



# **Creating Distribution Boundaries Using Computational Geometry & Meteorological Mesonet – Better Predictions for Storm Damage**

**EPRI GIS Interest Group Webcast**

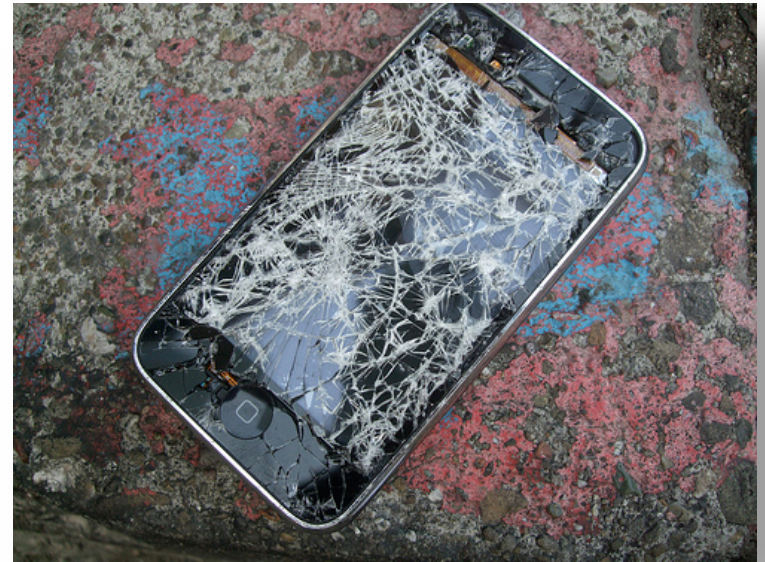
May 22, 2014

# Legal Notices

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- Please silence your cell phone and place away from your desk phone. It can cause interference.
- Please mute your phone when you are not speaking.
- Do NOT place the call on hold to take an incoming call.
- This webcast is being recorded. Your continued participation in the call is considered your acceptance to being recorded.
  - Do not disclose any information you consider proprietary.
  - Remember that any you say will be available to the members of the interest group



# GIS Interest Group – Past....

Date	Title	Presentation	Recording
April 10th, 2014	Utilizing Low Cost GIS Technology – Open Maps and Apps	<a href="#">Presentation</a>	<a href="#">Recording</a>
March 11th, 2014	GIS 2025: What does the industry hold for us and how can we prepare?	<a href="#">Presentation</a>	<a href="#">Recording</a>
Sept. 26, 2013	Webcast on Estimating the Spatial Distribution of Power Outages during Hurricanes for Risk Management	<a href="#">Presentation</a>	
August 29, 2013	Webcast on Field Force Data Visualization, GIS Data Correction, and IDMS	<a href="#">Presentation 1</a> <a href="#">Presentation 2</a>	
March 7, 2013	Union Power Dashboard and PSNH Importance of GIS Data	<a href="#">Presentation 1</a> <a href="#">Presentation 2</a>	<a href="#">Recording</a>

<http://www.smartgrid.epri.com/GIS.aspx>

# GIS Interest Group – Future....

<b>Date</b>	<b>Title</b>	<b>Presenter</b>
<b>May 22, 2014</b>	<b>Finding Feeder Boundaries Using GIS</b>	Bob Williamson, Oncor
	<b>Advance Weather Model for Predicting Storm Damage Using GIS</b>	Bob Pasken, SLU
<b>June</b>	<b>Mapping Underground Utility Infrastructure</b>	Geoff Zeiss
<b>July</b>	<b>Use of GIS as a Wide Area Situational Awareness Platform in Transmission</b>	TVA
<b>August</b>	<b>Conflation of GIS Data</b>	Open Geospatial Consortium

<http://www.smartgrid.epri.com/GIS.aspx>

# Where to Find the Results



- Handouts
- Web site



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## Smart Grid Resource Center

### Geospatial Information System Interest Group

*A Technology Transfer Outreach Effort of the EPRI IntelliGrid Program*

#### Purpose of the GIS Interest Group

The GIS Interest Group is a forum for utilities to share experiences, talk about tools and techniques and explore research topics. EPRI provides this forum without charge (you do not even have to be an EPRI member to participate) as a service to the industry and to promote the importance of good GIS data.

With the advent of AMI, DMS, and the Smart Grid, distribution companies can no longer ignore poor data quality. In many cases, utilities are finding that their capital intensive Smart Grid investments are not yielding anticipated benefits simply because the utility does not have an adequately accurate representation of the distribution system. In more extreme cases, the safety of employees and the public has been compromised due to misrepresented facilities in the GIS.

GIS quality issues are primarily related to:

- Gaps, e.g. certain key data is missing;
- Redundancies with other systems, e.g. data is captured in many systems and it is inconsistent or requires duplicate data entry to update;
- Lack of currency with system "as-built", e.g. untimely work order completion / updates;

#### Additional Resources

**September 26, 2013**  
**Webcast on Estimating the Spatial Distribution of Power Outages during Hurricanes for Risk Management**  
[Presentation](#) (830 KB)

**August 29, 2013**  
**Webcast on Field Force Data Visualization, GIS Data Correction, and IDMS**  
[GIS Interest Group Webcast](#) (1.4 MB)  
[GIS Data Correction](#) (1.3 MB)

**March 7, 2013**  
**Union Power Dashboard and PSNH Importance of GIS Data**  
[Recording](#) (14 MB)

Interest Groups
<b>GIS Interest Group</b>
Webcast Archive
Secure Remote Substation Access Interest Group
Smart Grid EA Interest Group
Metering & AMI Interest Group
Communications Interest Group
Roadmap Interest Group

# About the GIS Interest Group

- This interest group is part of the IntelliGrid Program – ICT for Distribution
- We are use these forums to drive the research in this program
- It is open to utilities whether funding or not
- The research we do will be for the funders of the IntelliGrid Program – ICT for Distribution



# Roadmap for ICT for Distribution

- Previous work
  - Monetizing the GIS
  - Data dependencies of GIS
- Current year work
  - GIS as a situational awareness platform
  - GIS data quality handbook
- Future work
  - Future editions of the GIS quality handbook
  - Work/asset management integration with GIS
  - Data visualization using GIS





# Shameless Plug....

## Register for EPRI Smart Distribution & Power Quality Conference & Exhibition 2014

*June 17-19 in Charlotte (With Post-Event  
IntelliGrid & SG Demo Advisory Meetings  
June 20)*

**[Link](#)**

# Help With Brainstorming....



5-Year plan: What should we be doing?

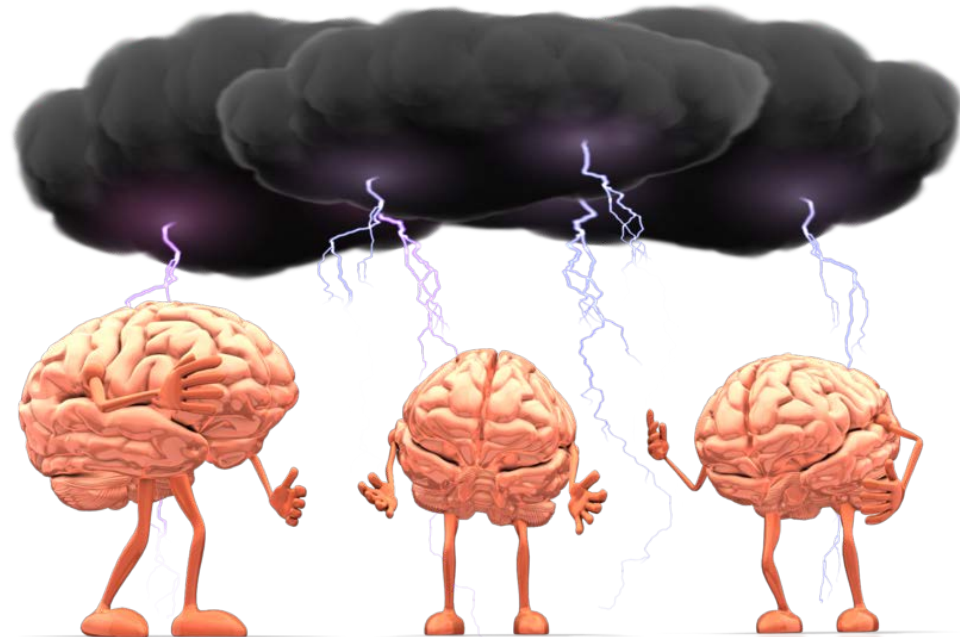
- Top issue



Need speakers!



Need help with monetizing data correction methods



# Comparison of Data Correction Methods

Method	Accuracy	Cost/Service Points – 10,000	Time
Field Asset Inventory	2' – 3'	\$60,000 – \$80,000 + cost of adjusting existing data	Months
Asset Inspection with GPS	2' – 3'	GPS point capture + cost of existing data – ~ \$2/pole	Years
On-screen Spatial Correction	5' – 10'	< \$10,000	Weeks

# Poll

# Our Speakers

- **Robert Williamson, PE, Senior Engineer at Oncor Electric Delivery** -- Bob supports Oncor's existing Work Management / Geographic Information System and is engaged in the design of Oncor's new GIS.
- **Dr. Robert Pasken, Associate Professor of Meteorology, St. Louis University** --Dr. Pasken has been a meteorologist and faculty member at Saint Louis University for over thirty years. He is the creator of the Missouri Mesonet, a meteorological network to provide improved forecasts for metropolitan Saint Louis area.

And now ...