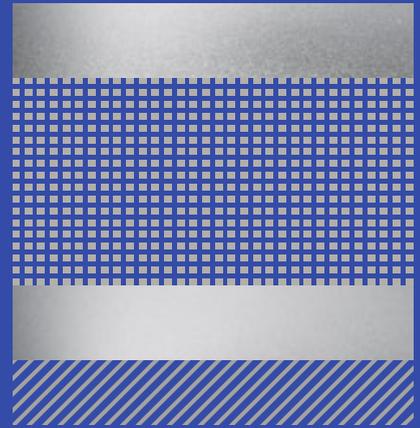
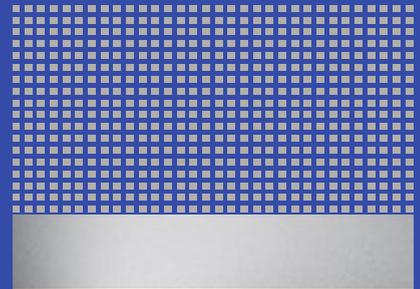
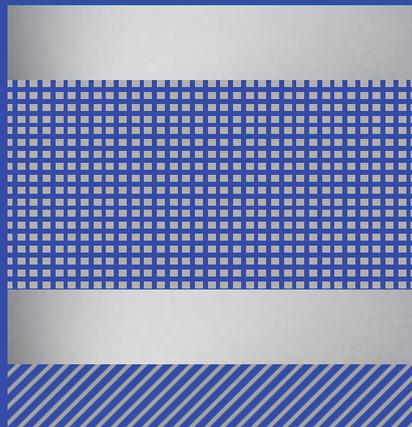
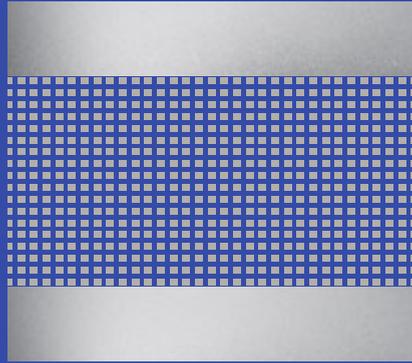
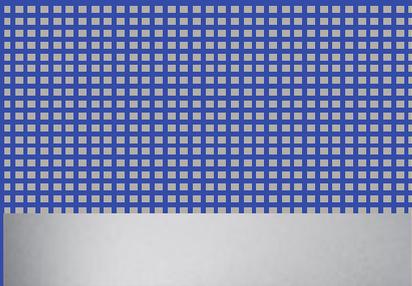


ANNUAL REPORT — 2019



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VISION, MISSION 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

Leadership

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

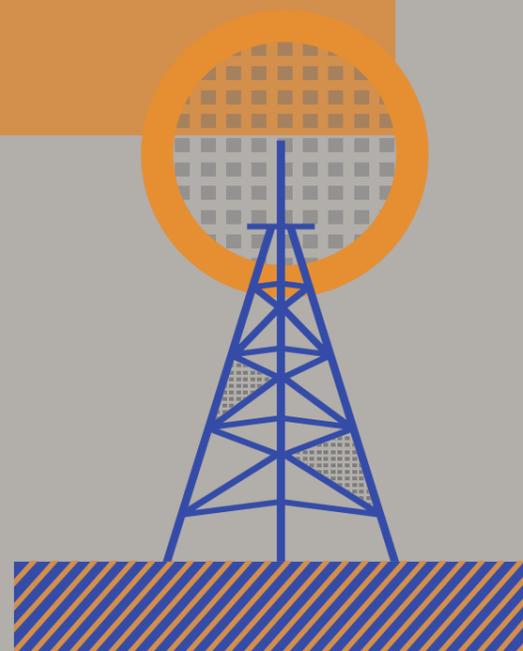
We are committed towards our responsibilities to the UAE in providing best available technologies for the Sector.



CHAIRMAN MESSAGE

A NATION WHO DO NOT KNOW THE IMPOSSIBLE

“ By the end of 2019, the UAE opened a new chapter in planning for a bright future by declaring 2020 as the year 'Towards the Next 50 Years'. The particularity of this stage lies in the fact that today we are putting the finishing touches on a chapter of the achievements that took the world by surprise, from the establishment of the union at the hands of the founding fathers, to the development we are witnessing today in all fields, making the UAE a global story to be told and a human example in saving time and doing the seemingly impossible. ”



What have been achieved up until now is but a foundation of what is to come. This applies to what the TRA has achieved in 2019 and earlier. We are aware of the challenges and burdens upon us, both as a government body in general, and as an entity responsible for ICT sector in particular. We are living in a historic moment where communication technologies are the key driver for all human developments and achievements.

Such is the essence of the so-called Fourth Industrial Revolution, which is characterized by its spectacular breakthroughs in artificial intelligence, Internet of Things, robotics, 3D printing, autonomous smart transportation, and more.

While all these themes are based on the telecommunications infrastructure, the role of the TRA will be more significant in the coming period. From there the TRA was keen to launch the first national 5G strategy regionally. As is known, 5G is the typical incubator for communications in the era of smart cities, where millions of devices are connected together to better serve mankind.

We are concluding a new chapter in the journey of our blessed union, and opening a new chapter by preparing for the next 50 years. Our bet remains on young national cadres, who draw on the legacy of the founding fathers, who are highly interactive with this era and its tools, and who realize the importance of creative and innovative thinking outside the box.

H.H. Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, said: What was fit for the past may not be fit for the future, and what was of use to us in the past 20 years may not be more useful to us in the next 20 years.”

I am confident that the management and staff of the TRA are up to the task at this stage, as they have always been. I thank your efforts and dedication and wish you more success in serving our beloved home.

H.E Talal Humaid Belhouf
Chairman, TRA Board of Directors

DIRECTOR GENERALS MESSAGE



“ We started 2019 with the same level of enthusiasm as we begin marching towards our new milestones, driven by a strong desire to achieve the goals of the TRA, which are like branches in the tree of our great national goals. Our goal has always been to contribute to raising the name of the UAE high and strengthening its global standing in the ICT sector. ”

Today, we are turning the last page of this year with many achievements and projects in which we have reached advanced stages.

The TRA, with the genuine efforts of its staff, has been able to add more achievements in 2019, launching the world's shortest government domain for the official UAE portal, which is composed of one letter (u.ae), to embody the meaning of innovation as represented in simplicity and ease of remembering. It also reflects the centrality of humans in the government's interests in various projects, programs and future plans.

During this year we launched the National Cybersecurity Strategy, through which we aim to create a secure cyber space, allowing all members of society to work and learn, and opening the door to investment in this vital sector. We also held the UAE 5G Conference, where more than 400 experts and specialists gathered to discuss the future of this technology and its qualitative impact on various aspects of life. Today, we are proud that the UAE is one of 14 countries that have introduced 5G applications in its communications system, and we are proud that 5G as of end of 2019 covers around %30 of populated areas in the UAE. Coverage in Abu Dhabi city increases to %60.

The employees of the TRA showed great dedication this year, which was clearly reflected in the results achieved, as the UAE placed first in the Arab region in the Digital Competitiveness Ranking 2019, first globally in the “Internet and Telephone Sector Competition” Index, according to Global Knowledge Index report, and first in the region in the Fixed Broadband Speed Index.

Today, as we take a first step in our new year, Towards the Next 50, we have set ourselves, to be at the forefront of preparations required by this stage, drawing on the culture of innovation that has taken hold over time. On this occasion, I call on our brothers and sisters in the TRA to demonstrate, as they have always done, that they are worthy of the high trust placed on them by our wise leadership and dear nation. Today, we open a new page, under the slogan “Towards the Next 50”, equipped with state-of-the-art scientific and practical knowledge based on future shaping, and cruising the vast horizons of the future towards the glory that befits the name of the UAE.

Hamad Obaid Al Mansoori
Director General

Highlights of LOCAL, REGIONAL and INTERNATIONAL ACHIEVEMENTS 2019

TRA ANNOUNCES THE LAUNCH OF THE UAE HACKATHON CHALLENGE UNDER THE SLOGAN "DATA FOR HAPPINESS AND WELLBEING"



HACKATHON 3.0 UAE
Data for Happiness and Wellbeing

The TRA launched the 3rd Edition of UAE Hackathon, the country's biggest data analysis challenge, held in all emirates during February 2019, in conjunction with the Innovation Month. The Hackathon is held over four phases, including six hackathons in the seven emirates, simultaneously with activities distributed across each emirate during the Innovation Month.

TRA AWARDED CERTIFICATION IN THE EUROPEAN INNOVATION MANAGEMENT STANDARD



The Telecommunications Regulatory Authority (TRA) received the European Innovation Management Standard Certification. H.E. Hamad Obaid Al Mansouri, TRA Director General, received the certificate from Colin Rushmere, BSI MEA General Manager Compliance and Risk.

TRA LAUNCHES INTERACTIVE YOUTH LAB



The TRA, represented by the Youth Council, has launched the Interactive Youth Lab, an innovative initiative aimed at activating the role of youth and investing in their creative potential in exploring and finding solutions and ideas that contribute to the development of government initiatives and functioning of the mGovernment sector.

TRA SIGNS THE AGREEMENT OF (ONEAPP ONEPORTAL)



The TRA signed a collective MoU with a number of federal and local government entities as well as private sector entities to implement the "OneApp OnePortal" project, in cooperation with the signatories.

TRA RECEIVES WSIS CHAMPION AWARD



The TRA was awarded Champion of the WSIS Forum for the 'Innovation Camp' project. This was achieved as part of the tenth session of the Forum held recently in Geneva, Switzerland, in the presence of delegates from participating countries and ICT experts.

TRA SHOWCASES THE UAE DIGITAL EXPERIENCE IN THE AFRICA IT & TELECOM FORUM



H.E. Hamad Obaid Al Mansoori, TRA Director General, presented the successful UAE experience in employing the ICT sector to achieve digital transformation as an example to follow and develop upon in other countries. This took place during his participation in a panel discussion held by a number of senior officials and experts as part of the Africa IT & Telecom Forum, hosted in Abidjan, Ivory Coast.

TRA LAUNCHES THE NATIONAL CYBERSECURITY STRATEGY



The TRA launched the UAE National Cybersecurity Strategy at a press conference held at its offices in Abu Dhabi and Dubai, in the presence of H.E. Hamad Obaid Al Mansoori, TRA Director General, and a number of cybersecurity officials and directors in the TRA, as well as journalists and media representatives.

TRA LAUNCHES THE 5TH EDITION OF THE INNOVATION CAMP



The TRA launched the "TRA Innovation Camp" in its fifth edition on Sunday, July 7th till 8th August 2019.

UAE GOVERNMENT LAUNCHES THE FIRST SINGLE-LETTER DOMAIN NAME FOR ITS OFFICIAL PORTAL



The UAE government launched the new domain name of its official portal to be the world's first single-letter government domain (U), with the aim of facilitating public access to information, services, projects, strategies and laws in the country.

CODI RECEIVES INTERNATIONAL ACCREDITATION FROM THE GLOBAL INNOVATION INSTITUTE



The Center of Digital Innovation (CoDI) of the TRA has been accredited by the Global Innovation Institute to become the first of its kind to receive such accreditation in the Middle East. This achievement reflects the success of the state-of-the-art methods and strategies adopted by CoDI in applying the concepts of innovation in smart government sector.

UAE 5G CONFERENCE STARTS TODAY IN THE UAE



The TRA organized the UAE 5G Conference, with participation of prominent officials and experts in this field to discuss the reality, prospects, challenges and opportunities related to 5G.

The Conference took place in the Westin Dubai Marina and Marina Beach Resort, bringing together more than 400 experts and officials from different countries.

Several sessions were also held to discuss key issues related to 5G and its potential impact on various aspects of the economic, social, educational and commercial life.



UAE IS 1ST GLOBALLY IN COMPETITION INDEX FOR INTERNET AND TELEPHONY SECTORS

The UAE has made a significant progress in the competition index for Internet and telephony sectors. The UAE has progressed from the 104th to the first rank globally, according to the Knowledge Index Report, published recently by the United Nations Development Program (UNDP) and the Mohammed Bin Rashid Al Maktoum Knowledge Foundation. It has also progressed from the 61st to the 5th rank globally in the overall ICT Sector Competitiveness Index, which measures competitiveness in the ICT price basket, Internet and telephony sectors, and laws relating to the telecom sector.

UAE IS 1ST IN GOVERNMENT ELECTRONIC AND MOBILE SERVICES MATURITY INDEX

The UAE has been ranked first in the Arab region in Government Electronic and Mobile Services (GEMS) Maturity Index, according to a report issued by the United Nations Economic and Social Commission for Western Asia (ESCWA). This indicator is a measuring tool of progress at the national level in achieving transition to digital services.

UAE IS THE FIRST GLOBALLY IN BROADBAND SUBSCRIPTIONS AND MOBILE NETWORK COVERAGE

The UAE has ranked first globally in Mobile-broadband subscriptions, first globally in Mobile Network Coverage, and second globally in Mobile-cellular telephone subscriptions, according to the Travel & Tourism Competitiveness Report 2019, issued by the World Economic Forum.

UAE IS THE FIRST REGIONALLY IN TRANSFORMATION TO IPV6

The UAE has achieved the first position in the Middle East in transformation to Internet Protocol version 6 (IPv6), according to statistics issued by Ripe NCC, Akamai Technologies, and Google. This achievement comes less than two years after the TRA launched the first phase of IPv6 in the UAE.

UAE RANKED 1ST IN THE ARAB REGION IN THE DIGITAL COMPETITIVENESS RANKING 2019

The UAE ranked first in the Arab region and 12th globally among highly competitive countries in the IMD World Digital Competitiveness Ranking 2019, issued by the IMD World Competitiveness Center, Lausanne, Switzerland, one of the highly specialized institutions in this field worldwide.

UAE 1ST IN THE ARAB REGION AND 4TH GLOBALLY IN LAUNCHING 5G

The UAE ranked first in the Arab Region and fourth globally in the launch and use of 5G networks, according to the Global Connectivity Index, issued by Carphone Warehouse, specialized in technology benchmarking. The UAE also ranked the third globally in the overall ranking of the index measuring the Total Connectivity Rating (Most Connected Countries) through four pillars, namely: the mobility infrastructure, information technology, global connectivity and social connectivity.

ACCORDING TO GLOBAL KNOWLEDGE INDEX 2019, UAE MAINTAINS ITS LEADERSHIP IN THE ICT SECTOR

The UAE has maintained its position as one of the world leading countries in the global competitiveness indicators related to the ICT sector, according to the Global Knowledge Index 2019 (GKI 2019), issued by the Mohammed bin Rashid Al Maktoum Knowledge Foundation in partnership with the Regional Bureau for Arab States and the United Nations Development Program. The Report, which covered 134 countries in 2019, showed that the UAE remains a leader in a number of global competitiveness indicators, in addition to making significant progress in other indicators.

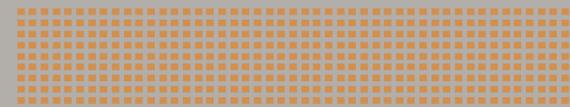
UAE LEADS WITH FASTEST FIXED BROADBAND SPEED IN THE REGION

UAE has achieved advanced levels in network performance and fixed broadband speed in the region, according to the latest data from Ookla, a global leader in internet testing, data and analysis.

INTERNAL AUDIT

Department

The Internal Audit Department reviews and evaluates the appropriateness and functionality of the governance, control and risk management process framework. In addition, it provides advice and recommendation 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:

Based on its role to examine and enforce TRA's internal control systems, review and assess relevance and effectiveness of such systems, and to promote the concept of corporate governance, 2019 saw the participation of Internal Audit and Risk Management Department in several councils and events:

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
- Member and financial advisor of UAE Pro League
- Membership of the Audit and Risk Committee of the National Qualifications Authority

2. Regulatory Laws

- Internal audit policies and procedures manual
- Charter of the Audit and Risk Management Committee
- Internal Audit Charter
- Governance Manual

During 2019, the Internal Audit Department acquired ISO 22301:2014 for Business Continuity Management System, ISO 31000:2009 for Risk Management System and ISO BS 13500:2013 for Governance Management System.

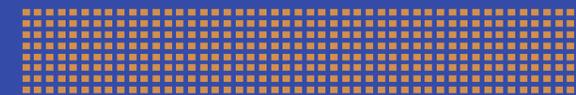
STRATEGY AND FUTURE DEPARTMENT

By implementing best standards and practices, the Strategy and the Future Department was able to obtain several ISO certificates during 2019 as follows:

- ISO 18295 Customer contact centres
- BS 1-8900 Managing sustainable development of organizations
- ISO 45001 Occupational health and safety
- ISO 31000 Risk management
- ISO 10001 Customer charter management
- ISO 10002 Customer complaints management
- ISO 10003 Dispute resolution
- ISO 50001 Energy management
- ISO 55001 Asset management
- ISO 10015 Training management
- ISO 30405 Recruitment management
- ISO 30408 Human governance
- ISO 1-8900 Sustainable development of organizations
- ISO 21500 Project management

During 2019, the Department carried out studies on customer satisfaction and developed a sustainability policy in line with the policies and practices for achieving UAE Vision 2021.

In 2019, the Department was able to achieve strategic and operational indicators and services as well as implemented the ISO Robot system for managing, monitoring and regulating administrative standards at the TRA level.



TELECOM SECTOR

TECHNOLOGY DEVELOPMENT AFFAIRS (TDA)

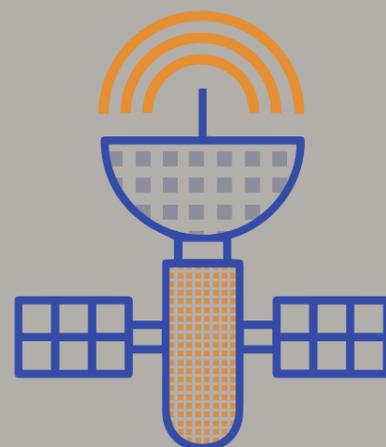
The Technology Development Affairs Department (TDA) is responsible for ensuring fair access to telecommunications infrastructures, communication service resources and management. In addition to ensuring continuous development and improvement of the telecommunications sector in the UAE.

Local participation

- Participation in the "Leaders Conference: Wars in the 21st Century" under the theme "Winning the Digital War"
- Participation in the ITU Regional Standardization Forum
- Participation in the ITU Workshop on Bridging the Standardization Gap in the telecom sector
- Participation in TRA's GITEX platform
- Participation in the ITU Annual Forum on "IoT, Big Data, Smart Cities and Societies"

International Participation

- Participation in ITU meetings (Switzerland)
- Participation in the World Summit on the Information Society (WSIS)
- Participation in ITU Telecom World
- Participation in Huawei Connect
- Participation in the IoT Conference
- Participation in the WTSA Conference Preparatory Meeting
- Participation in the annual meeting of the ITU Council



Policies and practices for achieving UAE Vision 2020

- Launch of the open laboratory to test, innovate and verify the latest 5G and IoT applications in the UAE.
- Abu Dhabi Police Emergency Center receives international accreditation by TUV Rheinland, a leading international company in security and safety solutions, as part of the "FAZAA" initiative for automated emergency calling in cases of traffic accidents
- Completion of the second session of evaluating licensees' customer service centers
- Completion of quality assessment of ICT services in the transport and airport sector
- Conducting of the virtual emergency exercise 'Sada Al Barq' in its seventh edition
- Launching of the IoT registration service
- Completion of field surveys related to the quality of mobile networks and services
- Full integration between mobile subscriber registration requirements and Mobile SIM Card Points of Sale
- Reviewing and updating the second version of the common specification manual for In-Building Telecommunication Network
- Reviewing and updating Type Approval policies and related processes
- Making improvements to automated management service systems

SPECTRUM MANAGEMENT AFFAIRS DEPARTMENT

Overall performance of the Spectrum Department reached 99% in 2019, as follows:



During the year, the Department issued 9814 spectrum authorizations, conducted 75 technical studies and 20 benchmarks, in addition to issuing 6 regulations

The Department has addressed all 117 harmful interferences and conducted 213 field surveys, covering 38,277 frequencies, and putting 2057 hours of field work

The Department also conducted 38 audits covering 18 activities, while fully responding to all inquiries and complaints

Department Participation:

The Department participated in 11 key events and 17 international events.

mGOVERNMENT

THE E-GOVERNMENT OPERATIONS DEPARTMENT

The e-Government Operations Department at the TRA is responsible for managing mGovernment strategic initiatives in the UAE, which play a key role in developing federal government services in three main areas: Integration, Enablement and Security of mGovernment services.

Federal Network (FedNet)

Total number of government entities connected to FedNet



Federal and Local entities

Total number of government entities using a service from FedNet



Entities

Total number of government entities using an internet service from FedNet



Entities

Total number of transactions received by the FedNet service desk in 2019



Tickets

Total number of transaction resolved by the frontline team in 2019



Tickets

Total number of escalated requests to L2 in 2019



Requests

Total number of government service requests received over FEDnet SD in 2019



Requests

Total number of reports generated by the FEDnet SD in 2019



Reports

Total number of customer calls received by the FEDnet SD in 2019



per year (approximately)

Government Service Bus (GSB):

Total number of services integrated on the GSB



Direct services

Total number of entities using GSB



Entities

Total number of uses on the GSB exceeds



Million

Total number of SSO-linked entities



Entities

Total number of SSO-linked applications



Applications

Number of entities using LaaS



Entities

Number of entities using EaaS



Entities

It took entities 7 working days to incorporate a service, (49 hours) to submit a request while now it can be delivered within several hours (approximately 5 hours). Since we take great care of our customer needs and are very confident that the new upgrade to FEDnet 2.0 will provide customers with the necessary support in their businesses, we have created freemium offers for all government entities taking part in the workshop that demonstrates service capabilities and features.

- Based on innovation and shaping the future in the TRA, a study was conducted to explore the prospect of geographically distributing the FEDnet 2.0 cloud across multiple data centers. Not only will this significantly reduce disaster risk, but will also reduce the cost of having dedicated disaster recovery equipment, and help save %50 on the same. This architecture is currently supported by FEDnet 2.0 and will be implemented once the third data center is determined. In addition, the TRA implemented the multi-directional Internet Protocol, which enables the Internet to be used by several ISPs.
- FEDnet Cloud is the first government cloud in the UAE to implement this architecture, and this will not only improve service cost, but also contribute to disaster response. Resulting savings amount to 2.440.000 yearly. In all government entities, disaster readiness, at the IT infrastructure level, is a major and very costly challenge. The disaster recovery as a service (DRaaS) provided by the TRA is based on VMware. More than 40 government entities can be operated in minutes with a full and tested DR service at the enterprise level, and huge savings can be made at the wider government level. This service enhances government service availability.
- HCS is a project offered to all government entities. It is a framework for integrating various asynchronous, real-time communication tools, in order to promote business communication, collaboration and productivity. Unified communications as a service (UCaaS) allows organizations to hold high-definition video-conferencing with screen sharing ability, and provides voice/video calling, unified messaging and chatting using any device. It also provides a telephone exchange server, so that user devices can be controlled in the same entity, eliminating the need for server space, periodic exchange maintenance and the FEDnet unit by providing a holistic service with periodic maintenance for five years.

THE E-GOVERNMENT OPERATIONS DEPARTMENT

The Development Department implements the various initiatives of TRA in accordance with the National Agenda embodied in UAE Vision 2021 and the mGovernment strategy. It monitors and reports on the progress of federal government entities transition to online services, and manages the official portal of the UAE Government, in addition to managing mGovernment e-participation with various audiences.

Local Participation:

- Participation with the PMO to present best mGovernment practices to delegates from Azerbaijan, Egypt and Jordan.
- Nomination of a representative from the Department in the national identity executive team.

Regional Participation:

- Nomination of a representative from the Department in the national identity executive team
- Nomination of UAE representative in Sheikh Salem Al-Ali Al-Sabah Informatics Award.

Policies and practices for achieving UAE Vision 2020:

- OSIX initiative design
- Launching U.ae, the first Arabic domain name made of a single letter.
- E-Participation platform development.

Department's initiatives during the Innovation Month:

- UAE Hackathon (Data for Happiness and Quality of Life)
- Interactive Lab
- KidX, a digital platform for children
- SDGs BUZZ

Other achievements:

- TRA gets an award for best implementation of OSI of the National Agenda.
- Issuing the digital UAE report.
- Issuing the Arabic version of the 2018 UN E-Government Survey.
- Issuing the mGov enablers report.

POLICY AND PROGRAMS DEPARTMENT

The Policies and Programs Department contributes to the promotion and development of policies, initiatives and projects for studying the ICT sector and ensuring that the mGovernment digital transformation process is in line with UAE's Vision and Strategic Objectives.

The Department consists of three sections: Standards Planning & Policy, aeCERT and .aeDA. It also oversees the Centre of Digital Innovation and the Digital Transformation Program of the UAE.

2019 Milestones:

The Policy and Programs Department connects smart services federally and locally, enhances the quality of services provided, increases utilization rates and satisfaction with mGovernment services, through a range of projects and initiatives undertaken by the TRA. Furthermore, it oversees initiatives and projects included under Government Accelerators, which is a government mechanism aiming to highlight innovative solutions and achieve ambitious, tangible goals in 100 days or less, and propose viable recommendations bound by short notices.

Among these initiatives are 'Mabrouk Ma Yak' and the Business Platform.

The TRA also leads the workflow of smart services and the digital infrastructure in annual meetings.

Legislation and strategy initiatives:

Draft E-Signature Law

The Department led a legislative team of 22 entities to develop the new draft law for electronic signature and trust services, which is a new paradigm shift for electronic and digital transactions in the UAE.

National Cybersecurity Strategy

The updated version of the Strategy was launched in 2019 by the TRA, which is the entity responsible for the ICT sector and digital transformation in the country. The strategy aims to support the UAE's cybersecurity standards through different mechanisms and focus areas while stimulating the creation of local startups in the sector, and developing the cybersecurity environment.

Issuance of draft Online Consumer Protection Guidelines

This initiative aims to raise awareness of how best to deal with e-commerce websites and protect consumers by drafting the e-consumer protection guidelines.

VoIP exemption

A mechanism was developed to review and approve requests to exempt the use of VoIP to encourage companies and government entities to provide new VoIP-based services in the country and improve the user experience.

Government entity manual for blocking and unblocking requests and social media content removal requests

This initiative aims to raise awareness of how best to deal with e-commerce websites and protect consumers by drafting the e-consumer protection guidelines.

Draft Cloud First Policy

Establishing regulatory frameworks for adopting cloud computing in federal government entities

Key initiatives for 2019 include:

Digital trading platform

The TRA built a digital trading platform, aimed at achieving the goals of the Emirates Blockchain Strategy 2020.

National Domain Name System Security Extensions (DNSSEC)

DNSSEC secures and protects data provided by the Domain Name System for a safer use.

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.

National CRM development initiative

Launching of the National Customer Relationship Management System initiative (Tawasul 171), a central national platform in cooperation with the Ministry of Human Resources and Emiratisation to seek the opinions and feedback of citizen and resident customers.

Business platform initiative

The initiative has facilitated establishing new businesses and companies by providing a smart national platform with an advanced technological system.

UAE Pass

UAE Pass is the first digital national identity for all citizens, residents and visitors allowing them to access services of local and federal government entities, and other service providers.

Development of Standards for Government Data Dissemination and Exchange

Standards have been developed to advance digital transformation in government entities, enhance digital data readiness, and achieve greater productivity through data sharing.

Development and improvement of Internet Access Management (IAM) policies

The Department updates and develops the IAM policy and procedures to keep abreast of developments in Internet usage and emerging issues.

Smartphone application testing by robots

Developing and launching an intelligent system to simulate end-user experience on smartphones and tablets using a simulation robot.

Development of Internet violation monitoring system

Developing and launching a system to monitor reported violations of cybercrime, in cooperation with relevant entities, to safeguard society from such violations.

Innovation Camp

The Camp is a reflects TRA's commitment to its corporate social responsibility towards Emirati students by equipping them with necessary skills related to smart cities, safe use of technology and social networking, design and arts, creativity and shaping the future, building positive skills, volunteerism, community service, and other activities.

Development of an electronic seal for online transactions

For ensuring reliability of e-commerce activities.

Fast Forward Summit - the "100X" initiative

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.

OpenUAE

A platform for discussing the latest technologies and an attractive environment for citizen students to gain skill and expertise in support of the sector.

Establishing the R&D system

Establishing the R&D system in CoDI, in cooperation a network of UAE-based centers and universities.

SecureGCC

A system developed for CERTs of Arab Gulf states with the following features and capabilities:

A secure way to share advisories, risks, and security information.

Cybersecurity processes and operations library

Information leakage control system

TRUSTae logo

A system developed to automate vulnerability testing of systems and websites without human intervention by aeCERT members.

M-Lab system

An aeCERT initiative to enable entities to test mobile applications quickly, securely and automatically.

Source code review initiative

An aeCERT initiative to enable programmers and systems developers to test source code to ensure it is free of vulnerabilities.

VDR reporting initiative

An initiative by aeCERT to proactively report on security vulnerabilities of UAE federal government websites.

Phishing assessment initiative

This initiative aims to enable entities to test security awareness of their employees by email phishing.

Online awareness system initiative

This initiative aims to change the mechanism for providing cyber awareness workshops and change the traditional method to an electronic one that can be accessed by service users through the team's e-system.

Cybersecurity ambassadors

This initiative aims to train a number of students so that the trainee acts as the cybersecurity ambassador and also trains their colleagues on cybersecurity principles.

Cybersecurity experts initiative

This initiative aims to develop skills of aeCERT employees.

JIRA task management system

An electronic technical system that aims to develop the process of following up the tasks and responsibilities in the team along with providing a comprehensive view to the management of completed and current tasks of the team.

aeCERT WIKI

An electronic system that serves as a library of procedures, processes and best practices in aeCERT.

Global participation

The UAE, represented by the TRA, is keen to participate strongly in various ITU events, including the WSIS Forum, where the lab team participated in more than 500 local and international events.

Hosting the Middle East DNS Forum

The ICANN and APTLD have selected UAE to host the annual Domain Name Industry Conference (NamesCon) for the middle east, and the 75th APTLD meeting at the Rotana Hotel in Dubai Media City from 17 to 21 February 2019.

Participation in meetings with top technology companies in the US

Discussed and collaborated with major technology companies such as Google, Twitter, Facebook, Apple, Microsoft and Amazon.

Hosting the roundtable conference

"Role of Arab Governments in the Development of the Telecom Sector" with participation of Arab Ministers of Telecommunications and in cooperation with RIPE NCC

Cooperation with the Statistics Authority to adopt the concept of digital economy with Saudi Arabia

Member of FIRST

Agreements and MoUs

December 2019:

Signing a partnership agreement regarding the implementation of UAE PASS and digital wallet initiatives between the TRA, Smart Dubai, and Abu Dhabi Digital Authority.

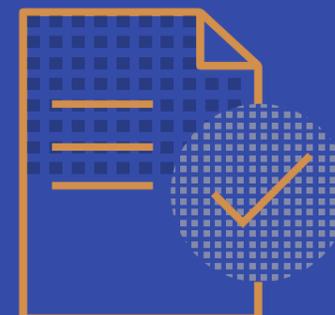
December 2019:

Governmental and private entities signed a number of memoranda of understanding to implement and activate UAE PASS, as part a forum organized by the TRA in partnership with the Abu Dhabi Digital Authority and Smart Dubai.

March 2019:

Memoranda of understanding were signed with a number of federal and local government entities as well as private sector entities to implement the 'OneApp OnePortal' project, a modern platform offering many government and private sector services.

The TRA, represented by CoDI, signed an agreement with EBTIC for cooperation in R&D.



Policies or practices for achieving Vision 2021

- Implementation of the UAE PASS Project in partnership with the Abu Dhabi Digital Authority and Smart Dubai to develop a unified digital identity in the UAE, in line with UAE's strategy to launch and implement unified projects at the country's level, thereby achieving UAE Centennial 2071 targets.
- Creation of a national digital economy making the UAE a global hub in the digital economy by working on initiatives and projects that enhance UAE's competitiveness in this field and attract investments
- Development and preparation of the digital sector strategy 2030-2020 in cooperation with the Development Department and the mGov Operations Department.
- The TRA works with the Ministry of Possibilities to develop packages to bring about an overhaul in the government work system, and to develop solutions to challenges by adopting innovative business models.

Department stats

- TRA's Innovation Camp receives WSIS Champion Award
- CoDI receives the ITU Innovation Global Challenge award
- CoDI receives Gini accreditation as the first accredited innovation lab in the Middle-East
- More than 20,000 trainees from 55 countries were trained and 200 workshops and training courses were held as part of CoDI's initiatives
- 2800 students trained in the Innovation Camp 2019
- Over than 400 robots assembled, 70 AI-based programming written, and 65 entrepreneurship ideas brainstormed as part of the initiatives of CoDI's initiatives
- Increased use of UAE PASS, linking with 110 apps nationwide. No. of registered in Abu Dhabi increased by 22689 using ID for more than 157 services by TAM and more than 150 services by the Department of Municipalities and Transport. As for Dubai, users increased to 21089, linking with 33 apps, with 5787 registrations and linking with 11 apps from Sharjah. Ajman intends to roll out UAE PASS as a primary channel in the second quarter of 2020. Umm Al Quwain made 932 registrations and connected with the unified system that provides 38 services, while Ras Al Khaimah finished linking with the system (300 services), registering 3415 users. In Fujairah, there were 3476 registrations, and linking with 10 different apps

- Number of verified users in UAE Pass reached 300,000
- The UAE PASS Team held youth and digital identity workshops in five emirates to engage youth in developing the service with 165 participants resulting in 70 ideas across 6 key sectors
- Connecting 74 federal and local entities on the Government Service Bus and providing 238 services via the platform
- 79.1 million transactions made on the Government Service Bus as of November 2019
- 'Mabrouk Ma Yak' Initiative achieved by integrating the services of 11 local and federal entities, where 58 UAE hospitals were linked and 16,380 children were registered as of November 2019
- 216,163 registered national domain names in 2019
- More than 11,000 offensive accounts and more than 1,300 fake accounts were detected and deleted on Facebook, Twitter, and Instagram

aeCERT Figures in 2019

Computer emergency response services:

- 343 cyber incidents addressed
- More than a million cyber threats countered
- 69 cybersecurity awareness documents issued

Cybersecurity awareness services:



Information quality services

- 79 vulnerability reports prepared
- 30 vulnerability assessments and compliance testing
- 48 penetration testing services

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 UAE PASS smart infrastructure; smart data analysis; mGov service development
- The TRA, in coordination with the licensees, seeks to highlight an important aspect of their leadership and active contribution to the development of the telecommunications and Internet sector by emphasizing their effective role in supporting the deployment and use of IPv6 on their networks in the UAE
- In order to ensure implementation of smart service projects according to the customer perspective, the TRA established the National User Experience Laboratory (UX Lab) by creating user experience manuals, technical tools and Virtual Assistant Services
- 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
- Providing technical consultations through CoDI and in cooperation with international expert houses, with the aim of achieving smart transformation plans in the country through government entities

Other achievements

- In order to develop the institutional capacity of the TRA through the Centre of Digital Innovation 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
- The TRA seeks to implement many innovative projects such as the Virtual National Service Game, Online Training Platform (through YouTube), Innovation Training Platform (Tadreeb), Open-Source Innovation Project, 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)
- Selection of CoDI's director as an expert and representative of the Arab region in the ITU Group on Capacity Building

SUPPORT SECTOR

Affairs Department:

- The Department implemented 28 new innovative projects and a new value-added initiative for the Department, sector and TRA
- The Department developed four of its processes, namely: Standard Manual for Procurement and Contracts, Asset and Property Policy, Domestic and Foreign Travel Packages, and the Gift Policy
- The TRA launched 2 initiatives to enable and train employees and increase functional and technical capabilities in the Department
- The Department launched 3 initiatives to develop the skills of second-, third-tier and new employees
- The Department adopted 7 innovative ideas
- In addition, TRA had its societal contribution at a global level, as it sponsored the World Energy Conference 2019

