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Overview
This document is a step-by-step description of how to replace an ARENA 3.00 supervisor with an ARENA NX supervisor.

Replacing ARENA Classic with ARENA NX with the interfaces CLIF-CBUSLC + IF-LON2 + LIP
ARENA Classic site commissioned with Coach or CARE

Fig. 1. Typical ARENA Classic Configuration with XL5000 controllers communicating via virtual C-Bus and SERVAL controller on LON

Review of the existing installation
1. Check the Domain, Subnet and Node addresses in COACH:

   Domain is always CE, Subdomain is always 1, Node addresses start with 1, so the Node address for CLIF and L-IP should be 127 and 126. Also you can see the subnet/Node ID in Coach when you click the device in the tree, and check the Summary tab.

Fig. 2. Subnet/Node ID in COACH, Domain is always CE
2. In CARE, the Domain (see Figure 3) and subnet/node (see Figure 4) can be viewed as shown in following figures. Node addresses for CLIF and L-IP should be adjusted to unused addresses.

Fig. 3. Domain Settings in CARE

Fig. 4. Subnet/Node in CARE
ARENA NX System Configuration

1. Configure the CLIF-CBUSLC
2. Connect ARENA NX instead of COACH/CARE with
   a. the CLIF-CBUSLC and the IF-LON and
   b. the L-IP
3. Commission the L-IP
4. Connect the existing system

Fig. 5. New ARENA NX system
Configure the L-IP for SERVAL / XL10/ XL12

1. The needed Firmware Version must be 5.0.4 or newer. If you use a newer firmware version the single menus may look different.
2. Open the L-IP configuration by entering the following IP Address: 192.168.1.254 (factory default). If you have already changed the IP address, enter your address. Default user: admin, default password: admin
3. Under **Device Info**: keep settings

![Device Info](Image)

**Fig. 6.** L-IP Device Info settings
4. Under **Config/System**: Set **Router Mode** to „Configured Router Mode“ and press the button „Save Settings“ (see next page).

**Fig. 7.** L-IP Config System settings

5. Under **Config/EIA-709** Ports: keep settings

**Fig. 8.** L-IP Config EIA-709 settings
6. Config **Config/IP**, set IP Address and Hostname:
e.g. L-IP 192.168.200.23 for XL10 / Serval communication with NX-PC
IP address previously set to e.g. 192.168.200.10 " and press the button
“Save Settings” ( see next page, and also figure 5 New ARENA NX system)

![L-IP Config IP settings](image1)

**Fig. 9.** L-IP Config IP settings

7. Under **Config/EIA-852 Device**: keep settings

![L-IP Config EIA-852 Device settings](image2)

**Fig. 10.** L-IP Config EIA-852 Device settings
8. Set **Config/EIA-852 Server** as follows:
   - Set "Config server status": = enabled; Set Auto members: = on " and press the button “Save Settings” (see next page)

9. Set **Config/EIA-852 Channel List** as follows:
   a. Click button „Add Device”; enter the name e.g. „niagara”; set the IP address of the PC. The port will be found automatically " and press the button “Save Settings”.

   ATTENTION: Please make sure that you have first installed and configured the LonIPNetworkdriver in ARENA NX. The green check mark will appear only if all the PC driver settings are correct. Otherwise the icon “!” = not responding will appear.
LonIpNetwork for L-IP

1. Add the "LonIpNetwork" driver as follows:
2. In the Nav side bar, right-click on LonIpNetwork and select Views / AX-Property View in the context menu.
3. On the Property Sheet, expand Lon Netmgmt and set the Domain ID as follows: Length 1; d: ce (In case the engineering is done with CARE, use the domain configured in CARE).

Fig. 13. LONIpNetwork Domain ID settings
4. Property Sheet, expand IP Channel, then expand Network Config. It is important to set “Is Config Server” to false and click afterwards the Refresh Button. Only after this will be done the “Config Server IP” will be shown and can be configured. Set Config Server Ip as in L-IP Config IP (in this case “192.168.200.23”). Set Net Name as in L-IP Config EIA-852 Ch. List (in this case “niagara”). In Adapter, select the network adapter of your PC (this case an USB to Ethernet Adapter). The IP address will be shown in My Ip Address.

Fig. 14. LONIpNetwork Network Config settings

5. After these settings are entered, NX can communicate with the L-IP adapter. Check the proper communication under L-IP Config EIA-852 Ch. List: The “Reload” button must been clicked to get the Stat Flags updated. A green checkmark must be behind the IP address of your PC for proper communication.

Fig. 15. Config EIA-852 Ch. List check
6. Right click on LonIpNetwork and select Views / Lon Device Manager in the context menu. In the Database pane, double-click the “Local Lon Device” and set the Node address to 126, because the node address 127 is used the CLIF-CBUSLC. Changing the Local LonDevice Node address is only needed if the Clif-CBUSLC will be used with the same address number.

Fig. 16. LonIpNetwork Node Address setting
7. Check this setting in the AX-Property View of the LonIpNetwork.

8. In the Nav side bar, right-click on LonIpNetwork and select Views/Lon Router Manager to discover the devices. The devices of the L-IP will be discovered. Add the discovered devices into the Database. Depending on the used L-IP, 1 LonRouter and 1, 2, 3 or 4 LonRouterFTxnear are found. In this example, an L-IP with 2 FT10 ports is used. Therefore 2 LonRouterFTxnear devices are found.
9. Double-click the "LonRouter". This is the incoming bus of the L-IP. Set **Type** to "Repeater", **Mode** to "Unknown", and the channel addresses **Near Chan**, **Near Adr**, **Far Chan** and **Far Adr**. For details of the router settings, please refer to the L-IP documentation.

Fig. 19. LonRouter/ Repeater settings

10. Double click to the "LonRouterFT2near". This is the outgoing bus (FT10) of the L-IP port 2. Here the LON is connected. Change the **Name** for better visibility. Set **Type** to "Repeater", **Mode** to "Unknown", and the channel addresses **Nar Chan**, **Near Adr**, **Far Chan** and **Far Adr**: Near Address 4 should not conflict with LON addresses available on the LON bus, the subnet is 1 so the Far Channel should be = 1 and Far Address = 1/1.

Fig. 20. LonRouter2/ Repeater settings
11. Double click the "LonRouter1". This is the outgoing bus (FT10) of the L-IP port 1. Since nothing is connected here, there should be no conflict with the subnet 1 and the settings are "don’t care". Rename the Name for better visibility. Set Type = “Repeater”, Mode = “Unknown”, and the channel addresses Near Chan, Near Adr, Far Chan and Far Adr.

12. Commission the router

Fig. 21.  LonRouter1/ Repeater Name, Type, Mode, Chan and Adr settings

13. In case a L-IP with more than 2 ports is used, please configure the additional ports in the same way as ports 1 and 2. Always check the needed subnet/ node addresses of ports 1 and 2.

14. Now you can discover again the devices and add the controllers to the database. The local Lon devices from top to down are as follows: the first one is the CLIF with node 127, the second one is the XL40 controller with node 1, the third one is the Local Lon device with node 126, the fourth one is the XL10fcu2 / Serval with node 2.

Fig. 22. LonIpNetwork Discover SERVAL/ XL10 / XL12 devices

Following steps are only needed if you have to use this Cbus Network, if not the Lon-IP communication setup is finished.

CBusNetwork in NX for 192.168.200.25

1. Configure the CLIF-CBUSLC as follows:
   b. Set the IP address to 192. 168.200.25, the mask to 255.255.255.0, and the default gateway to 192.168.200.1. The IF-LON2 is connected to port
2 via USB. Therefore for bus #2, the bus ID must be set to 1, subnet to 1, node to 127 and domain to CE.

2. Refer to the installation instructions, form no. EN1Z-1026GE51. Here is a section of it:

-------------------------------------------------------------------------------
C-Bus Set-Up
After removing the CLIF-CBUSLC from its shipping box, attach power and wait approx. 1 minute while it powers up. During power-up, the red warning LED will be lit. As soon as this warning LED goes dark, you may commence with the set-up, as follows:
1. Connect one end of the A-male to B-male USB cable to your PC and the other end to the USB 2.0 Device Interface located on the front of your CLIF-CBUSLC.
2. Enter URL http://192.168.255.241 in your web browser. An initial mask will then appear on the screen of your PC.
3. When setting up your CLIF-CBUSLC for the first time, you will have to enter an administrator password. This administrator password must contain:
   ▪ 8 or more (but not more than 31) characters
   ▪ uppercase letters
   ▪ lowercase letters
   ▪ numerals
   ▪ no whitespace characters
4. A login mask will appear. You may now login using the administrator password.
5. Press the CONFIGURATION button.
6. The configuration mask (see ) will then appear. Enter the IP address, subnet mask, and default gateway address. Do not select "block SUSInet port" (this is needed only if you want to tunnel SUSInet communication over ssh)
7. In case you are using the virtual C-Bus over LonWorks option, enter the LonWorks communication parameters (subnet, node, domain). You can retrieve this information from the engineering tool. Use the same subnet and domain and a node address which is not used by another device).
8. If you want your interface to hourly synchronize the time of your bus devices, select "work as time master".
9. Press "SAVE CONFIGURATION". When you are done, you may log out or go back to the status display.
-------------------------------------------------------------------------------
3. From the cICBus palette, add the CBusNetwork driver to the Drivers of the station (Drivers icon in the Nav tree). In BNA IP-Address, set the Ip Address as it is configured in the CLIF-CBUSLC. Disable Cbus Channel 1 and enable Cbus Channel 2.
4. In the Nav side bar, right-click CBusNetwork and select Views / C Bus Device Manager in the context menu. Discover the devices. In this case, a controller with name “CONTROLLER_1” is received. Continue by discovering the points.
## CBusNetwork Device Manager Discover Devices and Points

![Property Sheet](Image)

**Fig. 24.** CBusNetwork Device Manager Discover Devices and Points