Web of Things in Samsung

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ABSTRACT

Samsung is the global leading CE company producing Smart phones, Wearable devices, Smart TVs, PCs, printers and home appliances. Samsung also provides the electronic components and the various services. Samsung has deep interest on the Internet of Things (IoT), because it can tie our all product and services.

Recently, Samsung announced the SHP (Smart Home Protocol) which enabling the connection between devices. You can connect and control the washing machine, air-conditioner, vacuum cleaner and light by the smart phone outside. Because the SHP is connected to the cloud and based on the open platform, it can be applied various network. We believe this is one of advance on the IoT industry.

The IoT is growing due to the falling price of H/W, various connectivity technologies and the big-data. The IoT will create new value for the human life by processing the information which is gathered in these environments.

WEB OF THINGS

The Internet of Things has already arrived. There are many new devices which are connected via Internet. But some of these devices do not have screens. Some will only

connect to the network over low-power connections, some will be disposable. The diversity will create new challenges for the Web as a scalable architecture.
The "Web of Things" describes an application layer for accessing the Internet of Things through cloud-based gateways and servers.

That is why we have an interest on the WoT. Current market for IoT is fragmented due to the various communication protocols and the lack of the common interface to enable services. We believe WoT will help SHP to create more valuable service for users.

WEB IN SMALL

Along with Smartphone era, wearable devices are being very popular and these are going to be smaller than now continuously. In practical, users do not expect all of Web experiences running on small devices such as full-browsing, colorful style sheet and even stateful connection. In the meantime, we might be optimizing Web full features for small devices and even minimizing them accordingly.

Full capability on the Web vs. feature cut on the small devices are trade off for user experience, and we'd ask W3C to search for the reasonable and adoptable approaches for upcoming small device era including wearable devices from Web standard perspectives. In addition, IoT is a big opportunity to Big Data and heterogeneous data will be pulling into Big Data from various IoT devices in Wearables devices Products from Samsung particular sensing data from our environments. We'd ask W3C to search for the best way to cope with those IoT heterogeneous data to be used for Big Data's new killer application on the Web.

CONCLUSION

We are interested in the role of W3C for realizing the WoT in the real world, especially following topics:

- Web interoperability between legacy capable devices and capability-constraint web of things devices from W3C One Web value proposition including device and service discovery.
- Composing the services and the APIs for describing these services.
- Use cases and requirements for WoT devices and services.
- Efficient power consumption and user acceptable performance on Web of Things environments.
- Data interoperability among various IoT data sensing from our environments and semantic approach may be a reasonable approach to get there.
- User experience and user interface on Web of Things devices.
- Web protocols and scripting languages for implementing services.