



ERICSSON

SECURITY AND NETWORKS

CREATING A SECURE BUSINESS IN A HYPER CONNECTED WORLD

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140

YEARS

180

COUNTRIES



THE TECHNOLOGY - BUILDING A TRUSTED ICT PLATFORM



1B

in managed networks

2.5B

Served by installed base

The mobile infrastructure is the world's largest ICT technology platform
– there is no margin for errors

CONSUMER PERCEPTION IS THAT EVERYTHING GETS ATTACKED



Source: Ericsson ConsumerLab, 10 Hot Consumer Trends 2016, 2015. Base: 6,649 iOS/Android smartphone users aged 15-69 in Istanbul, Johannesburg, London, Mexico City, Moscow, New York, Paris, San Francisco, São Paulo, Shanghai, Singapore, Sydney and Tokyo

THREAT LANDSCAPE



ESTIMATED GLOBAL COST OF CYBER CRIME & ESPIONAGE



THREE ATTACK CATEGORIES



CONFIDENTIALITY



INTEGRITY



AVAILABILITY



>400 BUSD

Total global cost of cyber crime and espionage

~1%
OF GDP

MOBILE GENERATIONS ACROSS TIME



The foundation of
mobile telephony

Mobile telephony
for everyone

The foundation of
mobile broadband

The evolution of
mobile broadband

The Network for
the Networked Society



~1980

~1990

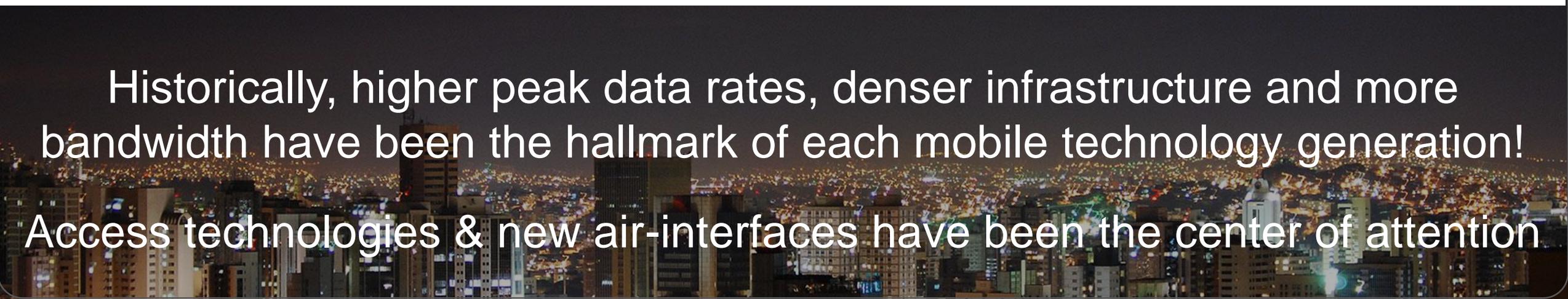
~2000

~2010

~2020

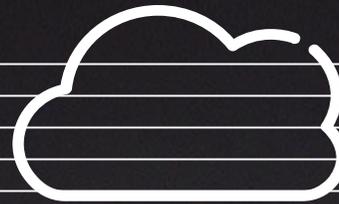
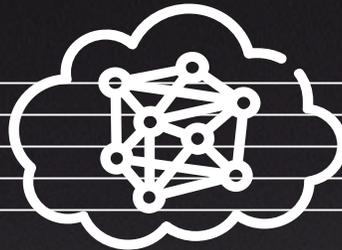
Historically, higher peak data rates, denser infrastructure and more bandwidth have been the hallmark of each mobile technology generation!

Access technologies & new air-interfaces have been the center of attention



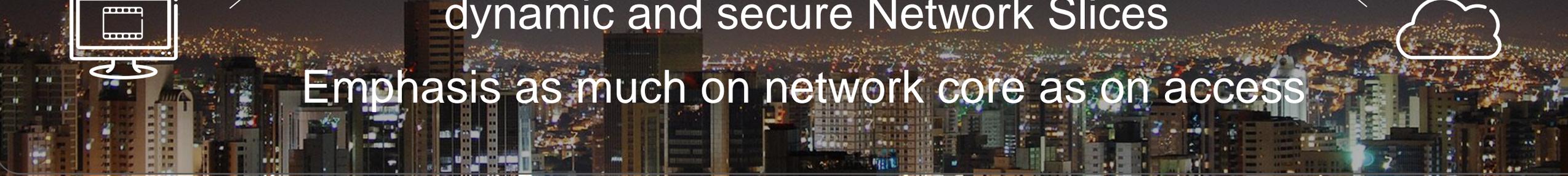
5G IS DIFFERENT: IT'S A NETWORK PLATFORM

A common Network Platform designed to serve multiple industries and use cases, each with different requirements

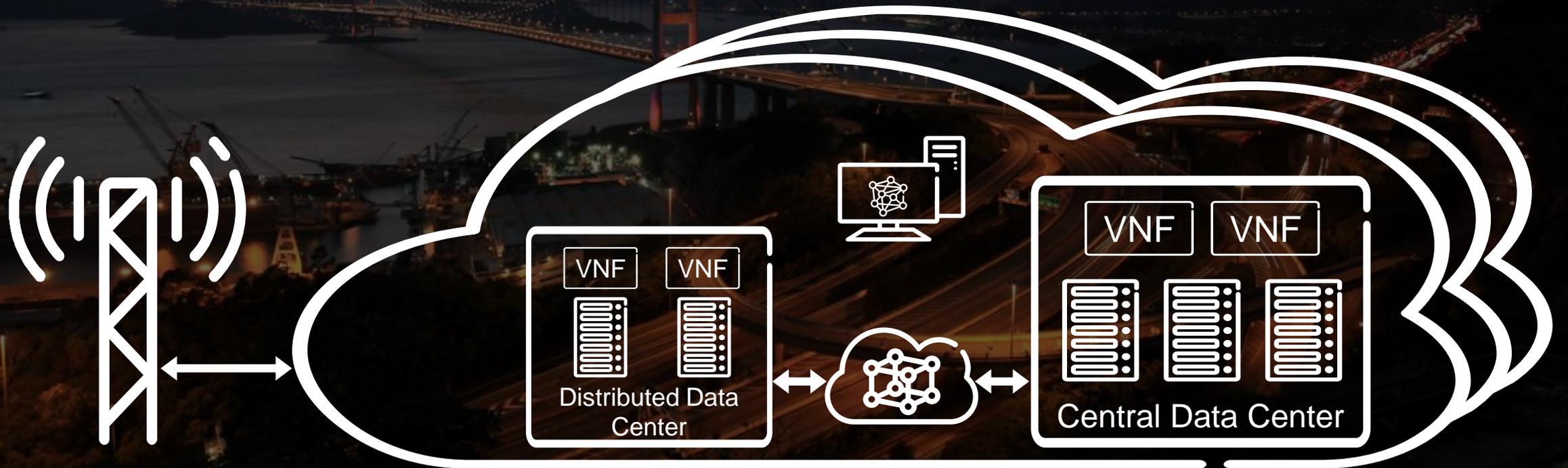
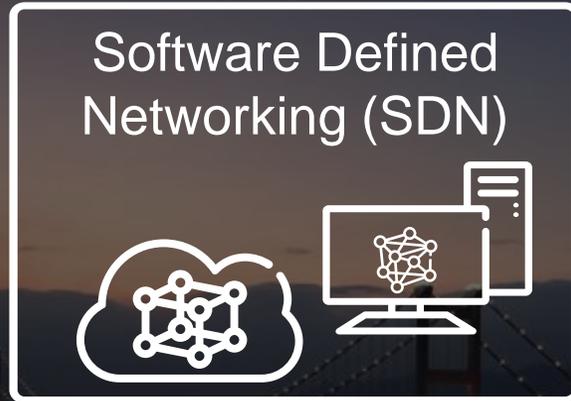
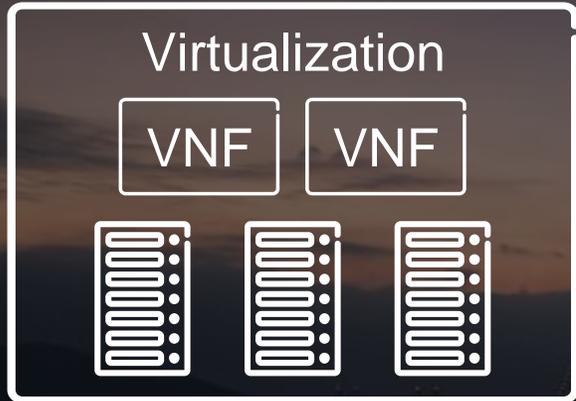


Digitalizing industries can be served with dynamic and secure Network Slices

Emphasis as much on network core as on access



5G, THE KEY CORE COMPONENTS



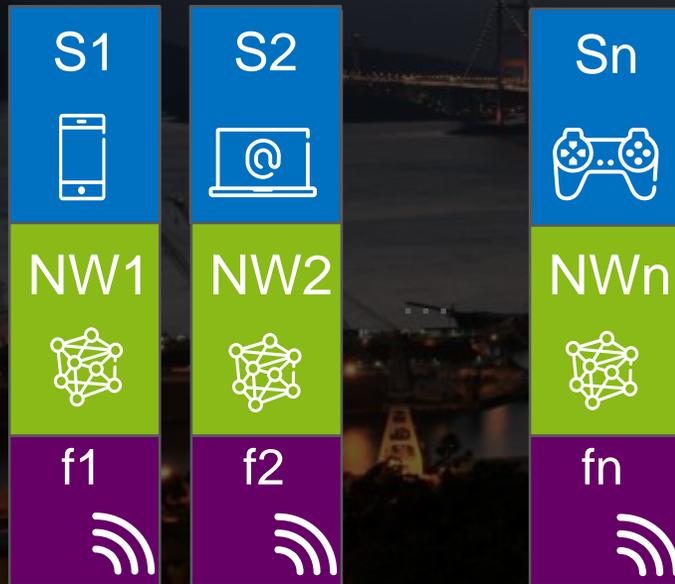
5G: THE NETWORK AS A PLATFORM



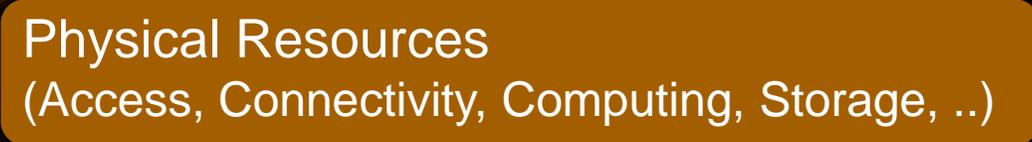
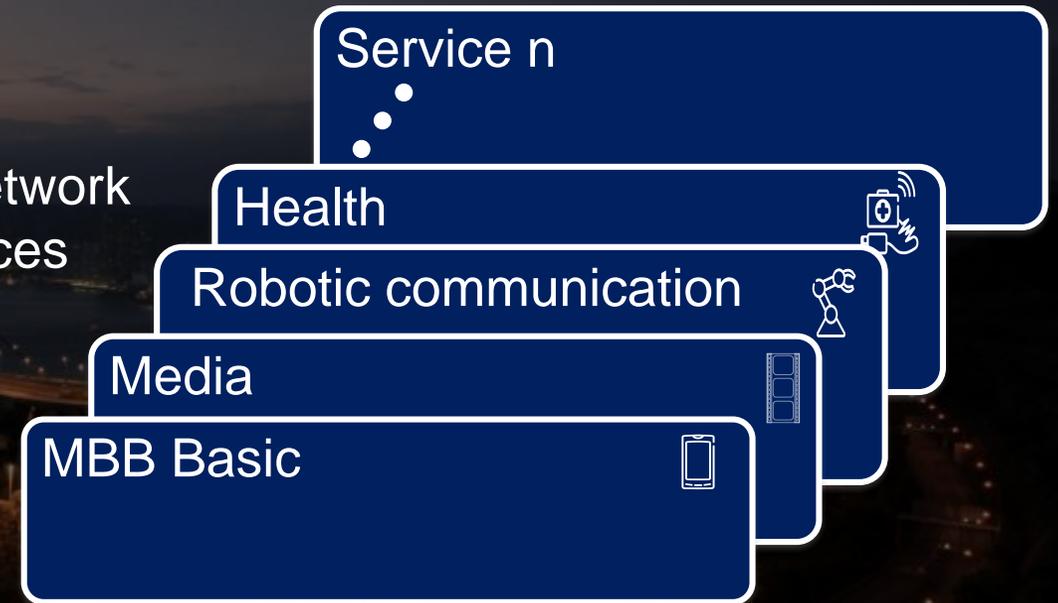
Moving away from dedicated physical networks and resources for different applications



To a "Network Factory" where new networks and architectures are "manufactured by SW"



Network slices



5G: THE NETWORK AS A PLATFORM



Network operators can tailor network slices to meet particular governmental, e-health, e-educational, consumer, enterprise, and industry demands

The design of the different slices is an essential part of the network performance to serve multiple user groups and use cases, each with unique and specific requirements



10-100x
↑
END-USER DATA RATES

1000x
MOBILE DATA VOLUMES

5x
⏳
LOWER LATENCY

100x
🌡️
MORE DEVICES

Cost ↓
DEVICE COST REDUCTION

10+
🔋
YEARS BATTERY LIFE

+20dB
📶
BETTER COVERAGE

5G WILL SUPPORT DIVERSE USE CASES



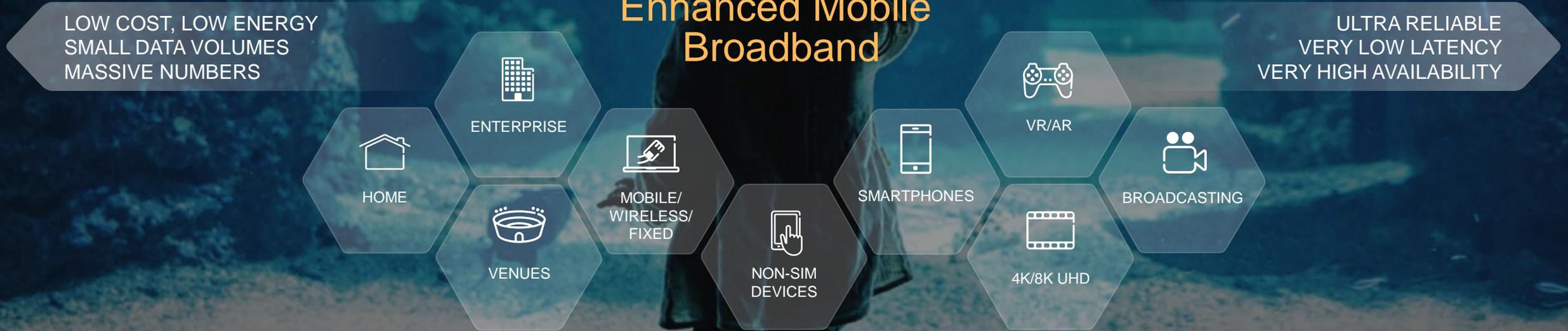
Massive MTC



Critical MTC



Enhanced Mobile Broadband



LOW COST, LOW ENERGY
SMALL DATA VOLUMES
MASSIVE NUMBERS

ULTRA RELIABLE
VERY LOW LATENCY
VERY HIGH AVAILABILITY

EVERY COMPANY IS A DIGITAL COMPANY 5G AND IOT ARE GAME CHANGERS



Public safety

Shipping



Utilities

Everything
connected

Mining

WHAT HAS CHANGED? THREATS & ISSUES



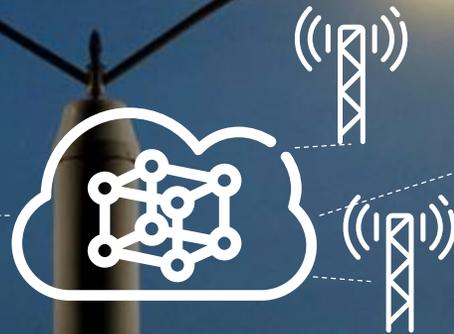
SERVICE PROVIDERS



The edge is blurred

- Cloud increases complexity to secure & variety of attack vectors
- Virtualization & de-centralization brings new risks

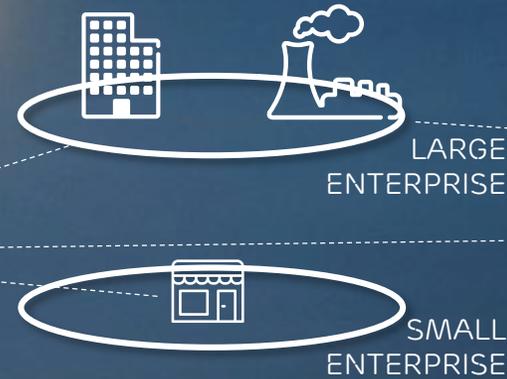
INFRASTRUCTURE OPERATORS



The stakes are higher

- Critical infrastructure concerns
- Legacy systems exposed
- Balancing regulation, best practice and practical concerns

ENTERPRISES



Any size biz is a target

- Advanced malware, spyware, ransomware target new apps
- Targeted attacks, spear phishing & APT's

DEVICES



The endpoint is blurred

- Mobile & IoT device malware
- Devices connecting directly to cloud
- Variability & scale of IoT growth

DATA FLOW IS THE NEW PERIMETER

Data protection at all stages
when created, stored,
transmitted and used



OBJECTIVE: RESILIENCE



TRUST STACK, A HOLISTIC APPROACH



TRUST STACK COMPONENTS



TRUSTED BUSINESS

Regulation, Customers, Partners and own ambitions

TRUSTED OPERATIONS

People + Processes + Tools
Security & Privacy Risk Analysis → Mitigation

TRUSTED INFRASTRUCTURE

End to end Security and Privacy architecture & configuration

TRUSTED HW & SW

Security & Privacy functions, characteristics &
HW anchoring

SECURITY AS A BUSINESS PROCESS



Agile and responsive security process



Ongoing risk based evaluation of exposure

Business context related remedial actions

Comprehensive and Continuous Assessment



Reduce risk by assessing vulnerabilities & threats

Proactive Detection



Detect threats that matter faster

Robust Defense



Protect crucial assets and defend known vulnerabilities

Agile Response



Proactively respond to breaches quickly & effectively

PUBLIC POLICY LANDSCAPE



CAPABILITY = POWER OF HOW

REGULATION & LAW

Industrial Policy, PPP,
R&D

International Law, UN, Cyber
Convention, FTA

Standardization &
Certification

Domestic law, Telecom Law,
Privacy Law, Finance Law,
Critical Infra., Law, Public
Procurement law,

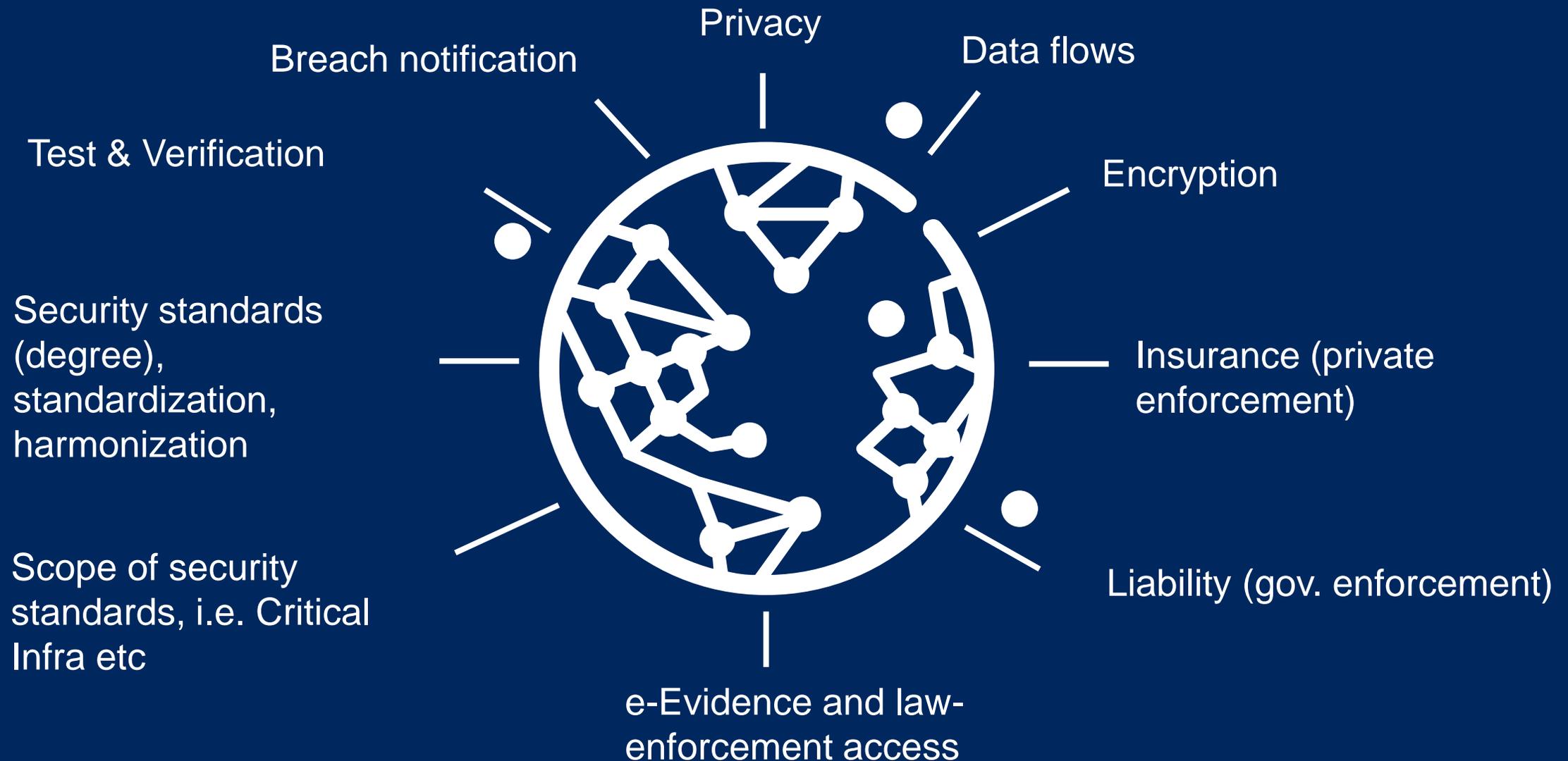
Competent Authorities,
operational capabilities

National Interest, Export
Control, Foreign Trade and
Investment Legislation,
National Security Law.



KEY PUBLIC POLICY ISSUES

Industrial espionage not on policy agenda



KEY PUBLIC POLICY IMPERATIVES

-ECONOMIC ESPIONAGE



PUBLIC POLICY RESPONSE

INCREASE AWARENESS

BUILD CAPABILITY: DETECT, PROTECT AND RESPOND

PROTECTING CRITICAL SECTORS

PROTECT INNOVATION FROM ESPIONAGE

FDI SCREENING & SECURITY SCREENING



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