



JOIN THE W3C IN ORGANIZING THE WEB OF THINGS (WOT)!

The Internet of Things is the topic on every technology company's mind, and 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.

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, organizing strategies and developing technologies in a known and trusted environment with experience in open Web standards, semantics and metadata. The W3C is a natural fit for these evolving technologies, and we'd like to ask for your help by joining us in building out the WOT.

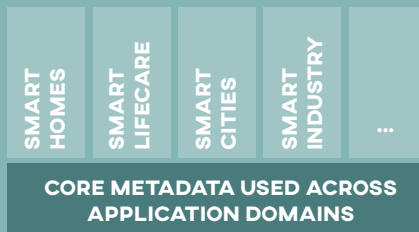


TIME TO ORGANIZE THE WEB OF THINGS

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

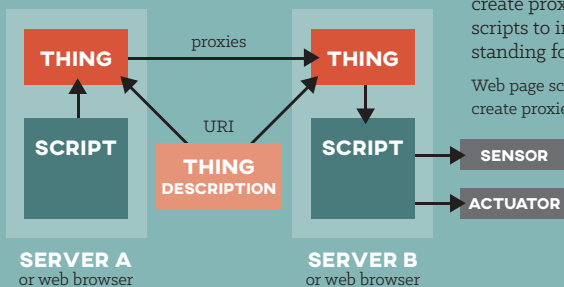
HORIZONTAL AND VERTICAL METADATA

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



W3C is unique in tackling the Internet of Things from the perspective of application developers, with an approach that frees you from the complexities of the protocols and communication patterns — these can be chosen to match the specific needs for each context.

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.

Smart environmental control with energy savings in the home and reduced peak demand on the grid, wearables, assisted living and home-based healthcare, guidance to nearby parking spaces in smart cities, richer engagement with customers through proactive maintenance and software based product enhancements, increased flexibility and reduced costs for manufacturing bespoke products tailored to each customer's unique needs, with a speed up for design to delivery, and integration along the value chain.

BENEFIT FROM REDUCED COSTS AND INCREASED MARKET SIZE THROUGH OPEN WEB TECHNOLOGY STANDARDS AS A MEANS TO COUNTER FRAGMENTATION AND REALIZE THE 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).

HELP W3C EXTEND THE WEB FROM THE WEB OF PAGES TO THE WEB OF THINGS!

Our approach defines open web technology standards for a platform of platforms making it easy to build services that span devices from microcontrollers to cloud-based server farms, for services that span platforms from different vendors and different technology standards, and for services that bridge domains for exciting new applications.

We're combining a simple approach to scripting things (physical or abstract entities) as software objects with properties, actions and methods, together with rich models for semantics and metadata, based upon W3C proven strengths with the Resource Description Framework and a suite of associated standards.

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!

We're looking for help with defining standard vocabularies, APIs and protocol bindings, security, privacy and resilience, along with 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. The Web of Things Interest Group is preparing the way with work on use cases, and requirements, technology landscape studies, an emphasis on implementation experience, and preparations for chartering a Working Group to take this forward along the W3C Recommendations track.

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 atw3.org/join.

SHAPE THE WEB



JOIN OUR TEAM

MADE BY THE WORLD WIDE WEB CONSORTIUM

