Features

- ODBC allows integration directly with any type of ODBC-enabled application.
- With OPC, users can integrate plant data with any OPC-enabled plant analysis application.
- NetDDE enables data transfer between programs without a custom interface or driver.
- Web Viewer provides graphic process data to any desktop computer connected to the company.
- EDS imports and converts original control system process graphics for viewing at the terminal client application.
- The Ovation Process Historian creates an enterprise process information system within a geographically dispersed organization.
- Data links enhance exchange capabilities between the control system and multiple third-party plant control devices.

Deregulation and competition drive technology to improve processes and overall plant performance. A wealth of third-party plant performance applications has become available, enabling plant personnel to examine broader trends and costs. By bringing historical and live plant performance data to the desktop, these applications become strategic tools for improving plant efficiency. Emerson Process Management offers a suite of products that integrate plant control systems with corporate networks, providing accurate process data when and where it is needed the most. Now, critical Ovation® or WDPF® plant process data can be accessed through the company LAN/WAN, even through a dial-up or an Internet connection.

Depending on specific plant requirements, connectivity servers specialize in transferring specific types of process information to third-party desktop applications. Each connectivity server is designed to provide reliable historic or real-time process data, delivering strategic plant analysis information directly to the desktop.

ODBC Server

ODBC (Open Database Connectivity) allows historical plant process data to integrate directly with any type of ODBC-enabled application. Many off-the-shelf, third-party desktop applications such as word processors, spreadsheets, and database application development tools are ODBC-enabled.

The ODBC Server imports historic process data directly from the WDPF or Ovation Solaris-based historian to the desktop application, eliminating the effort and error of manual data entry. Performance data from the DCS historian can be combined with accounting or other information, allowing plant managers to compare expected plant performance. SQL provides data filtering, providing selected data from the DCS Historian across the plant LAN/WAN.

OPC Server

OPC (OLE for Process Control) is a real-time data interchange protocol based on an open standard and a consistent method of accessing
data from plant devices. OPC enables users to easily integrate plant data with any OPC-enabled plant analysis application, regardless of the type and source of data.

OPC Server exchanges information between an OPC Server, and OPC-compliant software applications called “clients.” OPC-compliant client software applications typically reside on the plant’s business LAN/WAN, or on a user’s local drive.

The OPC standard also provides an easy way for plants to develop customized OPC client applications using any current Microsoft Windows development environment without the use of special software or toolkits.

**NetDDE Server**

NetDDE, or Network Dynamic Data Exchange, is a real-time data interchange protocol that is based on an open standard and a consistent method of accessing data from plant devices. An extension to Microsoft's DDE (Dynamic Data Exchange), NetDDE is a protocol to transfer data between programs across the LAN/WAN without a custom interface or driver.

NetDDE exchanges information between a NetDDE Server, and NetDDE compliant software applications called “clients.” A NetDDE server collects data from a field device via the plant network or highway, and delivers it to the NetDDE-enabled software application that can reside on the plant’s business LAN/WAN, or on a user’s local drive. NetDDE server eliminates the need for a proprietary data link protocol. NetDDE also provides an easy way for plants to develop new customized NetDDE client applications without the use of special software or toolkits.

**Web Viewer**

The Web Viewer provides graphic process data to any desktop computer connected to the company LAN/WAN through a direct connection, an off-site dial-up, or an Internet connection. Web browsers access live DCS data through Java applets that transfer the data from the plant network directly to the desktop by communicating with the server. By using the Internet to deliver plant process data to any location, the Web Viewer reduces support costs and reduces response times. On-call support professionals can troubleshoot plant control systems from any location, without traveling to the plant.

The Web Viewer’s graphic display abilities create a virtual “read-only” Ovation Operator workstation or WESStation. Although not all of the process diagram features are enabled in the Web Viewer, the available graphics are identical to Ovation or WDPF graphics, providing a familiar point of reference for plant personnel. Web Viewer's diagram conversion utility transforms standard DCS trends, charts, text, point information, and plant process data so that plant data can be viewed from a web browser.

**Ovation® Process Historian**

The Ovation® Process Historian provides mass storage and retrieval of process data, alarms, sequence-of-events (SOE), and operator actions for the Ovation® system. The speed, power, and flexibility of the historian allow it to organize vast amounts of real-time process data and present meaningful information to all users of process information, including operators, engineers, and maintenance personnel. Integrated tools provide viewing, sorting, and data analysis at the Ovation control system without the need for additional software, and separate applications bring similar capability to users' desktop computers.

The Ovation Process Historian is tightly integrated into the Ovation system for the collection of point values and status data, alarms, operator actions, and sequence-of-events messages.

The historian includes a graphical trend function as well as a fully featured reporting system. Reports may be scheduled for periodic execution or to be initiated by a user or a particular plant event. Output may be in printed form or distributed in one of a variety of electronic formats including Adobe Acrobat (pdf) or HTML.
Desktop applications (e.g. spreadsheets and databases), business systems, and custom programs have easy, secure access to the historical data tables. Powerful and complex data requests may be formed to extract process data based upon the criteria of other plant variables.

EDS™
EDS™ is a comprehensive system for collecting and processing plant data that allows viewing of current and past process information from anywhere within a corporate structure. EDS information is gathered from control systems and other plant data sources and is presented in process and (read-only) control diagrams, alarm lists, trends and reports, to give remote users a close representation of what the operator sees in the control room.

A key feature of the EDS is its ability to import and convert original control system process graphics for viewing at the EDS terminal client application. The Ovation® or WDPF control systems provides all users with a consistent view of the plant process and eliminates the expense of recreating these displays in a new format. For Ovation systems, EDS converts the Control Builder’s signal diagrams, giving remote users access to troubleshooting and diagnostic information. EDS manages the distribution of replicated process values, alarms, and displays to users running the EDS Terminal client application suite at their desktop computer. The EDS also acts as a data integration platform that provides process information to SmartProcess® plant optimization and performance software applications.

The EDS architecture supports interfacing with one or more control systems, with one EDS server typically located at each plant site. The client application provides the ability to select between the individual servers in order to focus on process activity from each unique system. In addition, site EDS servers can propagate their data to a higher level EDS server, thus providing multi-site integration support. The EDS is comprised of three major components: control system interfaces; a data server, and the EDS terminal client application suite.

Summary
Our connectivity servers provide plants with innovative technology that can transport historical or real-time process data directly to the desktop. By meeting specific data transfer requirements, each connectivity server is tailored to deliver critical plant performance data for effective process analysis.