



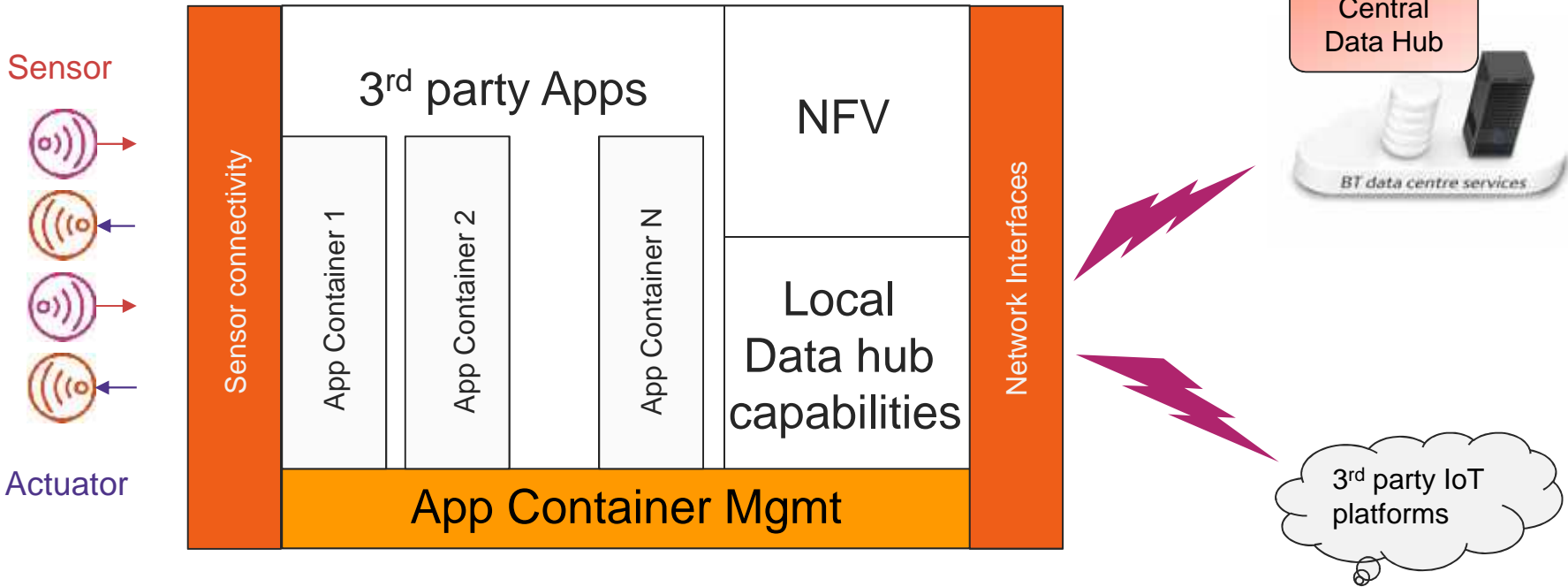
# Companies

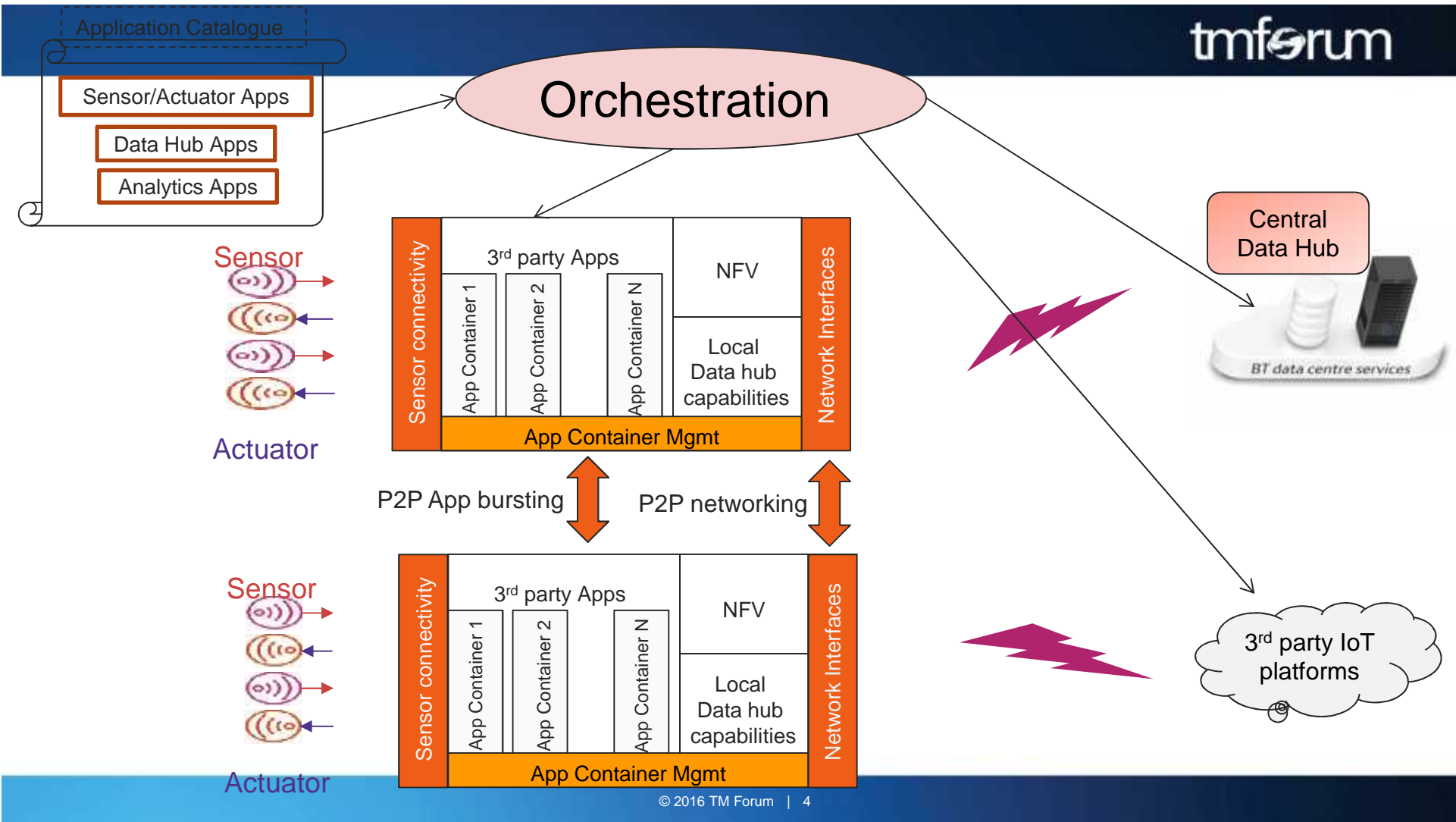


Champion Confirmed	Champion Tentative	Participant Confirmed	Participant Tentative
Milton Keynes		BT	
NRECA		Bearingpoint	
		Cloudsoft	
		Huawei	

We are still looking for:

## Multi-functional IoT Gateway





## Why is this an important problem to solve?

- Current scene: **Universal connectivity** of devices and **central IoT platforms**
- Market and business will grow around **localized solutions**. This enables citizens and businesses with
  - **local control of their environments,**
  - **control of own data,**
  - taking advantage of the **wider data economy.**
- Local governing authorities benefiting from extra **operational efficiencies** by:
  - creating **situational decision making local-loops,**
  - **automating process of expanding/evolving smart infrastructure, *hence releasing council resources***
  - **de-risking purchasing decisions** with general-purpose compute IoT platform with lower barrier to entry and future-proofing of new 3<sup>rd</sup> party solutions
- Catalyst objective: **Edge computing enablement of IoT Data Hubs**

# Problem Statement (one-liners)



- As a City Council

- I need to

*improve efficiency, performance, and speed of Council operations*

- So that I can

*make fast, accurate autonomic decisions, right-first-time problem-solving interventions in case of high priority city situations, e.g. crime, emergencies, popular events etc.*

- To do this, I need to

**Deploy logic on edge gateways** *that enables local actuation in reaction to a stimulus e.g. when unusual, potentially suspicious, activity is sensed in dark areas deploy an app on gateway with logic to switch on street lights*

**Deploy on-demand, driven by a stimulus, special purpose apps and analytical capabilities** *on edge devices enabling collection of more detailed data as the situation unfolds e.g. deploy car plate recognition app on gateway to help police locate suspect's car through cameras in a carpark.*

**Orchestrate high speed Network links (NfV)** *to communicate back to a control room better quality data about the situation, such as high resolution video streams, CCTV, etc.*

- I know I am successful when

*Increase the speed of decision-making and actions to handle incidents or prevent situations developing in the city*

*Release Council human resources from handling situations that may now be handled by apps enabling situational actuation on the edge.*

# Problem Statement (one-liners)



- As a Business Owner (e.g. building management company)

- I need to

*flexibly deploy sensors to collect data of interest, analyse data fast/real-time on the edge and feed collected data to IoT platform of preference*

- So that I can

innovate, improve efficiency and increase profitability of my business

- To do this, I need to...

**Deploy configuration code on IoT gateways** *to connect my sensors and sensor networks to the Smart City infrastructure.*

**Deploy analytical apps on IoT gateways** *to process collected data real-time*

*Deploy apps on IoT Gateways that **push collected data to Cloud IoT platforms of own preference**, e.g. with Amazon, AWS, etc., on top of (or completely bypassing if so preferred) the City Data Hub.*

**Deploy VNFs to enhance network capability** *with acceleration or security features ensuring my data is sent to my IoT platform fast and securely*

- I know I am successful when

I can deliver new services, cut costs and improve my operations

# Problem Statement (one-liners)

- As a Service Provider (e.g. BT)

- I need to

Enable my Data Hub architecture with distribution and edge computing capabilities

- So that I can

Deliver control to the edge, be able to charge according to edge-related contexts, enable localised business marketplace

- To do this, I need to

*Deploy multi-functional edge devices with support of distributed Information Exchange (data hub) capabilities.*

*Provide application catalogues with ability to deploy apps on edge devices and charge accordingly*

- I know I am successful when

I can generate new revenue streams and my customers (e.g. City Councils) are satisfied with their ability to reap benefits out of the edge computing enablement of their data hub platform



## What new areas do you plan to explore?

- *APIs that let us*
  - Manage priority of Apps deployed on edge devices
  
- *??Best practices to help get services to market faster*
  - ??????
  
- *New technology for...*
  - *Edge and Fog computing in a Smart City context*
  - *Distribution of data hub capabilities*
  - *New charging models based on edge-related contexts*