Yaler – a simple, open and scalable relay infrastructure

Thomas Amberg (tamberg@yaler.net)
Internet

Computers, connected through Internet protocols.

Display or manipulate documents.

Internet of Things

Computers, **sensors** and **actuators** connected through Internet protocols.

Measure or manipulate **physical properties**.

http://e-home.com/tamberg/kitchen/light
Web server, 2011

Gadgeteer NETMF ARM STM32 w/ Ethernet, Oberon microsystems & CSA Engineering
Access and control

https://my-device/resource
Access(!) and control

https://my-device/resource
IPv4: devices are 2nd class citizens

https://????????????
Relay!

https://yaler.net/my-device
Scalability
Availability
Yaler

A simple, open and scalable relay infrastructure.

Prototype in a week-end (2008), version 1.0 after two years (2010), high availability plus one year (2011).
Customers use Yaler for

Remote configuration of medical devices.

Access to wireless sensor networks used for structural monitoring.

Generic protocol tunneling.
What we learned

Web-enabling a product means the product now represents a service.

“Buy Once, Read Everywhere”

http://amzn.com/kindle
What we learned

Adding an Internet connection to a product **can be disruptive** for the company producing it.

Providing **reliable access** is hard - service hosting is often not a core competence.
What we learned

No connection = does not work.

Users judge the end-to-end experience.

“Ford’s quality ranked 23rd (2010: 5th) due to bad user interface of in-car-entertainment system.”

Quote based on NYTimes Wheels Blog article http://goo.gl/2wzXq
Yaler GmbH

To help our customers provide a service that **just works**.

From the first field trial to the deployed product.

Easy-to-integrate, minimal requirements.
Yaler GmbH

Providing Yaler as a **cloud-hosted**, pay-per-use **service** with premium **enterprise** support.

2\textsuperscript{nd} spin-off of Oberon microsystems.

Bootstrapped company.
More info at http://yaler.net/

Thanks for your time.