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# Web of Things

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# Web of Things

## Expression of Interest

ACCESS has provided the softwares, connecting the consumer electronics devices to the internet. To connect each device, dynamically, extensibly and safety, we needs standard specifications. W3C has contributed to the expansion of the internet, then all devices can collaborate and provide more efficient solutions for Smart home, Smart Grid, Vehicle, Building Automation and Industrials.

IoT and WoT are natural and important next step for Web. However, they are not openly penetrated with the specific W3C web standards yet, because the connected device world is quite young. We are expecting initiative by Web of Things activities by W3C.

## Where we come from

ACCESS has advocated the vision , “Connect all devices to the Internet”. And based on this vision, we’ve provided browser based software to consumer electronics devices for more than 30 years. e.g. mobile phones, TVs, cars, games, digital camera, printers, electric piano and so on. For those devices, in 1998, we proposed “Compact HTML” to W3C, and it was accepted as a note in 1999. Then HTML evolved into XHTML and various mobile profile standards encouraged mobile internet industry dramatically. Based on those history, we strongly believe the necessity of standardization of Web, so that all various industry efforts can contribute and collaborate each other, like W3C did in the mobile environment.

## What will expected for The Internet of Things and The Web of Things.

For long time, we have customized Javascript API for specific customer’s request to use their specific native features. Some of them are opened and standardized, but most of them are not. Contents vendor should create the contents for that limited target devices. That was very closed eco-system. To extend the IoT/WoT world, the services and devices should be open to invite more developers, users and more new devices.

In the WoT world, there are 3 groups of players.

1. **Devices/Sensors:** Target devices. Connected to the internet by some kind of methods.
2. **Services:** Provision devices and control and ensure the security & privacies.
3. **Proxies:** Most of devices are too low-spec to connect to the internet directly. Therefore proxies are required.

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Currently, we have updated our vision to “Connect all devices to the Services”. Most of devices can connect to the internet normally. Now, we want to connect that devices to various services. At this world, contents vendor or service provider doesn't want to modify for specific devices. And device vendor doesn't want to check the connectivity for each services. Therefore we need some standard specs of interfaces and something else.

## How ACCESS can help.

We can contribute by share the knowledge of software development when the devices are low-spec. And we also have for some Proxies and Services.

Create protocol and runtime model will be important for standardize. There is many challenges. We hope to create IoT/WoT world together by our contribution under W3C initiative and leadership.



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