

# **Substation Automation and Integration Market By Components - IEDS (RTU, PLC, Digital Protection Relay, Smart Meters), Communication Technology (Optical Fiber, PLC, Copper Wire, thernet), SCADA & Geography (2013 - 2018)**

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## **Abstracts**

Substation automation has revolutionized the way utilities manage their networks. The substation automation seems to be growing consistently and its market is expected to cross \$100 billion mark in near future. Substation is a base for some of the most important functions of the utility, it is not wrong to say that any major breakthrough in substation technology is seen as one of the foremost aspects of the smart grid revolution. Presently, transmission and distribution utilities are targeting full substation automation of the retrofit substations or partially automated substations that already exist. The most prominent driver of this market is the aging energy infrastructure and increasing influence of a smart grid infrastructure that demands a multifunctional solution that comply with advanced communication protocols. The market is majorly driven by the Intelligent Electronic Devices (IEDs) that provide enormous barrier-less monitoring and control functions across the substation. Also, the communication networks that are used to control the substation devices and for transferring data, are having high growth rates pertaining to the emergence of new and advanced technologies and their significance in automation.

The growth of the substation automation market is expected to be remarkable with the revenue growth expected to reach \$122.94 billion by 2018, at an estimated CAGR of 5.2% from 2013 to 2018. The major players in the substation automation industry are ABB (Switzerland), Alstom (France), General Electric (U.S.), Schweitzer Engg Lab (U.S.); Siemens (Germany), Cooper power Systems (U.S.), NovaTech (U.S.) and so on.

The major drivers for substation automation market are grid efficiency and reliability which are the major contributing factors for utilities to go for automation; other drivers like cost saving, reduction in transmission and distribution loss have also been contributing to the market growth. Major restraints like regulation issues and high initial investments and their impact analysis are covered under this study.

The automation components have transformed the way substations were controlled and critical information was gathered. The global substation automation market is majorly governed by the automation components and IEDs such as digital protection relays, RTUs, logical programmable controller, digital transducers, recloser controls, capacitor bank controls, and voltage controls. The report covers the major communication technologies used for substation automation and which have the maximum potential to drive this market pertaining to the developments in advanced communication technologies. Substation automation is incomplete without communication as all the IEDs and monitoring devices which are located at substation and on the field actually generate data that has to be passed on to the utility data centre which is remotely located. This report also describes the wireless communication technologies such as RF Mesh and Zigbee which have the potential to enter this market in future.

This report describes the value chain for substation automation market by considering all the major stakeholders in the market and their role analysis. This report shows the life cycle analysis of communication technologies that are covered in the study. The report also provides detailed scrutiny of porter's five force analysis for the global substation automation market. All the five major factors in these markets have been quantified using internal key parameters governing each of them.

North America currently leads the market share for substation automation as this region has the most automated substations; it has reached up to the substantial maturity. APAC is the emerging market for substation automation and has the highest growth rate among all the geographic regions. It is believed that APAC market will grow at a CAGR of 9.1% from 2013 to 2018.

The report covers recent developments in the substation automation industry like Siemens (Germany), acquiring RuggedCom (Canada), in March 2013. Schneider Electric (France) acquired Electroschild – TM Samara (Russia) in March 2013. Several other recent developments and updated information about acquisitions, mergers, and new product launches and agreements conducted recently are discussed in the report.

This report deals with all the driving factors, restraints and opportunities with respect to

the substation automation market that are helpful in identifying trends and key success factors for the industry. It also profiles companies which are active in the field of substation automation. The report provides the competitive landscape of the players that covers key growth strategies followed by all the major players. It also highlights the winning imperatives and burning issues related to the substation automation industry.

### **Scope of the report**

This research report categorizes the global substation automation market on the basis of components, communication networks & technology, substation types and SCADA for substation automation. It also covers the forecast revenue from 2013 to 2018 for the overall market as well as for all the segments covered in the report. It describes the deployments of substation automation in different regions with their market shares.

### **On the basis of IEDs**

The global substation automation market is segmented on the basis of IEDs such as digital protection relays, RTUs, logical programmable controller, digital transducers, recloser controls, capacitor bank controls, and voltage controls.

### **On the basis of communication networks**

The global substation automation market on the basis of communication networks that comprise copper wire communication, fibre optic communication, ethernet (copper or optic fibre) communication and Power line communication (PLC).

### **On the basis of types**

The global substation automation market on the basis of substation types which consists of transmission substation, distribution substation and collector substation/tie line substation.

### **On the basis of SCADA**

Global market for SCADA and its application in substation automation is covered in this report.

### **On the basis of geography**

The global substation automation market on the basis of major geographic regions such as North America, Europe, Asia-Pacific, and ROW.

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