WHAT IS THE NeMo HYPER-NETWORK, HOW WILL IT WORK AND HOW CAN YOU ENGAGE WITH IT?

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NeMo IT Challenges:

a) How to develop interoperable and seamless electro-mobility services
b) Integration of services of different stakeholders still a challenge due to missing interoperability and discovery mechanisms
c) No community based IT environment existent that enables the search, development and deployment of value-added services for the E-Mobility domain
d) Lack of common information model for all stakeholders
e) Stakeholders and business partners not visible / transparent across Europe
f) It is difficult to establish collaboration and contracts between stakeholders and business partners
NeMo Solution Approach:

Within the NeMo business network all participants share a common data-set stored in distributed databases / Ledger. All participants have access to same data shared in the NeMo business network about: Partner, Service and Contract.

NeMo Business Network

Shared distributed Database / Ledger:
1. Partner Management
2. Services Store
3. Contract Management

NeMo Business Network Diagram:

- Electro Mobility (service) Provider EMP
- Charge Point Operator CPO
- Distribution System Operator DSO
- 3rd Party Service Provider
- End-user

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NeMo IT environment

Electro Mobility (service) Provider EMP

NeMo (EMP) Business Partner Data Center

NeMo EM Application

Service Finder
Integration Bus
Service Optimiser

NeMo Service (atomic)
NeMo Service (as process)
Service Runtime for Complex service(s)

Services registered at NeMo

Docker Image for DevTool

Registry Backend
Node.js Runtime
HyperLedger

Registry Blockchain

NeMo Peer Node

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NeMo network view
- integration between participating business partners
Summary and Conclusion:

NeMo will provide:

- A **distributed service IT environment** where partner, service & contract information are stored in a decentralized manner using a **distributed ledger technology** *(HyperLedger, Blockchain)*
- An **IT environment**, that lets developer **search & use third party services**
- A BPMN-based tool-suite, that provides the possibility to **specify value-added E-Mobility IT services**
- An **IT deployment/delivery mechanism** that lets business users easily take part in the NeMo Open Marketplace
- A **common information model** to unify the business objects for all electro-Mobility services
- Increased innovation towards **Digital Single Market** for Europe
Thank you!

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