

*Control Everything Under the Sun*

## Ovation™ Distributed Control and SCADA Solutions for Photovoltaic Solar Power Plants

The need for large-scale applications of solar power has become more prominent in today's energy structure as the demand for renewable energy sources increases. Solar power plants using photovoltaic technology have been proven as a clean power generating alternative for decades.

As with any large undertaking, construction, operation, and maintenance of photovoltaic solar power plants is not without challenges.



*For over a century, Emerson Process Management Power & Water Solutions has been using the world's most advanced technology to help customers control critical generation processes, increase plant efficiencies and megawatt production, and realize long-term O&M savings.*

***Key to our solution for photovoltaic solar power plants is the Ovation™ expert distributed control and SCADA system. Install Ovation as the core of your photovoltaic automation strategy to gain higher levels of integration that will reduce costs, enhance operations, facilitate information sharing, and support your ability to meet regulatory and commercial objectives.***

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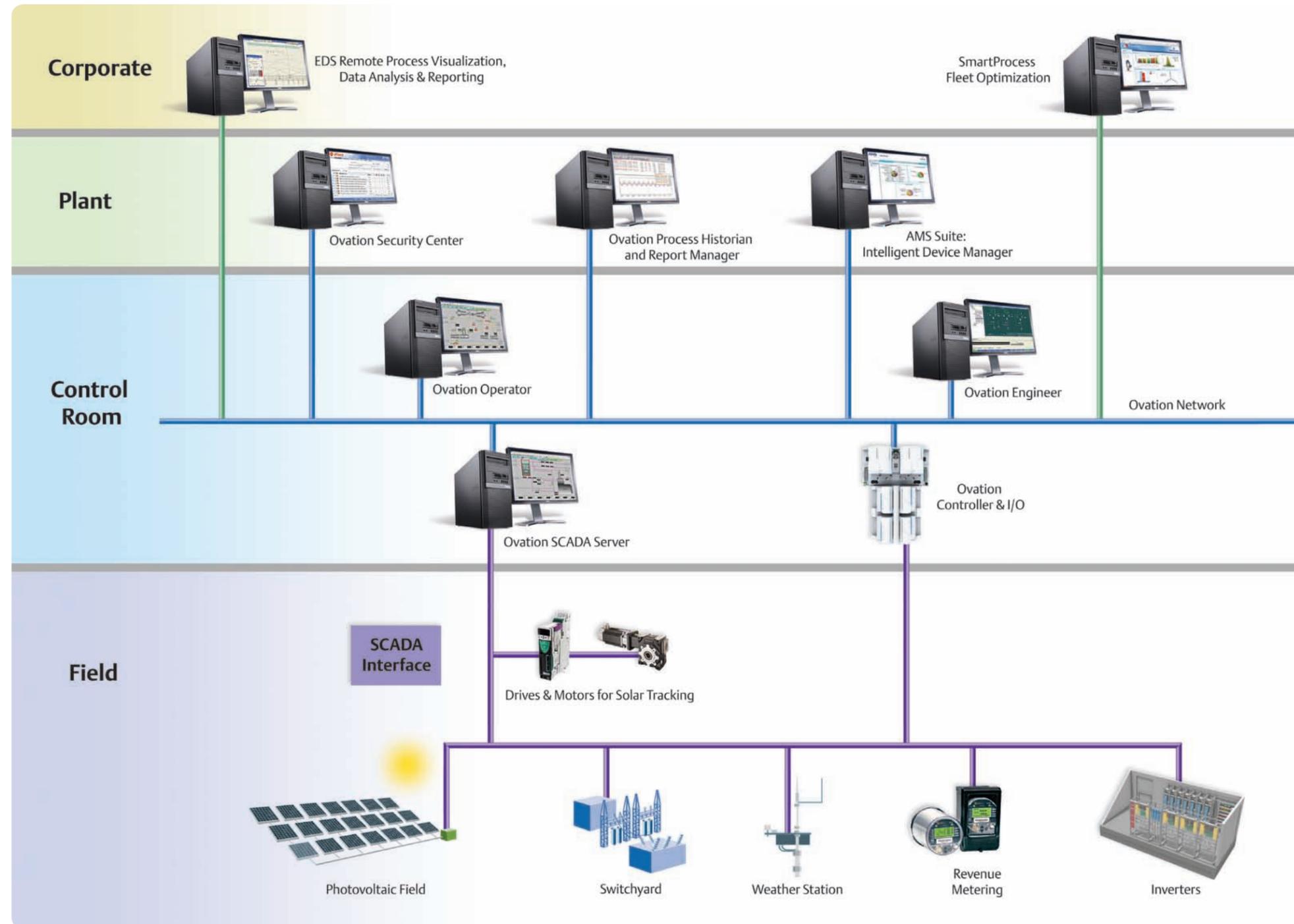


Ovation utilizes commercially available, off-the-shelf technology to provide a powerful and secure architecture while allowing your system to easily progress with rapidly advancing computer technologies. Ovation provides a seamless interface with the most widely adopted bus standards allowing you to incorporate smart device technologies into your process. And Ovation's embedded advanced algorithms and proven industry-specific control routines assure that you can optimize your operations to maximize efficiency, productivity, and profitability.

The Ovation SCADA server plays a prominent role in our automation solution for photovoltaic solar plants. The Ovation SCADA communication server makes important information from remote controllers readily available to the Ovation control system and desktops of supervisors and managers throughout your organization — enabling them to make faster, more effective operating decisions.

## Key Features of the Ovation Distributed Control and SCADA Solution for Photovoltaic Solar Plants:

- Uses redundant communication schemes to provide fault-tolerant data transmission
- Employs a distributed architecture to increase reliability
- Is easily expandable to meet future growth demands
- Utilizes a single, system-wide relational database to coordinate and maintain data
- Executes remote start, stop, or tagout of equipment to minimize site visits
- Implements automatic supervisory shutdown to protect assets
- Generates custom reports to track maintenance activities
- Performs online diagnostics to quickly isolate and address problems





Emerson Process Management Power & Water Solutions has a rich history of energizing the power industry with new and revolutionary ideas. Our portfolio includes over two decades of experience providing automation solutions to customers that help mitigate the costs and risk associated with operating and maintaining solar assets.

### >> Why Emerson and Ovation for your photovoltaic solar power plant?

- Supports a variety of user interface requirements through an open, flexible architecture
- Interfaces to numerous field devices such as inverters, meteorological stations, revenue meters, and solar tracking systems
- Provide access to plant data from remote locations
- Supports NERC CIP security requirements
- Provides full-service, long-term support and training
- Employs a scalable architecture that compliments current plant architectures with a bridge for easy future expansion
- Allows integration of the entire generating fleet — including solar plants, other renewable energy generation facilities including hydro and wind, and traditional coal and gas-fired generating units — for dissemination of information throughout your organization to help meet dispatch or regulatory requirements
- Offers membership to our global Users Group for ongoing and open communication between Emerson and its customers

For more information visit [www.EmersonProcess-PowerWater.com](http://www.EmersonProcess-PowerWater.com)