



Edge Computing: Enabling Autonomy & AI with SW-Defined HPC

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Accelerating the shift to an autonomous world

A guiding principle of Intel's IoT strategy



CONNECTED



SMART



AUTONOMOUS

The coming flood of data...

- By 2019 **45% of data** will be stored, analyzed, and acted on at the edge¹
- 50% of IoT deployments will be **network constrained** by 2018²

1. Source: IDC FutureScape: Worldwide Internet of Things 2017 Predictions, <https://www.idc.com/research/viewtoc.jsp?containerId=US40755816>
2. Source: IDC FutureScape: Worldwide Internet of Things 2015 Predictions, <https://www.idc.com/research/viewtoc.jsp?containerId=252872>

By 2020
Internet user Avg. **1.5 GB** OF data /

SMART HOSPITAL **DAY**

Autonomous AUTOMOBILE **3 TB** OF data /

CONNECTED AIRPLANE **DAY**

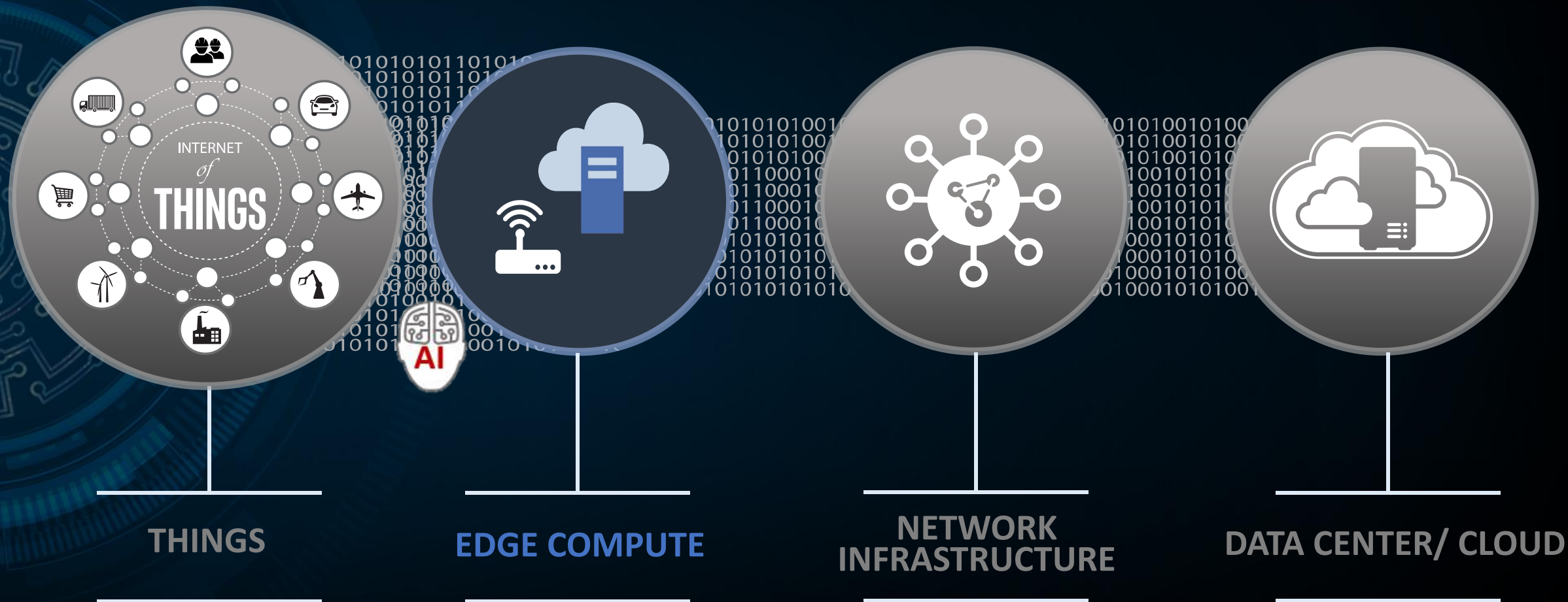
SMART Factory **4 TB** OF data /

DAY

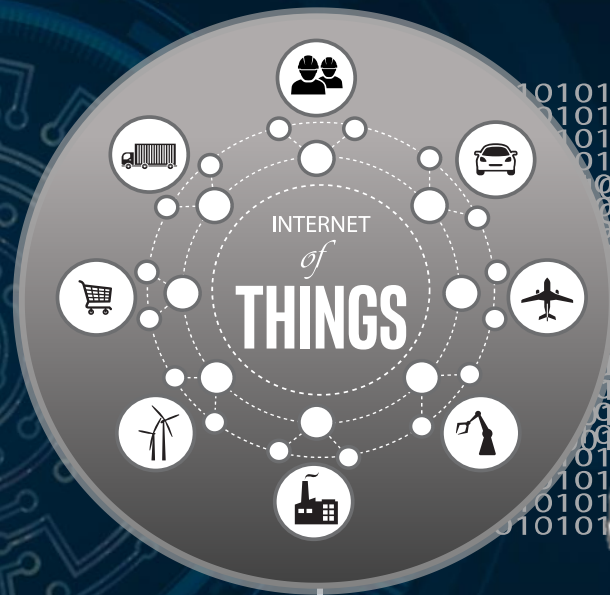
1. <http://www.cisco.com/c/en/us/solutions/service-provider/vni-network-traffic-forecast/infographic.html>
2. http://www.cisco.com/c/en/us/solutions/collateral/service-provider/global-cloud-index-gci/Cloud_Index_White_Paper.html
3. <https://dataflog.com/read/self-driving-cars-create-2-petabytes-data-annually/172>
4. http://www.cisco.com/c/en/us/solutions/collateral/service-provider/global-cloud-index-gci/Cloud_Index_White_Paper.html
5. http://www.cisco.com/c/en/us/solutions/collateral/service-provider/global-cloud-index-gci/Cloud_Index_White_Paper.html

40 TB OF data /

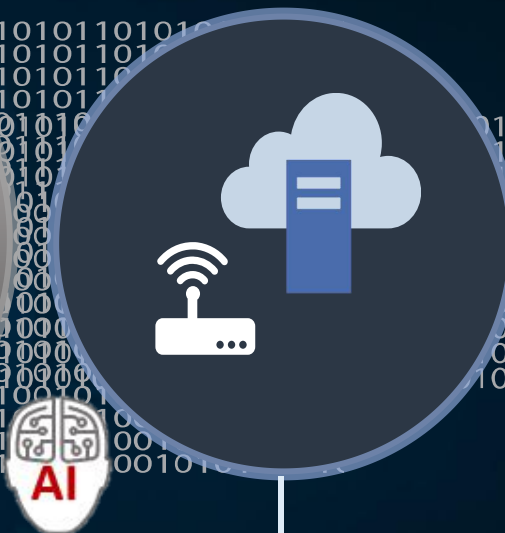
IoT Evolution...



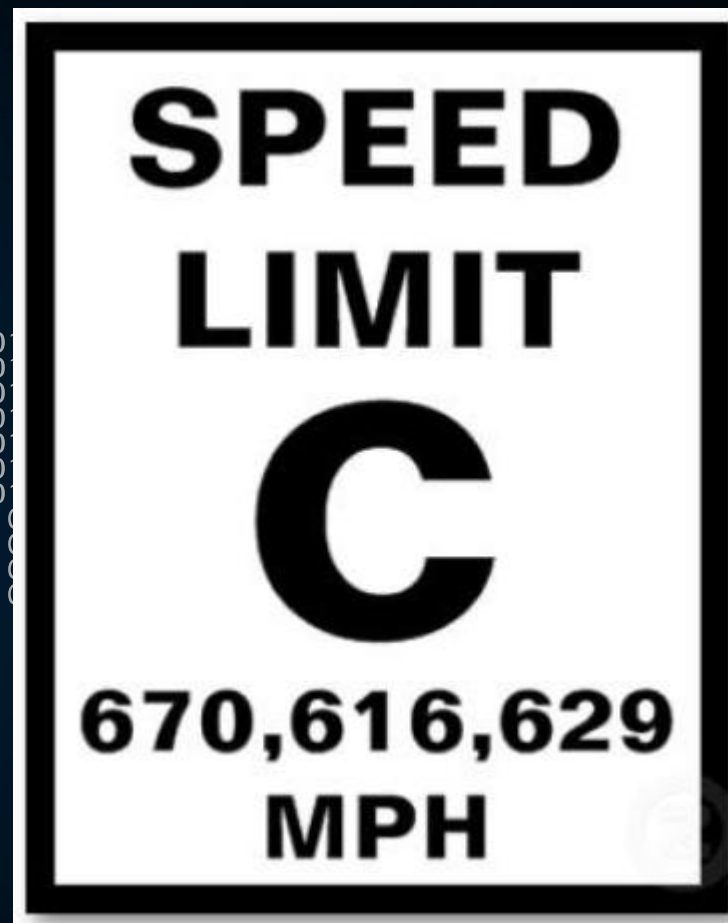
IoT Evolution...



THINGS



EDGE COMPUTE



NETWORK
INFRASTRUCTURE



DATA CENTER/ CLOUD

Drivers of a new paradigm of computing...

- V** Volume and Cost of Data Transmission
- L** Latency to/from Cloud
- C** Lack of Persistent Connectivity
- P** Privacy: Secure the Data Locally
- W** Workload Consolidation
- A** Analytics and AI

Edge & Fog
Computing

Market Segments and Use Cases



Video / DSS

V **A** Anomaly Detection



Industrial

L **A** Predictive Maintenance
W **L** **P** Factory Automation



Healthcare

V **P** Clinical Fusion



Smart City

W **C** Traffic Monitoring



Retail

W **A** Personalized

Intel's AI Portfolio...

Experiences



Platforms

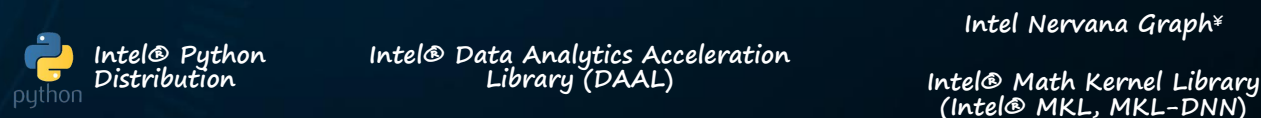


Frameworks



AI
inside

Libraries



Hardware



Ecosystem PARTNERS

IOT
Equipment
BUILDERS

IOT
Solution
Providers

IOT Tech
PROVIDERS



IoT Solutions
Alliance



Thank You

