

7th Data Center Infrastructures Networking
and Services Conference

Layer one

GREECE 2017

October 6, 2017, Metropolitan Expo, Athens

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Welcome to Layer one

GREECE 2017

7th Data Center Infrastructures
Networking and Services
Conference

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Agenda (Hall C2)

09:30 - 09:45	<p>Welcome keynote speeches by:</p> <p>George Dritsanos, Schneider Electric</p> <p>Nikos Botinis, Cisco</p> <p>Triantafyllos Prokopidis, Space Hellas</p> <p>Andrea Scaietti, Alcatel-Lucent Enterprise</p> <p>Dimitris Filippou, I2QS</p> <p>Egon Süssinger, Panduit</p> <p>Lambros Kostaras, ESB agents</p> <p>Dionisis Grigoropoulos, EATON</p>
09:45 - 10:30	<p>SCHNEIDER ELECTRIC presentation</p> <p>Thanassis Tsikogias, Data Center Solutions Architect / Schneider Electric Greece</p> <p>Konstantinos Vasileiou, Head of Datacenter & Information Systems Support / Information Society SA</p> <p><i>«Presenting the new efficient Data Center of G-Cloud»</i></p>
10:30 - 11:10	<p>CISCO - SPACE HELLAS presentation</p> <p>Nikos Anagnostatos, Network Consultant, Networking Solutions Division / Space Hellas</p> <p><i>«DC Automation: It's a MARVEL»</i></p> <p>Eirini Spanou, Data Center Virtual Systems Engineer / Cisco</p> <p><i>«Cisco Drives Data Center Innovation»</i></p>

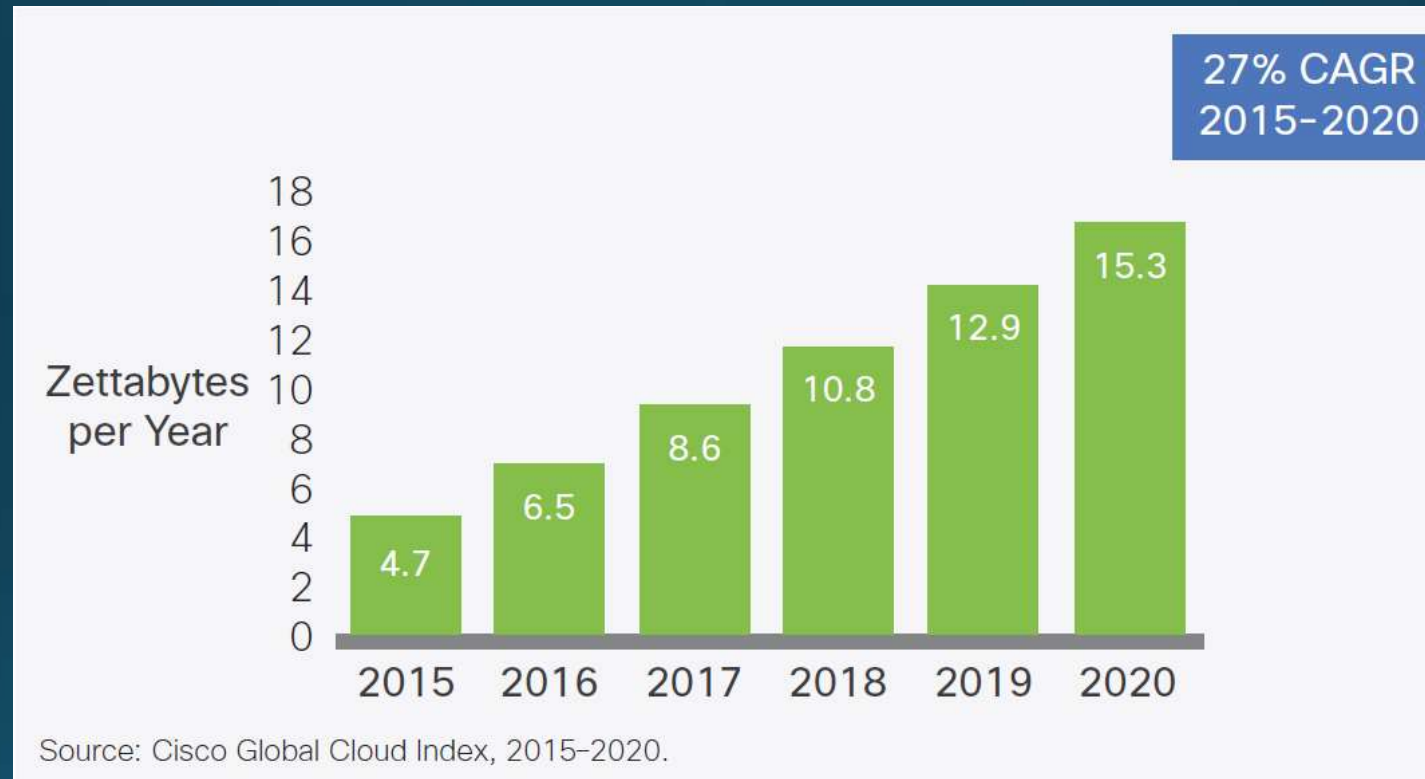
11:10 - 11:50	Alcatel-Lucent Enterprise presentation Mauro Rizzi, Network Business Program Director / Alcatel-Lucent Enterprise <i>«The intelligent answer for the agile business»</i>
11:50 - 12:10	I2QS presentation Giampiero Sforte, Sales Director, Enterprise Division / CommScope Inc. <i>«High Speed Migration Platform (HSM). An Agile Foundation & Future Proof Infrastructure for the Data Center Flexible Growth»</i>
12:10 - 12:50	PANDUIT - KAFKAS presentation Sander Kaempfer, EMEA Business Development Manager, Integrated Data Centers / PANDUIT Vounos Panagiotis , ICT Business Unit Manager, Business Development & Solutions Department / KAFKAS <i>«Panduit's Converged Data Center Infrastructure Solution»</i>
12:50 - 13:10	NEXANS Network Solutions presentation Lambros Kostaras, Business Development Manager, ESB Agents, South East Europe <i>"Intelligent, high bandwidth and energy efficient cabling infrastructure architecture"</i>

13:10 - 13:50	EATON presentation Martijn Imming , EMEA Business Development Manager, Data Centers for Power Distribution / EATON <i>"All back up power applications require low voltage distribution around 3ph UPS. Eaton introduces a concept that will give the best of both worlds and more"</i> Robert Kokai , Business Development Manager for White Space solutions / EATON <i>"An intelligent answer for data center power management"</i>
13:50 - 14:10	Coffee Break
14:10 - 14:35	Keynote presentation Mike Gilmore - Senior Partner, The Cabling Partnership and Managing Director / e-Ready Building - Director, STANDARDS@fia - Chairman BSITCT/7/1 and Meeting Secretary TCT/7/2 and TCT/7/3 - Chairman CLC TC215, Convenor WG1 and Secretary WG2 - Leader, ISO/IEC JTC1 SC25 WG3 "Bonding" - Secretary, ISO/IEC JTC1 SC25 WG3 "AIM" <i>"EN 50600 standards for data centers and their international implementation"</i>
14:35 - 14:55	I2QS presentation Dimitris Filippou , Technical Director / I2QS <i>«Ethernet - A technology without borders»</i>

14:55 - 15:15	NEXANS Network Solutions presentation Didier Galindo, Regional Sales Director / Nexans Cabling Systems <i>"Smart choices for enterprise cabling infrastructures"</i>
15:15 - 15:30	Rittal presentation Thanos Dazelidis, Sales & Project Manager / Rittal <i>"LEFDAL MINE datacenter Rittal"</i>
15:30 - 15:45	TECHNICAL DEVELOPMENT presentation Konstantinos Dimitriou, Electrical Engineer, General Manager / Technical Development <i>"Measurement instruments for qualifying and certifying the performance of IT systems. In to the Lightning Protection of Data Centers "</i>
15:45 - 16:15	Panel Discussion, Q&A
16:15	Lunch - End of LAYER ONE Greece 2017 Conference

DC & IP Traffic Growth

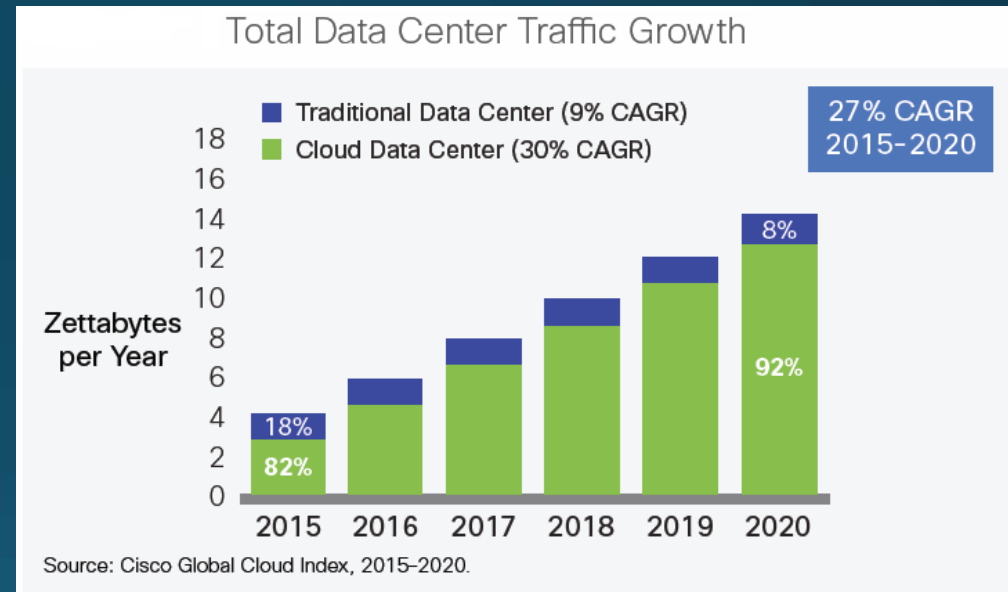
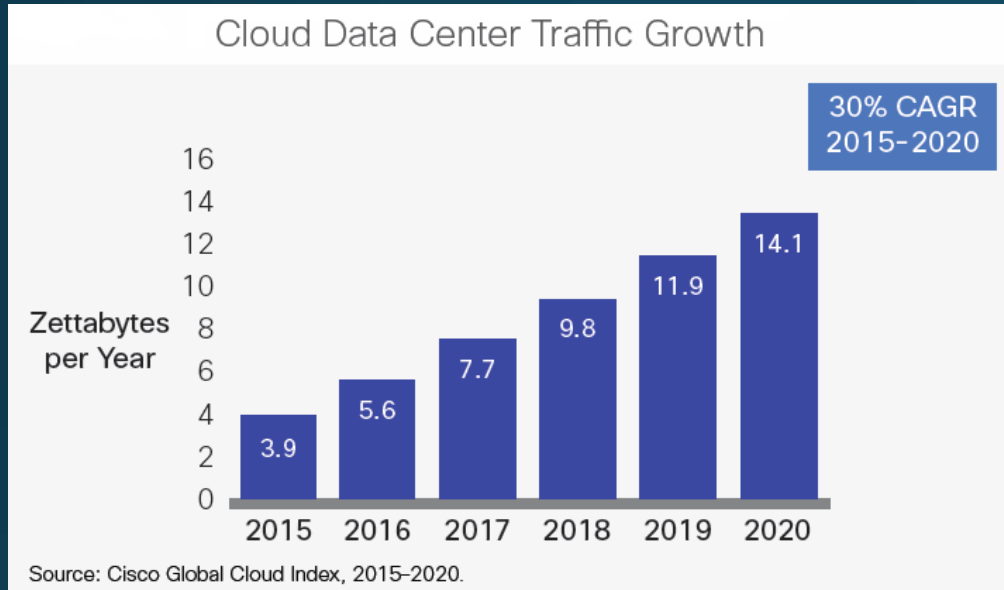
Data Center IP Traffic growth projections



- **Total Data Center IP traffic** will be 15.3 Zettabytes in 2020, it will grow 3-fold at a CAGR of 27%*.

* Cisco Global Cloud Index 2015-2020, Revised Nov16

Cloud IP traffic growth projections

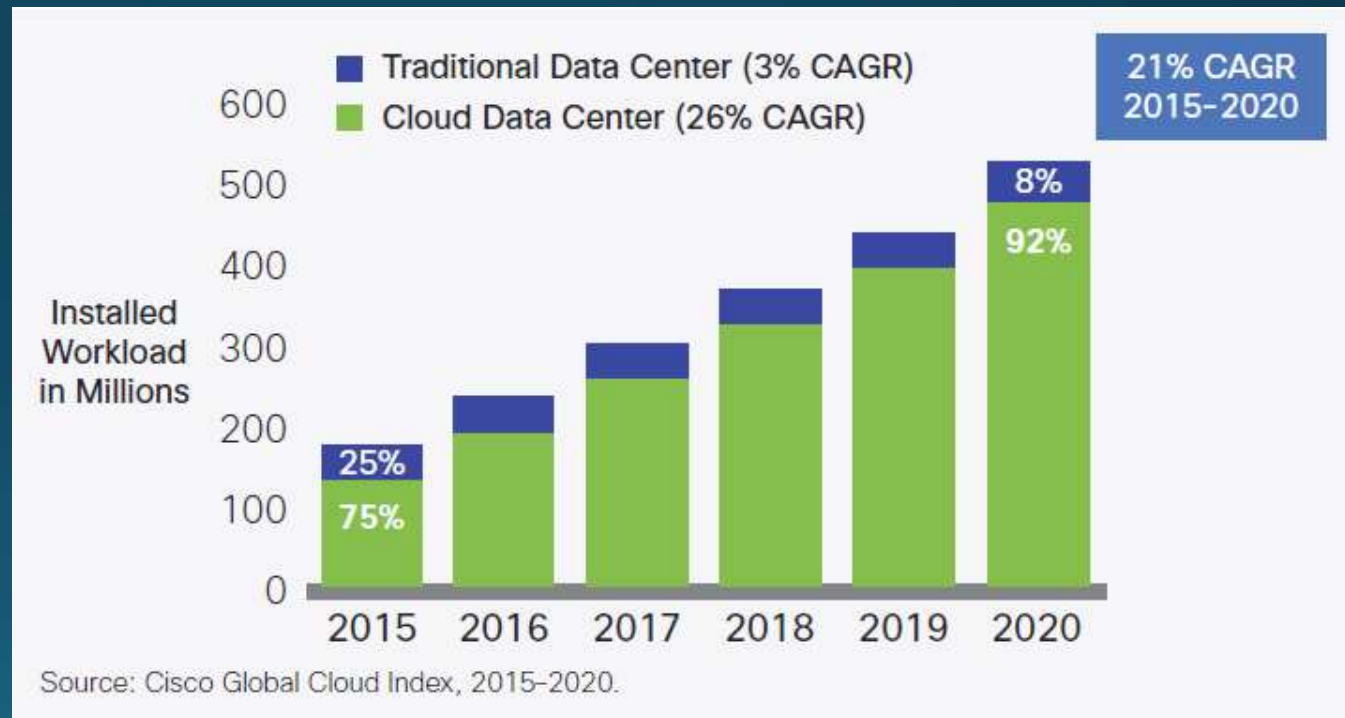


- **Global Cloud IP traffic will** reach 14.1 ZB in 2020, 3.7x times more than in 2015 growing at a CAGR of 30%*.
- **Global Cloud IP traffic will account** for more than **92% of total data center traffic by 2020***.

* Cisco Global Cloud Index 2015-2020, Revised Nov16

Workloads growth projections

- By 2020, **92% of workloads** will be processed by **cloud data centers**; 8% will be processed by traditional data centers*.
- Data center workloads will more than double (x2.6) from 2015 to 2020; cloud workloads will more than triple (x3.2) over the same period*.



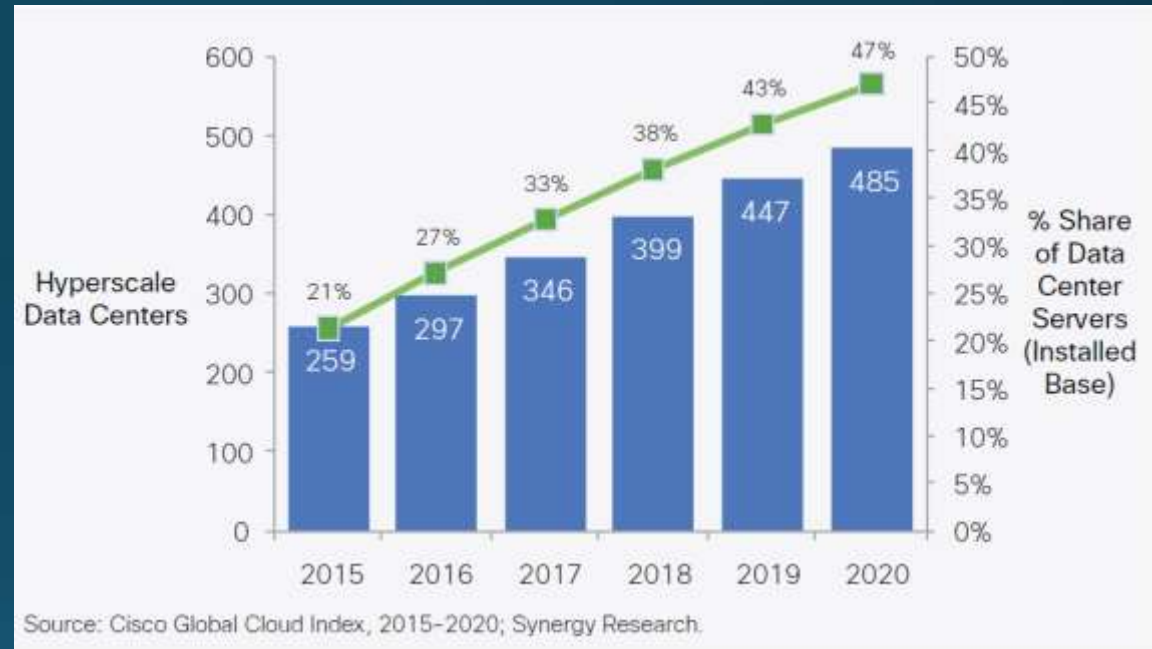
* Cisco Global Cloud Index 2015-2020, Revised Nov16

Hyperscale DCs on the rise

- **Hyperscale Data Centers** will represent **47 % of all installed data center servers** by 2020. They will account for 83% of the public cloud server installed base in 2020 and 86% of public cloud workloads*.

By 2020, Hyperscale Data Centers Will House:		Today:
47%	of all data center servers	21%
68%	of all data center processing power	39%
57%	of all data stored in data centers	49%
53%	of all data center traffic	34%

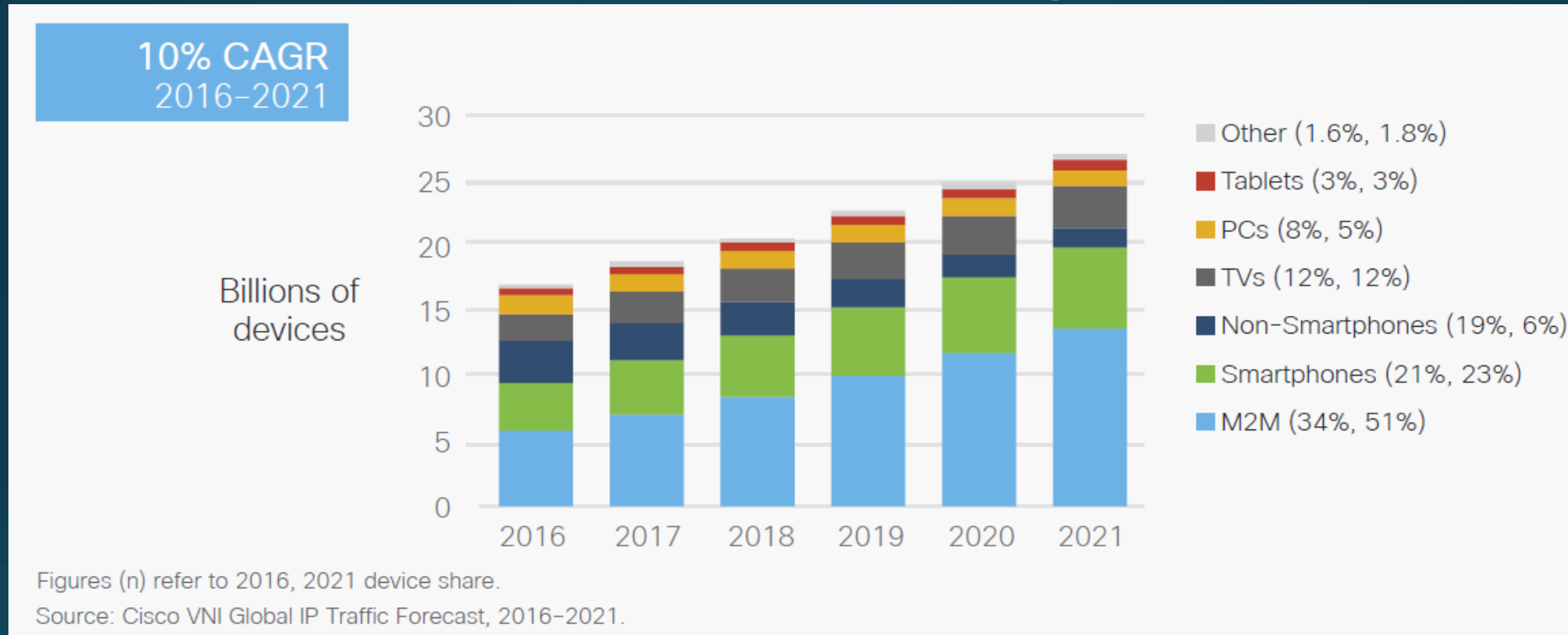
Source: Cisco Global Cloud Index, 2015-2020.



* Cisco Global Cloud Index 2015-2020, Revised Nov16

Devices Growth

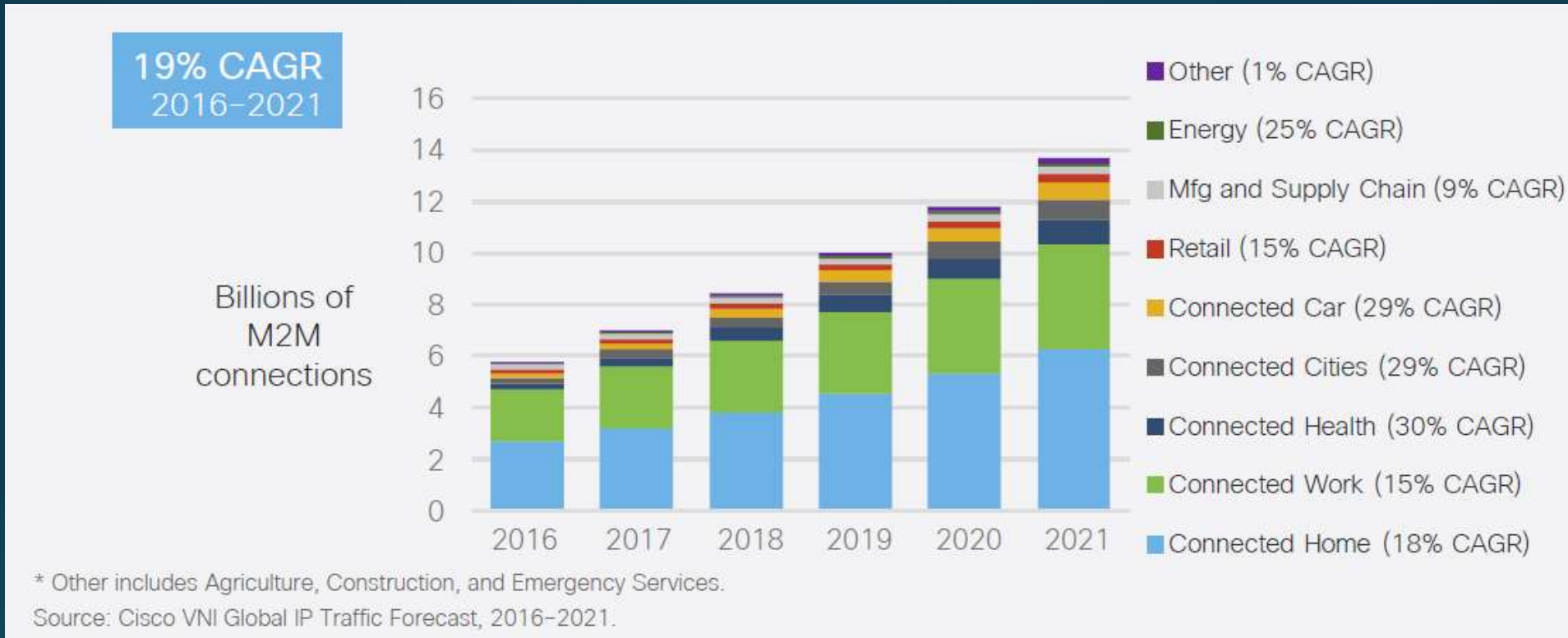
Devices & connections growth



- **Connected devices grow 10x faster (10% CAGR) than earth population (1.1% CAGR) and Internet users (7% CAGR)****
- **M2M devices are the fastest growing category, Smartphones the 2nd fastest****

** Cisco VNI Global IP Traffic Forecast 2016-2021

M2M connection growth by industries



- **Connected home applications will be nearly half of the total M2M connections by 2021****
- **Connected healthcare will be the fastest-growing segment, at 30% CAGR****

** Cisco VNI Global IP Traffic Forecast 2016-2021

The end of the Cloud monopoly?

And the rise of Fog and Mist Computing

IoE devices traffic estimates

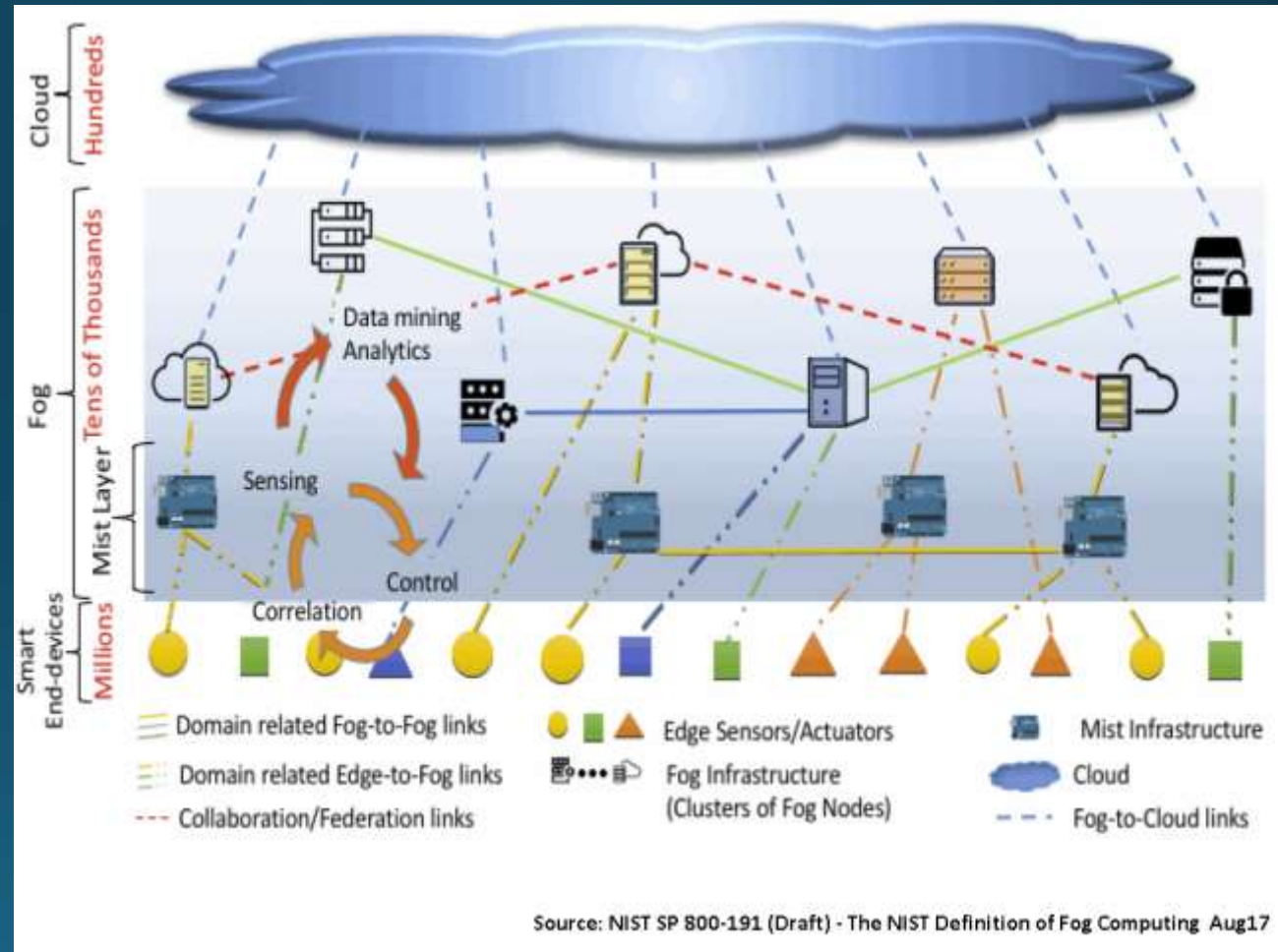


- The total amount of data created by any device will reach **600 ZB** per year by 2020, up from 145 ZB per year in 2015. Data created is two orders of magnitude higher than data stored*.

* Cisco Global Cloud Index 2015-2020, Revised Nov16

Fog and Mist Computing

- **Fog computing** is a resource that resides between IoT devices and the cloud / data centers (i.e. in an IoT gateways). It provides computing, storage, and network connectivity at a powerful level.
- **Mist computing** is a form of computing power that resides at the edge of the network (sensors, controllers etc.), bringing elastic compute, storage, and communication directly onto the Things.



Trends & Directions

To keep an eye on it

IT-as-a-Service growing = will represent more than half of IT spending by 2021/2022. *Deloitte Technology, Media and Telecommunications Predictions 2017

iPaaS = new Buzz meaning integration-Platform-as-a-service, a suite of cloud services enabling development, execution and governance of integration flows connecting any combination of on premises and cloud-based processes, services, applications and data. *Gartner IT Glossary

Micro and mini DCs at the edge = e.g. at the base of Cell Towers (Vapor IO with Project Volutus, DataBank & Vertical Bridge), in spare office space / real estate.

WUE (Water Usage Effectiveness) is becoming crucial = as a complement of PUE, WUE is defined as annual site water usage (for cooling purposes) divided by IT Energy Usage. Huge issue especially for Hyperscale DCs.

Let's Start

