



# GE – Digital Energy Grid Software Solutions Introduction Transmission Overview

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June 2018



**TRANSMISSION SOLUTIONS**

May 31, 2018

# Grid Software Solutions Portfolio



## PLAN

GEOSPATIAL INFORMATION

## BUILD & OPERATE

MARKET MANAGEMENT

DISTRIBUTED ENERGY RESOURCE MANAGEMENT

ADVANCED ENERGY MANAGEMENT

ADVANCED DISTRIBUTION MANAGEMENT

PIPELINE PROCESS

GRID STABILITY (WAMS)

UTILITIES COMMUNICATIONS

## MAINTAIN

ANALYTICS

ASSET PERFORMANCE MANAGEMENT

MOBILE ENTERPRISE

CONSULTING SERVICES, IMPLEMENTATION SERVICES, MANAGED SERVICES



# Digital Energy Software Solutions are market leader in electricity network operations & control room software


- N°1 Energy Management Systems**
- N°1 Market Management Systems**
- N°1 Distribution Management Systems
- N°1 Geospatial & Mobile Systems
- N°1 Phasor-based Grid Stability Solutions**



# Grid ... New World, New drivers



Retiring Workforce



Grid Modernization  
More devices, more data




Situational Intelligence  
Data finds the user,  
better insights = better decisions



Cyber-Security



CAPEX & OPEX Pressure  
Growing acceptance for  
hosted & managed solutions



Distributed Energy Resources  
Renewable deployment & CO2-free energy, new generation mix




Business Model Change  
Regulatory shifts



Environment  
Public Safety, Storm Restoration,  
Changing Weather, GHG



New Systems & Technologies  
DA, AMI, Smart Inverters,  
Storage & Fuel Cells



System Dynamics  
Operating near to true real-time  
limits



System Scalability  
From energy cluster to  
large Interconnected grids



# Transmission Digital Energy Solutions Portfolio

## Generation Management



### Generation Companies

- SCADA
- Generation Optimization
- Renewable
- ISO Market Interfaces
- Market

## Large Transmission Management



### Utilities / ISOs / RTOs reliability responsibility for a large geographic area

- SCADA
- Network Optimization
- WAMS
- Renewable
- Market

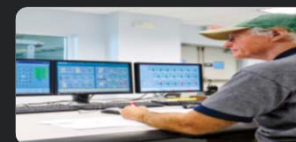
## Utility Energy Management



### Vertically Integrated Utilities

- SCADA
- Generation Optimization
- Network Optimization
- Renewable
- WAMS
- Market

## Munips / Coops Energy Management



### Municipalities Cooperatives Small territory area

- SCADA
- Basic automation
- Additive extension to
  - Generation Optimization
  - Network Optimization
  - Renewable
  - WAMS

## Industrial Power Management



### Onsite-power management

- SCADA
- Generation Apps
- Transmission Apps
- Dynamic Fast Load Shed



**Advanced EMS - Advanced MMS - WAMS - Renewable**

**Automation Essentials**

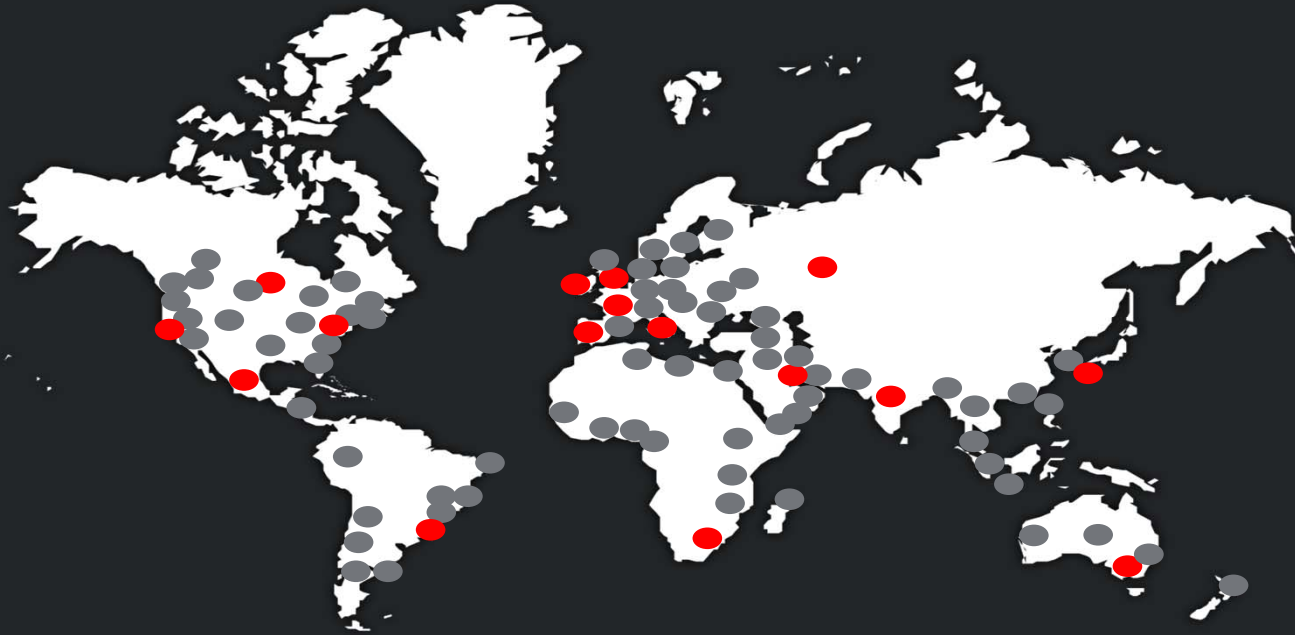


# Service and support

- **Protect installed base with 1<sup>st</sup> Class post sales service**
  - Long term maintenance plans (issue resolution & yearly SW access)
  - 24x7 phone support; Assistance using a dial-in VPN connection
  - Account Management to ensure customer needs are being met
- **Value Added Support Offerings**
  - Upgrade licenses for new releases, Documentation updates
  - Security patch management / 3<sup>rd</sup> party SW updates
  - Pool of professional services consulting days, Custom trainings, Community forum
- **Ensure highest customer satisfaction & loyalty through proactive customer care**
  - Active surveying of customers for continuous voice of customer feedback
  - Turn customers into promoters through active management of a strong and vibrant user community
- **Develop and provide training in Grid Management Solutions**



# Transmission Main customers



● GO15

15 of the 19 GO15 use GE Transmission Solutions



