forebrook

assessments · documentation · architecture

Forebrook

Forebrook is a cybersecurity and IT governance consulting services firm based in Dubai. We are vendor-independent and specialise in security assessments, risk assessments, design & review of ISMS, and implementation of ISMS processes. Our assessments include practical recommendations and actionable advice, with prioritised roadmaps to implement controls.

We also provide IT Infrastructure Services, IT Asset Inventory, CMDB & Documentation services, Cloud Services, virtual-CIO and virtual-CISO services..

THINK SERVICES

ASSESSMENT SERVICES

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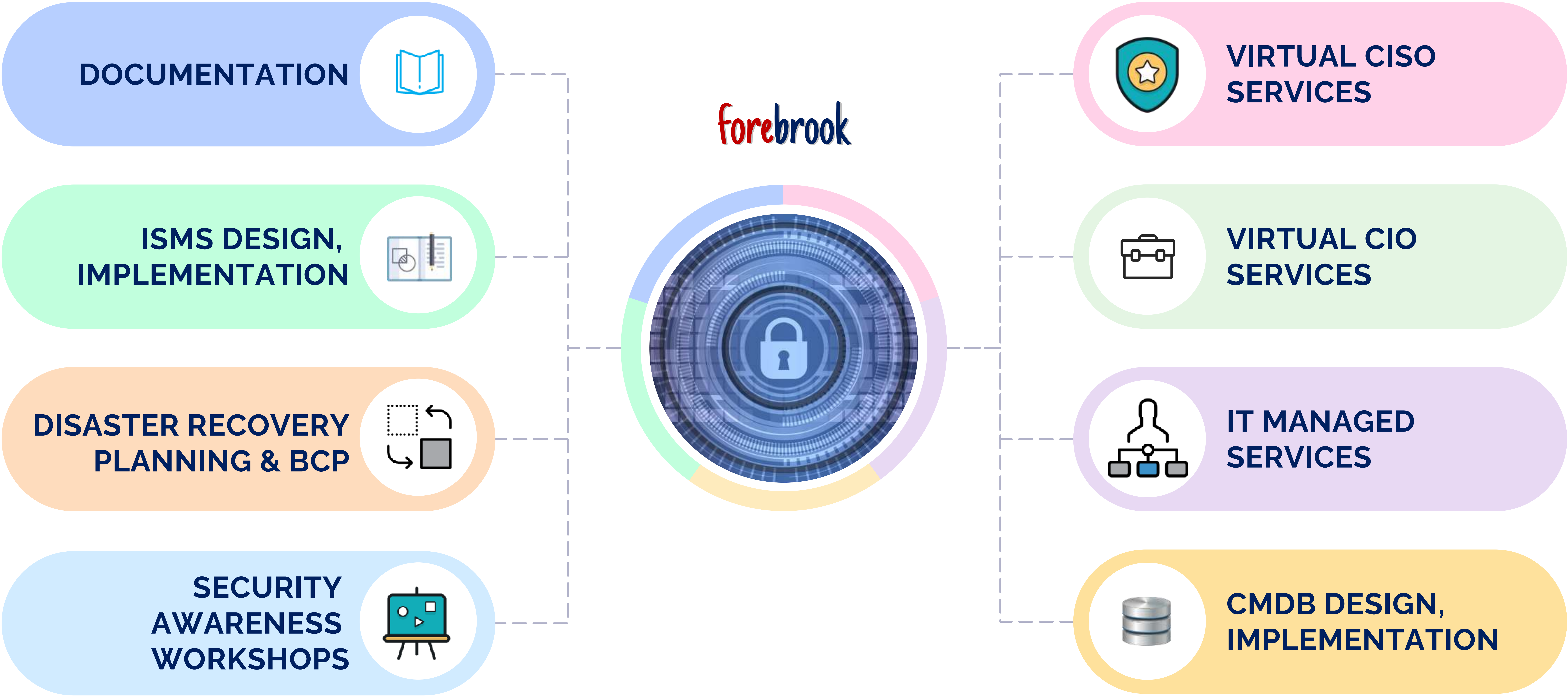
- IT SECURITY ASSESSMENT
- COMPLIANCE ASSESSMENTS
- IT RISK ASSESSMENT
- CLOUD SECURITY ASSESSMENT
- INFRASTRUCTURE ASSESSMENT
- VULNERABILITY ASSESSMENT
- IT SECURITY AUDIT
- IT HEALTH CHECK

IMPLEMENTATION & OTHER SERVICES



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DOCUMENTATION

ISMS DESIGN, IMPLEMENTATION

DISASTER RECOVERY PLANNING & BCP

SECURITY AWARENESS WORKSHOPS

VIRTUAL CISO SERVICES

VIRTUAL CIO SERVICES

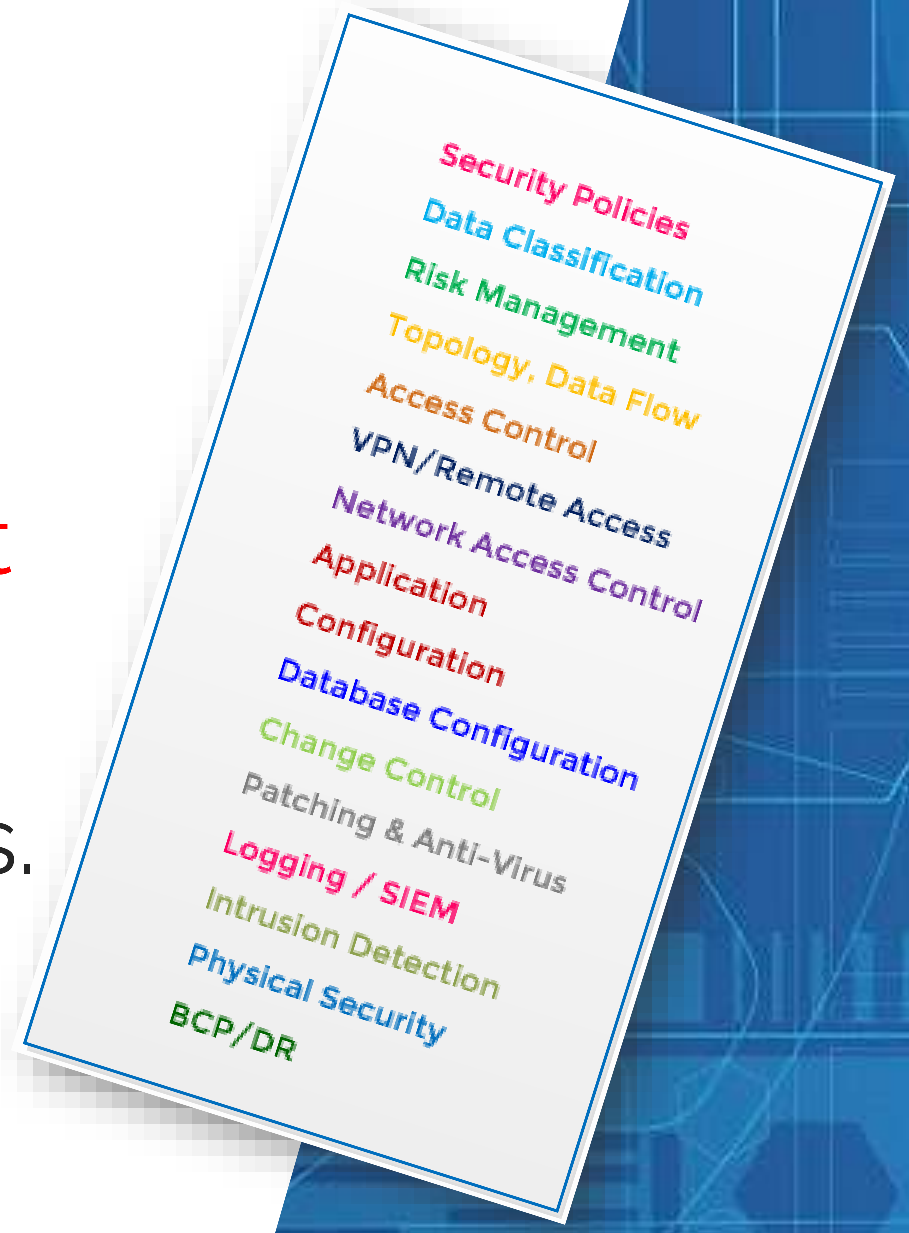
IT MANAGED SERVICES

CMDB DESIGN, IMPLEMENTATION

IT SECURITY ASSESSMENT

01

IT Security Assessments are indispensable for the security of information systems. In an environment with existing security controls, periodic assessments uncover gaps and help improve the security posture. If an ISMS is not in place, the best place to start is to conduct a preliminary assessment to identify applicable controls.



Security Policies
Data Classification
Risk Management
Topology, Data Flow
Access Control
VPN/Remote Access
Network Access Control
Application
Configuration
Database Configuration
Change Control
Patching & Anti-Virus
Logging / SIEM
Intrusion Detection
Physical Security
BCP/DR

Our assessments are comprehensive and we produce detailed and bespoke reports.

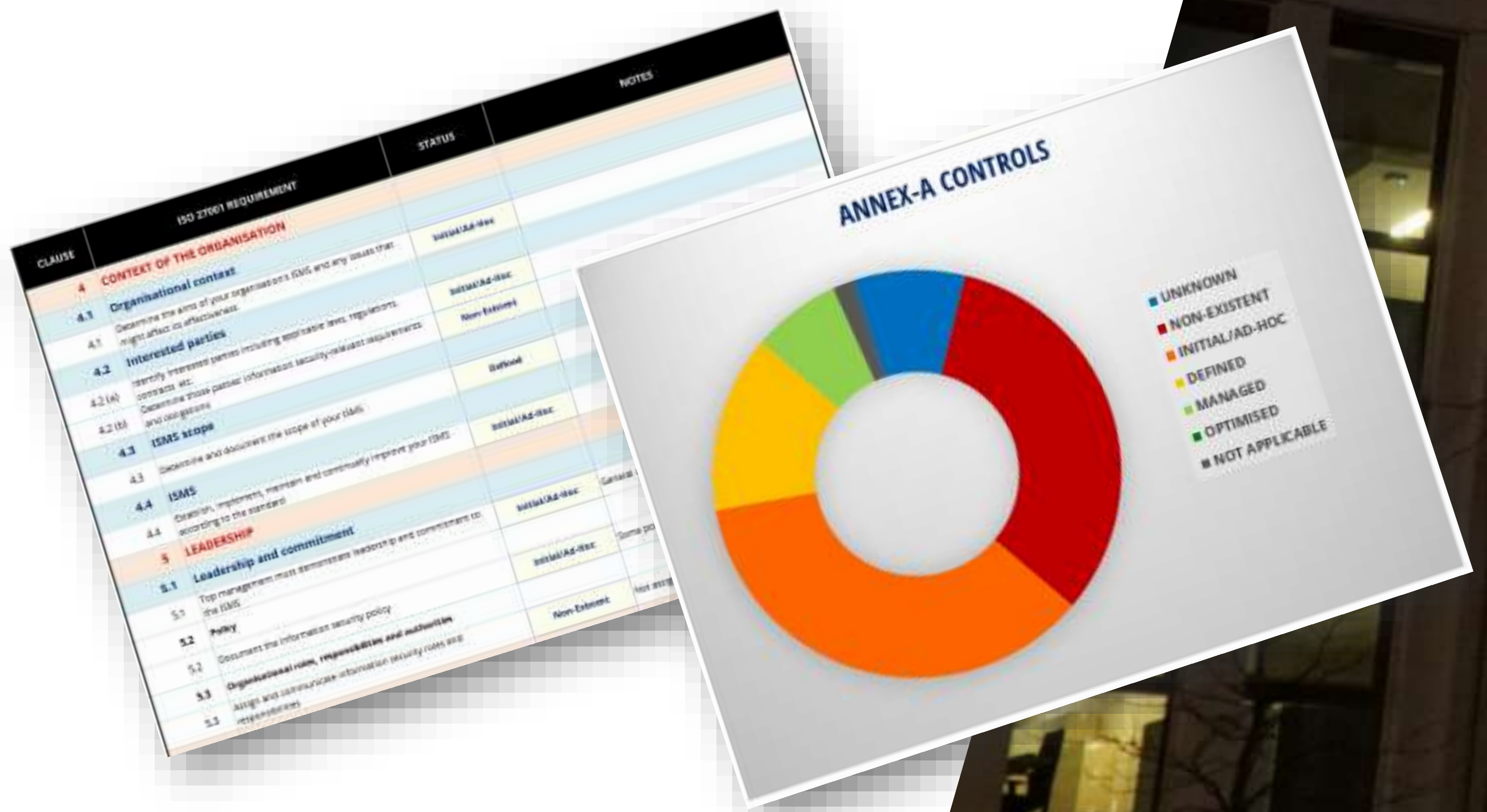
COMPLIANCE ASSESSMENT

02

Organisations are required to comply with local and international standards. Many organisations also opt for ISO27001 or PCI-DSS certification.

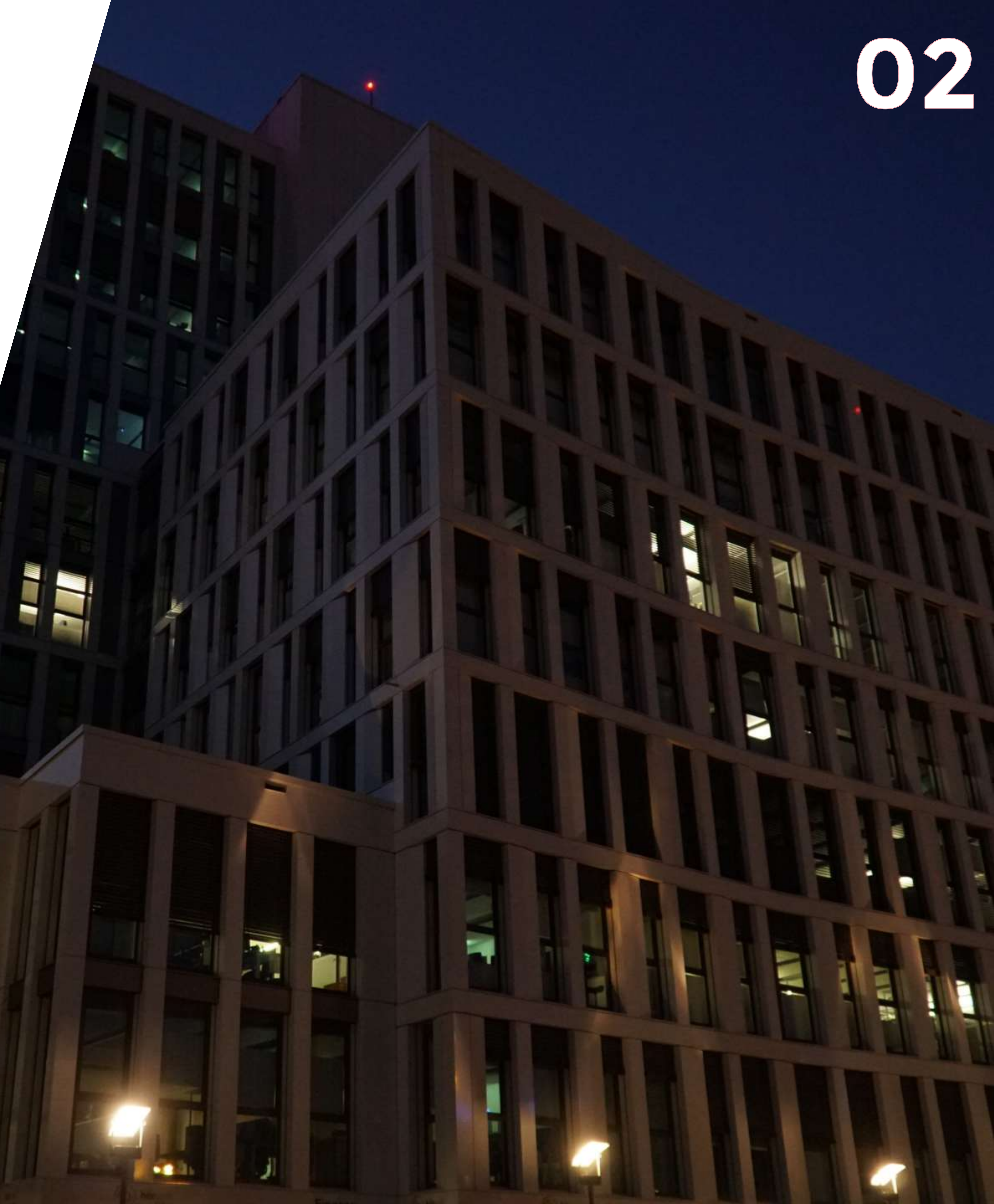
We help organisation prepare for compliance and conduct 3rd party assessment against any local or international security standards (see the next slide).

A gap-analysis report and a recommendations report will help you improve security and achieve compliance.



CLAUSE	ISO 27001 REQUIREMENT	STATUS	NOTES
4	CONTEXT OF THE ORGANISATION		
4.1	Organisational context		
4.1	Determine the aims of your organisation's ISMS and any issues that might affect its effectiveness	Initial/Ad-Hoc	
4.2	Interested parties		
4.2 (a)	Identify interested parties including applicable laws, regulations, contracts etc.	Initial/Ad-Hoc	
4.2 (b)	Determine those parties' information security-relevant requirements and obligations	Non-Existent	
4.3	ISMS scope		
4.3	Determine and document the scope of your ISMS	Defined	
4.4	ISMS		
4.4	Establish, implement, maintain and continually improve your ISMS according to the standard	Initial/Ad-Hoc	Certai[illegible]
5	LEADERSHIP		
5.1	Leadership and commitment		
5.1	Top management must demonstrate leadership and commitment to the ISMS	Initial/Ad-Hoc	Some po[illegible]
5.2	Policy		
5.2	Document the information security policy	Non-Existent	Not [illegible]
5.3	Organisational roles, responsibilities and authorities		
5.3	Assign and communicate information security roles and responsibilities		

ANNEX-A CONTROLS



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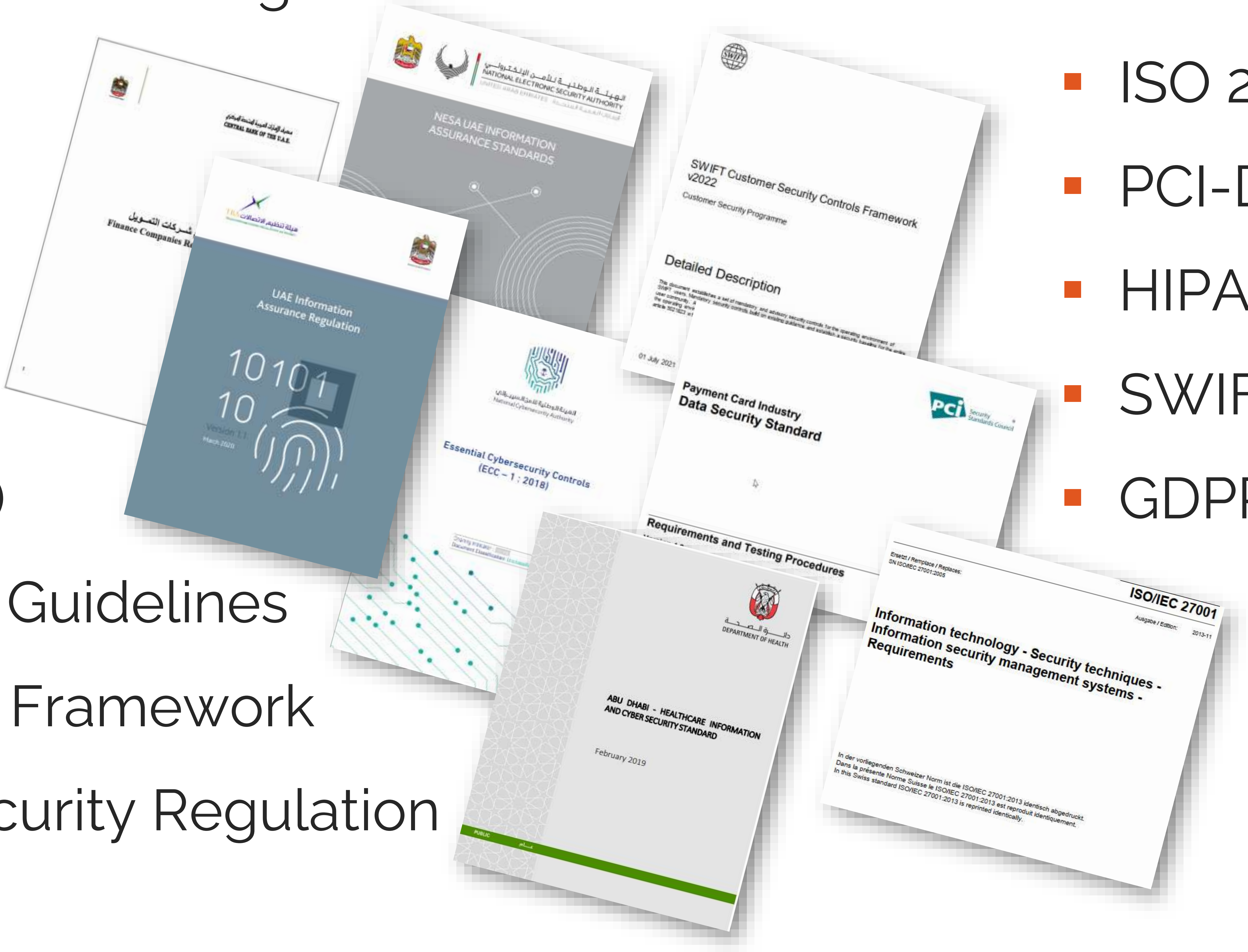
SECURITY STANDARDS, REGULATIONS

- UAE Information Assurance Regulation
- ADSIC
- NESA
- Dubai ISR
- ADHICS
- UAE DPL (Law No.45)
- CB UAE Regulations, Guidelines
- SAMA CyberSecurity Framework
- Oman CMA CyberSecurity Regulation

- ISO 27001:2013
- ISO 22301
- PCI-DSS v4
- HIPAA
- SWIFT v2022
- GDPR



CENTRAL BANK OF THE U.A.E.

Finance Companies R

NATIONAL ELECTRONIC SECURITY AUTHORITY

NESA UAE INFORMATION ASSURANCE STANDARDS

UAE Information Assurance Regulation

10101
10

Version 1.1
March 2020

SWIFT Customer Security Controls Framework v2022

Customer Security Programme

Detailed Description

01 July 2021

National Cybersecurity Authority

Essential Cybersecurity Controls (ECC – 1 : 2018)

Payment Card Industry Data Security Standard

Requirements and Testing Procedures

DEPARTMENT OF HEALTH

ABU DHABI - HEALTHCARE INFORMATION AND CYBER SECURITY STANDARD

February 2019

ISO/IEC 27001

Information technology - Security techniques - Information security management systems - Requirements

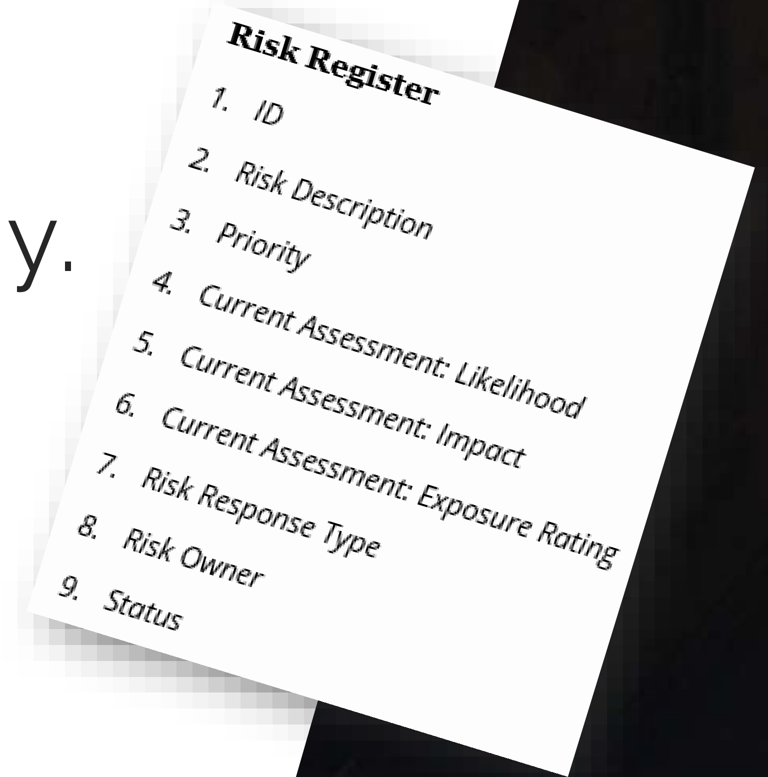
IT RISK ASSESSMENT

This is a special kind of assessment where risks related to information systems are identified, classified and risk treatment options are investigated. A risk register is created where risks related to each information asset are recorded and risk response strategy for each of the identified risks is defined.

Asset	Threat	Vulnerability	Consequence

	IMPACT/CONSEQUENCE		
LIKELIHOOD	MEDIUM	HIGH	HIGH
	LOW	MEDIUM	HIGH
	LOW	LOW	MEDIUM

An accurate risk-assessment is the driving force of every security strategy.



Risk Register

1. ID
2. Risk Description
3. Priority
4. Current Assessment: Likelihood
5. Current Assessment: Impact
6. Current Assessment: Exposure Rating
7. Risk Response Type
8. Risk Owner
9. Status

CLOUD SECURITY ASSESSMENT

Organisations are rapidly moving to the cloud and security of data and IT assets on the cloud is now even more important than when resources and data were on your premises.

We conduct a cloud security assessments to identify the footprint, vulnerabilities and risks associated with cloud infrastructures and SaaS apps against CSA CCM 4.0. We also conduct assessments against security best practice documents by cloud service providers such as Microsoft (Azure) or Amazon (AWS).

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IT INFRASTRUCTURE ASSESSMENT

IT infrastructure assessment is required from time to time as an input to decision making - for strategic investments in technologies or for process improvement and optimisation.

The outcome of such an assessment will be detailed documentation, a dashboard of the overall infrastructure, rich architecture diagrams, identification of redundant systems and recommendations to upgrade/replace systems.

These reports can be used as a starting point to plan migration to the cloud.

- Services
- Applications
- Data Centres / Locations
- System Infrastructure
- Network and Wireless Infrastructure
- Virtualisation Infrastructure
- Storage and Backup Infrastructure
- Printers and Peripherals
- Communication Lines
- Access Control and CCTV
- Security Infrastructure

VULNERABILITY ASSESSMENT

VA is an automated scan using tools to identify attributes of hosts such as OS, Applications, open ports and vulnerabilities of these hosts

VA will help identify outdated software versions, misconfigurations and critical security issues.

Raw reports generated by the scanner will be reviewed by an experienced security consultant, who will prepare summaries and course of action for remediation.

IT SECURITY AUDIT

An IT Security Audit is similar to other assessments except that this is limited to identifying gaps in the system and reporting the same. Also, in this type of an assessment we rely upon the company's IT team and security officer to provide data.

This is a useful service for internal auditors and the management which seeks a third-party assessment report of the as-is state.

IT HEALTH CHECK FOR SMEs

Organisations need to have a good understanding of the IT environment and investigate whether IT is delivering value to the business. Without an up-to-date report of the existing environment, decisions for upgrades may not be aligned with business.

Conduct a health check to take stock of your IT environment and explore how new technologies can be adopted and processes can be optimized.

Recommendations for improvement often result in huge cost savings.

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DOCUMENTATION

We believe that we are among the very few, if not the only service provider in the region offering documentation as a separate service.
If an organisation does not have current and updated documentation, it is counted as a key risk to information systems.

We create extensive documentation of applications, infrastructures, processes and procedures. We prepare manuals, architecture diagrams, user-guides and SOPs.

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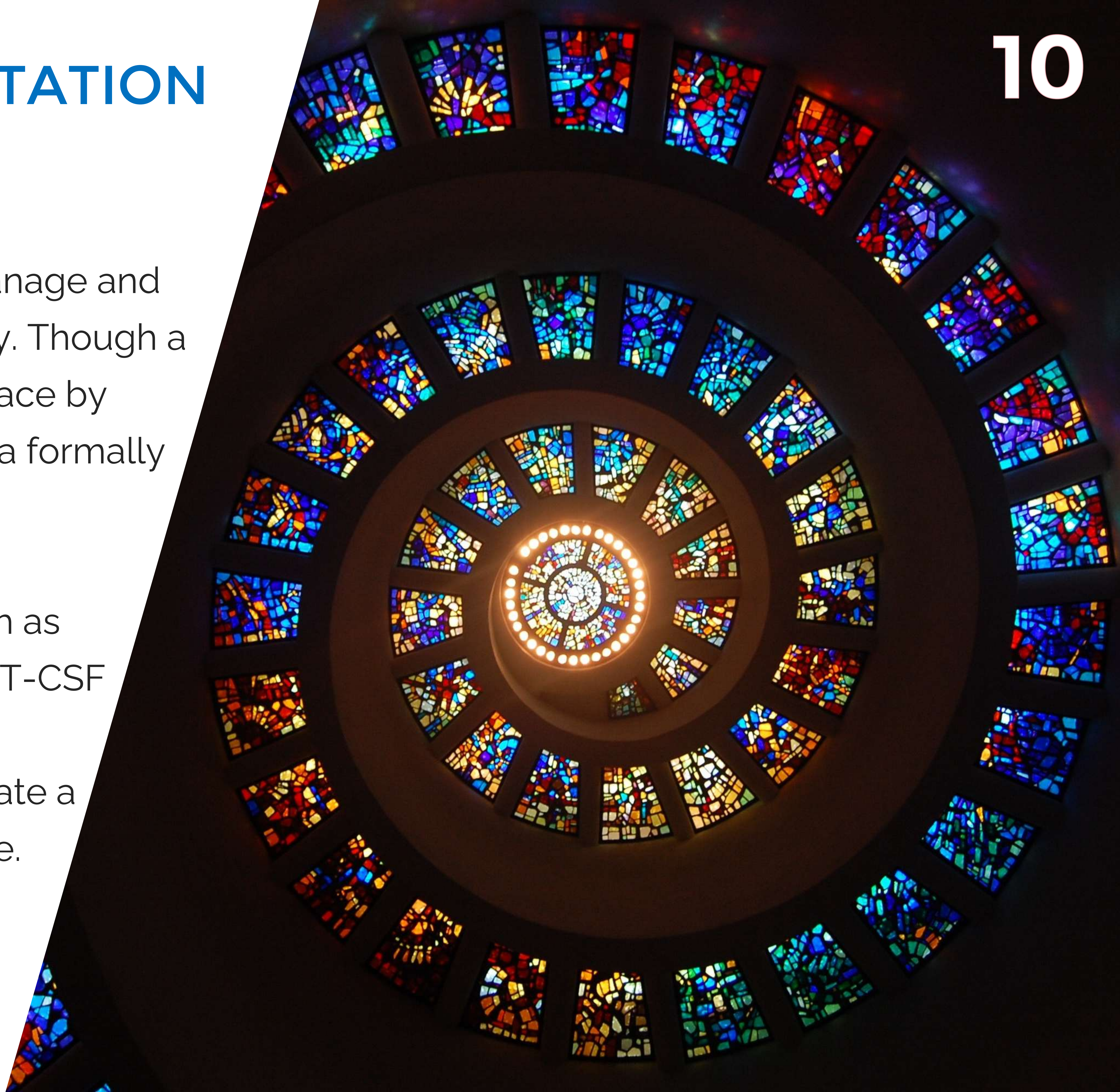
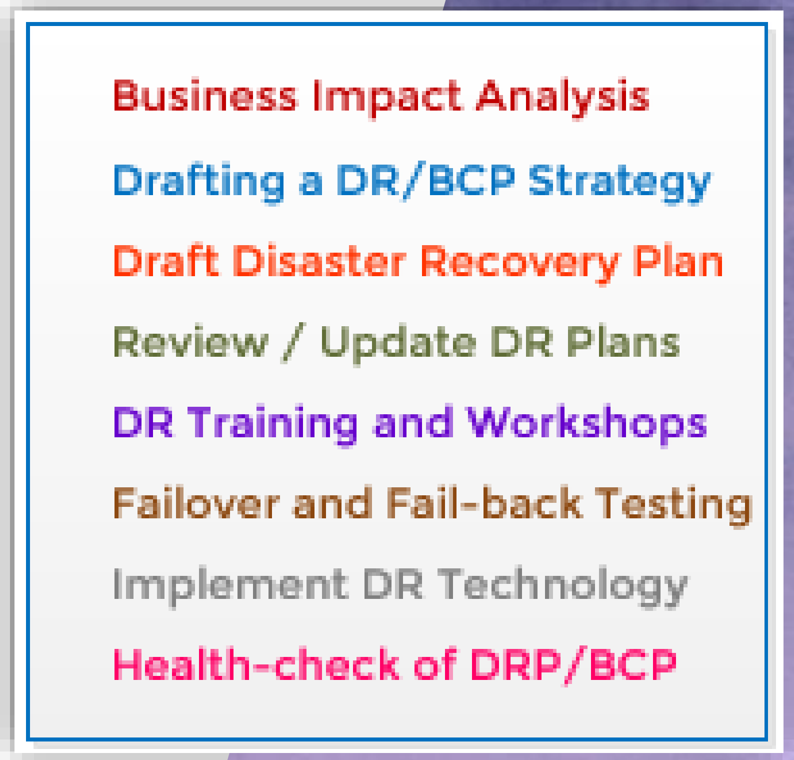
ISMS DESIGN, IMPLEMENTATION

An ISMS is essential for organisations to manage and monitor security; and to measure efficiency. Though a number of controls and processes are in place by necessity, many organisations do not have a formally defined ISMS.

We can design an ISMS from scratch – such as an ISMS conforming to ISO27001 or the NIST-CSF and help you identify components that are required but not implemented. We can create a detailed roadmap to reach the desired state.



DISASTER RECOVERY PLANNING



Business Impact Analysis
Drafting a DR/BCP Strategy
Draft Disaster Recovery Plan
Review / Update DR Plans
DR Training and Workshops
Failover and Fail-back Testing
Implement DR Technology
Health-check of DRP/BCP

It is essential for organisations to have a comprehensive contingency plan in case of a disaster – whether natural or man-made. A continuity plan which can be invoked when a disruption occurs. A BCP/DR plan should be updated regularly and tested frequently for readiness and efficacy.

We help you identify critical services, business impact and draft a cost-optimized, practical BCP and help you select appropriate DR solutions.

USER AWARENESS WORKSHOPS

We conduct engaging and content rich awareness workshops for different audience in the organisation

- The Board and Top Management
- Executives and Managers
- Audit and Compliance Team
- Systems Team
- Application Team
- End-Users
- Security Team

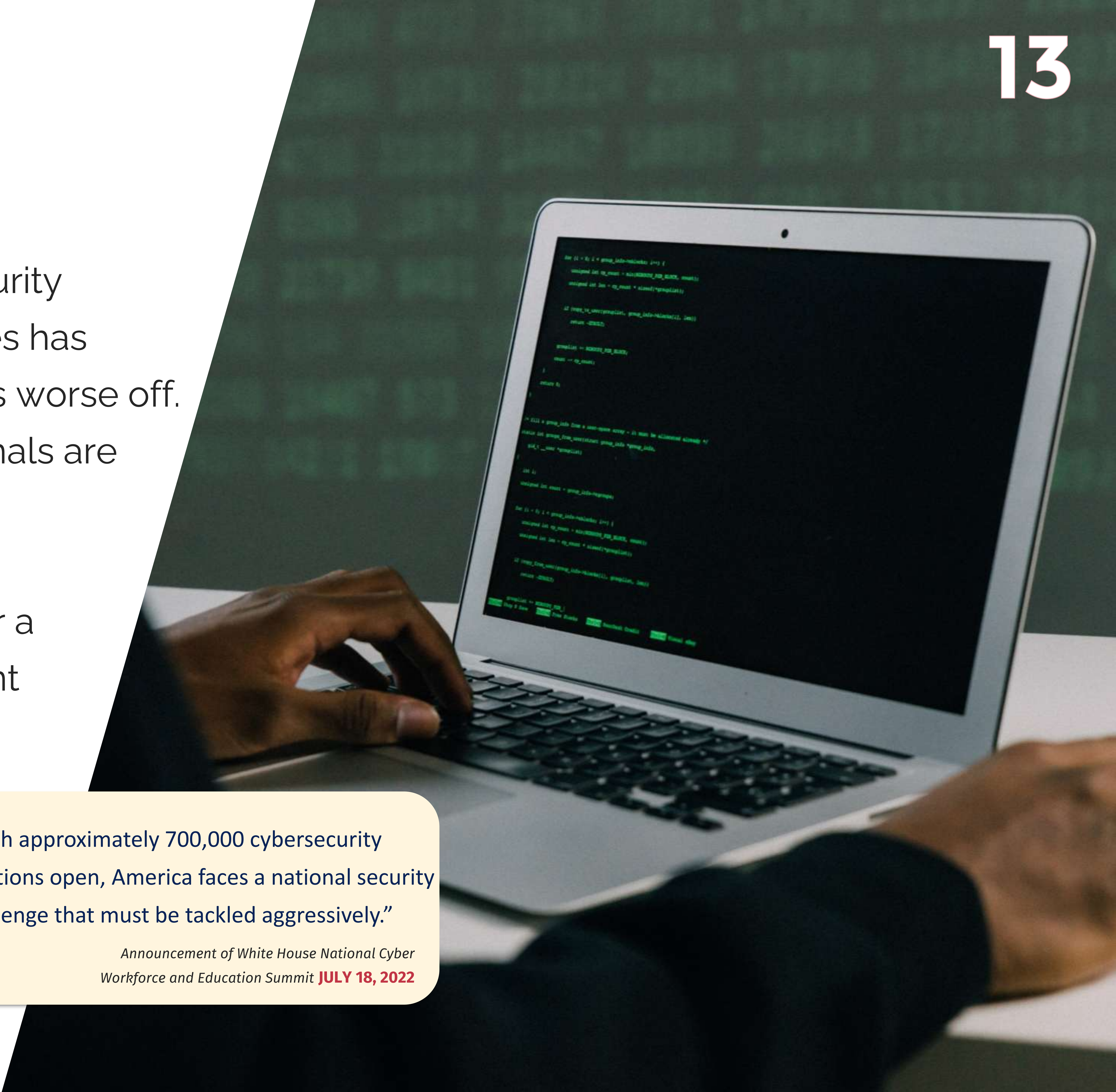
We create relevant topics for each of these groups and useful in their work.

VIRTUAL CISO SERVICES

There is a serious shortage of qualified security professionals worldwide. If the United States has 700K positions open, the rest of the world is worse off. Besides, highly qualified security professionals are very expensive hires.

We can take care of your security needs for a fraction of the cost you would pay a resident CISO.

Contact us today for details on our vCISO plans.



> “With approximately 700,000 cybersecurity positions open, America faces a national security challenge that must be tackled aggressively.”
>
> *Announcement of White House National Cyber Workforce and Education Summit* **JULY 18, 2022**

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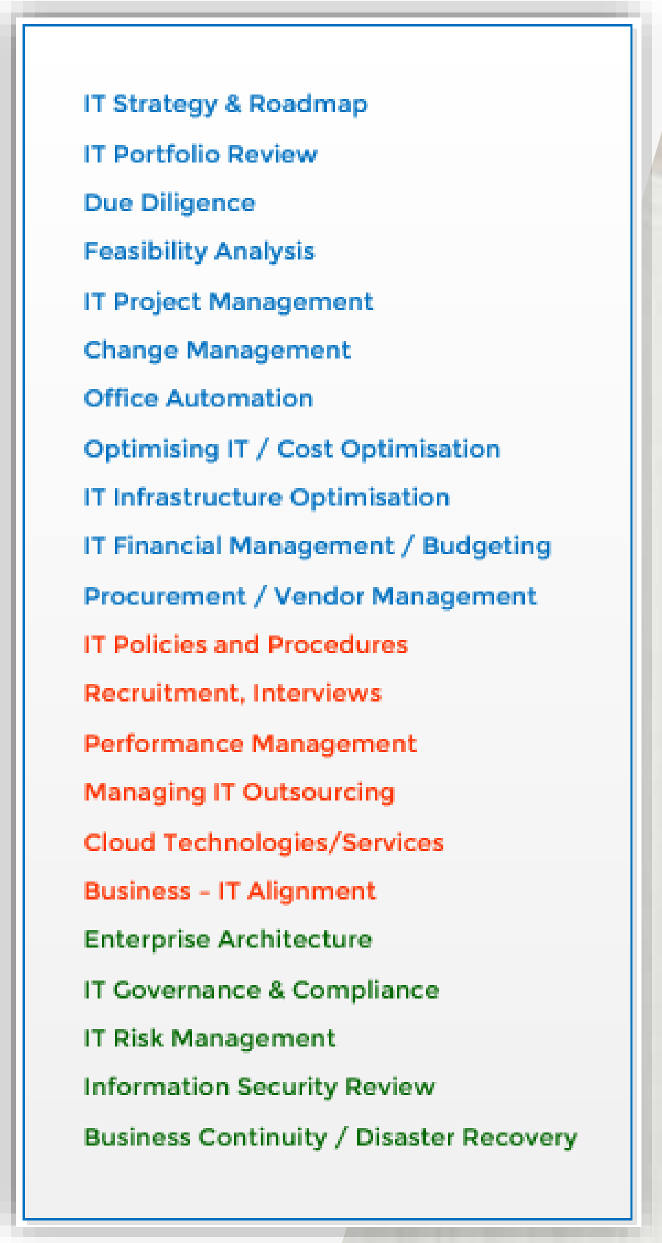
VIRTUAL CIO SERVICES

Many organisations may not require a full-time CIO and even those organisations with a CIO may need to offload certain tasks from time to time. Forebrook can assist your organisation by performing some or all CIOtasks by drawing from a pool of experienced professionals.

With Forebrook, you can avail the services of senior consultants for a fraction of the cost of hiring highly experienced resources.



- IT Strategy & Roadmap
- IT Portfolio Review
- Due Diligence
- Feasibility Analysis
- IT Project Management
- Change Management
- Office Automation
- Optimising IT / Cost Optimisation
- IT Infrastructure Optimisation
- IT Financial Management / Budgeting
- Procurement / Vendor Management
- IT Policies and Procedures
- Recruitment, Interviews
- Performance Management
- Managing IT Outsourcing
- Cloud Technologies/Services
- Business - IT Alignment
- Enterprise Architecture
- IT Governance & Compliance
- IT Risk Management
- Information Security Review
- Business Continuity / Disaster Recovery

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CLOUD SERVICES

We assist you in your cloud computing strategy, by doing assessments, identifying areas which can leverage cloud platforms, identifying potential risks, undertaking feasibility studies and computing total costs of moving to the cloud – including hidden costs - providing actionable intelligence to decide on your strategy for a private, public or hybrid cloud. We also manage resources on Azure, AWS and MS-365 for our clients.

CMDB DESIGN, IMPLEMENTATION

Design a robust CMDB based on the ITSM processes followed in the organisation or on a standard/framework such as ITIL or ISO 20000. We will review and update your CMDB and implement a suitable tool for managing the CMDB. A CMDB is essential for the following:

1. Application Mapping
2. Incident and Problem Management
3. Monitoring
4. Root Cause Analysis
5. Impact Analysis
6. Data Center Relocation/Consolidation

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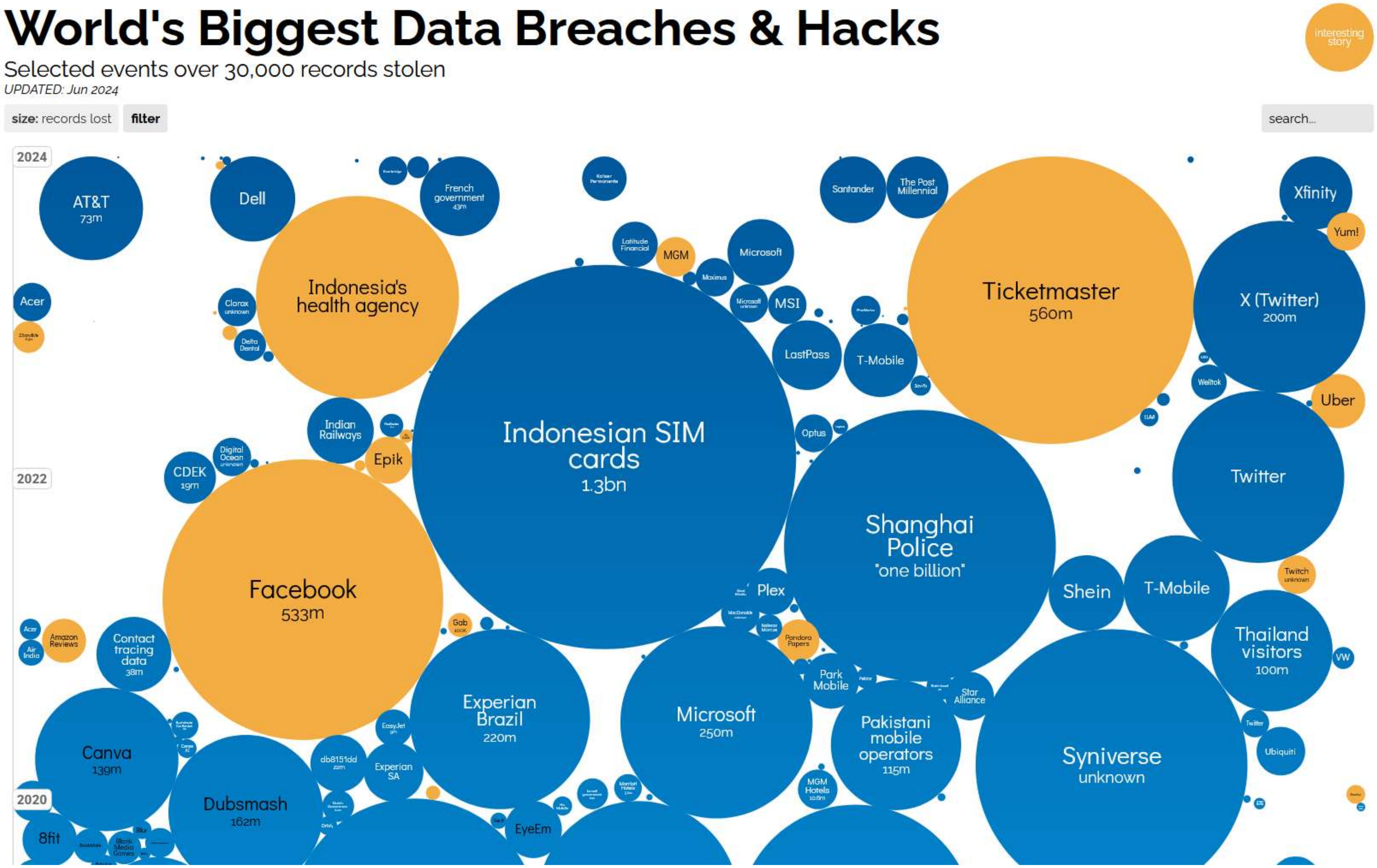
2024



World's Biggest Data Breaches & Hacks

Selected events over 30,000 records stolen

UPDATED: Jun 2024

Source: informationisbeautiful.net / Updated: June 2024

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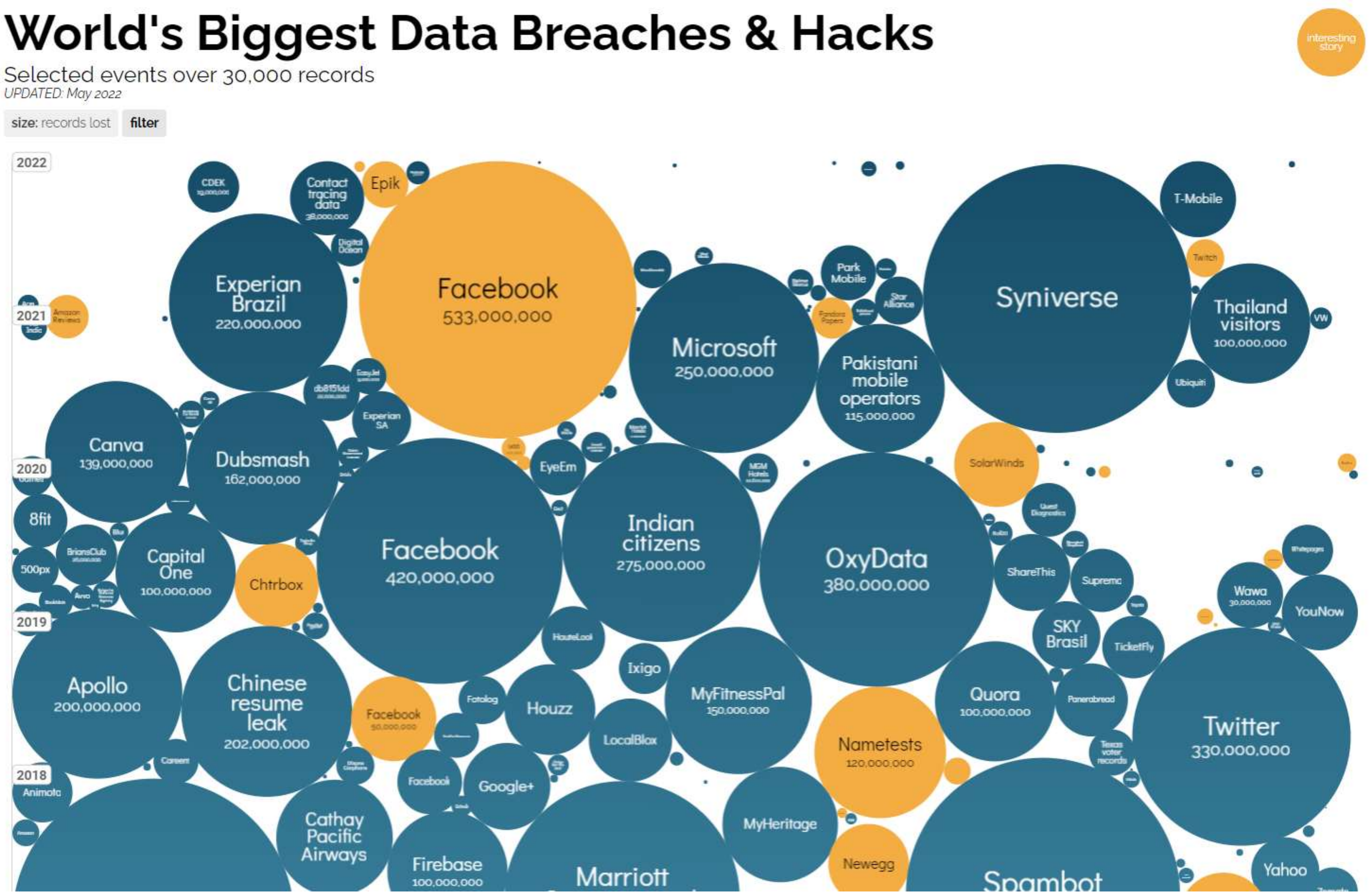
2022



World's Biggest Data Breaches & Hacks

Selected events over 30,000 records

UPDATED: May 2022

size: records lost | filter

Source: informationisbeautiful.net / Updated: May 2022

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NEWS 2022

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Financial Sector Cybersecurity

Financial institutions are leading targets of cyber attacks. Banks are where the money is, and for cybercriminals, attacking banks offers multiple avenues for profit through extortion, theft, and fraud, while nation-states and hacktivists also target the financial sector for political and ideological leverage. Regulators are taking notice, and implementing new controls for cyber risk to address the growing threat to the banks they supervise. The Strategic Technologies Program s dies the evolution of cyber threats to the financial system and legal and regulatory then its defenses.

Gulf Business

The Middle East is one of the world's fastest-growing financial hubs with the banking and finance services sector having seen immense transformation and innovation in the past few years.

However, organisations in the financial sector face a hostile threat landscape, as they are often the preferred targets of profit-seeking cybercriminals. According to Group-IB, ransomware gangs published information about 127 financial sector victim-companies, including from the UAE, on data leak sites, while a year ago, the number was less than 50. Another threat came from initial access brokers: Group-IB's MEA Threat Intelligence & Research Center witnessed 95 cases of threat actors selling access to systems belonging to financial companies located in 25 countries, including organisations in the UAE and Saudi Arabia. In fact, a recent report by *Financial Services Information Sharing and Analysis Centre*, (FS-ISAC) predicted that financial firms may experience more cyber-attacks this year. In these difficult times, we need to use symmetrical measures to protect business, especially in the financial sector, as cybercriminals have become bolder and more aggressive.

Recognising the threat, countries in the Middle East regularly come up with new measures to curb cybercrime. For example, in November 2021, the UAE Central Bank established a new Networking and Cyber Security Operations Centre to help defend the financial system's IT infrastructure against cyberattacks. Moreover, the Saudi Arabia Monetary Authority (SAMA) has issued a cybersecurity framework to enhance the cybersecurity posture of financial institutions.

INTERNATIONAL MONETARY FUND

Cyber threats to the financial system are growing, and the global community must cooperate to protect it

In February 2016, hackers targeted the central bank of Bangladesh and exploited vulnerabilities in SWIFT, the global financial system's lectronic payment messaging system, trying to steal $1 billion. most transactions were blocked, $101 million still disappeared. eist was a wake-up call for the finance world that systemic r risks in the financial system had been severely underestimated.

ay, the assessment that a major cyberattack poses a threat to ncial stability is axiomatic— not a question of *if*, but *when*. Yet the

Figure 3: The United States was the costliest country for average total cost of a data breach for the 12th year in a row.

The top five countries or regions with the highest averag cost of a data breach were:

1. The United States — USD 9.44 million
2. The Middle East — USD 7.46 million
3. Canada — USD 5.64 million
4. The United Kingdom — USD 5.05 million
5. Germany — USD 4.85 million

Source: *Cost of a Data Breach Report 2022* / ***IBM Security***

REUTERS®

May 31, 2022
7:20 PM GMT+4
Last Updated 3 months ago

Technology

Germany issues fresh warning to banks of cyber attacks due to Ukraine war

1 minute read

Reuters

FinTech.

IBM Security leader talks political impact on Fintech
US healthcare fintech Nitra announces US$62mn

Article • Banking

Banks need best practices to fight rising cyberattacks

By Joseph Saracino

July 17, 2022 • 9 mins

REUTERS®

August 26, 2022
9:43 PM GMT+4
Last Updated 2 days ago

Europe

Montenegro's state infrastructure hit by cyber attack -officials

Reuters

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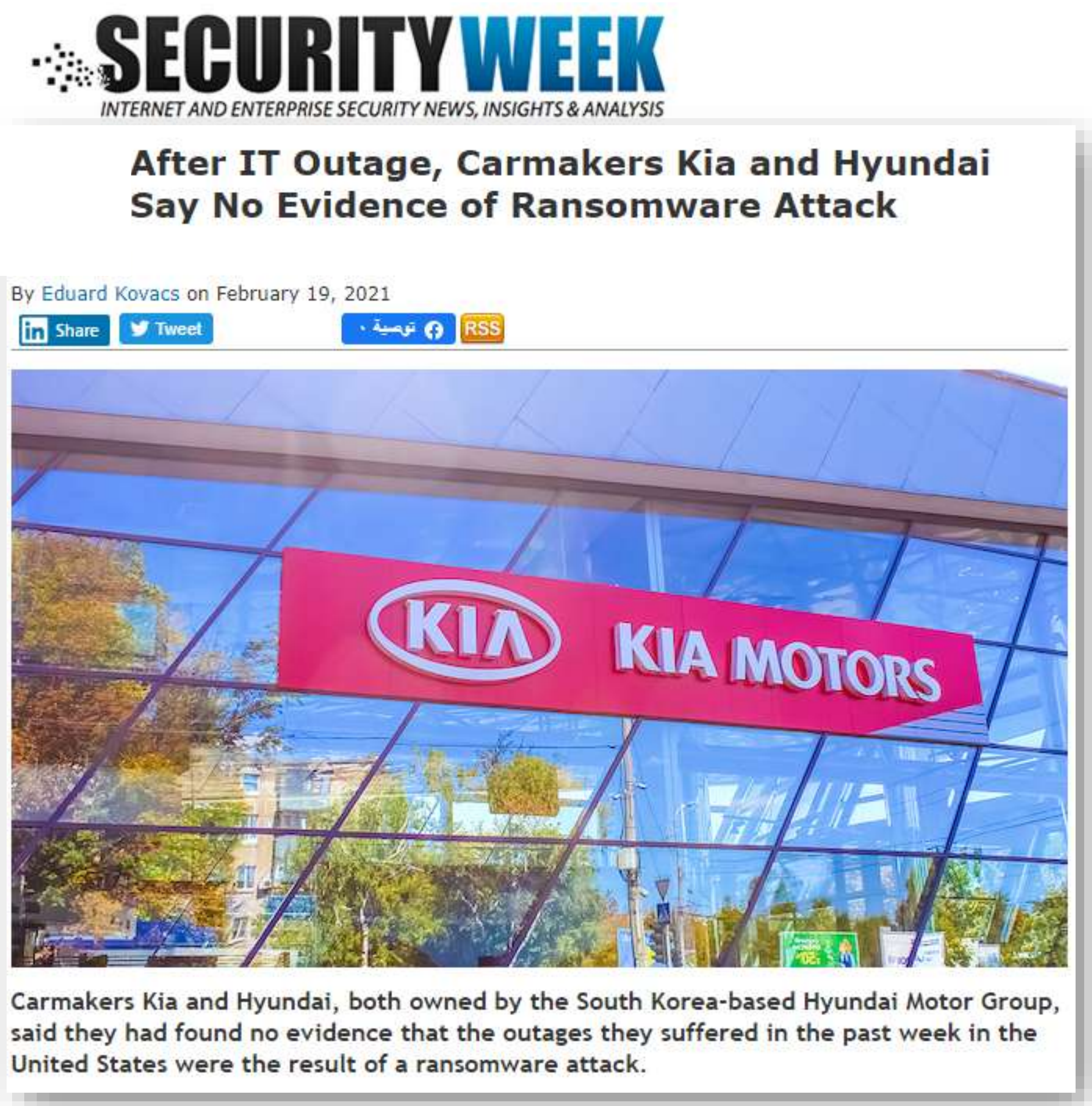
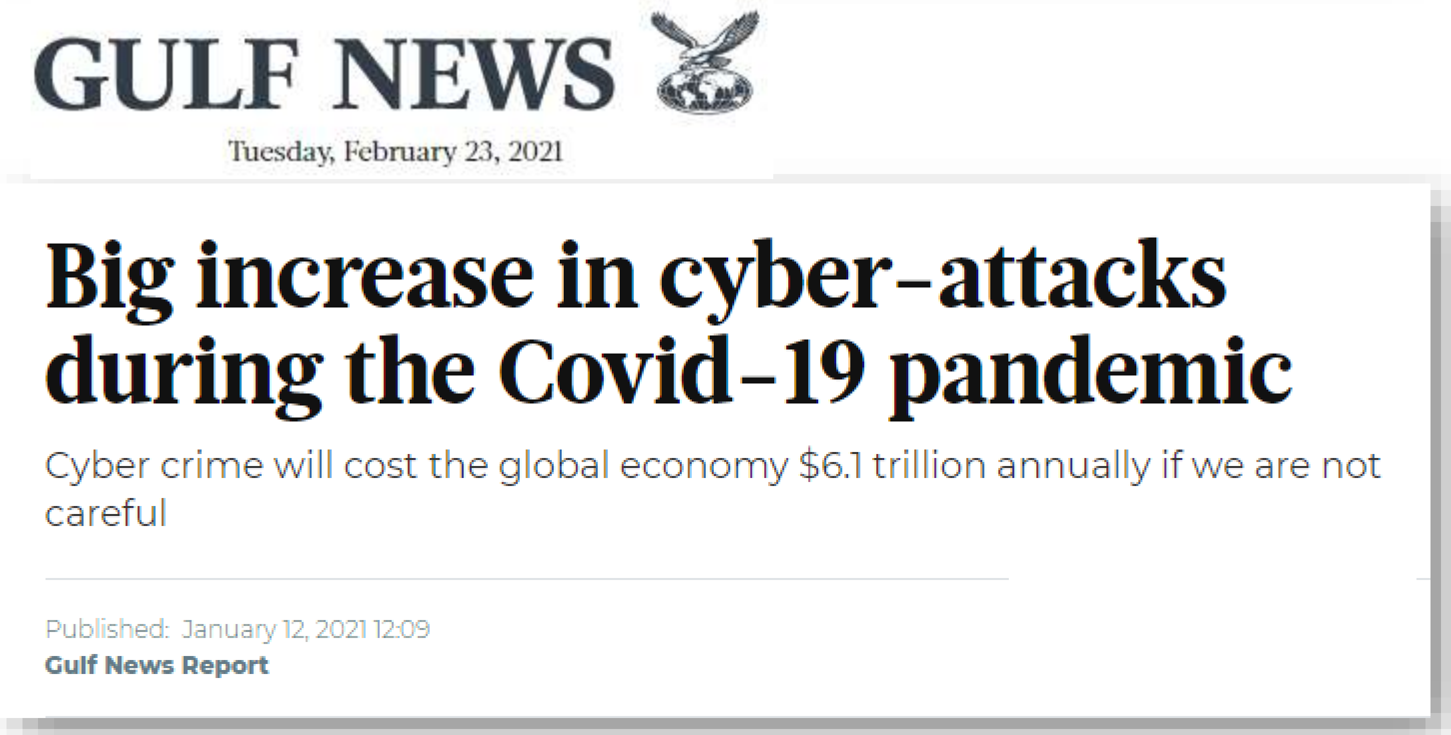
NEWS – JAN-FEB 2021



After IT Outage, Carmakers Kia and Hyundai Say No Evidence of Ransomware Attack

By Eduard Kovacs on February 19, 2021

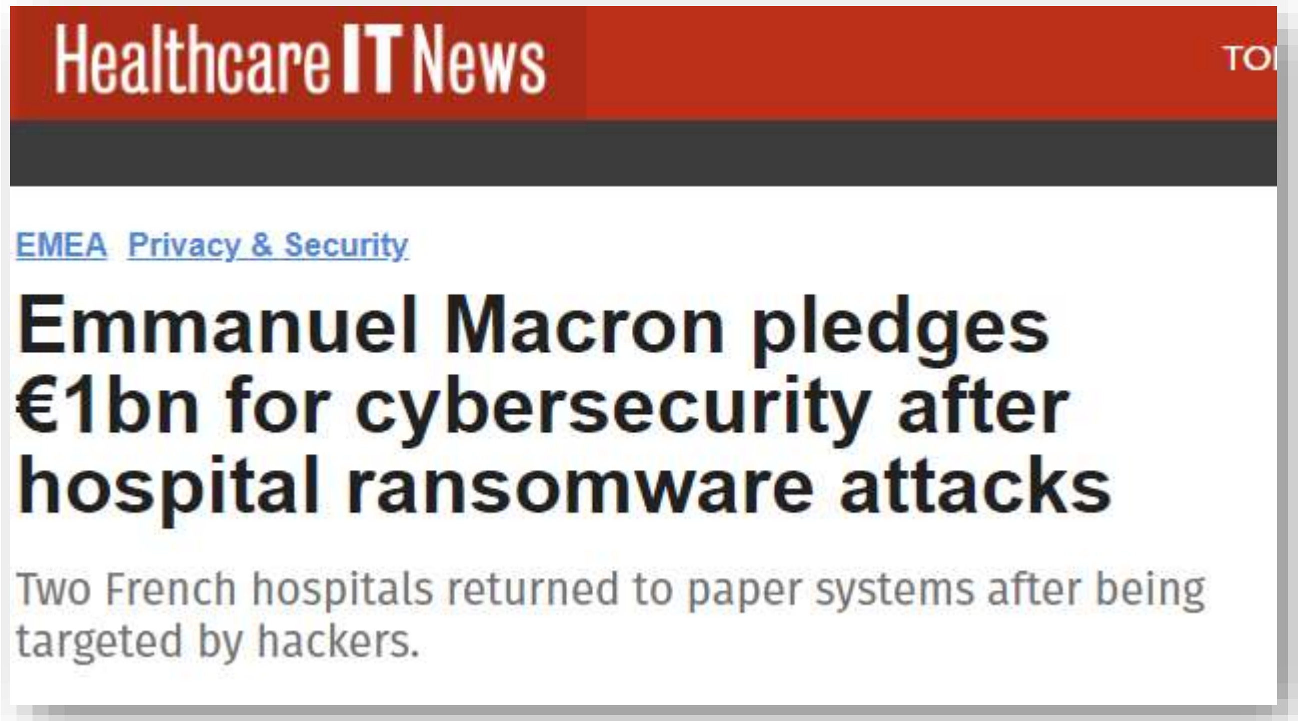
Carmakers Kia and Hyundai, both owned by the South Korea-based Hyundai Motor Group, said they had found no evidence that the outages they suffered in the past week in the United States were the result of a ransomware attack.



Big increase in cyber-attacks during the Covid-19 pandemic

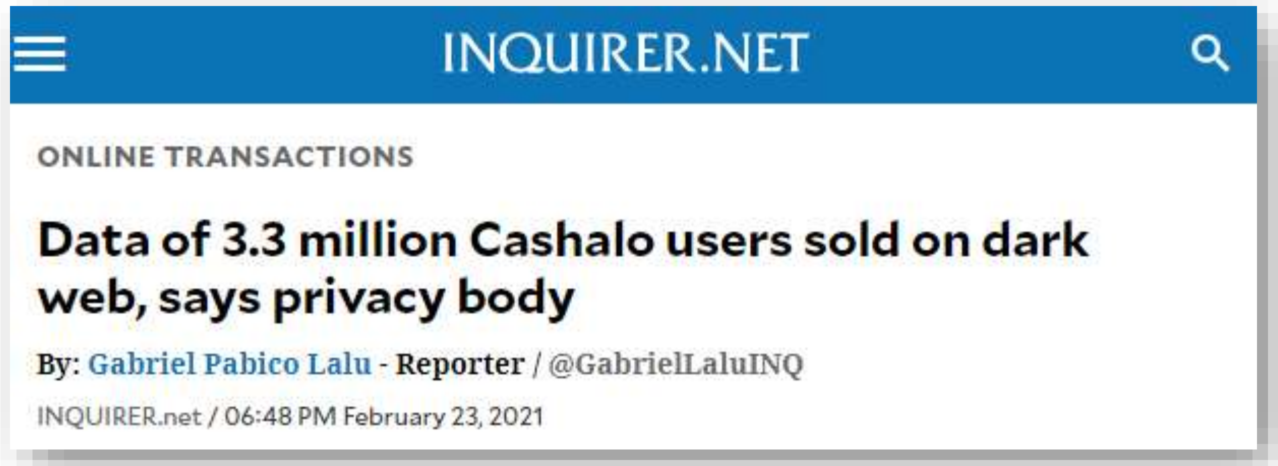
Cyber crime will cost the global economy $6.1 trillion annually if we are not careful

Published: January 12, 2021 12:09
Gulf News Report



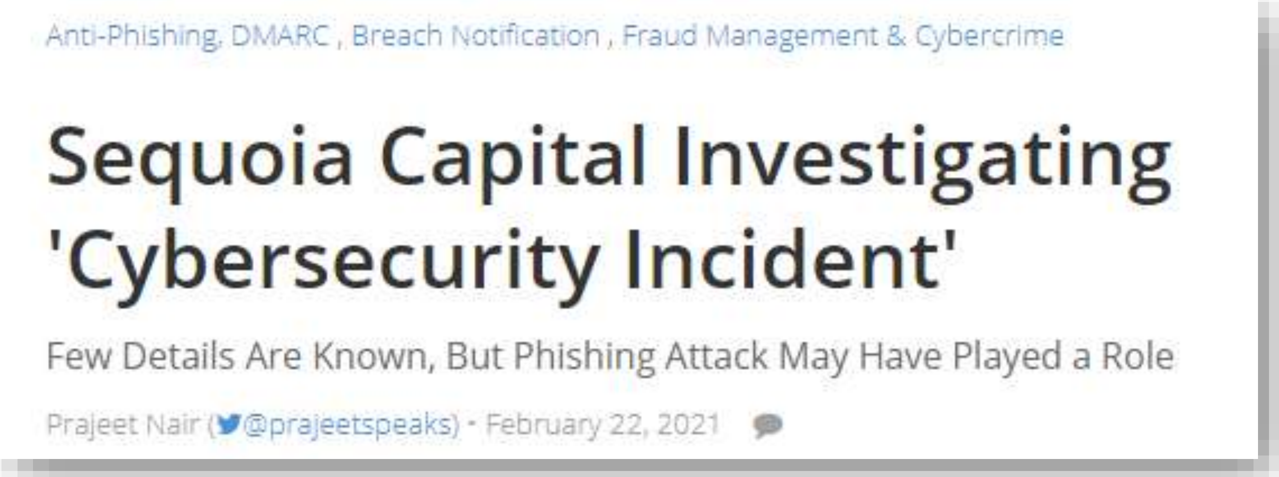
Emmanuel Macron pledges €1bn for cybersecurity after hospital ransomware attacks

Two French hospitals returned to paper systems after being targeted by hackers.



Data of 3.3 million Cashalo users sold on dark web, says privacy body

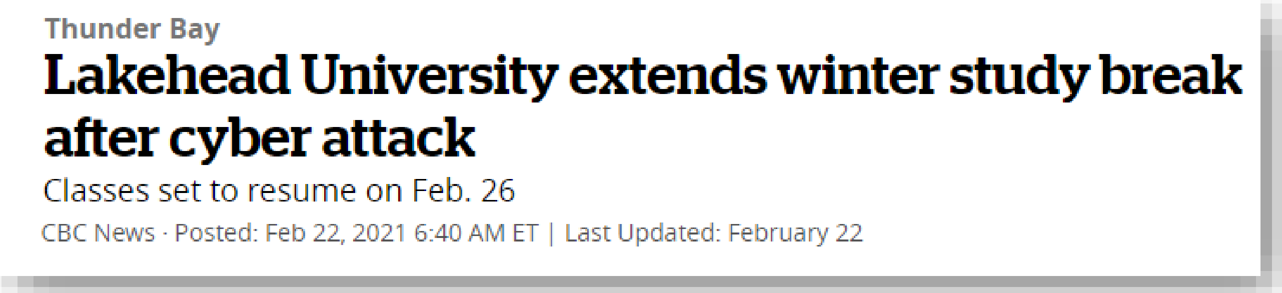
By: Gabriel Pabico Lalu - Reporter / @GabrielLaluINQ
INQUIRER.net / 06:48 PM February 23, 2021


Anti-Phishing, DMARC , Breach Notification , Fraud Management & Cybercrime

Sequoia Capital Investigating 'Cybersecurity Incident'

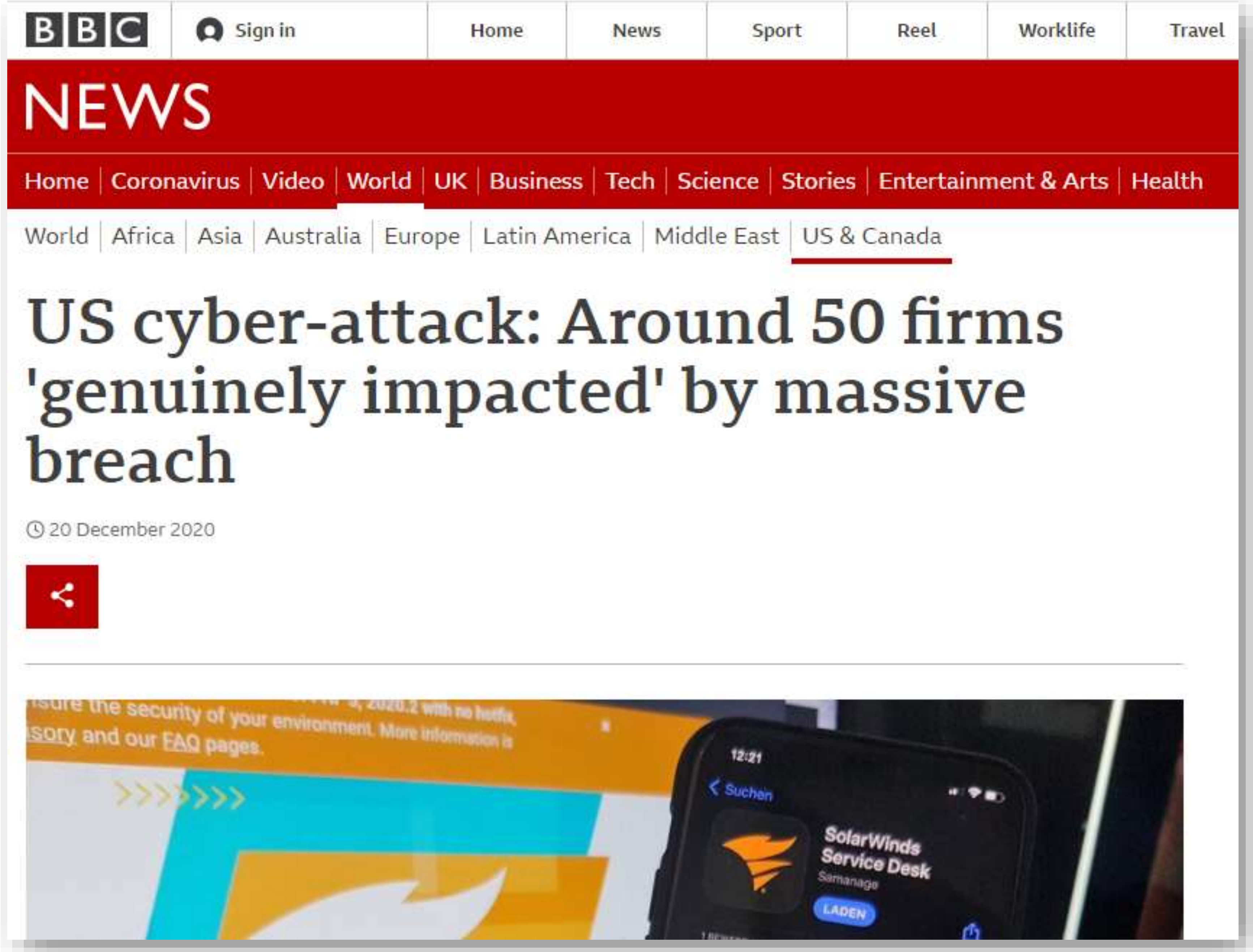
Few Details Are Known, But Phishing Attack May Have Played a Role

Prajeet Nair (@prajeetspeaks) · February 22, 2021


Thunder Bay

Lakehead University extends winter study break after cyber attack

Classes set to resume on Feb. 26
CBC News · Posted: Feb 22, 2021 6:40 AM ET | Last Updated: February 22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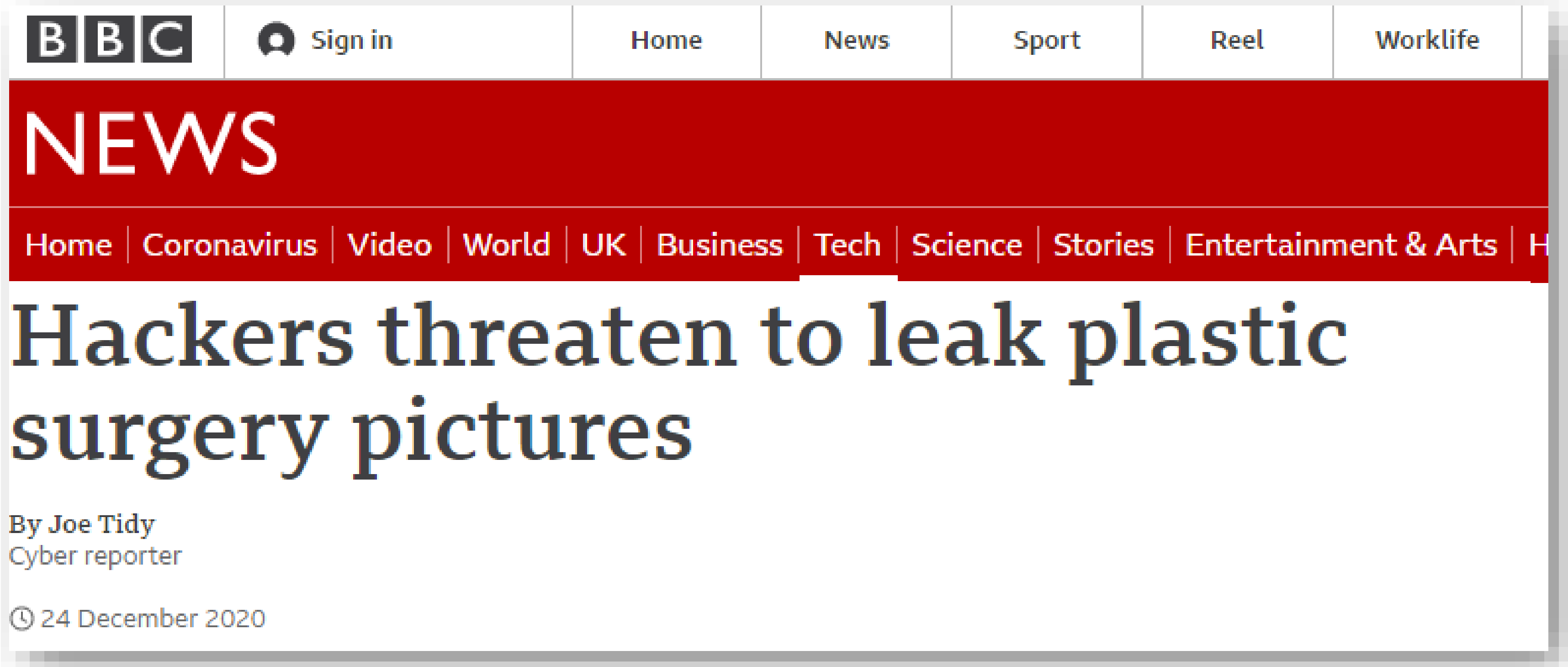
SolarWinds Service Desk

US cyber-attack: Around 50 firms 'genuinely impacted' by massive breach

20 December 2020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Hackers threaten to leak plastic surgery pictures

By Joe Tidy
Cyber reporter

24 December 2020

MAJOR THREATS

- Ransomware
- Phishing
- Shutdown of Websites
- Attack on Critical Systems
- Theft of Data / Data Leak
- Insider Threats
- Malware Attacks

SOME CONSEQUENCES OF A CYBER ATTACK

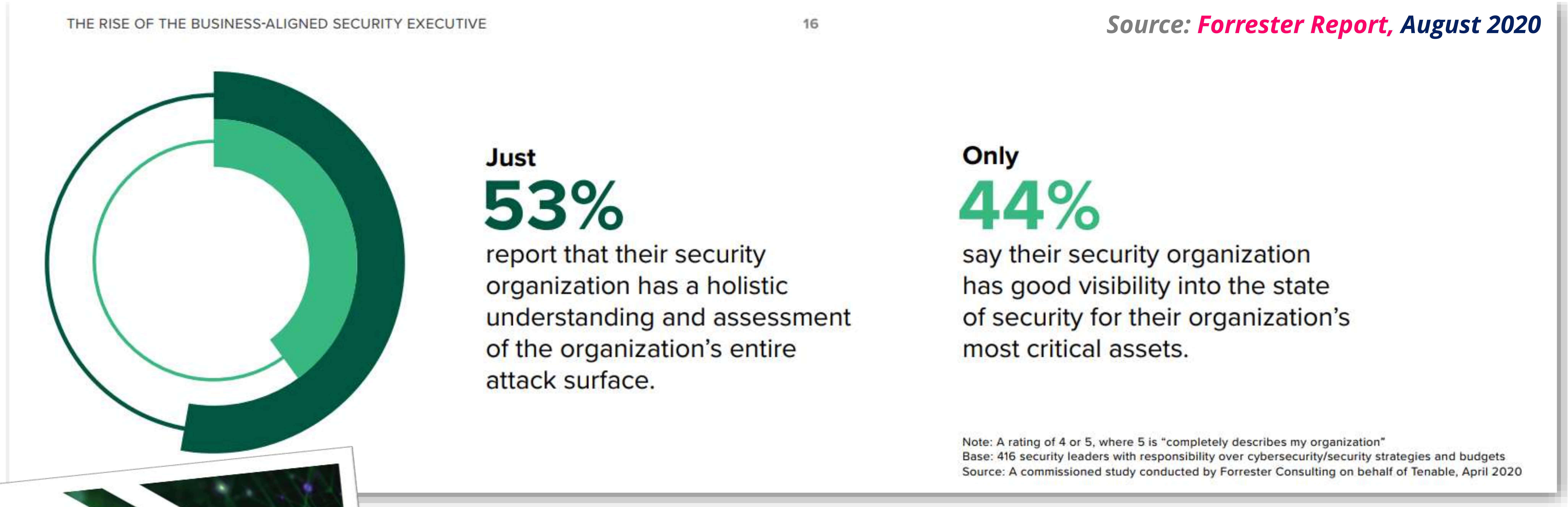
- Disruption of Business
- Financial Loss
- Reputational Damage
- Legal Ramifications
- Loss of Sensitive Data
- Identity Theft
- Operational Downtime

HOW TO SECURE YOUR IT INFRASTRUCTURE

- Identify your IT Assets – Build/Review IT Assets Inventory
- Prepare or Update your IT Architecture (**Maps, Diagrams**)
- Conduct a Vulnerability Assessment (**Tool Based**)
- Conduct Controls Assessment

  (**ISO27K, HIPAA, PCI-DSS, NESA, CSA-CCM, NIST-CSF, SWIFT, ADHIC**)
- Identify Gaps
- Prepare a Response Plan

DO YOU HAVE GOOD VISIBILITY IN IT?



THE RISE OF THE BUSINESS-ALIGNED SECURITY EXECUTIVE 16

Source: Forrester Report, August 2020

Just **53%** report that their security organization has a holistic understanding and assessment of the organization's entire attack surface.

Only **44%** say their security organization has good visibility into the state of security for their organization's most critical assets.

Note: A rating of 4 or 5, where 5 is "completely describes my organization"
Base: 416 security leaders with responsibility over cybersecurity/security strategies and budgets
Source: A commissioned study conducted by Forrester Consulting on behalf of Tenable, April 2020

FORRESTER

The Rise Of The Business-Aligned Security Executive

The Bad News? There's A Disconnect Between Business And Cybersecurity.
The Good News? Aligning Them Can Make All The Difference.

Get started →

FORRESTER THOUGHT LEADERSHIP PAPER: A CUSTOM STUDY COMMISSIONED BY TENABLE | AUGUST 2020

We conduct detailed Assessments, Map the IT Architecture, Compile Asset Inventory for 360° visibility of your IT Infrastructure

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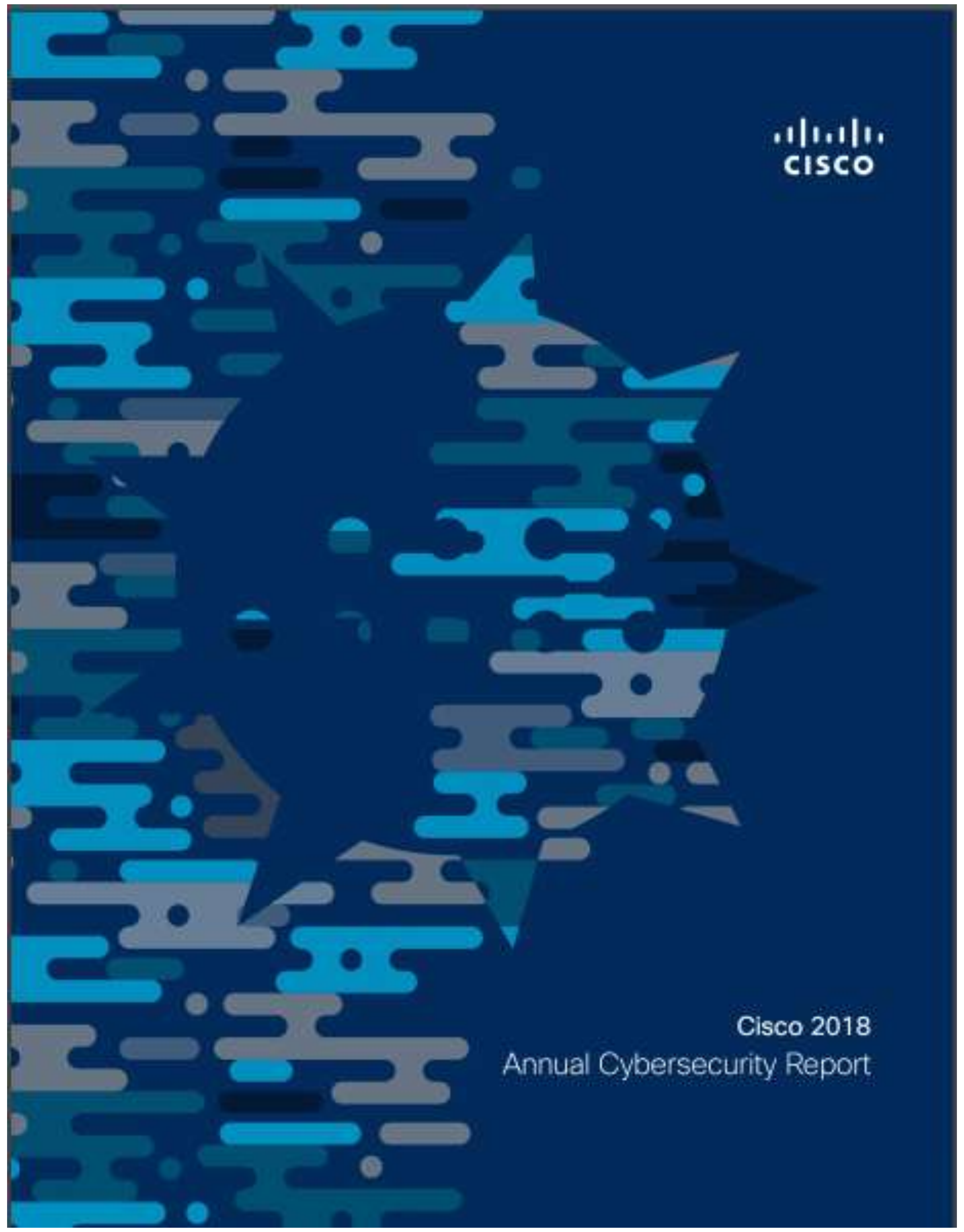
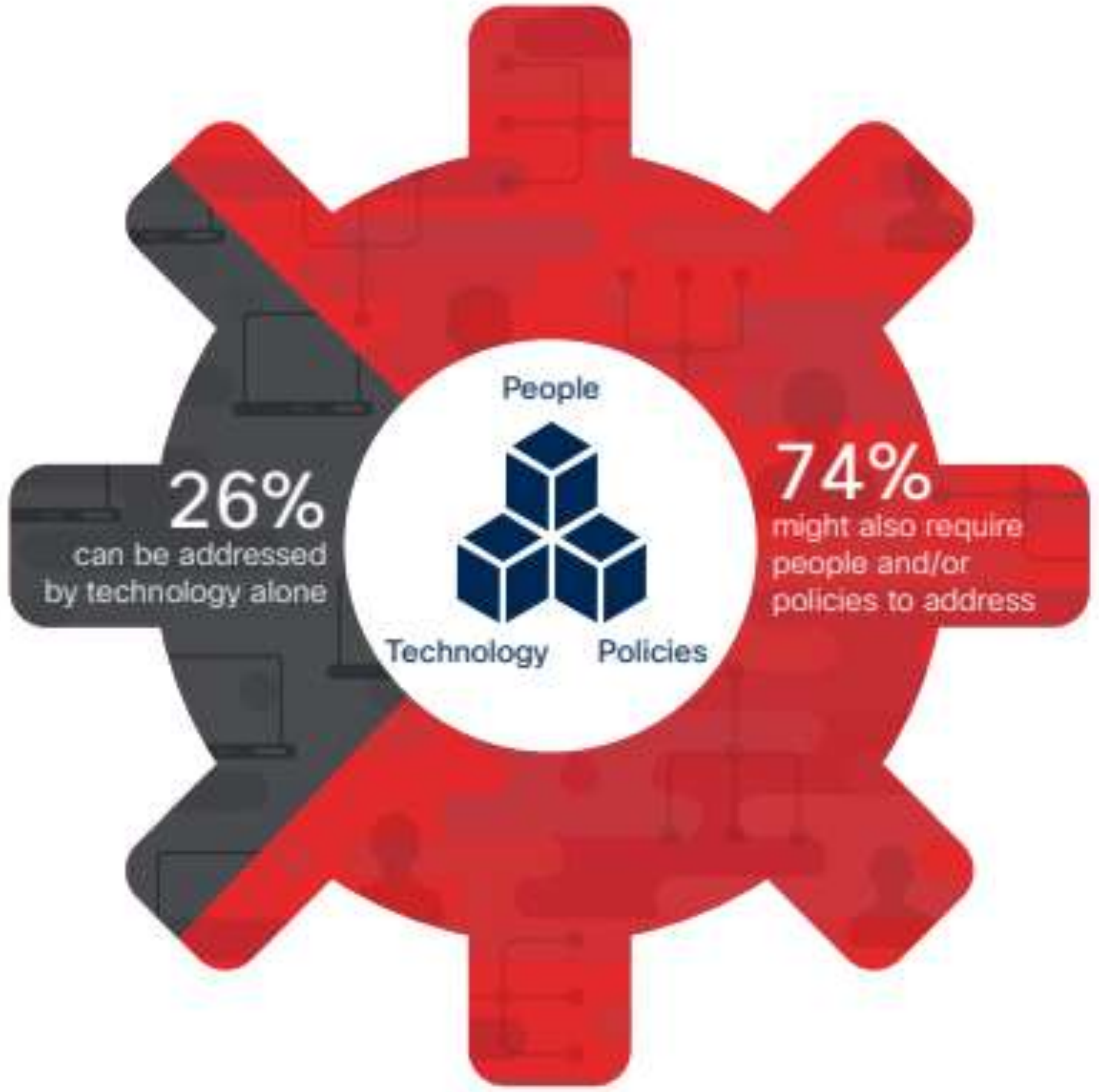


Figure 53 Only 26 percent of security issues can be addressed by products alone



Source: Cisco Security Research

"Only 26 percent of security issues can be addressed by products alone.
74% might also require people and/or policies to address"

Source: https://www.cisco.com/c/dam/m/hu_hu/campaigns/security-hub/pdf/acr-2018.pdf

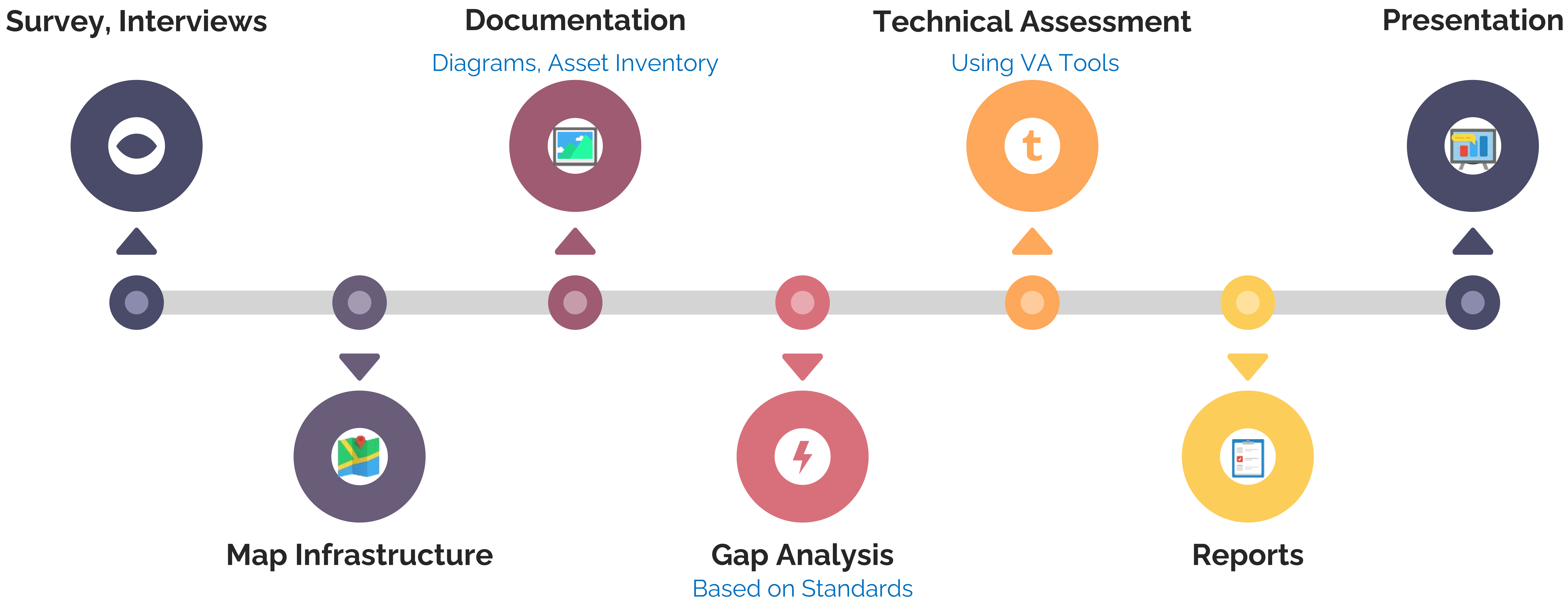
REGULATIONS, GUIDELINES

Internal and external information security assessments are required for compliance in a number of regulations in the GCC. For example, in the UAE:

- Central Bank Regulation for Finance Companies
- Central Bank Consumer Protection Regulation
- Central Bank Consumer Protection Standards
- CB: The Standards for Regulation regarding Licensing and Monitoring of Exchange Business

Other standards such as NESA, ADSIC, UAE Information Assurance, Dubai-ISR, UAE Federal Data Protection Law (DPL, Law No.45), ADHICS, SAMA, CMA guidelines in Oman require that organisations conduct assessments regularly.

OUR APPROACH



Survey, Interviews

Map Infrastructure

Documentation
Diagrams, Asset Inventory

Gap Analysis
Based on Standards

Technical Assessment
Using VA Tools

Reports

Presentation

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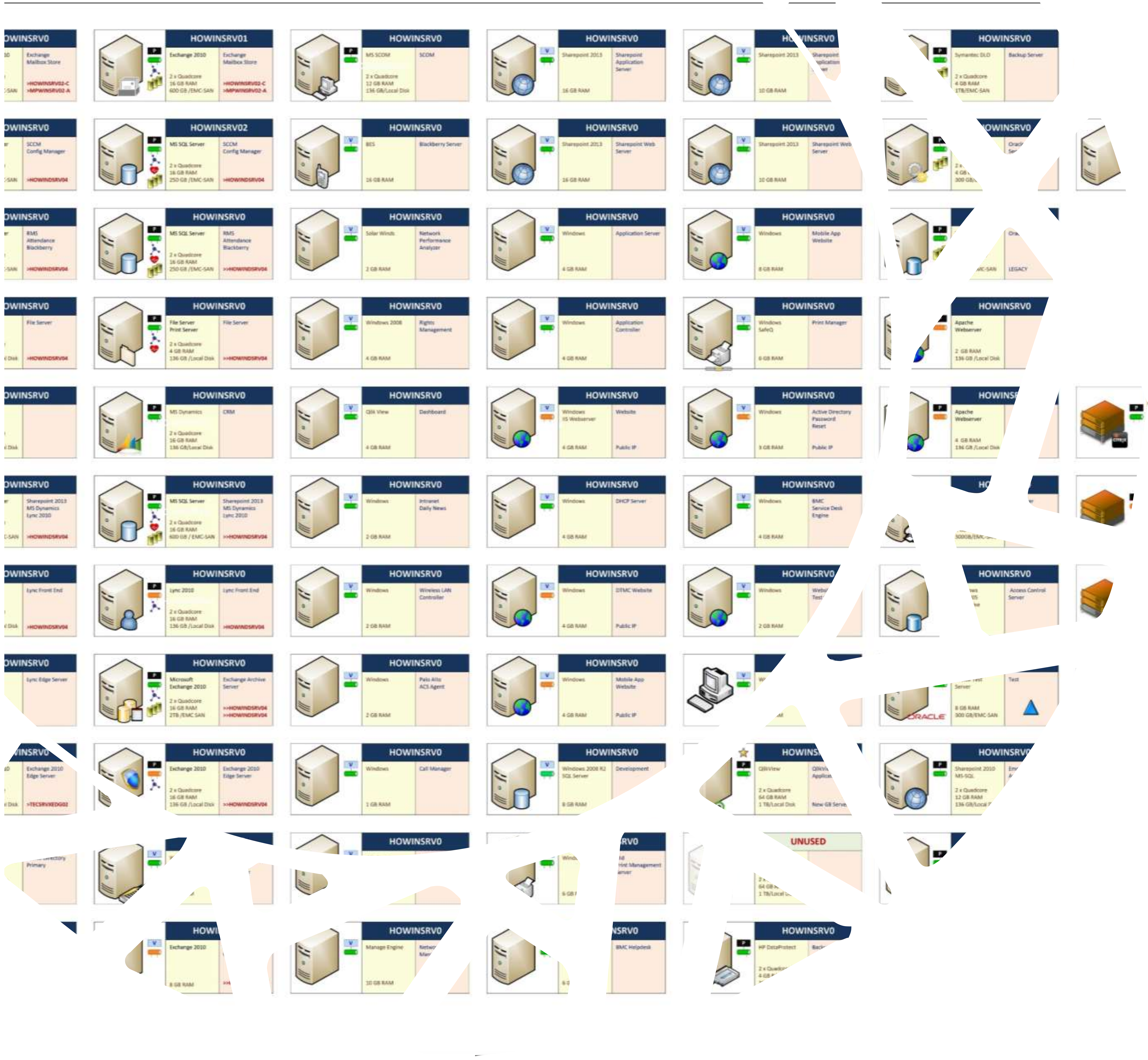
SAMPLE DELIVERABLES

- Documentation
  Mapping the Security Architecture
- Gap Analysis Report
- Infographics
- Asset Inventory
- Risk Assessment Report
- Implementation Advice
- Recommendations
- Workshops



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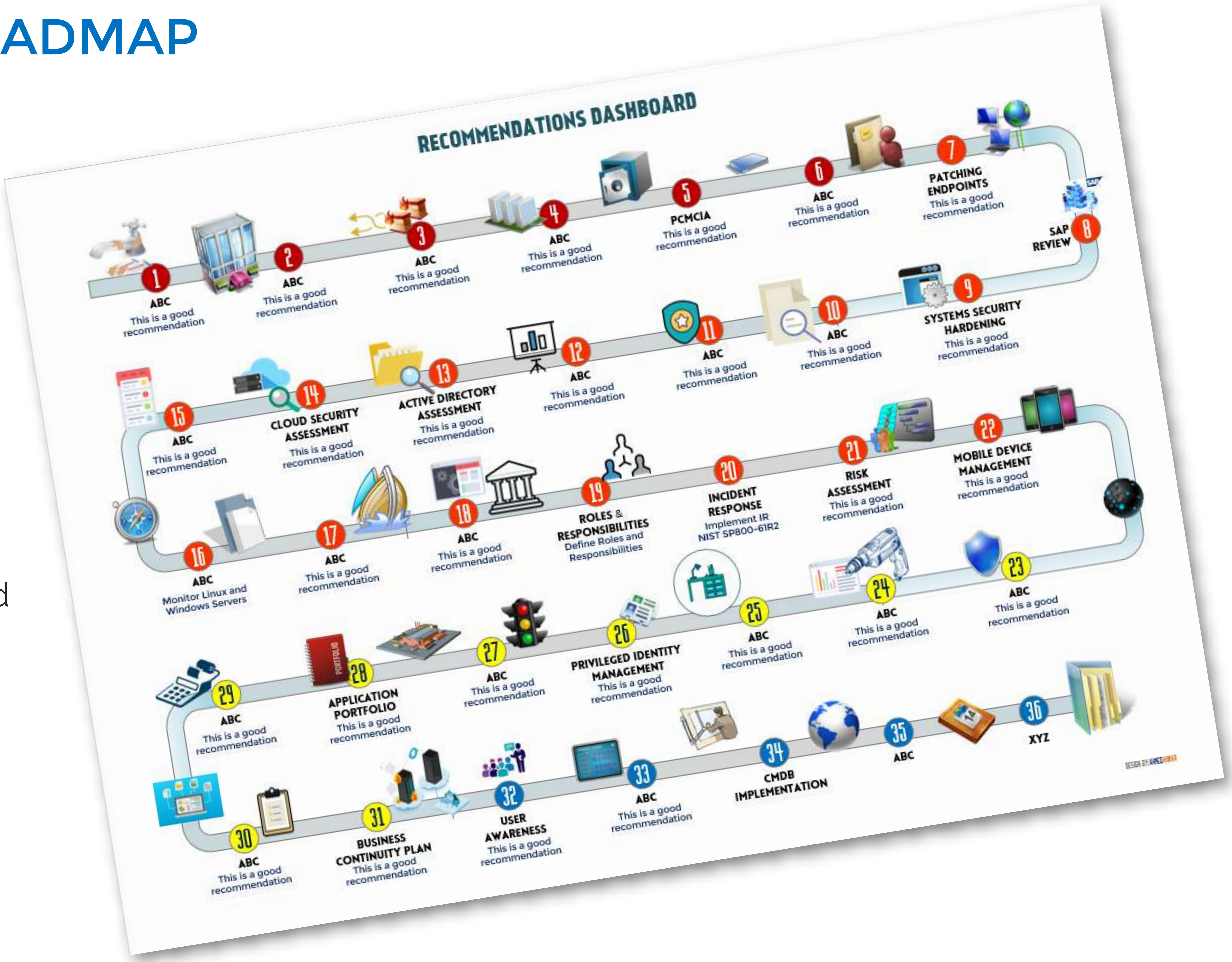
ACTIONABLE ROADMAP

One of the key products of our assessment is an action-plan and a prioritized list of activities, projects required as a roadmap towards info-sec maturity. In addition to detailed reports we create attractive dashboard that is easy for non-technical managers to understand and follow the progress.


RECOMMENDATIONS DASHBOARD
1 ABC This is a good recommendation
2 ABC This is a good recommendation
3 ABC This is a good recommendation
4 ABC This is a good recommendation
5 PCMCIA This is a good recommendation
6 ABC This is a good recommendation
7 PATCHING ENDPOINTS This is a good recommendation
8 SAP REVIEW
9 SYSTEMS SECURITY HARDENING This is a good recommendation
10 ABC This is a good recommendation
11 ABC This is a good recommendation
12 ABC This is a good recommendation
13 ACTIVE DIRECTORY ASSESSMENT This is a good recommendation
14 CLOUD SECURITY ASSESSMENT This is a good recommendation
15 ABC This is a good recommendation
16 ABC Monitor Linux and Windows Servers
17 ABC This is a good recommendation
18 ABC This is a good recommendation
19 ROLES & RESPONSIBILITIES Define Roles and Responsibilities
20 INCIDENT RESPONSE Implement IR NIST SP800-61R2
21 RISK ASSESSMENT This is a good recommendation
22 MOBILE DEVICE MANAGEMENT This is a good recommendation
23 ABC This is a good recommendation
24 ABC This is a good recommendation
25 ABC This is a good recommendation
26 PRIVILEGED IDENTITY MANAGEMENT This is a good recommendation
27 ABC This is a good recommendation
28 APPLICATION PORTFOLIO This is a good recommendation
29 ABC This is a good recommendation
30 ABC This is a good recommendation
31 BUSINESS CONTINUITY PLAN This is a good recommendation
32 USER AWARENESS This is a good recommendation
33 ABC This is a good recommendation
34 CMDB IMPLEMENTATION
35 ABC
36 XYZ

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Documentation

Security Architecture

IT Infrastructure Architecture

Diagrams: Network, Topology, etc

Asset Inventory

Application Portfolio

SAMPLE DIAGRAMS

We create diagrams of your infrastructure mapping the architecture and charting network topologies, server topologies, server distribution, infrastructure dashboards, recommendation roadmap etc.

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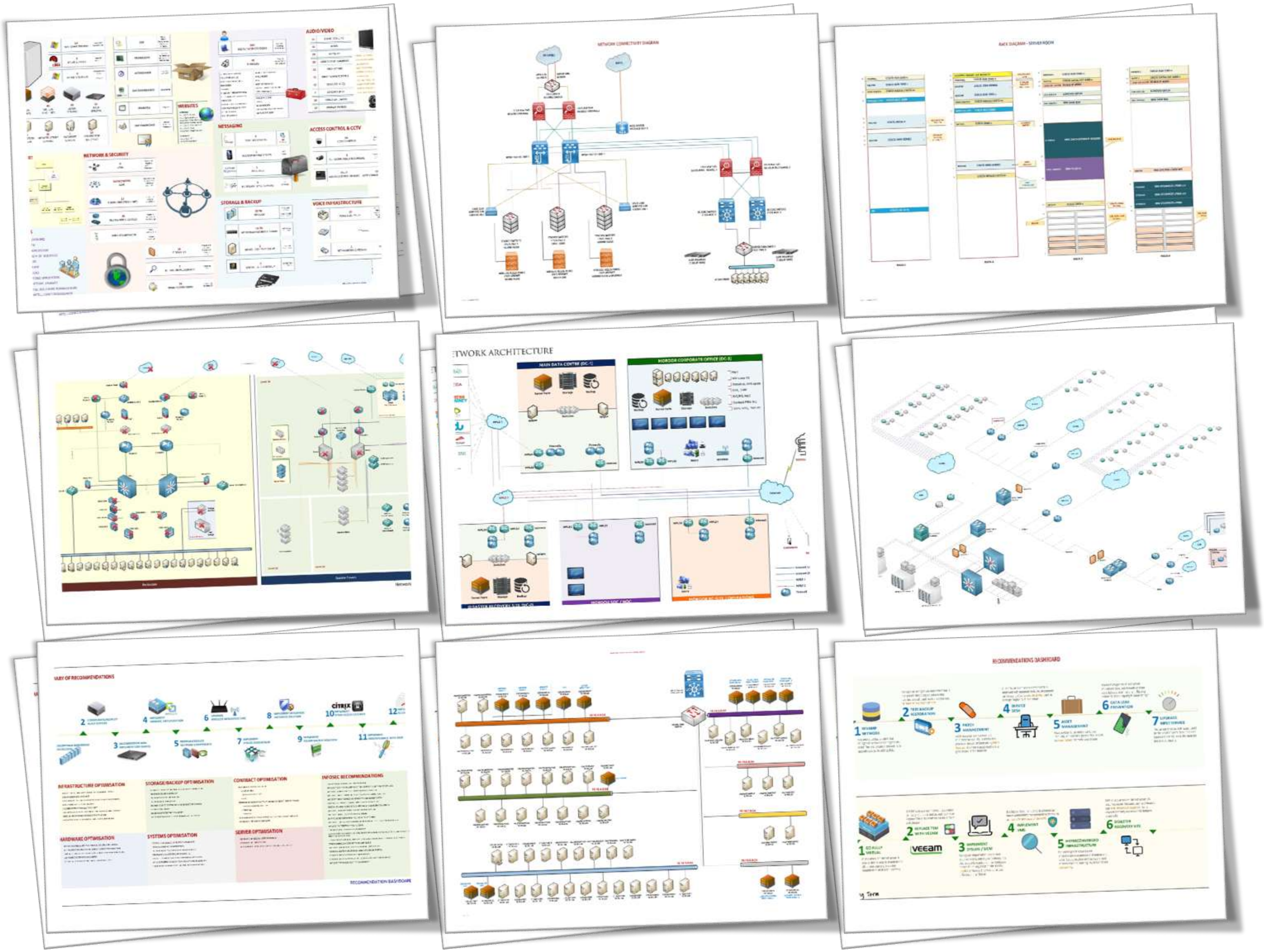
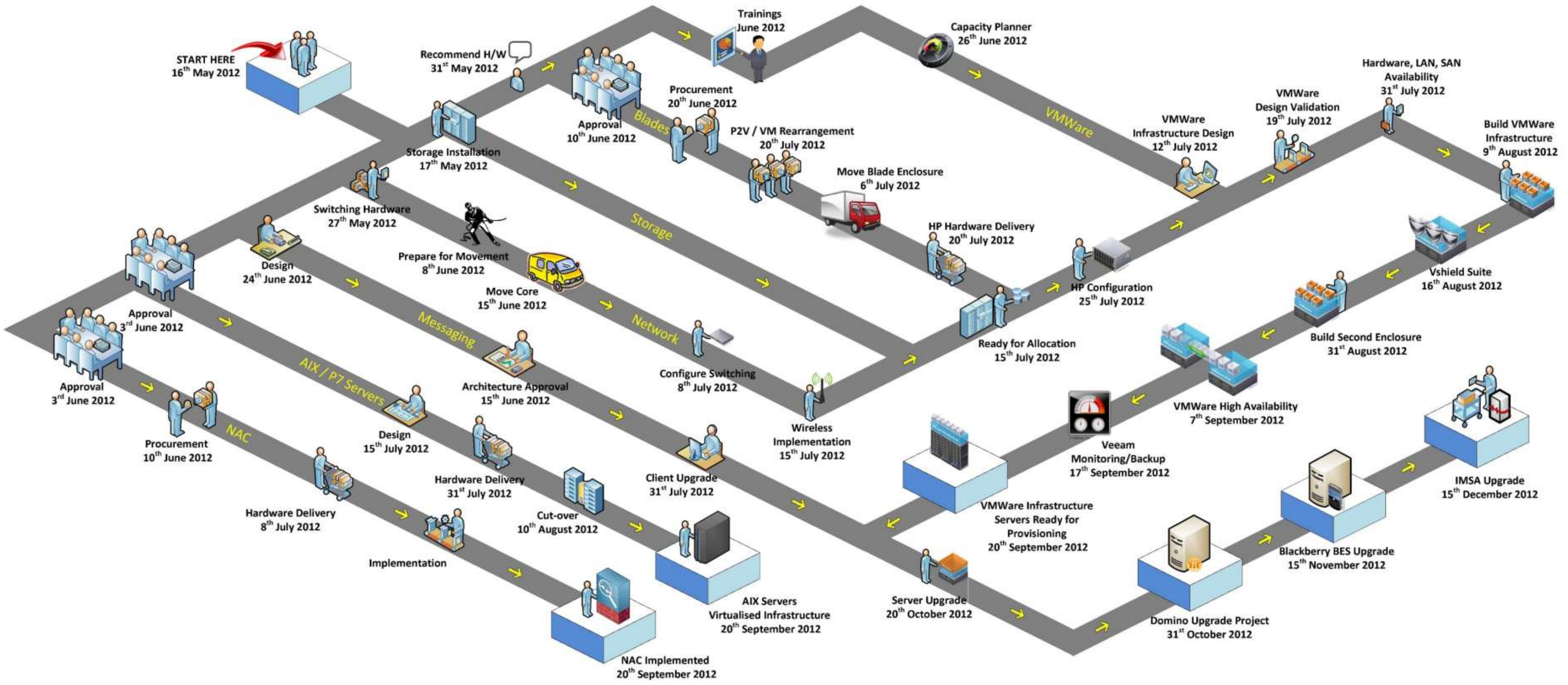
THINK SERVICES





START HERE
16th May 2012

Storage Installation
17th May 2012

Switching Hardware
27th May 2012

Recommend H/W
31st May 2012

Approval
10th June 2012

Trainings
June 2012

Procurement
20th June 2012

Capacity Planner
26th June 2012

P2V / VM Rearrangement
20th July 2012

Move Blade Enclosure
6th July 2012

HP Hardware Delivery
20th July 2012

Ready for Allocation
15th July 2012

HP Configuration
25th July 2012

VMWare
Infrastructure Design
12th July 2012

VMWare
Design Validation
19th July 2012

Hardware, LAN, SAN
Availability
31st July 2012

Build VMWare
Infrastructure
9th August 2012

Vshield Suite
16th August 2012

Build Second Enclosure
31st August 2012

VMWare High Availability
7th September 2012

Veeam
Monitoring/Backup
17th September 2012

VMWare Infrastructure
Servers Ready for
Provisioning
20th September 2012

Prepare for Movement
8th June 2012

Move Core
15th June 2012

Configure Switching
8th July 2012

Wireless
Implementation
15th July 2012

Design
24th June 2012

Architecture Approval
15th June 2012

Client Upgrade
31st July 2012

Server Upgrade
20th October 2012

Domino Upgrade Project
31st October 2012

Blackberry BES Upgrade
15th November 2012

IMSA Upgrade
15th December 2012

Approval
3rd June 2012

Design
15th July 2012

Hardware Delivery
31st July 2012

Cut-over
10th August 2012

AIX Servers
Virtualised Infrastructure
20th September 2012

Approval
3rd June 2012

Procurement
10th June 2012

Hardware Delivery
8th July 2012

Implementation

NAC Implemented
20th September 2012

PROJECTS

1. VMWARE AUTOMATION
2. NEW STORAGE
3. SWITCHING REDESIGN
4. HP/HARDWARE UPGRADES
5. AIX/P7 TECHNOLOGY REFRESH
6. CENTER DUBAI NETWORK
7. NETWORK ACCESS CONTROL (NAC)
8. DOMINO UPGRADE / REDESIGN
9. IMSA REPLACEMENT / UPGRADE
10. DATAC WIRELESS / TEST NETWORK
11. ANTIVIRUS UPGRADE
12. LOCATION TERMINAL EXPANSION

TENTATIVE DATES

SWITCHING PROJECT : 30th June 2012
STORAGE AVAILABILITY: 5th July 2012
HP/UPGRADE APPROVAL: 10th June 2012
HP HARDWARE DELIVERY: 15th July 2012
VMWARE DESIGN: 8th July 2012
HARDWARE AVAILABILITY: 31st July 2012
VMWARE IMPLEMENTATION: 9th August 2012
BACKUP / MONITORING: 15th August 2012
AIX HARDWARE: 15th July 2012
AIX REDESIGN/UPGRADE: 20th August 2012
NAC: 15th July 2012
DOMINO: 31st October 2012
IMSA/BLACKBERRY UPG: 15th December 2012

THINGS TO DO

I. STORAGE
a) config
b) network
c) allocation/etc

II. SWITCHING
a) hardware delivery
b) cabling etc
c) **movement of core**
d) reconfiguration
e) connect blade switches
f) switches for storage

III. HP HARDWARE
a) recommendation
b) procurement
c) delivery
d) **movement of enclosure**
e) reassignment of blades
f) upgrade of blades ENC-1
g) config FLEX-10 switches
h) storage connectivity
i) network connectivity
j) upgrade of blades ENC-2
k) storage connectivity
l) network connectivity

IV. VMWARE
a) design
b) design validation (vmware)
c) final design / security
d) prepare VMs / P2V
e) prepare infrastructure
f) prepare vm environment
g) test functionality
h) rollover to 4 hosts (all)
i) build second enclosure
j) config failover/etc – redeploy
k) config backup (veeam)
l) monitoring

V. AIX
a) procurement
b) design
c) hardware delivery
d) **build AIX/VMs - cluster**
e) DBA test upgrade to AIX 7.x
f) archive/restore PROD
g) cutover to new systems

VI. NAC
a) procurement
b) analysis/design
c) implementation

PROGRAM/PROJECT ROADMAP 2012

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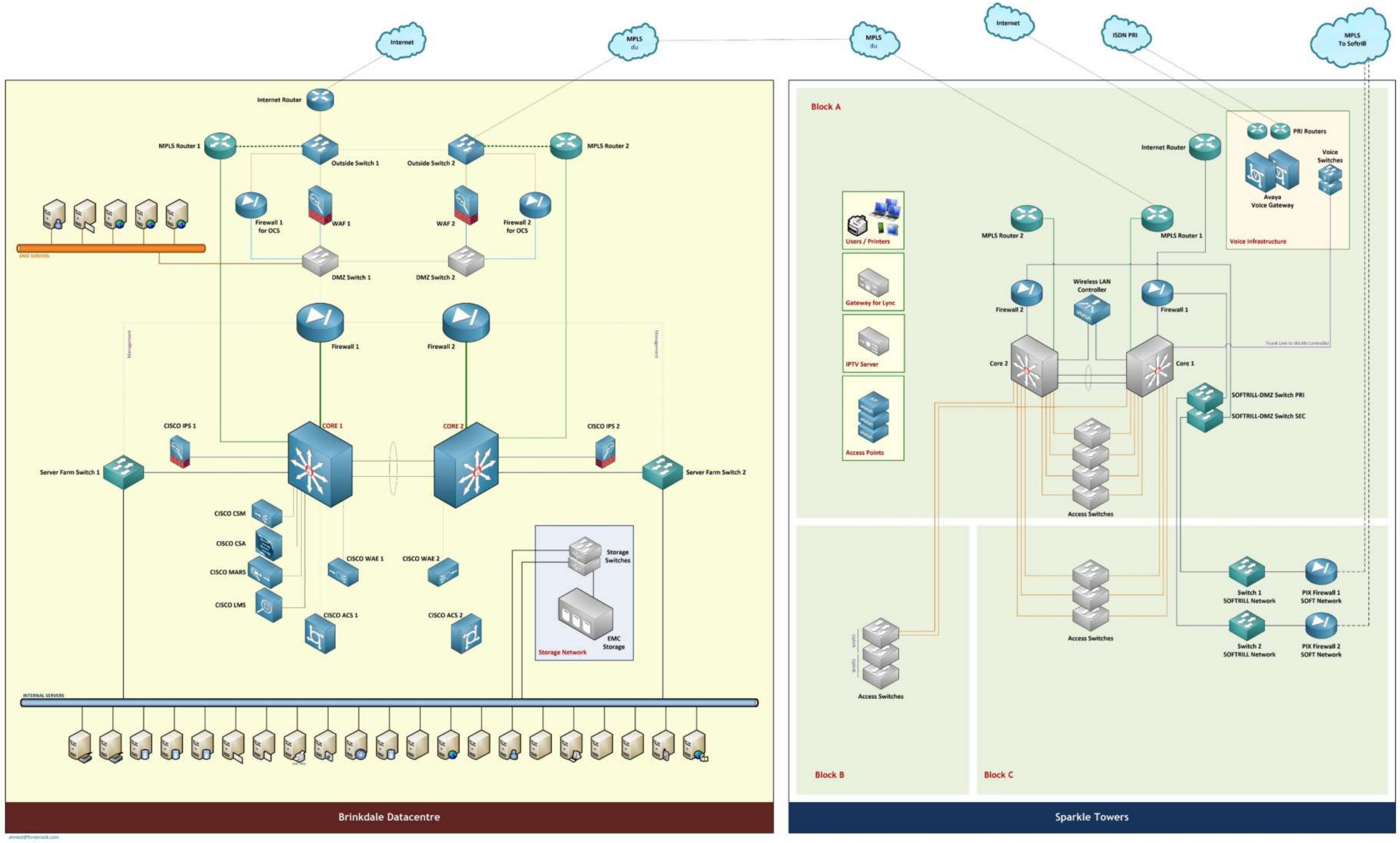

Network Topology

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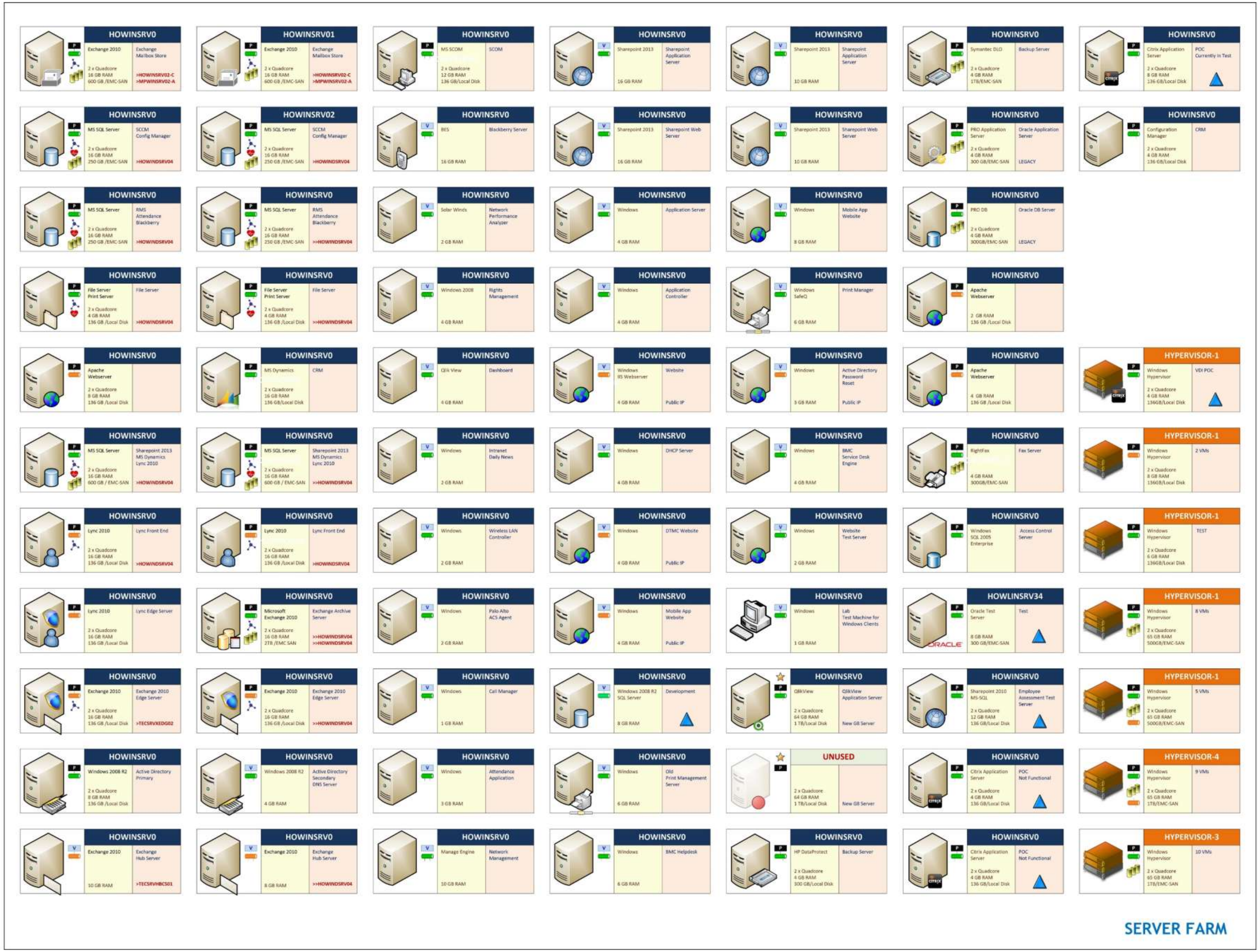

HOWINSRV0	P	Exchange 2010 2 x Quadcore 16 GB RAM 600 GB /EMC-SAN	Exchange Mailbox Store >HOWINSRV02-C >MPWINSRV02-A
HOWINSRV01	P	Exchange 2010 2 x Quadcore 16 GB RAM 600 GB /EMC-SAN	Exchange Mailbox Store >HOWINSRV02-C >MPWINSRV02-A
HOWINSRV0	P	MS SCOM 2 x Quadcore 12 GB RAM 136 GB/Local Disk	SCOM
HOWINSRV0	V	Sharepoint 2013 16 GB RAM	Sharepoint Application Server
HOWINSRV0	V	Sharepoint 2013 10 GB RAM	Sharepoint Application Server
HOWINSRV0	P	Symantec DLO 2 x Quadcore 4 GB RAM 1TB/EMC-SAN	Backup Server
HOWINSRV0	P	Citrix Application Server 2 x Quadcore 8 GB RAM 136 GB/Local Disk	POC Currently in Test ▲
HOWINSRV0	P	MS SQL Server 2 x Quadcore 16 GB RAM 250 GB /EMC-SAN	SCCM Config Manager >HOWINDSRV04
HOWINSRV02	P	MS SQL Server 2 x Quadcore 16 GB RAM 250 GB /EMC-SAN	SCCM Config Manager >HOWINDSRV04
HOWINSRV0	V	BES 16 GB RAM	Blackberry Server
HOWINSRV0	V	Sharepoint 2013 16 GB RAM	Sharepoint Web Server
HOWINSRV0	V	Sharepoint 2013 10 GB RAM	Sharepoint Web Server
HOWINSRV0	P	PRO Application Server 2 x Quadcore 4 GB RAM 300 GB/EMC-SAN	Oracle Application Server LEGACY
HOWINSRV0	P	Configuration Manager 2 x Quadcore 4 GB RAM 136 GB/Local Disk	CRM
HOWINSRV0	P	MS SQL Server 2 x Quadcore 16 GB RAM 250 GB /EMC-SAN	RMS Attendance Blackberry >HOWINDSRV04
HOWINSRV0	P	MS SQL Server 2 x Quadcore 16 GB RAM 250 GB /EMC-SAN	RMS Attendance Blackberry >>HOWINDSRV04
HOWINSRV0	V	Solar Winds 2 GB RAM	Network Performance Analyzer
HOWINSRV0	V	Windows 4 GB RAM	Application Server
HOWINSRV0	V	Windows 8 GB RAM	Mobile App Website
HOWINSRV0	P	PRO DB 2 x Quadcore 4 GB RAM 300GB/EMC-SAN	Oracle DB Server LEGACY
HOWINSRV0	P	File Server Print Server 2 x Quadcore 4 GB RAM 136 GB /Local Disk	File Server >HOWINDSRV04
HOWINSRV0	P	File Server Print Server 2 x Quadcore 4 GB RAM 136 GB /Local Disk	File Server >>HOWINDSRV04
HOWINSRV0	V	Windows 2008 4 GB RAM	Rights Management
HOWINSRV0	V	Windows 4 GB RAM	Application Controller
HOWINSRV0	V	Windows SafeQ 6 GB RAM	Print Manager
HOWINSRV0	P	Apache Webserver 2 GB RAM 136 GB /Local Disk	
HOWINSRV0	P	Apache Webserver 2 x Quadcore 8 GB RAM 136 GB /Local Disk	
HOWINSRV0	P	MS Dynamics 2 x Quadcore 16 GB RAM 136 GB/Local Disk	CRM
HOWINSRV0	V	Qlik View 4 GB RAM	Dashboard
HOWINSRV0	V	Windows IIS Webserver 4 GB RAM	Website Public IP
HOWINSRV0	V	Windows 3 GB RAM	Active Directory Password Reset Public IP
HOWINSRV0	P	Apache Webserver 4 GB RAM 136 GB /Local Disk	
HYPERVISOR-1	P	Windows Hypervisor 2 x Quadcore 4 GB RAM 136GB/Local Disk	VDI POC ▲
HOWINSRV0	P	MS SQL Server 2 x Quadcore 16 GB RAM 600 GB / EMC-SAN	Sharepoint 2013 MS Dynamics Lync 2010 >HOWINDSRV04
HOWINSRV0	P	MS SQL Server 2 x Quadcore 16 GB RAM 600 GB / EMC-SAN	Sharepoint 2013 MS Dynamics Lync 2010 >>HOWINDSRV04
HOWINSRV0	V	Windows 2 GB RAM	Intranet Daily News
HOWINSRV0	V	Windows 4 GB RAM	DHCP Server
HOWINSRV0	V	Windows 4 GB RAM	BMC Service Desk Engine
HOWINSRV0	P	RightFax 4 GB RAM 300GB/EMC-SAN	Fax Server
HYPERVISOR-1	P	Windows Hypervisor 2 x Quadcore 8 GB RAM 136GB/Local Disk	2 VMs
HOWINSRV0	P	Lync 2010 2 x Quadcore 16 GB RAM 136 GB /Local Disk	Lync Front End >HOWINDSRV04
HOWINSRV0	P	Lync 2010 2 x Quadcore 16 GB RAM 136 GB /Local Disk	Lync Front End >HOWINDSRV04
HOWINSRV0	V	Windows 2 GB RAM	Wireless LAN Controller
HOWINSRV0	V	Windows 4 GB RAM	DTMC Website Public IP
HOWINSRV0	V	Windows 2 GB RAM	Website Test Server
HOWINSRV0	P	Windows SQL 2005 Enterprise	Access Control Server
HYPERVISOR-1	P	Windows Hypervisor 2 x Quadcore 6 GB RAM 136GB/Local Disk	TEST
HOWINSRV0	P	Lync 2010 2 x Quadcore 16 GB RAM 136 GB /Local Disk	Lync Edge Server
HOWINSRV0	P	Microsoft Exchange 2010 2 x Quadcore 16 GB RAM 2TB /EMC SAN	Exchange Archive Server >>HOWINDSRV04 >>HOWINDSRV04
HOWINSRV0	V	Windows 2 GB RAM	Palo Alto ACS Agent
HOWINSRV0	V	Windows 4 GB RAM	Mobile App Website Public IP
HOWINSRV0	V	Windows 1 GB RAM	Lab Test Machine for Windows Clients
HOWLINSRV34	P	Oracle Test Server 8 GB RAM 300 GB/EMC-SAN	Test ▲
HYPERVISOR-1	P	Windows Hypervisor 2 x Quadcore 65 GB RAM 500GB/EMC-SAN	8 VMs
HOWINSRV0	P	Exchange 2010 2 x Quadcore 16 GB RAM 136 GB /Local Disk	Exchange 2010 Edge Server >TECSRVXEDG02
HOWINSRV0	P	Exchange 2010 2 x Quadcore 16 GB RAM 136 GB /Local Disk	Exchange 2010 Edge Server >>HOWINDSRV04
HOWINSRV0	V	Windows 1 GB RAM	Call Manager
HOWINSRV0	V	Windows 2008 R2 SQL Server 8 GB RAM	Development ▲
HOWINSRV0	P	QlikView 2 x Quadcore 64 GB RAM 1 TB/Local Disk	QlikView Application Server New GB Server
HOWINSRV0	P	Sharepoint 2010 MS-SQL 2 x Quadcore 12 GB RAM 136 GB/Local Disk	Employee Assessment Test Server ▲
HYPERVISOR-1	P	Windows Hypervisor 2 x Quadcore 65 GB RAM 500GB/EMC-SAN	5 VMs
HOWINSRV0	P	Windows 2008 R2 2 x Quadcore 8 GB RAM 136 GB /Local Disk	Active Directory Primary
HOWINSRV0	V	Windows 2008 R2 4 GB RAM	Active Directory Secondary DNS Server
HOWINSRV0	V	Windows 3 GB RAM	Attendance Application
HOWINSRV0	V	Windows 6 GB RAM	Old Print Management Server
UNUSED	P	2 x Quadcore 64 GB RAM 1 TB/Local Disk	New GB Server
HOWINSRV0	P	Citrix Application Server 2 x Quadcore 4 GB RAM 136 GB/Local Disk	POC Not Functional ▲
HYPERVISOR-4	P	Windows Hypervisor 2 x Quadcore 65 GB RAM 1TB/EMC-SAN	9 VMs
HOWINSRV0	V	Exchange 2010 10 GB RAM	Exchange Hub Server >TECSRVHBCS01
HOWINSRV0	V	Exchange 2010 8 GB RAM	Exchange Hub Server >>HOWINDSRV04
HOWINSRV0	V	Manage Engine 10 GB RAM	Network Management
HOWINSRV0	V	Windows 6 GB RAM	BMC Helpdesk
HOWINSRV0	P	HP DataProtect 2 x Quadcore 4 GB RAM 300 GB/Local Disk	Backup Server
HOWINSRV0	P	Citrix Application Server 2 x Quadcore 4 GB RAM 136 GB/Local Disk	POC Not Functional ▲
HYPERVISOR-3	P	Windows Hypervisor 2 x Quadcore 65 GB RAM 1TB/EMC-SAN	10 VMs

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MORE ABOUT OUR CLOUD SERVICES

01 **Feasibility Studies**

We conduct detailed studies to help you make informed decision on the cloud with cost estimation and RoI

02 **Migration and Management**

We make plans for migrating your infrastructure or services and help you manage your cloud assets

03 **Cloud Security**

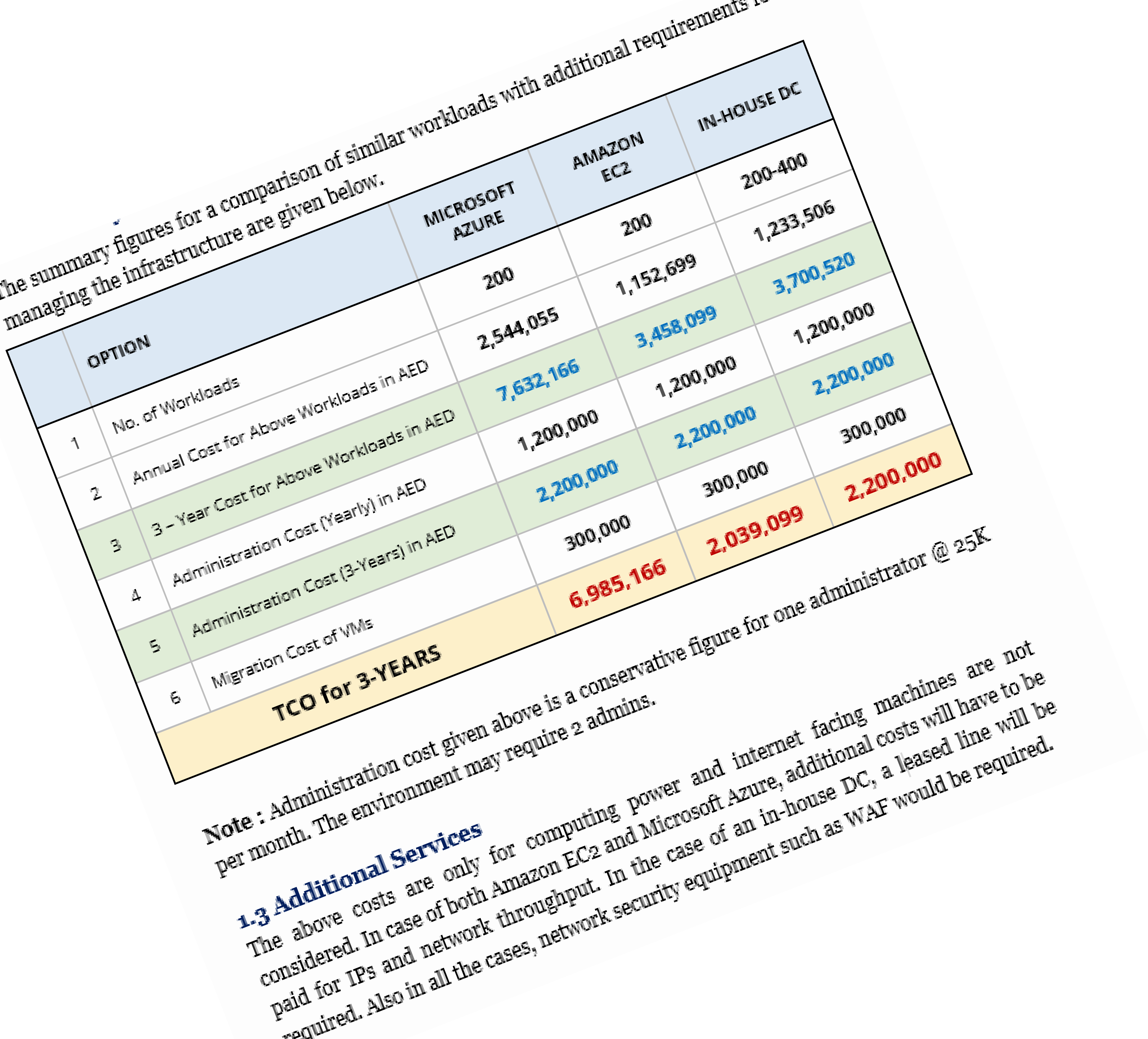
We guide you assess cloud related security risks (OWASP-Cloud-Top10) and help you implement mitigation controls

Office 365

Microsoft Azure

amazon web services

COST COMPARISON & FEASIBILITY



he summary figures for a comparison of similar workloads with additional requirements fo managing the infrastructure are given below.

	OPTION	MICROSOFT AZURE	AMAZON EC2	IN-HOUSE DC
1	No. of Workloads	200	200	200-400
2	Annual Cost for Above Workloads in AED	2,544,055	1,152,699	1,233,506
3	3 – Year Cost for Above Workloads in AED	7,632,166	3,458,099	3,700,520
4	Administration Cost (Yearly) in AED	1,200,000	1,200,000	1,200,000
5	Administration Cost (3-Years) in AED	2,200,000	2,200,000	2,200,000
6	Migration Cost of VMs	300,000	300,000	300,000
	TCO for 3-YEARS	6,985,166	2,039,099	2,200,000

Note : Administration cost given above is a conservative figure for one administrator @ 25K per month. The environment may require 2 admins.

1.3 Additional Services

The above costs are only for computing power and internet facing machines are not considered. In case of both Amazon EC2 and Microsoft Azure, additional costs will have to be paid for IPs and network throughput. In the case of an in-house DC, a leased line will be required. Also in all the cases, network security equipment such as WAF would be required.

From a sample report where existing workloads were sorted and similar workloads were computed for cost and admin.

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THINK SERVICES

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We specialise in information security, IT governance, IT infrastructure and cloud services. We are not box-pushers; we will help you minimise them. Think forebrook. Think services; not boxes.

INFORMATION SECURITY

Security Assessments, ISMS Architecture & Design, CIS-CSC Review & Implementation, VA/PT

IT INFRASTRUCTURE

Infrastructure Assessment, Optimisation, EA based Design, ITSM Process Design & Implementation

CLOUD SERVICES

Feasibility Studies, Migration Planning & Implementation, Cloud Assets/Services Management, Cloud Security

IT GOVERNANCE

Compliance Review for ISO 27001, PCI-DSS, Dubai-ISR; COBIT 2019 Review and IT Audits, IT Disaster Recovery

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THINK SERVICES

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