

2017 Global Software Industry Trends

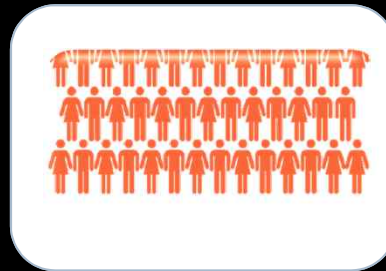
Nishchal Khorana
Director
November 2016

F R O S T & S U L L I V A N

'VUCA' environment & Mega Trends



Shift in the global
balance of economic
power



Significant
Demographic shifts



Growth of Smart
Cities



Rise of the Global
workforce



Exponential growth
in connected
Devices

Paradigm shift in business models



Digital Transformation – A priority for enterprises

1 Mega Trends transforming business environment

New business models

2

3 Changing Customer expectations

- Informed & Connected
- Tech Savvy
- Expects Personalization
- Values 'Experience'

Distributed workforce environments

4

- Extended enterprise
- Millennial workforce

Need for continual innovation

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Driving Innovation and Disruption

When two auto makers both had a recall for a similar issue, IoT made a crucial difference in the customer experience and cost savings



In January of 2014 the US government asked Tesla and GM to recall certain models of cars due to a risk of fire coming from faulty spark/electric plugs.

All of Tesla's cars include 3G service as a data only MVNO (paid by Tesla)








29,000 cars fixed automatically via a software upgrade

GM's trucks did not have internet access



380,000 cars taken manually to dealerships

Driving Innovation and Disruption

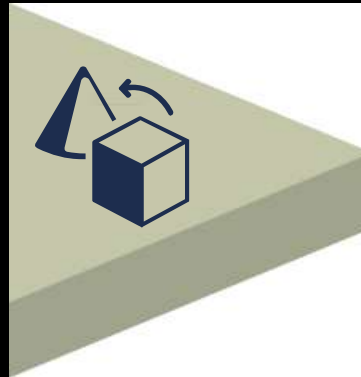
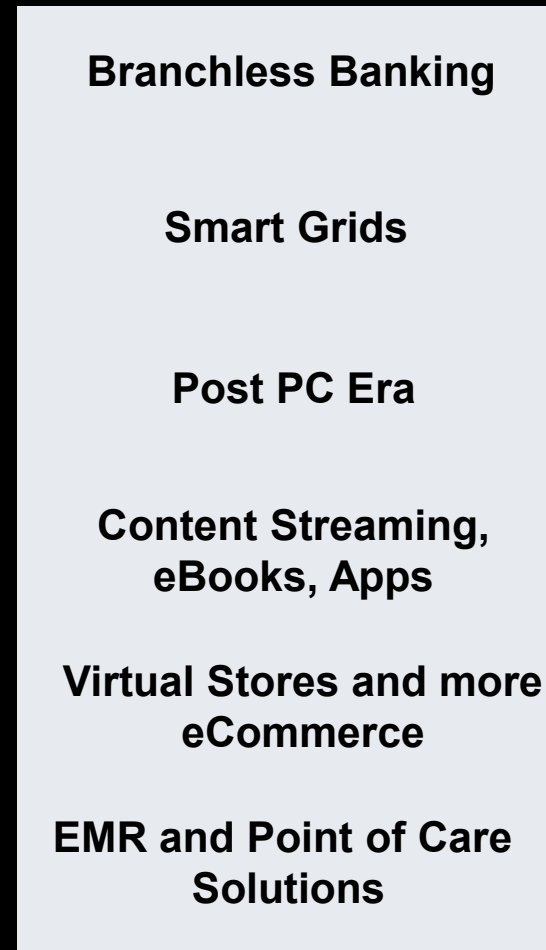
	MAJOR INDUSTRIES	VALUE (billion)
	Advertising, IT, auto, health, entertainment	\$479.80
	Advertising, communications, virtual reality	\$300.10
	Mobility, home delivery	\$62.00
	Entertainment, content creation	\$38.15
	Accommodation, travel guides	\$25.00

Digital Transformation – Creating new opportunities for technology providers

Industry

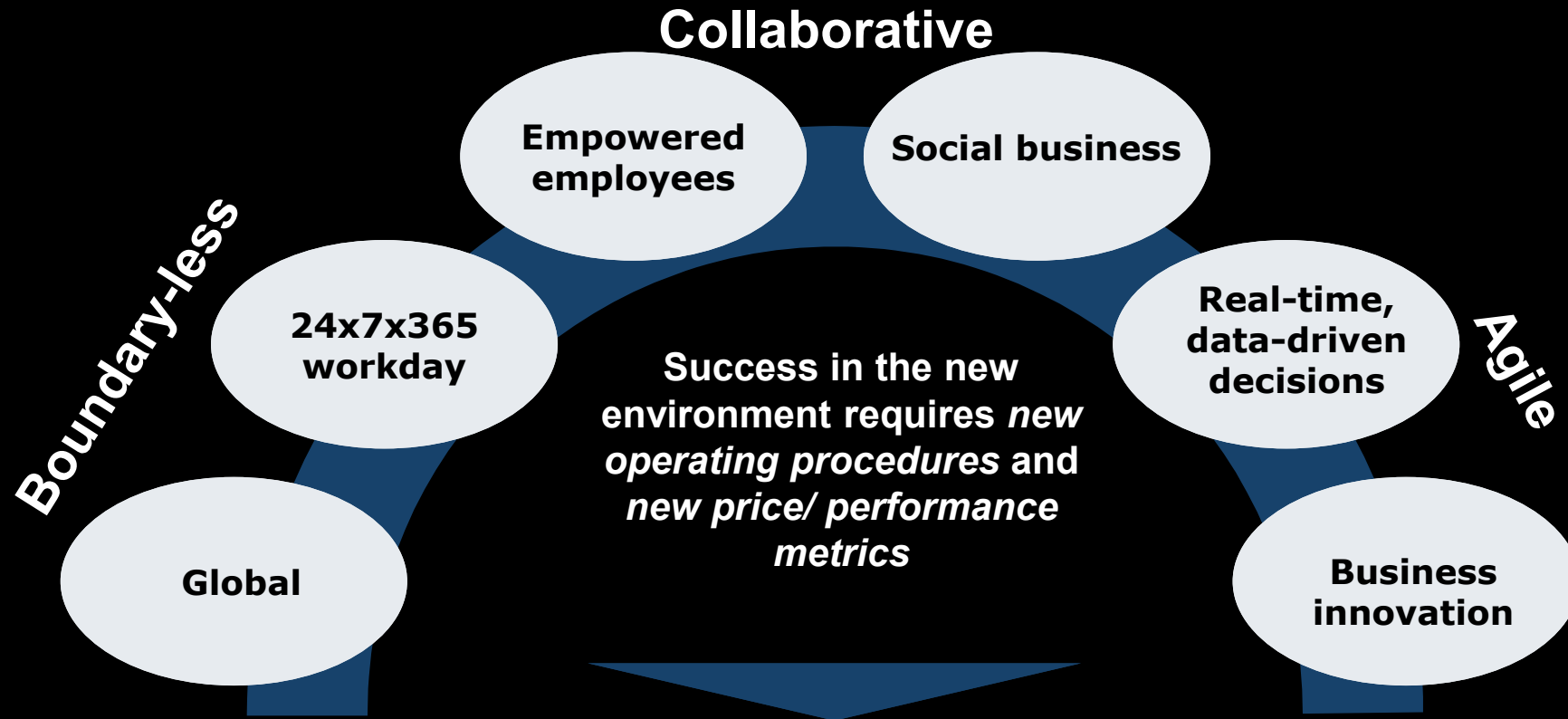


IT Driven Transformation



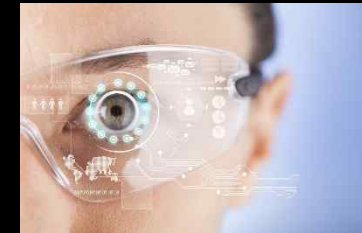
Source: Frost & Sullivan Analysis

Developing software to enable build future ready organizations



Data will lead the way.

Technologies that Drive Digital Transformation



Augmented Reality



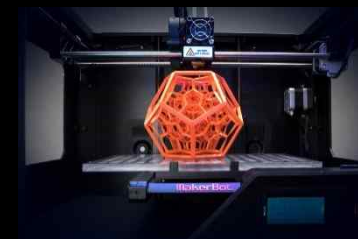
Autonomous Robots



Cloud Computing



Cyber Security

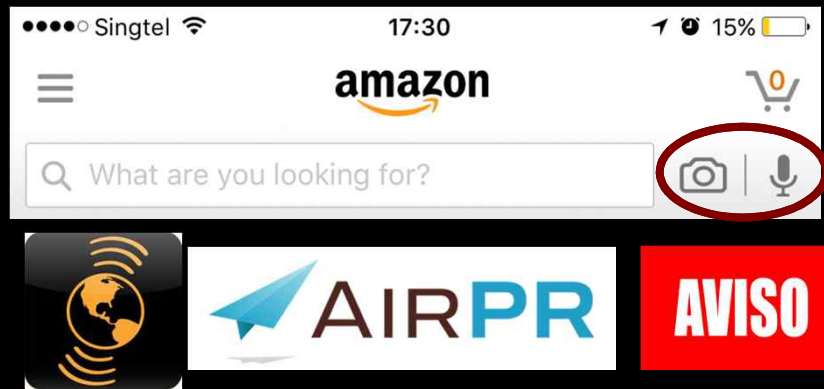


3D Printing/Additive Manufacturing



AI is Embedded: Assisted Living and Enterprises

Smart Applications



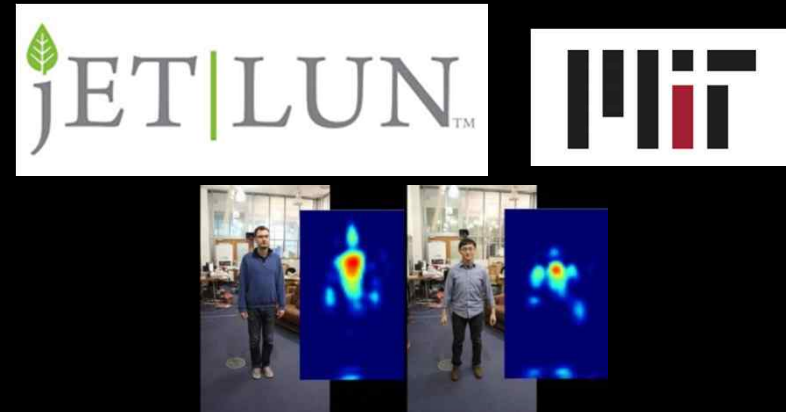
Robots & Assistive Tech



Digital Personal Assistant

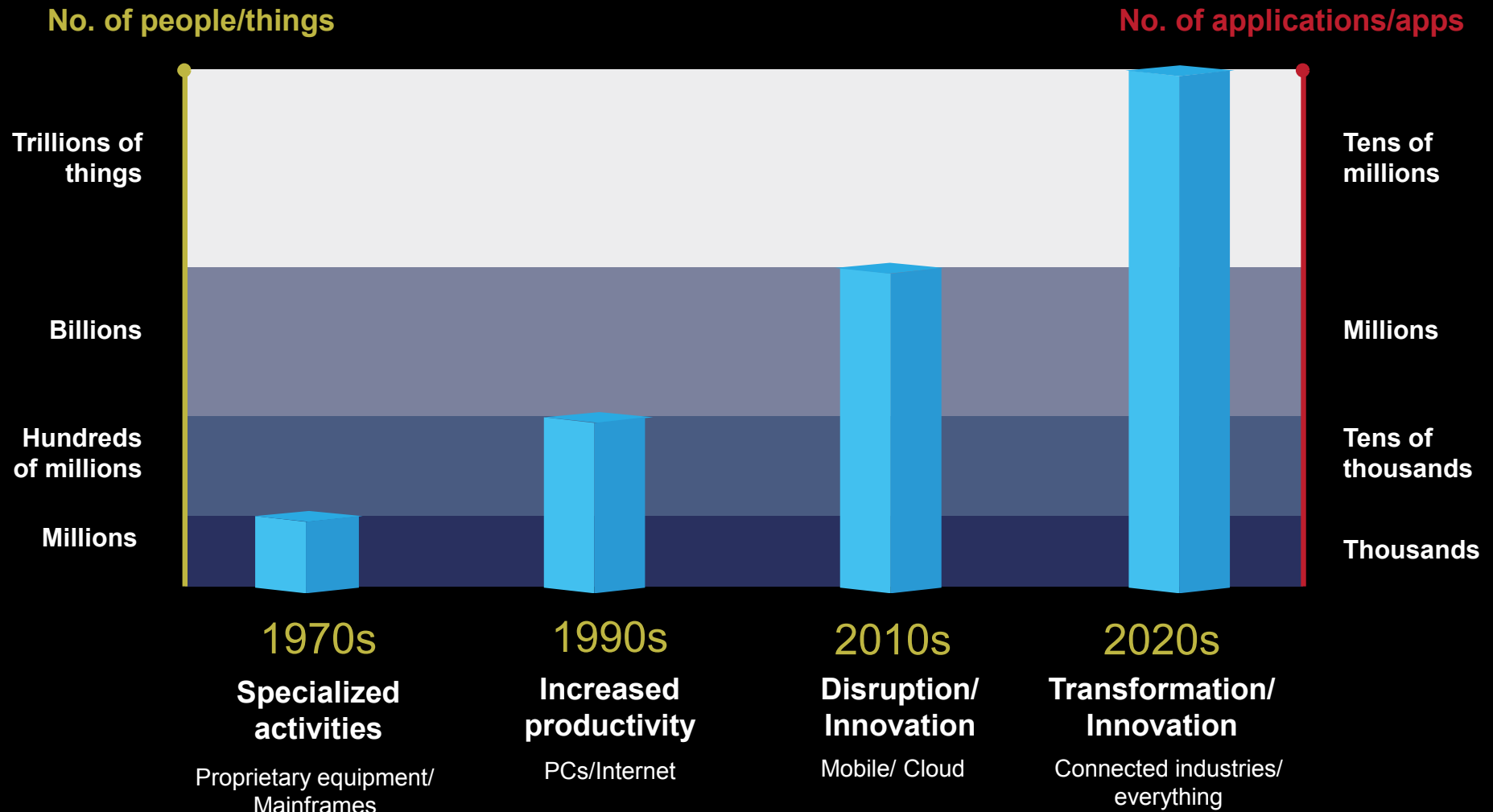


Intuitive Technology

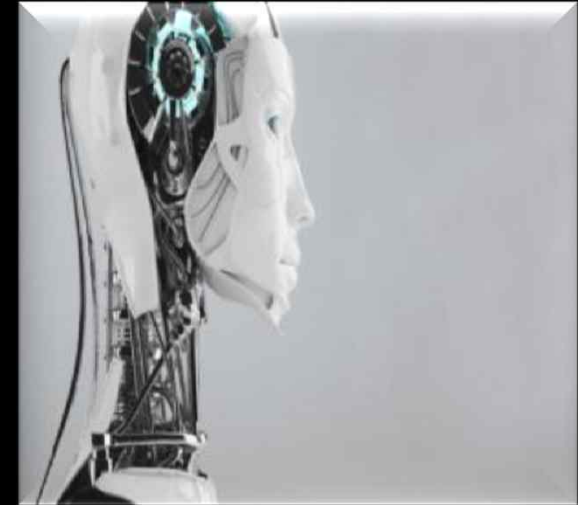


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Towards Connected Everything

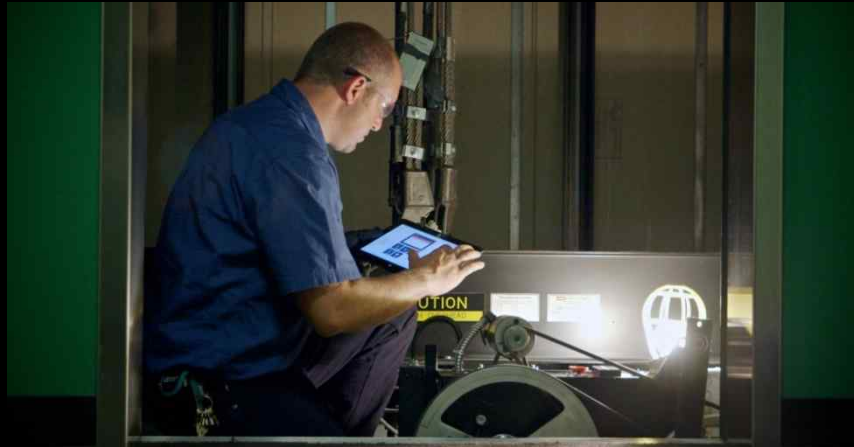


Why all the excitement? IoT captures the imagination!



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IoT and Augmented Reality: ThyssenKrupp

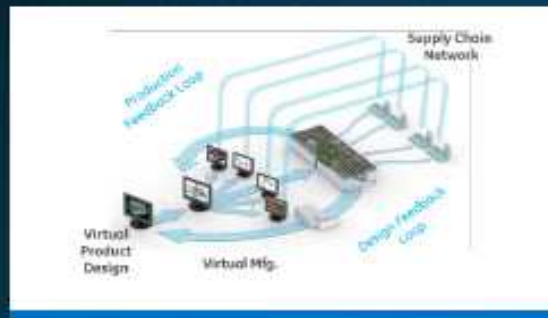


- Roughly 20% of errors indicate some sort of issue that eventually leads to a shutdown
- Use analytics and big data to prevent massive repair costs
- Technicians on the ground are fed with real time data
- Technicians are equipped with augmented reality headsets. This further improves service levels
- Able to plan ahead about the parts that can be sourced from various locations

Driving Innovation and Disruption

GE: The Digital Industrial Company

GE for GE



Productivity

- Digital thread
- Predix + data
- Digital twin

GE for Customers



Apps

- GE's software business
- "Inside-out" strategy
- Outcomes for customers

GE for World



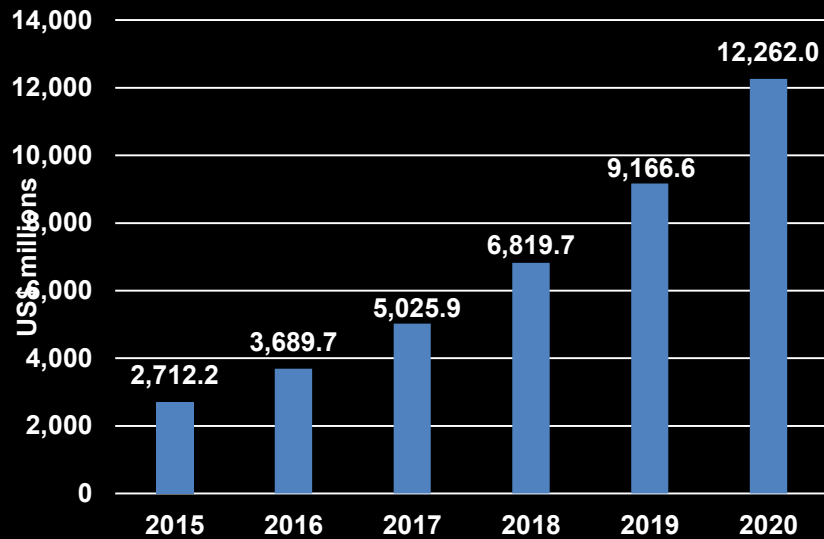
Platform

- Predix
- Secure
- Cloud for industry

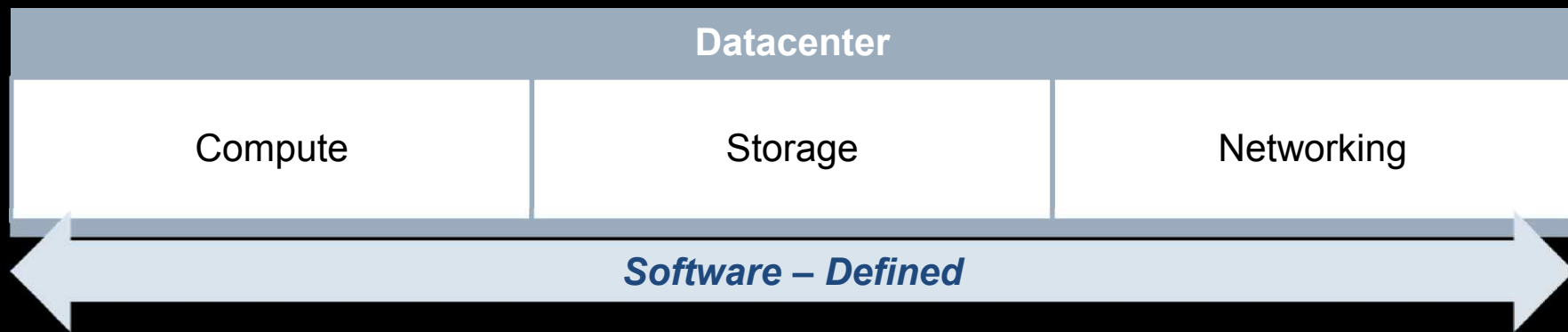
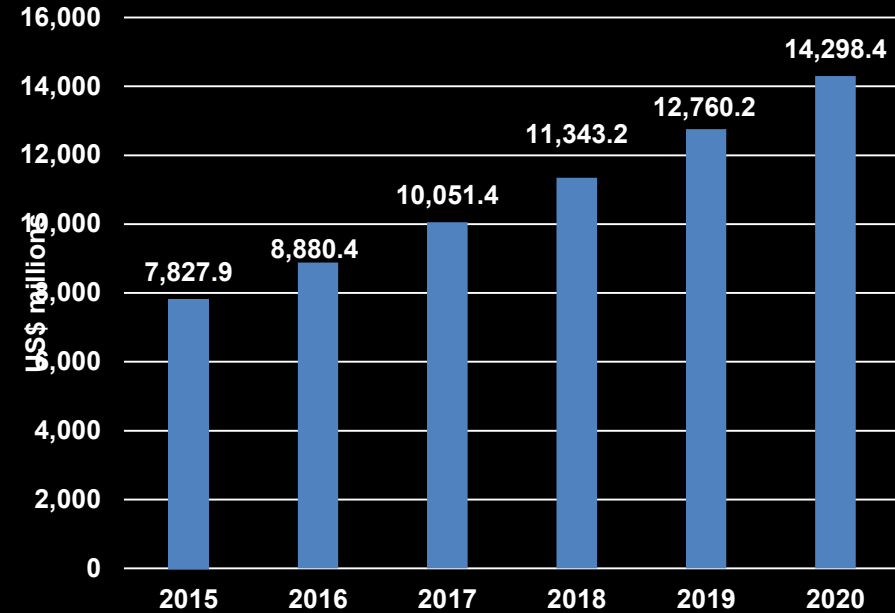
\$15B software business by 2020

Infrastructure: On Cloud & Software-Defined

APAC IaaS Market

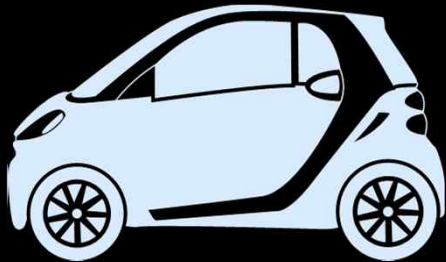


APAC Datacentre Co-location Market



Cloud & IoT: The Internet of Threats?

Hacked: Automotive



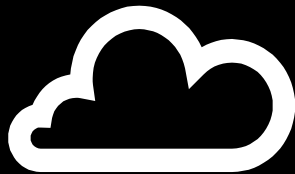
Cars are frequently hacked. Software and IT components make them vulnerable. Tesla Model S cars are hackable

Hacked: Traffic Lights



Researchers in Michigan hacked into nearly 100 wirelessly networked traffic lights, highlighting security issues that they say are likely to pervade networked traffic infrastructure around the country

Hacked: Public Cloud



Security continues to be the key concern for IT organizations across Asia Pacific while adopting public, private or Hybrid cloud models

Hacked: Connected Homes



Compromised smart homes, which included everything from routers and smart televisions to at least one smart refrigerator, sent more than 750,000 malicious emails to targets in late 2014

2017 Predictions – Opportunities for software, platform & Services providers



Digital Disruption and Transformation



Big Data & Analytics



Internet of Things



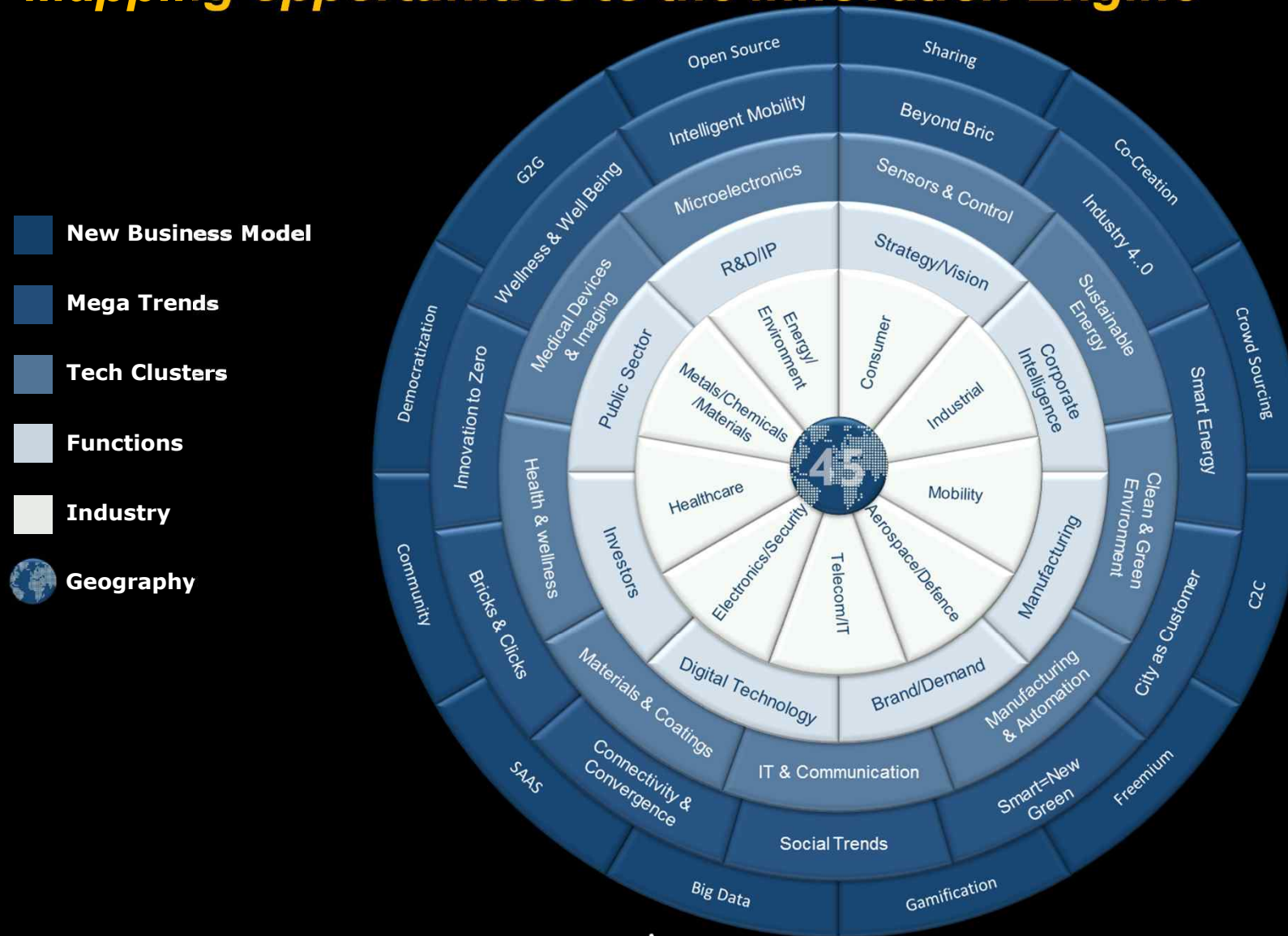
Cloud Computing



Security Solutions

Way Forward

Mapping opportunities to the Innovation Engine



Way Forward

Redevising growth strategies

Applications – *Increasing outsourcing of strategic workloads*

Business decision makers – *Increasing role of non technology decision makers*

Customers – *inclusion in the IT user pool*

Defense – *security of IT environment continues to be key focus area*



Thank You

Nishchal Khorana
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, FROST & SULLIVAN