected, digital society all of which are core constituents of our founding mission and vision.

In recent years, CRA has made considerable progress in the management and allocation of the Nation's fundamental, finite and valuable resources like spectrum, numbering, and domain names. CRA made a number of critical strides in managing and allocating radio spectrum which is critical to the smooth running for major global events taking place in Qatar and everyday operations of telecommunication, government, aviation, security, energy, ICT and other nationally important sectors which ultimately impact the country's GDP. Additionally, we have seen growth in uptake of Qatari domains and continuously improved the resolution rate of consumer complaints, all the while engaging with the service providers to discuss solutions to the challenges in the delivery of world class communication services in Qatar.

Despite this we must continue to facilitate this development, CRA needs to develop sector specific regulation to support the growth of a knowledge economy and improve customer transparency and protection. We also need to ensure that investors doing businesses in Qatar are confident that, the rules are clear and are applied equally and impartially; competitors and suppliers are compliant with those rules; anti-competitive barriers are minimised; the regulatory regime is predictable and Qatar's regulated infrastructure is dependable and efficient. These should be our priorities going forward.

To effectively manage the ever-changing sectors regulated by CRA it is essential that we maintain our position as a 'converged' regulator, more than just a traditional regulatory body. The best regulatory solution is one that adapts the legislation to new services and moves gradually towards a regulatory framework that is evolutionary in its approach whilst at the same time ensuring consistency across the national regulatory policy. Given the rapid development of technology, innovations, the blurring boundaries of ICTs and the rapid convergence of traditional and new telecommunications, multimedia and IT services, we are adopting a regime of regulations that are able to accommodate future technological changes and the market dynamics created by them.

Finally, CRA prides itself on being entrusted by our wise leadership to regulate and manage one of the most important and exciting sectors of the Qatari economy and we continue to work hard to support Qatar's National Vision 2030."

# CRA THROUGHOUT 2017



Number of spectrum licences issued

# 1,311



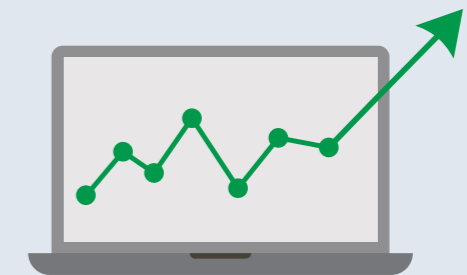
# 146

Number of CRA employees



Number of new Qatari domains registered

# 3,272



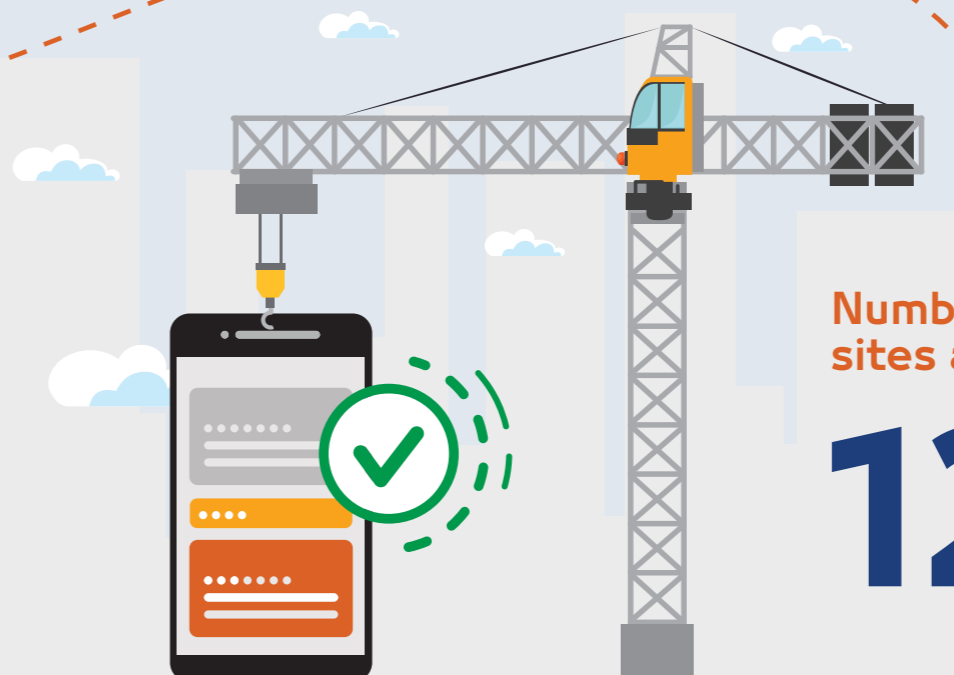
complaints and inquires

# 2989



Number of new phone numbers allocated

# 100,000



Number of mobile sites approved

# 127

# CRA IN THE NEWS THIS QUARTER

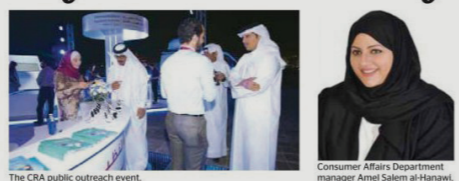
March 18, 2018

## CRA: Consumer Rights Day Survey Reveals Enhanced Consumer Awareness

During the event, about 200 visitors participated a survey conducted by CRA. The results indicate that the first point of contact when facing a communication service issue for 61% of consumers is usually a friend or family member. 21% consumers contact their service provider, and 12% chose to ask others on social media for advice and solutions.

## Consumer awareness high, says CRA survey

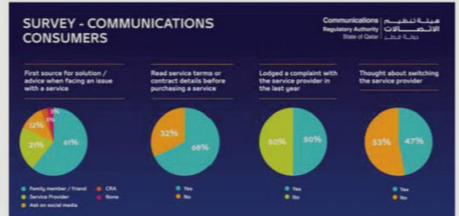
A new survey has revealed enhanced consumer awareness with regard to various communications services, the Communications Regulatory Authority (CRA) has said. The survey revealed that 68% of consumers read the service terms or contract details before they purchase a communications service, while 50% of consumers lodged a complaint with their service provider last year and 47% thought about switching their service provider, CRA said in a statement yesterday. The survey was held during a public outreach event hosted by CRA to commemorate World Consumer Rights Day from March 15 until yesterday at Katara - the Cultural Village. About 200 visitors participated in the survey. The results indicate that the first point of contact when facing a communications service issue for 61% of consumers is usually a friend or family member, while 21% of consumers contact their service provider and 12% chose to ask others on social media for advice and solutions. Amel Salem al-Hanawi, Consumer Affairs Department manager, said: "We commemorate consumer protection every day at CRA. However, World Consumer Rights Day gives us a great opportunity to talk to our consumers face-to-face and listen to their concerns. The brief survey we conducted has given us valuable data about consumers' behaviour and this will help enhance our outreach activities. I encourage all of you to contact us via our hotline 103 if you are unable to resolve your



The CRA public outreach event.



Consumer Affairs Department manager Amel Salem al-Hanawi.



complaints with the operators." Besides the survey, the event included fun activities for children and adults alike. Visitors could also lodge complaints against licensed service providers onsite and learn more about CRA's complaints resolution process. Consumers are free to approach the CRA if a complaint lodged directly with their service provider remains unresolved. Special needs consumers can lodge complaints with the authority for service disconnections or any other unresolved issues as long as a period of 48 hours has passed. Complaints are assessed by CRA against a set of criteria to validate a complaint. It receives and investigates complaints by working with both the complainant and service providers to find a fair and mutually acceptable resolution.

February 27, 2018

## CRA Publishes Details of The Preliminary Frequency Bands Plans for 5G Mobile Services

### CRA unveils preliminary frequency band plans for 5G mobile services

TRIBUNE NEWS NETWORK DOHA

THE Communications Regulatory Authority (CRA) has published on its website the details of its approved preliminary frequency bands plans for the fifth generation (5G) mobile services. Last month, the CRA announced the readiness of the 700 MHz, 3500 MHz and 26 GHz bands for the 5G technology. This will allow service providers to start with the preliminary official testing on pre-standard network, towards the deployment of the standard networks and providing 5G commercial services to the consumers by late 2018 and early 2019.

Details of the preliminary plans indicate that the 700 MHz frequency band will be deployed to accommodate the demand of the service providers and for the applications of the public protection and disaster relief (PPDR). The CRA will initiate a public consultation regarding the frequency range which will be assigned for Machine-to-Machine (M2M) and Internet of Things (IoT) applications for both broadband and narrow band in the 700 MHz frequency band. For the 3500 MHz frequency band, CRA will initially distribute the frequency range 3400-3600 MHz with a 100 MHz bandwidth carrier for each service provider. The CRA will also take into

consideration the frequency range of 3600-3800 MHz for future assignment based on regional trends which are still being coordinated. Regarding the 26 GHz band, the CRA will assign the frequency range 26.5-27.5 GHz with a 400 MHz bandwidth carrier for each service provider. However, in 2019 the CRA will vacate another part of the band so that the frequency range 25.5-27.5 GHz become available for the distribution of two carriers with 800 MHz bandwidth for each one per the service provider.

The CRA aims that the full frequency range of 24.5-27.5 GHz be available in early 2021, so that each service providers be assigned 1 GHz bandwidth in the 26 GHz frequency band. These plans enhance the role of the CRA in accelerating the introduction of advanced and innovative technology in Qatar with the aim of meeting the needs of consumers which will benefit the development of telecommunications sector and enhance a sustainable national, social and economic development of Qatar. With 5G technology, a massive global shift in mobile telecommunications standards will happen and the peak Internet connection speed will reach at least to 1 Gigabits per second (Gbps).

The Communications Regulatory Authority (CRA) published on its website the details of its approved preliminary frequency bands plans for the fifth generation (5G) mobile services.

March 14, 2018

## CRA Commemorates World Consumer Rights Day

### CRA's public outreach event a success

TRIBUNE NEWS NETWORK DOHA

THE Communications Regulatory Authority (CRA) held a successful public outreach event to commemorate World Consumer Rights Day (WCRD) at Katara Cultural Village from March 15 to 18, 2018. During the event, about 200 visitors participated in a survey conducted by CRA. The results indicate that the first point of contact when facing a communication service issue for 61 percent of consumers is usually a friend or family member, 21 percent consumers contact their service provider, and 12 percent chose to ask others on social media for advice and solutions. The survey also revealed that 68 percent of consumers read the service terms or contract details before they purchase the communications service, while 50 percent of consumers lodged a complaint to their service provider last year, and 47 percent thought about switching their



About 200 visitors participated in a survey conducted by CRA during an event.

service provider. "We commemorate consumer protection every day at CRA, however, the World Consumer Rights Day gives us a great opportunity to talk to our consumers face-to-face and listen to their concerns. The brief survey we conducted has given us valuable data about consumers' behaviour and this will help enhance our outreach activities. I encourage all of you to contact us via our hotline 103 if you are unable to resolve your complaints with the operators," said Amel Salem al Hanawi, Consumer Affairs Department Manager. Besides the survey, the event included fun activities for children and adults alike. Visitors to the event could also lodge complaints against licensed service providers on-site and learn more about CRA's complaints resolution process.

The Communications Regulatory Authority (CRA) is commemorating the World Consumer Rights Day (WCRD) with a public outreach event held from March 15 - March 18, 2018 at Katara Cultural Village. Through the event, CRA intends to empower consumers of communications services to understand their rights and responsibilities so they have a more satisfactory experience.

February 26, 2018

## CRA takes part in Mobile World Congress

TRIBUNE NEWS NETWORK DOHA

A HIGH-LEVEL delegation from the State of Qatar, headed by Mohammed Ali al Mannai, President of the Communications Regulatory Authority (CRA), is participating in the world's largest mobile industry gathering, the Mobile World Congress (MWC) in Barcelona, Spain, from February 26 to March 1. It is under the theme 'Creating a Better Future'. The MWC is an annual high level event organised by the GSM Association (GSMA), connecting regulators, telecom service providers and major companies in the ICT industry. During the four-day event, more than 108,000 mobile professionals and 320 speakers from around the

world will network, showcase and exchange ideas and experiences. "The ICT sector on a global level is evolving at incredible speed, in line with this CRA is participating in events like MWC which gives us an opportunity to see the latest technologies and to exchange ideas and experiences with other regulators, policy and decision makers, industry experts and stakeholders around the world which will help the ICT sector to evolve in Qatar. CRA is adopting a more flexible regime of laws and regulations that are able to accommodate future technological changes. The CRA is also seeking to develop new markets and is conducting currently a review of Qatar's telecom market," said the president of CRA.

## CRA Participates in the Mobile World Congress in Barcelona

A high-level delegation from the State of Qatar, headed by H.E. Mohammed Ali Al-Mannai, President of the Communications Regulatory Authority (CRA), is participating in the world's largest mobile industry gathering, the Mobile World Congress (MWC) in Barcelona, Spain from February 26 - March 01, under the theme: "Creating a Better Future".

February 25, 2018

# Telecommunications Law Amendments Aim to Strengthen CRA's Executive Powers and Allow More Effective Regulation

## Telecom Law amendments to allow more effective regulation

TRIBUNE NEWS NETWORK  
DOHA

THE Emir His Highness Sheikh Tamim bin Hamad Al Thani issued Law No. (17) of 2017 amending some provisions of the Telecommunications Law issued by the decree Law No. (34) of 2006.



The new amendments under the aforementioned Law will enhance the executive powers of the CRA, which will contribute in regulating ICT sector and monitor the compliance in a more effective manner. It will also enhance the sector performance and thrive on a sustainable competition in the Qatari telecom market, benefiting both consumers and service providers," said Mohammed Ali al Mannai, president of CRA.

— Mohammed Ali al Mannai, president of CRA

These amendments are designed to strengthen the executive powers of the Communications Regulatory Authority (CRA) established by the Amiri Decree No. (42) of 2014 to regulate ICT and Postal sectors and access to digital media.

The CRA also manages and allocates scarce national resources such as spectrum, numbering and Internet domain names, protects consumers from misleading and unfair market practices, sets standards for quality of service and monitors compliance and manages the dispute resolution system.

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Under the Law, a new Committee called Financial Penalties Committee will be established at CRA, which will be specialised in imposing the financial penalties mentioned in the table attached to the Law, the penalties to be imposed on licensed service providers in the event of violating the provisions of the Telecommunications Law or the executive regulation or decisions or the issued licenses in the implementation of the law, this doesn't cover the other crimes and penalties stated in Chapter 16 of the Law.

The Law gives CRA's employees who are authorized as judicial control officers the power to inspect, verify and control. To practice their authority, they control and prove crimes committed in violation of the Law provisions, access to relevant premises, records and documents, examine equipment and communications systems and any other related things, as well as request for any data and clarifications that they see that is necessary.

The Committee decisions shall be final. The table attached to the Law included the details of the penalties for each violation, including violation of the instructions of interconnection between operators, violation of consumer protection instructions, violation of non-competitive practices instructions and violation of providing false or misleading information.

His Highness Sheikh Tamim Bin Hamad Al-Thani, Emir of the State of Qatar issued Law No. (17) of 2017 amending some provisions of the Telecommunications Law issued by the decree Law No. (34) of 2006.

January 29, 2018

# CRA: The Preliminary Frequency Plans for 5G Technology are Ready

## Initial frequency plans for 5G technology ready: CRA

The Communications Regulatory Authority (CRA) has said it has completed the necessary preparations for the fifth generation (5G) frequency bands for mobile telecommunications services.

It has prepared preliminary frequency plans that can accommodate the demand from Qatar's telecom service providers for the fifth generation (5G) frequency bands for mobile telecommunications services.

For the 5G technology, the CRA has identified the frequency bands 700MHz, 3.5GHz and 26GHz, as each service provider will be assigned a frequency bandwidth in the mentioned frequency bands, in accordance with the approved preliminary plans.

This will allow the service providers to start with the preliminary testing on pre-standard network towards the standard networks that will provide 5G commercial services to consumers, the statement notes.

"We are delighted that the CRA is one of the first regulatory bodies regionally and internationally to announce the readiness of 5G frequency plans. This announcement will see a great work by Qatar's telecom service providers to start the formal testing of pre-standard networks for 5G technology this year and to deploy standard commercial networks late 2018 and early 2019," said Mohammed Ali al-Mannai, CRA president.

The CRA is one of the regulatory bodies in the re-

gion that took the lead and held, in early 2017, consultations with service providers in Qatar to identify their future demand regarding the required frequency bands for the deployment of 5G technology in the country.

In addition, the CRA held a number of meetings with stakeholders and major companies in the ICT industry to discuss the global trends, the followed approaches by International Telecommunication Union (ITU) Study Groups and the approaches driven by the industry in this field.

"5G mobile telecommunications technology services will benefit both consumers and service providers alike. It will also help enhance Qatar's telecommunications market and

sector. The CRA will also continue to support the ITU Study Groups and other international organisations concerned with the regulations and standards of international mobile services by participating and contributing in these working groups and by adopting the standards of International Mobile Telecommunications (IMT-2020); by ITU," al-Mannai noted.

With 5G technology, a massive global shift in mobile telecommunications standards will happen compared to the 4G technology that is currently used. With 5G technology, the peak Internet connection speed will reach 10Gbps. The goal of planning in the 5G networks is to create a higher communication capacity compared to the current 4G



Mohamed Ali al-Mannai, president, CRA.

networks, which will allow for an increase in the number of mobile broadband users at the same time and using higher amount of unlimited data.

Users will also be able to use high-quality streamed media for long periods every day through their mobile phones. The aim of research and development in the 5G networks is to provide better support for machine-to-machine and Internet of Things applications at a lower cost and higher responsiveness time when compared to devices running on 4G networks.

The Communications Regulatory Authority (CRA) has completed the needed preparations for the fifth generation (5G) frequency bands for mobile telecommunications services and has prepared preliminary frequency plans that can accommodate the demand of Qatar's telecom service providers of the main candidate frequency bands for the use of 5G technology

January 25, 2018

# CRA Resolved 95% of Complaints Against Service Providers in 2017

The Communications Regulatory Authority (CRA) resolved 95% of consumers' complaints received in 2017. To address issues raised by consumers such as billing, Premium SMS services, disconnections and delays in activation, CRA also engaged with the service providers to discuss solutions to the challenges in the delivery of communication services in Qatar.

## CRA resolved 95% complaints against service providers

THE PENINSULA

DOHA: The Communications Regulatory Authority (CRA) resolved 95 percent of consumers' complaints received in 2017. The complaints raised by consumers dealt with issues such as billing, premium SMS services, disconnections and delays in activation. CRA also engaged with the service providers to discuss solutions to the challenges in the delivery of communication services in Qatar.

CRA received 1,786 inquiries and 1,203 complaints from consumers about service providers in Qatar in 2017. Of these, 490 were invalid complaints and from the remaining 713 valid complaints, 95 percent were resolved, and CRA is investigating the remaining complaints with the service providers and expects to resolve them in the coming weeks.

"As part of CRA's role to protect telecom consumers in Qatar, CRA is proactively and effectively managing and resolving consumers' complaints through effective and reliable processes. CRA also ensures that competition is promoted and telecom consumers experience is improved and that consumers have access to high quality communications services," said Amel Salem Al Hanawi (pictured), CRA's Consumer Affairs Manager. The statistics indicate that 74

CRA received 1,786 inquiries and 1,203 complaints from consumers about service providers in Qatar in 2017. Of these, 490 were invalid complaints and from the remaining 713 valid complaints, 95 percent were resolved.



percent of all the valid complaints were related to mobile services and 26 percent related to fixed line services. For mobile services, 56 percent of the complaints received related to billing issues, 11 percent related to

service disconnections, and eight percent related to Premium SMS services.

As for fixed-line services, 65 percent of the complaints related to service disconnections while 14 percent of the complaints related to billing and 12 percent delay in installation. CRA has conducted extensive awareness campaigns and consumer outreach events in 2017 to ensure that telecom consumers know their rights and responsibilities, and know how CRA can help them in issues related to telecommunications services.

Under CRA's resolution process for telecom complaints, consumers with a complaint are free to approach the CRA if a complaint lodged directly to their service provider remains unresolved for 30 calendar days, or if they are dissatisfied with the resolution offered. Complaints are then assessed by the CRA against a set of criteria to determine their validity. CRA receives and investigates complaints by working with both the consumers and service providers to find a fair and mutually acceptable resolution.

Telecom consumers can contact the CRA in a variety of ways: the 24/7 hotline number (03), email CRA at consumer@crqa.gov.qa, using "Arseel" mobile application, by tweeting directly to @CRQAQatar, CRA's online complaint form or by visiting the CRA's headquarters at Al Nasr Tower B.

January 14, 2018

# CRA Met Full and Diverse Range of National Scarce Resources Needs

## CRA records breakthroughs in spectrum, domain names in '17

TRIBUNE NEWS NETWORK  
DOHA

THE Communications Regulatory Authority (CRA) has met full and diverse range of national scarce resources needs, such as numbering, domain names and spectrum.

Throughout 2017, CRA allocated 100,000 mobile numbers to service providers, registered 3,272 new Qatari domain names, issued 1,311 spectrum licenses and assigned 649 frequencies.

"CRA is keen to ensure the effective management and allocation of the national scarce resources and to meet all current and future needs. The CRA also ensures that the use of such resources is rationed in a fair and transparent manner," said CRA President Mohammed Ali al Mannai.

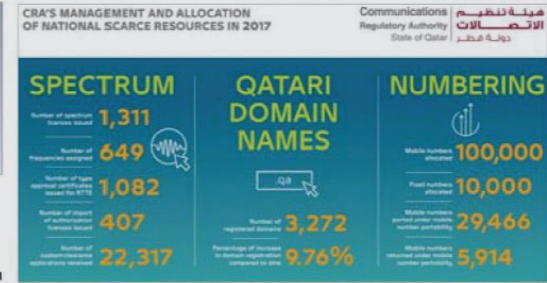
In the field of spectrum management, CRA issued during the year 407 import authorisation licences (up by 12% from 363 in 2016), issued 1,082 type approval certificates for radio and telecommunications terminal equipment (RTE) and received 22,317 custom clearance applications.

Furthermore, CRA received 56 spectrum interference cases (down by 33% from 84 in 2016) and conducted six quality of service investigations relating

Communications Regulatory Authority allocates 100,000 mobile numbers in 2017



CRA is keen to ensure the effective management and allocation of the national scarce resources and to meet all current and future needs. The CRA also ensures that the use of such resources is rationed in a fair and transparent manner" — Mohammed Ali al Mannai, CRA President



three major events during the year including the National Day celebrations, the final round of the Superbike World Championship and FIA World Touring Car Championship.

The CRA has made considerable effort to encourage the uptake of ".qa" domain names which allow local businesses to secure a reliable and reachable name on the Internet and ensure that they reflect their Qatari identity when they provide their services to their local and international customers.

During 2017, CRA registered 3,272 new domains (up nearly 10% from 2,981 in

2016), which indicates that Qatari domain extensions are serving the Qatari market and community well. Also, the total number of registered Qatari domains reached 20,253.

In the field of numbering management, during 2017, CRA allocated 100,000 new mobile numbers and 10,000 fixed-line numbers to service providers.

As of December 31, 2017, a total of 8.1 million mobile and 1.46 million fixed line numbers have been allocated. Throughout the year, 29,466 mobile numbers were ported and 5,914 mobile numbers

were returned under mobile number portability service.

In addition to mobile and fixed-line numbers allocation, the CRA assigned 15 numbering resources for other services that includes toll free, public service and licensed operator service.

Furthermore, with emergence of new services like M2M/IoT and the need to keep the numbering plan in pace with the global technological developments, the CRA is working to update the national numbering distribution table and policy which will be issued in 2018.

The Communications Regulatory Authority (CRA) has met full and diverse range of national scarce resources needs such as, numbering, domain names and spectrum. Throughout 2017, CRA allocated 100,000 mobile numbers to service providers, registered 3,272 new Qatari domain names, issued 1,311 spectrum licenses and assigned 649 frequencies.



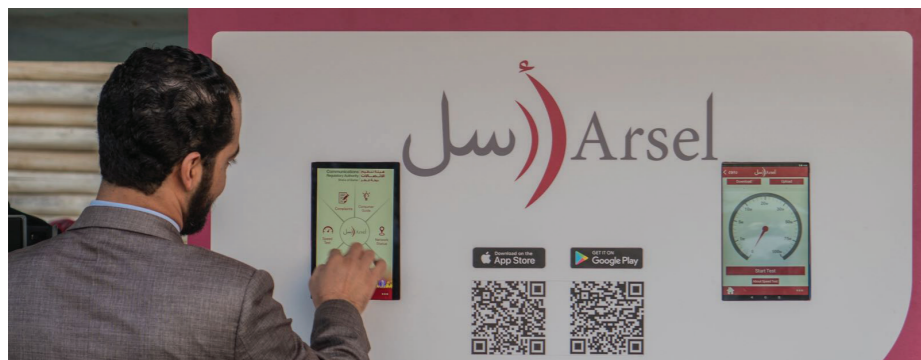
December 18, 2017

## CRA Celebrated Qatar National Day in Style



December 6, 2017

## CRA hosted consumer outreach event and social media meet-up to engage consumers and help them to understand their rights & responsibilities



November 21, 2017

## CRA Publishes Consultation on the Provision of Public Telecommunication Services On-board Aircraft

CRA plans to allow 'gate-to-gate' connectivity on-board aircraft

In light of the growth of 'gate-to-gate connectivity' worldwide, CRA launched a public consultation with revisions to the Class License for the Provision of Public Telecommunication Services on-board aircraft. The modifications to the Class License will enable authorized aircraft operators to provide connectivity Wi-Fi internet access below 3000 meters. Testing has shown that this can happen without causing harmful interference to either aircraft operations or terrestrial commercial wireless networks.

### CRA launches public consultation

The Communications Regulatory Authority (CRA) has launched a public consultation with revisions to the class licence for the provision of public telecommunication services on-board aircraft. Interested stakeholders have until December 10, to comment on the proposed changes published on the CRA website.

The current class licence, issued in March 2014, authorises operators of aircraft registered in Qatar to provide public telecommunications services, Internet access, GSM mobile voice calls, SMS and mobile data accessed via satellite roaming services, but only when the aircraft is flying at least 3,000m above sea level. This has successfully been operated without causing harmful interference to either aircraft operations or terrestrial commercial wireless networks for number of years.

Testing has shown that this can happen without causing harmful interference to either aircraft operations or terrestrial commercial wireless networks. The CRA published the consultation document to know the views of telecommunications service providers, key stakeholders, and other interested parties about whether the amendments should be applied to the provision of on-board Internet services below 3,000m and whether they should also be extended to include GSM mobile voice and data services.

November 16, 2017

## CRA Serves Notice of Violation to 98 Shops Selling Telecoms Devices & Equipment Without Having the Required Licenses

### CRA serves notice of violation to 98 shops

The Peninsula

The Communications Regulatory Authority (CRA) has conducted its second round of inspections of shops selling telecommunications devices & equipment, this year from October 1 to 26. The inspection included a total of 330 shops and resulted in 98 written violation notices issued to shops for operating without having the required licenses. CRA issued notices for a range of violations, the most common being to shops selling mobile phones without a license. The notice requires non-compliant shops to regularise their licence within a specified period of time to avoid CRA taking the appropriate legal action. CRA noticed considerable improvement in the awareness of shops owners' about the importance of obtaining the necessary prior approvals to sell telecommunications equipment. In this round of inspections CRA



A routine inspection at a telecom shop.

issued notices to 30 percent of the inspected shops compared to 74 percent of the shops inspected in April 2017. To ensure consumers get certified telecoms devices from licensed shops; as they may lose their rights if they buy telecoms devices and equipment from unlicensed shops. Commercially registered companies in

Qatar who want to import radio and telecommunications devices and equipment are required to obtain the necessary prior licenses and approvals from CRA including an import authorisation license, type approval certificate and customs clearance certificate. Approvals are mandatory to ensure the equipment meets certain safety and technical standards. Radio and telecommunications equipment includes, but is not limited to, mobile phones, wireless local area networks (WLAN), and short range devices (SRD). Inspections are conducted on a regular basis by CRA's technical inspectors to ensure that shops are not selling or using radio and telecommunications devices & equipment illegally and to take appropriate action if they are found to be in violation of the regulations. The recent inspection targeted popular locations that sell devices including malls, souks, commercial areas, as well as neighbourhood grocery stores.

CRA noticed considerable improvement in the awareness of shops owners' about the importance of obtaining the necessary prior approvals to sell telecommunications equipment. In this round of inspections CRA issued notices to 30% of the inspected shops compared to 74% of the shops inspected in April 2017.



November 6, 2017

## CRA Provides Radiocommunication Support for Superbike World Championship Final 2017

The Communications Regulatory Authority (CRA) met the substantial radiocommunication requirements of Losail Circuit Sports Club for the Superbike World Championship 2017 held from November 02 – 04, 2017. CRA approved 300 different types of radio equipment such as walkie-talkies and wireless cameras with 93 different temporary frequencies.

CRA met the needs of the organizers within a short time period and extended its full support for the timely release of imported equipment shipped to Qatar in cooperation with the concerned authorities.

September 27, 2017

## CRA President & ITU Secretary-General Discuss ICT Sector Development, Bilateral Cooperation & Innovation

President of the Communications Regulatory Authority (CRA), Mohammed Ali Al-Mannai met with the Secretary-General of the International Telecommunications Union (ITU), Houlin Zhao, on the sidelines of the ITU Telecom World 2017 event being held in Busan, South

Korea from September 25 to 28. The two officials discussed ways to enhance coordination between CRA and ITU towards development of the ICT sector, specifically financial and technical support for SMEs and young innovators in Qatar. Other topics of discussion included

support for ITU technical publications, information sharing, regulation and standardization of upcoming innovative technologies like 5G, artificial intelligence, virtual reality, and the Internet of Things (IoT).

# CRA, ITU officials discuss ICT sector development

Senior officials of the Communications Regulatory Authority (CRA) and the International Telecommunications Union (ITU) met on the sidelines of the ITU Telecom World 2017 in Busan, South Korea, to discuss ways to enhance coordination between the two agencies.

The meeting between CRA president Mohamed Ali al-Mannai and ITU secretary-general Houlin Zhao revolved on the development of the ICT sector, specifically financial and technical support for SMEs and young innovators in Qatar.

Other topics included support for ITU technical publications, information sharing, regulation and standardisation of upcoming innovative technologies like 5G, artificial intelligence, virtual reality, and the Internet



CRA president Mohamed Ali al-Mannai and ITU secretary-general Houlin Zhao shaking hands after holding talks on the sidelines of the ITU Telecom World 2017 in Busan.

of Things (IoT). "During the meeting, we discussed many ways to collaborate on sector development and further en-

hance the bilateral cooperation between the two organisations. We will continue to coordinate the work being done to embrace new technologies and innovations, benchmarking against international best practices and standards, especially in consideration of the high level of technological adoption reached in Qatar," al-Mannai said.

ITU Telecom World 2017 is an international platform for accelerating information and communication technology (ICT) innovations and partnerships. The event runs from September 25 to 28, and aims to fast-track economic development and social good through its forum for sharing knowledge, exhibition for digital solutions, and business networking hub connecting nations, companies, organisations, and

individuals. It is organised annually by ITU, the United Nations' specialised agency for ICT-related issues.

The CRA is the communications regulator in the state of Qatar established by virtue of Emiri Decree (42) in 2014.

It regulates the communications and information technology and postal sectors and access to digital media. The CRA uses its regulatory powers mandated by the Emiri decree to protect consumer rights, ensure competition, manage the resolution of disputes, and manage the electromagnetic spectrum.

In all its activities, the CRA seeks to ensure the provision of advanced, innovative and reliable ICT and postal services across the State of Qatar. For more information, visit <http://cra.gov.qa/en>

September 24, 2017

## CRA e-Spectrum Services Portal Receives Arab Government Achievement Award

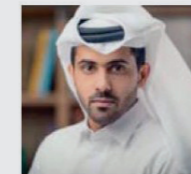
### CRA e-Spectrum Service Portal wins award

The Peninsula

The e-Spectrum Service Portal, a consumer-centric public service under the Communications Regulatory Authority (CRA), has received Arab Government Achievement Award by the Pan Arab Excellence Awards Academy.

The e-Spectrum Services Portal, launched in January 2017, is the public interface of the CRA's Automated Frequency Management System (AFMS), and allows spectrum users to submit applications online for issuing, modifying, or canceling their spectrum licenses.

Users can also view active licenses, track submitted applications, register radio network/area deployments, view invoices and make online payments. The Portal is also compatible with personal computers, tablets and smartphones. The AFMS has been designed



Communications Regulatory Authority State of Qatar

which significantly increases the efficiency, speed and transparency of the process," said Faisal Al Shuailbi (pictured), CRA's Official Spokesperson. "CRA is continually updating its services and looking for ways to improve the experience of telecom consumers in Qatar. Furthermore, it is in line with the CRA's wider strategy of ensuring that people have the right tools and technology at their fingertips to contribute to Qatar's vision of making Qatar a smart, connected nation," he added.

To benefit from this service, users should create an account using the e-Spectrum Services Portal via this link <https://e-spectrum.cra.gov.qa>. Each applicant can only register one



account and once the approval is obtained, users can collect the license from CRA's offices in Al Nassr Tower (B), Al Corniche Street.

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October 31, 2017

## CRA Cautions Public Against the Use of Unapproved Wireless Devices

### CRA cautions public against use of illegal wireless devices

The Peninsula

The Communications Regulatory Authority (CRA) yesterday issued a public notice to create awareness about certain wireless / cordless devices not purchased in Qatar that may cause the disruption in mobile networks and degradation in mobile coverage and quality of service.

CRA said that usage of certain "personal use" devices mentioned below is illegal. CRA can identify such illegal devices through its monitoring systems and take the necessary action accordingly, including confiscating any device found to be interfering with any of the licensed networks in Qatar.

These devices include cordless phones, wireless headsets, microphones, etc. operating on DECT 6 standards (900MHz); RFID devices; and mobile signal boosters or repeaters. These devices, often purchased outside of Qatar, operate on frequency bands exclusively allocated for mobile networks in Qatar. These devices may be

allowed for personal use in other countries, but their use in Qatar is prohibited. As such their import, sale and use in Qatar is not allowed.

CRA has granted Class License for the use and operation of SRDs which include RFID devices such as wireless access control for parking gates / doors. These devices are only permitted operations within the authorized frequency bands and power levels. These specifications are also available in Annexure (2) of this Class License on CRA's website at the link <http://www.cra.gov.qa/en/document/class-license-short-range-devices-srds>. The frequency band 900MHz is assigned exclusively to the service providers, and should not be used on SRDs.

The import, sale or use of mobile signal boosters or repeaters used to enhance the mobile coverage must be compliant with the CRA standards and is allowed only through licensed telecom service providers in Qatar.



Sample of unapproved wireless devices.

The Communications Regulatory Authority (CRA) issued a public notice to create awareness about certain wireless / cordless devices not purchased in the State of Qatar that may cause the disruption in mobile networks and degradation in mobile coverage and quality of service.

September 13, 2017

## Following Success with Government Schools, CRA & MEHE Invite Private Schools to Adopt ".sch.qa"

The initiative aims to increase Qatari domain presence online and help schools better connect to their audiences

### CRA, Ministry of Education urge private schools to adopt .sch.qa

The Peninsula

The initiative aims to increase Qatari domain presence online and help schools better connect to their audiences

The Communications Regulatory Authority (CRA) is in consultation with the Ministry of Education and Higher Education (MEHE) in inviting private schools across the country to adopt ".sch.qa". The domain name will give them a unique Qatari identity and will help to enhance their online presence and provide a clear distinction for websites of schools from ".edu.qa" being used by institutions offering higher education. This is the second phase of CRA's initiative to increase Qatari presence on the Inter-

net, phase one saw the registration of all 177 government schools' websites with ".sch.qa" domain name. The Ministry, which manages all governmental schools' domains and websites, will automatically register all new school websites under ".sch.qa". Phase two of the initiative aims to have all private schools in the country registered with the ".sch.qa" domain name. Any school that needs to register a website under ".sch.qa" or would like to transfer to the ".sch.qa" domain name from their existing website, should get in touch with CRA's Qatar Domain Registry (QDR) support team by sending an email to [support@domain.qa](mailto:support@domain.qa).

"Country-specific domain names are valuable national commodity that helps businesses and organisations stand out. Specifically, ".sch.qa" will help schools better connect to their audience by using a domain that reflects their uniqueness. Qatar's presence," said Abdulla Jassem, Technical Affairs Department manager at CRA.

"The ever changing nature of the digital age requires that we make great efforts in the field of information technology to develop educational processes. This will allow more space for innovation and creativity which in its turn will improve the quality of education and the ability to achieve faster as well as save time, money and effort," said Mohammed Mulla al-Hajri, head of Shared Services Department at the Ministry. The CRA manages all the Qatari-specific domains and has registered around 22,000 Qatari domains so far.



Interview with

## Faisal Al Shuaibi Public Relations & Communications Unit Manager

**Eng. Faisal Ali Al Shuaibi as Director of the Public Relations and Communication Unit in the Authority. Faisal Al Shuaibi joined the Communications Regulatory Authority (CRA) in 2015 as the International Relations Officer, acting as spokesperson on behalf of CRA at local and international meetings and conferences. Prior to joining the CRA, Faisal held several positions in the field of communications and information technology, including serving as Government Relations Officer at the Department of Consumer Protection at the Supreme Council for Information and Communication Technology. He holds a Bachelor in Computer Science from the College of Engineering at Qatar University.**

### **What is it that attracted you to the role in the first place?**

I am interested in international relations and I enjoy communicating with people, so the communication unit is a good place for me.

### **What are you and your department currently working on/ working towards?**

We are working delivering on a communications strategy aimed building greater visibility and awareness of the CRA's roles amongst our stakeholders both locally and internationally, and how this is supporting the Qatar 2030 vision. As a Government entity, institutional strength and credibility are paramount to achieving our goals. So, the strategy focuses building credibility and trust among stakeholders by demonstrating where CRA is delivering on its stated aims, educating the public, keeping our stakeholders informed of continuing progress and developments and positioning CRA as thought leader - we are doing this through a mix of marketing, events, PR, digital media activities

### **What are your biggest challenges at the moment?**

Our biggest challenge right now is highlighting CRA's role and position amongst other governmental entities and the wider public since the

restructuring of the communications sector. CRA is well known on a regional and international level, but not as well known in Qatar, there is a misconception amongst some stakeholders about CRA's role. Many stakeholders either think we are part of ictQATAR which was a well-established brand or part of MoTC (Ministry of Transport and Communications).

### **What does your daily routine look like?**

My day typically starts at 7:am with Turkish Coffee and then I come to work. I meet with my team when I arrive to get an update and discuss the day's tasks. I typically leave around 3:30 or later and normally go to the gym for about an hour and a half every night to stay fit. I like to stay fit as I play a lot of competitive tennis.

### **How would you describe your job to a child?**

We are the face of CRA, we represent it everywhere and we help CRA communicate with everyone - for example people on the street, employees, the government...and with you! For example, if you've read a story in a newspaper about CRA that's what me and my team do. We work with the executives at CRA to figure out the smartest, most effective ways to communicate with people, let them know what's going on with the company, and get their thoughts and feedback.

### **What do you do for fun in your free time?**

I spend my leisure time in the Majlis with friends socializing and having fun and doing things like playing cards

### **You're a new addition to the crayon box. What color would you be and why?**

Definitely the Blue crayon, I believe this color represents me, since the day I was born all my stuff has been blue. When I was younger and we were picking colors everyone always left the blue color because they knew was mine, this color has become part of me.



# The Future is now - Internet of Things

ICT has been critical to the economic and social transformation of countries in the GCC. By improving access to services, enhancing connectivity, creating business and employment opportunities, and changing the ways people communicate, interact, and engage among themselves and with their governments, IT is transforming the world. The increasingly central role of digital infrastructures to people's lives can be seen in the growth of global Internet traffic. According to Cisco's Virtual Networking Index, global Internet traffic in 2020 will have increased nearly threefold since 2015.

Part of this is driven by the number of "Things" that are able to be connected to the internet. In fact, Gartner Technology Research estimates that there are more than 8.4 billion "Things" are on the internet today, more than 30% of them were up just one year ago. This has created what is commonly become known as the 'Internet of Things' (IoT). But why does this matter?

That depends on what we do with these things once they are connected and supplying us with data and how it will drive the growth of other disruptive technologies that facilitate it.

According to technology company Intel, there will be more than 50 billion connected devices and systems worldwide by 2020. On that scale there is no doubt that the amount of information being created by the IoT has the power to revolutionize everything from transport and healthcare to the functioning of entire cities to the simplest things in people's daily lives.

The analysis of data from IoT (known as IoT Analytics) is already driving profound new business insights across every kind of industry and application bringing down costs and radically increasing efficiency, but this is only happening on a relatively small scale at the moment. In order for IoT to become ubiquitous we will need to see the development of other supporting technologies such as 5G cell processing and the so called 'edge' computing.

As the number of devices or things connected to the internet grows exponentially, the amount of bandwidth needed to transmit such large amounts of data will also need to grow, this is where the need for 5G arrive. Although the metrics that define the global standard for the 5G network are yet to be set by the ITU, 5G is predicted to offer speeds as high as 10 gigabits per second, to put that into context it will be up to 100 times faster than current 4G networks and also faster than any pre-existing broadband. Some tests have shown that's fast enough to download a 100GB 4K movie in approximately two and a half minutes. So that takes care of the bandwidth, what about processing this data?

Some of the top technology firms in the world are betting on what is called 'Edge Computing'. According to Wikipedia, Edge Computing is "a method of optimising cloud computing systems by performing data processing at the edge of the network, near the source of the data." In layman's terms this revolutionary concept allows data produced by internet of things (IoT) to be processed closer to where

it is created instead of sending it across long routes to data centers or clouds. This will significantly decrease the volumes of data that must be moved, and the distance the data must travel, thereby reducing transmission costs, shrinking latency, and ultimately improving quality of experience for the user.

So how close is IoT to being a reality? Opinions are divided, as we know well it takes time to specify, develop, test and deploy new networks. It takes even more time for the hardware and software ecosystem that uses the networks to evolve. Despite this IDC predicts that up to 40% of all computing will happen at the edge in the next couple of years, at that rate even the more conservative estimates put this revolution only 5 years away.

Sources: OECD, News.au, Wikipedia, Gulf news, Network world, IDC, Gartner Technology research, GE, Forbes, ITU, Cisco Systems



there will be more than **50 billion** connected devices and systems worldwide **by 2020**



global Internet traffic in **2020** will have increased nearly **threefold** since 2015



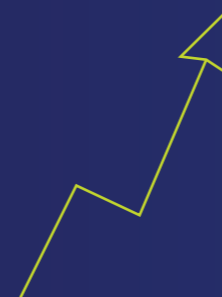
**5G** is predicted to offer speeds as high as **10 gigabits** per second, to put that into context it will be up to **100 times faster** than current 4G networks



there are more than **8.4 billion "Things"** are on the internet today, up more than **30%** from just one year ago



IDC predicts that up to **40%** of all computing will happen at the edge in the next couple of years



# What Will 5G Change?



Following the news that CRA has approved initial plans for frequency bands relating to the fifth generation (5G) mobile service, 5G will be a reality in Qatar as soon as late 2018. So what effect will this have on the nation's digital economy and society?

Simply put, 5G will bring a new level of performance and new characteristics to the telecom networks enabling the creation of a raft of new services, new ecosystems and new revenue streams. Whilst 5G promises some impressive download speeds it will probably not make a great deal of difference to the average smartphone user streaming a video, where 5G is likely to have the biggest impact is on the 'Internet of Things' (IoT) indeed it is perhaps 'mission critical to the growth of IoT and industry digitalization.

In recent years we have increasingly seen the growth of so-called cyber-physical systems particularly in industry, manufacturing, transport, health and

logistics where large numbers of physical objects are connected and talk to each other. Furthermore, in these environments there is increased automation and autonomous decision making and this is commonly referred to as "Industry 4.0", not to mention self-driving cars and smart buildings and the health sector. With all of these objects connected to the internet and talking to each other, considerable resources and bandwidth are needed to manage the colossal amounts of data that need to be gathered and analyzed in order to make these concepts a reality on a massive scale and 5G has the potential to make this possible. But the potential of 5G goes beyond industry and services, some say that 5G is the missing piece of the puzzle that will see us transcending the smartphone world, and allow us to build and create truly smart cities and smart lives. The reason for this is that 5G will allow millions of devices to be connected simultaneously in highly populated areas. Perhaps a

useful way to think about the impact of 5G is to look at the step change created on a societal level by 4G on mobile connectivity particularly media and then imagine the possibility of something a thousand times faster. Whilst 5G is likely to be a major game changer it will require a whole new generation of devices and equipment not mention a whole new way of looking at our lives and business models. 5G will create entirely new market opportunities not previously realized and entirely new business models will emerge as a result. However, it is likely that capturing this market potential will require massive investment in technology and organizational adaptation. One thing is for certain faster internet speeds lower the cost of innovation and that can only be a good thing.

Sources: I-scoop, Ericsson, Quartz, Gizmodo, Computerhoy, ABC, 5G-PPP, Spectrum

# Most Common Consumer Complaints

Percentages of top 3 complaints subjects of mobile services

**56%**  
Billing /Charges Issues

**11%**  
Service Disconnection

**8%**  
Premium SMS Service

Percentages of top 3 complaints subjects of fixed-line services

**65%**  
Service Disconnection

**14%**  
Billing

**12%**  
Delay in installation



