Bringing Context to the Internet of Things

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IoT in (Future) Homes

- Weather Predictions
- Energy Tariffs
- Usage Predictions
- External Life

- Blinds
- Weather
- Lights
- Household Appliances
- Hot Water
- Heating
- Ventilation
- Energy Production
- Fire Alarm
- Burglar Alarm
- Electric Vehicle

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IoT Communication Tech.

ZigBee
Z-wave
enOcean
wifi
6LoWPan
1-wire
Bluetooth
ANT
SOAP
REST/JSON
Proprietary
Goals

- Weather Predictions
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- Energy Production
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- Burglar Alarm
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- Ventilation
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- Heating
Context Manager

Web Services and Apps

triggers
- get
- set
- find
- locate

model

schema

noSQL cluster

Context Manager

conduits
- cosm
- twitter
- remote context
- Google calendar
- UPnP

remote context

UPnP

Google calendar

Twitter

cosm

UPnP

remote context
Heating & (inner) climate
Electricity & Energy
Ambient Interfaces
Paris Demo
Open Source

- Embeddable Web Server
  - REST
  - WebSockets
- WebSockets
- UPnP
- Tcl event library
- Web aware application startup framework
- "make" system, incl. binaries
- Templating system
- Tk-style 8.4 object support

http://code.google.com/p/efr-tools/
7.6-8.6=15 yrs of Tcl'ing

Thank You!

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