



SmartDiagnostics® Application Note **The SmartDiagnostics® OPC Server**

Publication Date: March 8, 2016

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Overview

The SmartDiagnostics® OPC Server allows customers to connect 3rd party software, that supports an OPC architecture, to SmartDiagnostics® software. The OPC server software acts as an intermediary between the SmartDiagnostics® database and the standard OPC protocol supported by many 3rd party software packages and devices in use today. Once connected, the 3rd party software will have access to sensor, indicator, and alarm values that have been configured within the SmartDiagnostics® software. This guide helps customers understand the OPC server architecture and how it can be deployed in their facility.

Typical use-cases for the OPC Server might include:

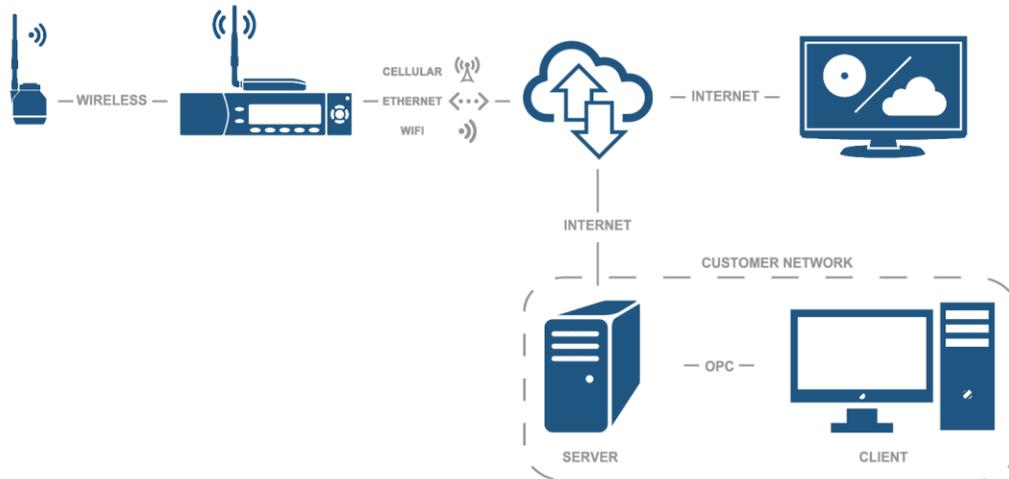
- Logging SmartDiagnostics® indicator values in an historian software package.
- Displaying SmartDiagnostics® indicator values on an HMI.
- Pulling alarm conditions from SmartDiagnostics® into a central alarming and notification system.



Give Your Machines a Voice



The SmartDiagnostics® OPC server is an OPC DA compliant server. It is an add-on software package that must be installed on a server within the customer's internal network. It runs in the background as a Windows Service and should be installed on a server or other machine that is always on. Regardless of whether a customer uses the cloud hosting option or if they have SmartDiagnostics® installed on their own local network, the OPC software must be installed on a server within their own network due to the limitations of the OPC DA specification.



OPC tags are configured from within the SmartDiagnostics® software. Each indicator is represented in the OPC tree structure and publishes the following properties:

- Current Value
- Indicator Severity Level (ranges from 1 – 10)
- Alarm State
- High and Low Alarm and Warning Levels
- Last Update Time

OPC tag names are auto generated and mirror the structure of the SmartDiagnostics® software but can also be changed to more naturally fit within a pre-existing OPC layout or specification.

OPC Server Requirements	<p>Windows Server 2008 R2 or newer</p> <p>Minimum 2GB RAM</p> <p>.NET Framework 4.5.1</p> <p>An existing SmartDiagnostics® cloud account or local installation</p>
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