

# EMC FOR THE ADVANCED METERING INFRASTRUCTURE “STACK”

## ESSENTIALS

### EMC in Utilities:

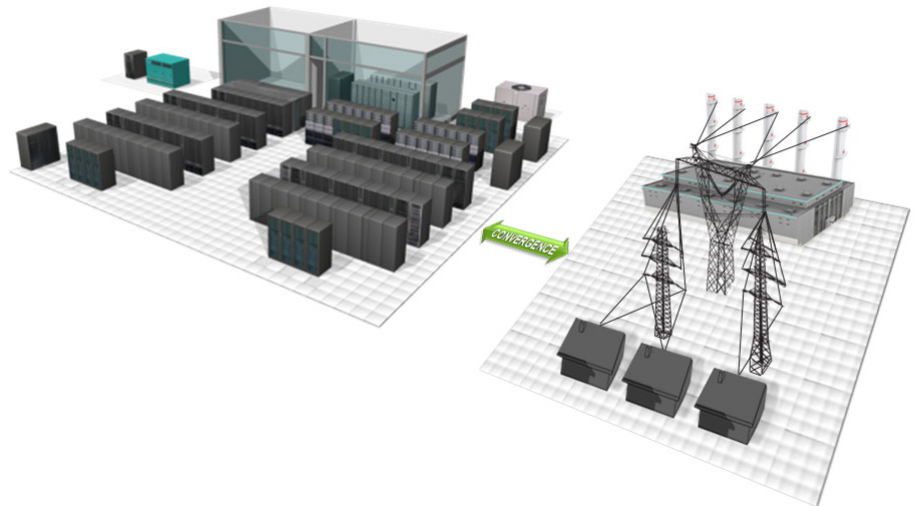
- 150+ utilities use EMC information infrastructure
  - Top 10 in North America
  - Top 10 in EMEA
  - Top 10 in APJ
- 250+ utilities use EMC Documentum®
- Eight of the top 10 utilities in North America use RSA®

Moving from monthly meter reads to 15-minute intervals will produce over 2,000 times the amount of data. Utilities are asking: “Where will we put it? How do we manage it? How do we protect it?”

Utility companies are under a tremendous amount of pressure.

<b>Exponential Data Growth</b>	<ul style="list-style-type: none"> <li>• Smart Grid technologies require infrastructure to support more data than ever before</li> <li>• Rising concerns on data security, protections, and management</li> </ul>
<b>Supply-Side Constraints</b>	<ul style="list-style-type: none"> <li>• Significant need for new capacity</li> <li>• Carbon legislation in various stages worldwide</li> <li>• Cost convergence of traditional and renewable generation sources</li> </ul>
<b>Aging Workforce</b>	<ul style="list-style-type: none"> <li>• Knowledge retention issues will rise with ~30% of the workforce retiring in the next five years</li> </ul>
<b>Antiquated Infrastructure</b>	<ul style="list-style-type: none"> <li>• Most equipment is already past its current life expectancy</li> <li>• Outages and disruptions occurring more frequently now than ever before</li> </ul>
<b>Public Safety and Security</b>	<ul style="list-style-type: none"> <li>• Grid vulnerable to acts of terrorism and natural disasters</li> <li>• Increased urgency to “protect the grid”</li> </ul>
<b>Regulatory Concerns</b>	<ul style="list-style-type: none"> <li>• Increasingly stringent federal and state regulations mandate new levels of data retention, data security—both electronic and physical—and energy efficiency</li> </ul>

The challenges they face are only exacerbated by the onset of Smart Grid and the paradigm shift in business models, forcing a convergence of IT and grid operations.



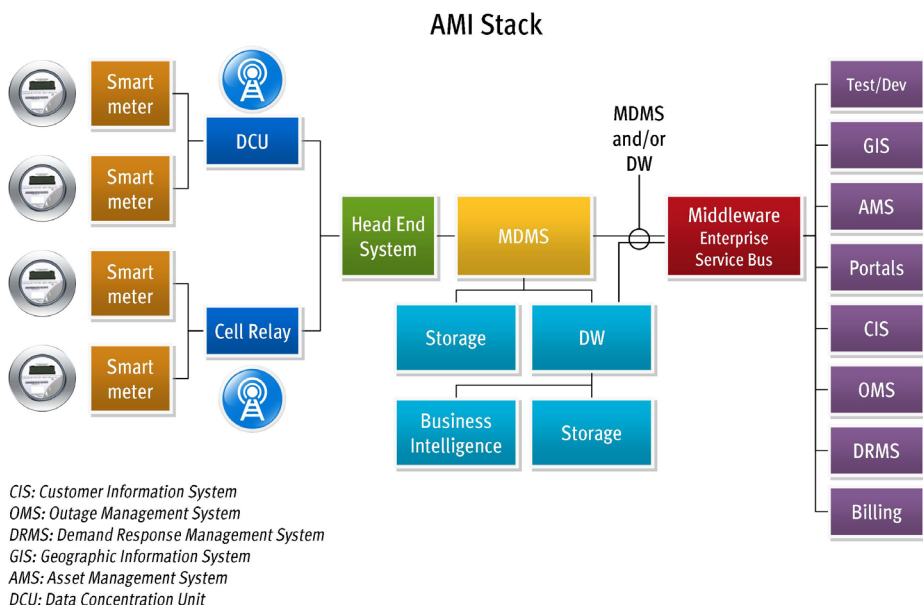
“The Smart Grid will be 10 to 100 times bigger than the Internet.”

CISCO

Smart Grid will not happen overnight. Instead, it will develop over a period of at least 15 years. By around 2025, we should see the fruition of the vision of Smart Grid, including distribution and substation automation, grid self-healing, renewables integration, distributed energy storage, plug-in electric vehicles, and home area networks.

“More than 250 million smart meters will be installed worldwide by 2015.”

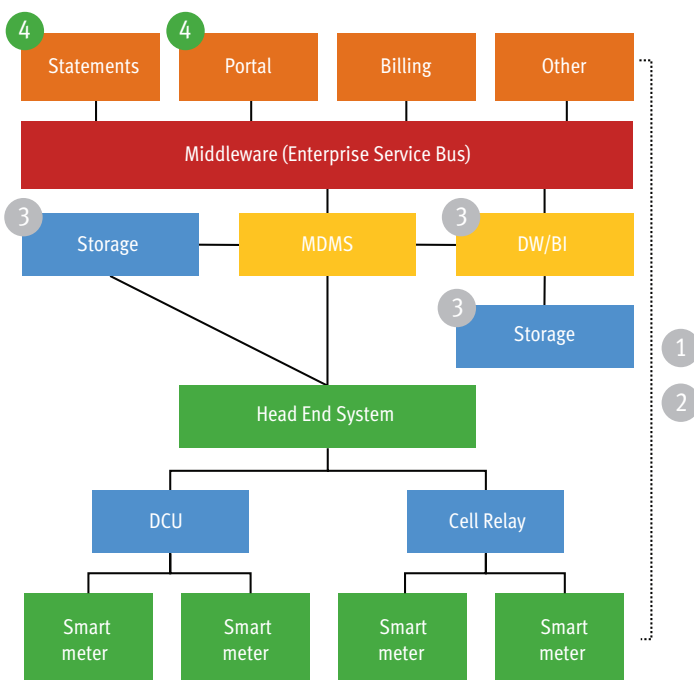
PIKE RESEARCH



For many utilities, Advanced Metering Infrastructure (AMI) is the tip of the iceberg and the first foray into the world of Smart Grid. Below is what EMC calls the “AMI Stack.” The Stack is the hardware and software infrastructure necessary to process the data streaming in from smart meters at intervals of at least every 15 minutes, store it, protect it, and present it to upstream applications like billing and customer portals.

If we simplify the picture a bit, we can begin to see how EMC can—and does—support AMI in customer environments.

- 1 RSA, The Security Division of EMC
- 2 EMC® Ionix™ Network Management
- 3 EMC Information Infrastructure Data Management
- 4 Customer Communications  
EMC Document Sciences® xPression®  
EMC Application Consulting



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For more information, visit [www.EMC.com/smartgrid](http://www.EMC.com/smartgrid), or contact your local EMC representative.

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