



JOIN THE W3C IN ORGANIZING THE WEB OF THINGS!

The Internet of Things (IoT) is on every technology company’s mind. Its disruptive nature brings issues of Security and Interoperability to the forefront of the discussion. Despite the hype, the potential is currently being held back by fragmentation and a bewildering range of technologies. The Web of Things (WoT) is the layer of semantics, security and metadata that will help integrate these technologies and secure the very future of our day-to-day lives.

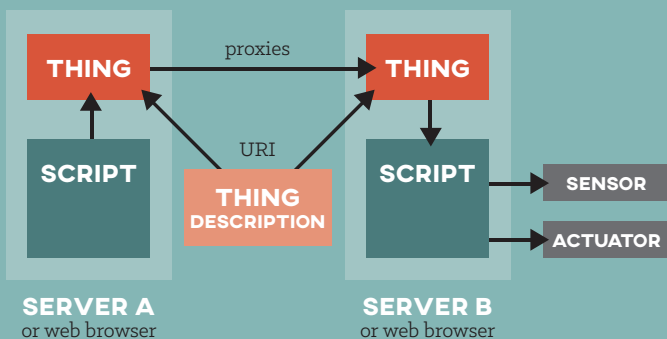
It’s clear that the benefits to come will be enormous, touching every aspect of human life via smart homes, intelligent healthcare, wired cities and healthy industries. To do this, together we must organize strategies and develop technologies in a known and trusted environment with experience in open Web standards, semantics and metadata. W3C is a natural fit for these evolving technologies. Join us in building out the WoT.

TO COUNTER FRAGMENTATION, THE WEB OF THINGS DEFINES A WEB BASED INTEROPERABILITY LAYER ON TOP OF EXISTING INTERNET OF THINGS PLATFORMS, USING A UNIFORM APPROACH TO SEMANTICS AND METADATA.

DISTRIBUTED WEB OF THINGS

Thing descriptions can be used to create proxies for a thing, allowing scripts to interact with local proxy standing for a remote entity.

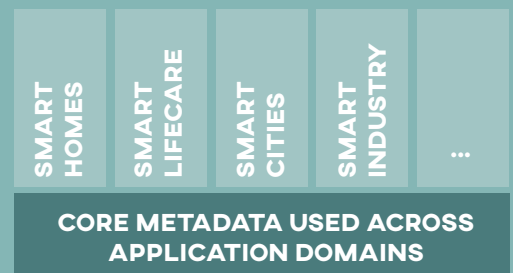
Web page scripts in browser can create proxies for things on servers.



TIME TO ORGANIZE THE WEB OF THINGS

HORIZONTAL AND VERTICAL METADATA

Industry specific groups are in best position to define metadata for each vertical.



Open ecosystems will stimulate growth through the establishment of larger markets for developers. By lifting the burden for tailoring products to vendor-specific platforms, there is untold benefit from reduced costs and increased market size through open web technology standards as a means to counter fragmentation and realize IoT’s massive potential.

COMMUNICATIONS STACK

THE WEB OF THINGS INTRODUCES A "THINGS" LAYER

APPLICATION	Scripts that define thing behavior in terms of their properties, actions and events, using APIs for control of sensor and actuator hardware.
THINGS (14.0 Components)	Software objects that hold their state. Abstract thing to thing messages. Semantics and Metadata, Data models and Data.
TRANSFER	Bindings of abstract messages to mechanisms provided by each protocol, including choice of communication pattern, e.g. pull, push, pub-sub, peer to peer...
TRANSPORT	REST based protocols, e.g. HTTP, CoAP. Pub-Sub protocols, e.g. MQTT, XMPP. Others, including non IP transports, e.g. Bluetooth.
NETWORK	Underlying communication technology with support for exchange of simple messages (packets).

FROM THE WEB OF PAGES TO THE WEB OF THINGS!

W3C is simplifying application development through a platform of platforms that integrates existing standards to reduce costs and enable open markets of services. We are bringing people together to work on the challenges posed by discovery, composition and monetization of services, along with security, privacy and resilience in the face of faults and cyber attacks. Don't get stuck in a technology silo — use the power of the Web to free up your choices and maximize your chances of success!

**YOUR TECHNICAL STAFF
WILL BENEFIT FROM IN
DEPTH DISCUSSIONS
WITH OTHER PEOPLE
FROM A BROAD RANGE
OF STAKEHOLDERS AND
FROM BEING AT THE
FOREFRONT OF THE NEXT
BIG WAVE FOR THE WEB!**

You can help define the WoT standards – vocabularies, APIs and protocol bindings, security, privacy and resilience, enablers for dynamic open markets of services including discovery, automated negotiation of prices, terms and conditions, provisioning, payments and support throughout the product lifecycle from design to obsolescence. We want to encourage re-use of vocabularies for service descriptions as basis for discovery, and for data representations as a basis for interoperability.

W3C is preparing the way with work on use cases, and requirements, technology landscape studies, an emphasis on implementation experience, and ultimately developing open Web standards around IOT service platforms, security, privacy, and integration with the Web of data for a Web of services.

**BE A PART OF
THE CONVERSATION
JOIN W3C**

Help shape the Web and picture new ways your business can be transformed.
Membership open to any size organization.
Contact us for more information at w3.org/join.

**SHAPE
THE WEB**



**JOIN
OUR TEAM**

MADE BY THE WORLD WIDE WEB CONSORTIUM

