

Short title: RASSA Process

Full title of the project:

Stakeholder process of the initiative „Reference architecture for secure Smart Grids in Austria“

→ **Synopsis**

The project works out the development of a smart grids reference architecture for Austria under involvement of all actors. Based on technological-scientific elements a process will be worked out, which meets the requirements of stakeholders like operators of infrastructure, industry and also public agencies to achieve a national accepted and international orientated reference architecture.

Project description / tasks:

→ finalized

→ **Summary:**

The project RASSA Stakeholder Process (short RASSA Process) worked out the development process of a smart grids reference architecture for Austria under involvement of all actors. Based on a technological-scientific foundation, a process which meets the requirements of stakeholders, such as operators of infrastructure, industry, and also public agencies was worked out, to achieve a nationally accepted and internationally orientated reference architecture.

Starting point/Motivation

Electrical Networks are radically changing. In the course of the intensive efforts to raise the share of renewable energy, new innovative smart grids solutions were developed in the last years to integrate decentralized volatile generation into the system.

Contents and Objectives

With the invention of smart grids technologies, an interconnection with communication technologies with the, so far isolated assets and equipment especially in the distribution grid, took place. This leads to challenges in the system design in terms of interoperability of a functional overall system and security in terms of security of supply.

Hence, the objective of the RASSA initiative (Reference Architecture for Secure Smart Grids in Austria) is the development of reference architecture for smart grids in Austria and the reconciliation of all relevant stakeholders. For the reference architecture the consideration of aspects like operation safety (Safety), cyber security (Security) and personal and system protection (Protection) are necessary. Aspects of personal privacy (Privacy) should also be included into the design of the architecture.

Only systematic involvement of all relevant stakeholders like network operators, energy suppliers, the regulator, and public agencies enables the development of the reference architecture. Due to the high politico-economic relevance of the energy supply system, the number of involved actors is high.

The objective target of the project was, next to the methodical preparation of the development of the reference architecture, the systematic assembly of the especially for Austria present structure of stakeholders.

Methods

The stakeholder process profits of the existing good contacts of the Technology Platform Smart Grids Austria, because its members are a part of the relevant stakeholders for smart grids development. Furthermore, the platform has developed a good basis for discussion with actors outside the platform like ministries, public agencies and international actors. For the first time the project involves the stakeholders outside the energy sector in the discussion.

Results

The projects RASSA Process results include a comprehensive concept for ensuring the duly involvement of stakeholders. The GAP analysis, which was also conducted in the project RASSA Stakeholder Process, provides initial answers to the identified research question of analysis and integration of relevant national and international preparatory work in the field of reference architecture development, standardization, security-by-design and privacy-by-design.

Prospects / Suggestions for future research

This basic stock of preparatory work serves as the basis, the following definition of Austrian reference architecture for smart grids can be derived from. The gap analysis has been developed in cooperation with OFFIS e.V. Institute for computer science in Oldenburg. The Austrian Reference Architecture for Smart Grids can be based on various, existing reference architecture, but can differ for instance in some viewpoints on the Smart Grid from existing architectures. The designed stakeholder concept has to accompany the whole development process of smart grids in Austria. The concept will have to persist longer than the duration of the project RASSA Process.

→ Project management

- Technology Platform Smart Grids Austria

→ Project or cooperation partners

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- Technological University Vienna

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