

Description	Information
Customer	STEDIN Netbeheer B. V.
Address	Blaak 8, 3011 TA Rotterdam, The Netherlands
Award year	2012
Completion year	2013
Total contract amount	Confidential
Supplier Legal Entity	General Electric International (Benelux) BV
Supplier Legal Entity VAT/Tax ID	NL001487516B01
Contract Scope of Work	Design, Installation, Testing, Commissioning, Training, Warranty Further to a deep business evolution, GE delivered in 2009, a new system SCADA/EMS/DMS (Main and Backup) built on the merge of three other systems of respective areas (Rotterdam, Utrecht, and Gouda). The existing systems were: (GE e-terraplatform, AEG Z300 and AEG A TM, ABB Spider, Landis&Gyr TG8020) Then in order to be able to evaluate to the smart grid, STEDIN decide to pass another new evolution step.
Certification of Project Services Execution	The Project Services were executed by the Legal Entity indicated above, proving its experience of satisfactory implementation of similar systems, including at least Project Management, software installation, configuration, upgrades, training, tests and Go Live.
System Sizing	Key elements of network operated (exceeds OMS): <ul style="list-style-type: none"> Multi-fluid: Electricity (2.3 million consumers) and Gas system (1.9 million Consumers) Voltage Level of Network supervised by the system: 150 kV, 66kV, 50 kV, 25 kV, 23 kV, 13kV, 10 kV, 04 kV Number of HV Substations RTUs: -35 with 150 kV Number of HV/MV Substations RTUs: -180 Number of MV/MV Secondary Substations RTUs approx. 2 000 Total number of Secondary Substations: approx. 22 000 (of which -2.000 with station automation) Number of distribution transformers: approx. 24000 Number of Connections (supply point to end customers) : -2 Million Total Range of No. SCADA Data of Points : 100.000 Points < X < 200.000 Points
Number of Consumers (ADMS)	2 500 000
Product Information	<ul style="list-style-type: none"> SCADA 3.3 Distribution Optimization 3.10 Advanced EMS 3.3 Forecasting product 2.0 (part of DER orchestration portfolio)

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System Functionalities - General	<ul style="list-style-type: none"> • Redundant and multiple standby (2+1) architecture for main applications in a Hyperconverged infrastructure • Standalone Sandbox (Business development) / DT (development and Test) / A (Acceptance) / P (Production) environments architecture • Dispatching Operator Training Simulator (DOTS) • Interfaces with 3'd Party System: GIS (GE Small World) , Work Order BVE (Outsystems)
System Functionalities - SCADA	<ul style="list-style-type: none"> • SCADA Software supporting real time data acquisition & control • Alarm • Tagging • Trend • Sequence of Events (SOE) • Load Shedding (not used)
System Functionalities - DMS	<ul style="list-style-type: none"> • GIS Interface (upload data in DMS) • Full Graphic user interface and Dynamic representation of operable devices • Geography and Schematic Network Views • Feeder Coloring and Circuit Tracing • Switch Order Management
System Functionalities - DNAF	<ul style="list-style-type: none"> • Study Mode • Distribution Powerflow • Fault Location, Isolation and Service Restoration (FISR) • Planned Outage Study (POS)
Customer Testimonial	<p>We do not use Storm Assist or Call taker. Our system receives more than a million events per day, this is not an issue for system performance. We have never encountered any problems with interfaces and the use of the model manager. From the operator's perspective we had some delays in using the DMS but this was more of a hardware issue than software as we are doing a major hardware upgrade we don't see any issues anymore.</p>

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Signature	

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