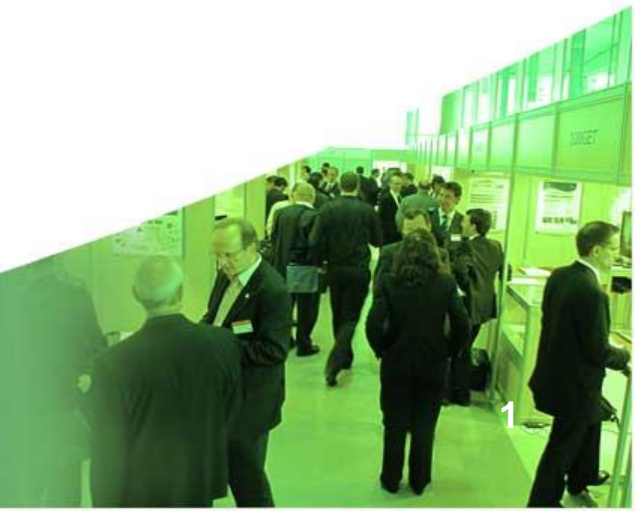Celtic-Plus Proposers Day
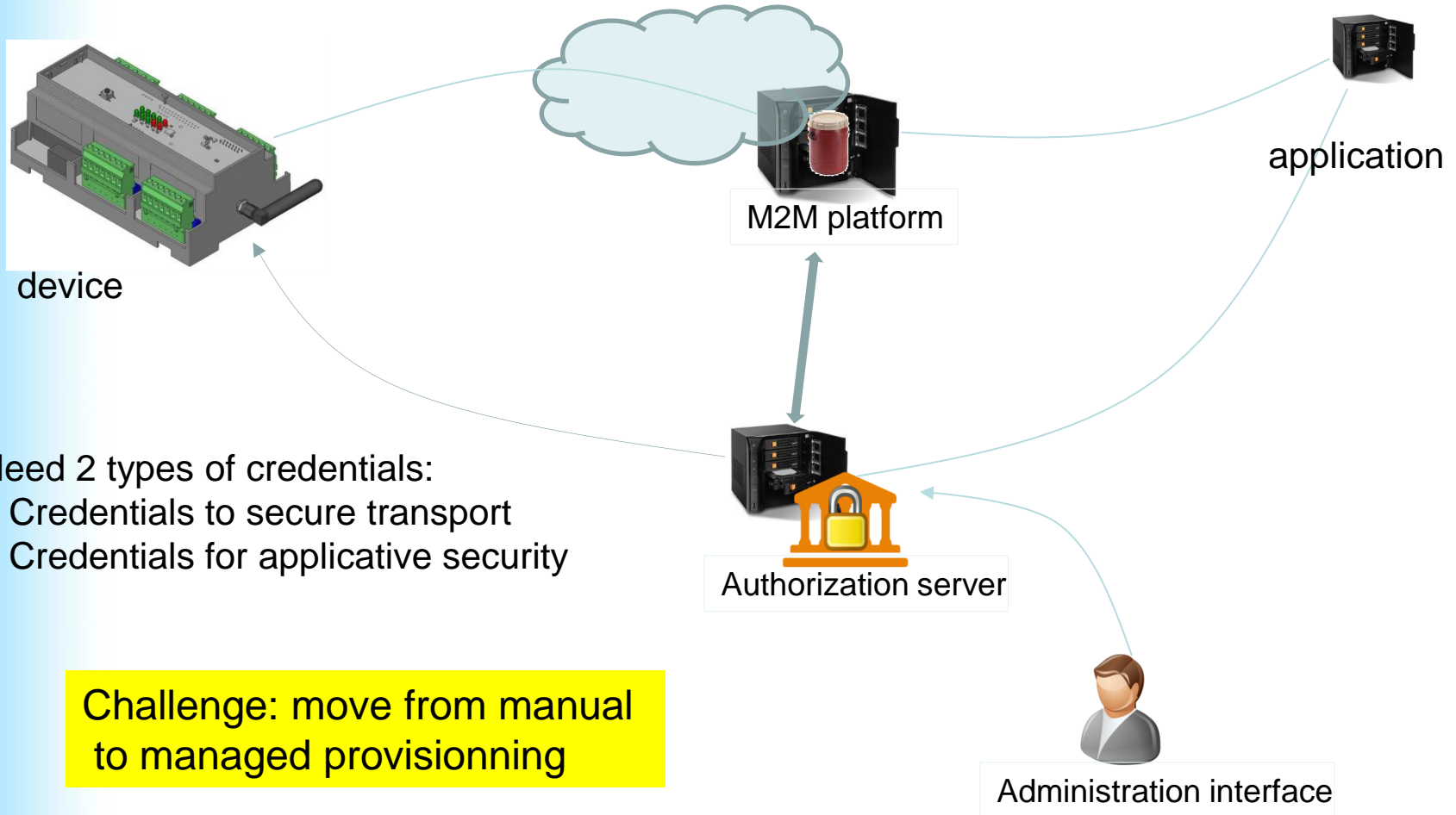29 June 2015, Issy les Molineaux

Smart & Energy Efficient end to end security deployment platform for IoT

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IOT end to end security

device

M2M platform

application

Need 2 types of credentials:
- Credentials to secure transport
- Credentials for applicative security

Authorization server

Challenge: move from manual to managed provisionning

Administration interface

Organisation Profile

Gemalto world leader in digital security

+2bn
END USERS BENEFIT FROM OUR SOLUTIONS

€2.5bn
2014 REVENUE

14,000+
EMPLOYEES
116
NATIONALITIES OF OUR EMPLOYEES

180+
COUNTRIES WHERE OUR CLIENTS ARE BASED

2,900
R&D ENGINEERS
114
NEW PATENTS FILED IN 2014

EMBEDDED SOFTWARE AND PRODUCTS

PLATFORMS AND SERVICES

• *Smart & Energy Efficient end to end security deployment platform for IoT*
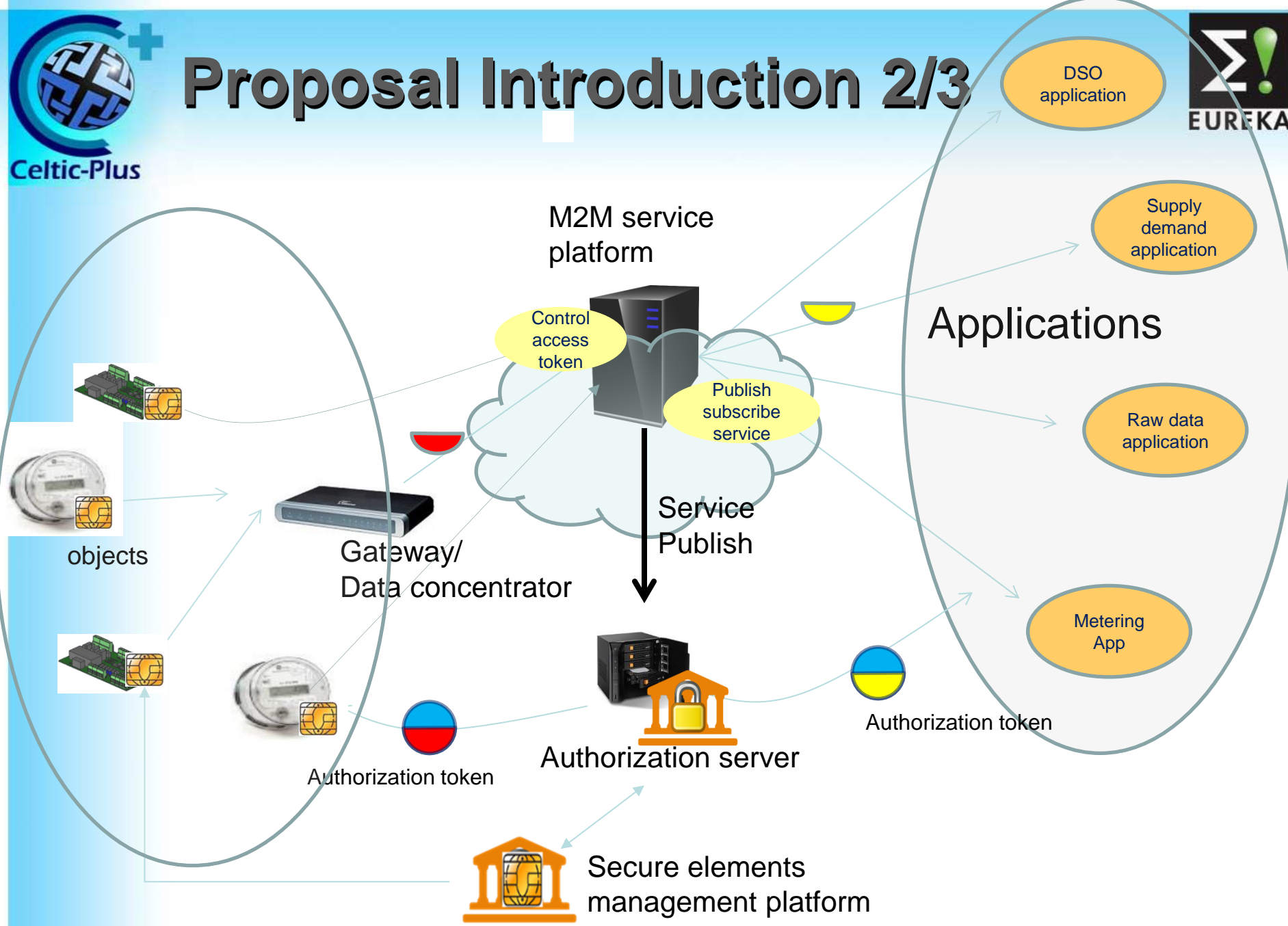
<u>Motivation</u>

• *Today's deployments are proprietary , fragmented and lack interoperability; although underlying security mechanisms exist they are in many case difficult to deploy and to manage*

• *Mechanisms for credential provisioning are not suited for large scale deployment*

• *Power consumption of implanted security features is hardly acceptable for battery powered devices.*

<u>Content</u>

• *An innovative architecture supporting the separation of data communication & credential distribution*

• *Fine grain authorization management to automate credential distribution.*

• *Enhanced credential protection in IoT nodes*

• *Ultra low power secured radio*

• *Energy efficient cryptography*

• *Final demonstration via use cases in smart city environments*

Proposal Introduction 2/3

M2M service platform

Control access token

Publish subscribe service

objects

Gateway/ Data concentrator

Service Publish

Authorization server

Authorization token

Secure elements management platform

DSO application

Supply demand application

Applications

Raw data application

Metering App

Authorization token

Expected outcome, impacts, schedule

- *Solutions provided will allow secure and reliable deployment of IoT services in a short term perspective*

- *Facilitate the deployment of use cases involving a peer to peer business model in addition to the traditional provider/ subscriber model*

- *Ultra low power secured IoT Nodes*

- *Standardization of credential management for IoT*

Partners

- **_TODAY's Consortium_**
  - _Infineon Germany : Integration of security in low power sensor nodes_
  - _G&D Germany : Secure SW provider and trusted service management_
  - _NXP Germany : end-2-end h/w security; SE based trust anchors_
  - _NXP France : Embedded Zigbee, SOC Solution , BLE , NFC_
  - _CEA Leti France : Ultra Low Power radio architecture_
  - _Gemalto France : Credential Management and Provisioning , eSE._

Partners we are looking for :
- _Large companies , SME's , academics from all C+ countries working on :_
  - _Home /building automation_
  - _Facility management_
  - _City management services_

Contact Info

For more information and for interest to participate please contact:

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