

EPEI ELECTRIC POWER RESEARCH INSTITUTE

EPRI GIS Interest Group

GIS 2025: What does the industry hold for us and how can we prepare?

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Agenda







1. Context

Setting the stage

- Consumer electronics
- Downward price trends
- Decades of evolution
- Products are "friendly"

Users know what they want

- Mobility
- Visualization and mashup
- Automation
- Real-time, instant access

Challenges

- Lack of "easy" data capture
- Compliance
- Cybersecurity and privacy
- BYOD





Our Reality



Data availability and Quality

- Data quality improving
- Is it good enough?
- Is it timely enough?
- We're integrating data from more sources (EV, PV, DER, transmission)

Users are spoilt!

- Expectations are higher
- Often forget their obligations with respect to data maintenance
- Want speed and ease of use
- Move office to smart device

Technology refresh and upgrade is difficult to justify

- Increased O&M costs
- Larger technology footprint

Crossplatform integration is becoming more complicated

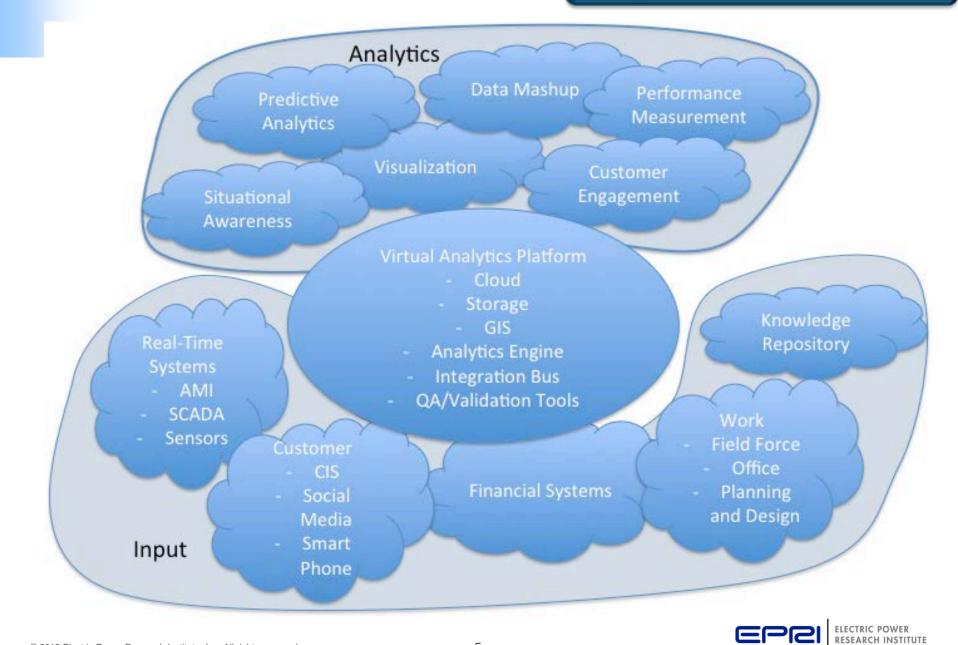
- Where are standards?
- Required for compliance

GIS is still viewed as a supporting application in many cases

• Perhaps this is an accurate perspective!



2. Vision



Key Components: The Future





3. How to Best Prepare

Clean up data

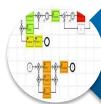
- Engineering analysis / load flow
- Anticipate EV, DER, CES
- Cleanup automation
- Unique identifiers
- Conflation



- Promote and Enforce standards
- Create an open environment
- Drive standards to meet industry needs



- Create an awareness amongst users
- Data as a critical asset
- Responsibilities and accountability



Align towards common processes

- Commonality across the enterprise
- Measurement



Why is GIS More Important Than Ever?



Updates are required in near realtime



Inaccuracies now viewed as acceptable become intolerable



GIS may no longer exist in form we know but data will be pervasive







Velocity

- Immediate update
- Immediate access
- Immediate distribution



Variety

- Structured and unstructured data
- Internal and external
- Platform for visualization



Volume

- Unheard of storage requirements
- Ease of access







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