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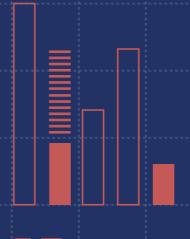
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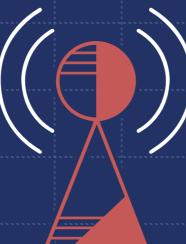
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VISION, MISION and VALUES

TRA Vision

The UAE is a global leading country in ICT.

TRA Mission

We strive to be a leading ICT sector organization in the United Arab Emirates, committed to maintaining positive competition to protect the interests of subscribers, and promoting the electronic transformation of federal entities and their services, by relying on national competencies to apply best international standards and practices in supervision of the sector and encourage innovation and investment.

Corporate Values

_eadership

We nurture innovation and creativity, assume leadership and effectively influence the support and development of the Sector.

Customer Happiness

We strive to improve our customers' happiness through our commitment to the continuous improvement and development of the quality of our services.

Empowerment >

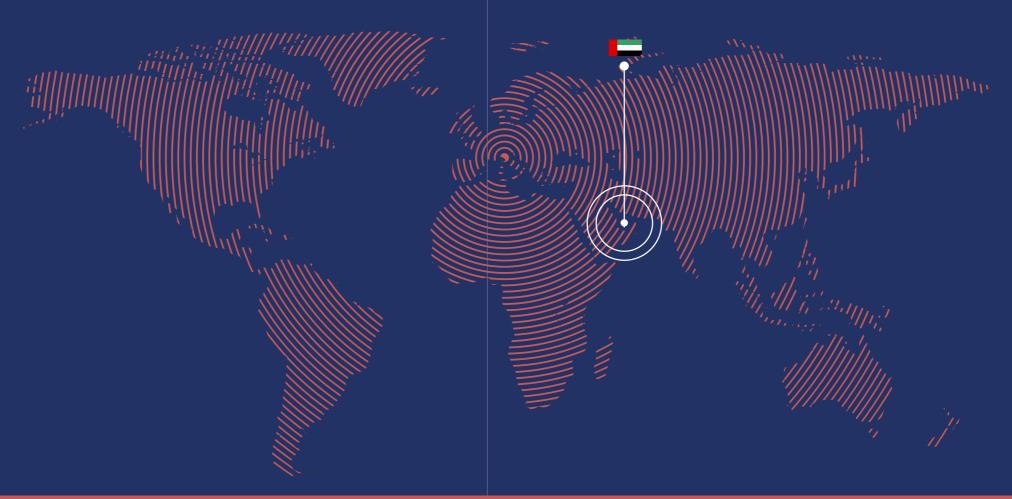
We endeavor to empower our employees in decision-making and participation in achieving our goals within inspiring work environment.

Collaboration and Interaction

We work constructively with the concerned to develop and implement work mechanisms (internally and externally).

Commitment

We are committed towards our responsibilities to the UAE in providing best available technologies for the Sector.



CHAIRMANS MESSAGE

CHAIRMANS MESSAGE

At the beginning of the year 2019, declared as the Year of Tolerance by our wise leadership, we look with pride at what we have achieved in the past year, growing more confident in the future, and hoping for a brighter and more prosperous tomorrow.

The value of tolerance, which has become a global title for our beloved country, resonates in the context of the United Nations slogan for Sustainable Development Goals (Leaving no one behind), as well as in the stated objectives of the International Telecommunication Union and the World Summit on the Information Society, as the telecommunications sector today is one of the most supportive sectors of this noble humanitarian goal.

Today, the stakes in the telecommunications sector are higher for realizing the principle of knowledge for all through the spread of Internet-connected smartphones and their access to remote areas across the world's continents. They will get even higher as humanity enters the era of the Fourth Industrial Revolution and Artificial Intelligence.

All these factors make the TRA poised for greater benefit in the near future. Through its work in previous years, especially in 2018, the TRA has proved to be up to the challenge, underlined by the key milestones it has crossed in the past year, most notably the successful and outstanding organization of the 20th edition of the ITU Plenipotentiary Conference (PP18-), with high-profile participation of more than 180 countries. The event, which lasted three weeks, concluded with the adoption of a global strategy for the telecommunications sector over the next four years.

The performance of Emirati cadres at that event was remarkable and something to be proud of, as the presidency of the conference, represented by Mr. Majid Al Mesmar, Deputy Director General of the Telecommunications Sector, aptly succeeded in leading the conference's activities to the desired goals. I would also like to commend the other colleagues, who led the committees and events and took an active part in many of the agenda programs, as some were elected to lead senior positions in the ITU, and so they deserved the appreciation and praise of our wise leadership.

We at the TRA, and in the UAE government at large, are aware of the importance of linking words to action. The mGovernment project, launched by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, five years ago, aimed at transforming government services into smart mobile services, has reached an advanced stage of maturity.

And today, here's the UAE ranking sixth globally in electronic/smart services, and preparing to compete for first place in 2021 as per index targets of the National Agenda of UAE Vision 2021. In the Telecommunication Infrastructure Index (TII), we have ranked second in the world according to the UN E-Government Survey 2018 published by the UN Department of Economic and Social Affairs, ahead of countries that used to be at the forefront such as Spain, Canada, Germany, the Netherlands, Estonia, Portugal and Russia.

In terms of corporate excellence, and after last year saw TRA's receiving of Sheikh Mohammed bin Rashid Award for Distinguished Government Entity in two important categories: the National Agenda and Enablers, the year 2018 continued to surprise us with good news, which was to win in the Category of Ministries with Less Than 500 Employees (MBR Award - Leading Federal Entity). The fact that TRA has received this prestigious award underlines its determination to continue work and that its successes act as motivations to achieve more. The TRA is determined to move forward in cooperation and partnership with other government and federal entities, while adhering to the principle of leadership, and will not stop working until our beloved nation takes center stage in all scientific, practical, cultural and humanitarian fields.

In conclusion, I would like to salute the TRA staff of managers and employees for their great achievements last year, and I am confident that they are qualified to achieve more and fulfill the promise of our wise leadership that 2019 will be the year in which we impress the world.

H.E. Talal Humaid Belhoul

Chairman, TRA Board of Directors

DIRECTOR GENERALS MESSAGE



remarkable year in the journey of the TRA, in which we embodied the spirit of one team, which is harmonious, collaborative and dedicated in the service of our beloved country and wise leadership of the world.

Many are the highlights of that year, most notably the hosting of the Plenipotentiary Conference (PP18-), the highest policy-making body of the ITU, a three-week event attended by all countries of the world. TRA teams have been aptly successful in placing the UAE at the heart of the world map by hosting this huge event, chaired by H.E. Majid Al Mesmar, Deputy Director General of the TRA. This conference is the culmination of an extended process of opening up to the world and influencing policy-making for all mankind. The UAE was recognized by the ITU for its efforts at the conference, as evidenced by the statement of its Secretary-General, Houlin Zhao, that the Dubai session is one of the most outstanding in the history of the Conference. The recognition was also expressed by the signing of an agreement between the UAE and the ITU to name one of the main halls of the ITU building in Geneva, Switzerland, in the name of late Sheikh Zayed bin Sultan Al Nahyan.

The year 2018 saw the first Hackathon of its kind in the region, the UAE Hackathon: Data for Happiness, launched in conjunction with the UAE Innovation Month, across multiple stations in all of the emirates. The Hackathon has been a platform for creative competition among hundreds of students, staff and others to analyze open data systems for solutions to a range of challenges. Perhaps the most important achievement of Hackathon 2018 is that it laid the foundations for a sustainable project of the same name, but each year it faces different challenges and innovates solutions.

In terms of initiatives, the TRA had a track record of them during 2018. As part of World Happiness Day, we launched the UX Lab initiative to help develop the digital presence of government entities, whether on the web, smartphone or on service kiosks.

We have also launched "Bashr" initiative (Doing Business in 15 Minutes) in close and constructive cooperation with all local and federal government departments and entities concerned with licensing economic activities in UAE. This initiative aims to promote UAE's competitiveness in doing business by allowing to start business in simple, fast steps taking no more than 15 minutes.

In enhancing customer happiness, we have launched the 'Coverage Center', which enables early and advanced detection of mobile network coverage quality in the UAE. The Center provides a field survey to test, measure and analyze the quality of mobile operator networks in the UAE, and simulate user experience.

In terms of global indicators, the UAE has made a new achievement by reaching a leading position in the Online Services Index (OSI) in which it is ranked Sixth globally, as well as Second globally in the Telecommunication Infrastructure Index (TII), according to the E-Government Development Index (EDGI) Survey 2018 issued by the UN Department of Economic and Social Affairs (DESA). The UAE moved up to the 1st place globally in mobile-broadband subscriptions, in addition to jumping to the 1st globally in population covered by mobile-cellular networks. In addition, the UAE has achieved advanced positions in a number of indicators included in Waseda - IAC International Digital Government Rankings Report published by the Institute of Digital Government at Waseda University in Japan. The UAE has been ranked sixth in the e-Participation index, ahead of Taiwan and Finland, moving up by one place from last year's (which was 7th) according to the 2017 Report. All while taking into account the repetition in countries' results that preceded the UAE.

As we reflect on these past achievements, we look forward to 2019 with a keen eye, and we are determined to continue our brilliant journey by relying on distinctive cadres working in the spirit of one team, united by intelligence, determination, foresight and love of the nation.

Hamad Obaid Al Mansoori

Director General

TRA announces the launch of the UAE Hackathon challenge under the slogan 'Data for Happiness'

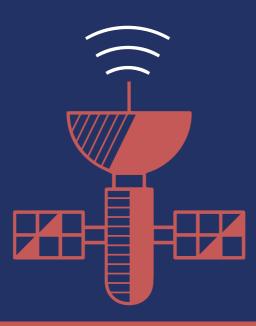
HACKATHON 2.0 UAE

Data for Happiness and Wellbeing

The General Authority for Regulating the Telecommunications Sector launched the UAE Hackathon, the country's biggest data analysis challenge, held in all emirates during February 2018, in conjunction with the Innovation Month.

The Hackathon is held in four phases, including six hackathons in the seven emirates, simultaneously with activities distributed across each emirate during the Innovation Month.

The Hackathon concept is to establish small teams of 5-3 persons, representing all categories and segments of society, such as employees, university students, high school students, entrepreneurs, IT professionals and others, to develop solutions and ideas in the identified areas of the Hackathon, using big data provided by the many government entities in the country. The UAE Hackathon poses several challenges, including transportation, traffic congestion, health, education, sustainable development, and gender balance, which are among the governmental work priorities in the UAE to achieve customer happiness.



TRA achieves the target number of registered domain names in the national domain (.ae)



The TRA revealed that the number of registered names in the national domain (.ae) has reached more than 210,000 domain names until the end of 2017, achieving the target number of registered names for 2017, and thus, maintaining the leading position at the Arab level in this field.

The success of the national domain reflects its uniqueness and reliability in the UAE, and is indicative of the development of a digital infrastructure that meets requirements of all forms of electronic presence of companies, organizations and individuals.

TRA launches "Hataf" to support the visually impaired in cooperation with Zayed Higher Organization for People of Determination



The General Authority for Regulating the Telecommunications Sector, in cooperation with Zayed Higher Organization for People of Determination, has launched the "Hataf" (Cheer) initiative to support the visually impaired. Pitch and interact with their course. The initiative allows sports lovers and fans, especially those who are visually impaired, to attend and interact with stadium matches.

TRA participates in WSIS - Geneva



The UAE participated in the World Summit on the Information Society Forum in Geneva, represented by an official delegation headed by the General Authority for Regulating the Telecommunications Sector.

The UAE delegation included representatives of six government entities: the General Authority for Regulating the Telecommunications Sector, Ministry of Cabinet Affairs and The Future, Ministry of Interior, Ministry of Education, General Women's Union and the National Media Council.

TRA participates in WSIS - Geneva



As part of its initiatives on the International Day of Happiness, the General Authority for Regulating the Telecommunications Sector has launched the User Experience Lab, which is the first of its kind in the UAE government, to help develop the digital presence of government entities on the web, smartphone or on service booths.

Advanced global methodologies are being implemented in the UX Lab to ensure that websites and smart applications take into account the characteristics of users and meet the needs of enterprises to make services with highest levels of ease and usability.

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TRA officially launches "Taghtia" Center to deliver quality calls to new heights



As part of a package of initiatives aimed at achieving customer satisfaction, the General Authority for Regulating the Telecommunications Sector have launched the "Taghtia" (Coverage) Center, which enables early and advanced detection of mobile network coverage quality in the UAE.

The Center provides a field survey to test, measure and analyze the quality of mobile operator networks in the UAE, and simulate user experience. Launching the "Taghtia" project reflects TRA's strategy to improve and develop telecommunications services and elevate customer satisfaction in the UAE by continuously improving the quality of provided services.

UAE TRA receives a delegation from TRA Bahrain



The General Authority for Regulating the Telecommunications Sector received a delegation from the Telecommunications Regulatory Authority in the Kingdom of Bahrain, headed by Shaikh Mohammed bin Salman Al Khalifa, Director of Finance, Information Technology and Human Resources. The visit aimed at reviewing the most prominent practices and strategies related to the management of regulatory and licensing affairs, finance, spectrum, human resources, and customer happiness.

TRA Hosts the First ICT Future Foresight Forum in the UAE



The General Authority for Regulating the Telecommunications Sector hosted the First ICT Future Foresight Forum, a major ICT event in the UAE. The Forum aims to address future challenges of the ICT sector, as well as potential solutions in this regard.

TRA launches the first phase of 'Bashr' (Doing Business in 15 Minutes)



The General Authority for Regulating the Telecommunications Sector (TRA) launched the first phase of the "Start Your Business in 15 Minutes" initiative (or "Bashr" for short), one of the most important strategic initiatives implemented and developed through close and constructive cooperation with all local and federal government departments and entities involved in licensing economic activities in the UAE.

This initiative aims to promote UAE's competitiveness in doing business by allowing to start business in simple, fast steps taking no more than 15 minutes.

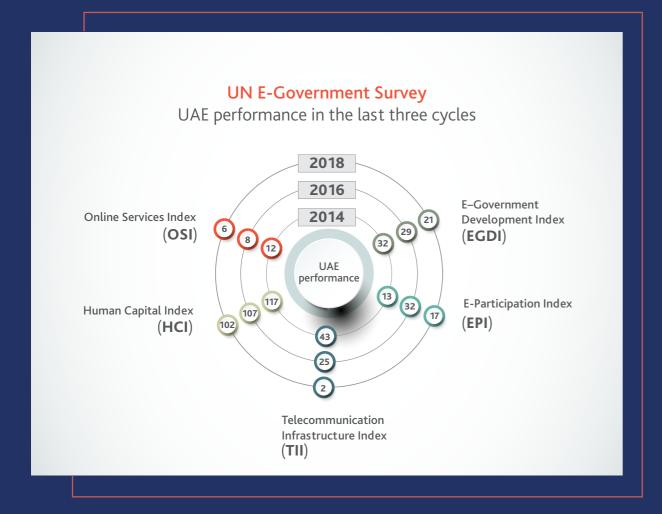
TRA gets ISO certification in Information Security Management, IT Service Management and Energy Management



The General Authority for Regulating the Telecommunications Sector has been awarded three certificates by The International Organization for Standardization (ISO) in the fields of Information Security Management, IT Service Management, and Energy Management. TRA achievement of ISO certification in Information Security Management (ISO 27001:2013) is a confirmation of the ICT sector readiness to manage and control information security risks, protection, confidentiality and availability of information.

TRA has also been awarded ISO certification in IT Service Management (ISO 1:2011-20000) for its excellent level of IT service management, as a result of focusing on strategic planning to improve the performance of services provided to customers and raising the level of information technology. Furthermore, TRA's achievement of ISO certification in Energy Management (ISO 50001:2011) confirms its adoption of methods that ensure continuous improvement of energy performance including energy efficiency, security, use and consumption.

UAE ranked 6th globally in OSI according to the UN EDGI Report covering 193 countries



Five years after the launch of the mGovernment Project by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, and his meeting with 1000 government officials to transform government services on smart phones within 24 months...the UAE has made a new achievement by reaching a leading position in the Online Services Index in which it is ranked 6th globally, as well as 2nd globally in the Telecommunication Infrastructure Index (TII), according to the E-Government Development Index Survey 2018 issued by the UN Department of Economic and Social Affairs.

TRA holds a government forum on the UN E-Government Survey



The General Authority for Regulating the Telecommunications Sector has held a workshop on "Developments and Best Practices in the UN E-Government Survey 2018", in the presence of H.E. Hamad Obaid Al Mansoori, TRA Director General, and H.E. Abdulla Nasser Lootah, Director General of Federal Competitiveness and Statistics Authority (FCSA). The event included two workshops, one focused on e-participation while the other addressed open and big data and their impact in strengthening the orientation towards digital government.

UAE tops global telecom competitiveness indicators



The UAE has made a new leap in global competitiveness in the telecommunications sector by achieving advanced positions in global competitiveness indicators, according to recent results published by the ITU.

The results showed that the UAE ranked first in the world in mobile broadband subscriptions, in addition to ranking first in percentage of population benefiting from coverage of telephone networks.

TRA participates in the Broadband Commission meeting in New York



The General Authority for Regulating the Telecommunications Sector, represented by its Director General, H.E. Hamad Al Mansoori, participated in the regular meeting of the Broadband Commission held in New York City, USA. He delivered a speech at the meeting, addressing a number of important issues in ICT such as the challenges of organizing the sector, future policies and regulations, and UAE's role in this area.

UAE tops global telecom competitiveness indicator



The General Authority for Regulating the Telecommunications Sector, represented by H.E. Hamad Obaid Al Mansoori, TRA Director General, participated in the 16th Annual Meeting of the Arab Regulators Network of telecommunications and information technologies (AREGNET), which was held in the Kingdom of Bahrain based on the decisions of the 15th AREGNET meeting, which was hosted by the United Arab Emirates in Abu Dhabi in September 2017.

TRA participates in the Bahrain International eGovernment Forum



The General Authority for Regulating the Telecommunications Sector participated in the Bahrain International eGovernment Forum, during which it presented an aspect of the transition process to integrated smart services with focus on the 'Mabrouk Ma Yak' service as an example. The service aims to reduce the number of visits to issue documents of the new-born from seven visits to one.

TRA brings to life its latest services and initiatives at GITEX



The General Authority for Regulating the Telecommunications Sector, through its participation at GITEX Technology Week 2018 in Dubai, showcased its latest efforts in the development of smart government services, innovative ICTs, and key milestones in its journey towards the transformation into an advanced and secure digital community in the UAE.

Half a million followers to UAE mGovernment Account on Twitter



The UAE's Telecommunications Regulatory Authority (TRA) has announced that the UAE mGov page on Twitter has surpassed the mark of half a million followers. This achievement comes under UAE government's keenness to communicate continuously and effectively with all segments of society, thereby serving UAE Vision 2021.

TRA hosts PP- 18



The General Authority for Regulating the Telecommunications Sector organized the 2018 ITU Plenipotentiary Conference, hosted by the UAE during the period from 29 October to 16 November 2018. The Plenipotentiary Conference is the highest policy-making body of the ITU which, throughout its history, has been the only body with the power to amend the International Telegraph (later Telecommunication) Convention, which is now the Constitution and Convention of the ITU. These two instruments give the ITU its legal personality and determine its structure and functions.

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The Conference sets ITU's general policies and directions, adopts ITU's strategic and financial plans, and -if necessary- reviews the Constitution, Conventions and General Rules of conferences, assemblies and meetings of the Union. As well as the Optional Protocol concerning the Compulsory Settlement of Disputes.

The Conference consists of delegations representing Member States, Sector Members and telecom organizations.

Delegations approved by Member States are entitled to vote during elections and to sign the Final Acts of the Conference. The Plenipotentiary Conference, which is held every four years, elects the senior management team/"Elected Officials" (Secretary-General, Deputy Secretary-General and Directors of the Three Bureaux), Member States of the Council, and members of the Radio Regulations Board (formerly the International Frequency Registration Board). The Plenipotentiary Conference reviews reports and proposals relating to public policy matters of the ITU, UN's specialized agency for information and communication technologies, which allocates radio-frequency spectrum and satellite orbits, develops technical standards that ensure networks and technologies seamlessly interconnect, and strives to improve access to ICTs to underserved communities worldwide.

UAE re-elected as ITU Council member



The UAE has been elected for a fourth consecutive time as a member of the ITU Council, representing the Asia and Australia region (indicated by the ITU as Area E), which holds 13 seats in the council, receiving 164 votes in the process. The announcement was made after elections were held during the Plenipotentiary Conference 2018, hosted by the UAE in Dubai from 29 October to 16 November 2018.

In addition to the UAE, other Area E elected countries included Saudi Arabia, Kuwait, Australia, China, India, Indonesia, Iran, Japan, South Korea, Pakistan, the Philippines and Thailand.

TRA-UAE Signs MoU with Cote d'Ivoire's Agency for Universal Service Telecommunications (ANSUT)



The General Authority for Regulating the Telecommunications Sector signed a memorandum of understanding with Cote d'Ivoire's National Agency for the Universal Service of Telecommunications-TIC (ANSUT), with an aim to fostering cooperation in areas supporting the digital transformation of the telecom industry on the basis of mutual benefit.

"Sheikh Zayed" as a name for a main hall in the new ITU building in Geneva



The UAE and the ITU signed an agreement to designate one of the main halls of the ITU building in Geneva, Switzerland, in the name of late Sheikh Zayed Bin Sultan Al Nahyan. The agreement was signed by H.E. Hamad Obaid Al Mansouri, Director General of the General Authority for Regulating the Telecommunications Sector, and Mr. Houlin Zhao, Secretary-General of the International Telecommunication Union (ITU), on the sidelines of the 2018 Plenipotentiary Conference hosted by the UAE in Dubai from October 29 to November 16.

Waseda Report: UAE Ranked 6th Globally in e-Participation



The UAE has achieved advanced positions in a number of indicators included in Waseda - IAC International Digital Government Rankings Report published by the Institute of Digital Government at Waseda University in Japan.

The UAE has been ranked sixth in the e-Participation index, ahead of Taiwan and Finland, moving up by one place from last year's (which was 7th) according to the 2017 Report. While considering the repetition in countries' results that preceded the UAE, the actual place of the UAE is 3rd in the indicator reading, scoring 8.5 marks on a scale of 10 points.

UAE Chairs ITU WTIS - 18



The UAE represented by the General Authority for Regulating the Telecommunications Sector, chaired the ITU 16th World Telecommunication/ICT Indicators Symposium (WTIS), which concluded in the Swiss capital of Geneva on December 13, in the presence of 350 personalities from 85 countries.

UAE chairs the Arab Spectrum Management Group



The UAE, represented by the Telecommunications Regulatory Authority (TRA), chaired the 24th meeting of the Arab Spectrum Management Group (ASMG), which took place in the Jordanian capital Amman, with participation of 14 Arab countries.

The meeting discussed a number of important topics related to preparation for WRC, as well as other relevant topics such as the reports of Chairmen of Working Groups on WRC19- agenda items, positions of the ASMG and the proposed Arabic documents for CPM2-19.

Betha Program

- Student CRM system was developed to manage all academic, financial and personal affairs of the students
- A direct financial transfer system has been introduced for students (Payroll) with opening of savings accounts
- Integration with the federal smart access system (SmartPass) to register in the Program and accept the terms of scholarship
- Regulation implemented and performance impact will be monitored after an academic year
- Contracts standardized with universities and negotiations made for discounts of up to 20% on tuition fees

Engineering College in Dubai University

Funding Outcomes:

- No. of engineering college students: 58
- Labs
- 6 labs were opened
- Physics Lab (NI Equipment + 11 PCs)
- Computer Lab (11PCs plus site license for Matlab)
- Networking Lab (Cisco equipment 11+ PCs)
- Electrical and Electronic Circuits Lab (NI Equipment 11+ PCs)
- Electronic Workshop
- NI Equipment for Signal Processing and Communications
- Adoption of an electrical engineering curriculum by the Ministry
- Educational Cadre
- 2 instructors Dr. Hussain Al-Ahmad Dean of Faculty Dr. Wathiq Mansoor
- 2 teaching associates from Khalifa University
- Agreements signed with Mohammed Bin Rashid Space Centre to build satellite technologies

ICONET - American University of Ras Al Khaimah

- Lab change from
- Embedded Systems & FPGA Lab
- Electronics & Communications Engineering Lab
- Advanced Communications Lab
- Advanced Networking Lab
- Innovation Lab = Robotics + VR + 3D Printers
- Space Lab = PLC + Arduino & Raspberry + Sensor + PCB
- Advanced Design Lab = Ground Station + Cleanroom + Test Equipment

R&D: Khalifa University Research Projects

- No. of projects 10
- Issues
- Funding requirement of a national research staff where most of the national staff resigned
 National Cadre
- There are no financial expenses in research projects according to research plans
- There is no feedback on alternative plans to bring in national research staff
- Current process
- Reservation of funds according to contract terms
- Future steps
- Give a deadline to rectify the situation
- Withdraw the grant as a last measure.

UAE University Research Projects: Research Projects

- Health Monitoring System R&D Project
- Narrow Band Interference Cancellation in MIMO-OFDM Systems using Compressed Sensing
- Semantic Web for Healthcare and Life Sciences
- Green Self-Powered Low Power Circuit
- Outputs
- All projects were executed
- 1 existing project

EBTIC at Khalifa University

- Updates:
- The project achieved the agreed indicators
- An advisory board was formed instead of including representatives of the TRA in EBTIC's board of directors
- Recently appointed an acting national director and an assistant director for two years
- Last outstanding 2018

National Space Science and Technology Center (NSSTC) at UAEU

IoT Lab at University of Rochester

- First Year:
- 1 Preparing the infrastructure and laboratory equipment.
- 2 Purchase of equipment and computer software associated with the first year's budget
- 3. Preparing the technical personnel to manage laboratory equipment
- Updates:
- Contacted equipment suppliers to request for proposal and order devices
- Several meetings held with technology and solution providers in the area of digitization such as IBM, SoftwareAG, Alcatel-Lucent, NXN, Subex among others to try to integrate industry perspectives into applications, use cases and leveraging expertise

IOS applications center at Dubai's Higher Colleges of Technology

- Updates :
- Project scope has been expanded under the Technologies Plan 2.0 HCT
- Launching of the Innovation Space Center in September 2018 at Dubai's branch (will be replicated
- in the remaining branches)
- Devising a methodology to develop software and Internet of Things
- Equipping student training centers in collaboration with Apple, IBM, SAS Oracle
- There are also initiatives under way:
 Preparing courses in blockchain software development
 Training and accreditation of teaching staff in blockchain
- Training students on artificial intelligence
- HCT would like to use the remaining amount of funding to make another copy in another building

Incubators and Entrepreneurship

Seeds for the Future:

- Funding value: AED 500,000
- Achievements:



Summer (Innovation) Camp

National Projects

- Team leader tasks and duties were defined
- Team formation
- Website to apply for the UAE Astronaut Programme
- Networking campaign with the target group
- Astronaut selection was performed
- Contracted and started training astronauts
- Contracted with the Russian Space Agency to send astronauts to space.

Preparing for Human Exploration of Our Solar System Beyond Low Earth Orbit

A: Food Security and Sustainibility

D: Energy and Power Management B: Sustainable Source of Water

E: Advancing Material Science C: Human Life Support

F: Planetary Contamination Management

Mars 2117 project

- Updates :
- Prepared a classified project to be announced by HH Sheikh Mohammed
- Discussion with the Cabinet regarding funds for Mars City.

Smart Learning

- Updates 18 19 :
- Installation of 545 smart boards G4 to G12
- Distribution of more than 24,000 devices to students and teachers
- Ordered 750 projectors for stages 3 ,1,2
- Ordered 4136 lab computers
- Data center being moved from Etisalat to Ankabut
- Preparing 918 schools in Dubai and the Northern Emirates



2012 - 2013 2013 - 2014 2014 - 2015 2015 - 2016 2016 - 2017 2017 - 2018 Pilot Phase I Phase II Phase III Phase IV Phase V Schools 14 Schools 132 Schools 145 Schools 202 Schools 341 Schools 380 Classrooms 440 Classrooms 1,239 Classrooms 1,759 Classrooms 2,742 Classrooms 4,040 Teachers 3,643 Teachers 1,343 Teachers 7,834 Teachers 11,165 Teachers 13,120 Students 24,548 Students 34,733 Students 46,579 Students 97,957 Students 11,548 Grade: 7 Grade: 7,8 Grade: 7,8,9 Grade: 7,8,9,10 Grade: 7,8,9,10,11 Grade: 4-12 2018 - 2019 2018 - 2019

Abu Dhabi

Overall 2012-2019

Schools

477 (380 + 97(AUH)) 26.013 (13,120 + 12,893)Abu Dhabi)

Teachers with devices

176,976 (97,957 + 29,467)(Abu Dhabi – G9-11) + ASP + Alef initiative + G9 Dubai

Students with devices

- *under progress to be distributed before Dec 2018

Classes with Interactive Display

7,412 (40,040 + 1,356 + 2,016)

Patents

Updates:

Coordinating with TAKAMUL - Abu Dhabi DED to manage and conclude contracts with patent registration offices accredited by the DED to make it easier for customers to get distinguished services to register their patents, under the direct supervision of specialists from the Ministry of Economy, and the following have been accomplished:

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- First group:
- Technical and financial support to register (34) inventor patent applications
- Second group:
- Technical and financial support to register (7) patent applications

Intellectual Property Program

- Updates
- Program launched for public use on the ministry's platform
- Program undergoes maintenance and performance review.

Transfer of assets

Updates:

A formal request to utilize assets has been received from:

- 1. Mohammed Bin Rashid Space Centre
- 2. UAE University
- 3. MoU prepared for the transfer of assets and governance of use
- 4. Pending final approval by the beneficiary

INTERNAL AUDIT AND RISK MANAGEMENT DEPARTMENT:

Ankabut

- Updates:
- 1. Final contract draft approved and signed
- 2. Pending delivery of the report with first payment invoices

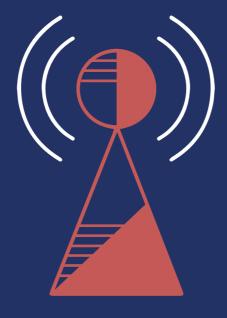
'Ease of Doing Business' initiative

- Updates:
- 1. Launched in Ras Al Khaimah, Ajman and Fujairah
- 2. Final trial in Dubai for official launch
- 3. E-Dirham Challenge in Abu Dhabi and Sharjah
- 4. Under consideration in Umm Al Quwain

The Department reviews and evaluates the appropriateness and functionality of the governance, control and risk management process framework. In addition, objectives of the Internal Audit and Risk Management Department include providing advice and recommendations to senior management on aspects of improving risk management, internal control and governance systems.

Scope of work of the Internal Audit and Risk Management Department include: Internal Audit:

- Review and assess relevance and effectiveness of TRA's internal control systems
- Review the applicability of risk management procedures and risk assessment methodologies and their effectiveness in the TRA
- Support the department in identifying business risks and assessing the adequacy of risk management
- Review the reliability, integrity and usefulness of financial, technical, operational, and administrative information and the means used (including electronic information systems) to identify, measure, classify and report on such information
- Review the accuracy and credibility of accounting records and financial reports of the TRA
- Assess compliance with legal and regulatory requirements and approved policies and procedures
- Assess the effectiveness of existing policies and procedures and make recommendations for improvement
 Identify cost-saving opportunities and make recommendations to improve cost-effectiveness
- Assess the economic efficiency, effectiveness and quality of staff resources in the implementation of their assigned responsibilities
- Ensure that the actions taken by the department to correct audit results are applied satisfactorily and properly. If the applicable procedures are substandard, follow-up processes must be implemented at an appropriate level



INTERNAL AUDIT AND RISK MANAGEMENT DEPARTMENT:

Risk Management:

- The Section measures risk management performance against specific key performance indicators that are consistent with TRA's strategy and objectives. These indicators are constantly reviewed for adequacy.
- The Section monitors compliance with the ERM framework in accordance with specific KPIs. The scope of compliance with the ERM framework consists of two parts that are assessed separately and then combined together as follows:
- 1. Compliance with ERM processes general and scheduled timeframes for efforts are one of the aspects to be assessed. These aspects also include completeness and quality of risk assessment, quality of risk management action plans, level of collaboration and effectiveness in interacting with the Risk Management Department.
- 2. Implementation of identified risk treatment plans the risk manager and executive management evaluate KPIs to easily determine the effectiveness of ERM.

The Section compiles latest risk register updates and initial information on emerging risks, and updates the entity's risk register as necessary.

1. Local participation

- Membership of the Board of Directors of UAE Internal Auditors Association
- Chairing the Human Resources Committee of Internal Auditors Association
- Participation in the 'Hassad' program to qualify national cadres in the field of internal auditing. It is linked to the 'Absher' initiative launched by HH Sheikh Khalifa bin Zayed, President of the UAE
- Managing Director of the UN anti-corruption Convention
- Member and financial advisor of the Club Licensing Committee

2. Regulatory Laws

- Internal audit policies and procedures manual
- Charter of the Audit and Risk Management Committee
- Internal Audit Charter
- Risk management policy
- Risk management manual
- Business continuity manual
- Business continuity policy.

3. Key certifications won

- ISO 22301:2014 Business Continuity Management Systems
- ISO 31000:2009 Risk management
- ISO 13500:2013 Governance management

REGULATORY AFFAIRS DEPARTMENT

The Regulatory Affairs Department is an active part of the TRA and plays an essential role in achieving TRA's vision to create an ideal environment for the ICT sector to flourish in the UAE as a global market leader. Regulatory Affairs is a key department in the implementation of TRA's mission. The Department works to protect competition by developing, implementing and monitoring licensing policies to ensure a competitive, multi-licensee environment. Additionally, the Department seeks to strengthen UAE's telecommunications sector based on a high-level competition safeguards framework.

The Department also seeks to protect the interests of subscribers by meeting the general demand for telecommunications services provided by the licensees, providing multiple options for subscribers from service providers, and maintaining licensees to provide effective procedures to deal with subscriber complaints. The Department is also responsible for ensuing proper implementation of the regulatory framework and that it is developing according to best international practices.

The powers vested in the Department has allowed for issuing decisions and regulations that contribute to the balance between the protection of consumer/licensee rights and the competitiveness of telecommunications service providers in the UAE. The Department has contributed to UAE's first place globally in ICT use and government efficiency by enforcing a regulatory framework for all practices in the sector in terms of strengthening consumer protection regulations and safeguarding competition in the sector.

DEPARTMENT PARTICIPATION

Globally

- Chairing the 16th ITU World Telecommunication/ICT Indicators Symposium Switzerland
- Participation in the meeting of the Expert Group on Telecommunication/ICT Indicators (EGTI) Switzerland
- Participation in the Networked Readiness Index (NRI) workshop Switzerland

DEPARTMENT PARTICIPATION

REGULATORY DECISIONS AND INSTRUMENTS OF 2018

Regionally

- Participation in the ITU Regional Workshop on ICT Statistics, Bahrain
- Participation in the Arab Standardization Team (AST) Kuwait
- Participation with a working paper in the meeting of ITU Study Group 3 Kuwait and Riyadh

Locally

- Launching the 1st ICT Future Foresight Forum
- Participation in GOV Games
- Participation in World Green Economy Summit 2018
- Participation in UAE Hackathon

REGULATORY DECISIONS AND INSTRUMENTS OF 2018

- Issuing regulatory procedures for increasing interconnection points, and issuing instructions for preparing relevant reference offers
- Reviewing and updating the regulatory procedures for consultations
- Reviewing and updating TRA's internal governance policy
- Reviewing and updating the interconnection/network access dispute resolution procedure
- Issuing instructions to licensees (etisalat and du) to continue launching the Carrier Pre-selection Service (CPS)
- Issuing instructions to licensees (etisalat and du) to finalize testing and activating the corporate bitstream service
- Issuing Resolution No. 2018/2 to standardize the Interconnection Agreement
- Issuing instructions requiring telecommunications service providers in the UAE to take necessary measures to activate TV subscriptions and enable buying movies through the triple play service, by setting a clear mechanism for the subscription process, where it requires the consumer to confirm with their own password
- Issuing instructions requiring telecommunications service providers in the UAE to take necessary measures to activate and deactivate third-party applications, by setting a clear subscription mechanism, so that subscribing to any such product, service, game or tone is done through two stages, and in a way that requires the consumer to confirm their subscription with a password and unsubscribe with a single click

- Instructing service providers to stop requiring subscribers to use fixed broadband ISP routers
- Requiring service providers to improve the data consumption SMS by providing consumers with information on their total consumption of data through a single, clear text message rather than multiple messages that can mislead the consumer
- Contract termination fee guidelines and reduction to be equivalent to one month only
- Service charges for interconnection links extending to the destination site
- Determination Mobile Site Sharing Charges

AUDITING LICENSEES COMPLIANCE WITH THE CONSUMER PROTECTION REGULATIONS

In 2017, the TRA introduced a mechanism to audit licensee compliance with Consumer Protection Regulations, which directly contributes to enhancing and improving consumer satisfaction and confidence in services provided to them by licensees in general. The mechanism also contributes to reducing frequent consumer complaints and disputes by diagnosing cases of licensee non-compliance with terms and conditions, and taking appropriate action before many consumers make a mistake.

The TRA conducted 629 audits on the Consumer Protection Regulations between January 2017,1 and December 2018,31, resulting in 144 observations, of which 144 were corrected with a %100 closure rate between corrected and under correction.

The TRA sees that the audit results are good in the first phase of process implementation, where the study indicates that the rate of licensee compliance with Consumer Protection Regulations without TRA's intervention was 78%, and reached 100% after intervention, which reflects licensees' commitment and cooperation in the process of closing observations.

DEPARTMENT'S CONSUMER AWARENESS INITIATIVES

INITIATIVES TO ACHIEVE UAE VISION 2021

In 2018, the TRA contributed to increasing customer awareness of their rights and responsibilities by:

- Developing consumer awareness booklets and publishing them through service centers and on TRA's website, such as the Consumer Protection Manual that includes consumer rights, responsibilities, FAQ, and the Consumer Dispute Resolution Handbook.
- Social Media
- "Your Happiness, Our Happiness" event, which aimed at promoting TRA's contact number to encourage the receiving of complaints
- Directly contacting consumers through the Customer Council
- Spreading TRA's reputation and promoting its services through word of the mouth, especially within the working class



The Regulatory Affairs Department is a major contributor to the initiatives to improve UAE's ranking in the Networked Readiness Index (NRI). The Department analyzes the sub-indices of this index and identifies the high-impact priorities on the same through the simulation model to predict the expected ranking of the UAE. The Department also works in coordination with stakeholders (Etisalat, Du, FCSA and ITU) to gather and deliver data required for this important indicator.

Furthermore, the TRA has upped the performance in global competitiveness indicators of other government entities, for example the 50x50 Competitiveness Race launched by the FCSA, where the management won first place.

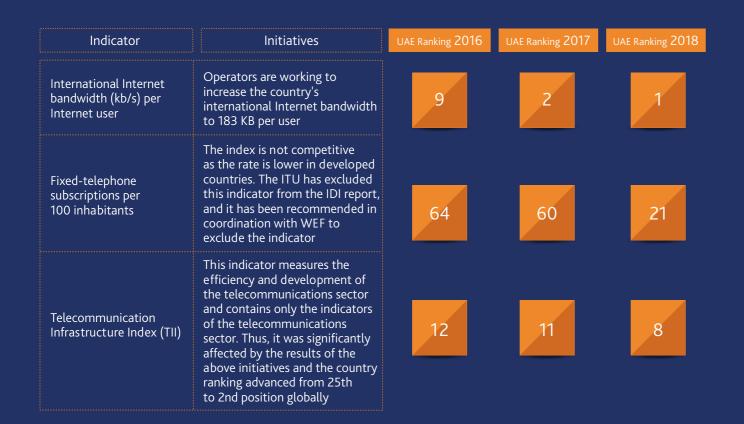
RAISING UAE'S RANKING IN GLOBAL COMPETITIVENESS INDICATORS

The Global Competitiveness Index 2019

Source: World Economic Forum

Indicator	Initiatives	UAE Ranking 2016	UAE Ranking 2017	UAE Ranking 2018
Mobile-broadband subscriptions /100 pop	Sharing mobile sites Price control process Interconnection rates	9	2	1
Mobile-cellular telephone subscriptions /100 pop	Competition protection systems Consumer protection and complaints handling	4	3	2
Fixed-broadband Internet subscriptions /100 pop	Price control process Digital stream project Sharing negative infrastructure Comprehensive Service Policy	64	60	21
Internet users /100 pop	All of the above initiatives increase the rate of Internet users	12	11	8

RAISING UAE'S RANKING IN GLOBAL COMPETITIVENESS INDICATORS



Raising UAE's performance in national indicators



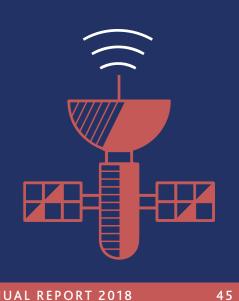


50x50 competitiveness race where the management won first place



Department's initiatives during the Innovation Week

Data consumption audit project
The Department launched an innovative audit to calculate the data consumption of voice and video call apps in order to protect consumers and ensure that the amount of data consumed is consistent with data consumption rates in other countries.



RAISING UAE'S RANKING IN GLOBAL COMPETITIVENESS INDICATORS

1st ICT Future Foresight Forum

The foresight team held the 1st ICT Future Foresight Forum with strategic partners to identify key challenges, future scenarios and innovative solutions.

The foresight group study concluded to the following:

- Develop the telecommunications law in line with developments in 2030
- Create a forum for OTT applications with strategic partners
- Develop a regulatory framework to enable the UAE to be a leading data center (IXP)
- Review and develop the licensing framework in line with developments in 2030
- Consider allowing VoIP applications



Price Control automation project

Using AI to automate the process of reviewing Price Change/Control Requests (PCR) to speed up the process and make more accurate decisions.

Telecom sector indicators simulation

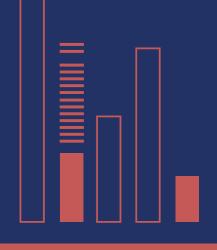
Using AI to automate the process of reviewing Price Change/Control Requests (PCR) to speed up the process and make more accurate decisions.

Figures

- Household ICT Indicators Survey
- Telecom Annual Report
- Periodic reports of the telecommunications sector (monthly and quarterly)

Other achievements

- Preparation of the UAE's licensing framework manual, which contributes to answering public inquiries about
 Regulated Activities in the country and the process for obtaining a license
- Revising, generating and incorporating monthly bitstream reports in the monthly newsletter reviewed for senior management
- Preparing a study on establishing a regulatory framework for permanent roaming in the UAE
- Reviewing the regulatory accounts of Etisalat
- Completing ITU questionnaires
- Updating happiness and quality indicators



The Development Department plays a pivotal role in the National Agenda to achieve UAE Vision 2021 and the mGovernment Strategy by implementing a number of operational plan initiatives, which contribute to achieving leadership in the smart technological infrastructure in the UAE and enhancing the smart lifestyle in the UAE. Among the initiatives included in the operational plan, which fall under the responsibility of development management:

The Department is developing a plan to achieve UAE's competitiveness in the national index "Online Services Index (OSI)" and oversee its implementation. The Department also actively contributes to the preparation and implementation of the e-transformation strategy and plans of federal entities, in line with the federal e-government strategy, all in order to ensure the required transformation supports the implementation of the e-government plan.

The Department develops policies and manuals for managing the Official Portal of the UAE Government, government portals and websites at the federal level, and supervises the implementation of such policies. It also drafts and monitors the implementation of guidelines for content, social media and open data, as well as manages the following websites: The Official UAE Government Portal (government.ae), Data Portal (bayanat.ae), E-Participation Portal (sharik.ae), the UAE Portal for Sustainable Development Goals (uaesdgs.ae), in cooperation with stakeholders, and to assist federal government entities to enhance and manage their websites so as to contribute to the promotion of digital transformation and communicate the government's message to the public through electronic means and the like. The Department also develops e-business platforms and mGovernment apps and assists in the provision of services and tools for measuring e/m-government enablers.

Local participation

The Department participated in several internal events and government workshops in the course of its efforts to coordinate the mTransformation of government services and websites. The Department held a series of workshops on content development for government websites, and provided consultation to government entities in the area of e-participation, content and open data.

On the other hand, the Department held awareness-raising workshops on mGovernment enablers indicators and the implementation of the national indicator with entities involved in achieving the OSI. The Department also held a number of consultation sessions for federal entities on the indicators of mGovernment enablers. The Director of the Development Department is the Chairman of the OSI Executive Team, which was formed by the PMO under Letter No. (R/651/2016) dated December 2016 ,27, in line with Cabinet Resolution No. (1/9W) dated October 2016 ,16 on launching the executive teams and government accelerators to achieve the National Agenda 2021.

Policies or practices for achieving Vision 2021

After the Development Department developed a number of manuals to help government entities move forward in the mTransformation process, the Department continued to update these manuals in accordance with global developments and local requirements. These guides/manuals are summarized as follows:

- Guidelines for eParticipation and Social Media for Government Entities
- Moderation, Usage and Response Policy
- e-Participation Plan via the Official UAE Government Portal
- Guidelines on e-content specification of government entities

Department's initiatives during the Innovation Month

UAE Hackathon: Data for Happiness

As part of the innovation month, the TRA launched the first hackathon series covering the seven emirates under the title: "UAE Hackathon: Data for Happiness". The aim of these hackathon is to give youth the opportunity to demonstrate their innovative skills and provide solutions to the issues that preoccupy people nowadays. The TRA has provided the tools to come up with solutions to these challenges, providing training, follow-up and data through the Open Data Portal (bayanat.ae), which was a source of data covering all topics of the Hackathon. Each hackathon is a short-term competitive event in which tools and data are available, unleashing innovation and creativity, and empowering participants to come up with innovative solutions to existing community challenges. To organize these events, the TRA collaborated with seven local e-governments: Abu Dhabi, Dubai, Sharjah, Ajman, Fujairah, Ras Al Khaimah and Umm Al Quwain, as well as the Federal Competitiveness and Statistics Authority. The TRA has also coordinated with six universities: Khalifa University, American University of Ras Al Khaimah, University of Sharjah, Ajman University (Ajman and Fujairah campuses) and Zayed University. Private sector partners have also contributed to the organization and implementation of hackathon events, including Richard Kirby, Open Data Corporation, as well as other international and local companies. At each hackathon, the TRA provided the necessary training to develop smart applications, e-services, websites and innovative solutions. The TRA also provided, in partnership with the private sector and universities, controllers to follow up on all participants and ensure that their ideas are developed and put into practice.

The UAE Hackathon is the first of its kind to most participants as they have not largely tried using government data or developing smart applications, websites or e-solutions. Nevertheless, a great many innovative solutions were produced by participants during the three days of each hackathon. Innovative ideas ranged from finding solutions to fog and traffic jams, to providing better health care, to improving the quality of education and the environment. They were also able to use new tools to analyze data innovatively and find creative solutions. A good number of artificial intelligence concepts and tools have been applied to collect data and provide solutions to problems.

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Other achievements:

Development of "Deira" platform

Development of a national smart platform called "Deira" that supports the management and follow-up of operational plans of executive teams to accelerate the achievement of the National Agenda. This platform provides a dashboard that allows decision makers to follow progress in achieving targets of national indicators over time.

The platform aims to (1) provide a smart dashboard to track the performance of executive teams, (2) automate the stages of implementing the guidelines for national indicator coordinators and executive teams in accordance with the directives of the PMO, (3) provide records to document relevant past experiences to draw upon in improving future performance, (4) strengthen cooperation between members of executive teams, (5) provide realistic and comprehensive performance results of executive teams, (6) save human and financial resources by combining efforts and resources and committing to the team's calendar, (7) ensure standardization and accuracy of information and its timely delivery, (8) support executive teams by providing methodologies and information in respect to such teams, (9) publish the executive team calendar and incorporate associated preparatory plans.

Policy and Programs Section

The Policies and Programs Section contributes to the promotion and development of policies, initiatives and projects to study the ICT sector and ensure the mGovernment digital transformation in line with UAE's vision and strategic objectives. The Section monitors compliance mechanisms in Internet governance policies, access management, and domain names management in the UAE. In addition to implementing the mGovernment initiative, the Section seeks to develop UAE's digital economy by strengthening the credibility of transactions and e-commerce to foster confidence in the integrity and validity of electronic/digital transactions, communications and records, as well as by developing regulatory frameworks to ensure transparency of exchanges and online consumer protection

It is worth mentioning that the Section seeks to promote a culture of government excellence and develop programs to raise the efficiency of government performance through the Innovation Lab or Center of Digital Innovation (CoDI), a stimulating environment for innovation, research and exploration of new ways to develop and deliver smart digital government services. CODI includes a comprehensive laboratory to ensure quality smart digital government services and assist government entities and academia achieve a common level of performance, security and quality over new and emerging access channels. The Center aims to develop and disseminate best practices through seminars, training programs and partnerships with educational institutions to implement such practices in designing and providing mGovernment services. In addition, CoDI provides advisory services to drive the transition towards the smart digital government.

This includes the National Computer Emergency Response Team (aeCERT), which launched a number of initiatives aiming to raise cybersecurity awareness and activated all initiatives that would spread awareness among different segments of society towards the importance of cybersecurity. aeCERT has been established to improve information security standards and practices, protect and support UAE ICT infrastructure from online risks and breaches, and build a secure and protected ICT culture. aeCERT goals include enhancing the cybersecurity law and assisting in the creation of new laws, enhancing information security awareness across the UAE and building national expertise in information security, incident management and computer forensics.

The Section also provides consultation services to government entities regarding IT management and standards.

2018 Milestones:

The Policy and Programs Section works to connect smart services federally and locally, enhance the quality of services provided, increase utilization rates and satisfaction with mGovernment services, through a range of projects and initiatives undertaken by the TRA. Further to overseeing the initiatives and projects included under the Government Accelerators, which is a new government mechanism aiming to highlight innovative solutions and achieve ambitious, tangible goals in 100 days or less, and giving practical recommendations executable in a short notice. Among these initiatives are 'Mabrouk Ma Yak' and the Business Platform.

Key initiatives for 2018 include:

Mabrouk Ma Yak

'Mabrouk Ma Yak' is an initiative of the TRA that allows parents to conduct all government procedures for registering their newborn through a unified platform. The initiative was presented in response to the time it takes users to finish the process, submit all the necessary paperwork and the time spent by public service staff in finalizing all these papers. The initiative aims to increase happiness among families, reduce working time of public servants and thereby increase productivity and reduce carbon emissions by 7.5 tons per year. The service is regarded as a way to reduce the customer journey from seven visits to one visit only, where all official documents of newborn babies are received. All this is done electronically in simple and easy steps using the Government Services Bus.

National CRM development initiative

Established and launched a national call center providing services to all citizens and residents. Several communication channels will be provided to deal with the public and provide services through a national customer relationship management platform to increase government's access to central information on the preferences of citizens and residents, their complaints and full past information about their interactions. This acts as a rich source for government entities to understand how best to provide services and make better decisions, as well as saving financial resources of government entities.

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Key initiatives for 2018 include:

Business platform initiative

The initiative has facilitated the establishment of new businesses and companies by providing a smart national platform with a cutting-edge technology, which allows customers to complete all procedures of establishing and registering companies online anywhere, and in all of the emirates. The project led to increased economic activity and established the UAE as a regional and global hub for investment.

Results: Reduced the number of visits from 10 to 0, number of documents from 30 to 0, time to obtain electronic documents from 8 to 15 minutes, and increased the number of inquiries in the National Economic Register

Digital identity systems (SmartPass)

Using only one reliable and secure identification associated with the ID number that allows customers to access UAE government services using a single account. Users only need to authenticate once to access many e-government services on the Internet. The team connects all federal and local entities to the service, saving time spent in identifying the customer and effort on the customer, who in turn shows each entity his/her basic information, which also helps reduce forgetting customer username and password. This system aims to fully eliminate the need for customers to submit paperwork, which leads to increased customer satisfaction and ease of delivering services thus improving the quality of government services, reducing the time spent in requesting a service and minimizing required documentation by highest standards of cyber safety and digital security.

Also launched was UAE Pass, a system providing digital signature services as the UAE government will make practical use of digital certification and signature services. The "UAE Pass" initiative is one of the initiatives adopted in the 'Smart Services and Digital Infrastructure' course, one of the courses of UAE government annual meetings at its second session in 2019-2018.

Development of Standards for Government Data Dissemination and Exchange

The standards were developed with the aim of advancing digital transformation in government entities and enhancing digital data readiness, to achieve greater productivity through data sharing owing to UAE's strategic directions, especially those related to the strategy of Fourth Industrial Revolution (4IR), Artificial Intelligence (AI), and the Smart City. This data is a national resource that promotes cooperation and information exchange between government entities.

We expect the economic impact of shared data exchange of priority services to serve the annual productive work by equivalent to 1\$ billion per year.

Participation in UAE's competitiveness programs regarding the information society

Successful UAE participation in the WSIS Forum with a view to strengthening cooperation with international ICT organizations Encourage government and private entities to contribute and participate in the Forum to highlight best ICT practices and share experience globally.

This underscores UAE's commitment to the WSIS goals and Sustainable Development Goals (SDGs), and leverage of the potential of ICTs in accelerating social and economic development.

Develop and improve Internet Access Management (IAM) policies

Updating and developing IAM policy and procedures to keep abreast of developments in Internet usage and emerging issues. In addition to developing day-to-day systems for Internet access management and policy implementation in coordination with ISPs in the UAE.

- Updating the IAM Policy and Procedure and applying them across ISPs in the UAE
- Enhancing IAM system functionality to support new updates in the IAM policy and procedure
- Improving internal capabilities that help enforce the IAM policy and, specifically, test applications and software

Best m-Government Service Award

Managing the Award in coordination with the PMO. The 'Best m-Government Service' is an annual global award launched by the UAE, which aims to stimulate and encourage government entities to provide creative and innovative solutions via smartphone applications, ensuring around the clock around access to government services that are easy, simple, highly efficient and transparent to meet public needs and exceed their expectations. The "Best m-Government Service Award" is open for all governments globally and is one of the "World GovTech Award" competitions. The awards ceremony is held at the World Government Summit.

Innovation Camp

The Camp aims to orient the younger generation towards future technology prospects, and to support exploration, innovation, future shaping and youth's technical skills development in line with UAE's ICT trends.

The TRA Innovation Camp is held in the various emirates to ensure the largest number of participants from ages 6 to 17 of both genders for 5 days per group, from 8 am to 2:30 pm. During the Camp, the TRA organizes 24 diverse activities focusing on building basic skills that help students develop and refine their talents and skills, and encourage them to embrace entrepreneurship in general, and in the digital world, in particular.

The Camp is in line with the UAE's directions for promoting a culture of innovation. It reflects TRA's commitment to support community initiatives, especially those that serve our students during the summer holiday.

Since its launch in 2015, the Camp has trained over 10,000 Emirati students from all seven emirates.

Key initiatives for 2018 include:

Our Future (2nd Phase)

"Our Future" is a system specifically designed to overcome the challenge that students face when deciding their profession following their graduation from high school. It aims to guide and motivate students through scientific methodologies to identify the student's personality and interests and this is achieved by combining and presenting several theories and techniques to the student using an immersive VR experience.

Following evaluation, the system recommends to the student the most appropriate professions based on the test results as well as the current and future government job. From there, the student gets a day's experience in the life of such profession, exploring the environment, workflow, main tasks, and finally the system outlines a detailed roadmap of universities that the student may join to start working in the suggested profession, as well as the places at which the student can work. The second stage of "Our Future" is a continuation of what we have been working on, which aims to improve results, add more professions and develop the website.

Access to personal information for individuals

Facilitating the process of requesting personal information from all government entities, to give concerned entities the opportunity to access and share personal information of individuals and exchange it with other government entities as needed, while taking privacy into account. In addition to improving the quality of information and data available with all departments and municipalities, and providing e-services based on high quality data

Activate the single sign-on (SSO) system for internet users in public places

The project sought to spread Wi-Fi access to promote a safer environment for public internet users. The first phase was successfully implemented, covering the public areas managed by Etisalat and Du. The second phase will include system implementation on non-managed areas by Etisalat and Du. It includes for example, but not limited to, hotels, restaurants, coffee shops, airports... etc.

Develop an electronic stamp to record online activities

With the increase in e-commerce (online sales), which is accompanied by an increase in fraud, there is a need to develop a trust seal to ensure the reliability of online business activities. The project aims to develop a framework and system that enables the TRA (in cooperation with economic departments or DEDs) to verify the existence of the activity and its compliance with standards.

This project is an extension of the 'No Objection Certificate' service provided by the TRA to businesses applying for a license requiring electronic presence of DEDs

Fast Forward Summit - the "100X" initiative

As part of its efforts to promote digital entrepreneurship, the TRA launched the 100X initiative, which aims to gather information on businesses to which standards apply and select the top 100 technology startups in the UAE. Emphasis will be placed on selecting businesses that apply innovation standards and digital entrepreneurship, and adopt to work through the government Innovation Lab to leverage technical solutions provided by global partnerships in the laboratory

Local and regional participation

Global participation

The UAE, represented by the TRA, is keen to participate actively in various ITU events, including the WSIS. The presence of the UAE in these global forums is in line with the vision of our wise leadership on the importance of enhancing the country's competitiveness and its effective contribution to international affairs, including efforts to serve the Sustainable Development Goals that the Forum seeks to achieve worldwide. UAE's presence at WSIS also reflects the extent of its interest in the ICT sector and its role in digital transformation and forging a future based on sustainable development, artificial intelligence and knowledge.

Agreements and MoUs

- October 2018: UAE PASS partnership agreement with Smart Dubai, TRA and Abu Dhabi's Smart Solutions & Services Authority, which allows organizations and individuals to remotely complete their transactions anywhere, anytime, through mobile applications. It also provides user access to services of local and federal government entities, as well as other service providers, via smartphones.
- July 2018: Signing of MoUs with more than 30 federal and local entities to cooperate in the 'Bashr' Initiative, targeting %20 of total new business/trade license registrations in the UAE, and providing 6 business transactions and 8 services in full electronic form.

Regulatory Decisions and Laws

Policies or practices for achieving Vision 2021

Implementing the Digital ID Project (UAE PASS) in partnership with the Dubai Smart Government and the Government of Abu Dhabi to develop a unified digital identity in the UAE, in line with UAE's strategy to launch and implement unified projects at the country level to achieve targets of UAE Centennial 2071.

Department stats

- Connecting 25 federal entities and 31 local entities across Abu Dhabi, Fujirah, Sharjah, Ajman and Ras al-Khaimah
- Launching the SmartPass service on 73 websites and 21 mobile apps
- Number of registered individuals verified in SmartPass (card and fingerprint) reached 125,000 new registrants
- Increasing the number of government entities utilizing the service for validation of registrants through Smart-Pass, which enhances the accuracy of e-service user data and thus improves the quality of service and delivery channels
- Connecting 38 federal and local entities on the Government Service Bus and providing 88 services via the platform
- 31.30 million transactions made on the Government Service Bus as of December 2018
- 'Mabrouk Ma Yak' Initiative achieved by integrating the services of 11 local and federal entities. Linked 28 hospitals and registered 6815 children as of December 2018
- 2303 request to block or unblock websites according to IAM policies
- Customer happiness with accredited AE domain registrar services was measured at %87, reflecting a %40 increase in satisfaction over the past year.
- 460435 beneficiaries from Information Security lectures
- 243 security awareness publications through the media
- 13 security reports
- 293 requested responses to online incidents
- 40 innovation lab training programs
- 3485 students trained in the Innovation Camp 2018

List of innovation projects:

Government service testing	CODI	
3D printing	CODI	
Capacity building in virtual reality	CODI	
UAE National Service virtual game	CODI	
Research study on UAE national skills and expertise	CODI	
Open source innovation project	CODI	
Innovation training platform (Tadreeb)	CODI	
Study robotics to support TRA services	CODI	
Arab Digital Currency	CODI	
Our Future	CODI	
Big Data Analytics	Policy and Programs Department	
Government Service Bus (GSB)	Policy and Programs Department	
SmartPass	Policy and Programs Department	
UAE Pass	Policy and Programs Department	
Internet access point	Policy and Programs Department	
Customer Inbox initiative	Policy and Programs Department	
'Mabrouk Ma Yak' project	Policy and Programs Department	
'Doing Business in 15 Minutes' project	Policy and Programs Department	

List of innovation projects

Cloud Analytics	Policy and Programs Department
100X	Policy and Programs Department
Cloud Analytics - Draft National Smart Data Strategy	Policy and Programs Department
UAE APPS	Policy and Programs Department
NCRM	Policy and Programs Department

Other achievements

- As part of the operational framework of the national mGovernment plan and in line with preparing for UAE 2030 and alignment with the AI Strategy and the National Strategy for Innovation, the TRA identified the key priority initiatives for implementation, including: Building and developing the smart infrastructure of UAE Pass, analyzing smart data, developing mGovernment services while considering the establishment and implementation of an mGovernment regulatory framework, which includes policies and legislation governing the management of mGovernment businesses.
- Based on the UAE Artificial Intelligence Strategy and with the aim of linking artificial intelligence technologies to the development of smart transformation in the country, the TRA has implemented, through the Government Innovation Center, several projects such as the interactive 3D theater (120 degrees), the fixed interactive screen and the 3D printing lab that were harnessed in many educational purposes, study preparations and VR simulation.
- The TRA, in coordination with licensees, seeks to highlight an important aspect of their leadership and active contribution to the development of ICT sector by emphasizing their active role in supporting the deployment and use of IPv6 on their networks in the UAE. The TRA, represented by the .ae Domain Administration (aeDA), has established an infrastructure to manage UAE's top-level domain in compliance with IPv6. The .ae and the Arabic .emarat registry system provides the ability to add IPv6 addresses to DNS operators to help customers wishing to provide their services through the IPv6 cloud.
- In order to ensure implementation of smart service projects from the customer and user perspective, the TRA has launched the National User Experience (UX) Lab project by building user experience manuals, technical tools and virtual assistant services, ensuring that requirements are met during the customer's journey.

Other achievements

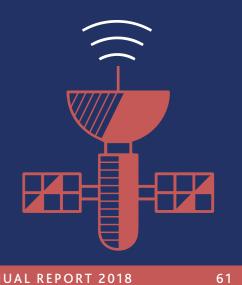
- A virtual AI assistant has been developed. It is the first channel of communication with TRA's customers, and the virtual assistant can communicate by voice and text with customers. Through which, the user can inquire about and request TRA services using "Ambient Intelligence". The virtual assistant is continuously fed and trained to increase the accuracy of its answers by analyzing recorded calls between the call center and customers using "Machine Learning". The project targets 34 applicable services without referring to staff
- Based on the UAE Artificial Intelligence Strategy and with the aim of linking artificial intelligence technologies to the development of smart transformation in the country, the TRA has implemented, through the Government Innovation Center, several projects such as the interactive 3D theater (120 degrees), the fixed interactive screen and the 3D printing lab that were harnessed in many educational purposes, study preparations and VR simulation.
- Launching the Smart Lab as a guide to UAE Government Apps Store through a smart environment and tools capable of testing applications in vital areas. To help government entities identify areas of improvement before launching their apps through several tests such as compatibility testing, binary analysis, code analysis, dynamic analysis and penetration testing at the level of app operation, and assess vulnerabilities that can be exploited. In addition to simulation testing by simulating real-time use of the app and providing detailed after-test reports to entities for reference.
- Providing technical consultancy through the Government Innovation Center and in cooperation with international expert houses in order to accomplish smart transformation plans in the country through government entities. The Center has provided technical and advisory support to entities in terms of assessing smart apps and examining the app configuration structure relevant to government services
- In order to develop the institutional capacity of the TRA through the Government Innovation Lab as a government service development channel in accordance with the Fourth Industrial Revolution (4IR), the TRA has implemented a package of projects, such as the virtual operation/autopsy, TRA AI-powered Virtual Assistant, Crypto Lab, Cryptocurrency Mining, AI/future-shaping research, and meeting room booking through IoT
- In line with UAE's vision to ensure 4IR integration to study the efficiency and capacity of citizens in ICT for the coming years and in keeping with market needs and global developments, the TRA seeks to implement many innovative projects such as the National Service Virtual Game, the Electronic Training Platform (through YouTube), the Innovation Training Platform (Tadreeb), the open-source innovation project, the UAE national skills and expertise research, and the digital learning platform to find solutions to global challenges (without the need for traditional books and colleges).

Other achievements

	Initiative 1	Initiative 2	Initiative 3	Initiative 4
Initiative title	UAE Ambassadors for Electronic Security	'We protect our country' programme	'Himaya' initiative	The National Bullying Prevention Week campaign
Overview:	The "UAE Ambassadors for Electronic Security", a TRA initiative, aims to train top UAE students to serve as ambassadors in promoting and spreading cybersecurity awareness across the UAE.	'We protect our country' programme, a community initiative by Umm Al Quwain Police, aiming to promote positive communication to involve all citizens and residents in maintaining the society's security. It encourages individual initiative to report security information or criminal/negative behaviours to the police, thus supporting the police. Moreover, the programme raises the community's awareness about the importance of information and not underrating any small observation or information.	This initiative is one of the Ministry of Community Development initiatives, which includes "I don't accept" programme aimed at spreading the culture of children's rights in society.	The Ministry of Education, in cooperation with the Supreme Council for Motherhood and Childhood, and with the participation of more than 20 local and federal entities, launched the national week for the prevention of bullying, to raise awareness about bullying throughout the UAE.
Vision:	Building a secure cyberculture in the UAE	Effective community participation to maintain the security of Umm Al Quwain	Spreading children's rights culture in the UAE society	Combating and preventing bullying in schools
Mission:	Empower Emirati students to represent aeCERT as ambassadors of electronic security, to contribute to enhancing cybersecurity awareness across the country.	Providing a smart electronic service that contributes to the security of Umm Al Quwain through community participa- tion.	Raising the children's awareness and educat- ing them about their rights, responsibilities and ways to reject abuse	Ensuring children's right to education and protection from all forms of violence

Other achievements

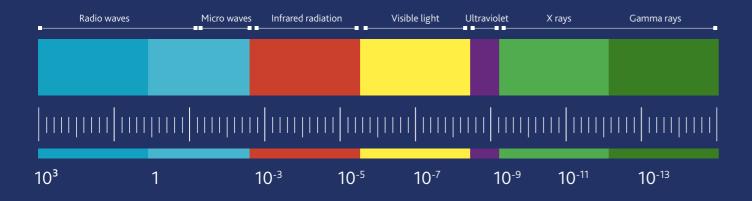
	Initiative 1	Initiative 2	Initiative 3	Initiative 4
Initiative title	UAE Ambassadors for Electronic Security	'We protect our country' programme	'Himaya' initiative	The National Bullying Prevention Week campaign
Objectives:	Training top students aged 18-14 in selected schools of the UAE Improving presentation skills among UAE students Raising awareness of best security practices among the public	Deepening the sense of safety and security in the community in general and in the living neighbourhoods in particular Protection of the county's achievements as a community responsibility Promotion of positive communication and monitoring negative practices as a social responsibility The programme includes five main areas: emergencies, security, humanitarian and social areas	Protecting children from cyber abuse Protecting children's online rights Spreading the culture of awareness and education of online dangers among school students	Visiting public and private schools to shed the light on various issues related to bullying Identifying bullying and its various forms. Cyberbullying Characteristics of the bully and bullying effect on children Negative impact of bullying on children's lives and mental health The reason behind bullying



SPECTRUM MANAGEMENT DEPARTMENT

Radio Frequency Spectrum is a scarce natural resource, available for use by all countries.

- Effective spectrum management in any country improves the efficiency of frequency utilization and results in quality services provided by users.
- Spectrum is a limited natural resource in the UAE. As such, the TRA, through the Spectrum Management Department, protects and optimizes this scarce natural resource by employing latest technology in spectrum management. Furthermore, the TRA prepares and publishes a National Spectrum Plan pursuant to Article 46 of the Law and is responsible for allocating the spectrum for the provision of telecommunications services pursuant to Article 48 of the Law. Additionally, the TRA collects fees imposed by the Higher Committee on licenses and any other spectrum-related payments pursuant to Article 18 of the Law.



About the TRA and its assigned spectrum management task/function

Functions of the Spectrum Monitoring Section:

The spectrum monitoring team performs a number of analytical and field tasks that vary according to their nature, which can be categorized as follows:

- Events: Securing frequencies before and during events.
- Maintenance: Preventive and corrective maintenance of spectrum monitoring systems.
- Monitoring: Spectrum monitoring interference resolution.
- Cross-border coverage: Execution of agreements signed between the UAE and neighboring countries.
- Field measurements: Ensuring spectrum vacancy.
- Others: Includes project works, visits and other participations
- Total number of staff: 8 (engineers and specialized technicians)

Spectrum allocation and monitoring at events



The team participates in events such as Formula 1 and UAV awards, where more than 30,000 frequencies are checked, and interference is handled immediately.

Automation of the spectrum management system

In early 2017, the system was upgraded to become electronic:

- Does not require engineers' intervention in conducting technical studies
- Performs Smart Renewal
- Drastic changes to the electronic submission system:
- Allows the user to submit feedback at any time
- Vision alignment for people who are color blind
- Easy to browse regardless of screen size (responsive)

Chairing WRC- 12



The UAE has been elected to chair WRC12- represented by Eng. Tariq Al Awadhi, Executive Director of Spectrum Affairs Department. This has strengthened the UAE's global leadership in radiocommunications.

SPECTRUM MANAGEMENT DEPARTMENT

Chairing the ITU CPM1-19



The UAE has been elected to chair ITU's CPM1-19 represented by Mr. Khaled Al Awadhi, Manager Broadcasting and Space Services at the TRA's Spectrum Affairs Department.

Chairing the Arab Spectrum Management Group



The Department succeeded in making the UAE head Arab countries by leading the Arab Spectrum Management Group and thus the ITU Arab group.

Preparing for WRC- 19

A national team was formed to prepare for WRC19- headed by the TRA through the Spectrum Affairs Department.

Department staff lead a number of teams: Previous session:

- Eng. Saleh Al Musabi, Vice-Chairman of SG 3
- Eng. Ahmad Ameen, Vice-Chairman of SG 7
- Eng. Mohammed Saad, Vice-Chairman of SG 6

Preparing for WRC- 19

Current session:

- Eng. Khaled Al Awadhi, chairman of CPM19-
- Eng. Ahmad Ameen, Vice-Chairman of SG 7
- Eng. Sultan Al Balushi, Vice-Chairman of SG 5

The Spectrum Department participates in ITU working groups and study groups, at which it presents working papers and thus shows the ability to defend the UAE interests by taking part in these meetings.

HUMAN CAPITAL DEPARTMENT

Initiatives and projects of HR sections

1. HR planning section:

- In line with the National Agenda and UAE Vision 2021 in promoting Emiratisation policies in all aspects and providing incentives to raise the rates of UAE nationals working in various sectors, the TRA participated locally with elite universities and colleges in job fairs and events (total 11) that support the recruitment and training of young national cadres with a view to attracting Emirati talent and positively promote TRA's role, and what it can offer to students and graduates.
- The TRA is keen to raise the percentage of Emiratisation in all sectors through the recruitment of qualified national cadres to fill vacancies of all categories, and it initiates succession planning so that citizens are qualified to fill positions held by non-citizens. The Emiratisation rate reached %86.49 in 2018, an increase of %1.87 over the previous year.

2. Talent Management Section:

- The total number of training hours per employee was 38 hours in 2018, and the total percentage of trainees %88.5 from different job categories through attending training courses, seminars and workshops inside and outside the UAE.
- (43) training workshops on creativity and innovation were held with 148 employees from different groups, which resulted in some innovative initiatives.

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HUMAN CAPITAL DEPARTMENT

Initiatives and projects of HR sections

• In cooperation with various academia, the TRA has trained 20 students under the requirements of practical training, each according to his/her scientific discipline.

3. Employee Relations Section:

The Department of Human Resources is keen to improve and provide the best services to its employees, as it continuously keeps track of human resources systems. The Department measured employees' satisfaction with internal services and ease of use of the system in place with 155 employee responses, where satisfaction with the use of HR services and self-service was at %69 of the total number of employees who completed the survey.

Local participation

The HR Department has received a number of government organizations that wish to undergo benchmarking, taking the TRA as a model.

The HR Department staff also took part in social responsibility activities such as the International/ Emirati Women's Day, as well as participation and empowerment of young employees in sports challenges of governments.

Decisions

In February 2019, the HR Department initiated implementation of the Executive Order of the Federal Government Human Resources Law pursuant to Cabinet Resolution No. (1) of 2018. Such implementation resulted in updating TRA staff policies and decisions.

Department's initiatives during the Innovation Week

The HR Department participated in the 2018 Innovation Week by holding workshops such as the 'Innovation Industry' held at the TRA building in Dubai and Abu Dhabi. The workshop aims to spread innovation concepts and tools and teach how to stimulate and generate innovative ideas that can turn into projects or products to reduce time or raise the quality of TRA's processes or products. Staff have also been trained in the Six Thinking Hats, which innovatively refine their skills in debates and increase staff understanding of other parties during meetings and dialogues.

Stats

1. Employee turnover

In keeping with its role to prepare national employees, the TRA has developed a plan for succession and Emiratisation, which led to an increase in the turnover rate among expatriate employees to %23 in 2018.

EMPLOYEE TURNOVER - EXPATS



Specialized jobs – Females

Women hold 34 % of the specialized jobs in the TRA, which indicates that women have a central role in all posts, zespecially the specialized ones.

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HUMAN CAPITAL DEPARTMENT

CUSTOMER HAPPINESS SECTION

Stats

2. Percentage of trainees and training hours (2018-2017-2016)

The total number of training hours per employee was 38 hours in 2018, and the total percentage of trainees %88.5 from different job categories through attending training courses, seminars and workshops inside and outside the UAE.



CUSTOMER HAPPINESS SECTION

The Customer Happiness Section is responsible for ensuring a standard level of quality services for all TRA customers through communication channels, customer care and customer happiness centers, by providing work environment and tools with high levels of accessibility, ease, accuracy and excellence according to state-of-the-art technology. It also (a) develops indicators to monitor service performance in coordination with the Corporate Development Department for approval and implementation, (b) reviews best international practices to ensure provision of high quality and highly efficient services by the TRA, (c) collects data and statistics related to areas of TRA customer service through the service delivery channels, (d) analyzes information from studies, customer satisfaction surveys, and customer suggestions/complaints, and (e) uses results in the development of plans, programs and procedures to improve the level of provided services or propose new services.

The Section also provides all customers with the necessary information and guidance, and responds to their suggestions, complaints and expectations with a special degree of accuracy. This is also to ensure communication with all customers, introducing them to the services provided by the TRA and meeting their requirements and expectations. Additionally, the Section organizes and monitors the implementation of agreements service level agreements (SLAs) with stakeholders, whether internally or externally.

The Section (a) prepares training programs for customer happiness employees to ensure continued service at the best level or according to the services being developed, (b) monitors/evaluates the quality of dealing with customers across all channels, the accuracy of information and the quality of the language frequently used and continuously improve the same, and (c) ensures implementation of Emirates Government Excellence Program standards in all respects of the service development framework and customer happiness manual.

Section functions include: (a) coordinating with service departments to conduct studies and projects that ensure development of services and methods of delivery, (b) following up on the improvement and development of CRM operations and ensuring the accuracy of data and information entered, (c) managing and operating the CRM system, authorizing /training users on the system, monitoring employee performance in the system and submitting periodic progress reports.

Moreover, the Section studies/analyzes customer needs and expectations, and in doing so, adopts the feasible ones that positively affect the level of provided services and satisfaction achieved, outlining and documenting the operations of the Customer Happiness Section in cooperation with the Corporate Development Department while periodically reporting on the 'Adaa' system.

2018 Stats:

- No. of customer happiness center clients: 14358
- No. of calls received: 93271
- No. of mails: 42202
- No. of inquiries: 11413
- No. of complaints: 843
- No. of suggestions: 122
- No. of dispute resolution requests: 29187

