



DSX Access Systems, Inc.

DSX-HSCS Hot-Swap Comm Server

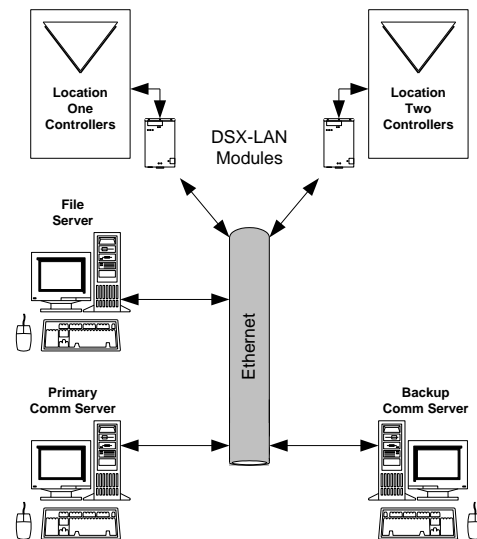
WinDSX Hot-Swap Redundancy Software

Hot-Swap Redundant Communications Server provides continued availability of System Communications and Control through the implementation of Primary and Backup Communication Server PCs. Available only with WinDSX-SQL, the Hot-Swap Supervisor runs on the Backup Comm Server and monitors the Primary Comm Server. When the Primary Comm Server fails, all communications are redirected to the Backup Comm Server. LAN connected Locations are transparently transferred to the Backup Comm Server. WinDSX-SQL Workstations automatically switch to the Backup Comm Server and continually display which server they are talking to.

Both Comm Servers are defined in the system as either the Primary or Backup Comm Server and both have static TCP/IP addresses. Both PCs are running at all times. The Backup Comm Server PC runs the Hot-Swap Supervisor software. The Supervisor Software polls the Primary Comm Server (HSCS.exe). Once the polls have failed for a predetermined amount of time the Supervisor Program starts an instance of Comm Server on the Backup PC.

The Workstation program on all PCs in the system will automatically switch to the Backup Comm Server when the Primary Comm Server fails. The Workstation program has a real time status display that shows which Comm Server is online.

The Hot-Swap Supervisor Software has a Stop button that allows the Backup Comm Server to be shut down, and the Primary Comm Server to be restarted. Controllers will automatically reconnect to the Primary Comm Server.



Operational Notes

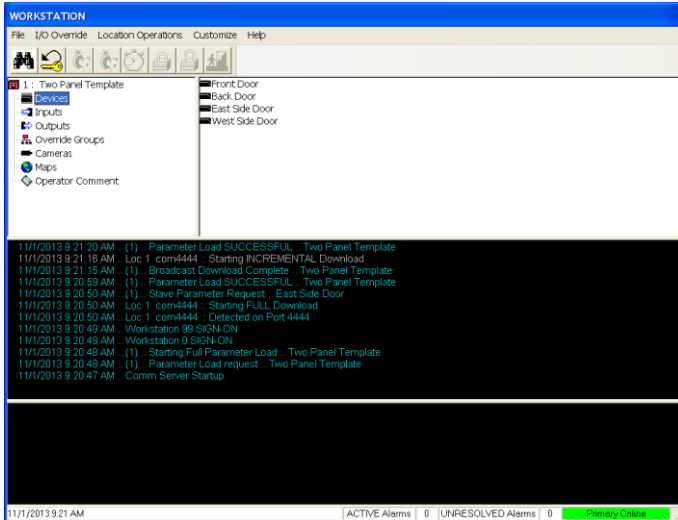
- This feature only works with WinDSX-SQL Version 6 or above software. Requires the feature to be enabled in the DSXKeyData.xml software license file. Contact DSX Support to enable this feature.
- The Hot-Swap Supervisor program (HotSwap.exe) runs from the WinDSX folder on the Backup Comm Server PC.
- The HotSwap.exe must be running at all times to take over in the event of a failure on the Primary Comm Server.
- The Shared WinDSX folder should reside on the File Server/SQL Server.

Configuration

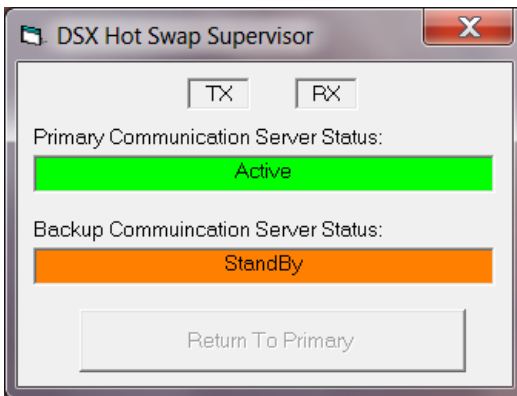
1. Install the WinDSX Software onto the Backup Comm Server PC.
2. Copy the DSXKeyData.xml file from the WinDSX folder on the Primary Comm Server PC to the WinDSX folder on the Backup Comm Server so it resides in both places.
3. Run the DBSQL.exe program. (right click, Run as Administrator) Provide the necessary information to get logged into the SQL Server.
4. Under Setup/DataBase Path edit the Path that shows the SQL Server Name and change the DataBase Path to point to the Shared WinDSX Folder and click OK to Save. Both Comm Servers and all Client Workstations must point to that Shared Folder that is on the File Server.
5. Under Setup/System Parameters/ - General Tab - Set the Workstation Name and Number to be unique, / Yes-No Options Tab - Select "This PC is Backup Comm Server", Communications Server Tab - Set the " IP Address" to the IP Address of this PC to be the Backup Comm Server.
6. Restart the WinDSX DataBase Program. Check the Workstation Name, Number, Backup Comm Server selection, and Backup Comm Server IP Address.
7. Define the Communication Ports required for the Location Master Panel Communications just as they are defined on the Primary Comm Server. Restart the WinDSX DataBase program.
8. From the Software distribution media run the HotSwap.msi and install the program into the WinDSX folder on the Backup Comm Server. (right click and select "Run as Administrator")
9. Once installed, locate and run the HotSwap.exe program in the WinDSX folder on the Backup Comm Server. Minimize but do not Close the Hot-Swap program.

Testing the Hot-Swap Supervisor

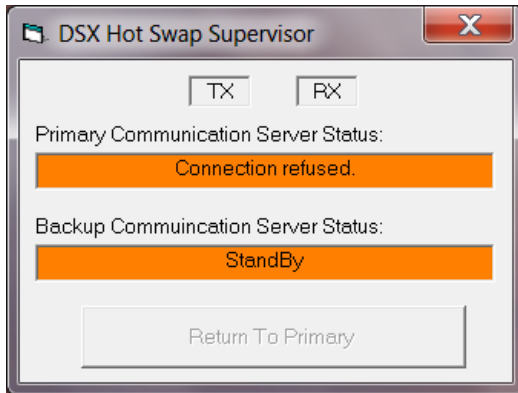
1. Start the Primary Comm Server program or, if running as a Service, Start the DSXComm Service.
2. Start the WinDSX SQL program on a Client Workstation. Workstation should display **Primary Online** in the bottom right corner in Green



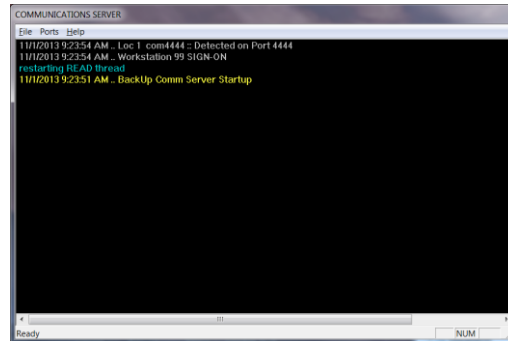
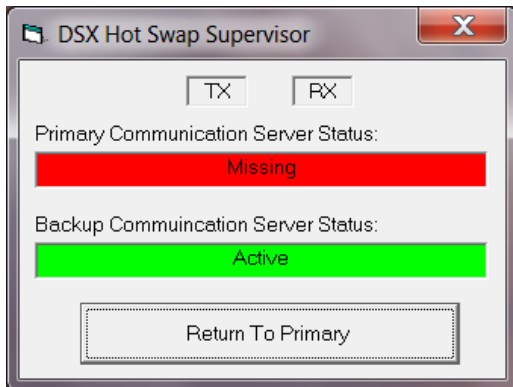
3. Start the Hot-Swap Supervisor program on the Backup Comm Server. The Hot-Swap Supervisor should look like this.



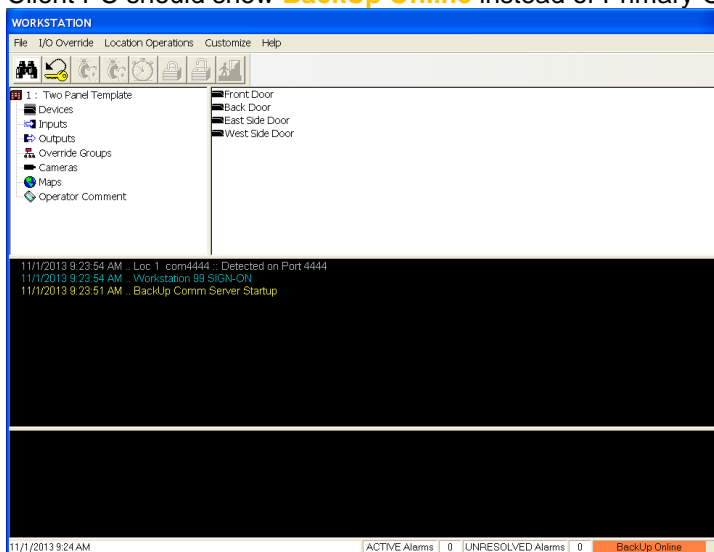
- Close the Primary Comm Server program. If running as a Service, stop the DSXComm Service. The Hot-Swap Supervisor should look like this.



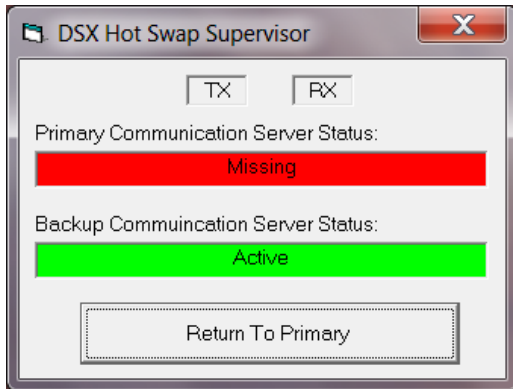
- The Backup Comm Comm Server should start and the Hot-Swap Supervisor should display Primary Comm Server - **Missing** and Backup Comm Server - **Active**



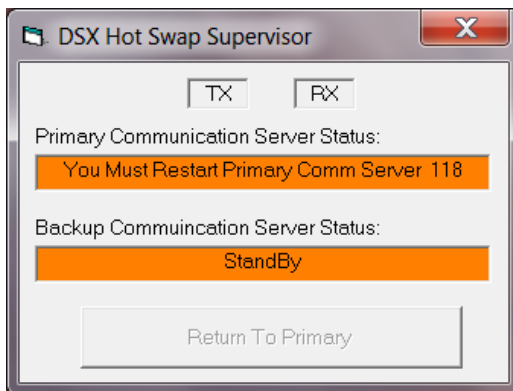
Client PC should show **BackUp Online** instead of Primary Online.



- To return to the Primary Comm Server go the Hot-Swap Supervisor on the Backup Comm Server and click on the **"Return to Primary"** button.



Once the button is pressed the Hot-Swap Supervisor should appear like this.



- Restart the Primary Comm Server program or DSXComm Service. The Client Workstation should now display **Primary Online** in Green.

