

Open Architecture for Real-Time Developing a Plan of Action Discussion

The Open Group RT&ES Forum
4 February 2004
San Diego, CA

Glen Logan

Problem Statement

- Problem statement
 - Q: What is purpose of RT architecture effort?
 - A: To facilitate communication and understanding of architectural requirements to move from “platform-centric” to “net-centric” systems

What Profiles Should Be Considered?

- POSIX PSE 5X
- ARINC 651
- WSTAWG / ACOE
- FCS SoS COE

Guidelines for Standards Selection

Varying RT Architectures

- Rationalization, harmonization or mitigation?

Point of Departure

- 6-level MOSA structure (SoS → Component)
- Describe requirements and attributes
 - Map 17 emerging standards from NCOW reference model into each level; then determine design impacts

- Identified additional RT attributes:
 - Autonomous operation, fault tolerance, interoperability, and timeliness

Deliverable Products

Application Guidance

Focus of Effort

- Scope:
- Types of architectures
- Domains

Mapping NCOW RM Emerging Standards

1. Policy Framework Protocol
2. Directory Enabled Protocol (DEN)
3. Common Open Service Protocol (COPS)
4. Common Information Model Schemas (CIM)
5. Routing Specification Language Protocol (RPSL)
6. Service Level Agreement (SLA)
7. IP Version 6 (IPv6)
8. Network Data Management Protocol (NDMP)
9. Universal Discovery Integration Protocol (UDDI)
10. Open Object Database
11. Access Protocol (SOAP)
12. Class of Service Protocol (CoS)
13. Uni-Directional Link Routing Protocol (UDLR)
14. Multi-Protocol Label Switching Protocol (MPLS)
15. Web Services Language Protocol (WSDL)
16. Mobile Ad hoc Protocol (MANET)
17. IP Security Policy Protocol (SPP)



