Quick Start Guide for DWS Spectrum

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Step 1: Convergence TP DW Spectrum "Demo Wizard" Installer

Note: This Demo Wizard installer default configuration is used when selected C2P drivers and DW Spectrum components are installed on the same machine.

Pre-install checklist:

The machine(s) to be used for the install needs to be relatively current with Windows 10 Pro (min) Updates.

If the HSE is being installed verify that MySQL is not currently installed on the system.

If a remote session will be used to install the software, verify that the remote session will NOT be on the machine hosting the DW Spectrum recorder.

During the install temporarily disable any antivirus SW and turn off the firewalls.

Use the Run as Administrator account when installing CTP software. (right click to bring up menu)

DW Spectrum Client login account with valid credentials

Processor i5 7500 @3.4GHz min.

.Net Framework 4.6.2 or higher

50GB of free disk space recommended.

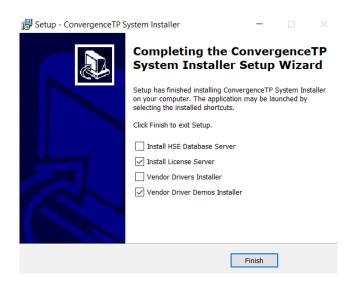
To run the ConvergenceTP DW Spectrum System Installer. <u>Run installer as Administrator</u>. Installation options are provided below.

Note: if you will be using the HSE in a Cloud instance **DO NOT** check off the HSE data base check box as the HSE is already installed in the cloud.

Shown below is using a local server for the HSE

Shown below is using a cloud base instance for the HSE





Follow the defaults when prompted.

Note: For local HSE server installation, it is normal for the HSE database installation to take a few minutes. As shown below.



Step 2: Building the C2P Virtual Cameras

Manually build the 3 basic C2P Virtual Cameras in the DW Spectrum Client.

These Virtual cameras will be used to:

- a) To establish a placeholder (CTP Overview1) for the eventual placement of a live camera view. CTP Overview1 is used by the C2P Demo Wizard and not used once deployed.
- b) Present the text from the IP Device as a camera view (CTP Camera2)
- c) Provide a user defined (Procedure) in text format to inform the user of the alert

Once these views are established you will be able to run the proxy simulator to prove out the integration middleware portion of the install before connecting to the actual IP Appliance data stream.

Note1: The C2P software must be installed before the virtual cameras can be built.

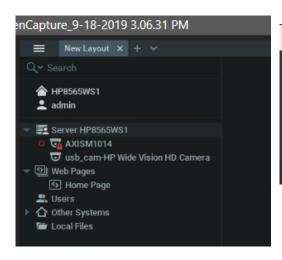
Note2: Only virtual cameras 1-3 are needed to demo any C2P integration.

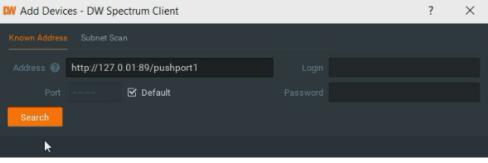
Note3: The URL for each Virtual Camera is identical except for the unique pushport number.

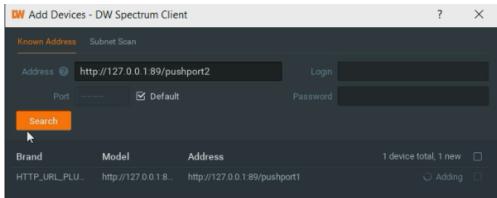
Note 4: No login or Password is required for the virtual cameras..

Right click on Server (shown in the example HP8565WS1) to Add Devices. Enter the first virtual camera as http://127.0.0.1:89/pushport1.

Click Search when done. Camera will be added to the list of cameras for http://120.0.0.1:89

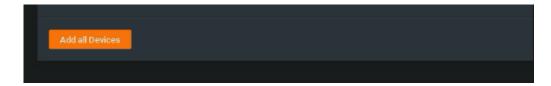






Repeat the process above for the other 2 virtual cameras.

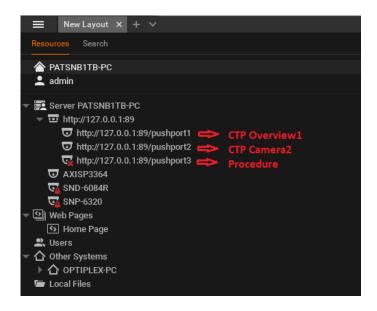
Note: The only difference with these 2 virtual cameras will be the pushport number will increment as shown below. Select Add all Devices when done.



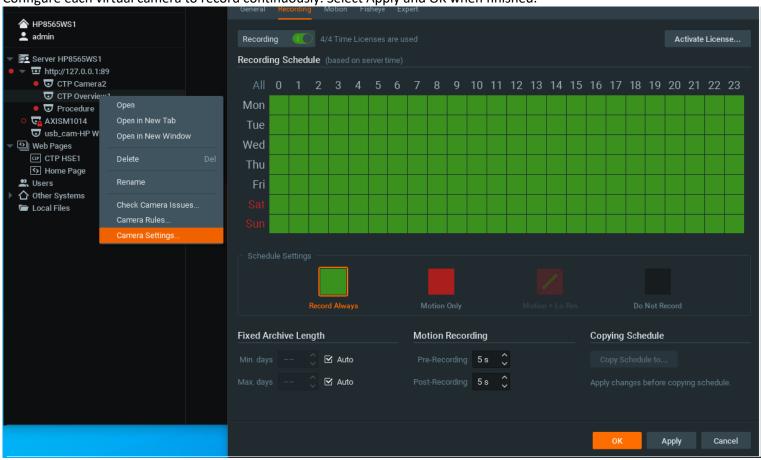
Rename the virtual Cameras.

Note1: The names for the virtual cameras need to be spelled exactly as shown below.

Note2: The virtual cameras when built will all show "Waiting for input" until they have other data/images to present.

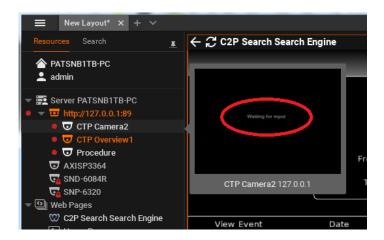


Configure each virtual camera to record continuously. Select Apply and OK when finished.



Verify that the default image for the Virtual Cameras is "Waiting for input" is being displayed for each virtual camera.

As shown below.

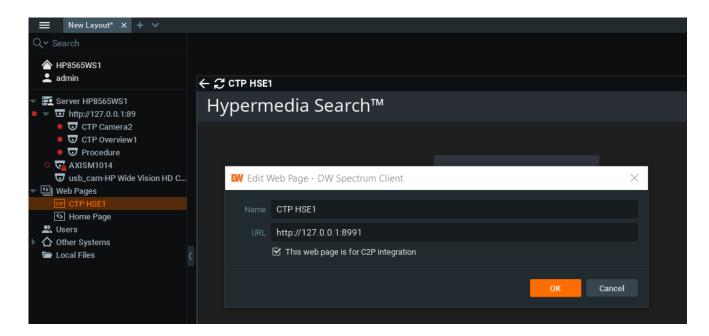


Step 3: Creating the C2P Search Engine view

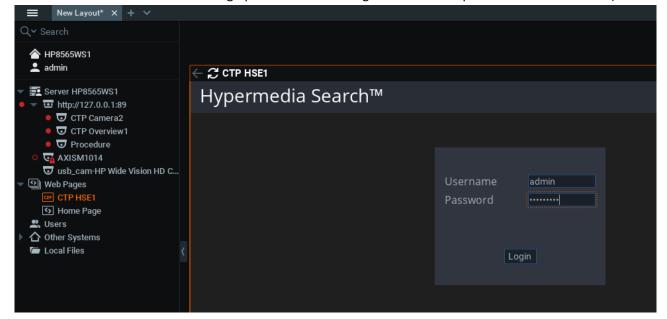
Build the DW Spectrum View needed for the Search Engine. Right click on Web Page and select ADD. The Hypermedia Search Engine (HSE) web portal for the demo URL is http://127.0.0.1:8991 when using a local server.

When using a Cloud instance the Url is http://<IP address of cloud instance>:8991

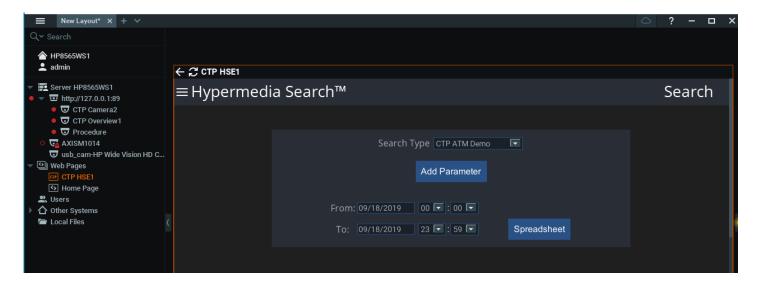
Note1: The local loopback address 127.0.0.1 for the HSE is only used when all components are installed on the same machine. Note2: Verify that the check box for the C2P integration is selected as shown below. If check box is missing you do not have a C2P compatible installer.



Double click on the CTP HSE1 to bring up the HSE search Engine The default password is Password1 (case sensitive)



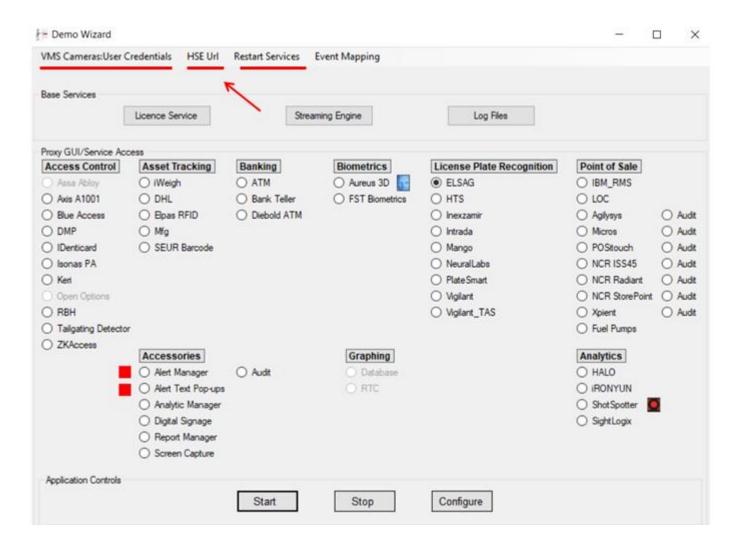
When successfully logged in the default HSE screen will appear. The Search Type drop down menu provides a list of the different IP Devices available in the search engine.



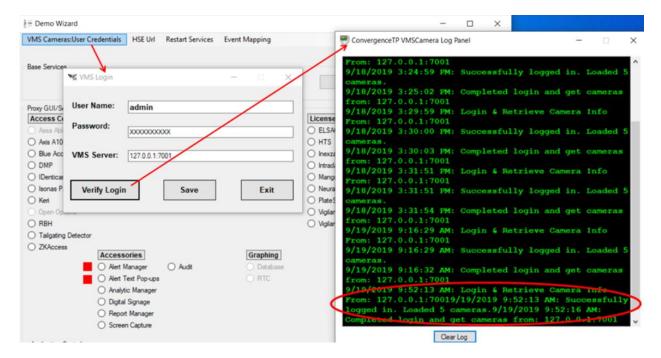
Step 4: Initializing the Demo Wizard

The Demo Wizard is a tool to bring up the various proxies to Configure their settings and Start their built in test simulators used for testing the system before connecting to the external IP devcie. This is alo used for:

- a. Confirm your camera login User Credentials are valid
- b. Change the HSE Url if using the cloud base instance from it's default value of 127.0.0.1 port 8990 to a cloud based <IP address> port 8990.
- c. When Url changes are made you must Restart the Servcies.
- d. Confirm /update the License Service.
- e. Access the Event Streaming Engine to confirm transactions are occurring and to setup generic events.

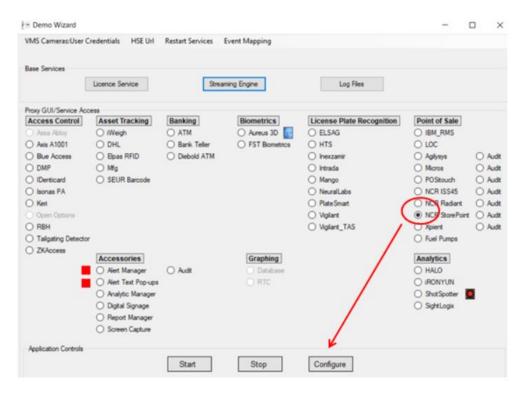


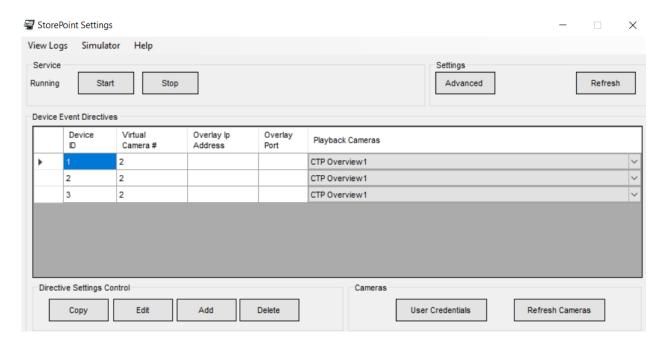
Confirm User Credentils are valid by selecting User Credentilas and logging in and select Verify Login. When successful you will receive in return a successful login message showing the number of cameras you have priviliges to view. Shown below is a successful login for 5 cameras. If not successful re-check your user credentials. When finished select Save and Exit.



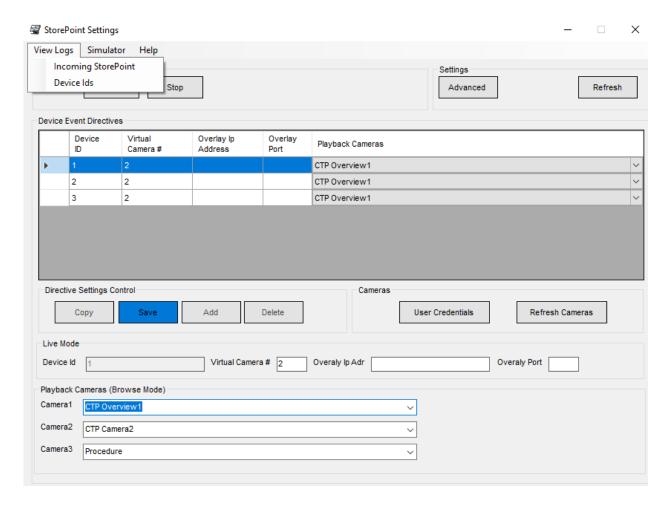
Step 5 Initializing Device driver

Click on the proxy you wish to open and then click on Configure. Shown below is the NCR Store Point proxy being called up to configure the settings.





To associate text from the Device ID to a virtual camera select ADD, enter the Device ID, the virtual camera name where the text will be displayed. Select the playback cameras from the Camera1, Camera2 and Camera3 drop down menus shown on the lower section of the GUI. This setup is establishing which cameras views you wish to bring up upon playback of events for that register. It associates POS register events to your defined camera views.

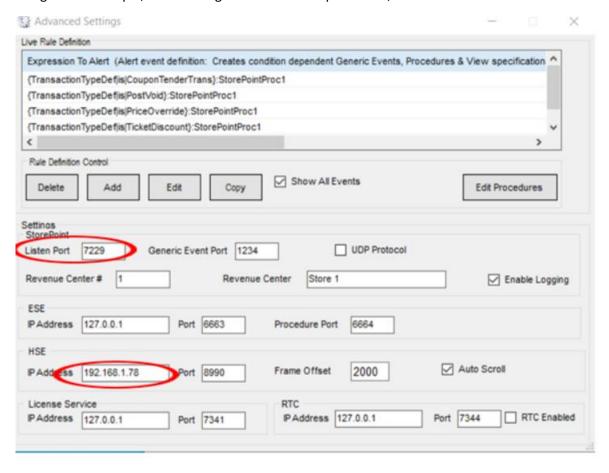


On some proxies, the View Logs tab at the top left corner has a couple of fetaures. One, as a trouble shooting tool to see the metadata coming in from the IP devcie and two, it allows you to obtain the Device ID's unique identifier of the registers being used in your system. This is helpful if you do not know the exact name of the registers as well verifying the exact spelling of the Device ID which is critical for proper operation.

To use the Device ID identifier drop down tool select Devcie ids. It is necessary to have a few data transactions initiated from the register. This will place metatda onto the network which the Devcie id tool will capture. See exmple below. The Device ID unique identifiers can then be used in the Device ID's Device Event Directive table. Shown below are Device ID's 1,2 and 3.

```
9/16/2019 3:49:42 PM: Store Points Device Ids: 2
9/16/2019 3:55:06 PM: Store Points Device Ids: 2
9/16/2019 4:01:12 PM: Store Points Device Ids: 2
9/16/2019 4:09:37 PM: Store Points Device Ids: 2
9/16/2019 4:34:21 PM: Store Points Device Ids: 2, 1
9/16/2019 4:34:21 PM: Store Points Device Ids: 2, 1, 3
```

Selecting Advanced Settings brings up the configuration table showing the IP addresses and port numbers the IP device is using. As an example, it is listening for metadata on port 7229, the HSE is located at 192.168.1.78 and using port 8990.

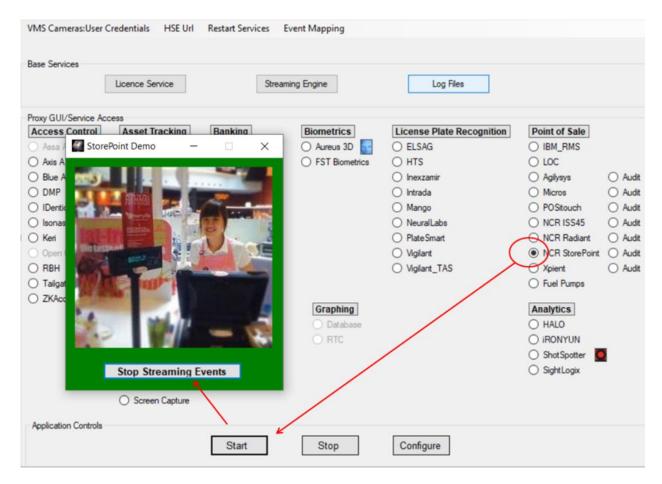


Step 6: Running the Demo Wizard

You are now ready to use the C2P Demo Wizard.

Simply select the IP appliance that you want to demo in the Demo Wizard and then start the simulator for that appliance once it pops up.

Note: Some simulators explicitly give you a "Start" button while others start when you mouse click on the simulator itself. In the example below the NCR StorePoint simulator has been selected and is running = green background.



Viewing the simulator traffic in the DW Spectrum Client

To view the NCR StorePoint data in the DW Spectrum Client

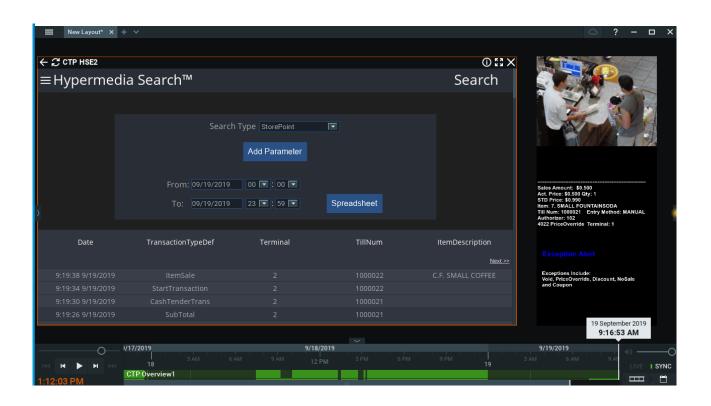
Set the "Search Type" to StorePoint

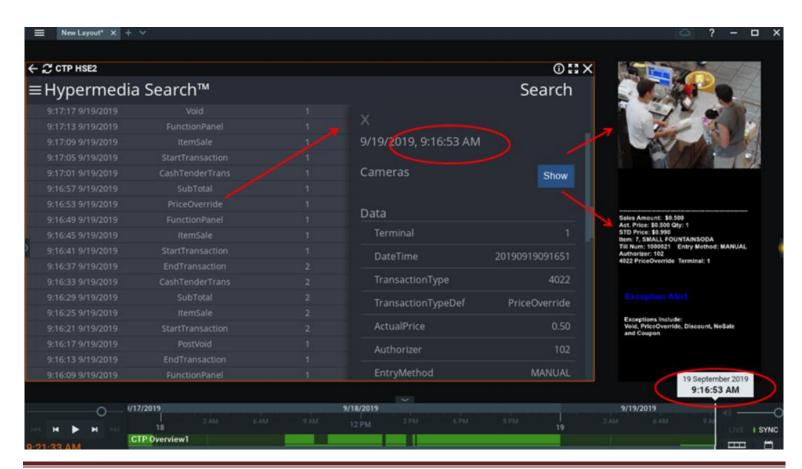
Select "Spreadsheet"

Select "View"

Then review the search results returned and select "Show Cameras" to bring up the recorded camera view associated with that events.

Note: The cache in the DW Spectrum recorder delays Show Cameras from viewing of stored video for up to 2 minutes from the live event.

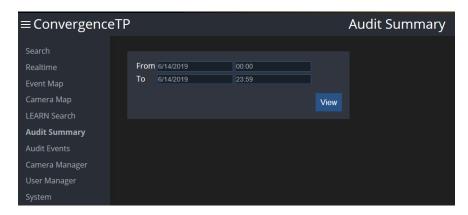




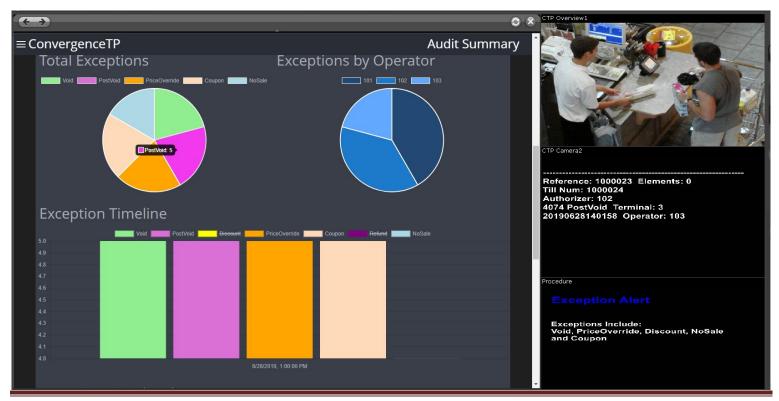
Step 7. Opening up the New HSE2 Search Engine Features

Additional auditing and search tools have been added to the system and are enabled by entering the HSE <IP address> :8991\ui\admin\interfaces in a browser window.

A new browser window will open. Here you will need to select the new options using the check boxes on right side and save your selections. A new HSE search window will now open (shown below) with the added drop down features in the list. As an example Audit Summary is now part of the new HSE search engine.



As an example shown below is a view of the Audit summary for events that have been captured. Showing in graphical form exceptions by Operators and exceptions by Events. Clicking on the section in the graph brings a table listing those events.



Knowledge Base

Install issues:

Symptom: The install reports errors during the install process or the installed software reports errors when the user attempts to execute the software once installed.

Another common symptom is desktop shortcuts are not installed or any other dysfunctional anomaly.

Solution: Uninstall using the ConvergenceTP uninstaller program in the Windows Start menu then reinstall after verifying that all of the pre-install requirements are met that are listed in Step 1 of the QuickStart.

Virtual cameras are not displaying the default splash screen "Waiting for input":

Symptom: The user built the C2P virtual cameras as described in Step 2 of the QuickStart and the default "Waiting for Input" splash screen is not being displayed.

Solution:

- 1) Verify that everything described in <a>Step 2 was done correctly.
- 2) Verify that the ConvergenceTP Event Streaming Engine is running. This is done by going to the Windows start menu and selecting ConvergenceTP Event Streaming Engine (ESE). Also review the ESE real-time log panel that is displayed to see if any errors are being reported.
- 3) You can also verify that the ConvergenceTP Event Streaming Engine (ESE) is running using a Google browser window. Enter the IP address of the machine hosting the ESE followed by the port number 89 and \pushport1. Example: 192.168.1.16:89\pushport1 (Note: This works for any pushport)
- If the ESE is working correctly you will see the "Waiting for input" splash screen.
- 4) Also check that port 89 is not being blocked by a firewall rule.

Live images are not being displayed in the virtual cameras views in the DW Spectrum client

Symptom: The user has connected their IP appliance to the C2P integration and live text activity is not being displayed in the virtual cameras views in the DW Spectrum client.

Solution:

- 1) Verify that the C2P license is valid and has enough licenses to cover the number of unique IP appliances sending data to the integration. See also license server log file item 4 in <u>Log Files within the integration</u>
- 2) Verify that the simulator text traffic works by using the simulator button in the integration GUI for that IP appliance. This test should always be run prior to going live with any integration. If the simulator live stream of text is not displayed in the virtual camera view then there is no way live traffic will be displayed.
- 3) Check the data receiving log file in the integration GUI for the IP appliance. This log is the "View Log" button found in every IP Appliance integration GUI. If no activity is seen in this log file than the IP appliance data is not reaching the IP appliance integration interface.
- 4) Look for firewall or other rule settings in the network that are blocking the integration listening port. The listening port for all integrations is found in the "Advanced" button in the integration GUI for that IP appliance.
- 5) Check that the IP appliance is not actually sending data. The integration supplies a port listening tool (PortPeeker) that can be found in the c:\ConvergenceTP\bin\CTPToolkit folder that is very easy to use and very useful for determining if the IP Appliance is actually sending data.
- 6) Check to see there is a valid DW Spectrum license. If license is expired, text will not show up in the client.

One or more virtual cameras show a periodic pause symbol in their view in the DW Spectrum Client

Solution: This occurs when 2 (or more) virtual cameras are sharing the same pushport number. Review Step 2 in the QuickStart to ensure that each virtual camera has a unique push port number. For example: CTP Overview1 uses pushport1, CTP Camera2 uses pushport2, Procedure uses pushport3, etc.

The C2P virtual camera shows up in Live mode but no video is being stored.

Solution: Check the status of your DW Spectrum license to make sure it is still valid and supports the number cameras being used.

Also check recording settings for each virtual camera that it is setup properly (record always) See also the "Recording" section in Step 2

"Show Cameras" in the HSE search view does not bring up the stored video of event.

Symptom: When the user selects "Show Cameras" while on the search page in the DW Spectrum client nothing happens.

Solution:

- 1) The cache in the DW Spectrum recorder delays Show Cameras from viewing of stored video for up to 2 minutes from the live event.
- 2) Check that you have enough WAVE camera licenses.
- 3) Check that the camera (virtual camera or physical camera) is not set to record on motion. In the case of the virtual camera they should always be set to record continuously.
- 4) The name for the camera in question that is not being displayed when Show Cameras is selected is not spelled correctly in the C2P "Directive Table" for this device, or the user did not "Refresh Cameras" in the integration GUI after making changes to the playback camera names in WAVE.
- 5) Check that the DeviceID names the customer defined in the Device Event Directives table in the integration GUI for that IP Appliance match the actual DeviceID names being sent by the IP Appliance. *Example of a common error:*

The user named the DeviceID Lane1 in the Directives table and the actual name sent is Lane01 This can easily be verified in 2 ways.

- a) Look at the "View Log" provided in every integration GUI and compare the DeviceID being received from the IP Appliance to the DeviceID value in the GUI Device Event Directives table.
- b) The second way, and the more human readable way, is to look in the HSE search page to find the DeviceID in question and verify the spelling etc. is the same.
- 6) Open up the HSE console and refresh the Search window. With the console open on the bottom of the table select an event and see what the HSE console text is telling you?

Cannot login to HSE

Problem: system will not take User name or password.

Solution: 1. check to see if mysql or MariaDB is running, use the task manager > services.

- 2. If password is unknown or forgotten call C2P for further instructions. May require new install.
- 3. To change a password call C2P for instructions. 800 252-6840 x 1

Note: Password1 is entered automatically during the CTP install.

Solution: uninstall the HSE and then reinstall from scratch.

Show Cameras comes up with the wrong image or the Waiting for input splash screen

Solution: In most cases this indicates that all of the installation components are not network timed using a common time server.

Note: This can't happen on a system where all components (C2P and DWS) are hosted on the same machine.

See also: "Show Cameras" in the HSE search view does not bring up the stored video of event.

Log Files within the integration

The C2P integration framework provides log files for every component in the integration.

Use the log files. They are there to specifically facilitate fault isolation.

1) Log file for viewing live data being received from the IP Appliance.

Each IP Appliance integration GUI has a "View Log" that displays everything being received from the connected IP appliance. This is the first place to look in troubleshooting and data related issues, especially if you suspect no data is being received.

2) A log file that shows the status of the integration virtual camera server.

The integration virtual camera server is called the Event Stream Engine (ESE). This log file can be found in the ConvergenceTP folder in Windows Start menu. Any errors associated with the ESE are reported in real-time.

See also: Virtual cameras are not displaying the default splash screen "Waiting for input":

3) Log file for data stored by the integration.

The Search Engine screen within the DW Spectrum client itself is the best log file. This is the best place to view all data received. This only works if the data is actually being received from the IP Appliance. See item 1 above.

4) License server Log file.

The ConvergenceTP license server used by the integration can be found in the Windows start menu. Use this real-time log file to view the status of the license server, generate a seed key, and register new license or update a license.

Time is Off Set between HSE show cameras event and the Live /Recorded View capture time.

If a time difference is noticed between the actual event time shown in the HSE search engine and the live or recorded view time shown in the camera view, check to see if the if there is a specific time offset entered into the System Administrator window under Time Synchronization? Compare the Off Set time to System Time, the time difference should be zero. If you make any changes to the System Administrator it requires you to stop and start the recording server before the changes take place.

Generic Event not triggering email

Check the Advanced settings > Rule Definitions > Edit in the proxy and confirm there is an entry in the top line labeled Generic Events. Only one Generic event is allowed on the form.

Check the ESE to confirm the box is checked that enables the generic event. Confirm the IP address of the VMS base is correct.

When a Rule is created make sure the exit routine confirms the changes are correct, even the last settings configuration screen needs to be saved on exit otherwise the changes are not kept.

The Procedure manager is set to show Alert and generic events (checked off). Check spelling of event name. Use PortPeeker if necessary to confirm a generic event is being sent by changing the C2P ESE to another port temporarily example 1234 and send the generic event to a safe port number ex 1234 and look at the log file for the ESE.

Another MySql found on machine during install.

Solution: 1st stop the install. Remove the other MySql before proceeding or go to another machine. If staying on the same machine use the C2P uninstaller to remove the other MySQL or if not available then go to the services and remove from list. Or if not able to remove go to command prompt and use the SC delete "servciename". See How to Kill a Service from the command prompt below. Example: sc delete "MySql"

How to kill a service from the command prompt. sc delete "servicename"

Problem: trying to uninstall all components and some just won't delete. Try the Task Manger to end process but if all else fails try the Command window.

Open the CMD window as administrator.

Works from any folder

For sc delete the key is to have the service name in quotes if there is a space in the "actual" service name. if no space in service name then you do not need the quotes.

Run the command prompt as administrator or you may get permissions errors

Note: If you get a message that you don't have privileges to delete the service try running as an elevated administrator.

To run a Elevated Administrator cmd prompt go to Start in search type Cmd then press "CTRL-SHIFT-Enter" C:\SC delete "service name"

Also be sure to close down the CMD prompt when done so it doesn't hold open folder Below is an example of using sc delete the "FilleZilla Server" service

For FileZilla syntax=

C:\xampp\FileZillaFTP>sc delete "FileZilla Server" [SC] DeleteService SUCCESS

Report Manager not bringing up playback video

Problem: clicking on line item in spreadsheet does not bring up the selected video in the client Solution:

- 1. Check to see if the HSE IP address in the report manager settings and the IP device proxy GUI are set to actual HSE values and not the default 127.0.0.1 value. The HSE value in the GUI and the Report manager setting page should be the proper IP address and port 8990.
- 2. If using a Cloud Instance check the client web page to see if the HSE is using the cloud IP address and port 8991.
- 3. If using the local server for the HSE then use the local IP address in the GUI with port 8990 and the webpage should use the local IP address and port 8991.

There are no Procedures showing up in the Procedure view for any of the Proxys

Solution: Go to Task Manager > Processes and check to see that nodes.js is running. If not running try to start the process, if unsuccessful, uninstall and reinstall nodes.js.

Cameras Dropping in and out

Problem: Camera connections dropping in and out. The ESE log file is showing intermittent connections. Also the log file shows 2 VMS running.

Solution: Check the possibility of another VMS running in the back ground. Example: running DWS and having Nx recorder running. They will fight for the ESE connections and cause one to drop out. Look at Task Manager or look in tray to see who is running.

Also turn on the ESE debug option to capture events in the ESE log file. Remember to turn it OFF when finished or it may slow down your system. Look for 2 virtual cameras with the same pushport number on the same machine.

During install when creating the virtual cameras, scan does not find Virtual Cameras

Check to see if the C2P ESE is installed and running?

Type the URL (http://127.0.0.1:89/pushport1) into the Google browser and see if the camera comes up? Go to the web page section and see if the window used for adding the web page has the check box stating "this is a C2P integration". If the C2P check box is not shown the DWS installer is not setup for the C2P installer. Find correct installer with C2P "patch" and install that s/w and retry.

Dark Green or other color background on HSE Screen

A dark green or other color may show up in the background of the HSE screen.

This could be from a low resolution graphics card in the PC or a low resolution remote access point. Try another remote connection to another machine.

Cannot Clear Text Pop-up Screen

Problem: several text pop-up alert screens have occurred and not easily cleared causing them to stack up and a message will appear saying you have reached the max of x number of alerts.

Solution: if it's just a few messages then close them out individually using the "x" in upper right corner. If many alert messages then you may use the Task manager to end the task of the multiple Text Alert Pop-ups.

Recorder not recording and not showing the green recording time-line at bottom of client when playback requested

Problem: when selecting show cameras in the HSE table the time line at the bottom of the client continues to scroll and not lock onto the selected event.

Possible areas where this will occur is:

Your recording disc is full and is preventing you from storing recorded data.

Delete stored video.

Move recorded data to another storage device, and then flush the recorded video to make room for new video.

Fails to connect to Server upon Login

Problem during login client view does not bring up HSE login window

Solution: check to see if the Recording server is started.

Not able to login into Server

Problem: during server login the window may show off line.

Solution: open hidden icons in your tray and check to see if the server is turned ON.

No Data in HSE table after selecting View

Problem: Data is showing up in the client camera views but no data is displayed when View button is selected.

Solution: check to see IP address of the HSE where it could be on the local machine or in the cloud instance. Also check the proxy advanced setting page to confirm the HSE address is the correct address.

Show Cameras view does not bring up a stationary time line, does not go into playback

Problem: When clicking on show cameras the time line does not stop and show the exact time of event nor does the camera views go to the selected playback moment in time in the client. Camera views on right side of client continue to stay in live mode.

Solution:

use the HSE console tool (HSE> System> enable) to view what is being called for by the command "show". The console should show you the cameras being requested.

Go to the recorder and confirm the video is being recorded. It should be Record always

Check to see if the license is valid.

If green time-line does not show up on bottom of client, you are not recording.

Check disc space, need 50 GB min.

Delete /remove video from folder and also recycling folder on machine.

Uninstalling the C2P Demo Wizard

Simply close any open C2P GUIs in the Windows task bar then use the 2 Uninstallers in the Windows Start menu.

