The Internet of Things (IoT): Applications, investments, and challenges for enterprises

- automation through IoT enabled services

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Internet of Things (IoT)

- System consisting of any**thing** identifiable by an assigned unique ID and capable of autonomously transmitting information over a network.
- Autonomous referring to its own ability of generating content and sending it over a network.
- Smart Health monitoring devices
- Information transmitting sensors of all kinds
- Physical objects in general can be extended to be "smart" by having an electronic attachment that is able to perform the aforementioned activities.

IoT Enablers

- 90 % of the earth has some form of internet connectivity
- IPv6 has the capacity to provide unique IP Address to every atom on the earth's surface
- ■Electronics, communication software and network infrastructure are in-place and can be utilised with significantly reduced cost compared to previous years (IoT concept born in 1999)

IoT Challenges

- Security of individual components due to usually their limited computing capabilities. Jeopardising truthfulness of data.
- Currently, most web data is human generated;
 Larger scale IoT adoption will result in huge amounts of content that needs to be analysed into actionable information in a timely manner.
- Overall network security and use privacy in futuristic scenarios like smart cities where control automation is in-place.

HPE's Areas of Expertise

- Transformation to hybrid infrastructure
- Protection of digital enterprises
- Empowerment through Data-Driven Analytics
- Enhancement of Workplace productivity

CSP Interest in IoT

- CSPs are striving for leadership in M2M and IoT communication due to the expected huge growth of connected devices in foreseeable future across different industries.
- CSPs are looking for new revenue opportunities and are more likely to win the IoT field compared to OTT players as the have more expertise in the network infrastructure field.
- CSPs will, however, need to adapt and compete in the market and are likely to seek collaboration for joint solutions.

HPE IoT Platform

- ■Enables a joint effort between CSPs and HPE to provide a loT architecture to CSP clients
- Can be fully deployed on the cloud, CSP premise or in a hybrid manner
- Development of new applications on top of the platform for target IoT interested sectors. (HPE Energy Management Pack)

- HPE Smart City■IP connectivity between street lamps to enable communication with the HPE platform
- Information analysis through domain specific applications
- Enabling management of individual lights and monitoring of environmental conditions for tuning lighting plant operation.
- Increased power efficiency, public safety and ease in deployment of future municipality projects