

**EcoG**



**EcoG**

**Disrupting domains since 1989,  
the Web hits EV charging**

# Outline

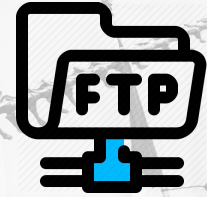
- Natural selection: Domain technology vanishes
- The dark future of IIoT: A forest of silos?
- Case Study: EV charging domain
- The promise of WoT
- Wrap-up

# The web disruption: Survival of the fittest

**GOPH**  
GOPHER PROTOCOL



**W@P** 2.0



**NNTP**

stands for

**Net News Transfer Protocol**



Microsoft®  
**Silverlight™**



**DEPRECATED**  
in JAVA 9

# Occam's razor of green field IT

If not bound by other factors,  
every new IT software project

will by default choose

- a **web frontend** as **user interface**

and

- a **REST API** as **B2B interface**.

# IIoT: a dark forest of silos?

- **Domain Silos**
  - OPC UA
  - Bacnet
  - IEC 61850
  - OCPP
- **Vendor platform silos**
  - gRPC
  - AWS IoT
  - IBM Bluemix

# EV Charging domain: OCPP



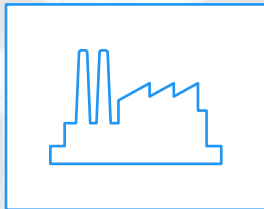
- current version 1.6J switches from SOAP to application-specific JSON-messages
- Several stations have a single connection to central of the charging operator
- Focus on Monitoring & Control
- 56 fixed Message types for interaction

# EV Charging domain: A Multi-stakeholder System

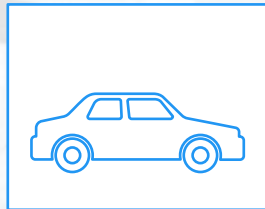
Charging  
Operator



Charging HW  
Manufacturer



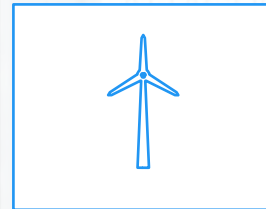
Auto-OEM



Site owner



Utility



Fleet



OCPP



# EV Charging domain: Promises of the Web

## seamless IT integration

single sign-on  
payment  
calenders  
maps

## In-Field connectivity

parking sensors  
cashier/POS  
the vehicle's IVI  
the user's mobile

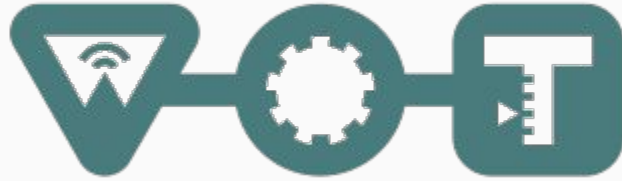
## Web ecosystem

75% of all developers  
are web developers

Rapid application  
development

the Long tail a.k.a  
the sum of niches





## **The Web of Things in IIoT:**

**It sprouts at the boundaries**

**but will evolve the core**

Backed by

next 47



SIEMENS

*Ingenuity for life*

Supported by Project  
Partners



NEXTENERGY



BOSCH  
Invented for life

# EcoG

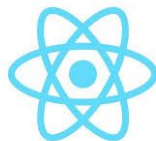
## Monetization Engine for EV Charging

[founders@ecog.io](mailto:founders@ecog.io)

# one more thing.. using React.js?

<https://www.npmjs.com/package/react-wot>

<https://github.com/EcoG-io/react-wot>



```
<WoTProvider>
  <ul>{ things.map(thing => <li key={thing.id}> { thing.title } </li>) }</ul>
  <Button onClick={this.loadThing()}>Load a thing</Button>
</WoTProvider>
```

```
loadThing = () => {
  const { WoT } = this.props;
  const res = await fetch('http://some.thing/td');
  const td = await res.text();
  const thing = WoT.consume(td);
  this.setState({things: [thing, this.state.things...]});
}
export default withWoT(App);
```