National Cybersecurity Strategy
Rationale for a Cybersecurity strategy
The number of cybersecurity Incidents

Worldwide has doubled in the past year, resulting in a significant cost to the global economy

- **2x** Number of cybersecurity incidents globally (2016-2017)
- **42%** Increase in number of reported data breaches globally (2015-2017)
- **608** Annual global cost of cybercrime to the (USD Billion, 2014-2017)
- **3.9** Average total cost of a data breach (USD Million, 2017-2018)
The impact of cybersecurity incidents extends beyond economic losses

- Direct Financial Impact
- Client Impact
- Impact on Services
- Reputational Impact
To develop the National Cybersecurity Strategy for the UAE, we leveraged 3 key sources of insights:

- **Global industry reports**: Analysed +50 global indices and publications
- **Cybersecurity experts**: Global panel of experts with deep knowledge on cybersecurity topics
- **10 benchmark countries**: Benchmarked 10 leading cybersecurity ecosystem
Our aspirations for the National Cybersecurity Strategy
Our vision for UAE’s National Cybersecurity strategy
To create safe and resilient cyber infrastructure in the UAE that enables citizens to fulfil their aspirations and empowers businesses to thrive
Our vision will impact all segments of the society

Aspirations

- Provide confidence to citizens to securely participate in the digital world
- Celebrate contributions to innovation in cybersecurity
- Foster a culture of entrepreneurship in cybersecurity
- Enable SMEs to safeguard themselves against most common cyber attacks
- Protect critical information infrastructure assets of the country
- Build a world-class cybersecurity workforce in the UAE
Strategy pillars
To achieve these aspirations, we will mobilize the whole ecosystem to deliver ~60 initiatives across 5 pillars:

- **Cybersecurity laws & regulations**
  - Address all types of cybercrimes
  - Secure existing and emerging technologies
  - Support protection of SMEs

- **Vibrant cybersecurity ecosystem**
  - Support startups and promote R&D in cybersecurity
  - Develop cybersecurity capabilities
  - Drive citizen cybersecurity awareness
  - Encourage excellence in cybersecurity

- **National Cyber Incident Response plan**
  - Single point of contact for victims of cyber incidents
  - Standardized severity assessment and agency mobilization plan
  - Cross-agency information sharing

- **CIIP program**
  - Identify critical assets in the UAE
  - Establish world-class risk management standards
  - Create robust processes for reporting, compliance and response

- **Partnerships**
  - Public sector
  - Private sector
  - Academia
  - International consortiums
Cybersecurity laws & regulations
Designing a comprehensive cybersecurity legal and regulatory framework

Our aspirations

Create legal framework to address all types of cybercrimes

Build regulatory framework that will secure existing and emerging technologies

Will be achieved through a comprehensive legal and regulatory framework

Laws

1. Substantive Laws
2. Procedural Laws
3. Data Protection and Privacy Laws
4. Existing and Emerging Technologies
   - Cloud Services
   - Artificial Intelligence
   - IoT
   - Digital Signatures
   - Blockchain
Supporting protection of SMEs in the UAE

Our aspirations

- Provide guidelines to protect against most common cyber threats
- Offer incentives to implement the recommended guidelines
- Establish support systems to enable SMEs to implement guidelines

Will be achieved through 3 key initiatives

- Develop essential cybersecurity standard for SMEs
- Mandate Cybersecurity implementation certification for government suppliers
- Build one-stop portal for SMEs to enable SMEs to implement the standard
Vibrant cybersecurity ecosystem
Enabling the ecosystem to capture the huge cybersecurity opportunity

Our aspirations

- Tap into the AED 1.8bn UAE cybersecurity market
- Capture the AED 18bn MENA cybersecurity market

Will be achieved through 24 initiatives across 7 pillars

- Driving demand
- Ease-of-doing business
- Access to financing
- Business support
- Culture and mindset
- Education and skill development
- Innovation and technology adoption

Capture the AED 18bn MENA cybersecurity market

Will be achieved through 24 initiatives across 7 pillars

- Driving demand
- Ease-of-doing business
- Access to financing
- Business support
- Culture and mindset
- Education and skill development
- Innovation and technology adoption
Developing capabilities of +40,000 cybersecurity professionals

Our aspirations

- Encourage professionals and students to pursue a career in cybersecurity
- Develop necessary cybersecurity capabilities to meet aspirations of the country
- Foster a vibrant ecosystem of cybersecurity training providers

Will be achieved through 12 initiatives

- Individuals: 7 initiatives
- Training providers: 5 initiatives
Creating cybersecurity citizen awareness in the UAE

Our aspirations

- Enable citizens to realize the risks related to the cyberspace
- Influence citizen mindsets to practice cyber hygiene
- Encourage institutions to actively spread cyber awareness

Will be achieved through 12 initiatives targeting citizen segments

- Children & Teens
- College students
- Professionals
- Homemakers & Senior citizens
- People with determination
Rewarding excellence in cybersecurity through a national awards program

Our aspirations

- Encourage organizations to drive cybersecurity programs
- Inspire entrepreneurs to innovate in cybersecurity
- Support cutting-edge research undertaken by academic institutions
- Motivate students to pursue cybersecurity careers

Will be achieved through 12 initiatives targeting citizen segments

- Entities: 6 awards
- Individuals: 6 awards
National Cyber Incident Response plan
Establishing a robust National Cyber Incident Response plan to enable swift and coordinated response to cyber incidents in the UAE

Our aspirations

- Streamline cybersecurity incident detection and reporting
- Establish standardized severity assessment matrix to mobilize the required support
- Build world-class capabilities to respond to all types of cyber incidents

Will be achieved through 4 key initiatives

- Single Point of Contact
- Advisories to protect against threats
- Active Monitoring for cyber threats
- Cross-Agency Intelligence Sharing
CIIP program
Protecting critical assets of the UAE in 9 sectors

Our aspirations

To safeguard assets in 9 critical sectors of the UAE:

- Energy
- ICT
- Government
- Electricity & Water
- Finance & Insurance
- Emergency services
- Health Services
- Transportation
- Food & Agriculture

Will be achieved through a robust CIIP program

- Identify critical sectors, assets and associated risks
- Establish world-class risk management standards
- Implement robust processes for reporting, compliance and response
Partnerships
Mobilizing the whole ecosystem through local and global partnerships

Partnerships are a core enabler in jointly achieving cybersecurity goals and ambitions

Types of partnerships:
- Public sector
- Private sector
- Academia
- International consortiums
Governance
For successful implementation of the National Cybersecurity strategy, we will establish multiple governance vehicles.

9 sector committees to implement the CIIP program...

- Energy
- ICT
- Government

- Electricity & Water
- Finance & Insurance
- Emergency services

- Health Services
- Transportation
- Food & Agriculture

And 2 vehicles for the National Incident Response plan

- National Incident Response Committee (NRC)
  - Take strategic decisions related to the National Incident Response program

- Cyber Intelligence Unit (CIU)
  - Enable intelligence sharing between agencies for better visibility over cybersecurity threats
TRAs will monitor progress and impact of the National Cybersecurity strategy through ~20 clearly defined key performance metrics.

Collate data from multiple sources:

1. **Internal TRA data** – Data outputs from TRA initiative teams, aeCERT, etc.
2. **Ecosystem data** – CIIP sector committees, NRC, CIU, law enforcement agencies, etc.
3. **Global data** – Reports, threat intelligence, etc.

Will enable TRA to track the progress of the strategy:

- National Cybersecurity strategy Progress update
- 2 Strategic KPIs
- 17 Operational KPIs
www.tra.gov.ae