

Architecture Panel Goals

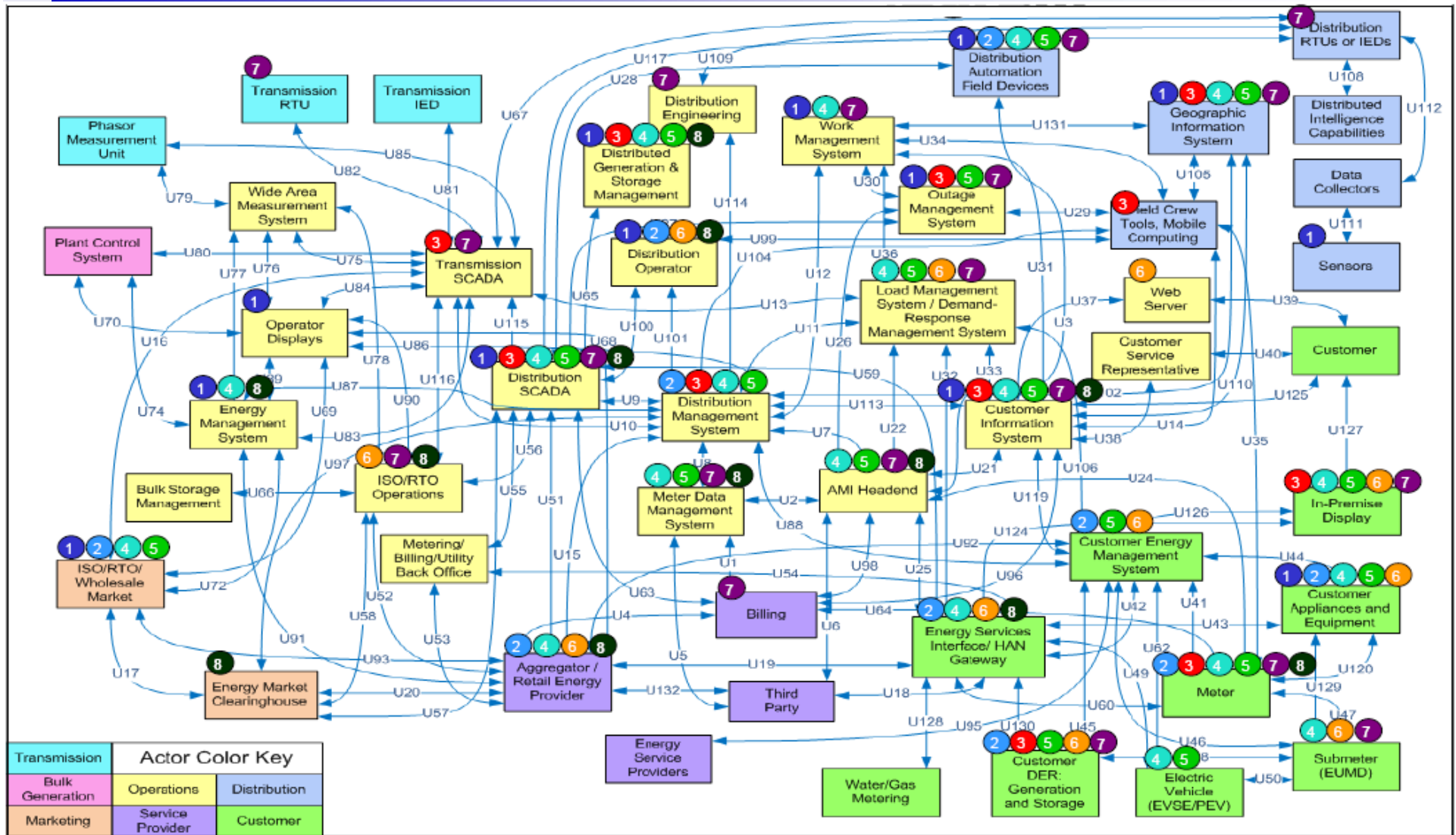
Considerations for Integration of DER

- Compare/contrast different **Architecture approaches** to integrate DER
- Discuss Utility & Vendor Perspective
 - No two architectures are exactly alike, get broad perspective

Discussion Topics

- Functional Requirements
- Block Diagrams
- Communication Protocols
- Benefit Estimates/Categories
- Gaps & Challenges
- Results of Panel summarized in a Report
 - 6 presentations provide high-level perspective
 - Identify areas of shared lessons in the Host-Sites
- Ground Rules:
 - We can't get in the details due to private Vendor / utility relationships.
 - Respect that all questions may not be able to be answered.
 - EPRI is not endorsing any particular vendor or product
 - Goal - expose our members to a broad range of approaches
 - Feel free to take detailed discussions offline

NIST Logical Interface Diagram



Unified Logical interface Diagram* - Mapped to Key System Interfaces for Integrating Distributed Energy Resources

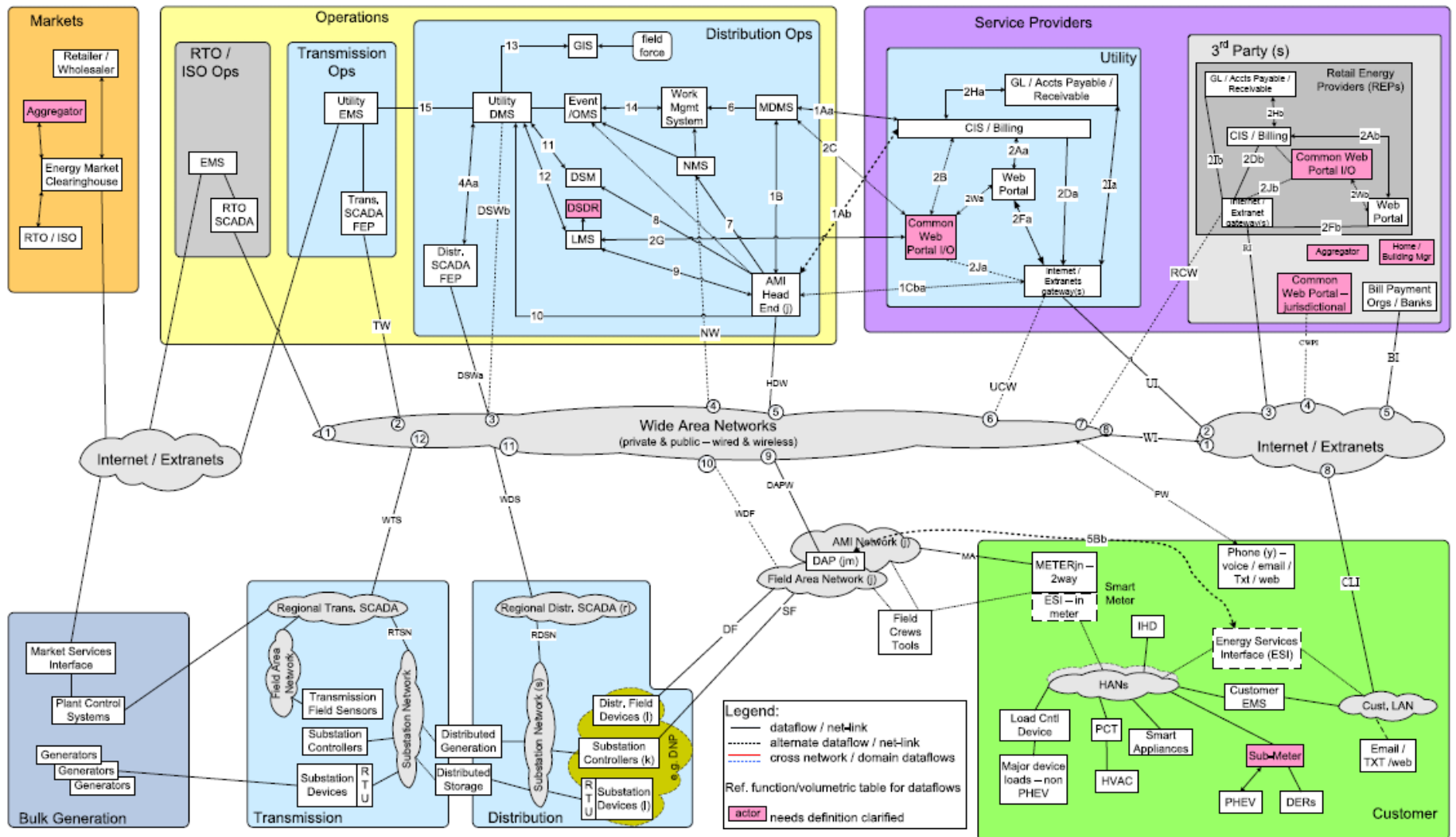
* Unified Logical Interface Diagram from NISTIR 7628 - Smart Grid Cyber Security Strategy & Requirements, Feb, 2010

OpenSG Data Flow Diagram

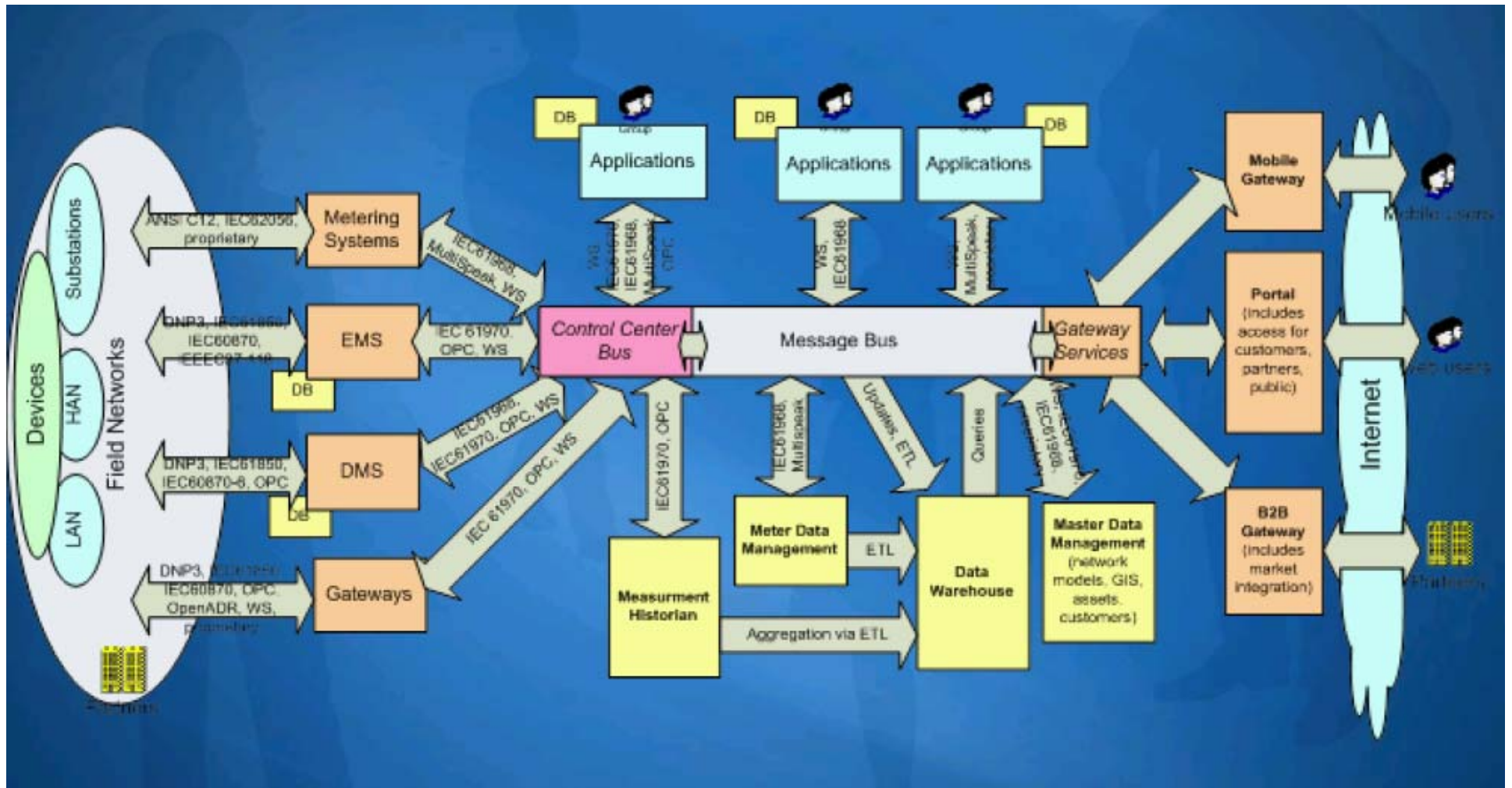
(Based on NIST Diagram)

Smart Grid Conceptual Actors / Data Flow Diagram – Cross Domain Network Focused – OpenSG / SG-Network TF

DRAFT 19Feb10
Base – file SG-NET-diagram-r0.4e.vsd
page size: ANSI-D



Microsoft Reference Architecture



IEEE P2030 Smart Grid Architecture

IEEE P2030 Smart Grid Communications Reference Architecture

