IOT BZH

AGL framework WIP April 2017

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AUTOMOTIVE GRADE LINUX

Main goals for ALS 2017

DONE! Integration with Systemd

Almost done Automatic connection to service and API

Work in Progress Identity agent

Work in Progress OpenId connect service

✔ Bugs !

IOT BZH

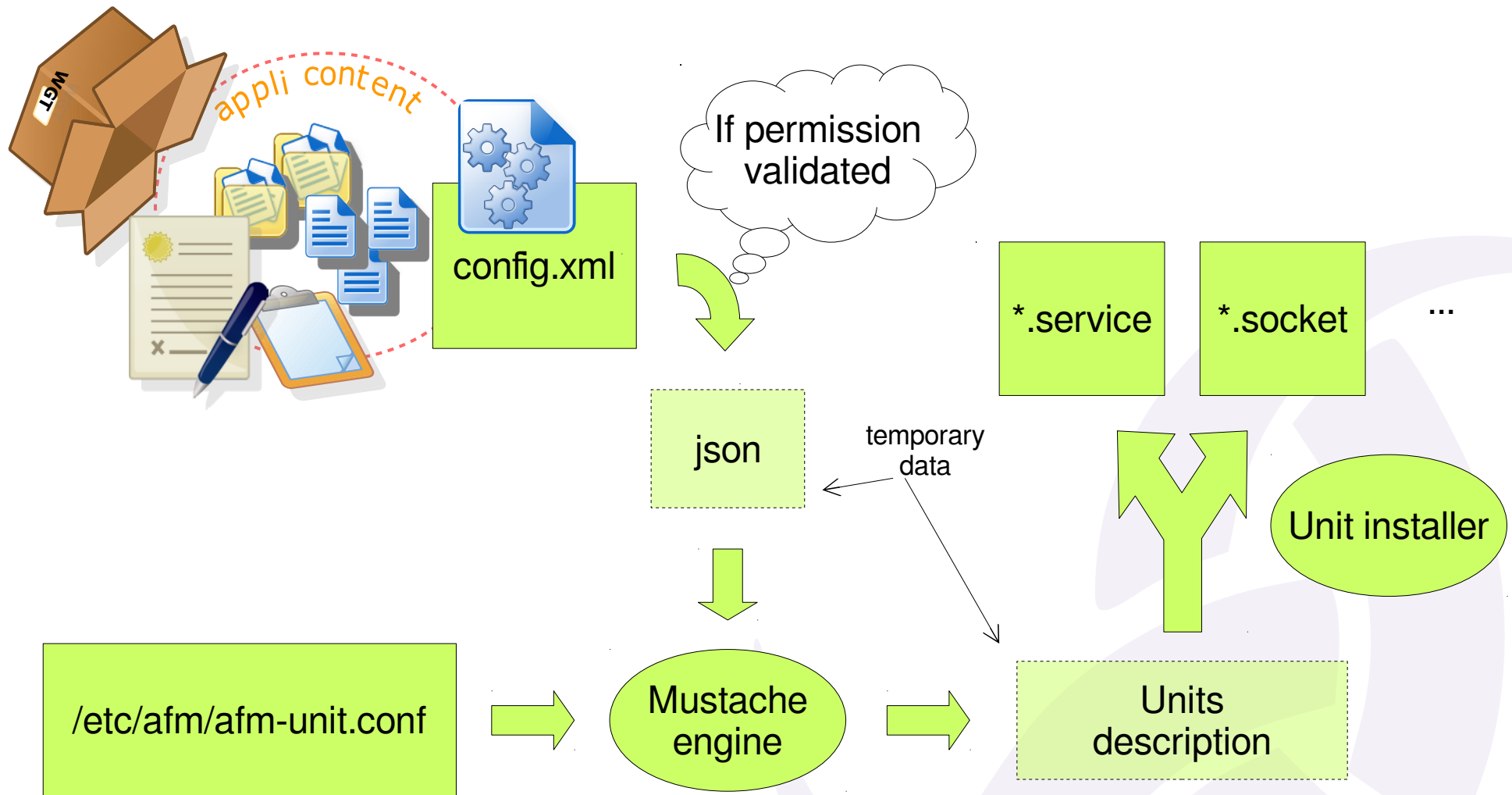# Recent work

Integration with systemd

- Brings systemd functionnalities:
  - Socket-based Services Activation
  - CGroups / Namespaces for apps
  - … and any upcoming enhancement in systemd
- Automatic start of services / apps
- Automatic connection of clients to services
- Composition of services coming from different packages

Integration with systemd

appli content

config.xml

If permission validated

*.service   *.socket   ...

json

temporary data

Unit installer

/etc/afm/afm-unit.conf → Mustache engine → Units description

Definition of permissions

```
urn:AGL:permission:<api>:<level>:<hierarchical-name>
```

The API providing
(requiring) the permission.

One of the values:
- system
- platform
- partner
- *publisher*
- *owner*
- public

Colon separated
names possibly
defining hierarchies of
permissions

Advantage: self declaration of api, level and scoping.

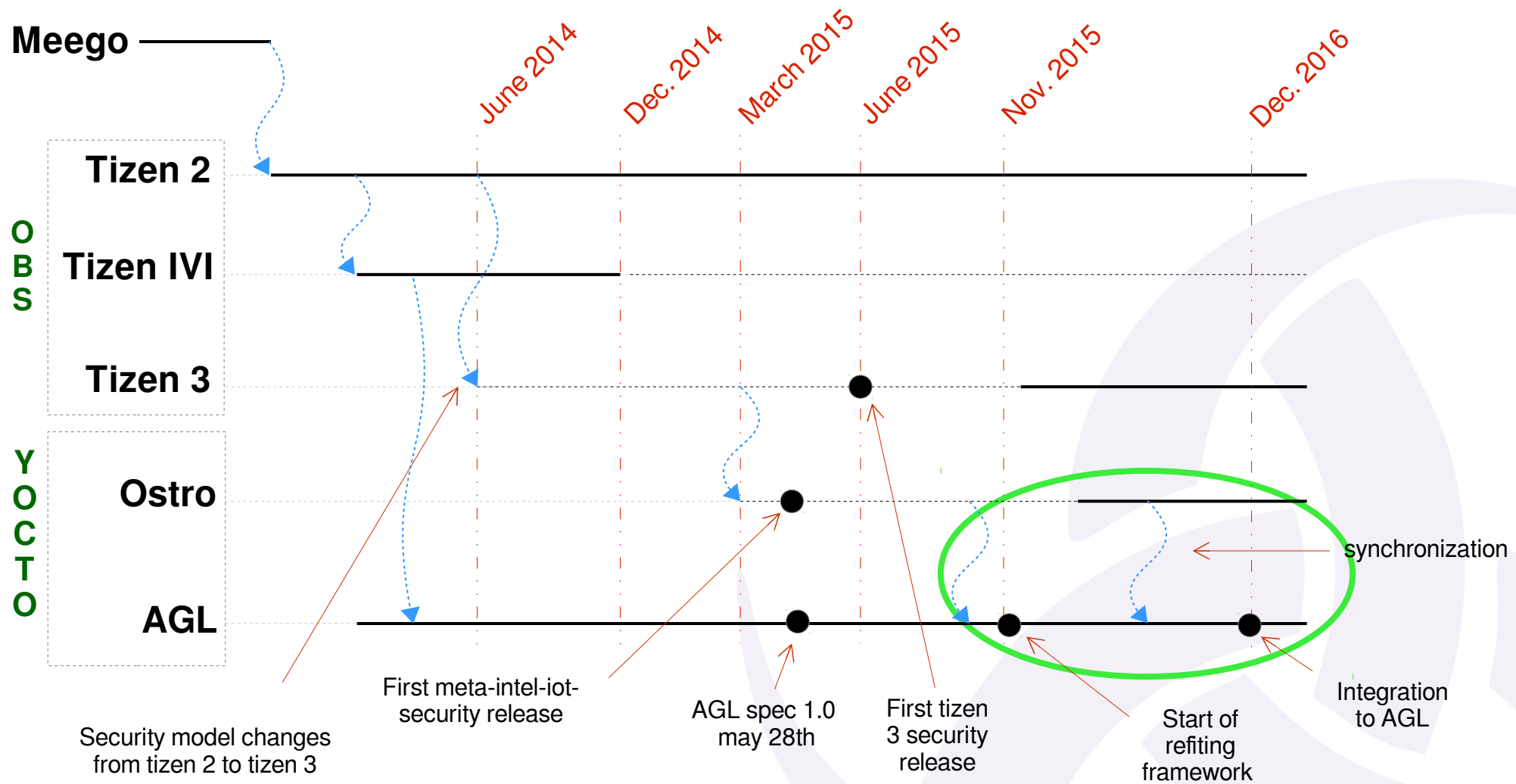Note that other schemes can be defined for being used together with this one.

Examples:
- `urn:AGL:permission::platform:no-oom`
- `urn:AGL:permission:lowcan:system:read,write`

Ongoing work

History of the security model

Meego

Tizen 2

Tizen IVI

Tizen 3

Ostro

AGL

O B S

Y O C T O

June 2014
Dec. 2014
March 2015
June 2015
Nov. 2015
Dec. 2016

Security model changes from tizen 2 to tizen 3

First meta-intel-iot-security release

AGL spec 1.0 may 28th

First tizen 3 security release

Start of refiting framework

Integration to AGL

synchronization

Security Topics

- Ensure cynara enforcement
- Test cynara tools
- Maintenance of meta-agl-security layer
- OpenID Connect – protect remote APIs

Binder / Bindings

Binder Enhancements

- Automatic transparent APIs to services

  - using D-Bus

  - using websocket locally

  - using in memory linkage

  - using websocket to access an OpenId connect protected

- Realign on upstream libmicrohttpd 50

- Native binder

API Transparency