AutomaTech™

Enhanced Failover Management

&

Status Monitor

By

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based on concept & work by

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Enhanced Failover Management

Enhanced Failover has changed the way SCADA redundancy was handled in the past. The two SCADA nodes are much more tightly bound to each other and communication between them is vital. With the new Failover architecture many tools (tags & API) were supplied but the implementation of these were left to the end user or integrator. Unfortunately a flood of useful tools has not emerged. This is one modest attempt to add at least one tool to the toolbox.

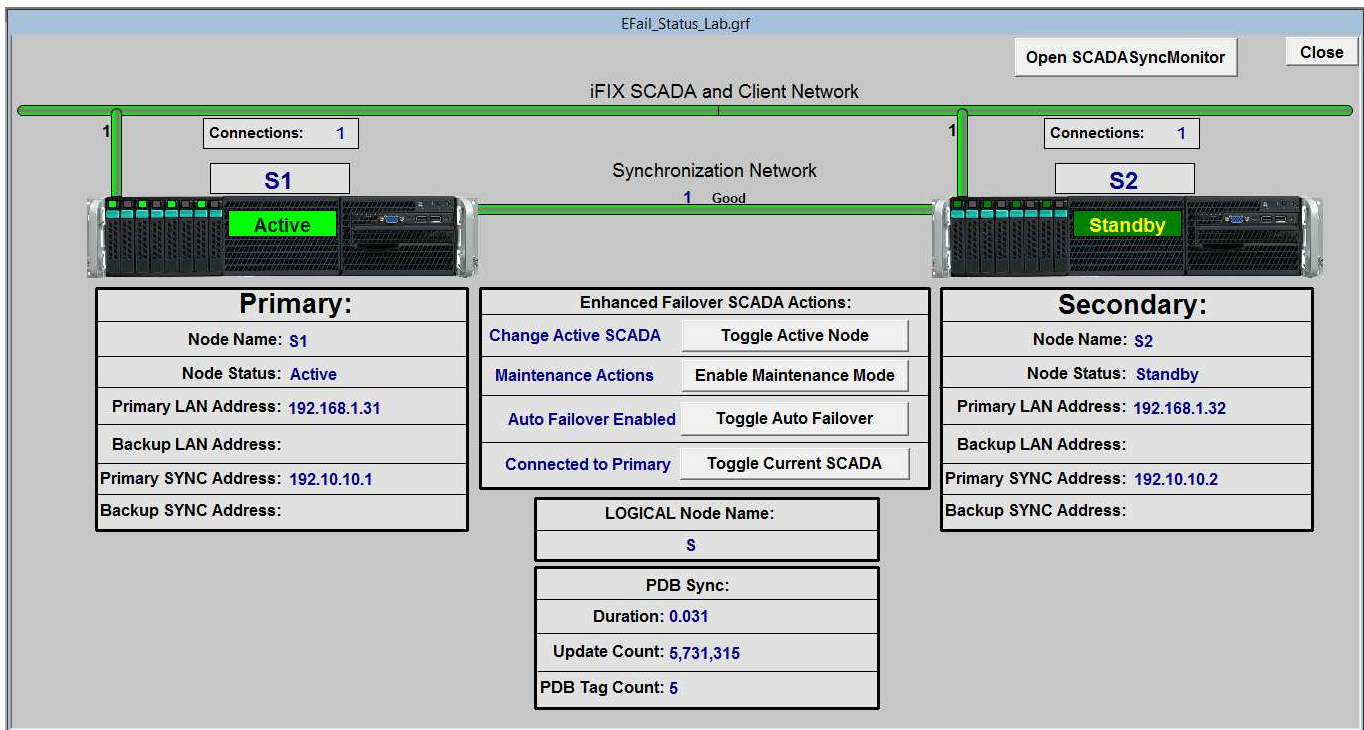Below is a picture of the graphic when all things are running well.

Figure 1.

Notes on Figure 1:

a. The graphic is designed for displays of 1920 x 1080. Resize at your own risk! It uses 70% x 70% of screen real estate.

b. There is only one Sync Link and one Production link in this instance. The graphic can handle 2 of each. Multiple links are uncommon and having more than two is extremely rare. If you need them feel free to modify as needed.

c. This graphic only handles one SCADA pair. If you have multiple SCADA pairs you should/could create multiple instances of this graphic as will be discussed later.

Development Mode:

Upon first use open the graphic in development mode. The first thing to be configured is the node names for the respective SCADA pair.

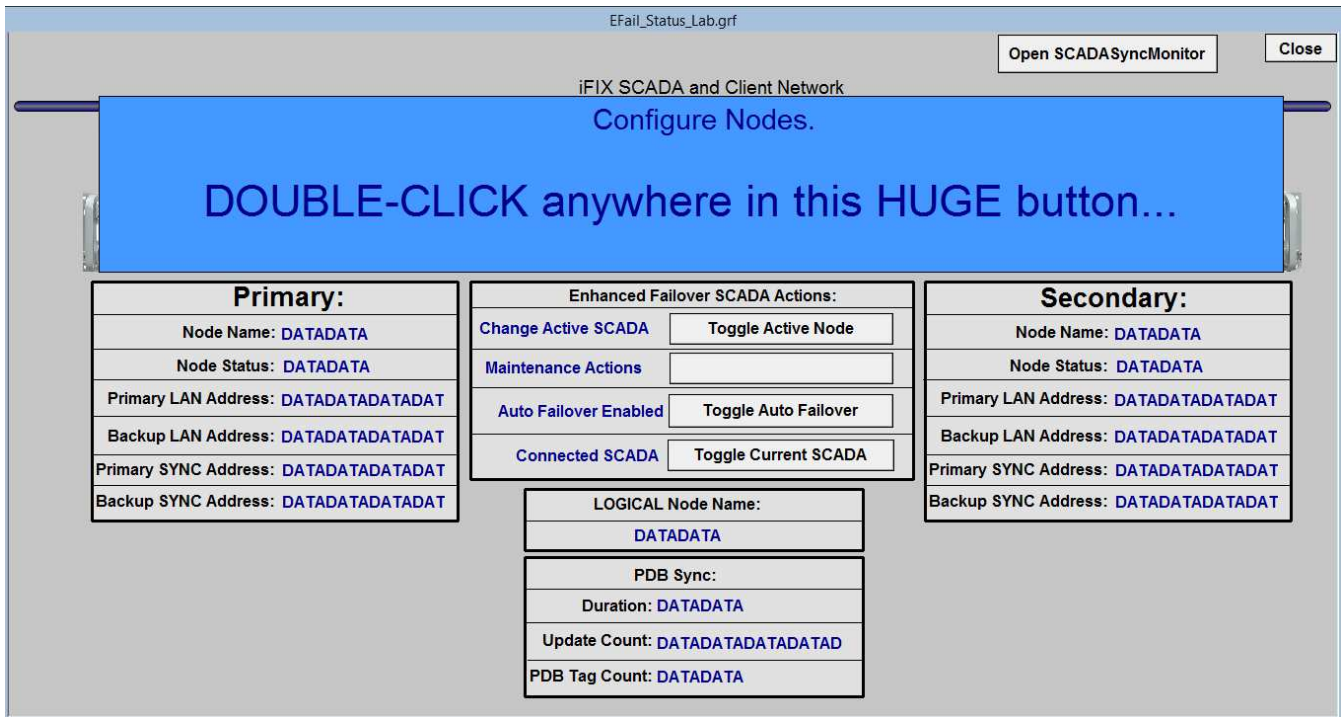The first thing to notice is the GIANT blue rectangle. As the instruction says Double-Click it.

Figure 2.

After clicking the big blue rectangle the configuration form will appear. Enter the proper node names and click then click the "**Change Nodes in Picture and Close**" button. This button updates all the links on the base graphic.

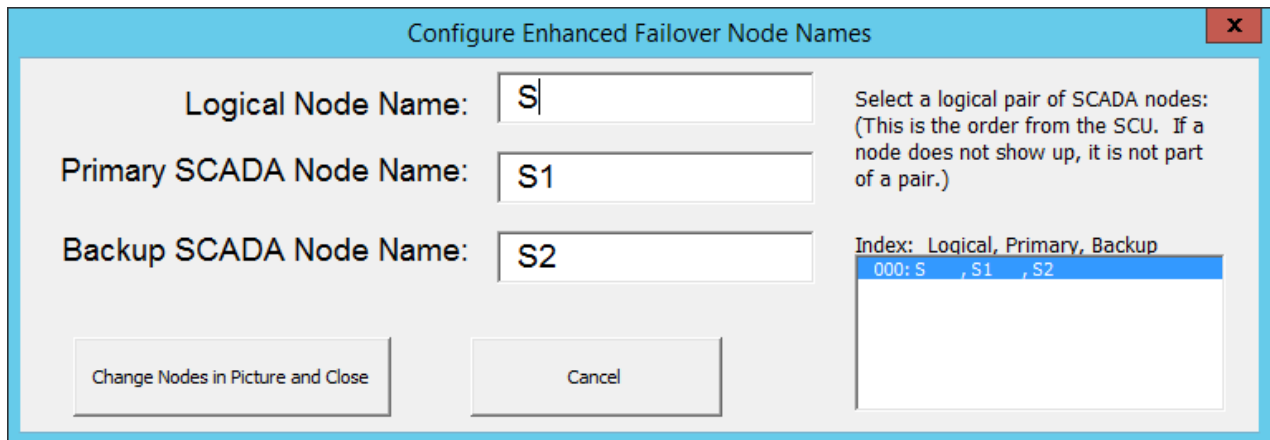
Figure 3.

Notes on Figure 3:

    a. Since all the links on the main graphic are altered, save the graphic under a new name. Name the new something that relates to the SCADA pair. (I added "_Lab" to mine).

    b. Keep the original graphic unaltered, so that if you add a SCADA pair you can use it to generate that SCADA pair's Status Screen.

    c. Create links on your main system that opens each of the newly created screens.

Run Mode:

Now by opening the screen from your newly created links, you should see something very similar to the picture in (*figure 1*).

The picture below shows the graphic in development mode with the "Blue Button" moved aside. This shows a couple things that may not appear in your runtime version.
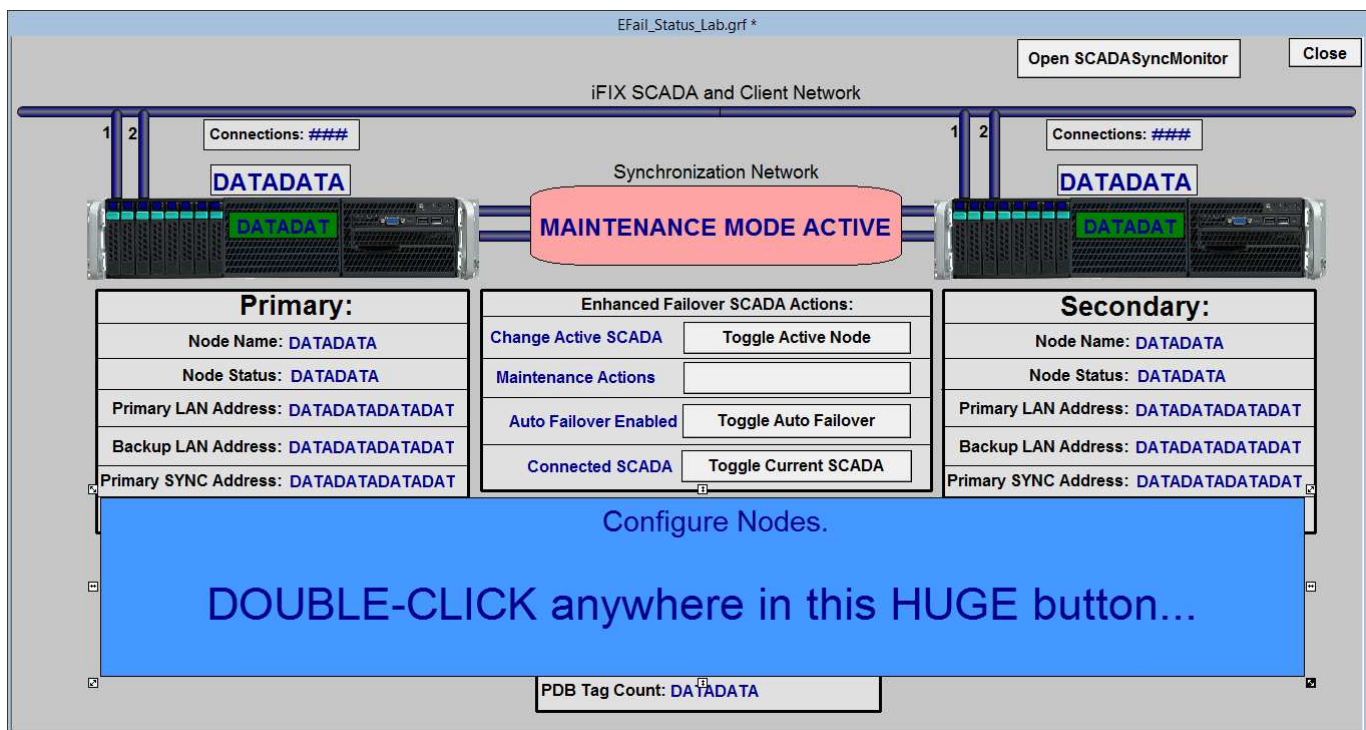

Figure 4.

Notes on Figure 4:

    a. Notice that there are two Sync LANs and two Production Connections from each SCADA. These are only visible if they are configured, and therefore you will most likely not see them.

    b. The "Maintenance Mode Active" object is only visible if the mode is active. This will be shown later.

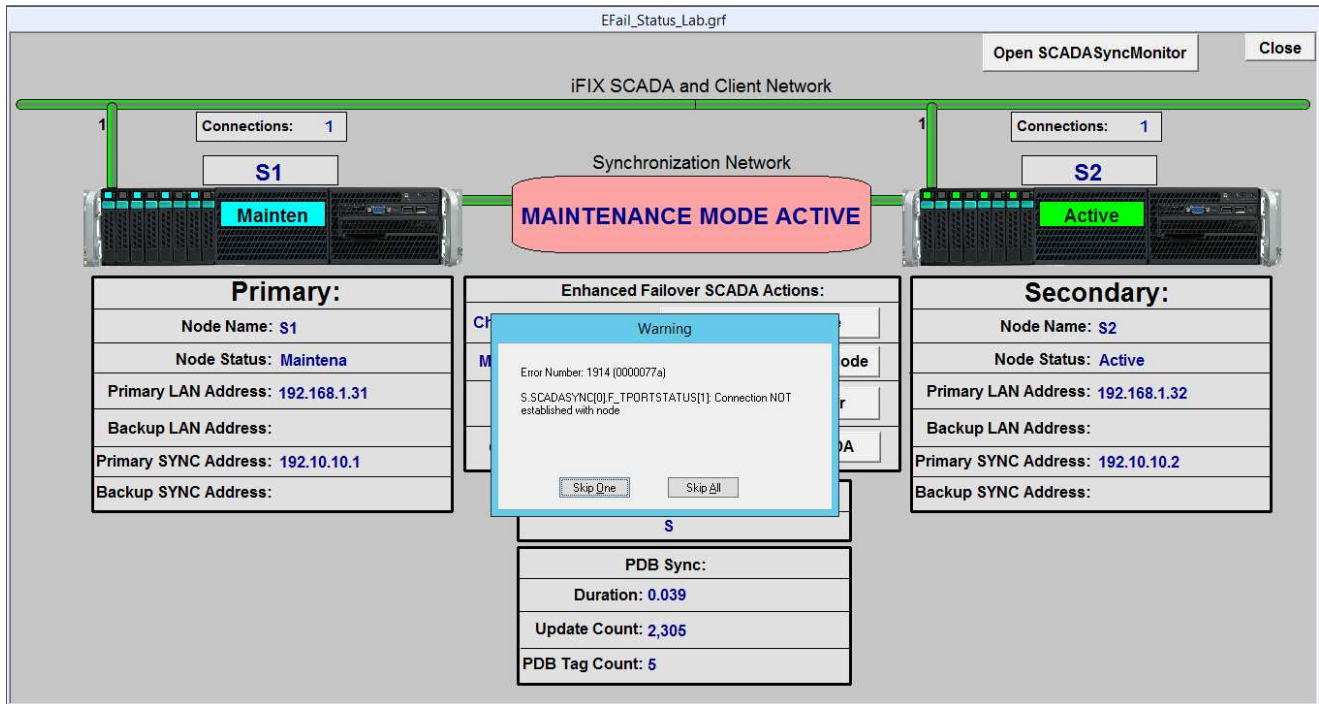The figure below shows the graphic in Maintenance mode:

Figure 5.

Notes on Figure 5:

    a. Note that the Primary node is the one that is in Maintenance mode.

    b. The Secondary node is now Active.

    c. The Sync LAN shows that it is now inactive (Not Syncing).

    d. I left the Warning msg. on screen just to show that this will briefly pop up. You can select the "Skip All" option and all should be well again. If you have the 1914 error filtered out this message won't appear at all.

Now I will "break" the Sync LAN. I will do this and you can as well by going to the Secondary node and temporarily disabling the Sync NIC
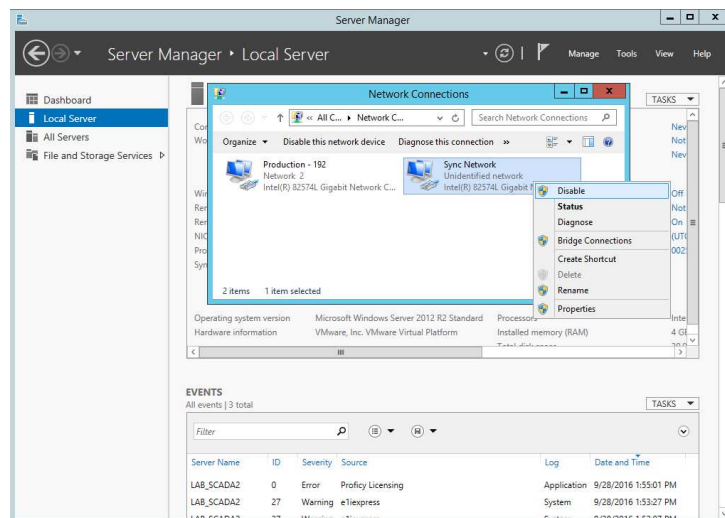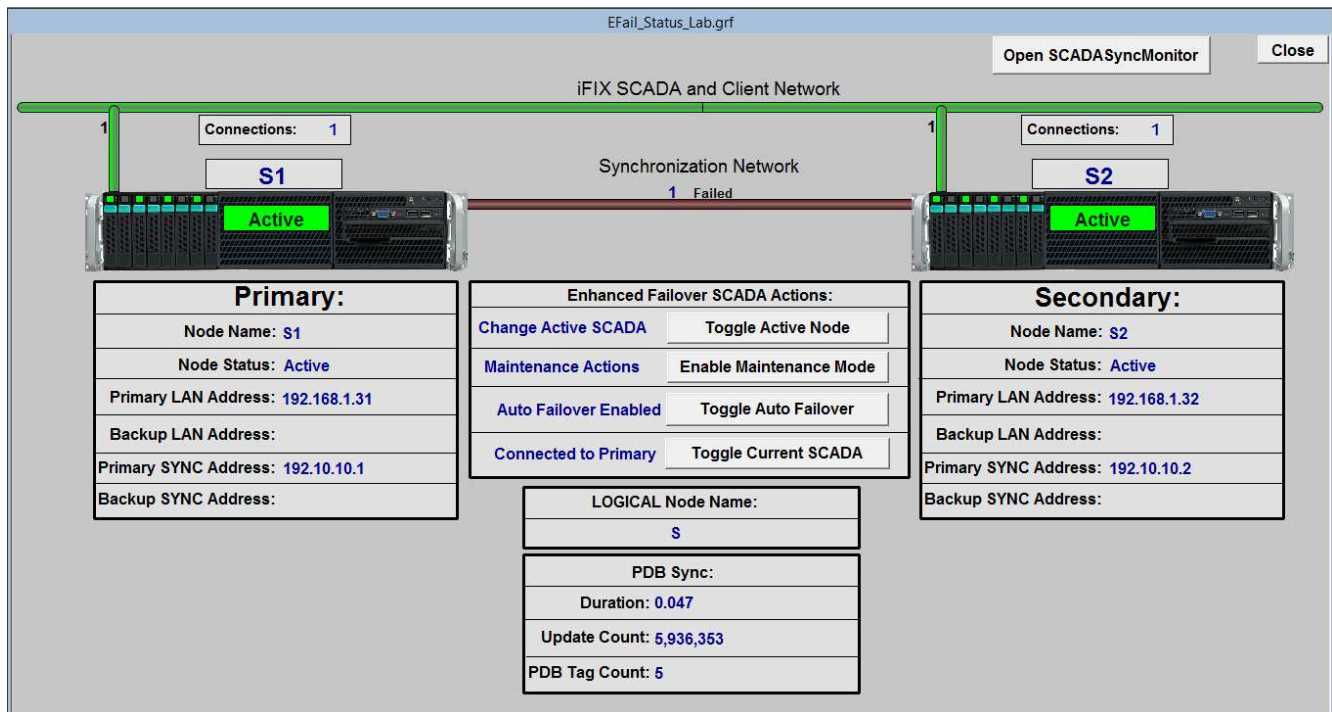

Figure 6.

Figure 7.

Next I will "break" the ProductionLAN. I will do this the same way on the Secondary node and temporarily disabling the Production NIC.
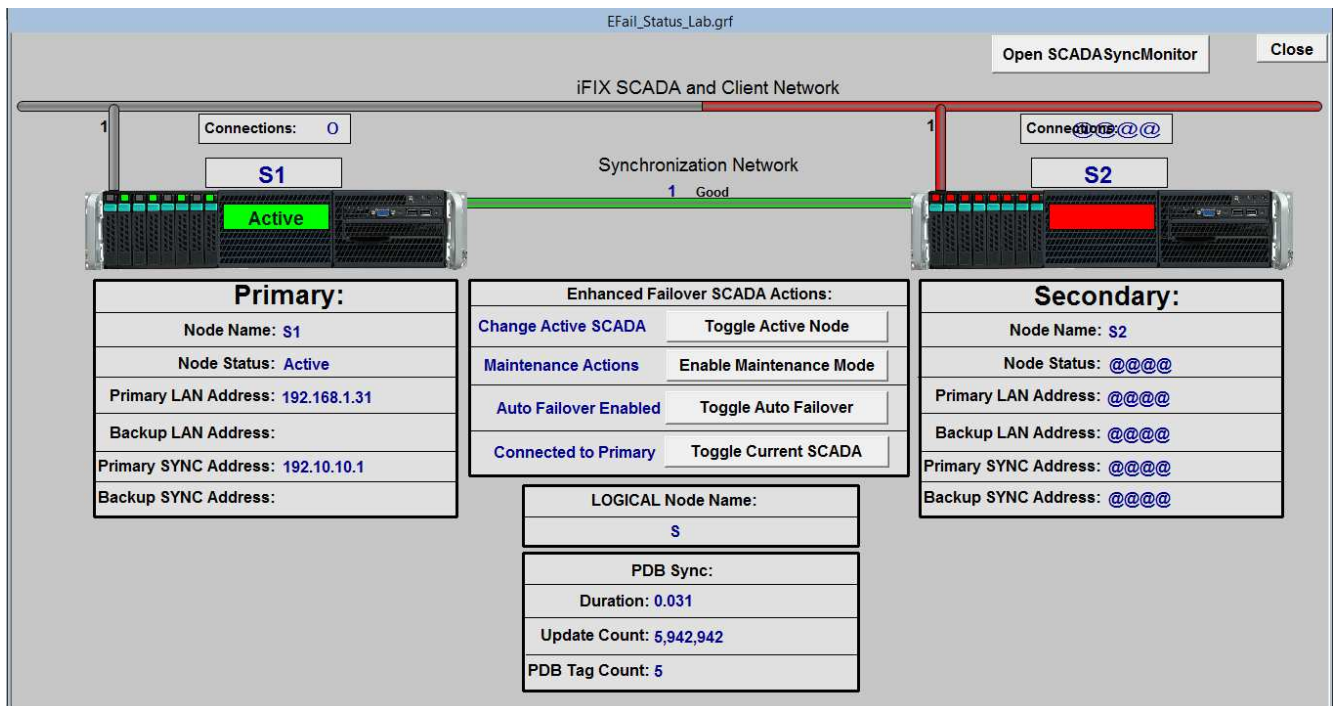

Figure 8.

Notes on Figure 8:

a. Notice that none of the node information is passed over the Sync LAN even though there is nothing wrong with this connection.

b. Note that the Connections count on the Active SCADA is zero. In this istance this is because there are no current client connections. If there were they would constitute valid connections.