

CIM Users Group Fall Meeting

Fall 2011

Sheraton Austin, Austin, Texas, USA, November 15-18, 2011

Sponsored by:



CIMug at the UCAInternational Summit

For the first time, the CIM Users Group (CIMug) was held jointly with the other UCAInternational (UCAI) User Groups (61850 Users Group, OpenSG Users Group and UCAI Testing Committee). Combined attendance exceeded 200, with representation from 28 utilities, 26 vendors, 21 consulting companies, 3 universities, 14 research or standards groups and 3 government or regulatory agencies. Participants came from 17 countries across 4 continents.

The four User Groups held parallel meetings with combined Opening and Closing Plenary sessions. Each group followed its usual format, with OpenSGug running multiple parallel sessions and CIMug following a single-track format.

As usual, a day-long CIM University was presented on the first day with over 100 conference attendees participating. Copies of the newly-released EPRI CIM Primer were provided to all CIM University attendees.

A Vendor Reception was held on Wednesday evening, where the products and projects of 7 vendors were on display.

CIMug attendees heard CIM success stories from utilities around the world, learned about Enterprise Integration Strategies and Enterprise Information Management and received updates on current Common Information Model (CIM) standards and testing work. Patterns emerging from the presentations included:

- the frequent citing of renewables as a major driver of operational change and the attendant demand for data integration,
- the central role played by integrated network modeling in both Transmission and Distribution integration solutions,
- the number of utilities with multi-project track records of success with CIM implementations and
- the world-wide scope of planned CIM-based solutions.

Highlights from the Combined Opening and Closing Plenary sessions and from the 3 days of CIMug meeting are covered below.

Slides and/or videos from CIM University and many of the CIMug sessions can be downloaded as noted from the referenced folder on the UCAIug 2011 Summit website <http://www.ucaiug.org/Meetings/Austin2011/default.aspx> (or click Meetings under Activities on the left quick launch menu on the CIMug website www.cimug.org). Download access requires a UCAInternational website user ID, which can be created for no cost at www.ucaiug.org.



Combined Opening Plenary UCAInternational Update



Erich Gunther, EnerNex, Chairman of the Board, UCAInternational and Kay Clinard, President, UCAInternational, presented a brief history of the growth of UCAInternational.

Since 2003, membership has grown from approximately 30 members to over 175; UCAI website hits in 2011 were nearly 100,000; current accounts reflect over 1,500 companies and 90 countries and substantial support for user collaboration is being provided with 80 GoToMeeting accounts and an average of nearly 8 meetings being hosted weekly. Major activities in 2011 included the establishment of a new Intellectual Property Rights Policy and the addition of a university membership category.

IBM's Smarter Planet



Jeff Smith, VP of Communication Sector, IBM Software Solutions, highlighted key electric utility-related concepts in IBM's Smarter Planet initiative. A key assumption is that the next 20 years will bring more upheaval and change than

the electric utility industry has seen in the last 100 years. Market forces (renewables, aging assets, increased demand for efficiency, growing importance of customers) will require business and technology transformation and create the need for cross-department collaboration for data integration. The challenge is so large that no one company can do it all: multi-vendor interoperability based on standards is the key.

Transcendental Interoperability



Steve Widergren, Pacific Northwest National Laboratory, Plenary Chair of Smart Grid Interoperability Panel (SGIP), discussed the current state of technology for the Smart Grid, putting forth the idea that "integration is the bottle-

neck and interoperability is the mission." Integration calls for agreement at the interface and a boundary of authority. To accomplish these ends, standards are crucial. An Energy Independence and Security Act (EISA) directive started the National Institute of Standards and Technology (NIST) work which ultimately resulted in the creation of the SGIP, a public-private partnership created in 2009. Priority Action Plans (PAPs) are progressing work in accordance with the SGIP principles of openness, balance, consensus and harmonization. SGIP is meeting its schedule and has begun collaborations with other international SmartGrid efforts (like European Mandate M/490).

ERCOT Experiences with CIM-Based Integration

John Moseley, Principal Engineer for Model Architecture and Integration, Electric Reliability Council of Texas (ERCOT), shared the history of ERCOT's experiences in moving from a world of data disorganization with differing names, mismatching configurations, different data structures and varying business processes to a world where the CIM standard has been extensively used to provide meaning, consistency and reusability. The implementation of the ERCOT Nodal Market led to the need for a Common Information Model repository: not just a database, but a centralized temporal source of information. Having gone live with its member interfaces for model information in 2010, ERCOT is currently refining its implementation with improvements to reporting, support for multiple environments, change identification, contingency generation and incremental updates to downstream systems. ERCOT has found that once its integration framework was in place, it was used as the solution for more and more problems, causing CIM usage to be extended and integration "magic" to truly happen.

Smart Grid at Austin Energy



David Wood, VP Energy Service Delivery, Austin Energy, provided an overview of Austin Energy, its renewables outlook and its technology deployment strategies. Austin Energy's demand has continued to grow, even through the recession. With 3.5 MW of rooftop solar, a projected 30% renewables by the end of 2012 and an aggressive Demand Response program that has shaved 350 MW off its summer peak, Austin Energy is ahead of its goal to be one-third renewable by 2020. Austin Energy customers want reliability and communications, needs which Austin Energy is meeting with smart systems and organizational efficiency, including projects such as its 2-way AMI deployment which was completed in August of 2009.

Utility Project Stories

United States

California ISO Strategy for Adapting and Migrating Legacy Data Models to CIM



Brian Jacobsen, California Independent System Operator (CA ISO), presented on the planning portion of CA ISO's Enterprise Model Management initiative. CA ISO currently leverages the CIM standard for the exchange of information between its Energy Management System (EMS) and its market

systems, but not across planning, outage management and other enterprise applications. The vision for enterprise-wide central model management grew out of insights gained during replacement of the Outage Management System. The consequences of not having an enterprise-wide model management strategy in place at CA ISO included fragmented repositories with differing nomenclatures, an unnecessarily heavy burden in the areas of merging and testing, additional labor required for data and change duplication and increased risks due to manual errors. Due to the magnitude of the Enterprise Modeling Management (EMM) effort (both in cost and time), upper management support was essential as was developing the understanding that there are both near-term and long-term benefits. With its EMM effort, CA ISO is aiming for a centralized source of model information and an enterprise-wide understanding of the enterprise model strategy.

Dagmar Haller, CA ISO, overviewed the EMM implementation steps, including: the development of a CA ISO Enterprise UML Model (CEM) which will support the transition to CIM15 and allow consistent representation of business information across the enterprise and the establishment of business strategies to enforce its maintenance.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 1 – Wednesday, November 16 > Jacobsen_CA ISO CIM_UG 11_16_2011

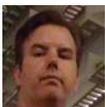
Video: Under Meet on left menu bar > Session Webcasts > California ISO Strategy for Adapting and Migrating Legacy Data Models to CIM

CIM Implementation within the PGN SmartGrid Program



Naveen Narra, Progress Energy, presented on the approach Progress Energy took in leveraging the CIM in its Smart Grid integration efforts. Multiple distribution-focused applications (Distribution System Demand Response, Electric Vehicle Supply, Capacitor Control) were identified and the CIM classes required for each application were analyzed in spreadsheet form. The classes that were shared across applications have driven the Progress Energy model, including needed extensions. At Progress Energy, business processes have been captured in business use cases which have in turn informed the CIM modeling work.

DT Energy: CIM’s Role in our Enterprise Semantic Model



Jeff Kenward, DT Energy (DTE), explained how DTE utilized the CIM as central part of its Enterprise Semantic Model (ESM) for the integration of Smart Grid information. DTE has received a DOE grant to accelerate its Smart Grid program and deploying more than 660,000 AMI meters is one part of the work. Using the CIM, DTE is implementing 61968-9 messaging based on a philosophy of solving local problems with an eye toward the ultimate deployment of an enterprise solution. Since the “Charlotte re-

lation” in 2010, DTE has embraced the ESM as a strategy for reducing specific data implementations and point-to-point interfaces and has recognized that this centralized approach requires the efforts of its best technical people. The ESM approach has provided a degree of control that has led to success, though DTE encountered difficulties in understanding what is happening in IEC CIM Working Groups, in knowing if its 61068 code assumptions match those of other utilities and in finding a CIM community collaboration forum for asking and answering questions.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 1 – Wednesday, November 16 > Kenward_CIMUgAustin2011

Video: Under Meet on left menu bar > Session Webcasts > DTE: CIM’s Role in our Enterprise Semantic Model

Lessons Learned During the ERCOT CIM Implementation and in Subsequent Use

John Moseley, ERCOT, shared the lessons learned by ERCOT in implementing its Network Model Management System, which included:

- Decide what’s in scope and what’s out
- Don’t hesitate to implement things that work that aren’t perfect
- Not every decision is going to make everyone happy
- Be proactive in communications (don’t assume that silence means there are no problems: data integration is a lot like marriage)
- Be vigilant
 - Beware the “evil kludge” – the temptation to break the data since it’s easier than fixing the application. The system that is most flexible will often be the one that supports the most workaround
 - Ask many, many questions of vendors. Ask the same question many times.
- Amateurs talk strategy, generals talk logistics – meaning schema design is important, but not as important as the business process that supports its use

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 1 – Wednesday, November 16 > Moseley_CIM Presentation

Video: Under Meet on left menu bar > Session Webcasts > Lessons Learned during the ERCOT CIM implementation and in Subsequent Use

CIM for Weather



Jim Horstman, SCE, gave a brief history of the CIM for Environmental Data project and introduced

the team working on the project. Pat Brown, EPRI, overviewed project drivers, the schedule and roles played by SCE, Open Grid Systems and EPRI. Henry Dotson, SCE, discussed the business context and data modeling requirements. Use of environmental data is pervasive in utilities and

the information is typically supplied by a diversity of internal and external providers. Data can be abstractly organized by where it occurs (atmosphere/geosphere/hydrosphere/space), by when it occurs (historical/current/forecast) and by the type of data (raw/phenomenon). Alan McMoran, Open Grid Systems, reviewed existing weather standards used as input to the CIM modeling (TMY3, WXXM), the approach used in incorporating environmental data into the CIM, the currently proposed model extensions and messages used in recent SCE testing.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > CIM for Weather – CIM UG 2011 Austin

Semantic Modeling at Sempra Utilities: Implementation Case Study

Madeline Rodoni, Sempra, described information modeling at Sempra Utilities, focusing on experiences related to a recent back office integration project. Multiple key business efforts at Sempra (Smart Metering, Pipeline Integrity, SmartGrid initiatives, OpEx 20/20) make clear the increasing requirement for efficient information sharing across multiple applications, which in turn calls for enterprise information model management. Information model development occurs throughout the life cycle steps of a project (requirements, logical design and physical design). The Outage Management (OMS) project (part of OpEx 20/20) required the extension of the Sempra Information Model (SIM) and facilitated the refinement of its Information Management Integration methodology. The OMS project included integrating multiple Work Management Systems, a Customer Information System (including trouble tickets) and the Outage Management System utilizing both event-based messages and batch file updates. It used a common vocabulary based on common information concepts. Schema modeling of both class structure and data elements and syntax was done. Diagrams were used to support the traceability of data transformations between applications and the SIM model. Data flows (application sources and receivers) were documented in spreadsheets for each data element. Lessons learned included:

- Be sure the Enterprise Information Modeling group is involved early and coordinates actively with Business Process and Service Design teams
- The volume of details grows as the project progresses and oversight is required
- Traceability needs to be documented
- Separating Logical from Physical Concerns is useful
- Enterprise Information Management is a guided journey, not a destination

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 3 – Friday, November 18 > Rodoni_November 2011

Video: Under Meet on left menu bar > Session Webcasts > Semantic Modeling at Sempra Utilities: Implementation Case Study

Latin America

Experience with Implementation of CIM in REGER at ONS (Brazil)

Alexis Cabanas Esteves, Brazilian Independent System Operator (ONS), Brazil, shared the CIM-based integration plans that ONS currently has underway in its new Energy Management Network (REGER) implementation. ONS operates Brazil's transmission grid from 4 regional control centers. The ONS grid covers an area nearly as large as the United States and has a market size similar to PJM or CA ISO. REGER, a new distributed and redundant supervision and control system, will be tightly integrated with other ONS corporate systems. Goals include information uniqueness (only one authoritative source for each piece of information), standardization in integration and cyber security. CIM will be used to integrate the Technical Database (BDT), where the whole Brazilian electric model is maintained, with the REGER master database. Incremental CIM XML updates will be created by differencing exports from the BDT and will be applied to the REGER central database. CIM13 is being used and extensions are being kept to a minimum, still 19 additional classes and 170 attributes are needed. Areas of future work include improving performance, creating a mechanism for validation the BDT and REGER master database against each other, developing a policy for CIM version upgrades and leveraging an SOA architecture.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > Alexis – CIMUG2011 - Austin

Current State of the CIM Project in COES (Perú)



Julio Apaza, System Economic Operation Committees (COES), Perú, overviewed the CIM integration work being planned by COES in preparation for its Locational Marginal Pricing (LMP) market implementation in 2013. COES is integrating its EMS, planning, unit commitment, market and dynamic analysis applications. Initial Stage 1 work will leverage the ODMS platform as a hub and Stage 2 will include a transition to a CIM bus-based solution. CIM Graphics package exchange is being planned to allow multiple applications to reproduce modified one-line diagrams.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > COES CIM PROJECT – Current state – CIMug 2011

CIM Implementation Roadmap in Ecuador

Roberto Carrillo Calderón, Corporación Eléctrica del Ecuador (CELEC), Ecuador, presented on the Management Integrated Systems for Electric Distribution in Ecuador (SIGDE) project, whose goals are to strengthen the management and operational capabilities of Ecuadorian distribution utilities and to improve efficiency and service quality levels via organized model management and standardized processes. The SIGDE project grew out of an agreement between the Minister of Electricity and Renewable Energy (MEER) and all of Ecuador's distribution utilities. The SIGDE vision includes comprehensive Enterprise Service Bus (ESB)-based integration of real-time and study Distribution applications, including OMS, Distribution Management System (DMS), Supervisory Control and Data Acquisition (SCADA), Operator Training Simulator (OTS), data warehouse, Geographic Information System (GIS), DMS study applications and others. A four-year roadmap has been developed based on leveraging the knowledge of international CIM groups, top system and product providers, other utilities and integration consultants.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > SIGDE PROJECT IN ECUADOR

Towards Distribution Smart Grid in Mexico



Alfredo Espinoza Reza, Instituto de Investigaciones Eléctricas (IIE), Mexico, discussed the work of Comisión Federal de Electricidad (CFE) in adopting international standards, specifically in the Smart Distribution Power Network (SEDI) initiative. CFE is the vertically integrated electric utility in Mexico with about 34 million customers and an average annual growth rate of over 4%. CFE and IIE have collaborated on 3 CIM interoperability projects in the past and will be working on a recently-approved project, SEDI, which is a strategy for a more efficient, reliable and secure distribution network currently being deployed in Mexico City. Semantic interoperability is one of the goals of SEDI and the CIM provides the semantics part of the Semantic Service Oriented Architecture (SSOA) that is being implemented. The architecture for semantic interoperability relies on multiple layers including message bus middleware, a semantic interoperability bus, adapters and applications. CFE's semantic model covers topology, one-line diagrams, electrical and physical models of electrical elements, real-time and historic SCADA data, important customer information, failure and maintenance data and historic energy quality data.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > CIMug meeting Austin20011 – CFE-Mexico ver 0 (2)

Asia

CIM Applied in Vietnam



Tran Anh Thai, Vietnam Power Resource Partners Company, presented on the SmartCIM Database and Smart-CIM Applications being deployed for the management of the Vietnam power system and its market. Demand for electricity in Vietnam is growing at an annual rate of 13-15% and current peak load is 16,000 MW. Plans call for creation of a single buyer power market by 2011, a wholesale competitive market by 2016 and a retail competitive market by 2024. A SmartCIM database, leveraging all three IEC CIM standards (61968, 61970, 62325) supports manual entry and spreadsheet import and flat file export to a variety of formats. The overall integration architecture calls for a data bus supporting information exchange among a System and Market Operations (SMO) Centralized Database, the CIM model for historic data retrieval, planning applications and Market Operations functions

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > CIM Applied in VN_Thai Tran

Wide Area Situation Awareness (WASA) Demonstration System Utilizing the CIM in Japan

Ryuya Tanabe, Yasuyuki Tada, Tokyo Electric Power Company (TEPCO), Japan, overviewed the value of Wide Area Situational Awareness (WASA) and a project in which TEPCO and Toshiba collaborated to demonstrate the use of the CIM as a framework for WASA communications. WASA is needed in Japan to maintain a reliable, efficient, economical power system in the face of increasing renewable energy. A Wide Area Monitoring, Protection and Control use case was utilized to define project requirements. Central to the WASA design solution is a “WASA brain” where power system models are linked to Phasor Measurement Unit (PMU) and legacy interfaces using Semantic Web technology. Specifically, the “WASA brain” includes the power system model, real-time data snapshots, the results of power system analysis functions and situational awareness information. In the demonstration, phasor data provided in 61850-09-5 is merged with other real-time data provided in legacy protocols. The situational awareness function of the “WASA brain” includes both new and existing applications which analyze the real-time data and can issue control actions. Utilizing the CIM in the “WASA brain” helped provide a flexible architecture eliminating vendor lock-in and easing the portability of new applications.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > CIMug_tanabe

Europe

CIM-Based Data Quality at DONG Energy



Nis Jespersen, IBM, presented a case study of a distribution project, implemented with a pragmatic, bottom-up approach that allowed Danish Oil and Natural Gas (DONG) Energy to get started with the CIM without a major strategic investment. DONG will be undertaking a DMS upgrade in the near future and its success is dependent on the quality of the data to be used in its configuration, which comes from multiple overlapping and inconsistent sources (operational system, GIS, asset management). To create an accurate set of data for DMS configuration, information from each of the multiple sources is translated to a common CIM format and compared at the instance and attribute level, typically with one system acting as the master reference. Error files are generated to allow corrections to the source data to be made and the process is rerun. Ultimately an accurate, combined configuration model is produced. Learnings from this effort included the realization that manually maintained data frequently does not adhere to published conventions and that application limitations can require valid data to be modeled awkwardly.

Video: Under Meet on left menu bar > Session Webcasts > Grid Data Quality with CIM at DONG

Enterprise Strategies

The Future of CIM-Based Enterprise Integration and Lessons Learned from Past Utility Projects

Joe Zhou, Xtensible Solutions, reviewed the utility Smart Grid landscape and the history and value of the CIM, presented several CIM-based architectures and shared his observations about the value and future of CIM-based integration. Multiple communications technologies, the explosion of field and customer devices and the need for tighter integration to meet business performance expectations are all challenges of the Smart Grid world. Significant new functional needs exist in the areas of customer engagement, energy efficiency, distributed energy resources, operational & system planning, engineering and operations and strategic asset management. Multiple semantic model-based architectures have been proposed as solution starting points and the CIM is an essential part of all of them. Despite the fact that the CIM is recognized as key to Smart Grid Interoperability, regulatory mandating of its use (at least in the US) doesn't seem likely, interoperability between vendor products still is challenging for utilities and standards development is still volunteer-based and slow. A significant part of the value of the CIM derives from the philosophy and the best practices that accompany its deployment in a semantic-driven architecture.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > The Future of CIM-based Enterprise Integration Based on Lessons Learned from Past Utility Projects

Enterprise Information Management as Key Enabler of SG Solutions

Brad Williams, Oracle, presented on the nature and value of Enterprise Information Management (EIM) and the integration architecture needed to support it. Smart Grid is about managing and leveraging lots of real-time information and EIM is a crucial part of accomplishing the job. EIM focuses on the accuracy and integrity of information assets; it requires an organizational commitment and must fit within a organization's enterprise architecture strategy. EIM is a comprehensive program, not just a technology, and encompasses vision, strategy, governance, organization, process, reference model and metrics. EIM requires cross-silo collaboration and, by definition, bridges the Information Technology (IT) to Operations Technology (OT) gap, allowing OT to leverage the governance and business process discipline that has already evolved in IT. A life cycle view is an essential component of EIM and the business process changes required to support it are in many cases larger than the technology changes. There is a difference between Business Intelligence, where Key Performance Indicators are known and measured, and unstructured business analytics, where data exploration and analysis can provide new insight. EIM is essential for analytics.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > BWilliams_EIMKeyEnablerOfSGSolutions_CIMUG2011_111711

Enterprise Information Management Strategies at Exelon



Dean Hengst, Exelon, Utility Co-Chair of CIMug, summarized Smart Grid developments at Exelon. In October, the Illinois legislature overrode an earlier gubernatorial veto to pass a "smart-grid bill" authorizing a 10-year investment in smart grid technology by Illinois utilities. The new field technologies deployed as a consequence of this bill will generate data in a volume not before seen. Suddenly enterprise information management systems become vitally important, as do the IT and Operations organizations required for supporting them. The OpenSG Enterprise Information Management (EIM) Task Force is going to be a great resource for helping folks (including Exelon) to meet their real-world data integration challenges.

CIM-Related Initiatives

IEC 61968/MultiSpeak™ Harmonization Project



Gerald Gray, EPRI, summarized the CIM and MultiSpeak harmonization work that EPRI has sponsored, including the need, the harmonization strategy, several profile considerations and an integration proof-of-concept. CIM tends to

be used by larger utilities and is slower to change since it is an international standard. MultiSpeak serves smaller, primarily US, utilities and is able to change more rapidly in response to changing requirements. Harmonization of CIM and MultiSpeak is of value to vendors selling the same product into both CIM-based and MultiSpeak-based utility environments and has the potential of furthering the adoption of both standards. Harmonization work started with a correlation of the highest level abstract classes and continued down thru the model and into profiles, where MultiSpeak profiles had to be crafted before comparison could be done. Harmonization recommendations have been submitted to both the CIM Model Managers and to the MultiSpeak Technical Committee. An On Demand Read use case scenario was implemented as a harmonization proof-of-concept.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > 2011 EPRI CIM-MultiSpeak Harmonization

Field Force Visualization - A CIM Integration Study



Alan McMorran, Open Grid Systems, presented the features of the Mobile Integrated Data Access System (MIDAS). An EPRI project on Field Force Visualization has leveraged tablets and smart phones to provide field

crews with access to network and asset-related information. The tablet application prototype developed by the project runs on iPad, has three primary interfaces (augmented reality, map viewer and line diagram viewer) and utilizes CIM encoded as JSON for communications. A gateway restricts the data communicated to the tablet to only that which is required. A work management interface has been implemented to allow direct sending of 61968-9 Work Order messages. Future work is planned to include single-line diagram editing, support for iPhone, the addition of asset information and the ability for location-related updates to be made by field personnel.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 2 – Thursday, November 17 > MIDAS CIM UG November 2011

Standards Work Updates

CIM Interoperability Testing (CIM, UCA/ITCA, ENTSO-E)



Margaret Goodrich, SISCO, Co-chair of CIMug Testing Sub-Committee, reported on the UCAI Testing Committee and its Interoperability and Testing Certification Authority (ITCA) status, on the European Network of Transmission

System Operators for Electricity (ENTSO-E) Interoperability (IOP) test results and on the 2011 61968 IOP tests.

- **ITCA**

UCAI has sponsored 61850 compliance testing for many years and is now planning to increase the scope and formality of its testing by becoming an ITCA for both 61850 and CIM.

- **ENTSO-E**

The ENTSO-E IOP, held in Brussels in July, 2011 had more than 50 participants including vendors and test witnesses. It utilized CIM15 and covered primarily 61970 (Model Authority Sets, short circuit data, dynamic models, diagram layout and “operations to planning” model exchange). The final report is available on the ENTSO-E website www.entsoe.eu (search for Interop). As with most Common Power System Model (CPSM) IOP tests, the preparation of good test files was a challenge in the ENTSO-E IOP.

- **61968 Testing**

IOP tests were held in March, 2011 for 61968 Parts 3 (Network Operations), 6 (Maintenance) and 4/13 (Assets and CDPSM profile). Each test had between 8 and 12 participants and 5-6 test witnesses. The Part 3 and 6 tests were executed remotely using GoToMeeting to allow the test witnesses to perform their validation. Part 4 and 13 Common Distribution Power System Model (CDPSM) testing was done on site in Paris. During the week of November 7, 2011 61968 Part 9 (Meter Reads) testing was done with 12 participants and 3 test witnesses and it was also a virtual test performed remotely.

Slides: Under Meet on left menu bar > Presentations > CIMug > Day 1 – Wednesday, November 16 > UCA-ITCA-ENTSOe-61968 IOP Report

Video: Under Meet on left menu bar > Session Webcasts > CIM – Interoperability Testing (CIM, UCA/ITCA, ENTSO-E)

CIM Model Manager Report

Kendall Demaree, Alstom, 2011 WG13 CIM Model Manager, shared the annual CIM Model Manager report and an update on the Profiles Task Force work. CIM15 (subversion33) is final, the UML has been posted on

the CIMug website and official IEC documentation changes are being initiated. Enhancements and additions in CIM15 include:

- Phase unbalanced models for WG14 and beyond
- New datatype primitives
- Dynamics model from EPRI work
- Name – NameType model
- New transformer model, unbalanced, tanks
- Type (catalog) data support
- Cuts and Jumpers – via WG14
- AuxiliaryEquipment

All Working Groups (WG13, WG14 and WG16) are holding weekly conference calls and are benefitting from cross-Working Group participation. The three Model Managers (one from each Working Group) collaborate to manage the parallel maintenance and assembly of the UML.

A profiles task force (reporting to WG19) is holding weekly web conferences and is working on describing a uniform, layered view of profiles to be utilized in the standards developed by all three CIM Working Groups.

Video: Under Meet on left menu bar > Session Webcasts > CIM Model Manager Report

Website Navigation and Updates



Terry Saxton, Xtensible Solutions, Vendor Co-Chair of CIMug, gave a tour of the CIMug website (including its support for group collaboration) and the planned improvement work that is underway. Comments and suggestions for changes to the website can be directed to Terry Saxton at tsaxton@xtensible.net or Pat Brown at pbrown@epri.com.

Combined Closing Plenary Update on Austin's Pecan Street Project



Brewster McCracken, Executive Director of Pecan Street Project, provided up-to-date information on the Peach Street Project's research initiatives and results as well as interesting observations on the forces that drive major societal innovations. Peach Street is a research consortium associated with the University of Texas and supported by approximately a dozen companies, many of them consumer electronics-focused. The Peach Street Project is carrying out the most granular study on consumer energy research yet undertaken. Detailed energy consumption / produc-

tion information is being gathered at 15 second intervals from approximately 200 homes (100 of which are green built, 100 of which are not) in a concentrated geographic area. Participation in the project is high, with approximately 200 roof-top solar panel installations and more than 100 electric vehicles included in the study area. Trends of initial data on the usage of various home appliances, the output of residential roof-mounted solar and consumption by electric vehicles are starting to provide valuable insight.

Video: Under Meet on left menu bar > Session Webcasts > Pecan Street Project, Inc.

The 2011 Fall CIM User Group was co-hosted by Austin Energy and ERCOT and was sponsored by IBM, Oracle and Itron.

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This CIM User Group Summary was prepared by Pat Brown, IEC TC57 Working Group 13 member. Pat works in EPRI's IntelliGrid Program, which funded the production of the Summary.