The “Internet of Things” Impact on Data Centers and the Edge

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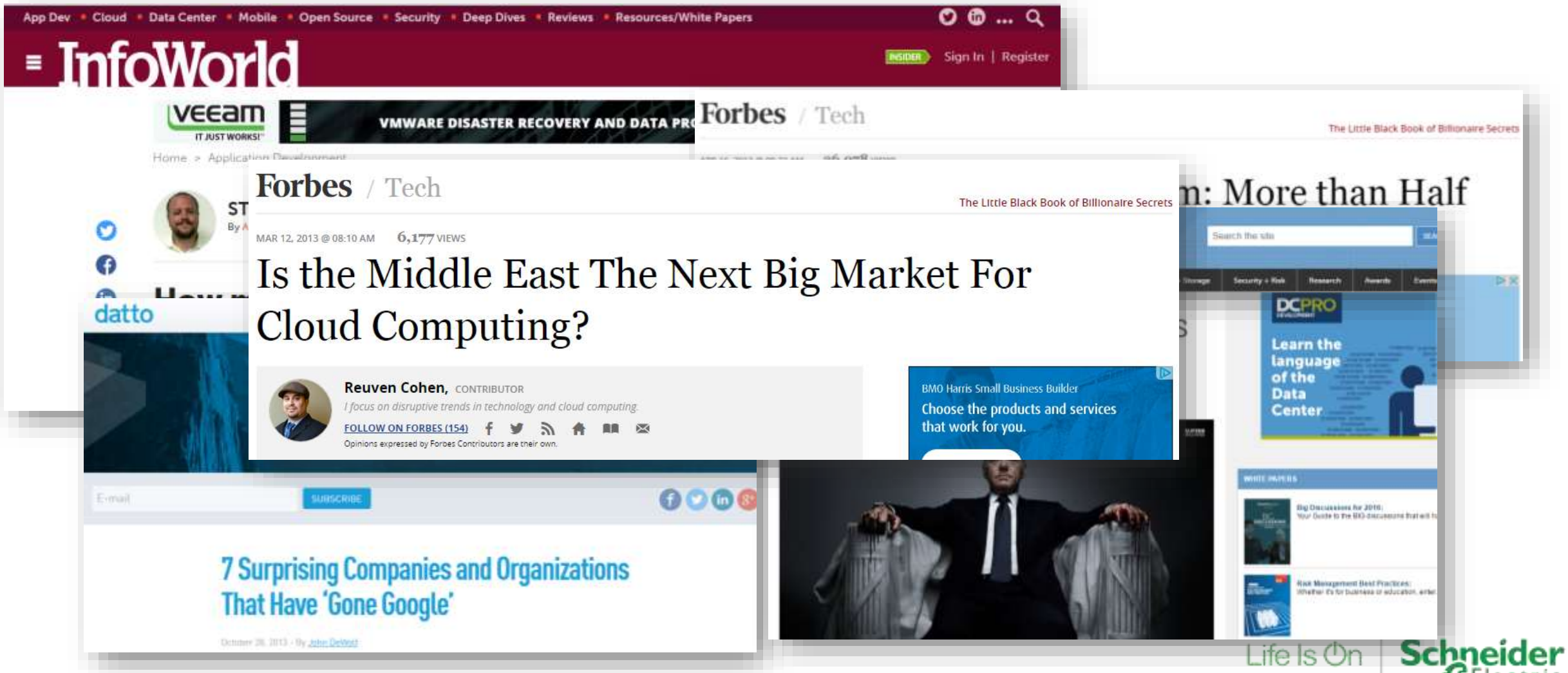
Not too long ago, our industry believed all computing would eventually centralize to the cloud



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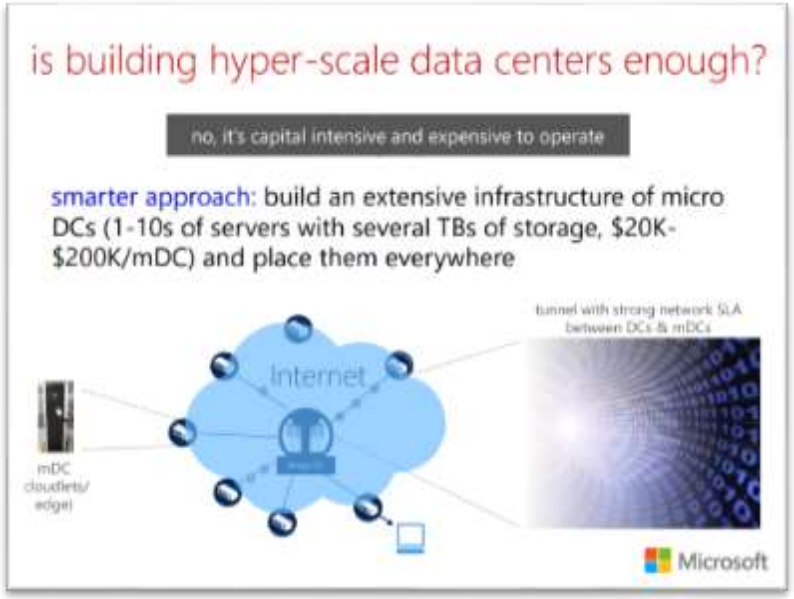
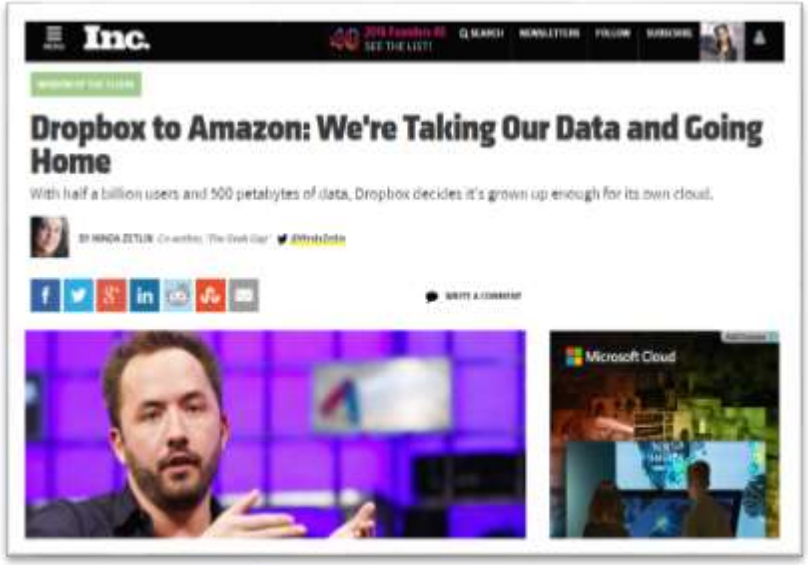
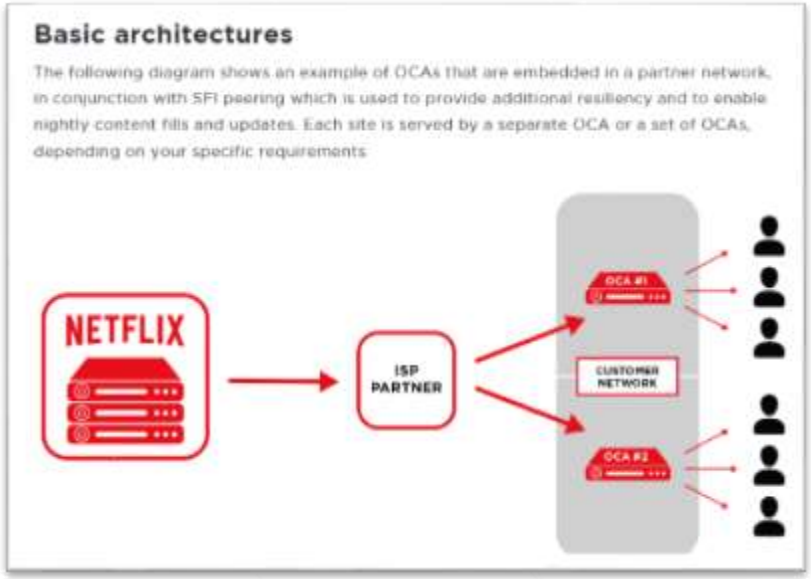
Recent industry moves showing a pendulum shift back, creating a decentralized, hybrid computing ecosystem



May 15, 2015



March 15, 2016



Microsoft

Dropbox

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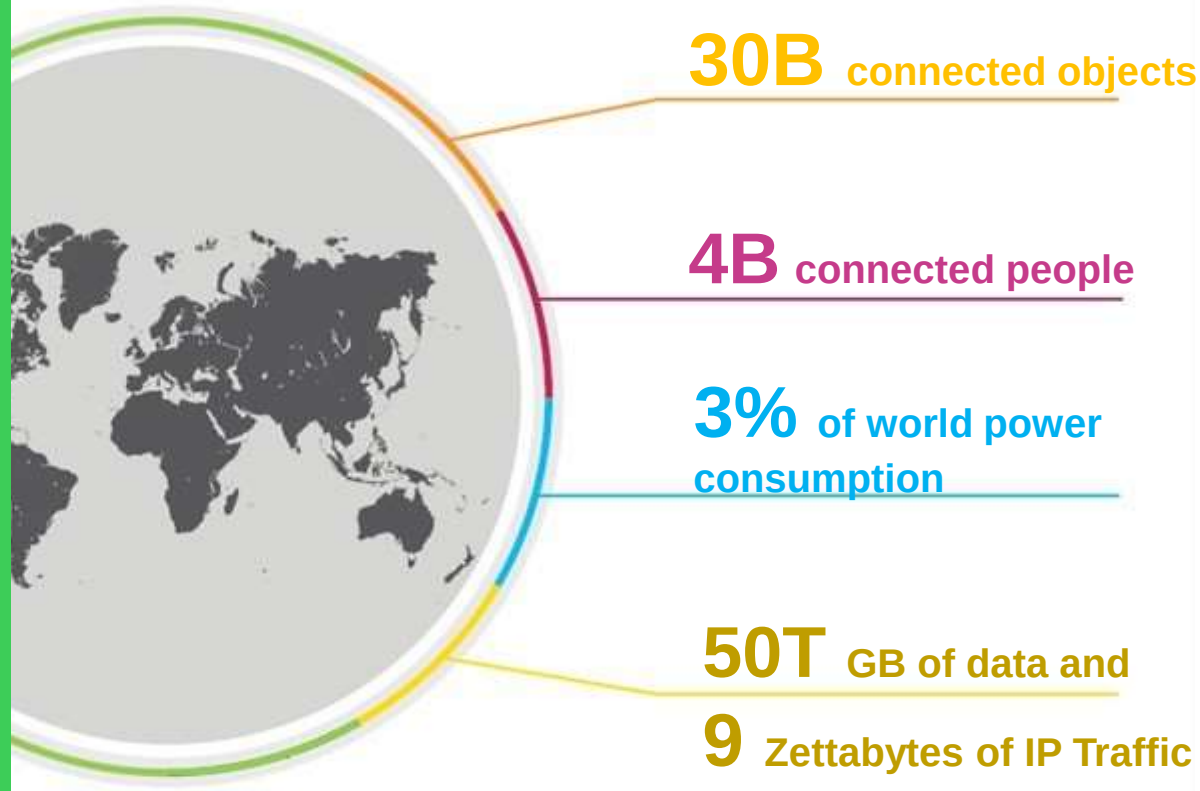
The driving force behind this change is the **Internet of Things**.

The data center industry is undergoing profound transformation to support the enormous data volumes and processing demands that are being generated by the “Internet of Things”

The world in 2020….

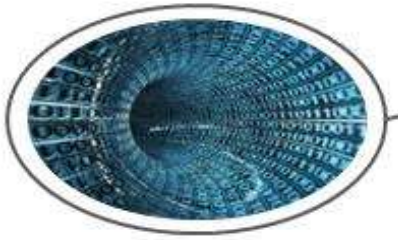


Sources: Gartner, IDC, Uptime Institute, Cisco

The typical cloud network architecture has limits

Industrial Internet of Things

Internet of Things



Social & Internet Data sources

Problems:
Latency
Bandwidth
Regulations

Applications | Data Base | Service

Cloud

Edge solutions address these issues by putting applications and services closer to users and “things”

Industrial Internet of Things

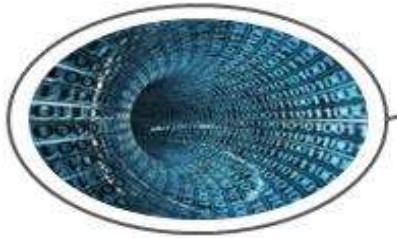
Applications | Service

Edge Data Center

Internet of Things

Applications | Service

Edge Data Center



Social & Internet Data sources

Applications | Service

Edge Data Center

Applications | Data Base | Service

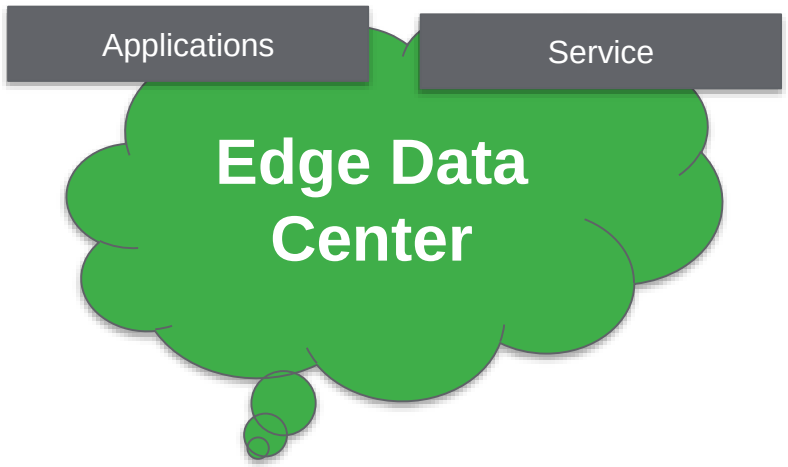
Cloud

“By 2018, **40%** of IoT-created data will be stored, processed, analyzed, and acted upon close to, or at the **edge** of the network”

Worldwide Internet of Things Predictions for 2015, IDC

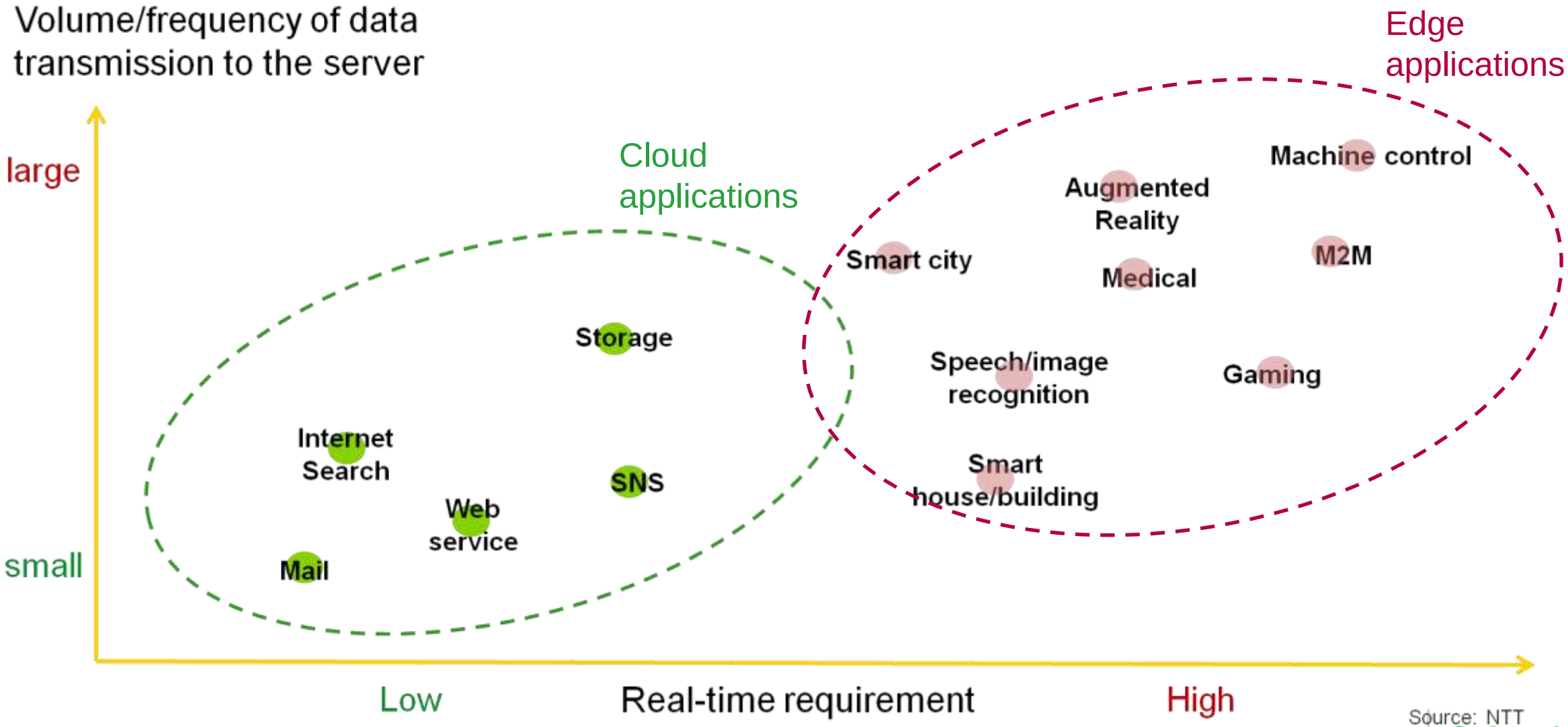
Edge solutions address the limits of cloud computing

- Latency
  - Support applications and processing that require fast response time
- Bandwidth
  - Store and deliver high bandwidth content to users at a reasonable cost
- Regulations
  - Keep data /compute local, for security or regulatory requirements



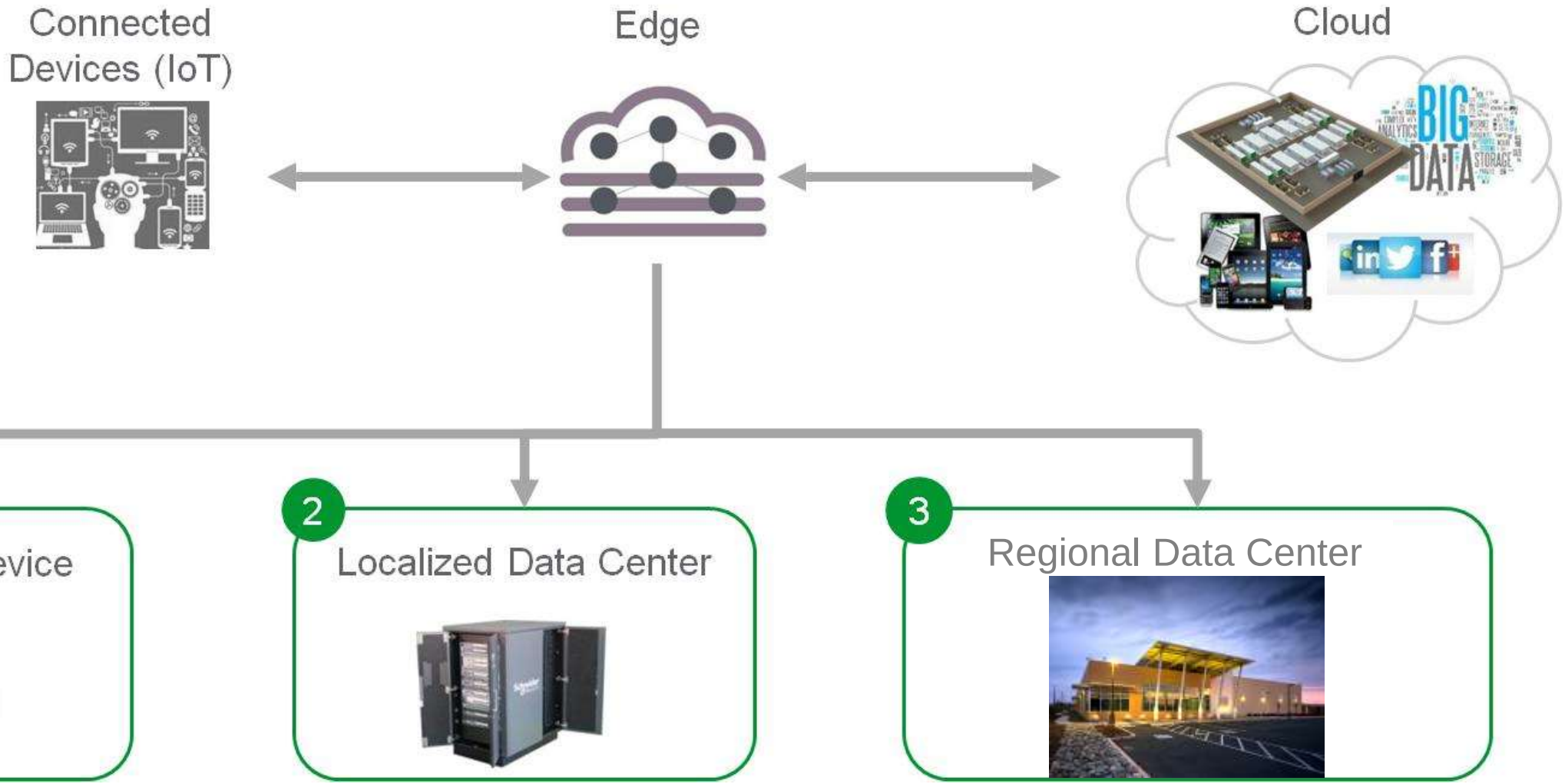
Latency and bandwidth requirements vary by application

Application requirements drive the data center strategy



Source: NTT

Edge solutions will take three forms



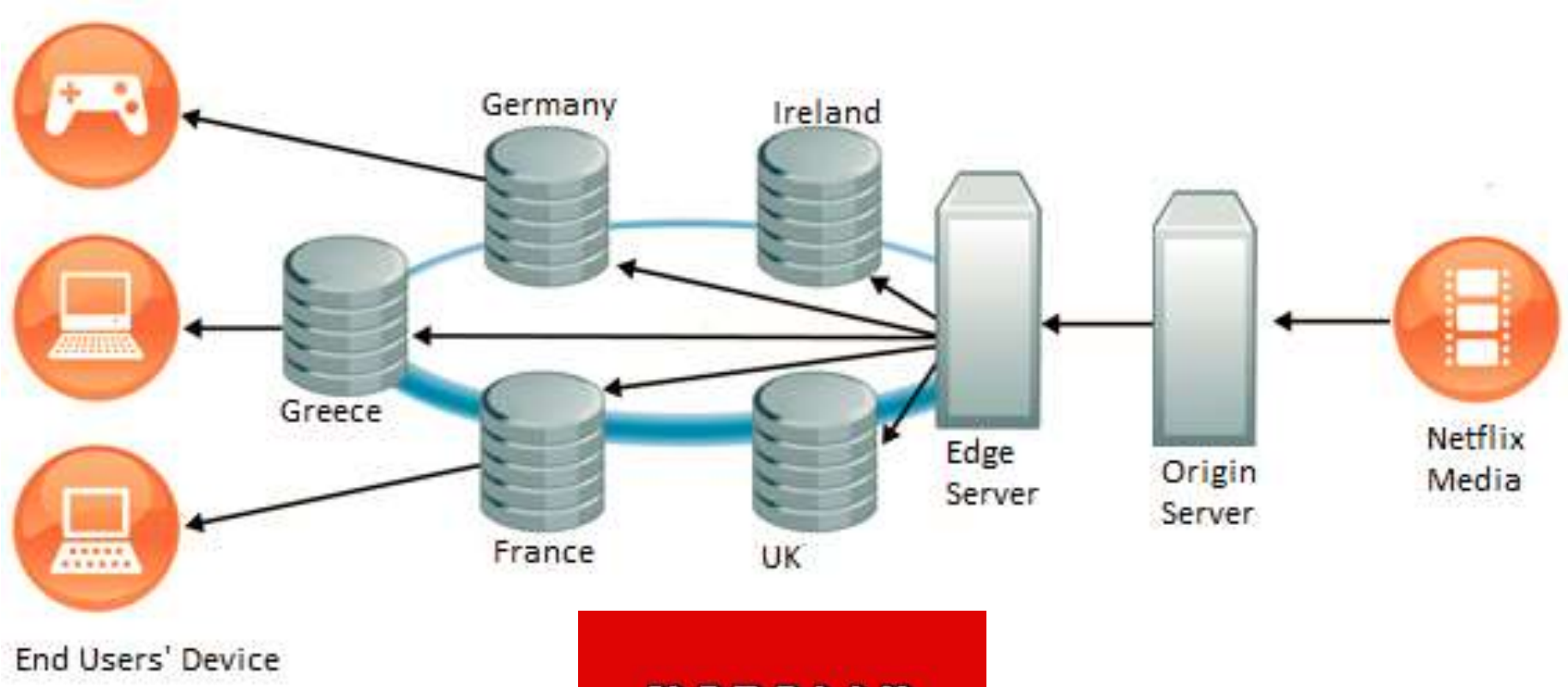
Local device applications examples: home and small business devices

Localized data center application examples: Industrial Internet of Things (IIoT)

Localized data center application examples:
Retail and Banking Branch Offices

Regional data center application example: Content Distribution Network (CDN)

"an interconnected system of computers on the Internet that provides Web content rapidly to numerous users by duplicating the content on multiple servers and directing the content to users based on proximity."



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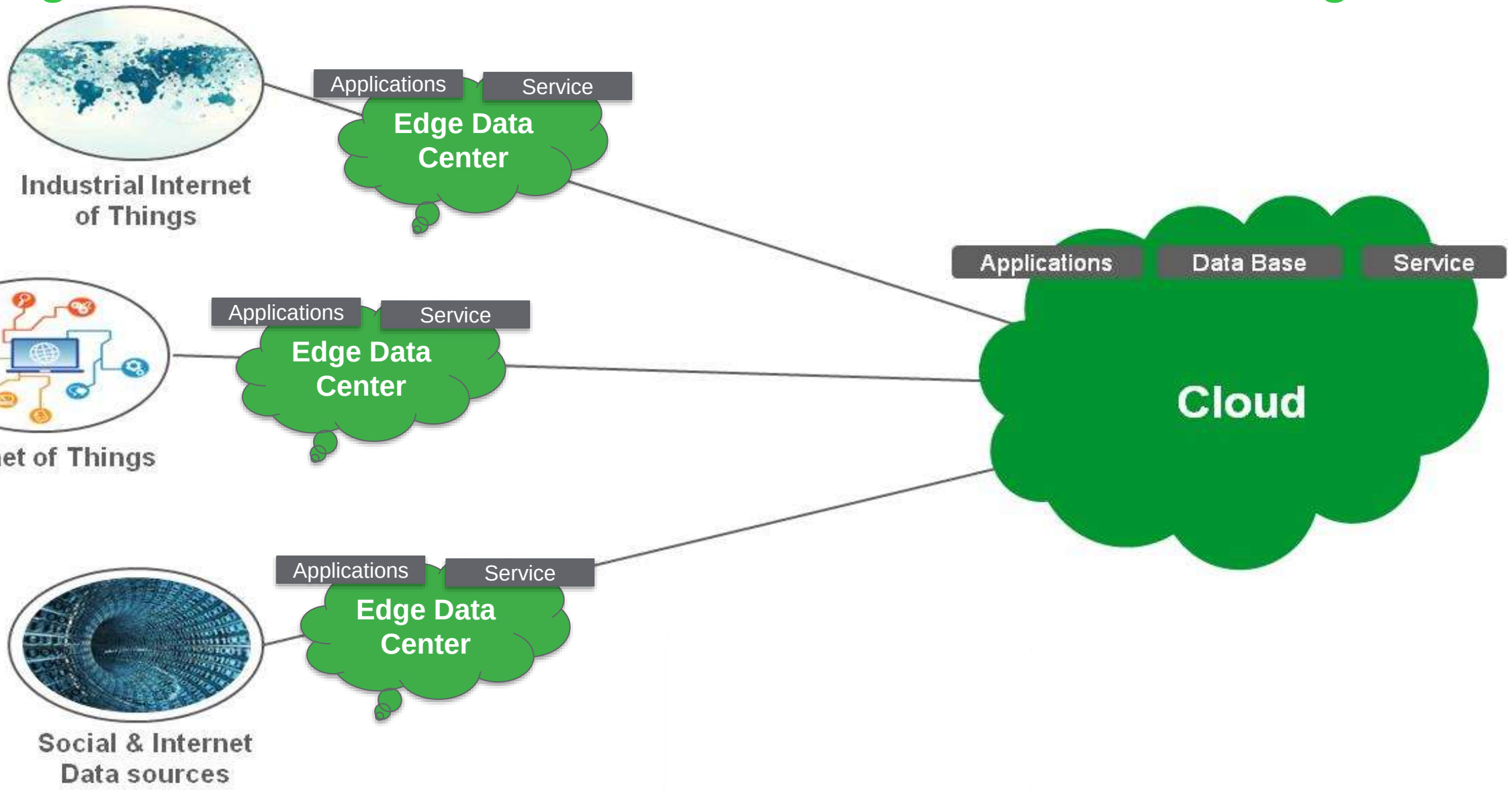
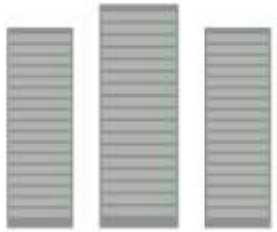
With a distributed IT and Facilities portfolio, holistic management and maintenance become the next challenge



The Internet of Things and analytics will enable a more effective way to manage and maintain these data centers

Traditional Data Collection



Smart Connected "Things" at the Edge

Monitoring & Analytics in the Cloud

The future for data centers will be a cloud, edge, IoT ecosystem

Centralized cloud data centers (Public or Private)

Augmented with localized ‘edge’ data centers

Leveraging IoT-enabled data center management

Schneider Electric edge data center solutions enable the Internet of Things (IoT)

Localized Data Center Solutions

Edge Solutions for Colocation

Prefabricated Modular Solutions

Monitoring & Management

StruxureWare

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Thank you!