MultiVOIP™

Voice / Fax over IP Networks

Configuration Guide for Voice/IP Gateways

Bogen PCM Zone Paging

MultiVOIP Models: MVP130-BG, MVP210-BG, MVP410-BG, MVP810-BG

MultiTech® Systems

Configuration Guide

Doc # Bogen03
MultiVOIP Models MVP130-BG, MVP210-BG, MVP410-BG, MVP810-BG

Record of Revisions

Revision	Description
A	Initial Release. (01/07/04)
B	Additional application changes (02/16/04)
C	Add Caution for Low Power (2/24/04)

Patents

This Product is covered by one or more of the following U.S. Patent Numbers: ***6151333, 5757801, 5682386, 5.301.274; 5.309.562; 5.355.365; 5.355.653; 5.452.289; 5.453.986***. Other Patents Pending.

Trademark

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Bogen paging example using FXS Pass Through feature.

The example below shows a Bogen PCM/ZPM Zone Paging unit at the Corporate site connected through MultiVOIPs to amplifiers and speakers at each of two branch sites. Users at the corporate site can page users at the Branch A and/or Branch B sites.

The FXS Pass Through feature allows an “always on” audio connection to exist between the Corporate site and both Branch A and Branch B sites. The MultiVOIPs use of Silence Compression means little or no bandwidth is used when not paging.

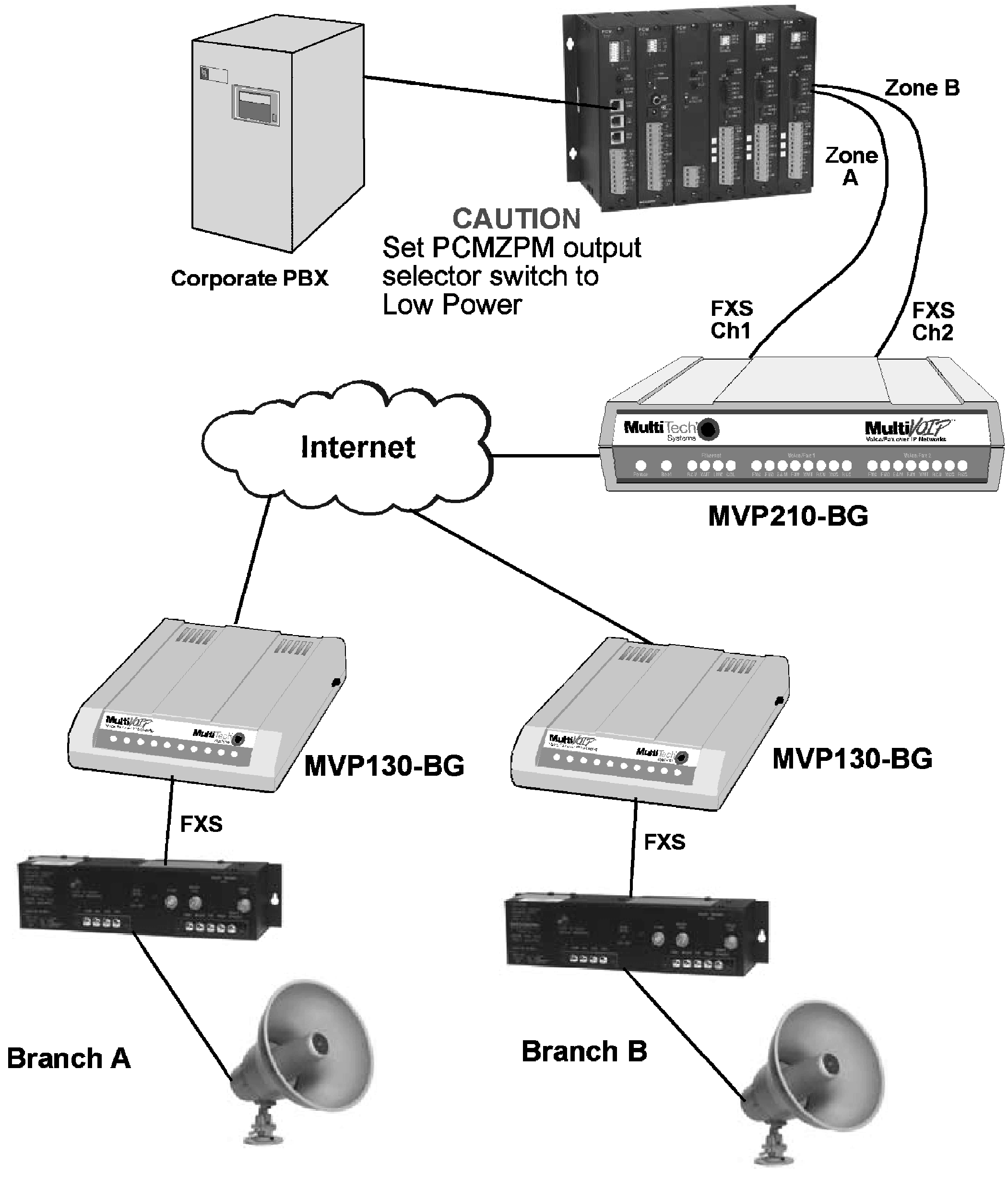
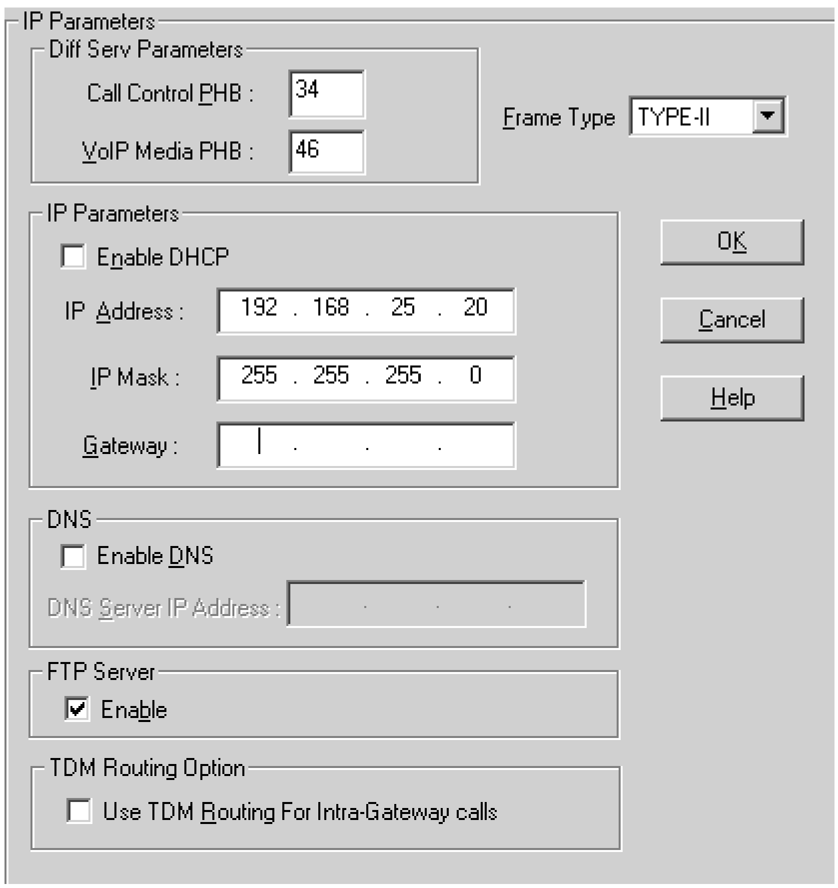


Figure 1. Bogen paging system diagram.

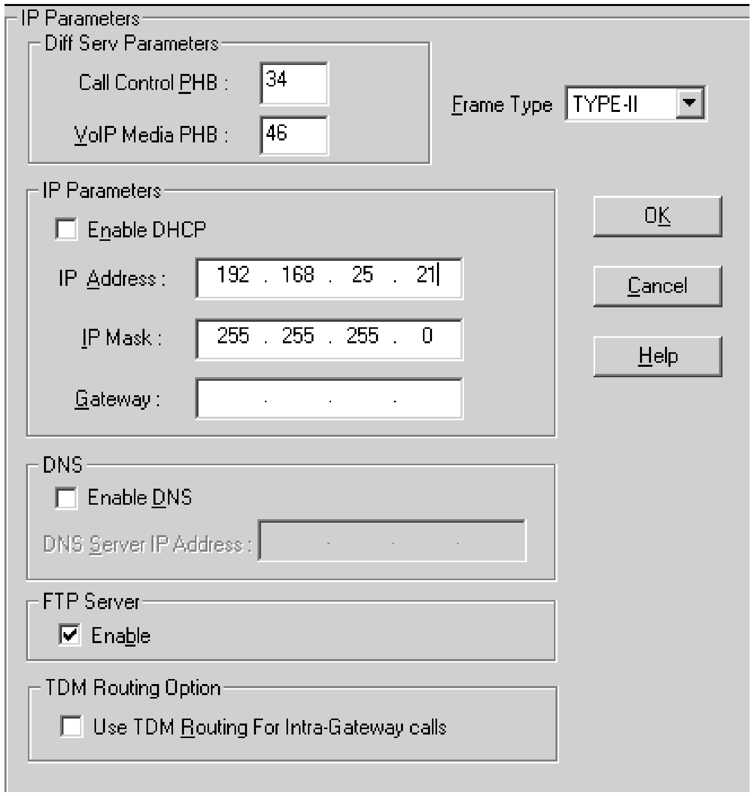
1. Preliminary planning: Determine the number of MultiVOIP gateways to be used for the paging network. Assign a unique IP address and identifying number to each MultiVOIP. It is helpful to write this down like below:

MultiVOIP Name	Identifying Number	IP Address	Local Voice Channel	Destination MultiVOIP Number	Destination MultiVOIP Voice Channel
Corporate	1	192.168.25.20	1	2	1
			2	3	1
Branch A	2	192.168.25.21	1	1	1
Branch B	3	192.168.25.22	1	1	2

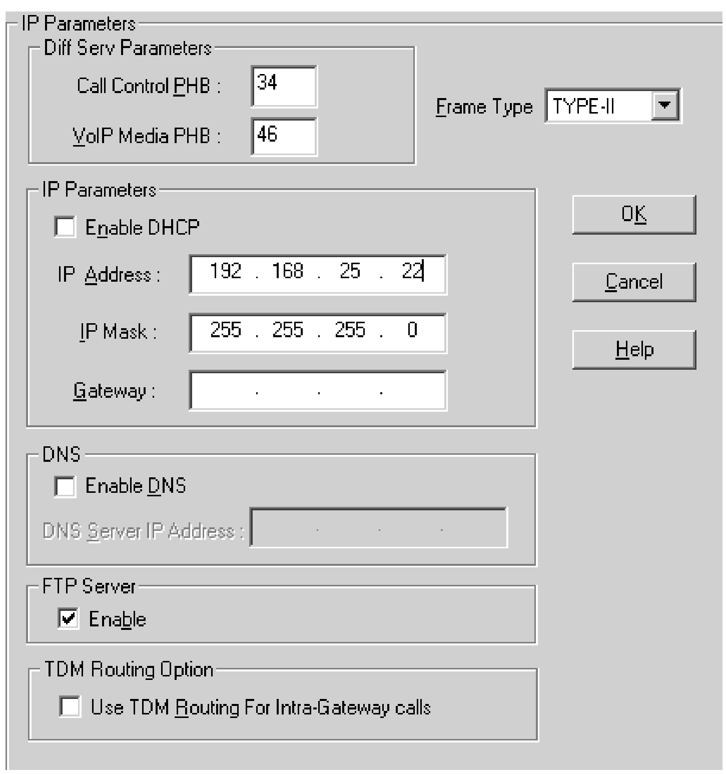
2. In the Configuration / IP screen of the MultiVOIP Configuration software, configure each MultiVOIP with a unique **IP address**. Also configure the **mask** and **gateway** address. If all MultiVOIPs are located in the same subnet, you can leave the gateway address field blank. Click Ok when finished.



Corporate

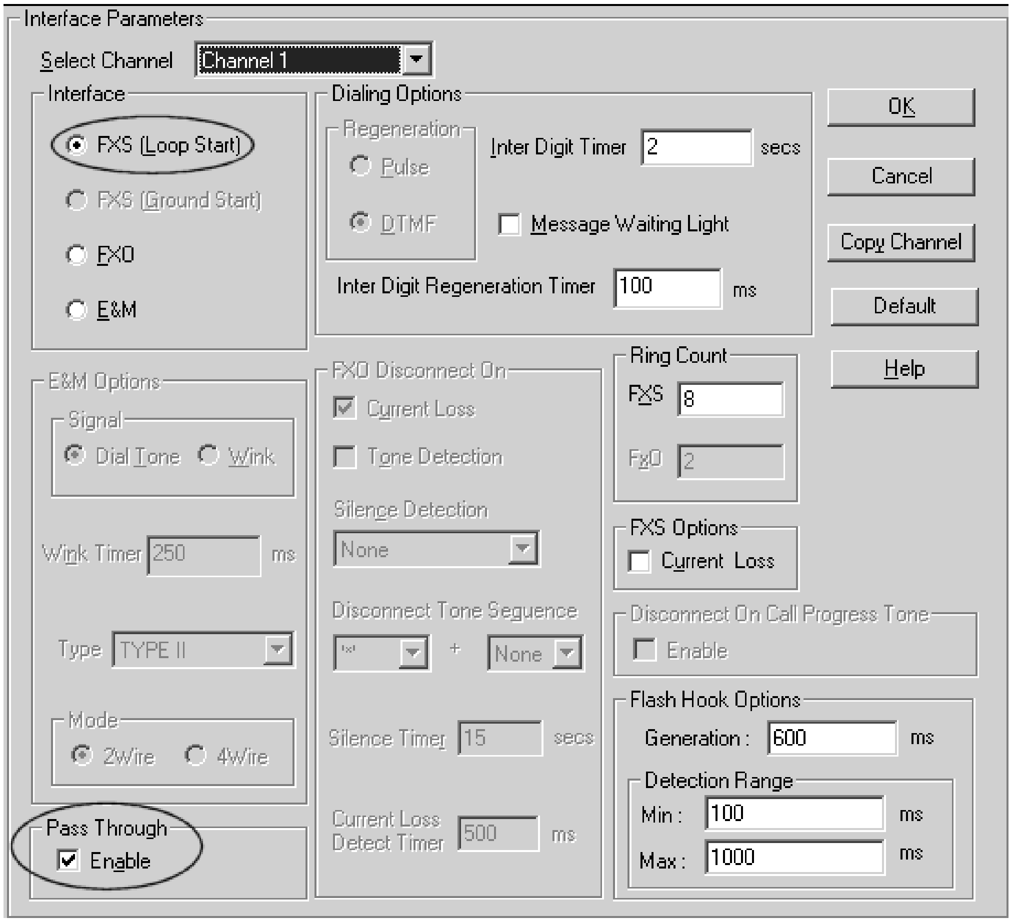


Branch A

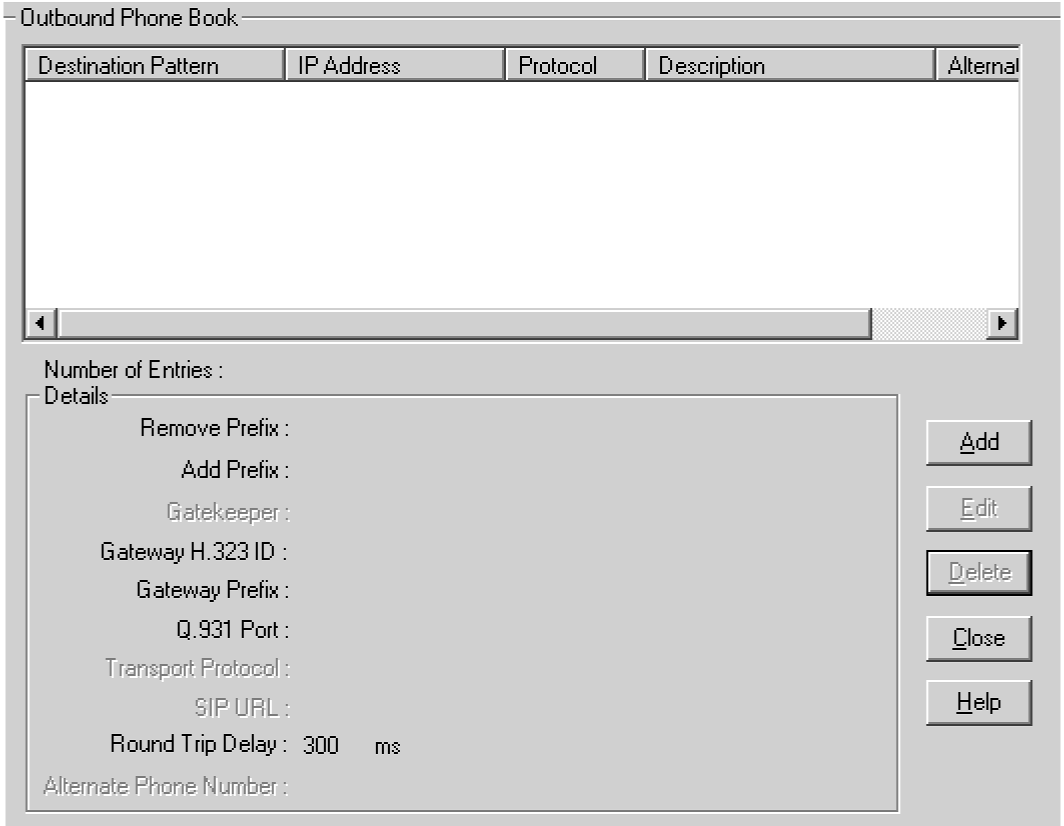


Branch B

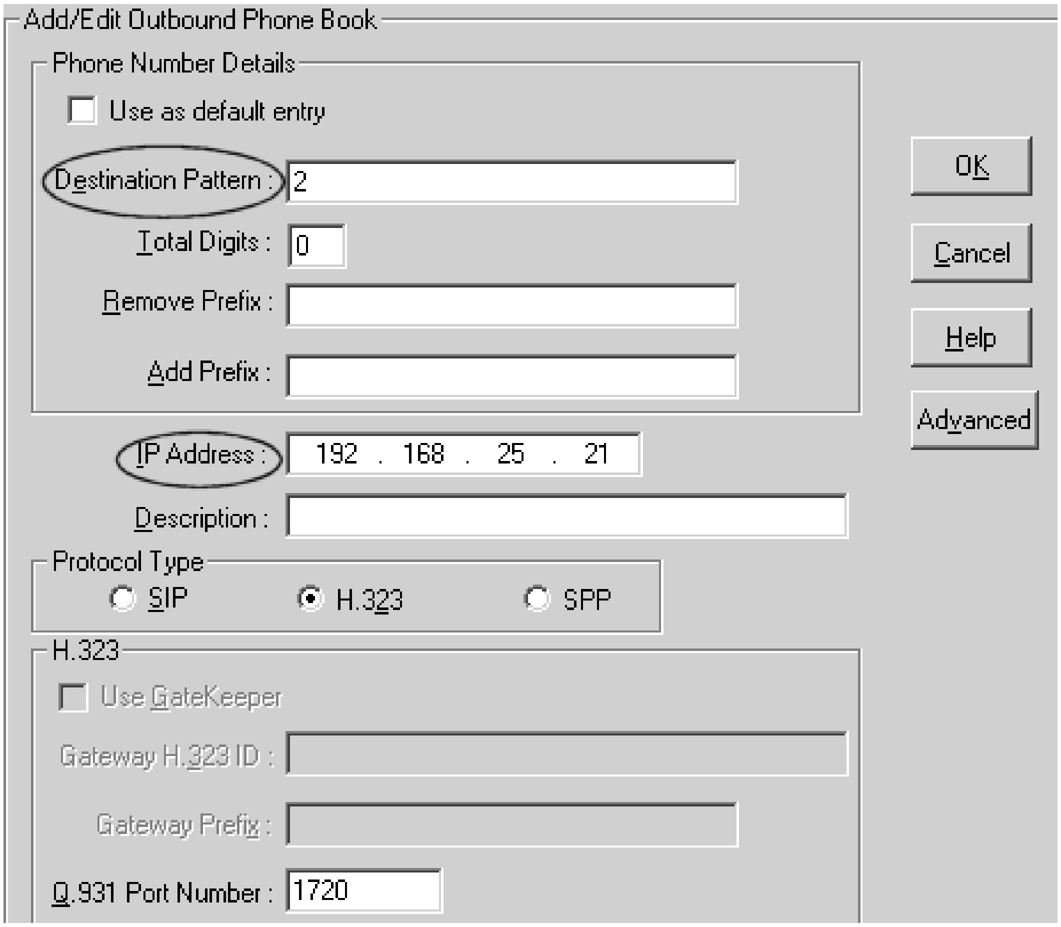
3. In the Configuration/Interface screen, Select each voice channel used for paging from the Select Channel drop-down list and configure that channel so **FXS Loop Start** and **Pass Through** are enabled. Click **Ok** when finished.



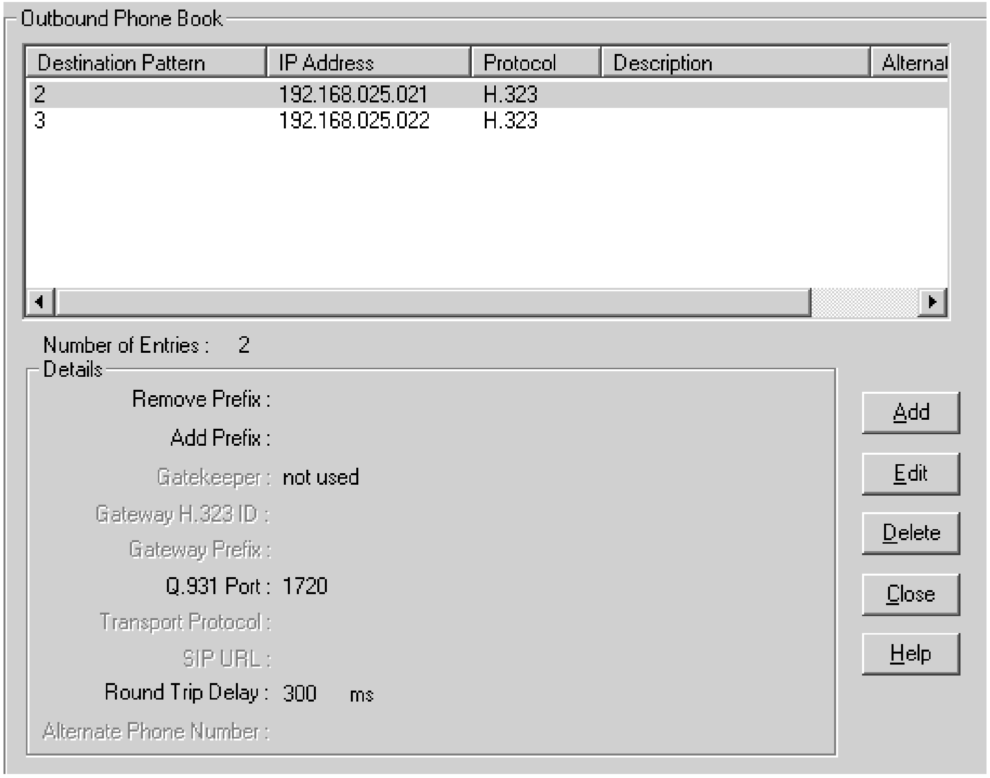
4. Go to the Phone Book / Phone Book Modify / Outbound Phone Book / List Entries screen.



5. Click the Add button to add a phone book entry. In the **Destination Pattern** field, enter the identifying number for one of the remote MultiVOIP units. Enter the IP address of the remote MultiVOIP unit in the **IP Address** field. Leave the other fields set at their defaults.

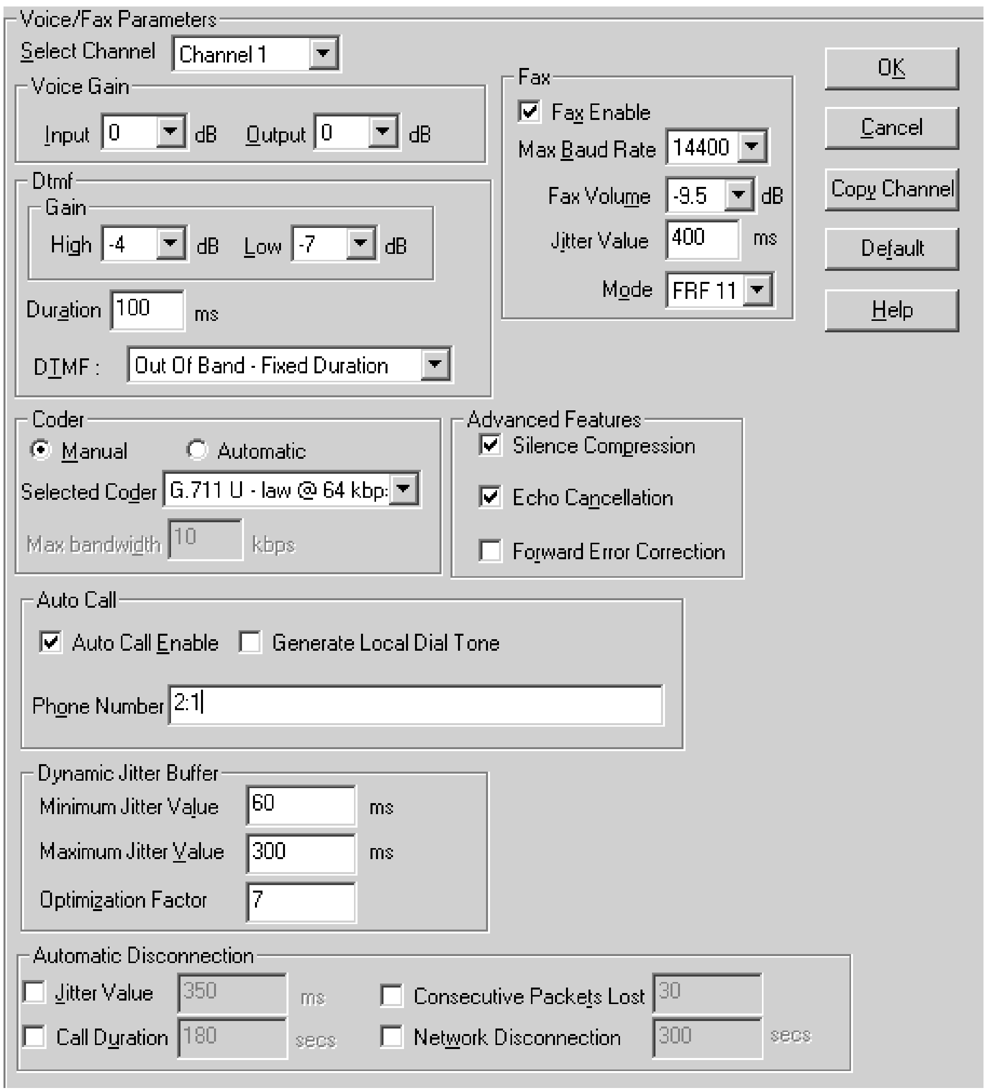


6. Click **Ok** when finished with this entry. Click the **Add** button as needed to create enties for other remote MultiVOIP units. In our example, the Corporate MultiVOIP would have two entries like below:

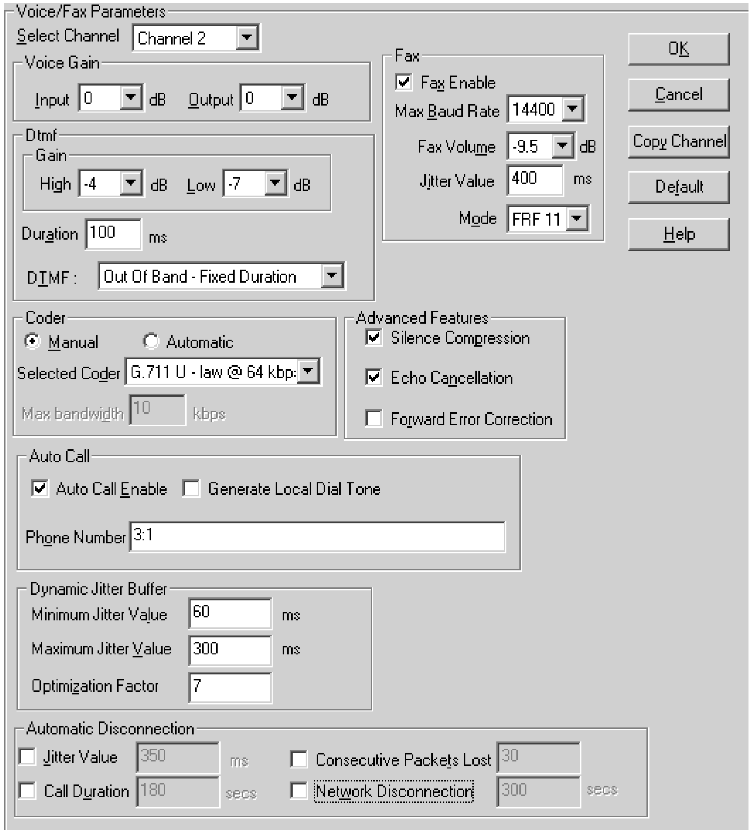


The Branch A and Branch B MultiVOIP entries would look like this:

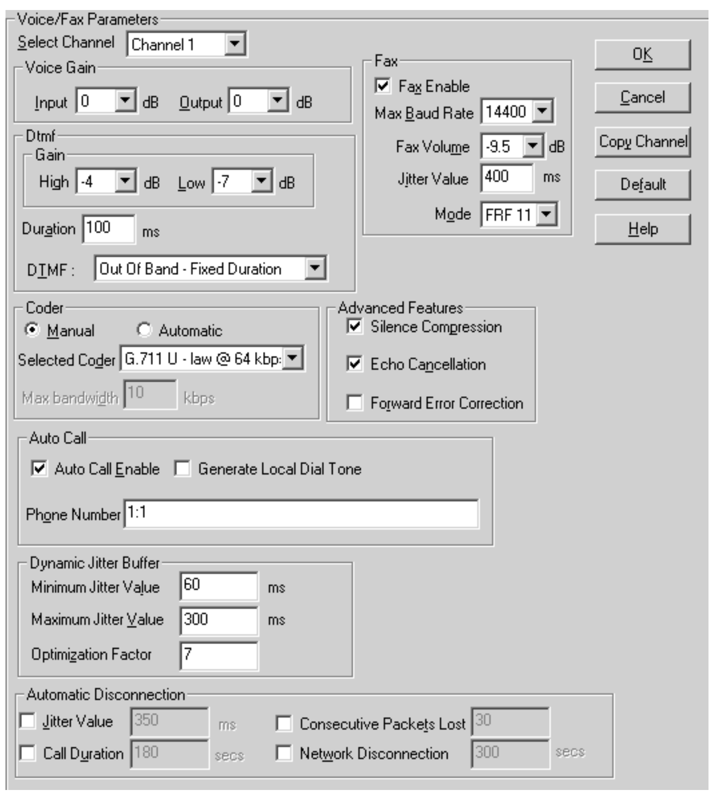
7. In the configuration / Voice/Fax screen, select one of the channels to be used for paging and click the **Auto Call Enable** checkbox to enable the auto call feature. In the **Phone Number** field, enter x:y where x equals the remote MultiVOIP identifying number and y equals the remote MultiVOIP Voice Channel number. For example, on Corporate MultiVOIP channel 1 you would enter **2:1** to communicate with Branch A voice channel 1. For best voice quality, configure the **Voice Coder** field to G.711 U-Law @ 64 kbps. For good voice quality requiring less bandwidth, configure the Voice Coder field to G.723.1 @ 6.3 kbps. You must use the same voice coder on channels that communicate with each other. Leave the other fields set to defaults. Configure the other channels as needed and click **Ok** when finished.



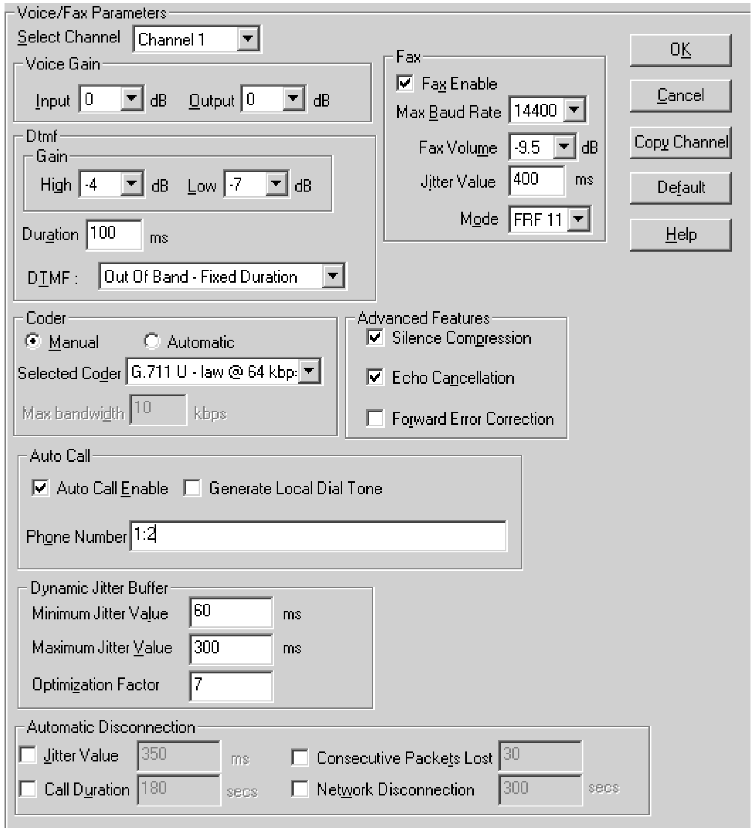
Corporate Channel 1



Corporate Channel 2

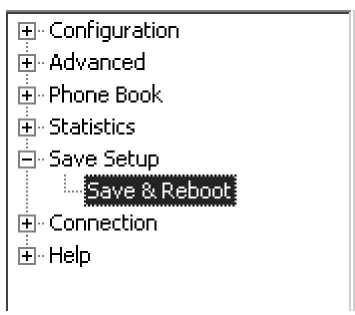


Branch A Channel 1



Branch B Channel 1

8. Select **Save Setup** / **Save and Reboo**t to save the configuration to the MultiVOIP.



9. Assuming a Bogen PCMZPM is located at Corporate, connect a RJ11 phone cord to channel 1 FXS/FXO jack on the Corporate MultiVOIP. Connect the two wires on the other end of the phone cord to the Zone A + and – leads on the PCMZPM. Connect another RJ11 phone cord between channel 2 FXS/FXO jack and the Zone B + and – leads on the PCMZPM. A cord with an RJ11 plug on one end and tinned leads on the other end is included for this purpose. Caution: set the PCMZPM output selector switch to Low Power

10. At the Branch sites, connect a RJ11 phone cord between the MultiVOIP channel 1 FXS/FXO jack and the TIP/RING leads of the speaker amplifier (TPU-15, for example). You cannot connect the speaker directly to the MultiVOIP.

11. When all MultiVOIPs are powered on , a permanent audio connection will exist between Corporate MultiVOIP channel 1 and Branch A MultiVOIP channel 1. Another permanent audio connection will exist between Corporate MultiVOIP channel 2 and Branch B MultiVOIP channel 1. You can now make pages From Corporate to Branch A and/or Branch B remote sites.