

GRIDWEEKTM

Washington DC
April 23-26, 2007

UCA International Users Group

Combined Task Force Meetings

OpenAMI, UtilityAMI, HAN Task Force

Erich W. Gunther

- 8:00 – Registration – informal discussion
- 8:50 – Welcome and introductions
- 9:00 – UCAIug Overview
- 9:15 – OpenAMI Report – Craig Rodine
- 9:45 – UtilityAMI
 - AMI security Architecture – Jeremy McDonald
- 10:30 – UtilityAMI HAN Task Force
 - Present CEC PIER Contribution
 - Discuss architecture options
 - Discuss technology options
- 11:50 – Next steps
- 12:00 – Adjourn



OpenAMI

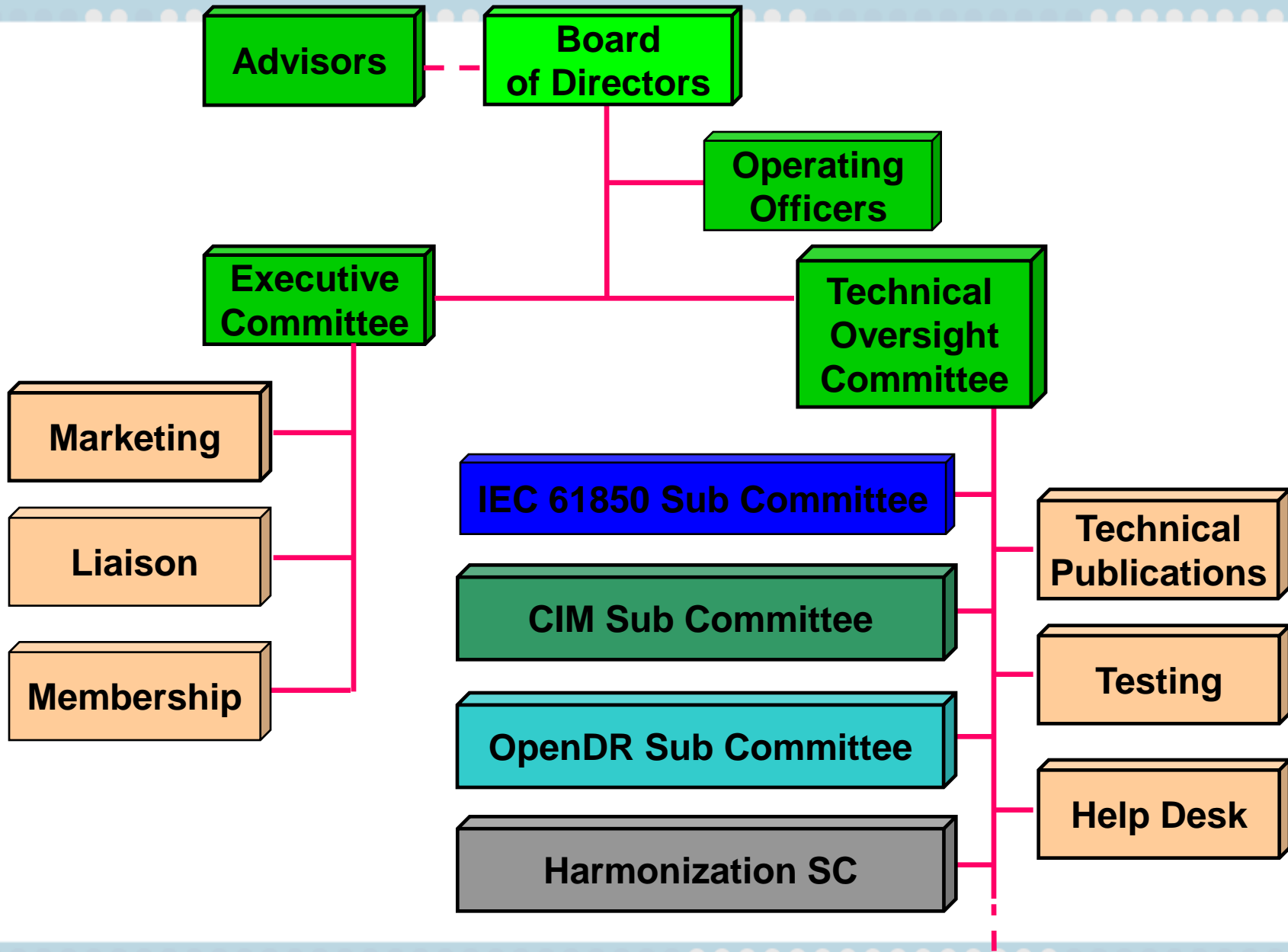
UtilityAMI

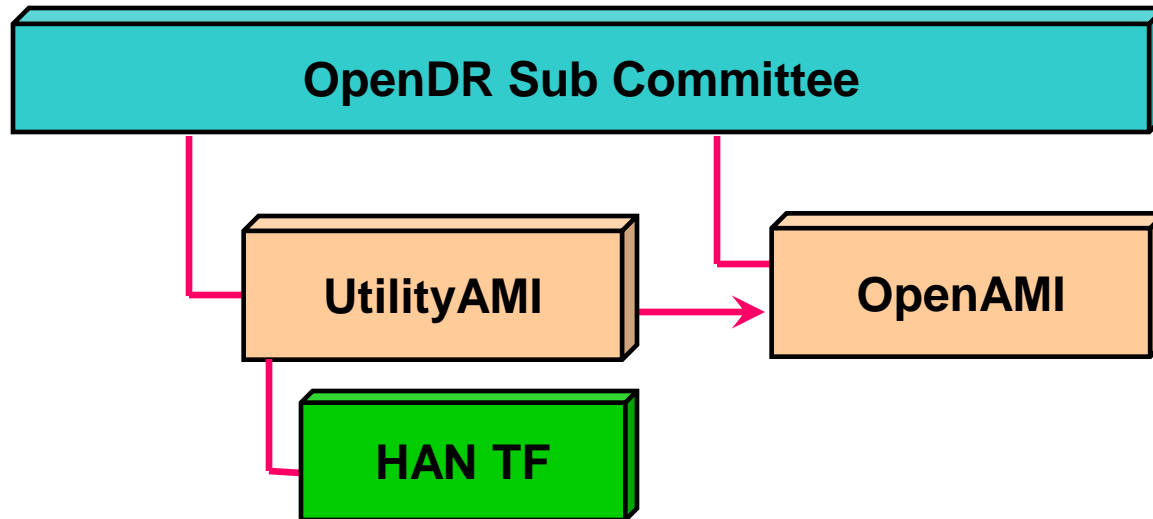
Technical Oversight,
Organization,
Test Procedures
Harmonization



61850

- Advancing Interoperability for the Utility Enterprise via support for international standards:
 - Educational Activities
 - Improvement Process for International Standards
 - Testing and Certification
 - Promotional Activities





- **Communications**
 - IEC 61850 – Substation Automation
 - IEC 61850 based extensions for wind, hydro, distributed generation, etc.
- **Data Integration and Information Exchange**
 - Common Information Model (CIM) IEC 61970 and IEC 61968
 - Generic Interface Definition (GID) IEC 61970
 - Message Payloads IEC 61968
- **Metering and Demand Response**
 - OpenAMI – Information/data models, reference designs and interoperability guidelines based on IntelliGrid and IEC standards.
 - UtilityAMI – Common requirements, security policy. Utility stakeholders – influence the vendor community

ONE MEMBERSHIP

OpenAMI Report

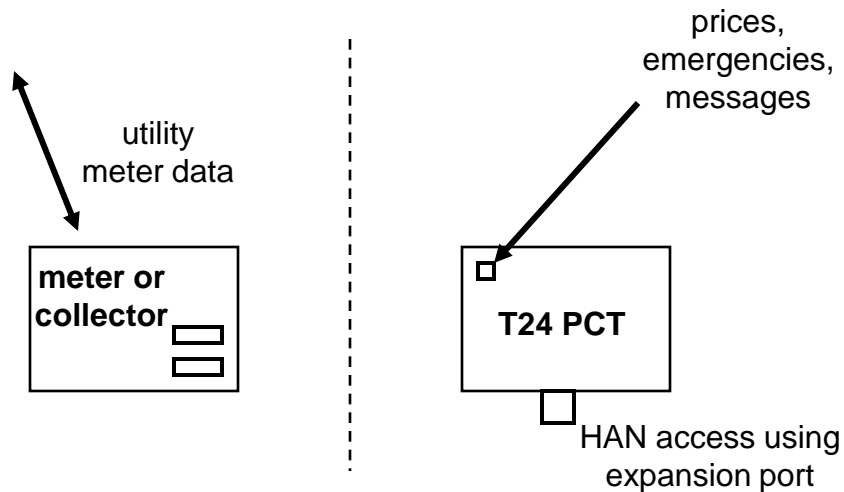
Craig Rodine for Ray Bell

1. Glossary and Common Language Framework
 - ✓ a) *A universal AMI glossary of terms and definitions*
 - ✓ b) *A framework for technology capability evaluation*
 - ✓ c) *A common, minimum requirements definition document*
- 2. Modular Meter Interface – *OpenAMI to handle*
Policy for modular communication interfaces in meters
- ★ 3. Security
Security issues and their relationship to business needs
- ★ 4. Consumer Interface – *HAN TF to handle*
Policy for Customer Portal interface to customer end user appliances
5. Back Office Interface
Policy for MDMS to enterprise back office system connectivity
6. AMI Network Interface
Policy for AMI network to MDMS interfacing
7. General Issues Forum

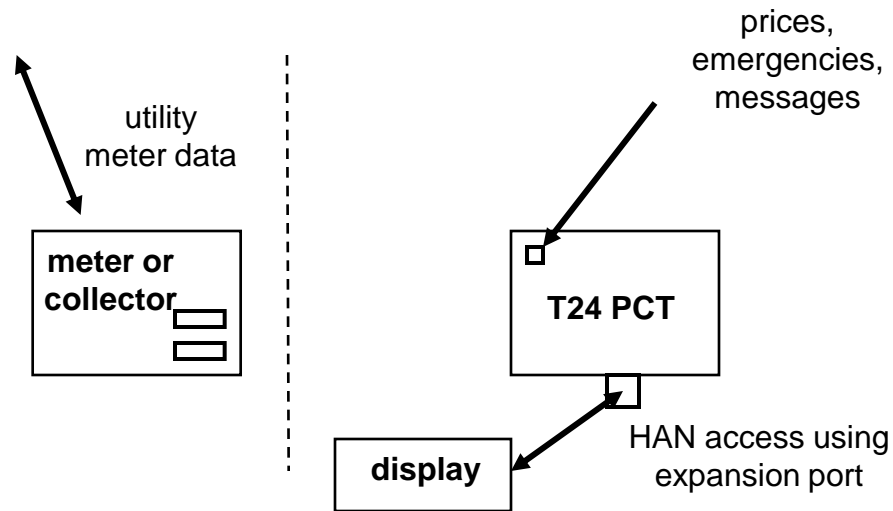
- Two documents distributed previously
 - View on NERC CIP applicability
 - Proposal for AMI security architecture framework
- Utilities deploying AMI systems need to address these issues now
- Today, we have a contribution from SCE that may help us frame this discussion
 - Jeremy McDonald
- Some of this presentation and ensuing discussion will likely overlap portions of the HAN discussion

- CEC Advisor Contribution
 - Intended to provide a framework to facilitate discussion
 - Presents high level topological options
 - Presents a vision for a future, long term architecture

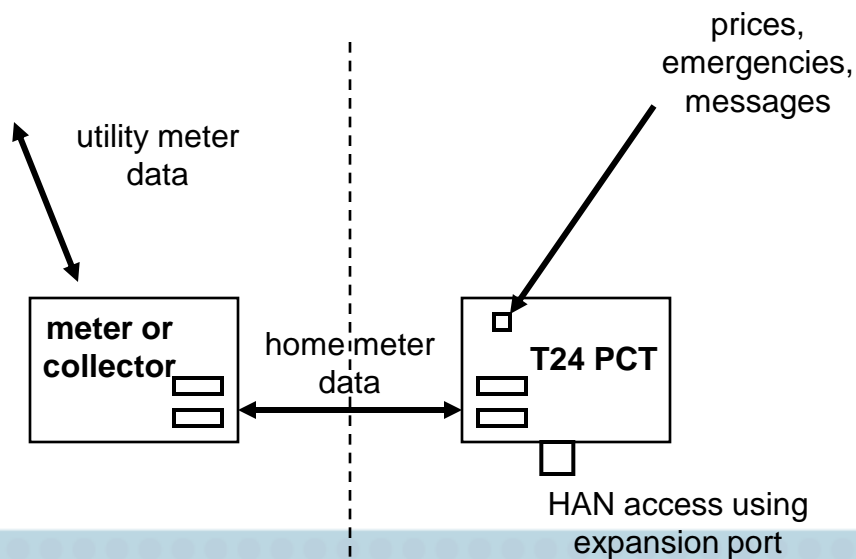
No Gateway



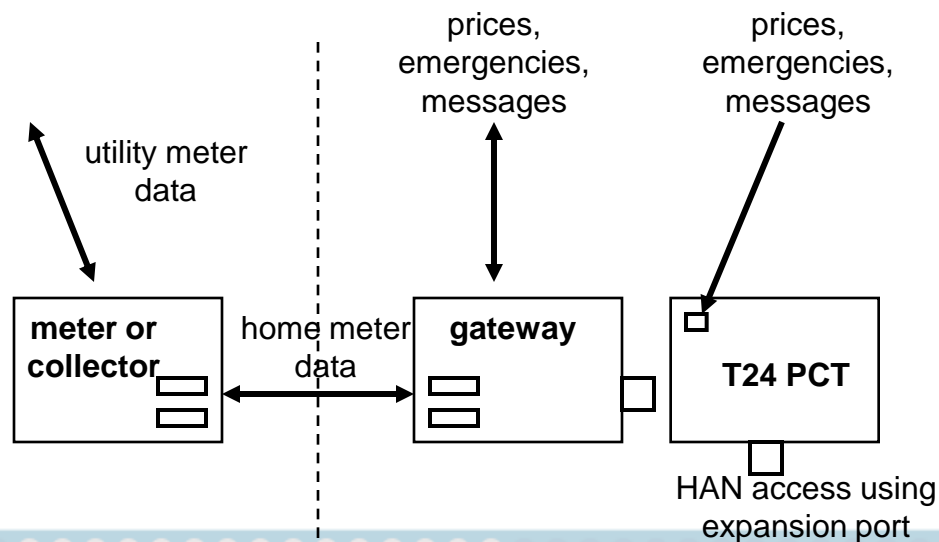
No Gateway with remote message device



Meter, Collector or PCT Gateway



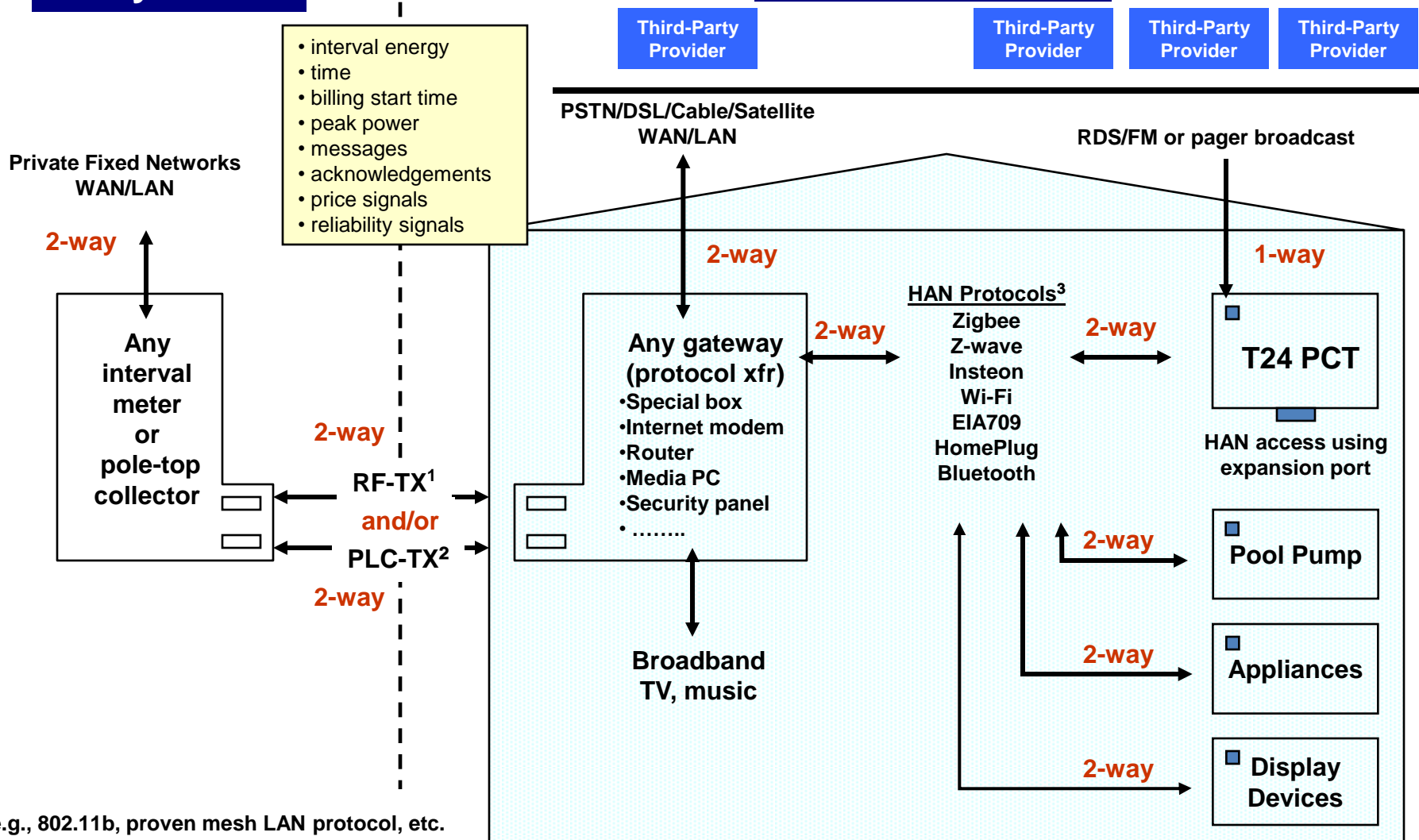
Separate Gateway



AMI-HAN Interface

Utility Owned

Consumer Owned



1. e.g., 802.11b, proven mesh LAN protocol, etc.

2. To be determined

3. Up to 45 active protocols worldwide

- What is the problem we are trying to solve?
 - What needs to happen for us to claim success?
- What is our primary work product?
- Do we focus on architecture, technology, application guidelines, all, none, ...?
- How do we engage other HAN stakeholders?
 - Utility applications are likely a very minor subset of the HAN universe
 - How do we do something useful from the major HAN device vendors point of view such that they pay attention?
- What is the timeline?

- Those interested need to join the UCAIug
- Volunteers needed to:
 - Develop content
 - Help manage meetings
 - Coordinate with stakeholders
- Next meeting?