The DeltaV RTU Connect solution enables Emerson’s RTUs and flow computers to seamlessly interface to a DeltaV network. The DeltaV RTU Connect provides wide area telemetry to the DeltaV system.

Operating and maintaining separate systems increases lifecycle costs. It was in recognition of this need that led to the development of the DeltaV RTU Connect solution. The DeltaV RTU Connect solution bridges the two systems and enables remote telemetry data to be monitored and controlled from a single system in the control room.

How It Works
DeltaV RTU Connect enables real-time data, alarms, and historical logged data to stream from the OpenEnterprise SCADA system to the DeltaV DCS system.

An application station running OpenEnterprise™ collects data from RTUs. This solution provides the integration and connectivity of field RTUs (SCADA system) with a plant DCS system using standard OPC mirror.

A second application station running the PI historical database and the plantwide event historian (PEH) provides historical as well as alarm and event data logging while maintaining RTU timestamps.

The DeltaV RTU Connect backfills data from OpenEnterprise SCADA to the DeltaV PI historian via the PI SDK client. DeltaV Operator workstations are configured to request historical data from the PI historian.

Although the DeltaV RTU Connect solution is installed on the application station, functionally the DeltaV DCS system recognizes the solution as a virtual controller (on the same level as the actual physical hardware controllers).

Key Technical Features
- Seamless bi-directional real-time communication between SCADA and DCS
- Easy-to-use configuration tool that auto-generates the DeltaV FHX file
- Centralized historical RTU data and alarms with timestamp
- Receives real-time data and alarms, and sends RTU commands
- Propagates RTU alarm configuration (limits and deadband) through to DeltaV
- Automatically backfills local RTU data in case of RTU communication loss
**Benefits**

- A single operating environment to monitor and control your entire operation
- Reduces costs associated with operating and maintaining separate systems
- Reduces complexity by eliminating the need to re-engineering displays or alarm configurations
- Allows operator agility to respond to real-time alarms
- Enables fit for purpose, low-power remote controllers (ROC, FloBoss™ and ControlWave™)
- Enhances post analysis capability via integrated alarm and event historian

**Purpose**

The primary intent of the DeltaV RTU Connect solution is to:

- Provide real-time bi-directional pass through between Emerson’s RTUs and DeltaV
- Generate real-time alarms as current alarms on the DeltaV operator station
- Record the historical RTU logged data to the PI historian
- Record system alarm and event data to the PEH historian

### DeltaV RTU Connect Architecture

![DeltaV RTU Connect Architecture](image)

### Ordering Information

<table>
<thead>
<tr>
<th>Description</th>
<th>Model Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>OpenEnterprise v2.83</td>
<td>RAS PN</td>
</tr>
<tr>
<td>App station + virtual controller + OPC DA server + 4V licenses</td>
<td>PSS PN</td>
</tr>
<tr>
<td>OPC server A &amp; E license for the plant event historian (PEH)</td>
<td>PSS PN</td>
</tr>
<tr>
<td>OPC mirror - 2 server license</td>
<td>PSS PN</td>
</tr>
<tr>
<td>PI plant wide historian license +PI SDK single client license</td>
<td>PSS PN</td>
</tr>
</tbody>
</table>

**Global Headquarters**

Emerson Process Management Remote Automation Solutions  
6005 Rogerdale Road  
Houston, TX, USA 77072  
T +1 281 879 2699  
F +1 281 988 4445  

**Europe**

Emerson Process Management Remote Automation Solutions  
Unit 8, Waterfront Business Park  
Dudley Road, Brierley-Hill  
Dudley, UK DYS 1LX  
T +44 1384 487200  
F +44 1384 487258

**North America and Latin America**

Emerson Process Management Remote Automation Solutions  
6005 Rogerdale Road  
Houston, TX, USA 77072  
T +1 281 879 2699  
F +1 281 988 4445

**Middle East and Africa**

Emerson Process Management Remote Automation Solutions  
Emerson FZE  
PO Box 17033  
Jebel Ali Free Zone - South 2  
Dubai, UAE  
T +971 4 8118100  
F +1 281 988 4445

**Asia Pacific**

Emerson Process Management Remote Automation Solutions  
1 Pandan Crescent  
Singapore 128461  
T +65 6777 8211  
F +65 6777 0947

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