



# OpenFog Consortium

Introduction and Overview

March 2017



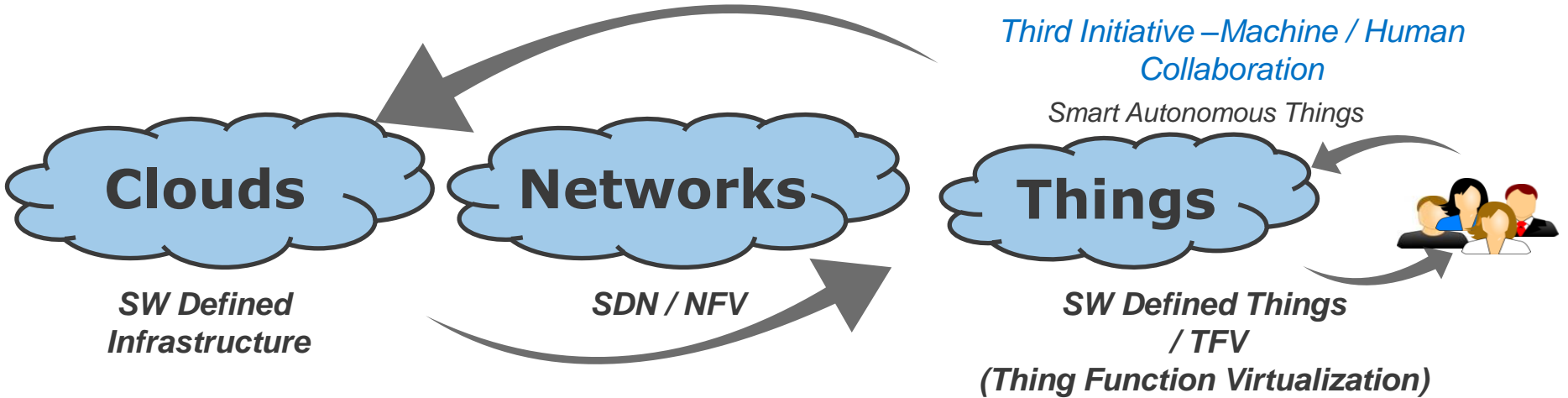
# IoT Consortia Initiative Investments

*First Initiative -OT/IT Convergence*

*Industrial Internet -Connect Things to the Cloud*

*Third Initiative –Machine / Human  
Collaboration*

*Smart Autonomous Things*



*Second Initiative –OT/IT/5G Convergence*

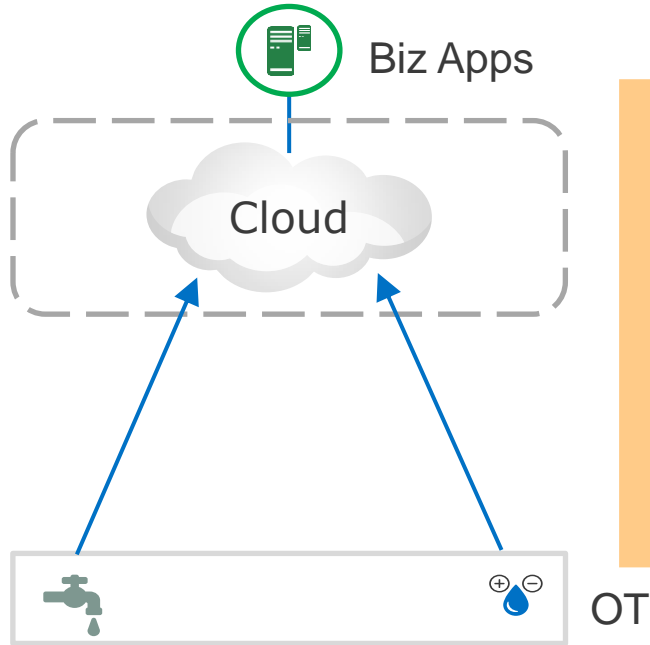
*Fog Computing -Bring Cloud to the Things*



# Edge Computing in IoT

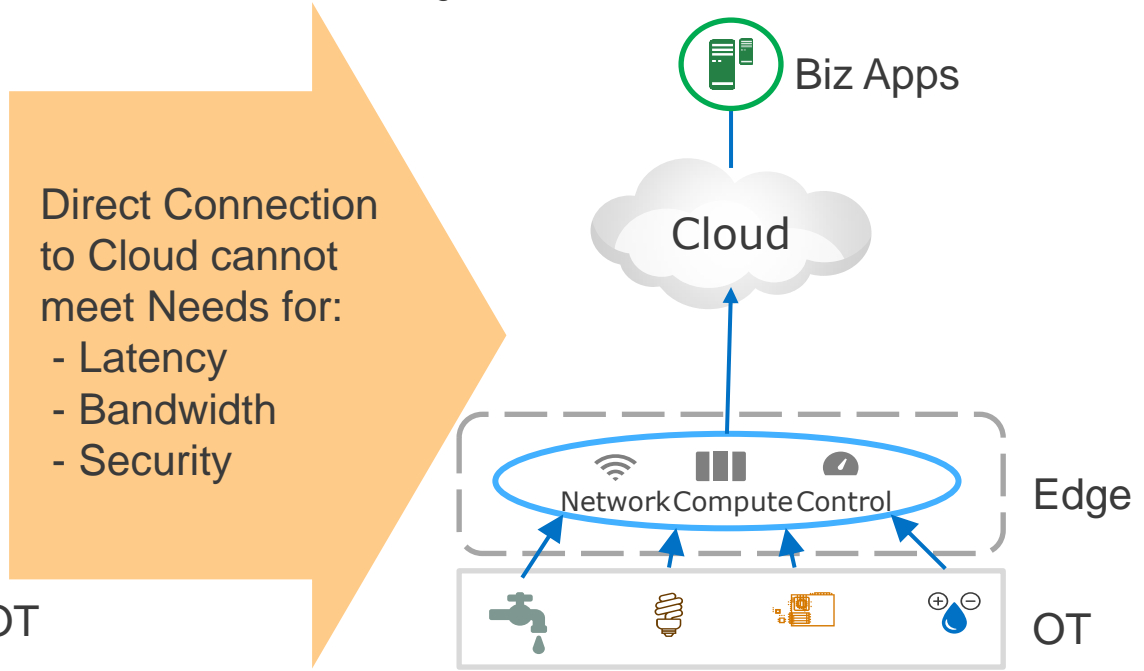
## ■ Cloud Computing

The delivery of various hosted services over the Internet

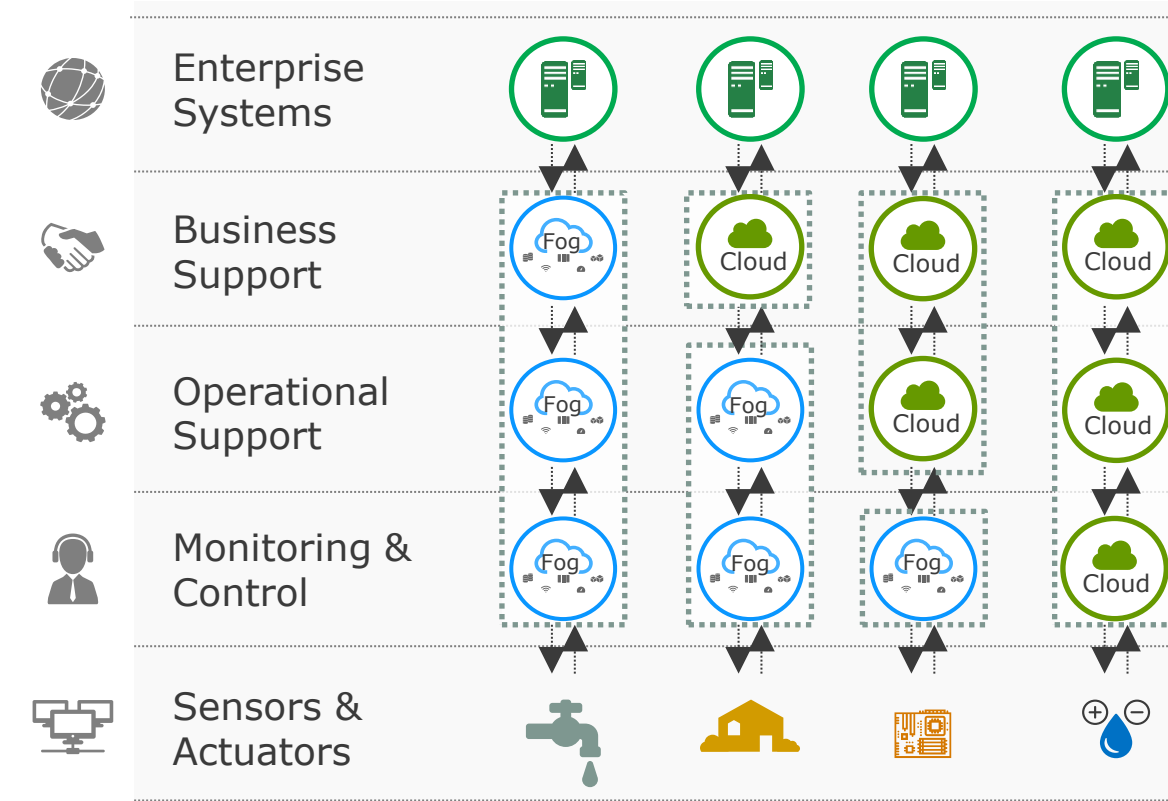


## ■ Edge Computing

Places applications, data and processing at the logical extremes of a network



# Hierarchical Fog Deployment Models



Fog Node: The physical and logical network element that implements fog computing service

# What is fog computing?

**CLOUD**

**FOG COMPUTING**

A system-level horizontal architecture that distributes computing, storage, and networking closer to users, and anywhere along the Cloud-to-Thing continuum



# OpenFog mission



Building the Cloud to Things Continuum.



Storage



Compute



Network



Control



Accelerators

**Mission Statement:** To drive industry and academic leadership in **fog computing architecture**, testbed development, and a variety of **interoperability** and **composability** deliverables that seamlessly leverage cloud and edge architectures to **enable end-to-end IoT** scenarios.







# OpenFog Consortium

**Affiliations**





**Founders**

**Contributing Members**
















































55 members strong, headquartered in 14 countries as of February 2017

# OpenFog Consortium goals



Develop, Solve,  
Identify & Create



Foster, Initiate,  
Provide & Influence



Gain, Promote,  
Evangelize & Educate



# Key pillars of the OpenFog architecture framework



Security



Scalability



Open



Autonomy



RAS



Agility

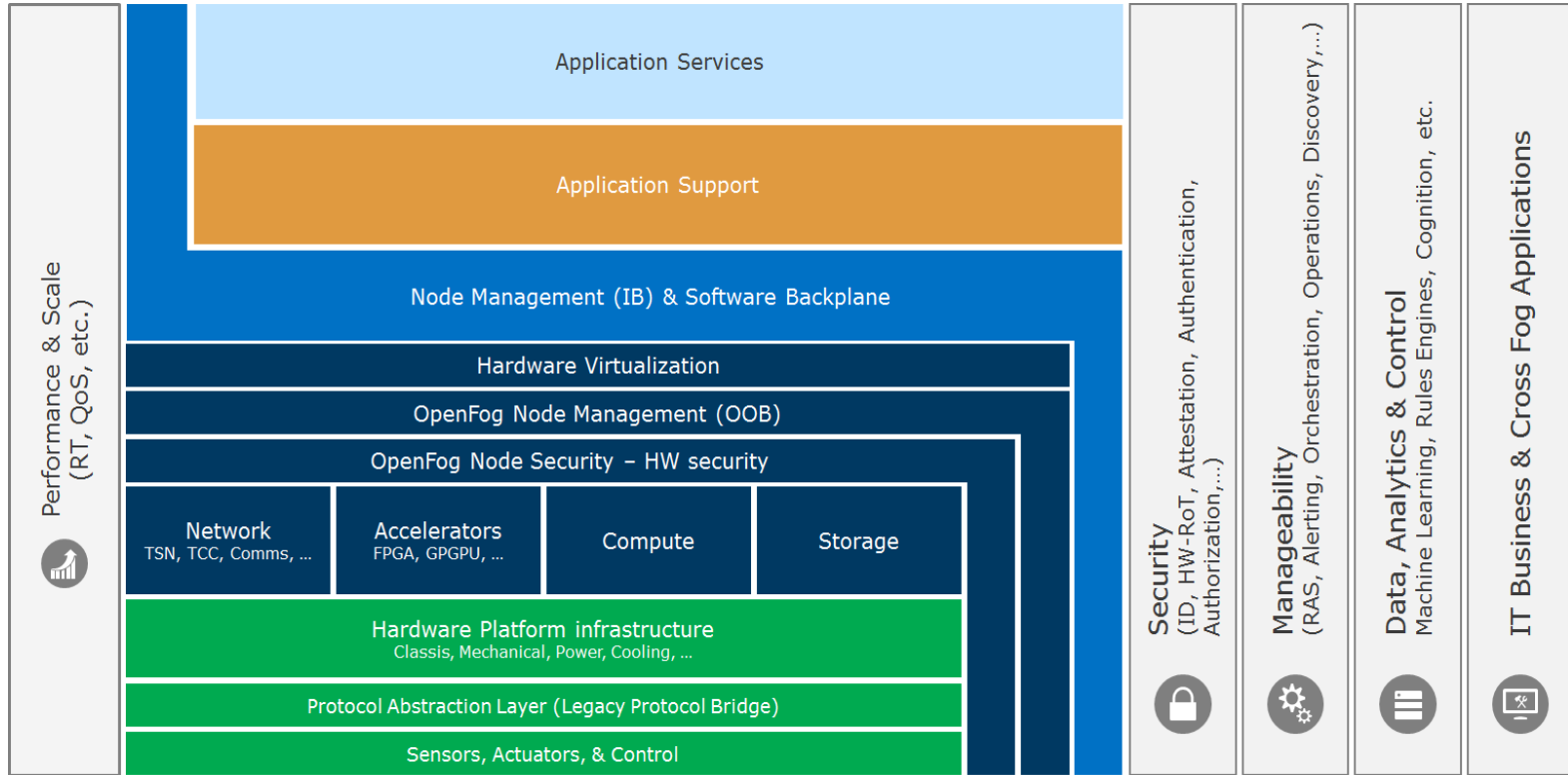


Hierarchy

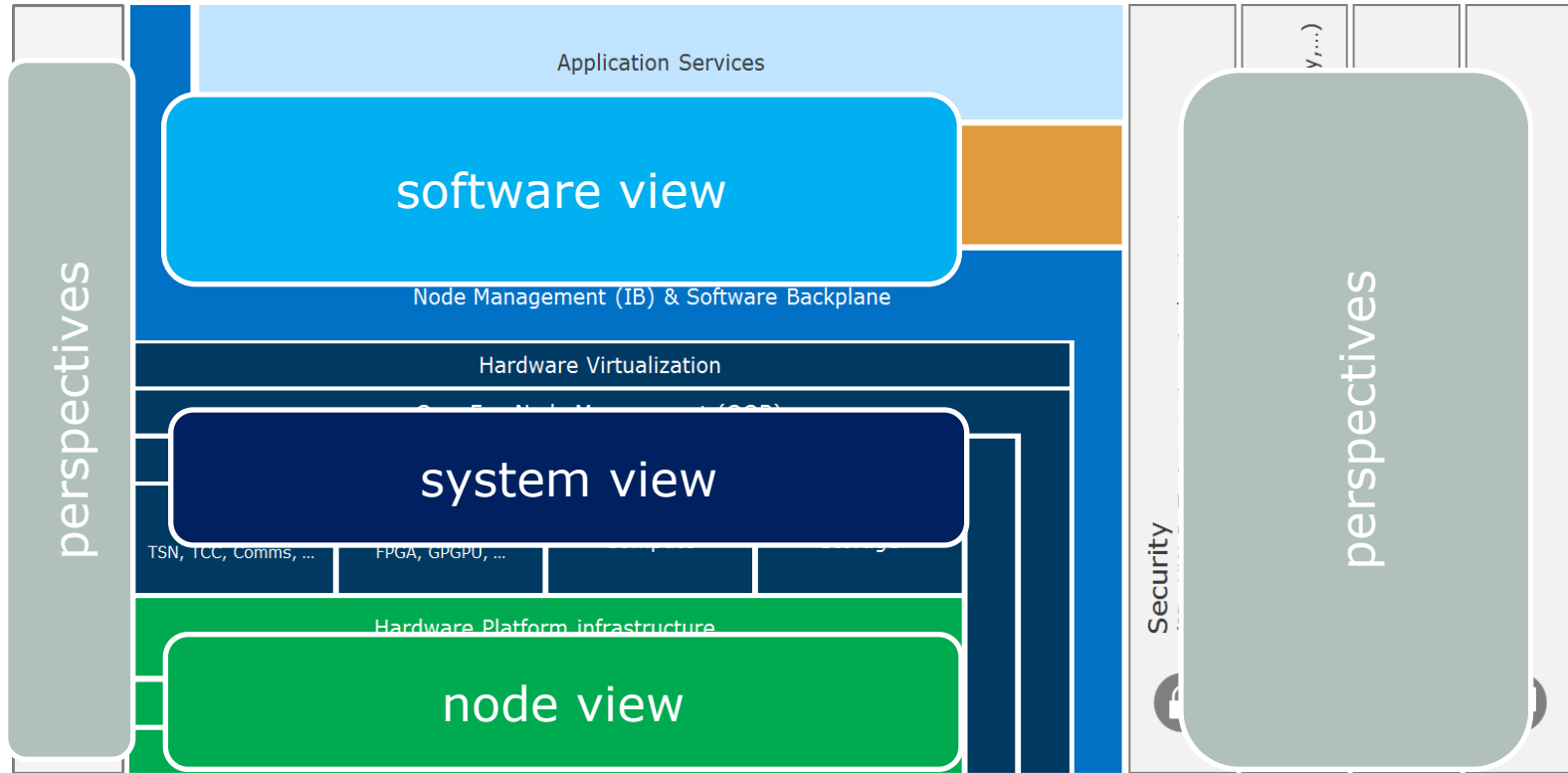


Programmability












# Architecture description with perspectives



# Architecture description with perspectives



# OpenFog Consortium and Other Consortia

	 IIC Enable and accelerate Industrial Internet	 OCF Connectivity and Interoperability of devices	 OPNFV Open platform for ETSI ISG NFV Architecture for Cloud	 MEC Enabling app developers to build apps on RAN edge for Mobile SP	 Academia Research focus
 <b>Focus on fog Domain Architecture and Testbeds</b>	 Potential sharing of Industrial Use cases located at the fog domain	 Potential Leverage of OCF defined device interfaces and framework	 Potential leverage of ETSI NFV ref arch.	 Potential leverage MEC hosting infrastructure	 Collaborate on unsolved challenges and future technologies
<b>Areas Complementary to others</b>	OpenFog currently focused on Enterprise use cases	Focus on compute, storage and network of Fog domain	Fog Domain architecture	Others vertical than Mobile SP use cases	Vendor implementation



[www.OpenFogConsortium.org](http://www.OpenFogConsortium.org)

