Web das Coisas

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Brasil


ceweb.br


cgi.br
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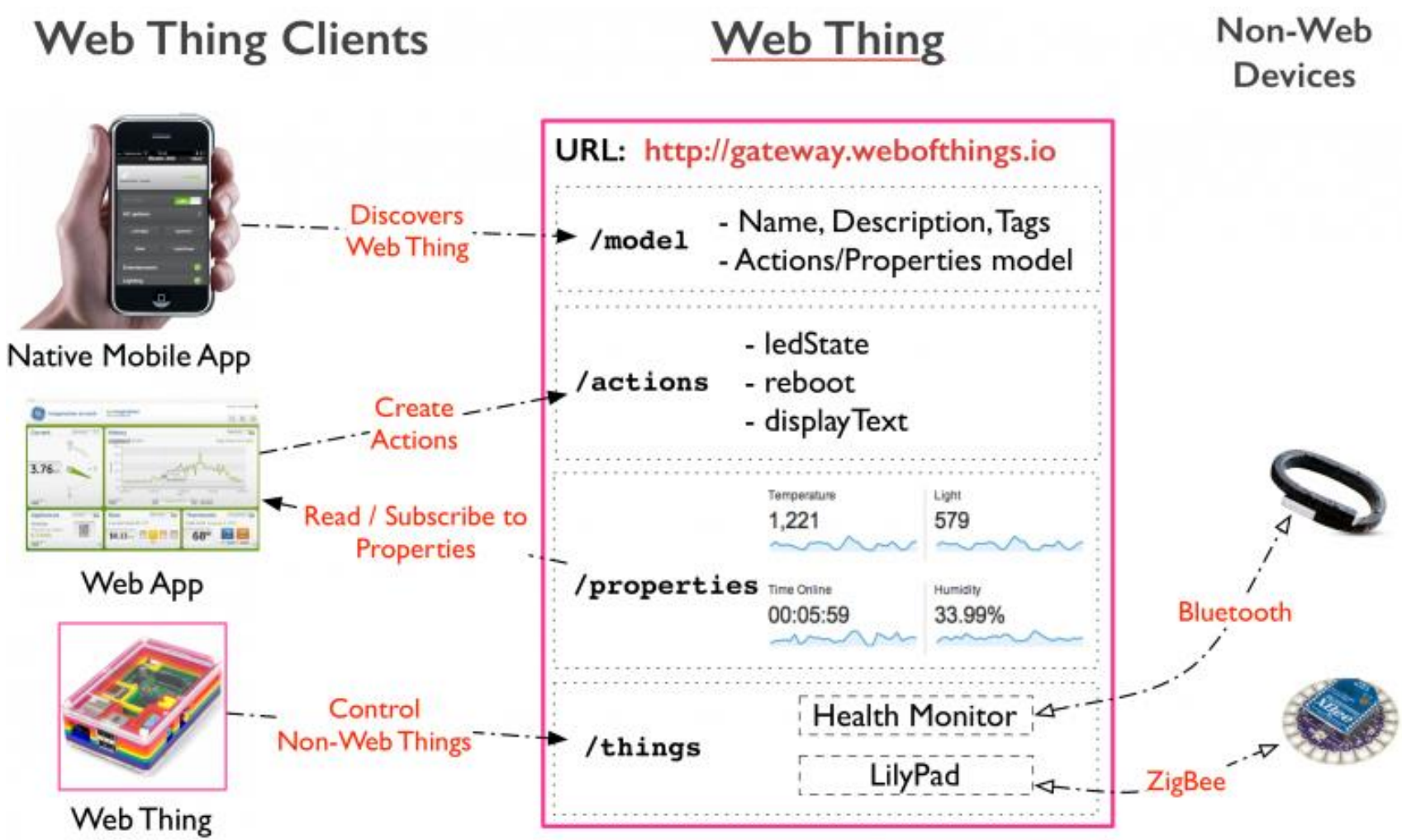
Web das Coisas

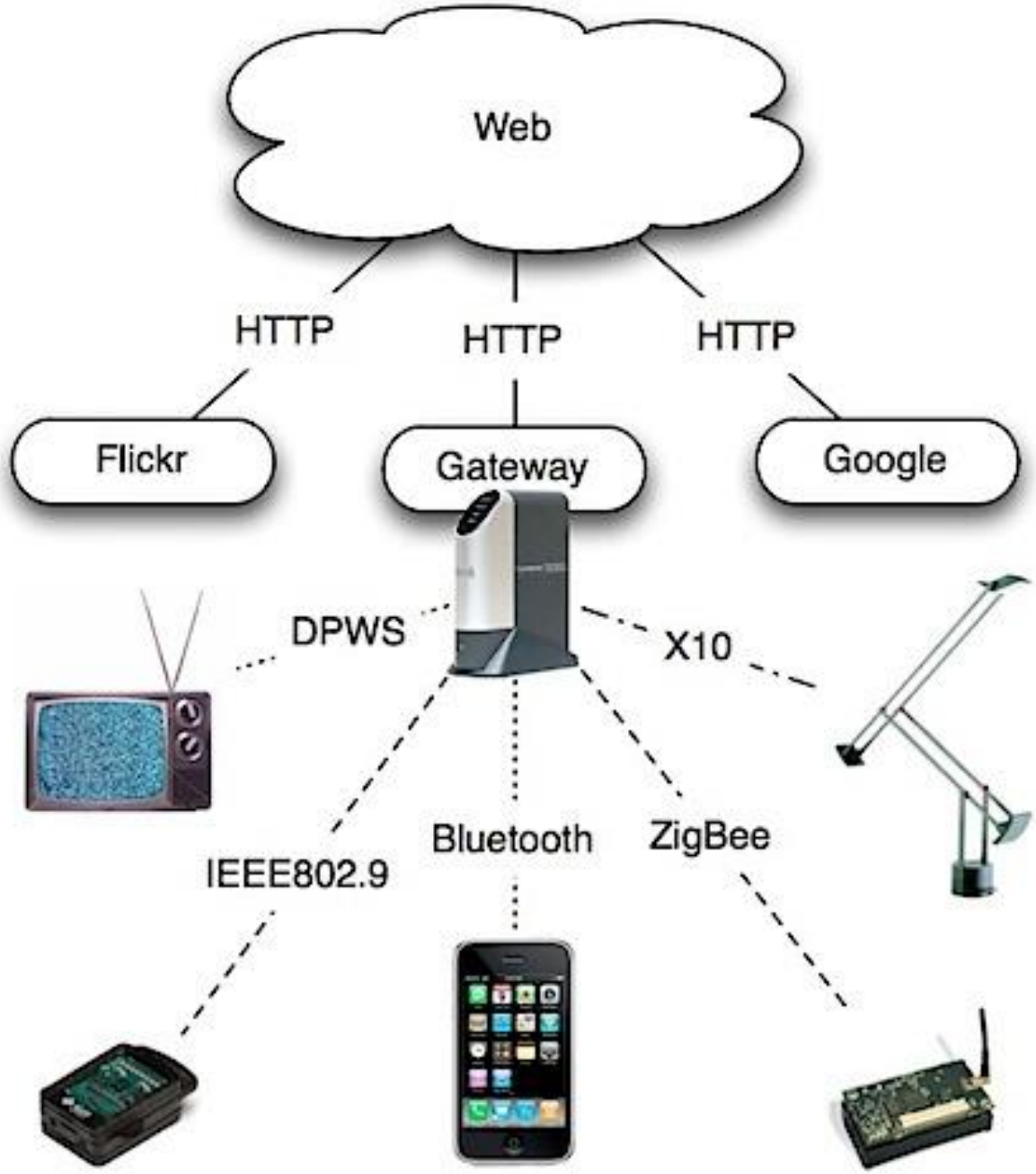
“Interoperability is critical”

Mike Bell, head of wearables at Intel

A **Web das Coisas** é essencialmente sobre o papel das tecnologias da Web para **facilitar o desenvolvimento** de aplicações e serviços para as coisas e sua **representação virtual**



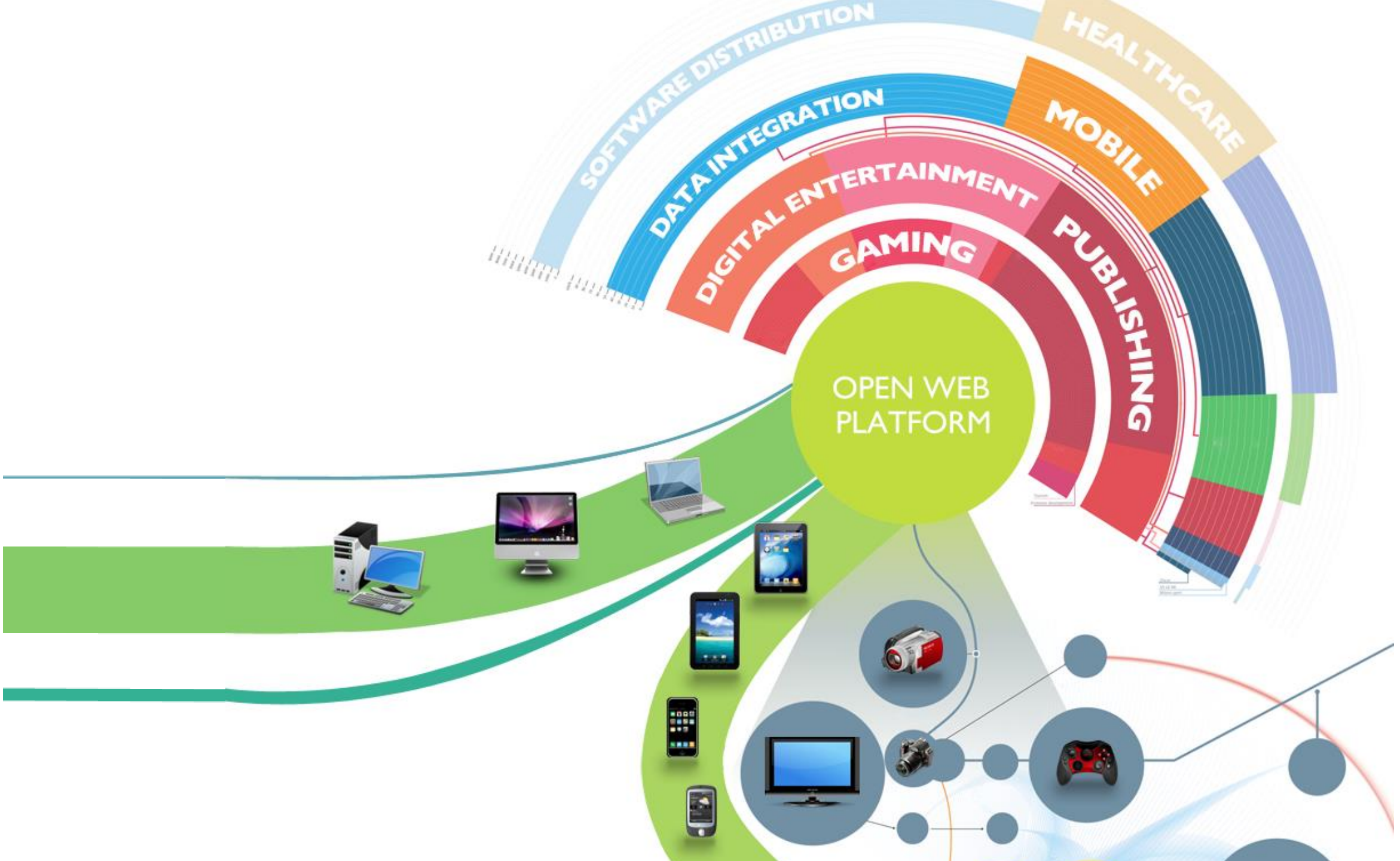
Source: Building the Web of Things: book.webofthings.io
Creative Commons Attribution 4.0


Web
HTTP
HTTP
HTTP
Flickr
Gateway
Google
DPWS
X10
IEEE802.9
Bluetooth
ZigBee

Camada de aplicação e serviços

“Quem quer dinheiro?”

Silvio Santos


SOFTWARE DISTRIBUTION
DATA INTEGRATION
DIGITAL ENTERTAINMENT
GAMING
PUBLISHING
MOBILE
HEALTHCARE
OPEN WEB PLATFORM

Padronização é a chave da Internet das Coisas

"The driver goal is with the developers."

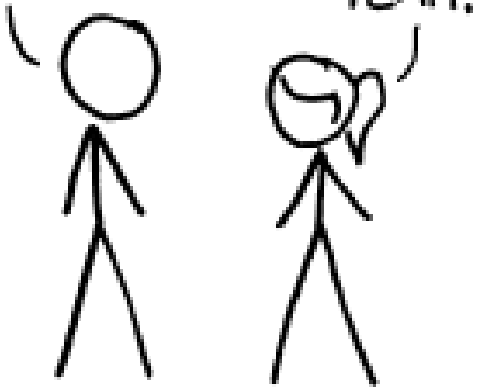
Maarten Ectors, Vice President Internet of Things at Canonical Ltd. / Ubuntu

HOW STANDARDS PROLIFERATE:

(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC.)

SITUATION:
THERE ARE
14 COMPETING
STANDARDS.

14?! RIDICULOUS!
WE NEED TO DEVELOP
ONE UNIVERSAL STANDARD
THAT COVERS EVERYONE'S
USE CASES.



SOON:

SITUATION:
THERE ARE
15 COMPETING
STANDARDS.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W3C Recommendation

Web of Things (WoT) Thing Description

W3C Recommendation 9 April 2020

This version:
https://www.w3.org/TR/2020/REC-wot-thing-description-20200409/

Latest published version:
https://www.w3.org/TR/wot-thing-description/

Latest editor's draft:
https://w3c.github.io/wot-thing-description/

Implementation report:
https://w3c.github.io/wot-thing-description/testing/report.html

Previous version:
https://www.w3.org/TR/2020/PR-wot-thing-description-20200130/

Editors:

Sebastian Kaebisch (Siemens AG)
Takuki Kamiya (Fujitsu Laboratories of America)
Michael McCool (Intel)
Victor Charpenay (Siemens AG)
Matthias Kovatsch (Huawei)

A Thing Description descreve os metadados e as interfaces das Coisas, onde uma “coisa” é uma abstração de uma entidade física ou virtual que fornece interações para a Web das Coisas.

```
{
    "@context": "https://www.w3.org/2019/wot/td/v1",
    "id": "urn:dev:ops:32473-WoTLamp-1234",
    "title": "MyLampThing",
    "securityDefinitions": {
        "basic_sc": {"scheme": "basic", "in":"header"}
    },
    "security": ["basic_sc"],
    "properties": {
        "status" : {
            "type": "string",
            "forms": [{"href": "https://mylamp.example.com/status"}]
        }
    },
    "actions": {
        "toggle" : {
            "forms": [{"href": "https://mylamp.example.com/toggle"}]
        }
    },
    "events":{
        "overheating":{
            "data": {"type": "string"},
            "forms": [{
                "href": "https://mylamp.example.com/oh",
                "subprotocol": "longpoll"
            }]
```

W3C Recommendation

Web of Things (WoT) Architecture

W3C Recommendation 9 April 2020

This version:

https://www.w3.org/TR/2020/REC-wot-architecture-20200409/

Latest published version:

https://www.w3.org/TR/wot-architecture/

Latest editor's draft:

https://w3c.github.io/wot-architecture/

Implementation report:

https://w3c.github.io/wot-thing-description/testing/report.html

Previous version:

https://www.w3.org/TR/2020/PR-wot-architecture-20200130/

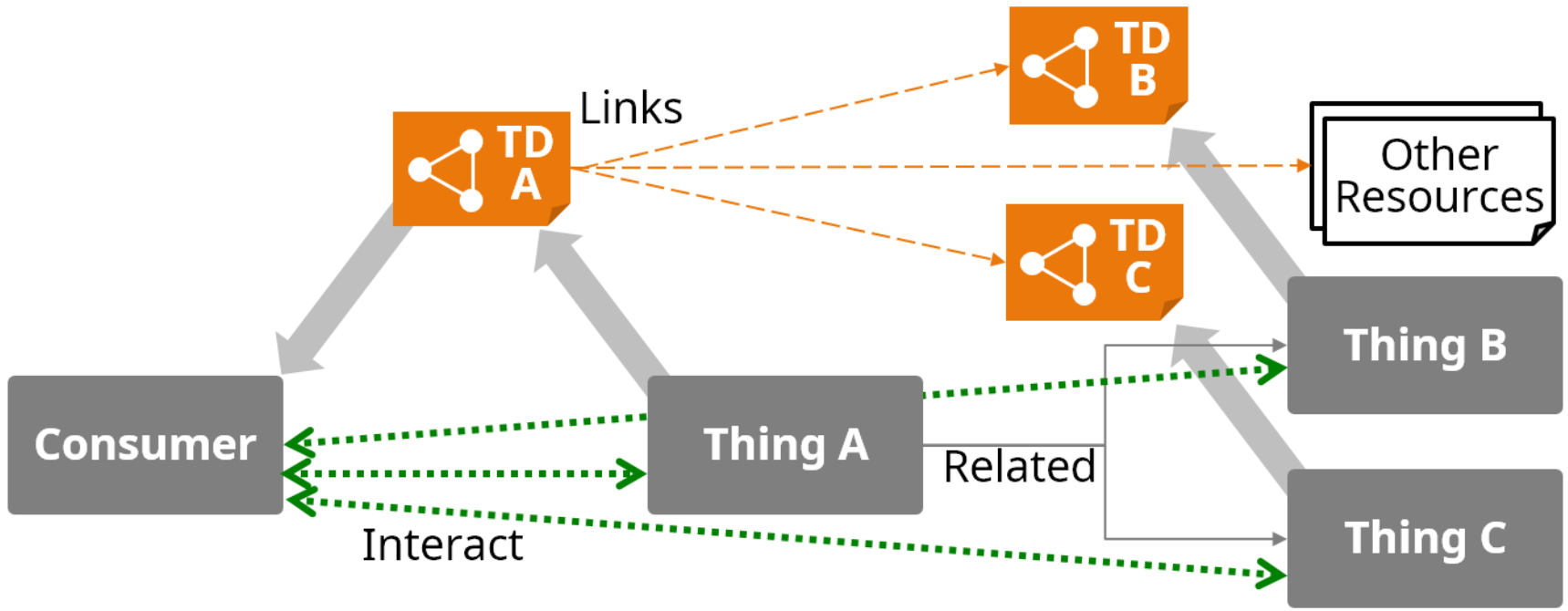
Editors:

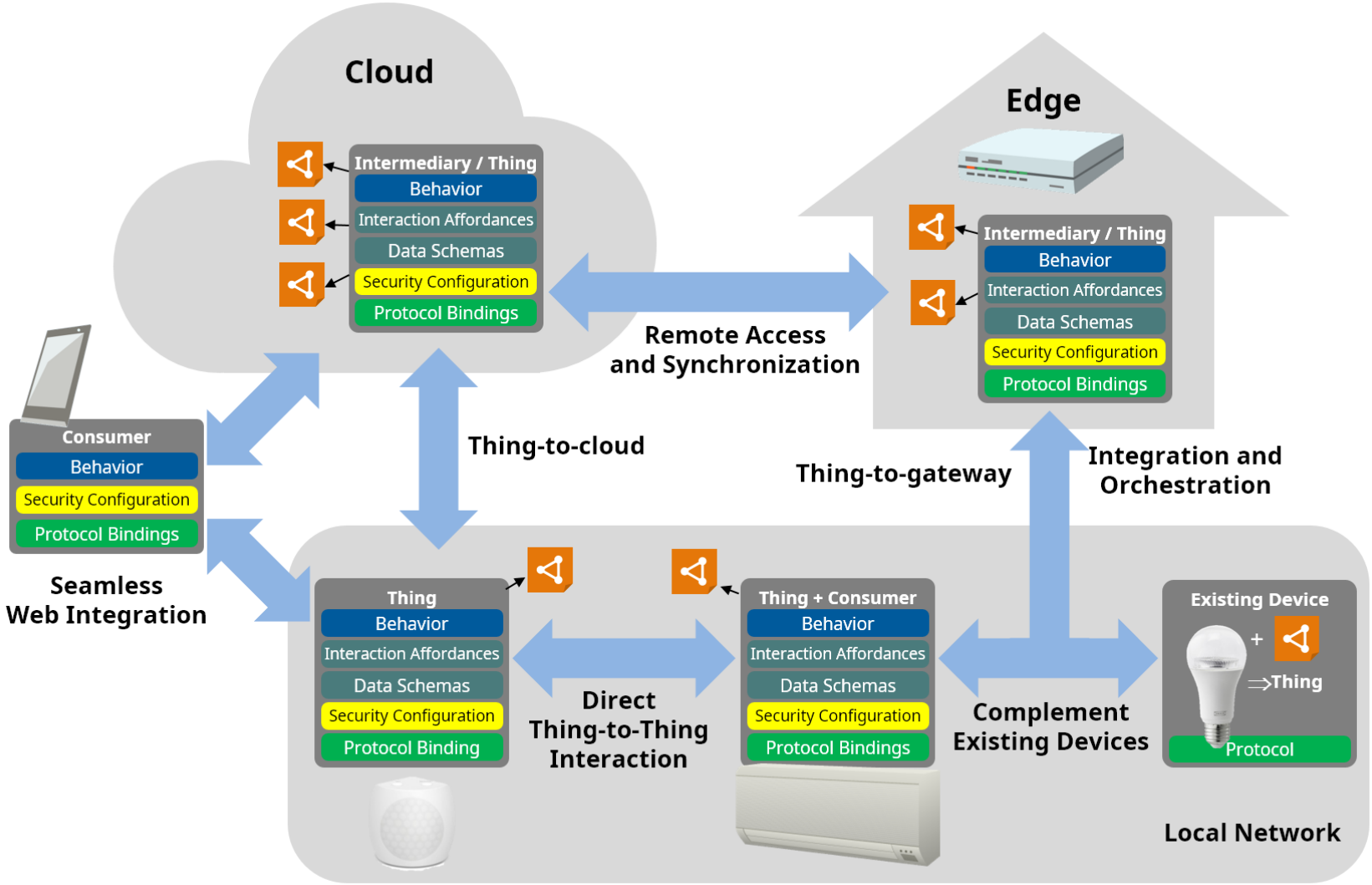
Matthias Kovatsch (Huawei)

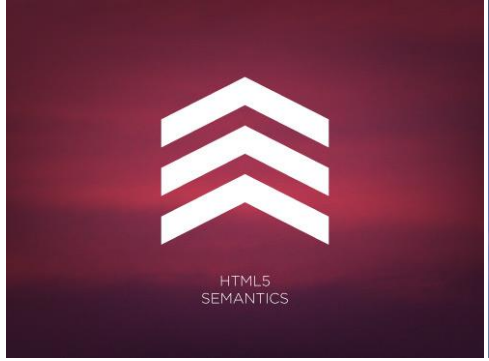
Ryuichi Matsukura (Fujitsu Ltd.)

Web of Things Architeture descreve uma arquitetura abstrata para as coisas conectadas


Process
WoT Thing Description
Describe
Consumer
Thing
Interact


TD
B
Links
TD
A
Other
Resources
TD
C
Thing B
Consumer
Thing A
Related
Thing C
Interact


Cloud
Intermediary / Thing
Behavior
Interaction Affordances
Data Schemas
Security Configuration
Protocol Bindings
Edge
Intermediary / Thing
Behavior
Interaction Affordances
Data Schemas
Security Configuration
Protocol Bindings
Remote Access
and Synchronization
Consumer
Behavior
Security Configuration
Protocol Bindings
Thing-to-cloud
Thing-to-gateway
Integration and
Orchestration
Seamless
Web Integration
Thing
Behavior
Interaction Affordances
Data Schemas
Security Configuration
Protocol Binding
Direct
Thing-to-Thing
Interaction
Thing + Consumer
Behavior
Interaction Affordances
Data Schemas
Security Configuration
Protocol Bindings
Complement
Existing Devices
Existing Device
+
⇒Thing
Protocol
Local Network



HTML

One Web W3C *for All*

reddit

Search

23.6k | We are the SpaceX software team, ask us anything! SpaceX AMA

spacexfsw Official SpaceX 101 points · 2 months ago

The Crew Displays onboard Dragon runs Chromium with HTML, Javascript & CSS. We don't use LESS. - Sofian

We follow an agile process, we have high bar for unit test coverage and we have integration tests that runs with and without flight hardware. We also take a lot of pride in manually verifying and documenting our new features to make sure they work as intended and we have no regression. - Sofian

We use Web Components extensively. - Sofian

We use a reactive programming library that we developed in house. - Sofian

Different team members uses different editors, I use VSCode but I might be just a little bit biased :) - Sofian

I will have to get back but overall code is our craft here and we make sure it's clean and tidy. I wouldn't expect something too outrageous. Fair warning, we have linters on everything. - Sofian

SEMANTIC WEB

- Vertical Applications
- Inference
- Query
- Ontologies
- Data

LINKED DATA

On this page → what is linked data • what is linked data used for • examples • learn more • current status of specifications and groups

What is Linked Data?

The Semantic Web is a Web of Data — of dates and titles and part numbers and chemical properties and any other data one might conceive of. The collection of Semantic Web technologies (RDF, OWL, SKOS, SPARQL, etc.) provides an environment where application can query that data, draw inferences using vocabularies, etc.

However, to make the Web of Data a reality, it is important to have the huge amount of data on the Web available in a standard format, reachable and manageable by Semantic Web tools. Furthermore, not only does the Semantic Web need access to data, but *relationships among data*

http://www.w3.org/standards/semanticweb/data

To achieve and create Linked Data, technologies should be available for a common format (RDF), to make either conversion or on-the-fly access to existing databases (relational, XML, HTML, etc). It is also important to be able to setup query endpoints to access that data more conveniently. W3C provides a palette of technologies (RDF, GRDDL, POWDER, RDFa, the upcoming R2RML, RIF,

CURRENT STATUS

- RDF
- RDF Best Practices
- RDFa
- RDF Relationship to C Formats
- POWDER
- Semantic Annotation f WSDL and XML Schem
- Provenance

PRIVACY ACTIVITY

PRIVACY INTEREST GROUP (PING)

- Charter
- Join the group
- Participants
- public-privacy mailing list
- Wiki
- Issue & Action

The evolution of Web technologies has increased collection, processing and publication of personal data. Privacy concerns are raised more often as applications built on the Web platform have access to more sensitive data — including location, health and social network information — and users' activity on the Web is ubiquitously tracked. The W3C Privacy Activity coordinates standardization work to improve support for user privacy on the Web and develops general expertise in privacy-by-design for Web standards.

Privacy Interest Group

The group monitors ongoing privacy issues that affect the Web, investigates potential areas for

http://www.w3.org/Privacy/

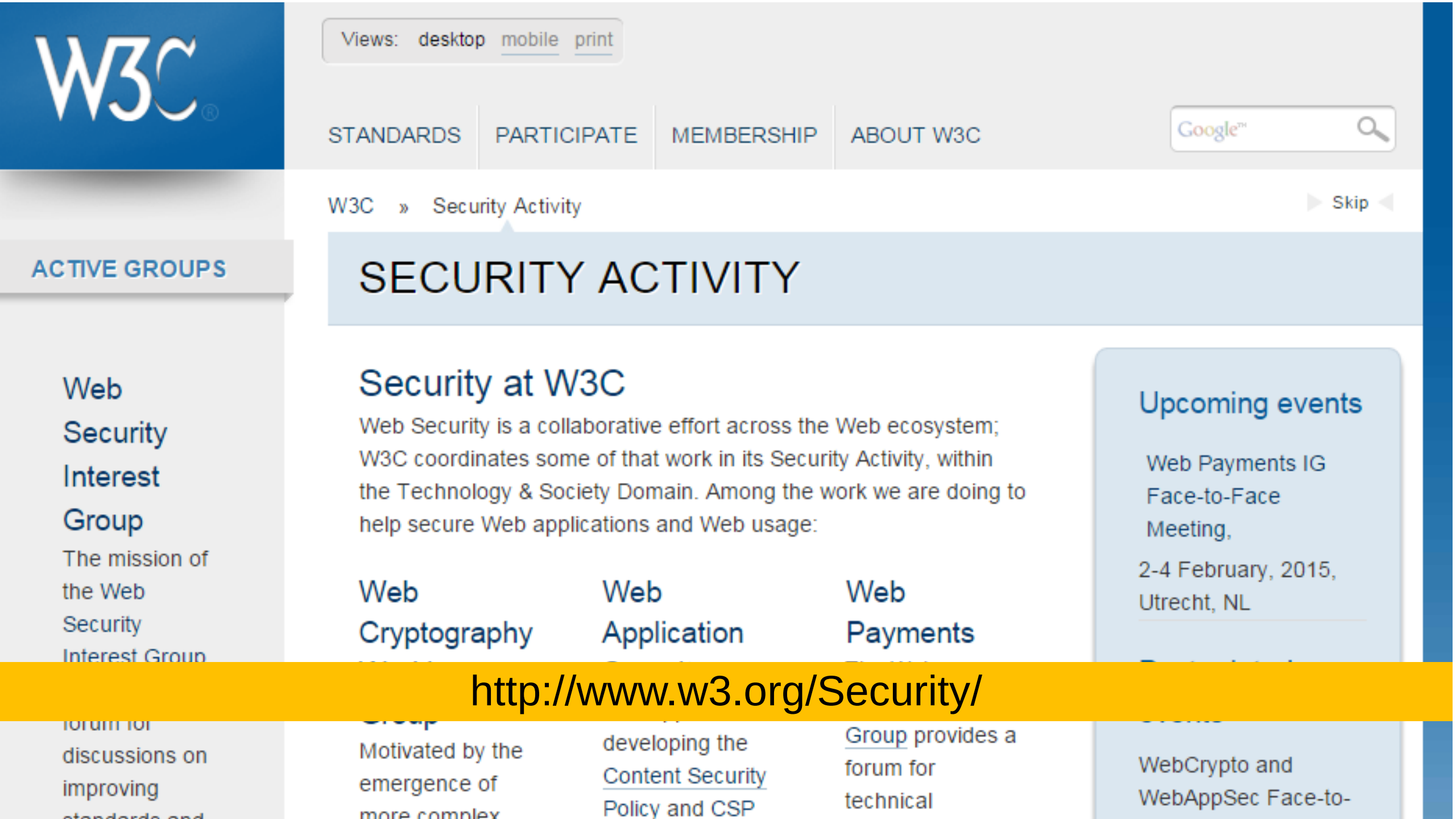
advice for addressing privacy in standards development.

Christine Runnegar (Internet Society) and Tara

Tracking Protection Working Group

- Tracking Preference Expression (DNT)
- Tracking Compliance and Scope

DOCUMENTS


Views: desktop mobile print
STANDARDS
PARTICIPATE
MEMBERSHIP
ABOUT W3C
Google
W3C » Security Activity
Skip
ACTIVE GROUPS
SECURITY ACTIVITY
Security at W3C
Web Security is a collaborative effort across the Web ecosystem; W3C coordinates some of that work in its Security Activity, within the Technology & Society Domain. Among the work we are doing to help secure Web applications and Web usage:
Web Cryptography
Web Application
Web Payments
Upcoming events
Web Payments IG Face-to-Face Meeting,
2-4 February, 2015, Utrecht, NL
Web Security Interest Group
The mission of the Web Security Interest Group
Motivated by the emergence of
developing the Content Security Policy and CSP
Group provides a forum for technical
WebCrypto and WebAppSec Face-to-
forum for discussions on improving
http://www.w3.org/Security/

W3C Home

Web Accessibility Initiative (WAI) Home
Getting Started
Designing for Inclusion
Guidelines & Techniques
Planning & Implementing
Evaluating Accessibility
Tutorials and Presentations
Getting Involved with WAI

Discover new resources *for people with disabilities, policy makers, managers, and you!*

Translations

"The power of the Web is in its

Web Accessibility Initiative (WAI)

Highlights

Updated: Tutorials on Web Accessibility

Web Accessibility Tutorials on Menus, Page Structure, Forms, Images, Tables, and Carousels have been updated. These tutorials show you how to create web content that is accessible to people with disabilities and that improves the user experience for all users. They include general guidance, and specific examples for HTML5 and WAI-ARIA. (2017-Apr-18)

WCAG 2.1 Working Draft - April 2017

Web Content Accessibility Guidelines (WCAG) 2.1 Working Draft is updated. This draft includes only the success criteria that have been formally accepted by the Working Group, and not the "proposed" success criteria that were in the previous draft. The Working Group has not addressed all comments yet; they are in queue for upcoming work. We plan to publish updated drafts monthly, to encourage timely review of the success criteria that the Working Group has approved. More information is in the WCAG 2.1 April 2017 announcement and WCAG 2.1 status. Please comment by **9 May 2017**. (2017-Apr-19)

Accessibility Conformance Testing (ACT) Rules Format 1.0 has been

WAI develops...
- guidelines widely regarded as the international standard for Web accessibility
- support materials to help understand and implement Web accessibility
- resources, through international collaboration

WAI welcomes...
- participation from around the world
- volunteers to review, implement, and promote guidelines
- dedicated participants in working groups

Announcements

- Open position: Web Accessibility Engineer (China)
- Get WAI Announcements

Events, Meetings, Presentations

- At AccessU in Austin, TX, USA in May 2017
  - Catching Up with Accessibility: Beginner's Basics with Shawn

Necessary) with Shawn

- The WAI to Web Accessibility: An

http://www.w3.org/WAI/

AUTOMOTIVE WORKING GROUP

GROUP DETAILS

Charter
Mailing List
Blog
Wiki
Group Participants
Royalty-Free Patent Policy
Join This Group

SPECIFICATIONS

LATEST EDITOR'S DRAFTS

Vehicle Information Access API

GITHUB REPOSITORY

GitHub
Issues

As shown in the Charter, the mission of the Automotive Working Group is to develop Open Web Platform specifications for HTML5/JavaScript application developers enabling Web connectivity through in-vehicle infotainment systems and vehicle data access protocols. The API is agnostic with regard to the connection used.

This group works in public. A detailed list of the specifications being developed by the group are listed in the Automotive Wiki. The latest Editor's Drafts of the working group's specifications are available on GitHub.

The W3C Team Contacts for the Automotive Working Group are Kaz Ashimura and Ted Guild. The co-Chairs of the Working Group are Paul Boyes, Rudolf Streif and Peter Winzell.

Meetings

- See the Automotive Wiki for the past and upcoming meetings.

Related Group

The Automotive and Web Platform Business Group provides draft input to the standards process for this Working Group. For example, the Business Group produced an early draft of the Vehicle Information Access API and the Vehicle Data that were used as starting points for this Working Group's formal standards work. See also the Wiki page of the Business Group.

http://www.w3.org/auto/wg/

- Mailing List: public-automotive@w3.org
- Wiki: Automotive Wiki
- Blog: Automotive Blog
- Automotive Landing Page: Automotive and Web at W3C

W3C Community and Business Groups

Search blogs

CURRENT GROUPS REPORTS ABOUT

Mailing List

Chat

RSS

Contact This Group

Web Bluetooth Community Group

Bluetooth is a standard for short-range wireless communication between devices. This group is developing a specification for Bluetooth APIs to allow websites to communicate with devices in a secure and privacy-preserving way.

In particular the web Bluetooth API focuses on minimizing the device attack surface exposed to malicious websites, possibly by removing access to some existing Bluetooth features that are hard to implement securely. Further, the API takes the approach of a user interface to select and approve access to devices as opposed to using certification and installation.

No reports yet published. The Chair is responsible for publishing reports. More about publishing...

Get involved!

Anyone may join this Community Group. All participants in this group have signed the W3C Community Contributor License Agreement (CLA).

JOIN THIS GROUP

or learn how to join or request an account.

Although W3C hosts these conversations, the groups do not necessarily represent the views of the W3C Membership or staff.

http://www.w3.org/community/web-bluetooth/

Algumas iniciativas

“Do or do not. There is no try”

Yoda

CUSTOMER STORIES

RALPH LAUREN

WebThings


WebThings
An open platform for monitoring and controlling devices over the web
Learn More
75


Sistema posicionado em área onde a chuva afeta determinada região e conectado à previsão do tempo, pode prever quantidade de chuva e possibilidade de alagamentos.
Chuva na região dispara envio de alerta para moradores cadastrados em área de risco
Usuário recebe a notificação, que seguindo uma regra pré-definida, repassa o aviso a outras pessoas.
Rio
Alagamento
OH!
Pedestres
<<<<<<
Vizinhos
Amiga do Pedro
<<<<<<
Pedro
Sistema se conecta a serviços, para possibilitar alertas ou alterações do serviço

Obrigado

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