# **Process Solutions**

# **Honeywell**

**Technical Information** 

Honeywell Connected Plant Collaboration Station Specification



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### **Revision History**

| Revision | Date                      | Description     |
|----------|---------------------------|-----------------|
| 1        | 6 <sup>th</sup> July 2018 | Release version |

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### 1. Introduction

#### 1.1. Collaboration Station

Honeywell Collaboration Station is the hub of digital transformation for industrial process industries, providing a unified visualization architecture for turning data into actionable insight, from edge to enterprise, to help customers improve their bottom line. Drive better decision making by unlocking the full value of information and applications through organization, methodology and deep linking in an easy to use collaborative environment. From the control room to the boardroom, Collaboration Station drives culture change and breaks down silos across roles and geographies by integrating enterprise wide data from business, process, assets and people.

### 1.2. Deployment Locations

Collaboration Station supports use on both the Process Control Network and the Business Network.

#### 1.2.1. Use on the Process Control Network (PCN)

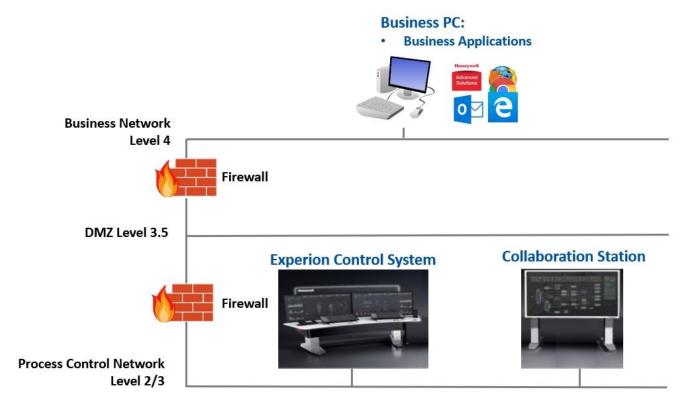


Figure 1: Process Control Network Topology

On the Process Control Network (PCN) Collaboration Station connects directly to an Experion Server. This minimizes and simplifies the required engineering and has the following functional benefits:

- Higher performance and capacity (see Configuration Limits)
- Experion Server redundancy
- Experion display file replication

Collaboration Station access to applications on the business network can be achieved using Microsoft Remote Desktop. Skype integration is disabled when Collaboration Station is used on the PCN.

#### 1.2.2. Use on the Business Network (L4)

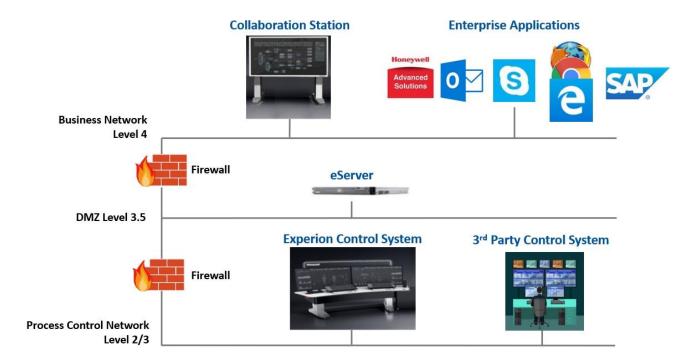


Figure 2: Business Network Topology

When used on the business network, Collaboration Station supports direct use of business/enterprise applications, including integration of Skype communication. For use on the business network the following are required:

- Experion eServer
- Collaboration Station specific network and operating system policies. Customer IT acceptance for these policies on Collaboration Station nodes is required.

### 2. Collaboration Station Specifications

### 2.1. Configuration Limits

| Description  | Connected to eServer | Connected to Experion server                                 |
|--|----------------------|--|
| Max number of Collaboration Stations   | 4                    | 71   |
| Maximum number of radial menus per workspace. Each of which may have an aggregated alarm icon. | 50                   | 100  |
| Maximum number of parameters per workspace   | 400                  | 700<br>(max 350 on Flex Server)                              |
| Number of parameters per second (pps) per Collaboration Station                                | 700                  | 1,000/sec  |
| Number of dynamic parameters per Collaboration Station <sup>3</sup>                            | 2000                 | 3000   |
| Maximum number of items per Radial Menu Petal  | 10                   | 10   |
| Maximum number of background bitmaps per workspace <sup>4</sup>                                | 5                    | 5  |
| Maximum number of alarm icons per workspace <sup>5</sup>                                       | 50                   | Limited only by max<br>number of parameters per<br>workspace |
| Maximum number of zoom regions per workspace   | 50                   | 100  |
| Maximum number of open schematics per Collaboration Station                                    | 40                   | 40   |
| Maximum number of live updated schematics per Collaboration Station                            | 10                   | 10   |
| Maximum number of open applications per Collaboration Station <sup>6</sup>                     | 20                   | 20   |

Note 1: For an Experion server the maximum number of Stations (including Collaboration Stations) is dependent on the Experion Server Platform. For Standard Server hardware the max limit is 30, for Performance Server hardware the max limit is up to 40. The total of all Stations (including Collaboration Stations) cannot exceed this limit for the Experion server. Also, the number of Stations that can be supported may be limited by the Experion Server data access performance (parameter per second that can be supplied by the server).

Note 2: When more than 1,000 dynamic parameters are configured, the update rate must be greater than 1 sec. to not violate max pps

Ability to deliver published data rate depends upon throughput of underlying process control network. For example, for a heavily
loaded EST system there may not be sufficient LCN bandwidth to deliver 3000 parameters. Refer to the documentation
associated with the process control network for more information

- Note 3: Based on bitmap resolution of 3840x2160
- Note 4: This includes alarm icons that appear as part of radial menus
- Note 5: Examples of applications are Word or Excel. Experion schematics have separate limits as shown

### 2.2. Qualified applications

Collaboration Station supports both 32bit and 64bit applications. The following applications have been tested and qualified for use in Experion Collaboration Station. All other applications should be tested with Collaboration Station prior to use to ensure compatibility with Collaboration Station and the touch screen.

| Items  | Qualification   | Comments  |
|--|-----------------|---|
| Experion HMIWeb Displays   | Supported       | Read only access to Experion HMIWeb displays is supported.  |
| Office applications: Microsoft Excel,<br>Word, PowerPoint, Adobe PDF                           | Supported       |   |
| Honeywell Advanced Solutions: Uniformance Executive and Asset Sentinel                         | Supported       |   |
| Business applications  | Supported       | 32bit and 64bit applications are supported for use directly in Collaboration Station. Any application not listed in this table should be installed and tested prior to use to ensure compatibility with Collaboration Station and the touch screen. |
| Web pages and Web applications   | Supported       | Collaboration Station's inbuilt web browser is used by default to open web pages however Internet Explorer, Chrome or Mozilla can also be used.   |
| Applications on remote computers accessed via integrated Microsoft RemoteApp or Remote Desktop | Supported       | Not required when using Collaboration Station on the business network. The applications can be installed and used in Collaboration Station directly   |
| Skype  | L4 Support Only | Skype is disabled by default in R510. It can be enabled for Business Network (L4) use only.   |

Honeywell cannot take responsibility for issues resulting from the installation or use of any software that has not been tested for Experion compatibility by Honeywell. Ensure sufficient system resources such as memory, CPU performance, disk space, display space, and so on are available on the Collaboration Station Workstation.

### 2.3. Experion Compatibility Considerations

#### 2.3.1. Experion Releases

As per standard distributed system architecture (DSA) Interoperability guidelines, the Experion eServer and associated Collaboration Station can obtain data and alarms from Experion Servers of the following releases:

| Supported DSA connected Experion Server Releases |
|--|
| R510   |
| R501, R500                                       |
| R43x   |
| R41x   |

#### 2.3.2. DSA Considerations

The standard requirements for configuring DSA between the Experion Server (or eServer), that Collaboration Station is connected to, and other Process Servers must be considered. These include:

- Network connectivity
  - Collaboration Station on the PCN: Experion Collaboration Station shall reside on the PCN Level 2/3 and directly connect to a corresponding Experion Server. The Experion Server must have a DSA connection to all other desired Experion Servers on the PCN.
  - Collaboration Station on the Business Network: When Experion Collaboration Station resides on the
    Business Network (Level 4) it must be connected to an Experion eServer located on the DMZ (Level 3.5).
     The eServer must have direct DSA connection to all required the Experion Servers on Level 2 and 3.
- Point item name uniqueness For points that are not assets, full item names must be unique across all servers.
- Display names must be unique across all servers.
   See the "Requirements for implementing a DSA system" section of the "Server and Client Configuration Guide".

#### 2.3.3. Experion Content

| Items  | Specification Connected to eServer | Specification Connected to Experion server |
|--|------------------------------------|--|
| Alarms and Event information                                     | Supported                          | Supported                                  |
| Experion Trends  | Supported <sup>1</sup>             | Supported                                  |
| System displays including groups, detail displays and faceplates | Supported                          | Supported                                  |
| Embedded CDA charts  | Not supported                      | Not supported                              |
| Pan and Zoom displays  | Supported                          | Supported                                  |
| Integrated Digital Video Manager                                 | Not supported                      | Supported <sup>2</sup>                     |

Note 1: Maximum of 100 Trend pens that Collaboration Station can view when connected to eServer to from all remote servers.

Note 2: DVM objects within HMIWeb displays and system displays is supported. DVM web client camera view is supported.

#### **Collaboration Station Hardware and Sizing Requirements** 3.

#### 3.1. **Collaboration Station Sizing**

The computer used for Collaboration Station must be the performance workstation as used for other Experion stations. Memory must be expanded to the maximum. These guidelines are intended to provide a minimum baseline. Honeywell computer platforms meet these specifications but may not necessarily be the example platforms listed below. Honeywell computers carry full support as a qualified offering.

#### 3.2. **Collaboration Station Computer Hardware Requirements**

Example specification:

| System Configuration   | Performance  |
|--|--|
| Processor  | Intel® 3.50GHz, 4 core or greater  |
| RAM  | 8 GB   |
| Networking   | 100 Mbps Ethernet  |
| Video resolution   | 3840x2160 (4K), 65K or higher colors   |
| Example video card model number:   | MZ-QUAD06 NVS510   |
| Operating system   | Microsoft Windows 10 IoT Enterprise LTSB x64   |
| Hard Drive   | 500 GB   |
| Browser type   | Microsoft Internet Explorer 11   |
| Honeywell Computer   | MZ-PCWS92 (Dell T5810XL Performance Tower)   |
| Platforms examples <sup>1</sup>  | MZ-PCWS82 (HP Z440 Performance Tower)  |
|  | MZ-PCWS76 (Dell R7910XL Performance Rack 2U)   |
|  | Note: The MZ-QUAD06 NVS510 video card is required in addition to the base PC to ensure 4K screen support |
| Note 1 – For further information on Honeywell computer platforms, see their respective specifications. |  |

### 3.3. Collaboration Station Screen Requirements

The Collaboration Station screen is provided separately as a third-party item.

| Specification   |
|---|
| Windows 10  |
| UHD (4K)  |
| 2 point or greater with gesture control   |
| Audio support   |
| 60 "  |
| 86"   |
| LG UHD Commercial grade touch monitors:  • LG86TR3D – 86" (20-Point Multi-Touch)  • LG75TC3D – 75" (40-Point Multi-Touch) |
|   |

Note 1 - Honeywell shall not take responsibility for issues found with use of unqualified touch monitors.

### 4. Model Number

| Model Number | Description                          |
|--------------|--------------------------------------|
| EP-STACSN    | Collaboration Station (1 connection) |

## 5. Glossary

| Term or Acronym | Description  |
|-----------------|--|
| DSA             | Distributed System Architecture  |
| EMDB            | Enterprise Model Database. The Experion Enterprise Model provides an intuitive way to manage the Experion system.  |
| Experion Server | The node (optionally redundant) at the heart of Experion. The servers encompass a wide range of subsystems including history collection, SCADA interfaces, alarm/event, etc. |

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