

# CONNECTING THE FLEXGATE ENTERPRISE SYSTEM

To configure the FlexGate system for first use, access the FlexGate using a PC and the supplied Ethernet cable. This direct-connection procedure only needs to be done once. After this procedure, accessing the FlexGate will be done through the network and over any network port. (Your configuration may look slightly different.)



Figure 1: FlexGate System Rear Panel

1. Refer to Figure 1: FlexGate System Rear Panel to connect the power jack to the rear DC 12V power port and plug-in the FlexGate.
2. Connect the supplied CAT 5 Ethernet cable to the NIC 0 port. Connect the other end to a Windows PC.
3. Press the power button on the front of the FlexGate to start the unit. Wait at least three minutes to ensure the machine has completed booting.
4. On the PC used to configure to the FlexGate system configure your IP address with the following parameters:

**IP Address:** 192.168.100.10

**Subnet mask:** 255.255.255.0

5. Open a web browser and type `http://192.168.100.1` in the Address bar.
6. Figure 1: FlexGate Login shows the log in screen for the FlexGate Configuration webpage. Use the default user as **Admin** and password **123456** to login.
7. Click the **Network** link at the top right of the page.

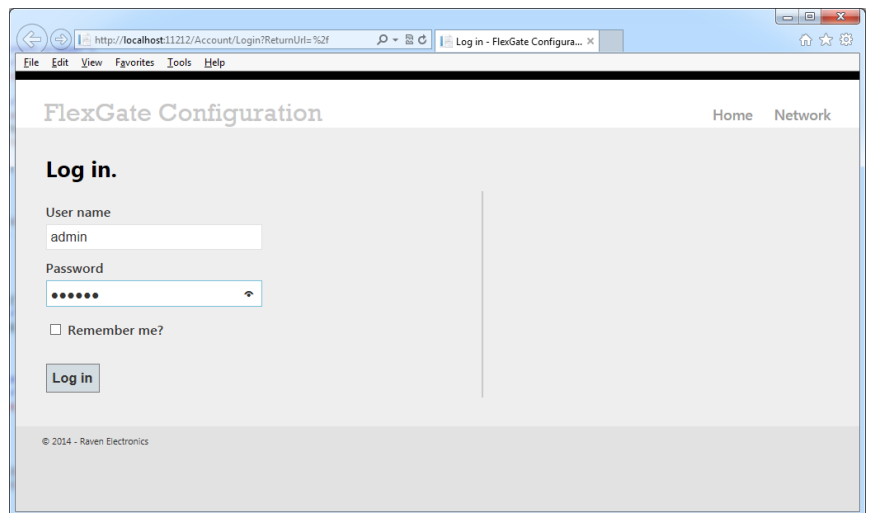


Figure 1: FlexGate Login



8. **Enter the IP addressing for FlexGate in the form provided** (Figure 2: Network Settings).

a. **IP Address**

Enter an IP address for NIC 0 and NIC 1.

This address is used to access the FlexGate administrative interface. Once **Commit Changes** is clicked, the old address no longer accessible. Store this address for reference in the future.

b. **Subnet Mask**

Enter a Subnet address for NIC 0 and NIC 1. By default, this address is 255.255.255.0.

c. **Default Gateway**

Enter a Default Gateway address for NIC 0 and NIC 1

d. **Primary DNS**

Enter a primary DNS address for NIC 0 and NIC 1.

e. **Secondary DNS**

(Optional) Enter a Secondary DNS address for NIC 0 and NIC 1.

9. Click the **Submit** button. Disconnect the FlexGate from your PC, and connect the FlexGate unit to a local switch or router using the NIC 1 port. You should now be able to access the FlexGate unit from any computer on the same network by using a browser to navigate to the IP address you supplied for NIC 1.

10. **Note:** There is a customer admin account within the operating system that you can use to directly connect to the device using a keyboard, mouse, and monitor. The user is "FGAdmin" and the password is user@password123. This can be used to for support or maintenance of the system as needed. IP address settings for the main two network cards should be managed via the web config as shown above.

11. **Note:** Log files can be viewed when logged into the system directly as described above by looking in the c:\FlexGate\Logs directory.

12. If you are using an external firewall, it may need to be provisioned to forward the ports outlined in Figure 4 when HQi clients are not local to the system.

Configure NIC 0 (Public)	
Host Name	FlexPublic
IP Address	67.120.145.124
Subnet Mask	255.255.255.248
Default Gateway	67.120.145.126
DNS Server Primary	8.8.8.8
DNS Server Secondary	

Configure NIC 1 (Private)	
Host Name	FlexPrivate
IP Address	192.168.100.2
Subnet Mask	255.255.255.0
Default Gateway	
DNS Server Primary	
DNS Server Secondary	

Submit Cancel

Figure 2: Network Settings

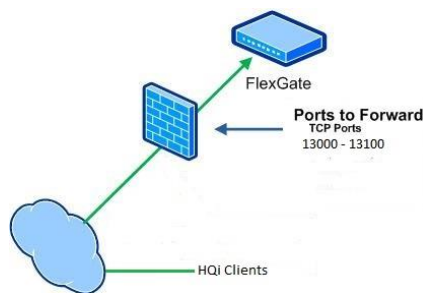


Figure 4: Firewall Configuration



# FLEXGATE ENTERPRISE SYSTEM INTERFACES

Depending on the licenses purchased for your FlexGate Enterprise it will have one or more of the following Interfaces.

- NEXEDGE TRS Console Interface
- M4x Analog Radio Channel Interface

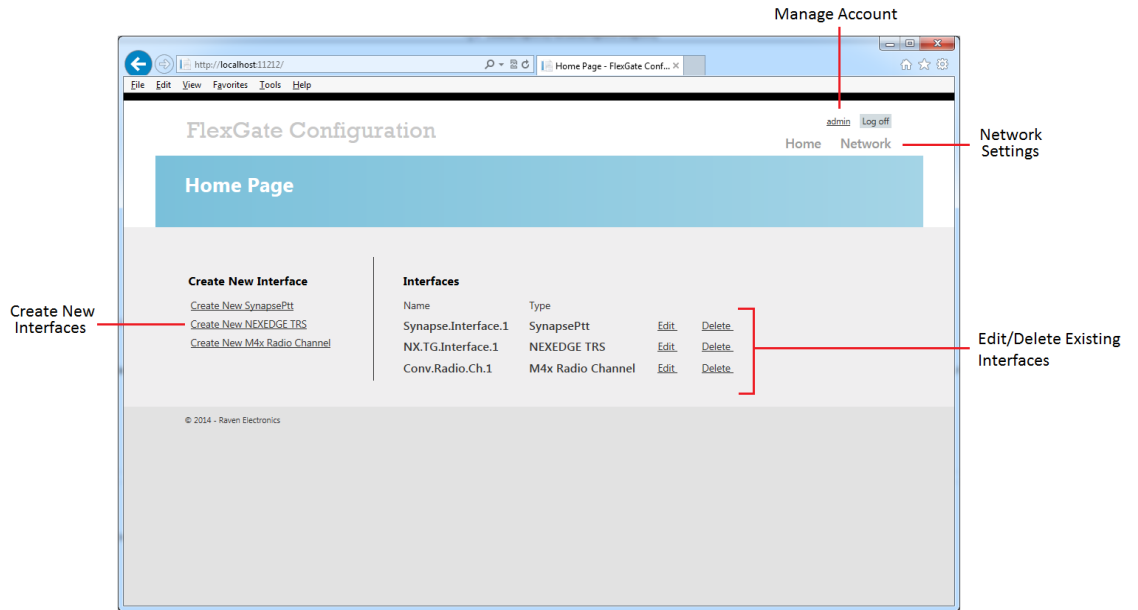


Figure 3: FlexGate Interfaces

Interface are conduits to various communications technologies. As you create interfaces you can link them to other interfaces providing interoperability or unique communication topologies.

Figure 3: FlexGate Interfaces shows the layout of the webpage.

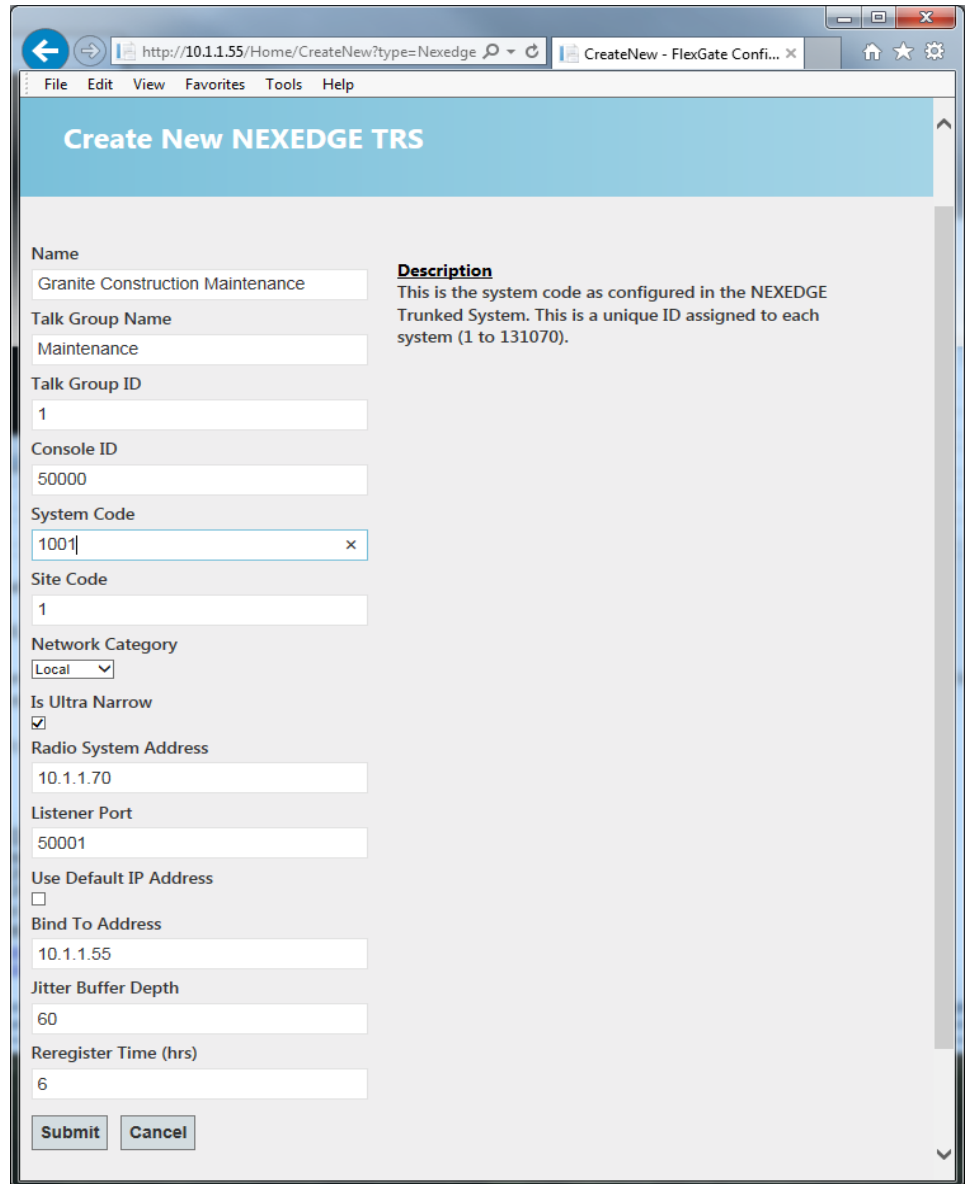
- At the top of the page, a user is able to click on the username to edit login credentials.
- “Network” navigates to FlexGate Network Settings.
- On the left side under “Create New Interfaces”, a user is able to click a link to create an interface.
- Likewise under “Interfaces”, a user is able to edit and delete an interface.



# CREATING NEXEDGE TRS INTERFACE

When traversing through interface configuration screens you will be provided with some limited help descriptions as you click on individual setup fields. Figure 4: NEXEDGE Interface shows the NEXEDGE TRS configuration webpage. Notice on the right, there is a description field. This webpage will require information about the NEXEDGE Trunked Radio System; Console ID, System Code, Site Code, Network Category, IP address and port. Additional detail can be found by selecting a field.

1. In the home page click on the "Create New NEXEDGE TRS".
2. Fill out all necessary fields related to NEXEDGE TRS.
3. When you have filled out the interface, click "Submit" at the bottom of the page. The home page will now show one interface created for the NEXEDGE as shown below.



The screenshot shows a web browser window with the URL `http://10.1.1.55/Home/CreateNew?type=Nexedge`. The page title is "Create New NEXEDGE TRS". The form contains the following fields and controls:

- Name:** Granite Construction Maintenance
- Talk Group Name:** Maintenance
- Talk Group ID:** 1
- Console ID:** 50000
- System Code:** 1001
- Site Code:** 1
- Network Category:** Local (dropdown menu)
- Is Ultra Narrow:**
- Radio System Address:** 10.1.1.70
- Listener Port:** 50001
- Use Default IP Address:**
- Bind To Address:** 10.1.1.55
- Jitter Buffer Depth:** 60
- Reregister Time (hrs):** 6

At the bottom of the form are "Submit" and "Cancel" buttons. On the right side of the form, there is a **Description** field with the text: "This is the system code as configured in the NEXEDGE Trunked System. This is a unique ID assigned to each system (1 to 131070)."

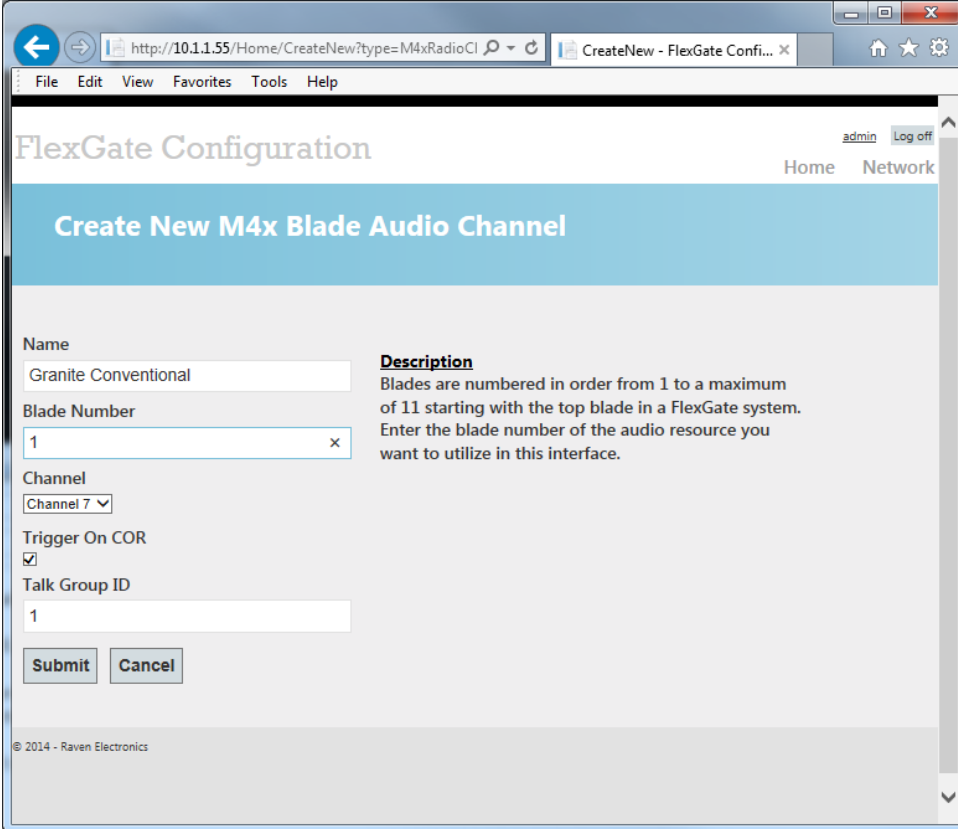
Figure 4: NEXEDGE Interface



# CREATING M4x BLADE AUDIO CHANNEL INTERFACE

M4x Blade audio channel can integrate any analog device into the FlexGate Enterprise System. Please contact Raven Electronics Corporation if there are questions about the cable pin out (775-858-2400).

1. In the home page click on the “Create New M4x Radio Channel”.
2. Determine which port (channel) and blade you would like to use. The blade number is issued from top to bottom with the top blade number being one and the bottom blade number being three. The channel is the blade port number (1-8)
3. Trigger On COR is used if the analog system being connected to can provide a COR (or “E-lead”) when voice audio is presented to the FlexGate hardware. This is most useful for deterministic initiation of audio paths from radio users.



The screenshot shows a web browser window with the URL <http://10.1.1.55/Home/CreateNew?type=M4xRadioCI>. The page title is "FlexGate Configuration" and the user is logged in as "admin". The main heading is "Create New M4x Blade Audio Channel". The form contains the following fields:

- Name:** Granite Conventional
- Blade Number:** 1
- Channel:** Channel 7
- Trigger On COR:**
- Talk Group ID:** 1

There are "Submit" and "Cancel" buttons at the bottom of the form. A "Description" section on the right states: "Blades are numbered in order from 1 to a maximum of 11 starting with the top blade in a FlexGate system. Enter the blade number of the audio resource you want to utilize in this interface." The footer of the page reads "© 2014 - Raven Electronics".

Figure 5: Blade Audio Channel



# MAPPING INTERFACES TOGETHER

Once interfaces are created you can map one or more of them to each other to create interoperability conduits among them.

1. Click “Patches” link on the web config interface you want to map to another that was previously created.
2. A drop down list of all created patches will appear in the middle of the form.
3. Select an “Available Interfaces” list and click add to create the mapping (note that you can add multiple interfaces together by this method).
4. Click the Submit button on the form.

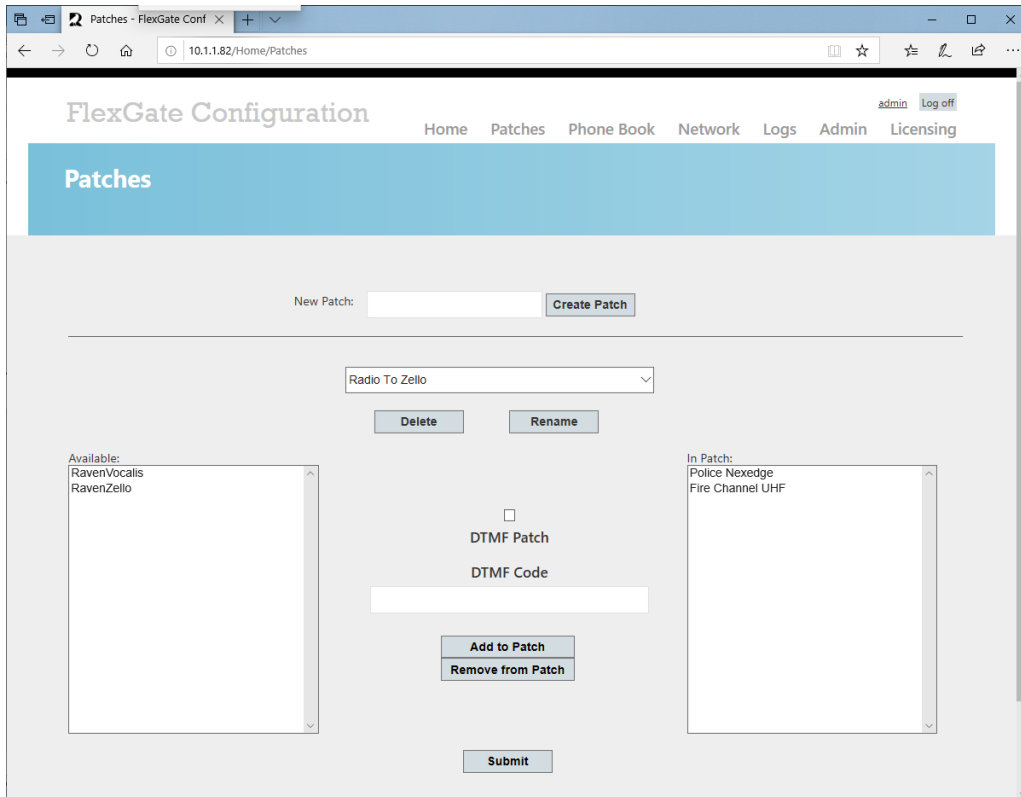


Figure 6: Connecting Interfaces Together

