Technology Shaping the Future

Services BD – Cloud, Security & M2M/IoT Solutions

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IoT Adoption challenges: an industry perspective

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Source: Saberpoint & TMForum
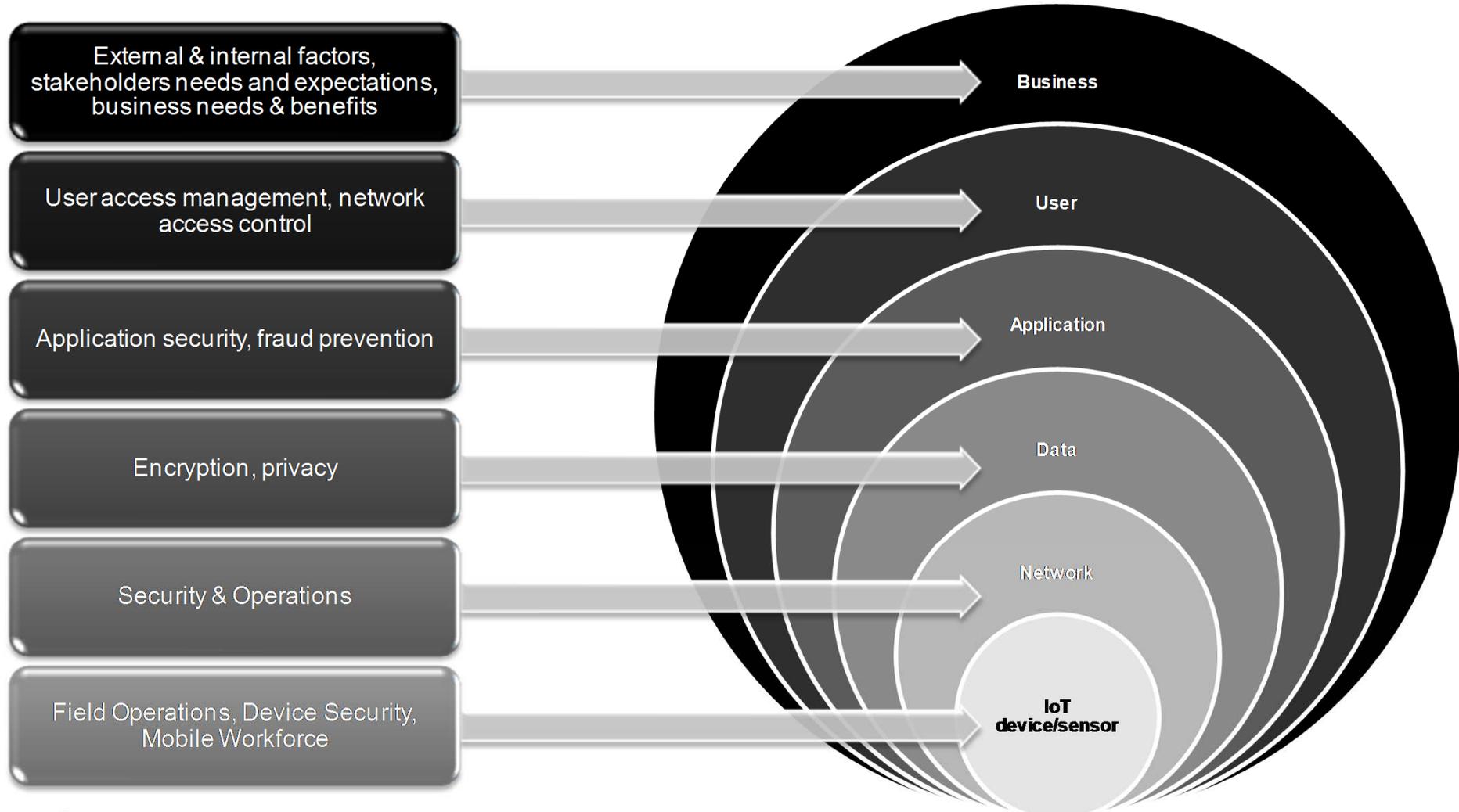
- Lack of appropriate standards governing aspects of IoT infrastructures and solutions

- IoT means different things for different market verticals

- Charging, billing, management

- Monetizing IoT potential

- IPv6, etc?

IoT Revenue Opportunity - Worldwide

2018

Banking	Manufacturing	Retail	Healthcare	Transportation	Utilities	Government	Other	
$			+					**$4.59T**
$154 B	$913 B	$326 B	$313 B	$325 B	$201 B	$570 B	$1.79 T	

2014

Banking	Manufacturing	Retail	Healthcare	Transportation	Utilities	Government	Other	
$			+					**$2.29T**
$92 B	$472 B	$160 B	$132 B	$156 B	$100 B	$301 B	$877 B	

IDC, Internet of Things Spending Guide by Vertical Market, 2014

Information security must span across several layers

External & internal factors, stakeholders needs and expectations, business needs & benefits	Business
User access management, network access control	User
Application security, fraud prevention	Application
Encryption, privacy	Data
Security & Operations	Network
Field Operations, Device Security, Mobile Workforce	IoT device/sensor

Challenge 3: Interoperability
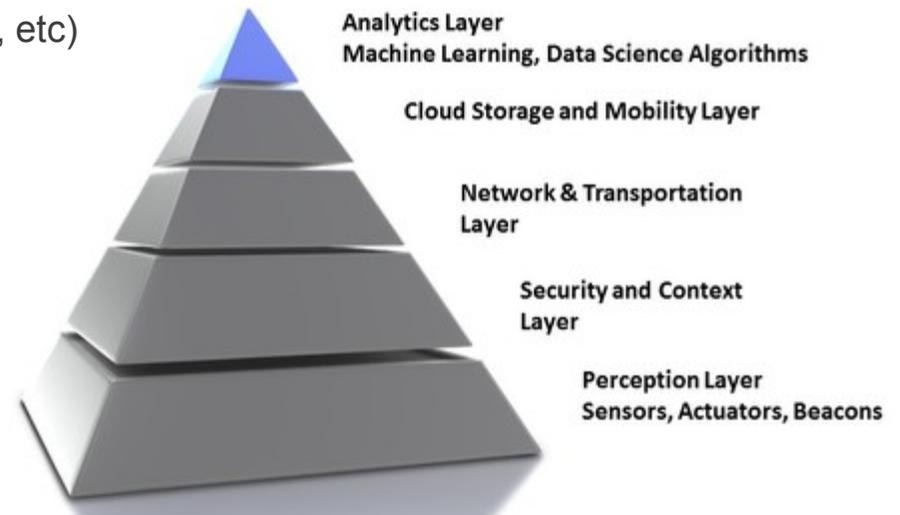
- Sensors and their technology and use

- Common platform – single plane of glass management

- Marketplaces

- Partner on-boarding and management
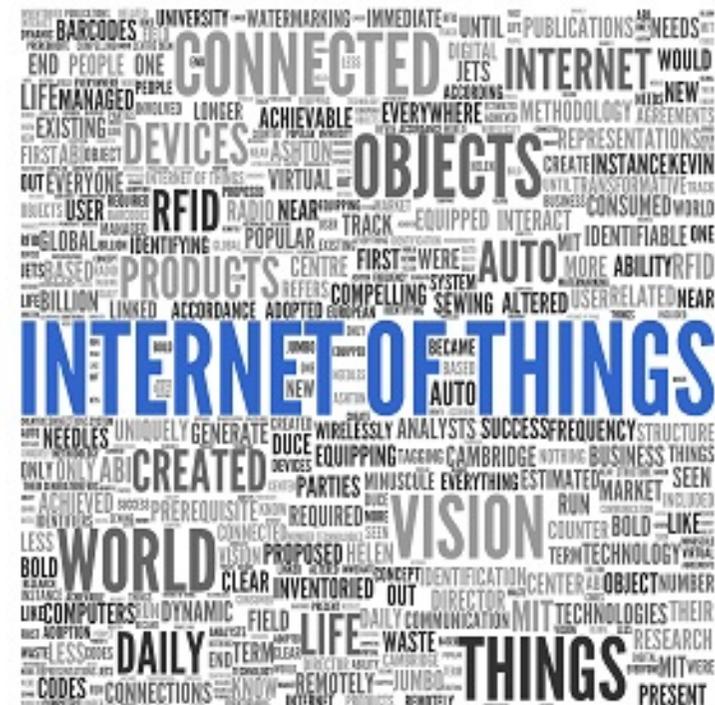
- Cloud-based platforms

- Federation

- Partnerships with service providers

- Ownership

- Legal and regulatory requirements (data protection, etc)

- Business analytics

Analytics Layer
Machine Learning, Data Science Algorithms

Cloud Storage and Mobility Layer

Network & Transportation Layer

Security and Context Layer

Perception Layer
Sensors, Actuators, Beacons

Source: CIO.com

What is being done

- We usually see "siloed" approaches

- Emphasis is still given in M2M rather that the development of IoT

- Initiatives are in their infancy, but a lot of people are eager to be engaged

- Cloud Security Alliance – participation in "IoT security guidance" and "Guidance for securing cloud services for smart cities"

- Participation in other fora

What can be done

- Close collaboration between interested parties at regional level

- Need to identify who drives the evolution

- We need to decide who can actually drive it

- Formalize an appropriate baseline for information security

- Leverage existing infrastructure and deployments (such as public cloud) as strong foundations

- Cooperation between academia, industry, operators, etc.

thank
you

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