

### Broadcast Network Processor (BNP 2xr) Quickstart

# **1** Prepare

Supplies listed in the following table are required for this installation.

| Provided in your shipping carton   | You provide  |
|--|--|
| BNP chassis with installed modules.  | Phillips screwdriver   |
| AC power cord, for AC system, or<br>DC connector cables, for DC<br>system. | Eight rack-mount screws.   |
| Front and rear rack-mount brackets.  | Ethernet cable: for connectivity between<br>the BNP and the Management<br>workstation. |
| One M4 grounding nut.  | One or more GigE copper or optical SFP modules.  |

## **2** Rackmount the BNP 2xr

- 1. Use the rack-mount screws to attach the front rack-mount bracket to one side of the chassis. Repeat on the other side of the chassis.
- 2. Secure the front of the chassis to the rack.
- 3. Slide the mounting brackets to the correct distance and secure them.
- 4. Seat the chassis on the rear mounting shelf.
- 5. Ground the chassis.



The BNP 2xr can be used with one to four modules, depending on your requirements.



# **3** Recommended SFPs

Install approved SFPs according to the manufacturer's instructions.

| Manufacturer | Part Number   | Description                                 |
|--------------|---------------|---|
| Finisar      | FTLF1519P1BCL | SFP 1550nm GigE optical module <sup>a</sup> |
| Finisar      | FCMJ-8521-3   | 1000BaseT Copper SFP Transceiver            |
| Avago        | ABCU-5710RZ   | SFP 1550nm GigE optical module              |
| Fiberdyne    | FGE-SFP-T     | 1000BaseT Copper SFP Transceiver            |

a. These are some of the units being qualified; *Imagine Communications* continues to qualify units to the specification. Please contact *Imagine Communications* for an update on current SFPs.

# **4** Connect the Ports

Use the correct cable for the port type and your network configuration:

- 10/100BaseT Ethernet port, used to communicate with the management network.
- ASI ports, located on the rear of the chassis. Use a push/twisting motion to ensure proper seating of the cables.
- The Gigabit Ethernet ports must have approved SFPs before cabling.



#### **5** Power Up

- 1. Connect all ports before applying power.
- 2. Connect power to the chassis:
  - For AC power, plug one end of the AC power cable into the BNP 2xr power connector. Plug the other end of the power cable into the input power source. The unit should now have power.
  - For DC power, cut the DC connector cables to the correct length to reach the BNP 2xr from the power source, and attach the connector cables from the power source to the BNP 2xr power connectors. Attach the other end of the power connector cables into the input power source. Toggle the external circuit breaker to the ON position. The unit should now have power.
- 3. Verify power: at the BNP 2xr, check to ensure that the Cfg/Pwr LED is solid green.

**Note:** If it is necessary to swap out the power supply, you must first power down the BNP 2xr, allow the fans to stop spinning, and proceed to replace the power supply.



# **6** Launch the BNP 2xr Element Manager

- 1. Open a browser session on the management workstation. **NOTE:** When accessing the BNP 2xr for the first time, the address of the computer being used to access the BNP 2xr must be on the same subnet as the BNP 2xr.
- 2. Enter the IP address of the BNP 2xr into the browser's address field (Default IP address:10.1.1.1).
- 3. Click Launch BNP Element Manager.
  - If necessary and when prompted, install the correct Java JDK/JRE VERSION (5.0 or higher).
  - At the **Login** dialog, select a user account and enter the password.

Default login: *Administrator*. Default password: *Admin*.)

## **7** Go to Configuration > Global



Set global BNP parameters, then click **Apply Configuration**.

# **8** Go to Configuration > Ethernet Control Port

| oming Alarms & Ever    | ts Configuration C  | Chassis            |                        |                  |  |
|------------------------|---------------------|--------------------|------------------------|------------------|--|
| ilobal Ethernet Contro | I Port GigE Ports   | A SI Ports User Au | thentication Messaging | System SNMP Trap |  |
| IP Configuration:      | Static              | <b>v</b>           |                        |                  |  |
| Chassis MAC Address    | : 00:11:07:01:54:4a |                    |                        |                  |  |
| Chassis IP Address:    | 10.32.128.170       |                    |                        |                  |  |
| Subnet Mask:           | 255.255.255.0       |                    |                        |                  |  |
| Gateway:               | 10.32.128.1         |                    |                        |                  |  |
| DNS Server:            |                     |                    |                        |                  |  |

Set Ethernet control port parameters, then click **Apply Configuration.** 

## **9** Go to Configuration > GigE Ports

| oming Ala | rms & Eve  | ents Configura  | tion Chassis   |                              |                    |                |     | -                   |  |
|-----------|------------|-----------------|----------------|------------------------------|--------------------|----------------|-----|---------------------|--|
| obal Ethe | rnet Conti | rol Port GigE P | orts ASI Ports | User Authentication Messagin | g System SNMP Trap |                |     |                     |  |
|           | Status     | MAC Address     | IP Address     | Subnet Mask                  | Gateway            | Mirrored<br>To |     | Auto<br>Negotiation |  |
| 🕐 GigE 1  |            |                 | 10.30.1.170    | 255.255.255.0                |                    |                | Set |                     |  |
| 🥐 GigE 2  |            |                 | 10.30.2.170    | 255.255.255.0                |                    |                | Set |                     |  |
| 🕐 GigE 3  |            |                 | 10.30.3.170    | 255.255.255.0                |                    |                | Set |                     |  |
| 🕐 GigE 4  |            |                 | 10.30.4.170    | 255.255.255.0                |                    |                | Set |                     |  |
| 🛞 GigE S  |            |                 | 10.30.5.170    | 255.255.255.0                |                    |                | Set |                     |  |
| 🕐 GigE 6  |            |                 | 10.30.6.170    | 255.255.255.0                |                    |                | Set |                     |  |
| 🕐 GigE 7  |            |                 | 10.30.7.170    | 255.255.255.0                |                    |                | Set |                     |  |
| 🛞 GigE 8  |            |                 | 10.30.8.170    | 255.255.255.0                |                    |                | Set |                     |  |

For each applicable GigE port: enable and set the IP address, subnet, and gateway, then click **Apply Configuration.** 

## **10** Go to Configuration > ASI Ports



For each applicable ASI port: select a data flow direction, then click **Apply Configuration**.

# **11** Go to Grooming > Mapping

1. At the **Inputs** panel, right-click on a port and select **Create Transport Stream** from the popup menu.

| 1 have  |   |   |
|---|---|---|
|   | GigE 1     GigE 2     GigE 3 SampleName     GigE 4 DPI Programs H   | iere  |
|   | Create Output Transport Stream Port: 0gE1 TS Neme:  | SPTS Non-DA   |
| Image: Control of the state of the | Motificiant IP:     Motificiant IP:     Motificiant IP:     Motificiant Manke:     App     MAC Addresse     SPTS     SPTS     Motion: Addresse Mass Control | Dir der Diressi: 323<br>Besperard Birl Mitzpan<br>Besperard Birl Mitzpan<br>Besperard Birl Mitzpan<br>Network P12 15<br>15 Type: Mitz 2<br>Mitz 3<br>Mitz 2<br>Mitz 2<br>Mitz 3<br>Mitz 2<br>Mitz 3<br>Mitz 2<br>Mitz 3<br>Mitz 3 |
| Image: Control of the state of the | Stripped Null Packet  | Multiple TS   |

- 2. At the **Create GigE Transport Stream** dialog, set input stram parameters, then click **OK**.
- 3. At the **Outputs** panel, right-click on a port and select **Create Transport Stream** from the popup menu.
- 4. At the **Create Output Transport Stream** dialog, set output stream parameters, then click **OK**
- 5. Create a new Output Program using either of the following methods:
  - Right-click on a specific Output TS and select Create Program, or
  - Groom a program: drag an existing program from a specific transport stream of the **Inputs** panel to a specific transport stream on the **Outputs** panel.

| Grooming Alarms & Events Configuration Chassis  |  |
|---|--|
| Mapping Input Bitrate Monitor Input-Output Bitrate Monitor  |  |
| \$ inputs   | † Outputs  |
| 🖽 🥙 GigE 1  | 🕮 🥐 GigE 1   |
| 🗄 🥙 GigE 2  | E 🥐 GigE 2   |
| Configure Program Mapping<br>Groomes Program Redundancy   | Create Output Program  |
| Access Opt I Decidance     Proc. Opt J     Proc. Decide Section 2014     Proc. Decide Secti | Compared PDs Compa |
| Grooming Scaledare Quality of Service   | Parahabider FTV ED 1000  |
| Biow or Stati Time     Sarvice Level:     D     Fore or Stati Time     All IDDOV' He Mill Sco   | Najor Channel Randers Poly Print Ing.  |
|   | Nessaging System Setting OK Cancel Mozeaging System Setting OK Cancel  |

For more details, refer to the **Selenio™ BNP Element Manager User Guide**.

Imagine Communications, Inc. www.ImagineCommunications.com

Copyright 2005-2016 Imagine Communications, Inc. All Rights Reserved 250-0375-01 Rev A, Quickstart Guide BNP 2xr, printed 2/20/16

