OPEN EUROPEAN INTER-ROAMING PROTOCOL:

LATEST DEVELOPMENTS
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2nd NeMo Stakeholder Forum Conference
Brussels, 10 October 2018
A customer of eMobility Services Provider “A” wants access to a charging-station of Charge point Operator “B”

**Giving access** to EV-drivers to a very large number of charging-stations, means

**connecting** eMSPs to a very large number of CPOs!
Recharge-service Roaming: Access interoperability

Connecting eMSPs and CPOs for which features? To exchange which data? which services?

- Stations info (infra description static & dynamic)
- Authorisation
- Charge-Detail-Record
- Business Info
- Business Info

Data transfer
- Ch. Stations description info and CDR from CPO to eMSP
- Tokens list (“White-List”) if any from eMSP to CPO

Requests and Events
- Authorisations

Data sharing
- Business Info (agreement, tariff...)

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10/10/2018  Nemo - Stakeholder forum - Brussels
Roaming: Two main topologies...

A rationale based on overall efficiency assessment.
Make or buy?

**Internal management of complexity**
*IT – Contracts negotiation and follow-up – Invoicing/Payment ...*

**External management of complexity**
*IT – Contracts negotiation and follow-up – Invoicing/Payment ...*
Roaming: Two main topologies... 
... that will be merged...
Roaming: Two main topologies...  
...that will be merged and integrated...
Roaming: Two main topologies ...
... that will be merged and integrated thanks to NeMo

First Nemo’s contribution
• Setting a “Inter Roaming Platform Framework”
• Connecting 2 of them (Gireve and Hubject)

Increase the number of accessible Charging Points
Roaming: A big challenge about standardisation

**eMobility IT protocol**
- OCPI, eMIP, OICP, OCHP...

**eMobility business objects**
- Contracts, Tariffs, CDRs
Roaming: A big challenge about standardisation ...  
... simplified by NeMo

**eMobility IT protocol**
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**eMobility business objects**
- Contracts, Tariffs, CDRs

**NeMo Hyper Network**
- Standardised access, based on
  - A Common Information Model
- Open IT access & interfaces
- New services creation & deployment features

Nemo node 1

Nemo node 2
3 topics

- Contract framework between one operator (CPO or EMP) and each eRoaming platform (Hubject & GIREVE)
- Contract framework between the two platforms
- Roaming agreements between 2 operators connected to 2 different roaming platforms
Thank you!

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OPENING UP THE HYPER-NETWORK TO NEW PARTNERS

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2nd NeMo Stakeholder Forum Conference
Brussels, 10 October 2018
Why open the Hyper-network?

**PROVIDE COMPETITIVENESS**

- Cost savings
- Enable business relations
- Europe wide

**EASE THE CREATION OF INNOVATIVE EMOBILITY SERVICES**

- Harmonized services to improve customer experience (Common Information Model)
- Gather actors to create added value services
Different type of Business partner

- BAEM
- NeMo
- Service provider
- Service consumer
- NeMo IT Provider
- Service Certifier
- Regulator
Enrolment process

*During the project time (until 09/2019)*

**MoU & NDA signature**

**Prospecting**
- Via NeMo Website
- Via NeMo member
- Via public events

**Presentation**
- Business & Technical presentation
- Submission of NDA & MoU
- Presentation of rights & duties

**Validation**
- Final validation during SC
- Implication of the external actor in the project discussion

*Liaise with NeMo coordinator (ICCS) & first validation during SC*
Enrolment process

After the project time

Contract between BAEM & New partner

Prospecting
- Via NeMo Hyper-Network Website
- Business & Technical presentation

Validation
- Account creation
- Agreement on Terms & Conditions

Installation
- Node installation
- Service creation or consumption

A request will be sent to the BAEM for approval
Two types of business structure

- Direct Financial transaction between partners
- Fixed yearly cost + variable based on usage of the platform or other...

- The Hyper-Network needs to handle the money transfer (smart contracts)
- Fixed yearly cost + commission for every request? Level of commission? 1%, 5%, 10%
NEXT STEPS

✓ Freeze the business structure based on the questionnaire outputs

✓ Validate & communicate the enrollment process

✓ Prepare all the documentation needed on the web site for after the project

✓ Creation of the BAEM
Thank you!

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AFTER NeMO: BUILDING THE BUSINESS ALLIANCE FOR ELECTRO-MOBILITY

Andrew Winder
ERTICO – ITS Europe

2nd NeMo Stakeholder Forum Conference

Brussels, 10 October 2018
Overview of the BAEM

The **Business Alliance for Electro-Mobility (BAEM)** will take over the Hyper-Network from 1\textsuperscript{st} October 2019.

The BAEM is proposed to be a not-for-profit membership association (legal entity), composed of:

- **BAEM Board Members**
  - Management structure, probably elected from different sectors

- **BAEM Partners**
  - Members who have a service provider role, a service requestor role, or both. Possibly also for stakeholders not involved in one of the IT roles (e.g. public authorities).

- **Hyper-Network Partners**
  - Users of the Hyper-Network which NeMo or the BAEM has accredited as being compliant with the relevant protocols and procedures.
Business partner roles

NeMo Business Partner roles are mandatory in the Common Information Model (CIM) – Deliverable 3.3: [http://nemo-emobility.eu/deliverables](http://nemo-emobility.eu/deliverables)

A Partner can have more than one role.

Each Partner role has rights, duties, costs and a revenue stream.

• Governance:
  – Structure during the NeMo project is the Steering Committee. Coordinator ICCS: will sign any agreements (MoU, NDA, etc.) with external bodies on behalf of the consortium.
  – After NeMo, this will be the BAEM Board.

• Service Provider
• Service Consumer
• Service Certifier
• Regulator
• NeMo IT provider
Key business partners:

Industry actors
- Vehicle manufacturers
- Electromobility service providers

IT suppliers
- IT service developers
- IT Cloud platform providers
- EV roaming platform providers
- Providers of map services, navigation services and traffic/travel information services

Infrastructure operators
- Charge point operators
- Road operators
- Parking and service station operators
- Energy distribution system operators (DSO)

Other stakeholders / business partners:

- Public authorities
- Fleet and logistics operators
- Associations and interest groups
Proposed BAEM legal entity

Subscription-based service:
• Annual subscription
• Annual fee could be in several bands according to member profile/size or volume of business
• Possible variable transaction-based fee
• Not-for-profit: fees cover Node costs, IT services and secretariat / organisation including publicity
Thank you!

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