Arrowhead Framework Coordination telco

Supported by Productive4.0, FAR-EDGE, and other projects

ARROWHEAD

Agenda

1) Update from WP1 workshop in Porto

2) Mandatory core systems
ServiceRegistry
Authorisation
Orchestration
Open issues

3) Core systems
PlantDescription
Configuration
SystemRegistry
DeviceRegistry
Translation
QoS
Eventhandler
Historian

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Agenda

4) New core service proposals

5) AoB

Porto WS

Porto P4.0 architecture WS

40 people joined in Porto

Thanks to Luis Ferreira and Michele Albano for the arrangements and hospitality

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Porto P4.0 architecture WS

Requirements on the architecture, Oystein Haugen

Current status, Jerker

Breakouts

Mandatory core systems, Pal and Jerker
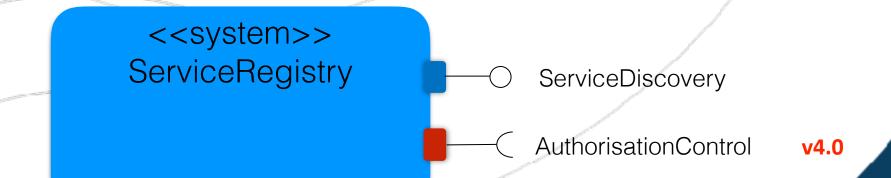
Support core services, Fredrik and Hasan

Standardisation, Pal

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ServiceRegistry v4.0
Proposal

ServiceRegistry system v4.0

<<system>>
ServiceRegistry

○ ServiceDiscovery

AuthorisationControl **v4.0**

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Service registry integrity

- Functionality for testing service availability

v4.0 - Requirement for systems to re-register it's services after time intervals?

v4.0 - Procedure to testing service availability. How?

- Functionality for de-registration of non-available services

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Supported protocols, encodings and semantics

- Semantics and encoding according to DNS and DNS-SD standards

- Protocol
  - v3.0
    - Direct DNS, DNS-SD interaction through BIND
    - REST, CoAP
  - V4.0
    - REST + Translation
      or
    - REST, MQTT, CoAP, XMPP, uPnP, ……

v4.0

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SysD doc

Draft in Arrowhead Framework wiki

Release candidate ServiceRegistry SysD 4.0 ready by next week.

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Consolidation of „Sos-configuration-like" tasks within Arrowhead core systems

	When	What	How
Orchestration	-Deployment time (hard-wired) - run-time (static) -Run-time (dynamic)	Matchmaking: **Service** producers and consumers & **SoS**	-Hardwired -Store-based -Local Service Discovery -Global Service Discovery
Configuration	-Deployment time (initial) -Run-time (re-configuration)	**Device**	-Manual -Human Supervision -Automatic
Plant Description	-Deployment time (static) -Run-time (dynamic)	**SoS & System (?)** Feed the Orchestrator-rules „Trigger" push orchestration	- Storing and maintaining Plant Description Data

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AoB

Productive4.0 WS June 2018 in Luleå

The food is in preparation