
Cloud Enabled Global Industry Servitization

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IoT Cloud Platform

BigData Analytics

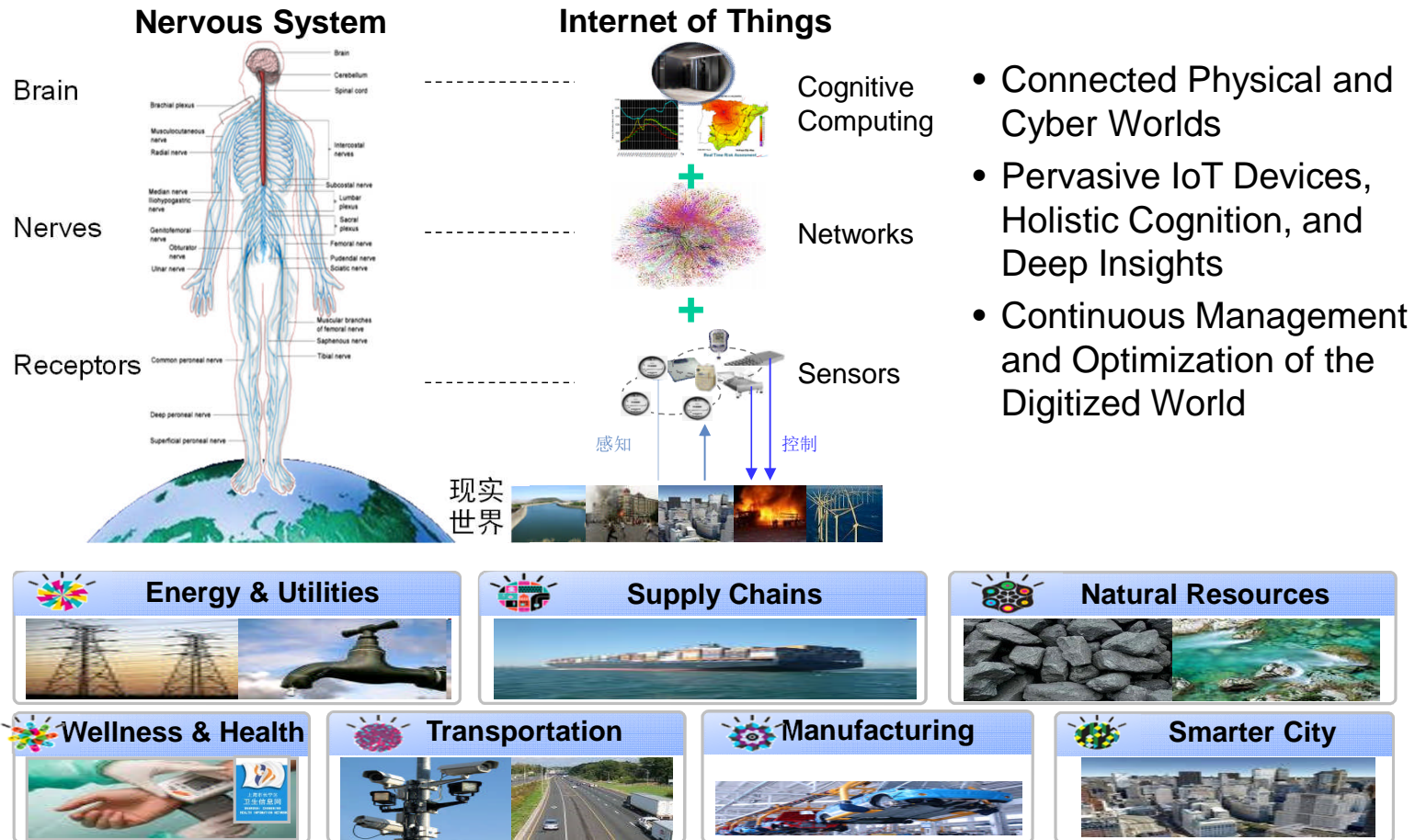
Application Innovation

Global Industry Metamorphosis

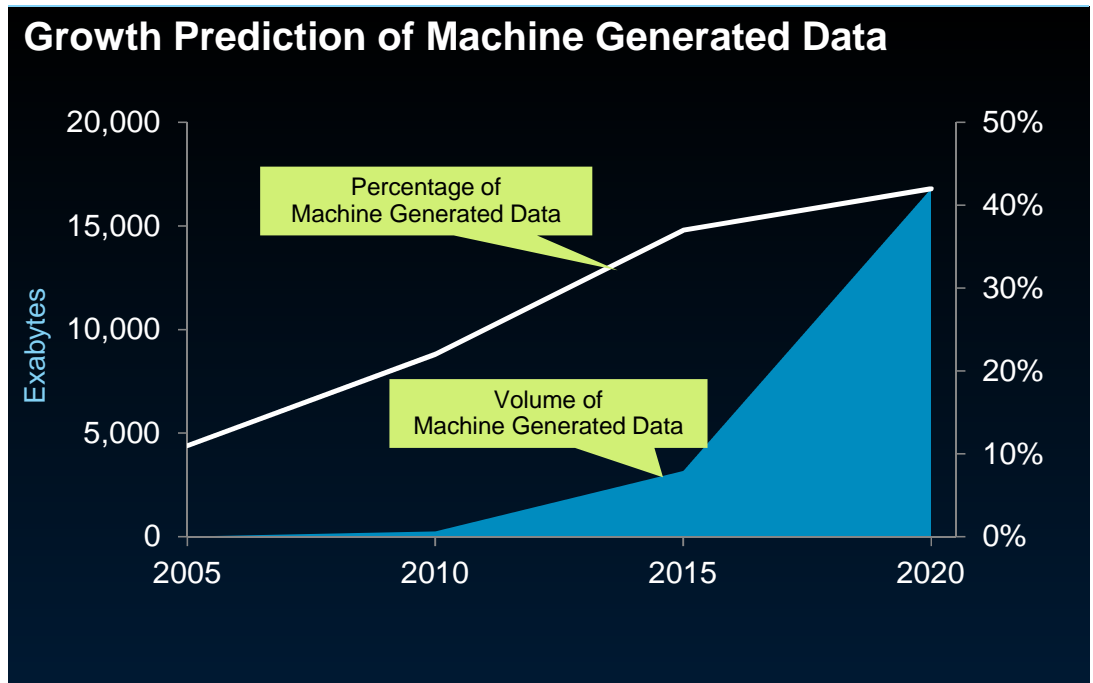
Innovation + Cost Reduction = Value Creation
Growth of ICT ==> Growth of ICT-Embedded New Industries



IoT Cloud Services: Driver of the new Global Industry Metamorphosis

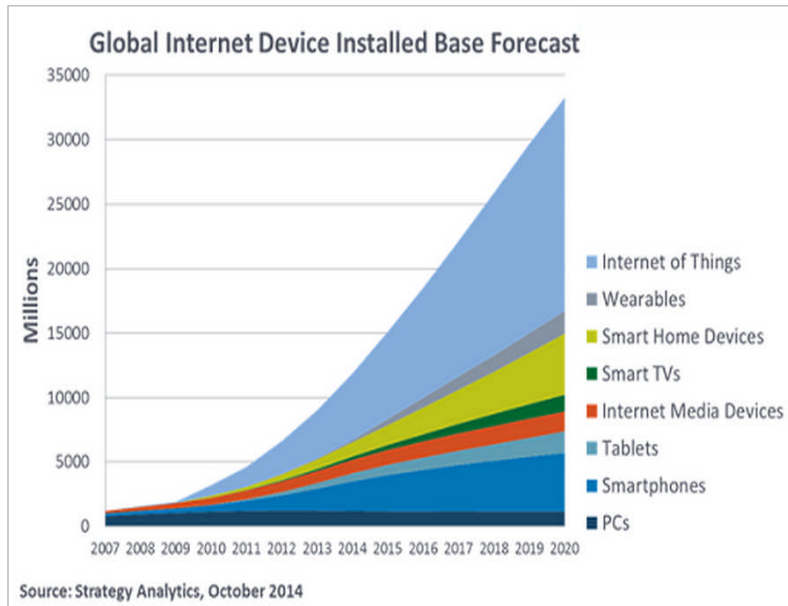


Main Source of BigData: IoT Devices

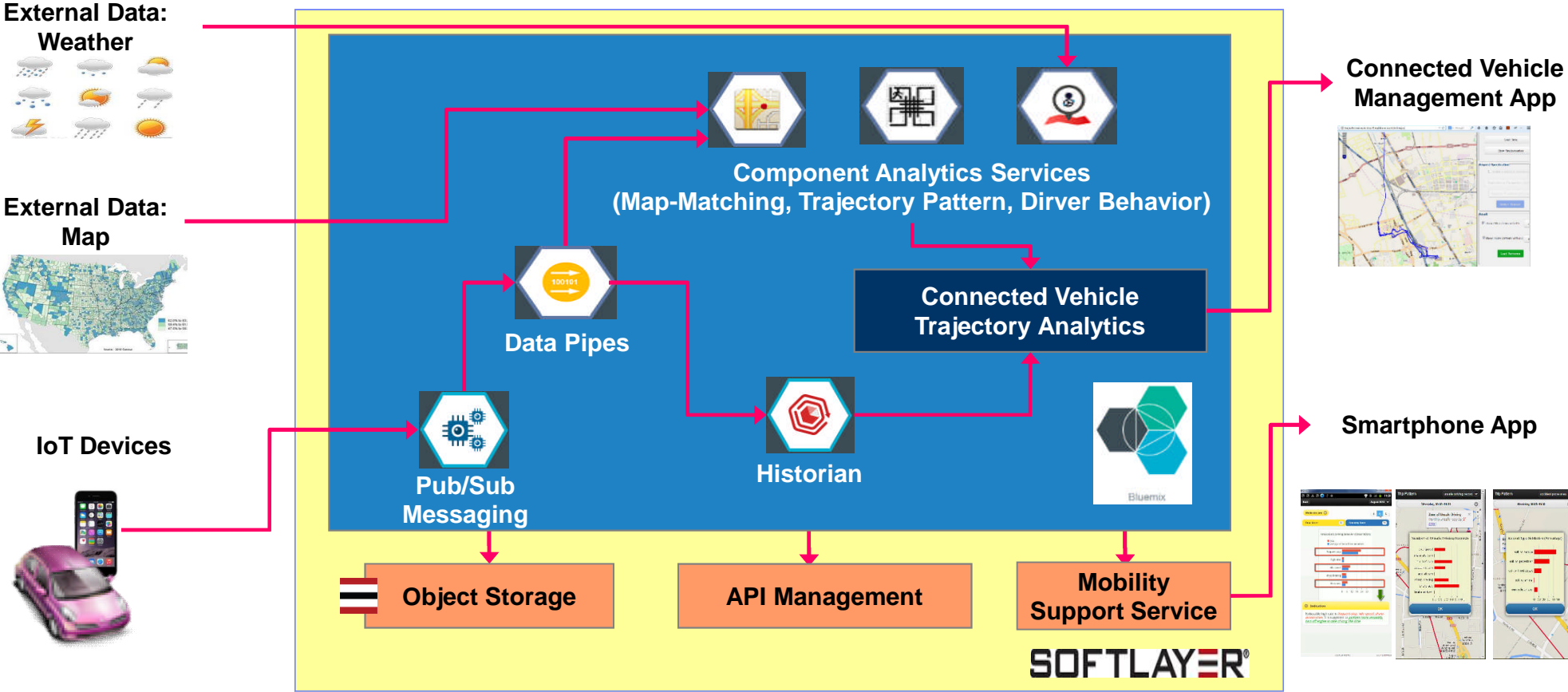


Source: IDC's sixth annual study of the digital universe (2012)

- 1 GB (Gigabyte, 9 zeros): 10,000,000
- 1 EB (Exabyte, 18 zeros): 100,000,000,000,000

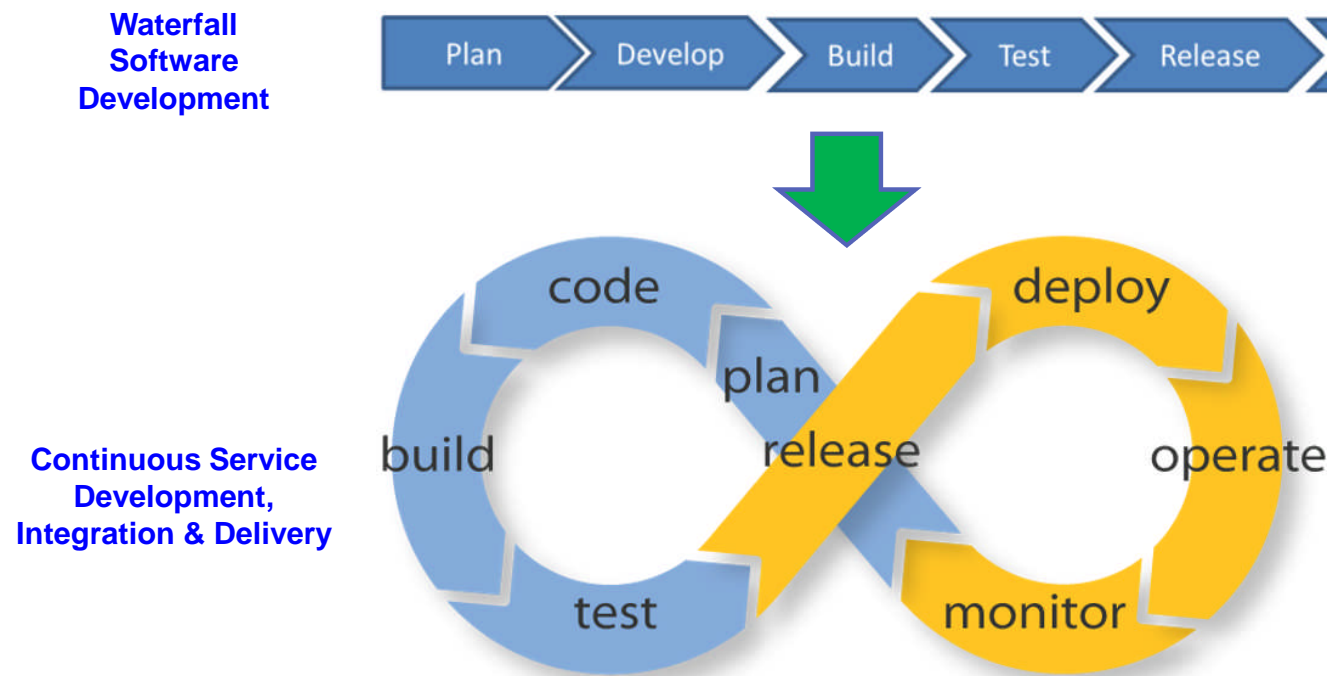


Composition of IoT Cloud Services: An Example



Service-Centric DevOps: Development, Integration & Delivery

Service-Centric & quality-assured continuous service development, integration and delivery under the DevOps model is key to the success of IoT Cloud Services.



IoT Cloud Services: Some Technology & Education Challenges

1. Digitization, Cognitive Understanding, and Servitization of the Physical World

- Digitized Physical World = Sensors + Humans + Machines + Natural Resources
- New Discovery Enablement and Industrial Know-How Acquisition
- Discrete Buy-and-Sell Products ==> Contract-Based Connected Services
- Service Maturity: Monitoring -> Proactive Management -> Cognitive Optimization

2. API and Data Service Economy

- Distributed Computing + Distributed BigData = API-Defined IoT/IoE Services
 - “Algorithms + Data Structures = Programs” (by Niklaus Wirth)
 - Computer ==> Server ==> Datacenter Cloud ==> MCU+Edge+Cloud
- Programming & Management in Small ==> Programming & Management in Large
 - Software componentization ==> (Business) “Service API” centric composition
 - Standalone Program ==> Web Application ==> Services+Microservices Solution
- Horizontal PaaS/SaaS ==> Domain-Specific PaaS/SaaS
- Agile Service API DevOps, Continuous Integration, and Continuous Delivery
- Domain-Specific **OPEN** Data, Tools, Platforms, and Benchmarks