

Technical Interoperability

Day 1 summary for day 2

April 12, 2007

Addison, TX

Overview

- Summary of day 1
 - Top 5 issues
 - Other topics discussed
- Issues for the future (day 2)

Main Issues (1)

- Title:
Adopt / create a high level “master” use case
- Description:
Extract a high level “master” use case from existing use cases that addresses interactions between all domains (e.g. from ISO RTO to appliance)
- Why is it important:
It supports the understanding of the framework
It helps validate the framework content and its usability
It is the start for a high level ontology
It is the bridge for further work

Main Issues (2)

- Title:
Explicitly describe the requirements of a real time infrastructure in the framework
- Description:
Enhance Interoperability Principle IO5 to describe the requirements of a real time infrastructure in section 4.3 in the framework in order to get the information when needed with the right quality
- Why is it important:
This is an important cross cutting issue that should be addressed in the framework

Main Issues (3)

- Title:
Detail category 2 “Network Interoperability”
- Description:
Category 2 should be detailed in order to capture the hierarchy of cross cutting issues and network and systems management
- Why is it important:
The framework needs to categorize the areas of the infrastructure that need to be addressed when designing future systems across boundaries

Main Issues (4)

- Title:
Clarify the trade offs between interoperability and security
- Description:
There are trade offs between interoperability and security that should be detailed and described
- Why is it important:
Because while needing interoperability and open systems, the security of these systems should be maintained

Main Issue (5)

- Title:
How will the stakeholders use the framework?
- Description:
Describe the use of the framework in the context of e.g. emerging regulatory requirements or liability issues
- Why is it important:
because a clarification of the use of the framework will maintain its credibility and limits its scope and avoids inappropriate application

Other topics discussed (1)

- Security
 - Interoperability and security are conflicting
 - How much security is enough and what are the trade offs
 - Security should be part of the basic design
 - Security is agnostic to technology and communications
 - Closed systems will continue to exist and need to be addressed from a technical and a security point of view
 - Not everything / all information needs to be secured
 - Integration of Mission Critical Systems and Non Mission Critical Systems leads to new and sometimes unexpected issues related to real time operations, security, maintenance, etc.

Other topics discussed (2)

- Standards
 - There are too many standards but not enough relevant standards going across a wide range of domains
 - Solutions are needed that work over time with sufficient critical mass
 - A practical standard is important
- A roadmap to architectures is required including:
 - languages
 - steps to get to an architecture
 - the related ontology
- Better definitions (ontology) are needed
- Definition of time and time-synch is needed

Other topics discussed (3)

- There is a need for a high level abstract model in order to:
 - identify
 - describe
 - magnify
 - define common characteristics of reality
- Tools are needed for systems engineering
- Methods should be defined on how to specify and document systems
- Connection to and integration of legacy systems should be described

Other topics discussed (4)

- The technical disciplines for distributed computing are not as well defined as the disciplines involved in other areas such as power system engineering (civil, mechanical, electrical)
- Interfaces
 - Focus should more on the surfaces / interfaces
 - Optionals in protocols can be a problem
 - Bind higher level to lower level protocols
- The first thing to be identified is what everybody agrees that can be done now

Other topics discussed (5)

- Address that it is all about managing risks
- New users are interested in existing sources of data / information
- Address systems outside the electric system and the interaction between them
- Address culture and the blurring boundaries between organizations as well as education
- Sharing source code is a way to define unambiguous reference implementations

Issues for the future

- What can be done now?
- What is the high level abstract model? Which use cases are relevant for the framework?
- What about other domains outside the electric network?
- What tools for systems engineering?
- Which methods how to specify and document systems?
- How to do network and systems management
- How to connect to and integrate legacy systems?
- What are the trade offs between interoperability and security?
- How will the stakeholders use the framework?