Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Interalia XMU+ with Avaya Communication Server 1000E R7.5 using TDM Connections - Issue 1.0

Abstract

These Application Notes describe the configuration steps for provisioning Interalia's XMU+ system to successfully interoperate with Avaya Communication Server 1000E R7.5 using analog TDM connections. Interalia's XMU+ is a voice application platform that supports Recorded Announcements, Music on Hold and basic IVR technology.

Information in these Application Notes has been obtained through DevConnect Compliance Testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the compliance tested configuration using Interalia's XMU+ solution with Avaya Communication Server 1000E R7.5 using analog connections through the use of a Universal Trunk Card and a FALC Card on the Avaya Communication Server 1000E. Included with every XMU+ is the XMUCOM+ administration software, a windows-based configuration and communication software that helps administrators directly manage their XMU+ systems onsite. The software has an easy to use GUI interface, editor browser and pull-down menus loaded with all the tools administrators need to schedule messages, simultaneously download configuration files/messages to multiple XMU+ systems, review statistics. Typical XMU+ applications include.

- ACD/RAN announcements
- Auto attendant
- Voicemail/IVR Failover
- Information Lines
- Music on hold (MOH)

1.1. Applicable Systems

The interoperability compliance testing includes the following systems:

- Avaya Communication Server 1000E R7.5 (CS1000E)
- Interalia XMU+ (XMU)

2. General Test Approach and Test Results

The test approach was to validate the correct operation of typical interactive voice response applications such as Recorded Announcements (RAN) and Auto Attendant. The following tests were performed to insure full interoperability between the XMU and the CS1000E. The tests were all functional in nature and performance testing was not included. All the test cases passed successfully.

2.1. Interoperability Compliance Testing

The interoperability compliance test included both feature functionality and serviceability testing. The feature functionality testing focused on verifying that the voice application response is activated in various scenarios. The testing included.

1. Connectivity of XMU to CS1000E
   Testing of the connection between the XMU and the CS1000E and the surrounding hardware (IP sets)
2. Music on hold from internal/external callers on the CS1000E.
   Testing on the ability to hear Music during the following call scenario
   - Caller placed on hold/transferred
   - Caller being in an Automatic Call Distribution Queue (ACDQ)

3. Playing XMU ACD Announcements for calls entering an ACDQ on the CS1000E internally and externally
   - ACDQ and agents are configured on the CS1000E with two RAN routes setup for Announcements
   - Calls are made internally to the ACDQ and announcements are heard from the XMU
   - Calls are made externally to the ACDQ and announcements are heard from the XMU
4. Playing IVR services from callers both internally and externally
   - A group hunt is setup to include the analog extensions on the FALC connected to the XMU
   - Callers both internally and externally call the group hunt pilot DN to hear the IVR services
5. Failover of the XMU
   - The XMU was disconnected and reconnected

Note: The compliance testing focused on testing using only analog connections between the XMU and the CS1000E. The serviceability testing focused on verifying the ability of the XMU to recover from disconnection such as power supply failure.

2.2. Test Results

All test cases passed successfully.

2.3. Support

Technical support can be obtained for XMU as follows;

- Email: support@interalia.com
- Website: *www.interalia.com*
- Phone: +44 (0) 1476594207
- Phone: +1 800 531 0115 (Toll Free)

3. Reference Configuration

Figure 1 shows the network topology during compliance testing. Communication Server 1000E (managed by System Manager R6.1) is used as the hosting PBX. The XMU is connected to the hosting PBX using analog connections to a Universal Trunk Card and a FALC Card on the Communication Sever 1000E.

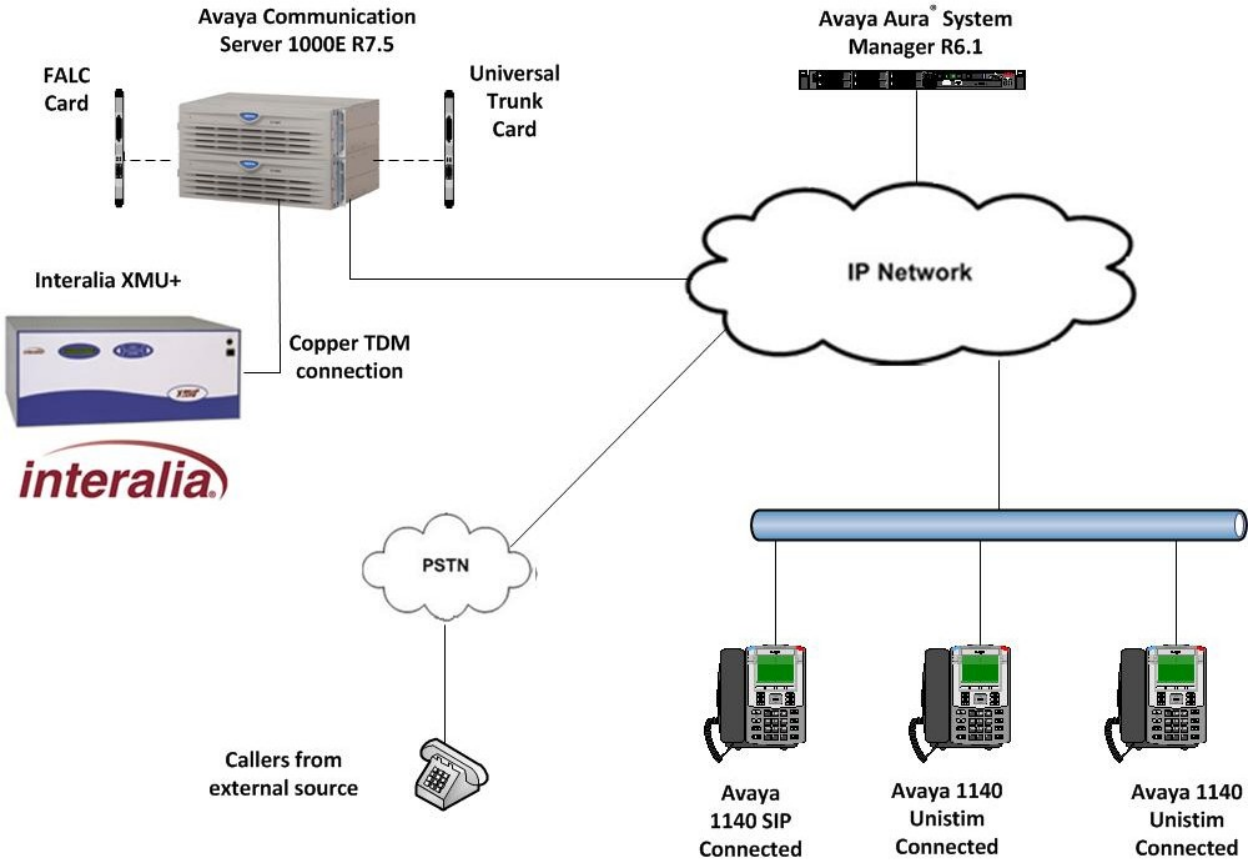


Figure 1: Network Topology and Connectivity for Interalia XMU+ and Avaya Communication Server 1000E with Avaya Aura® System Manger R6.1

4. Equipment and Software Validated

All the hardware and associated software used in the compliance testing is listed below.

Equipment	Software Version
Avaya Communication Server 1000E CPPM	Avaya Communication Server 1000E R7.5 SP1
Avaya Universal Trunk Card	NT8D14BB R07 NNTM1016LZED 9806
Avaya FALC Card	NT5K02QC
Avaya S8800 Media Server	Avaya Aura® System Manager R6.1 SP0
Avaya 1140E IP set	UNIStim V0625C8D SIP V04.00.04.00
Interalia XMU+	Firmware version: V6.85 Software: XMUCOM+ V7.25 Software : XMUCOM+ V8.0 (Compatible with Windows 7)

Table 1: Hardware and Software Version Numbers

Note: For a complete list of the patches installed on the CS1000E see **Appendix**.

5. Configure Avaya Communication Server 1000E

Configuration and verification operations on the CS1000E illustrated in this section were all performed using terminal access over a serial link to a TTY port on the CS1000E using the program "Reflections". The configuration of the CS1000E can be performed using a GUI called Element Manager which is accessed through Avaya Aura® System Manager. The information captured in this section shows the changes that are needed to add Analog Music trunks, RAN Trunks and analog line extensions to an existing CS1000E system. However it does not show the complete setup of ACDQ's and all external trunks and routes as it is implied a working system is already in place. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 10**. The configuration operations described in this section can be summarized as follows.

- Creating a music route and a music trunk on the Universal Trunk Card
- Changing the FTR data in the customer data block to add the new music route as the system music source
- Changing the route setup for the incoming route (for external callers) to add the Music Route
- Changing the ACDQ to add the new music route to the queue
- Creating two RAN routes and two RAN trunks on the Universal trunk card
- Changing the ACDQ to add the RAN routes for a first RAN announcement and a second RAN announcement
- Creating analog extensions on the FALC card
- Creating a Group Hunt List Pilot DN
- Placing the analog extensions into the Group Hunt List

The configuration of the PRI interface to the PSTN is outside the scope of these Application Notes.

5.1. Creating a Music Route and a Music Trunk

In order to create a new music (MUS) route (RDB) overlay 16 on the CS1000E is used. Use the **NEW** command in **LD 16** to create a new music route. Subsets of these commands are illustrated below.

LD 16

Prompt	Response	Description
>	LD 16	Enter Overlay 16
REQ	**NEW**	Create New
TYPE	**RDB**	Route Data Block
CUST	0	Customer Number as defined in LD15
ROUT	10	Route Number
TKTP	**MUS**	Route Type

In order to create music trunks overlay 14 on the CS1000E is used. Use the **NEW** command in **LD 14** to create a new music trunk on the Universal Trunk Card. This trunk will be a member of the new music route in this case route 10. Subsets of these commands are illustrated below.

LD 14

Prompt	Response	Description
>	LD 14	Enter overlay 14
REQ	**NEW**	Create New
TYPE	MUS	Music Trunk
TN	[L S C U]	Loop Shelf Card Unit
CUST	0	Customer Number as defined in LD15
RTMB	**10** 1	Route number and Member number

5.2. Changing the FTR data in the Customer Data Block

Changes to the system music for on hold music or music played during a transfer is changed in overlay 15 on the CS1000E. Use the **CHG** command in **LD 15** to change the CDB (Customer Data Block) to add the new music route as the music source for the CS1000E system. Under the section **FTR DATA** a change will be made to the **MUS** feature inputting yes and then inputting your music route number to **MUSR**. The number set is **10** in the example below. This will correspond to the music route set in **Section 5.1**. Subsets of these commands are illustrated below.

LD 15

Prompt	Response	Description
REQ	CHG	Change
TYPE	**FTR_DATA**	Feature Data
MUS	YES	Enhanced Music for telephones
MUSR	10	Music Route for telephones

Repeat the above process to add a different music route for each music source required. Changing this route in the FTR DATA will be a system wide change.

5.3. Adding a Music Source to External Route

To make changes to existing routes to allow music on the route overlay 16 is used on the CS1000E. Use the command **CHG** in **LD 16** to add the music sources to existing routes for example an external route for external calls to hear when placed on hold etc. In LD 16 change the prompt **MUS** as shown below to reflect the music route. The number set is **10** in the example below. This will correspond to the music route set in **Section 5.1.** Subsets of these commands are illustrated below.

LD 16

Prompt	Response	Description
>	**LD 16**	Enter Overlay 16
REQ	**CHG**	Change
TYPE	RDB	Route Data Block
CUST	0	Customer number as defined in LD15
ROUT	42	Route Number
TKTP	DID,TIE,COT	Trunk Type
MUS	YES	Music on hold to be provided
MRT	**10**	Music Route Number

5.4. Changing the ACDQ to add the Music Source

To make any changes on an ACDQ overlay 23 is used on the CS1000E. Use the command **CHG** in **LD 23** to add the music route to the ACDQ. Change the prompt MUS to reflect the new route. The number set is **10** in the example below. This will correspond to the music route set in **Section 5.1.** Subsets of these commands are illustrated below.

LD 23

Prompt	Response	Description
>	**LD 23**	Enter overlay 23
REQ	**CHG**	Change
TYPE	ACD	Update the ACD queue
CUST	0	Customer number as defined in LD15
ACDN	xxxx	ACD DN
MURT	10	Music Route Number

5.5. Creating RAN Routes and RAN Trunks

In order to create a new **RAN** route overlay 16 on the CS1000E is used. Use the **new** command in **LD 16** to create a new RAN route. Subsets of these commands are illustrated below.

LD 16

Prompt	Response	Description
>	**LD 16**	Enter Overlay 16
REQ	**NEW**	Create New
TYPE	RDB	Route Data Block
CUST	0	Customer Number as defined in LD15
ROUT	11	Route Number
TKTP	**RAN**	Route Type

In order to create **RAN** trunks overlay 14 on the CS1000E is used. Use the **NEW** command in **LD 14** to create a new RAN trunk on the Universal Trunk Card. This trunk will be a member of the new RAN route in this case route **11**. Subsets of these commands are illustrated below.

LD 14

Prompt	Response	Description
>	**LD 14**	Enter overlay 14
REQ	**NEW**	Create New
TYPE	**RAN**	RAN Trunk
TN	[L S C U]	Loop Shelf Card Unit
CUST	0	Customer Number as defined in LD15
RTMB	**11 1**	Route number and Member number

5.6. Adding the RAN routes to the ACDQ

To make any changes on an ACDQ overlay 23 is used on the CS1000E. Use the command **CHG** in **LD 23** to add the RAN routes to the ACDQ. Change the prompt **FRRT** and **SRRT** to reflect the new routes.

Note: There are two RAN routes created for the compliance testing Route 11 and Route 12 these are used for the first RAN announcement and the second RAN announcement. The timers in seconds are added underneath the route prompt. The **FRT** or first RAN timer is the delay in seconds between the two announcements and **SRT** or second RAN timer is the frequency that the second RAN announcement is played. Music on hold is heard during the RAN announcements due to the setup in **Section 5.4.**

LD 23

Prompt	Response	Description
>	**LD 23**	Enter overlay 23
REQ	**CHG**	Change
TYPE	ACD	Update the ACD queue
CUST	0	Customer number as defined in LD15
ACDN	xxxx	ACD DN
FRRT	11	First RAN route
FRT	10	First RAN Route Timer
SRRT	12	Second RAN route

SRT	15	Second RAN route Timer

5.7. Creating analog extensions

A number of analog extensions are created to connect to the IVR Auto Attendant channels on the XMU. The number of Analog extensions on the CS1000E created depends on the number of channels that are configured for IVR Auto Attendant on the XMU. In order to create a new analog extension overlay 20 on the CS1000E is used. Use the **NEW** command in **LD 20** to create new analog extensions. The set type will be **500**. The Class of service (**CLS**) must allow transfer (**XFA**). Subsets of these commands are illustrated below.

LD 20

Prompt	Response	Description
>	**LD 20**	Enter Overlay 20
REQ	**NEW**	Create New
TYPE	**500**	Analog set
CUST	0	Customer Number as defined in LD15
TNB	4 0 7 0	Loop Shelf Card Unit
DN	xxxx	Extension Number
CLS	**XFA**	Transfer Allowed

5.8. Creating a Group Hunt list Pilot DN

If there are a number of channels on the XMU associated with the same service then these channels can be added to a group hunt on the CS1000E in order to access them using a single route point or Pilot DN. For compliance testing four ports were used for IVR front line services and these corresponding extensions were placed into a Group Hunt List. To create a pilot DN overlay 57 is used on the CS1000E. Use the **CHG** command in **LD 57**. Subsets of these commands are listed below.

LD 57

Prompt	Response	Description
>	**LD 57**	Enter Overlay 57
REQ	**CHG**	Change existing
TYPE	FFC	Flexible Feature Codes Data Block
CODE	PLDN	Pilot DN (Group hunt access DN)
USE	GPHT	Use is Group Hunt
LSNO	x	Use the list number created section 5.9
HTYP	LIN/RRB	Linear or Round Robin

5.9. Adding the Analog extensions into the Group Hunt Created

To create a group hunt list overlay 18 is used. Use the **NEW** command in **LD 18** to create a new group hunt list. Subsets of these commands are listed below.

LD 18

```
Prompt          Response        Description
>               LD 18           Enter Overlay 18
REQ             NEW             Create new
TYPE            GHT             Group Hunt
LSNO            1-8190          Group Hunt List Number
CUST            0               Customer Number as defined in LD15
SIZE            1-96            Amount of entries in the GHT
STOR            x y             x is the entry number and y is the Ext
number
```

Note: The **STOR** entry above donates each extension number in the Group Hunt List please see the example below as was used in the compliance testing. 3200 was the Pilot DN and 3220 – 3223 were the analog extensions included in the group hunt.

```
PLDN 3200
STOR 0 3220
STOR 1 3221
STOR 2 3222
STOR 3 3223
```

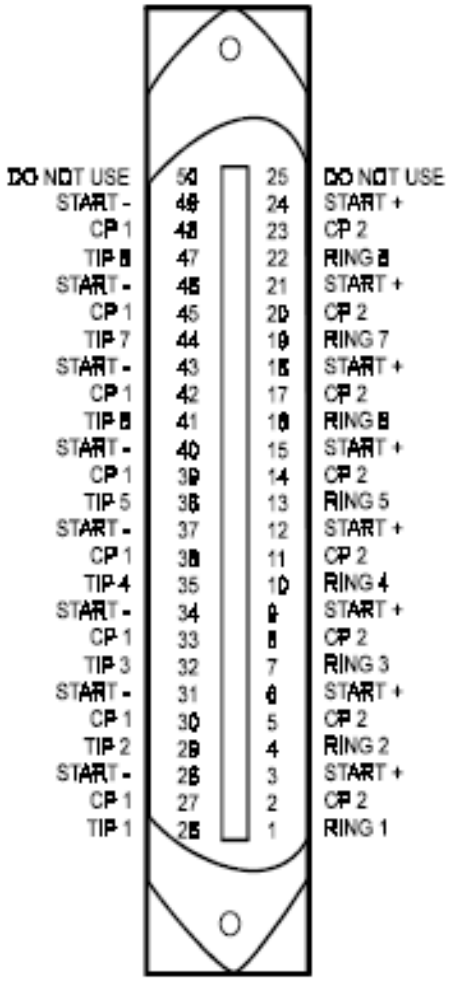
6. Physical Analog Connections

6.1. Connecting the Interalia XMU+ to the Universal Trunk Card

The Universal Trunk Card has a maximum of 8 trunk connections. The connections to the Interalia are made using physical copper connections to the Universal Trunk Card. The standard Interalia Hybrid Analog card has an RJ21 Amphenol connection. An Amphenol cable is then connected to the Universal Trunk card via a patch panel or Krone block.

6.1.1. Interalia Wiring

An RJ21 Amphenol cable from the Interalia is used to connect to the Universal Trunk Card. This cable type is shown in the figure below.



6.1.2. Avaya Communication Server 1000E Wiring

An Amphenol cable from the CS1000E is punched onto a Krone Block where the pin layout is as follows for the first 4 units.

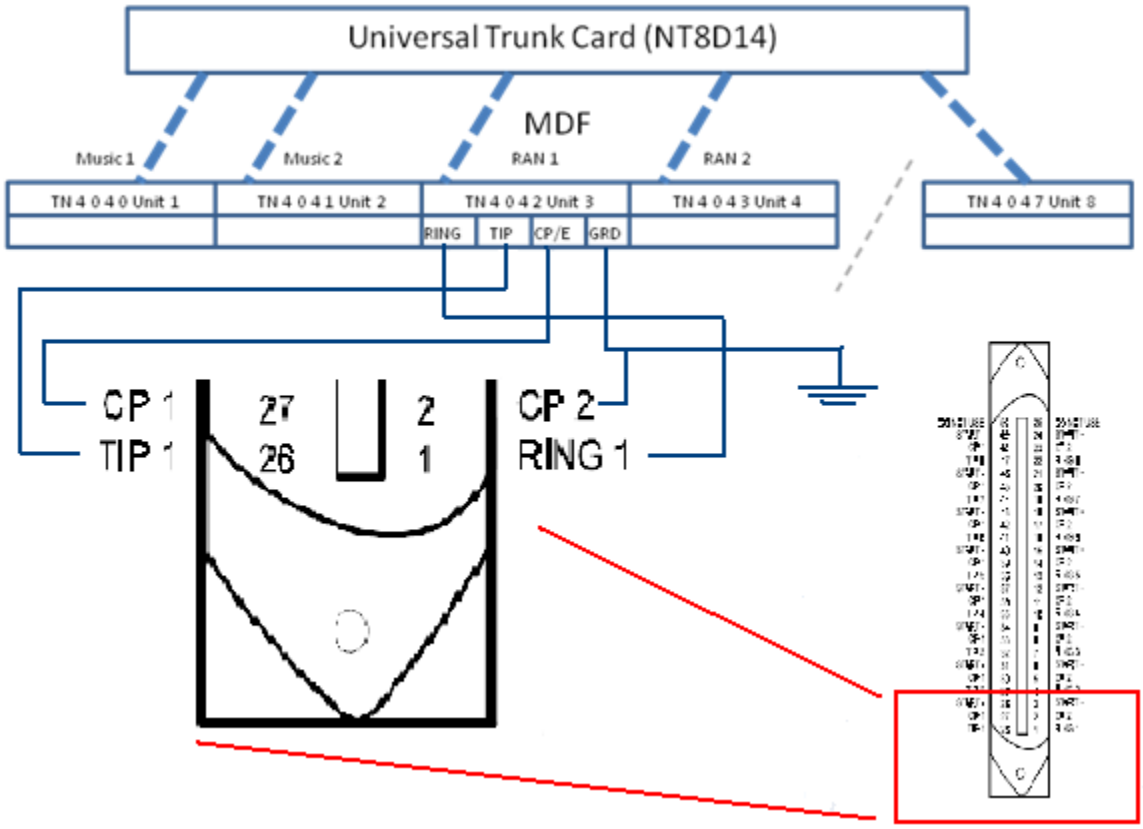
Trunk Number	Back-plane Pin	Signal			Back-plane Pin	Signal		
		RAN mode	Paging mode	Other modes		RAN mode	Paging mode	Other modes
0	12A	Tip	Tip	Tip	12B	Ring	Ring	Ring
	13A	CP	A	N/A	13B	MB	RG	N/A
1	14A	Tip	Tip	Tip	14B	Ring	Ring	Ring
	15A	CP	A	N/A	15B	MB	RG	N/A
2	16A	Tip	Tip	Tip	16B	Ring	Ring	Ring
	17A	CP	A	N/A	17B	MB	RG	N/A
3	18A	Tip	Tip	Tip	18B	Ring	Ring	Ring
	19A	CP	A	N/A	19B	MB	RG	N/A
4	62A	Tip	Tip	Tip	62B	Ring	Ring	Ring
	63A	CP	A	N/A	63B	MB	RG	N/A

6.1.3. Interalia to Avaya Communication Server 1000E wiring

4 wires from the Interalia XMU are connected to 4 wires from the CS1000E. Below is the pin-out selection for this connection type.

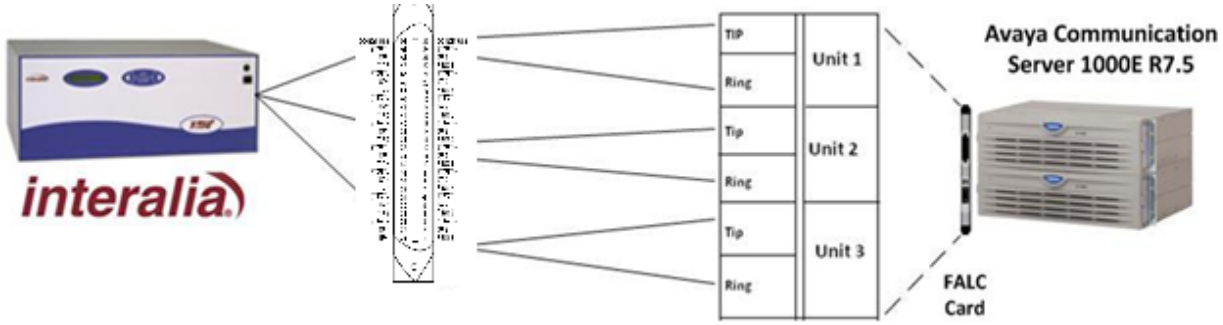
PABX Signal	Announcer Signal	Line 1 Pin-Color	Line 2 Pin-Color	Line 3 Pin-Color	Line 4 Pin-Color	Line 5 Pin-Color	Line 6 Pin-Color	Line 7 Pin-Color	Line 8 Pin-Color
Ring	Ring	1 - Blu/Wht	4 - Brn/Wht	7 - Org/Red	10 - Slt/Red	13 - Grn/Blk	16 - Blu/Yel	19 - Brn/Yel	22 - Org/Vlt
Tip	Tip	26 - Wht/Blu	29 - Wht/Brn	32 - Red/Org	35 - Red/Slt	38 - Blk/Grn	41 - Yel/Blu	44 - Yel/Brn	47 - Vlt/Org
CP/E	CP1	27 - Wht/Org	30 - Wht/Slt	33 - Red/Grn	36 - Blk/Blu	39 - Blk/Brn	42 - Yel/Org	45 - Yel/Slt	48 - Vlt/Grn
Ground	CP2	2 - Org/ Wht	5 - Slt/Wht	8 - Grn/Red	11 - Blu/Blk	14 - Brn/Blk	17 - Org/Yel	20 - Slt/Yel	23 - Grn/Vlt

The figure below shows the first RAN trunk on unit 3 or TN 4 0 4 2 on the CS1000E. The physical connection to the Universal Trunk Card is made using 4 wires from the RJ21 Amphenol cable plugged into the Interalia. As shown below, the physical connections made between the XMU+ and the CS1000E.



6.2. Connecting the Interalia XMU+ to the FALC Card

The connection to the FALC card is a straight forward Tip/Ring connection on the RJ21 Amphenol cable from the XMU to each unit on the FALC card. Please see the illustration below showing the first 3 units on the FALC card connected to the 3 IVR ports on the XMU+

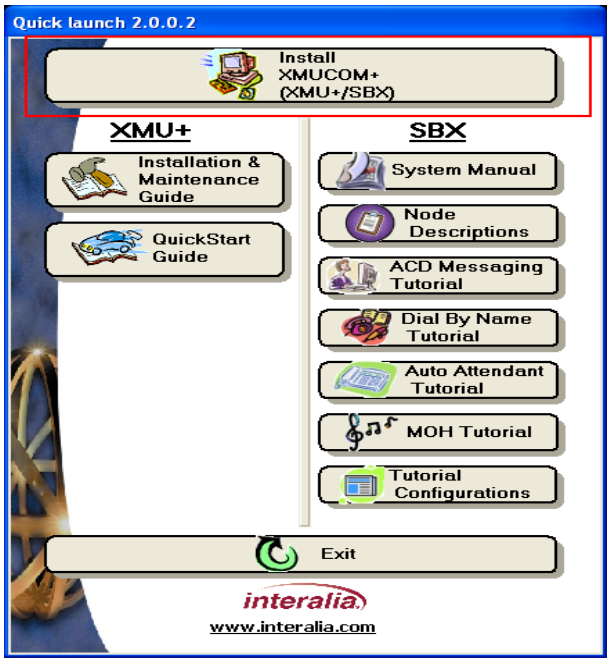


7. Configure Interalia XMU+

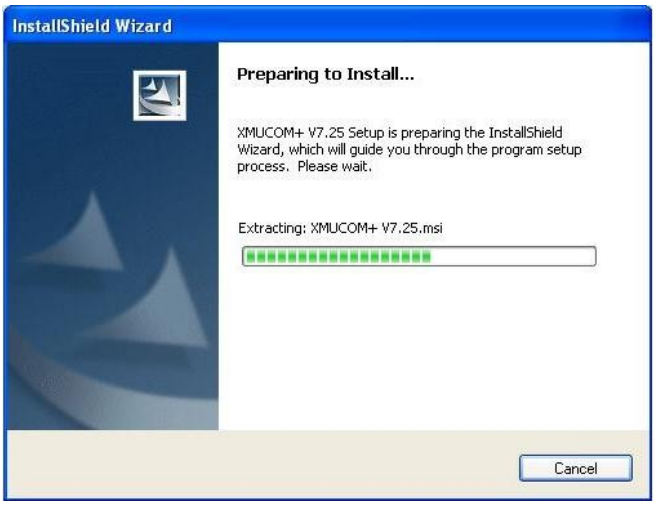
Included with every XMU+ is the XMUCOM+ administration software, a windows-based configuration and communication software that helps administrators directly manage their XMU+ systems onsite The following section documents the necessary steps taken to configure the XMU+.

7.1. Installing Interalia XMU+ Software

The installation of the XMU+ software is loaded from a CD containing the software. After placing the CD into a PC it automatically starts to the following screen. Click on **Install XMUCOM+ (XMU+/SBX)** highlighted.

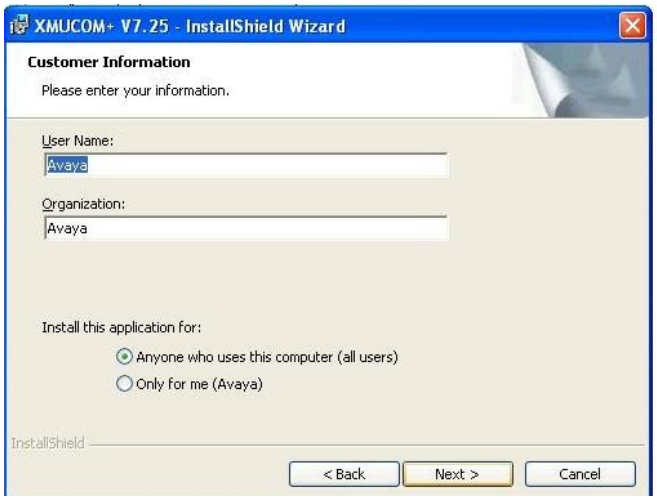


A **Preparing to Install** screen appears below.

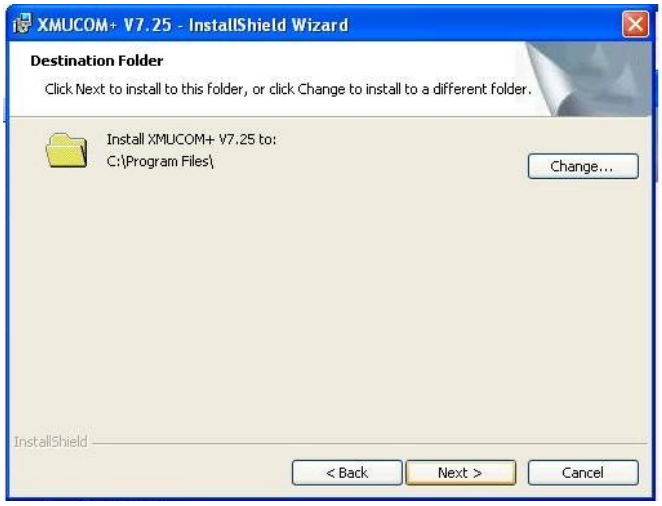


A welcome screen appears. Click **Next** to continue with the install.

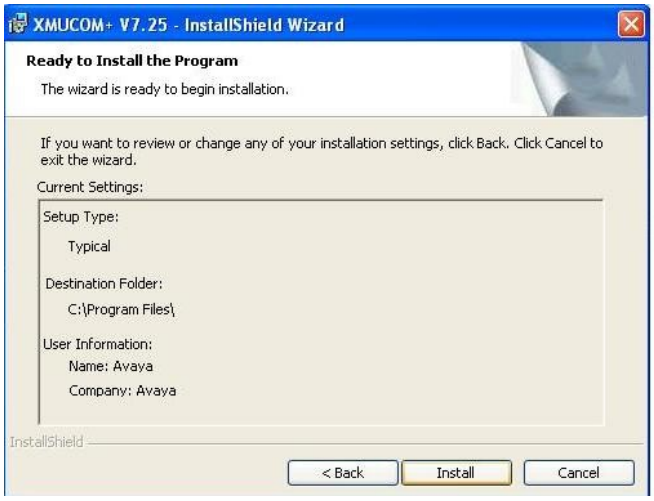
On the **Customer Information** screen, enter **User Name** and **Organization** and click **Next.**



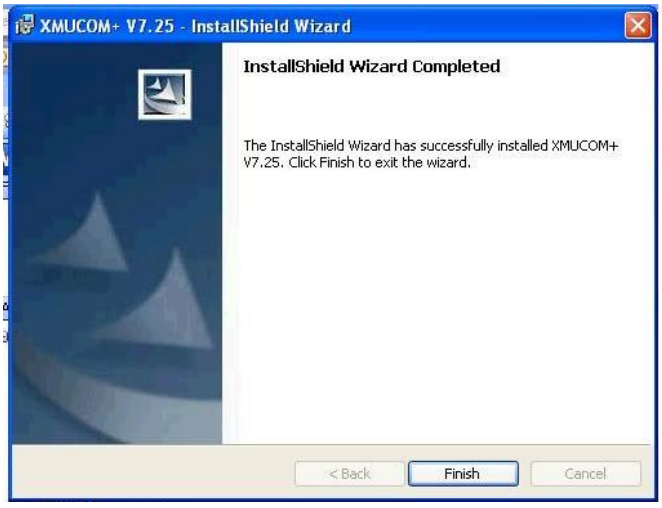
Choose the default destination on the **Destination Folder** screen and click **Next.**



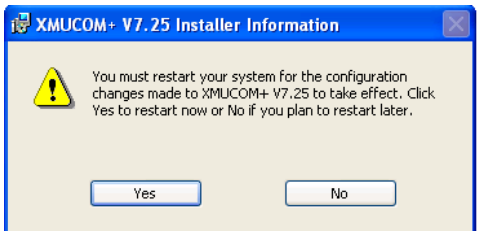
Review the selected settings and click **Install.**



A screen appears to indicate the successful install of the product. Click **Finish** to complete it.



Restart the PC to allow configuration changes to take effect. Choose the **Yes** button to restart.



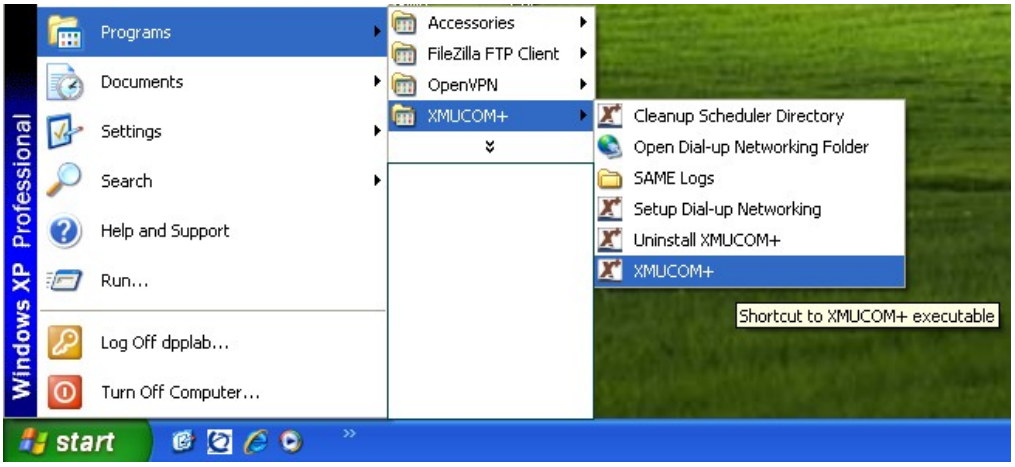
7.2. Setting the IP address on the Interalia XMU+

The IP address of the XMU is set from the menu on the front of the box by navigating through the menu using the left and right arrows and clicking **Enter** for each section that needs changing as highlighted below.

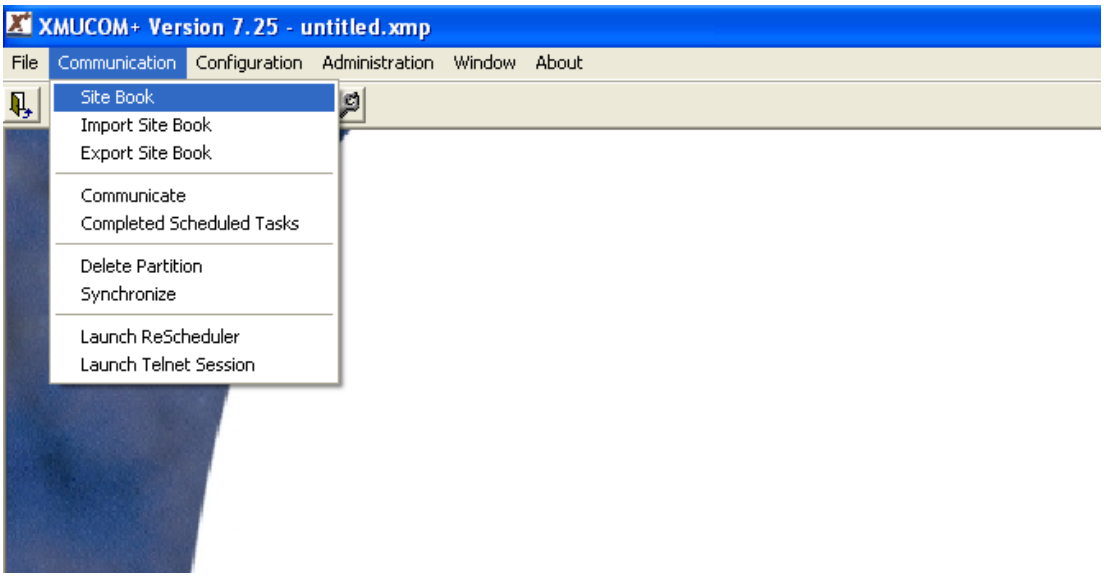
To set the IP address navigate to **Main System Menu,** click **Enter** and navigate to **System Communications** press **Enter.** Then navigate to **Communications Ethernet** and press **Enter** then navigate to each of **Ethernet IP address - Ethernet IP mask – Gateway** to fill in the information.

7.3. Initial Configuration of the Interalia XMU+ to create a new site

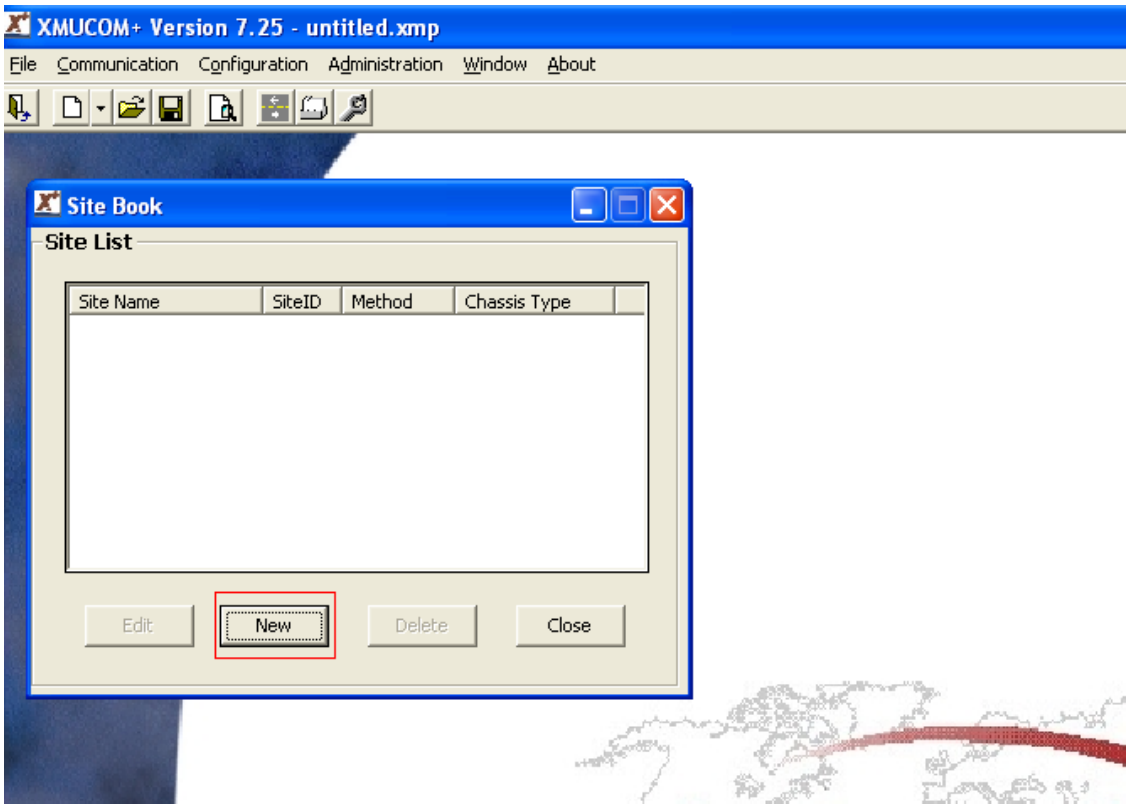
Once installed, the XMUCOM+ program can be run from a shortcut on the desktop or by selecting the program as shown below.



To create a Site Book on the Interalia XMU choose the **Communication** Menu and select **Site Book** from the drop down menu.

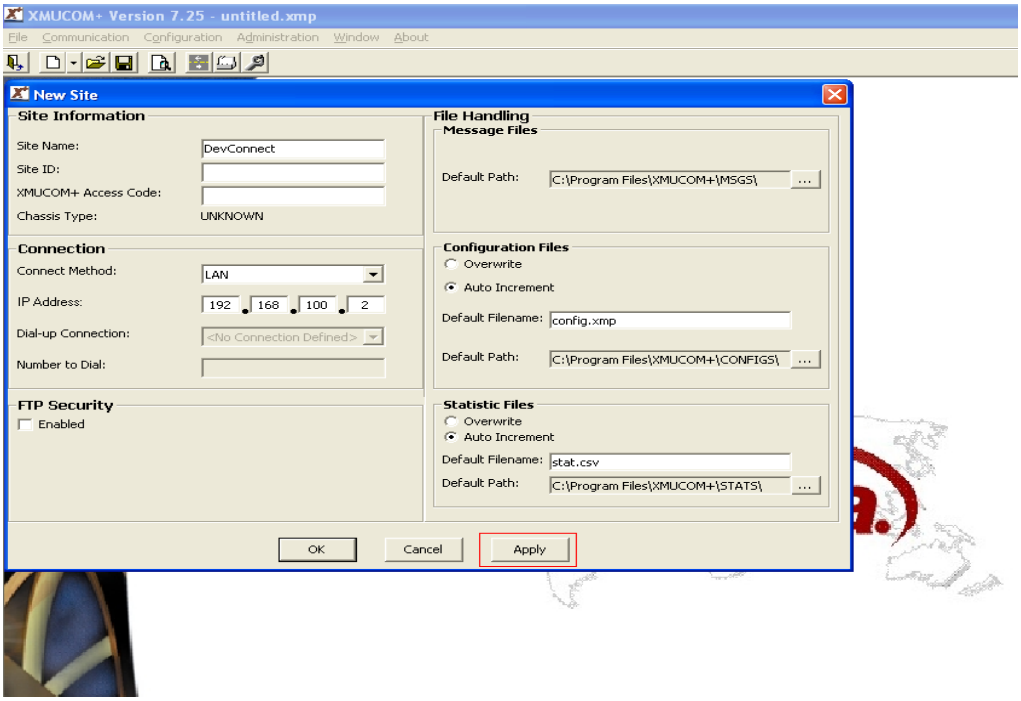


Click on the **New** button.

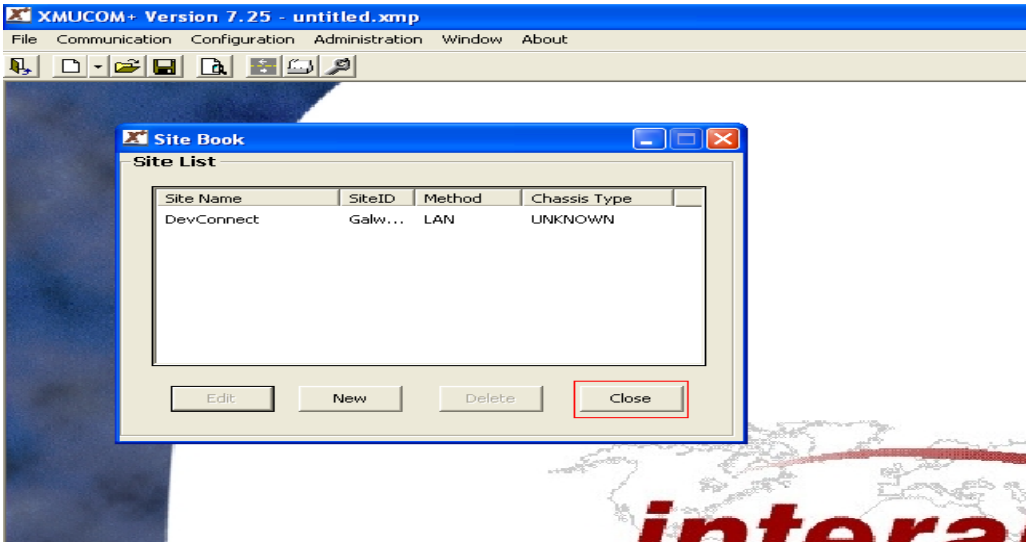


Enter the following information then select **Apply** followed by **OK.**

- **Site Name**
- **Connect Method** **LAN** was used for Compliance testing
- **IP Address**



Click the **Close** button.

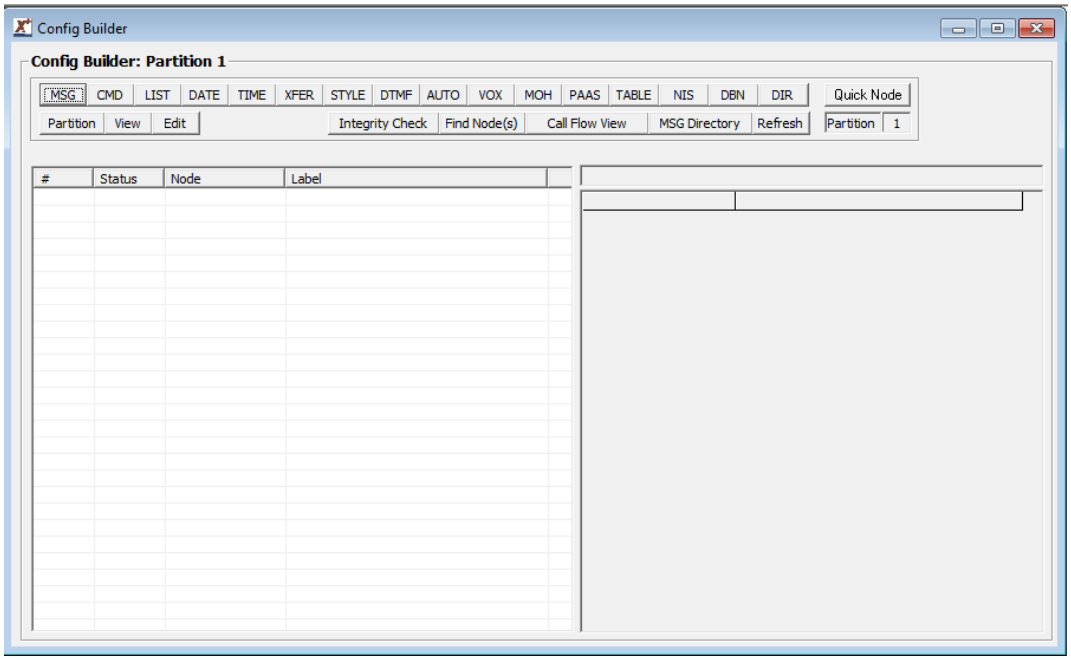


7.4. Configuring the Recorded Announcements (RAN) on the Interalia XMU+

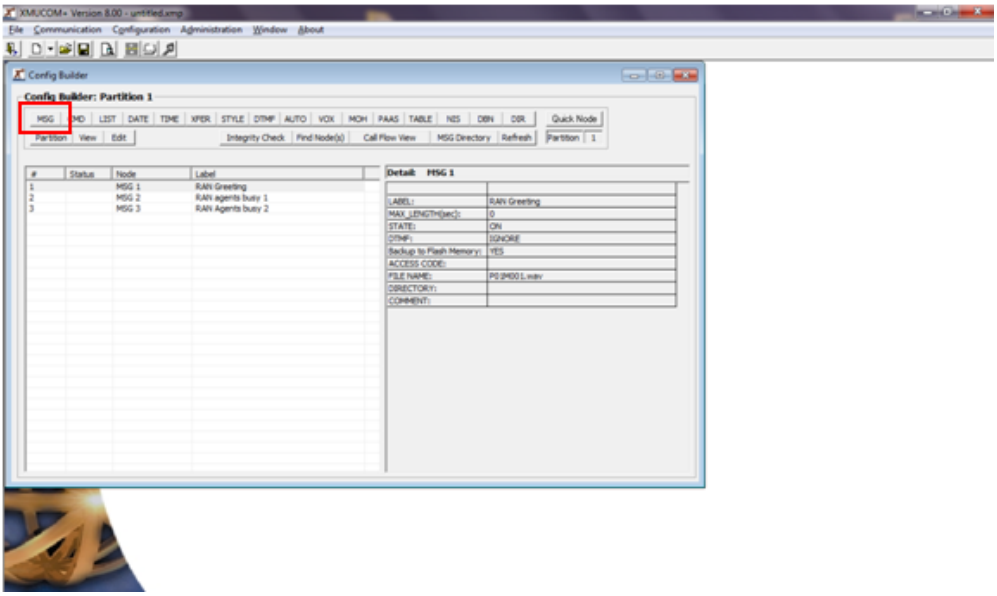
Select **File → New → XMU+ Configuration.**

Note: The same program is used to configure the SBX and the XMU+ and the same screen options appear for both.

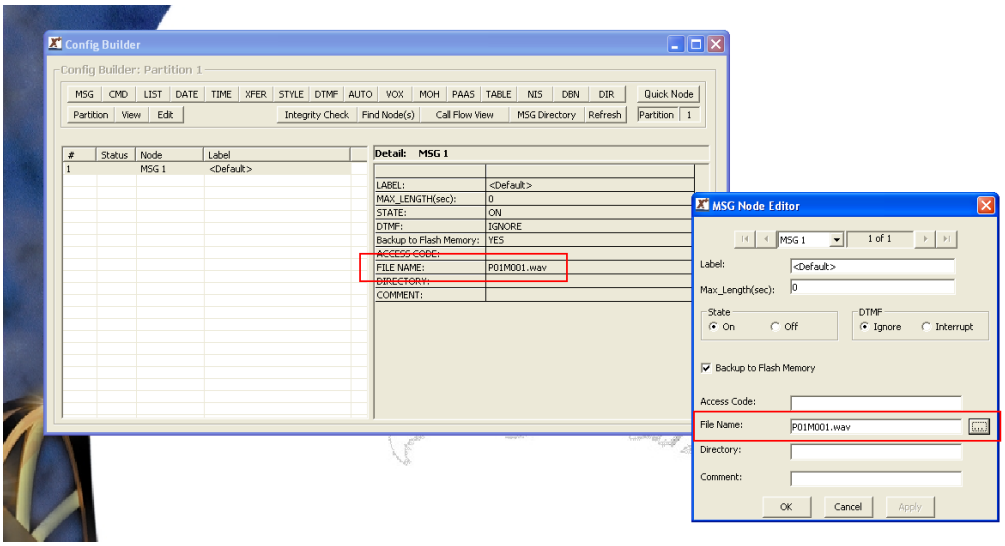
The software then opens with the following blank **Config Builder.**



To create three simple messages as RAN announcements for an initial greeting and two waiting in queue announcements, simply click on the **MSG** button as highlighted below.

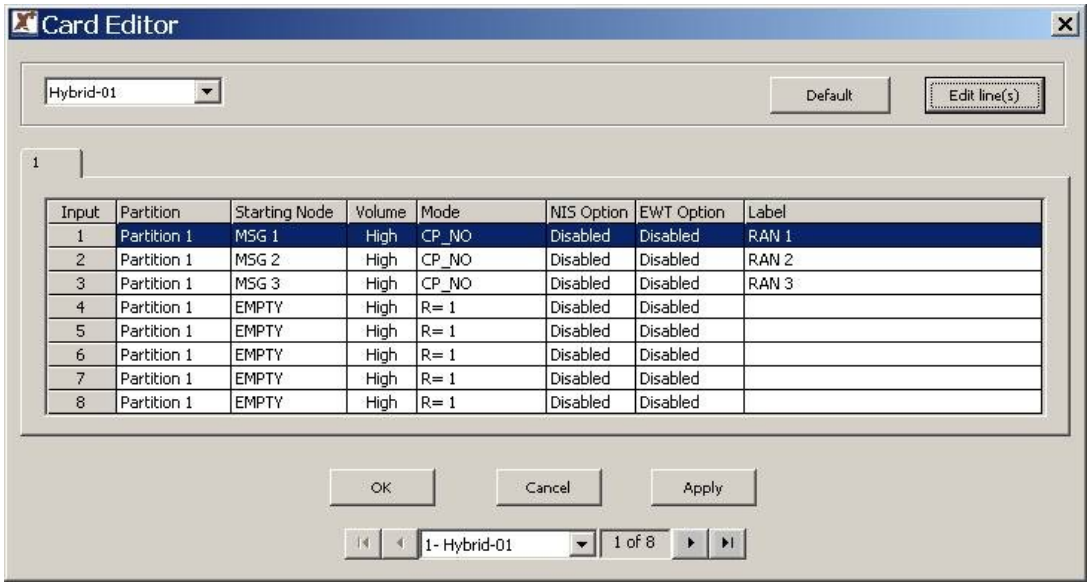


To add specific announcement messages double click on **FILE NAME** highlighted below. This opens the **MSG Node Editor** window. Beside the **File Name** browse to saved announcements in WAV format.



To assign these messages to the XMU+ ports enter the **XMU+ Card/SBX line configuration** as shown below.

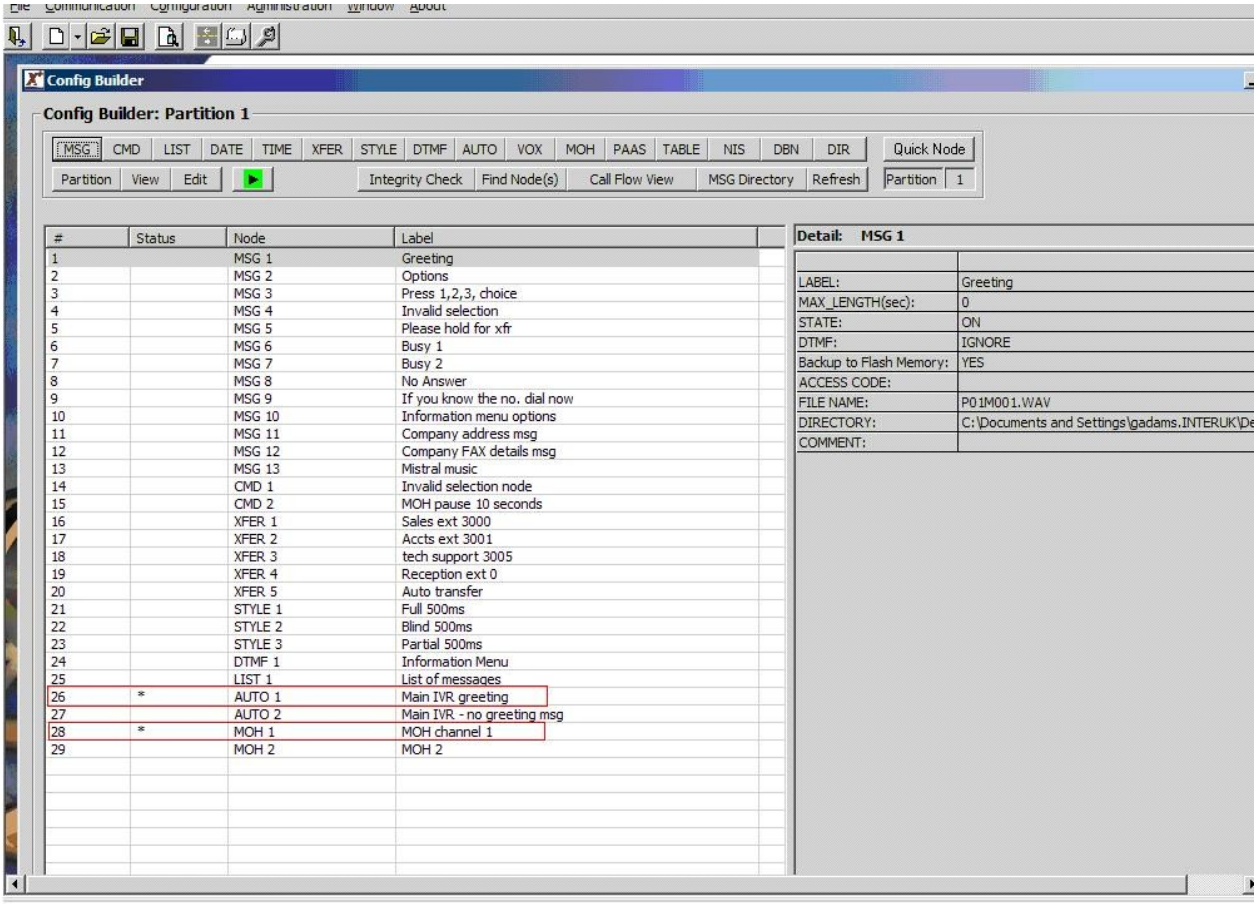
The XMU+ card set up shows only the first 3 ports in use as the RAN announcements that were previously setup. These can be heard from the PBX by dialing the corresponding route access codes.



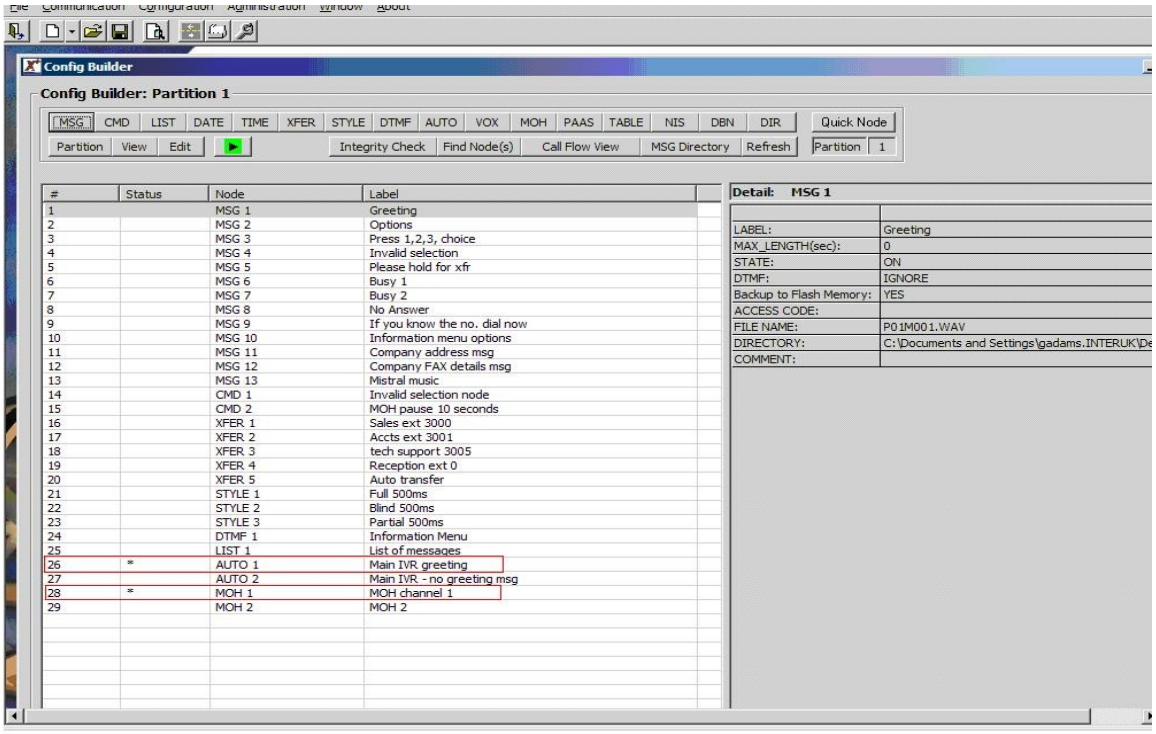
Input	Partition	Starting Node	Volume	Mode	NIS Option	EWT Option	Label
1	Partition 1	MSG 1	High	CP_NO	Disabled	Disabled	RAN 1
2	Partition 1	MSG 2	High	CP_NO	Disabled	Disabled	RAN 2
3	Partition 1	MSG 3	High	CP_NO	Disabled	Disabled	RAN 3
4	Partition 1	EMPTY	High	R= 1	Disabled	Disabled	
5	Partition 1	EMPTY	High	R= 1	Disabled	Disabled	
6	Partition 1	EMPTY	High	R= 1	Disabled	Disabled	
7	Partition 1	EMPTY	High	R= 1	Disabled	Disabled	
8	Partition 1	EMPTY	High	R= 1	Disabled	Disabled	

7.5. Configuring the Auto Attendant on the Interalia XMU+

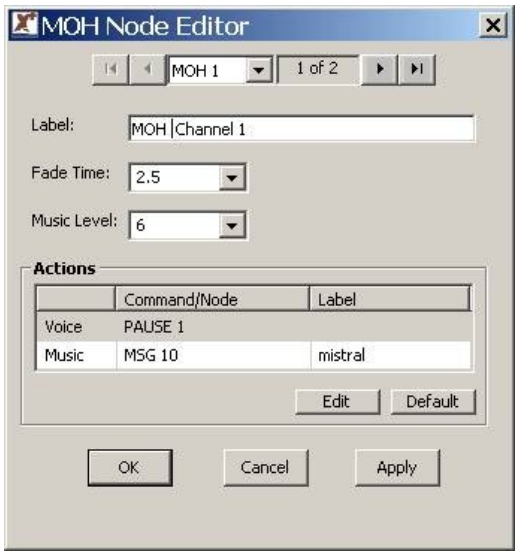
Open the XMUCOM+ program in the installed from the desktop shortcut as before. The **Config Builder** form is displayed which is the main IVR\Auto-Attendant configuration screen. One can populate this form with music and message files as well as IVR greetings. A completed form is displayed below.



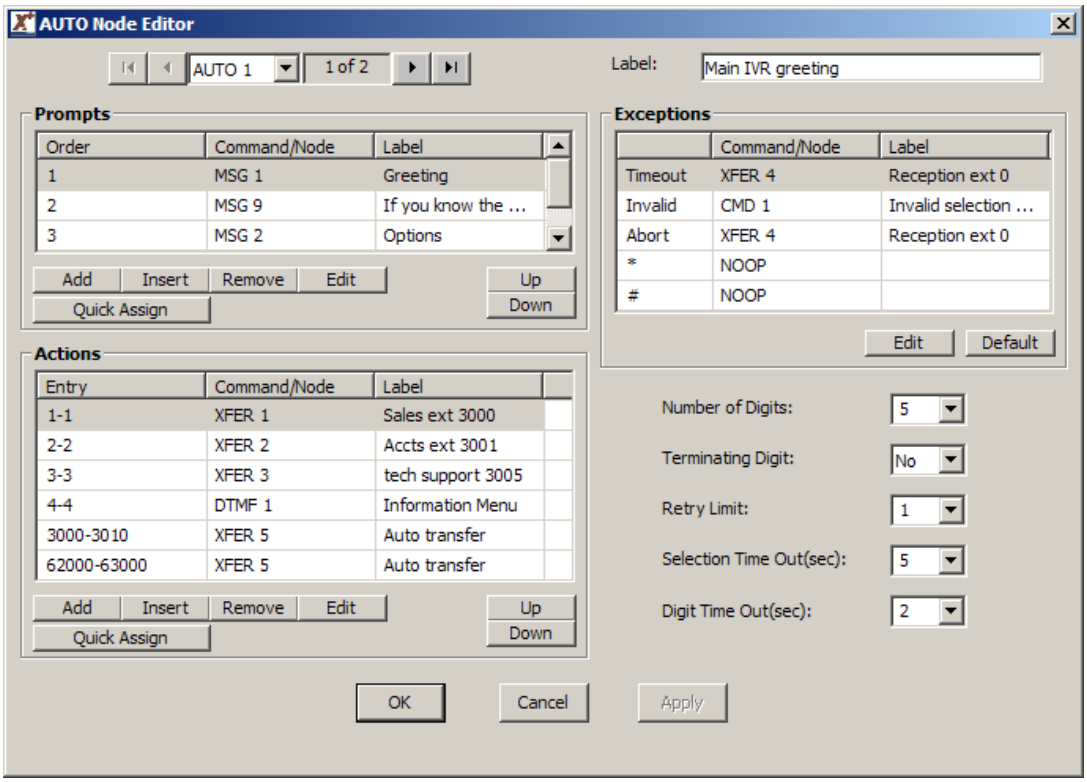
Note the highlighted entries in the screen above with an * as their **Status**. Once the configuration is built, the line card needs to be set to Auto 1 (shown on the next screen below) as this is the starting node and is shown by the * against its status in the screen shot above.



Note: Mistral music will play in a continuous loop to the PBX connecting to the Music Trunk created in **Section 5.1.**

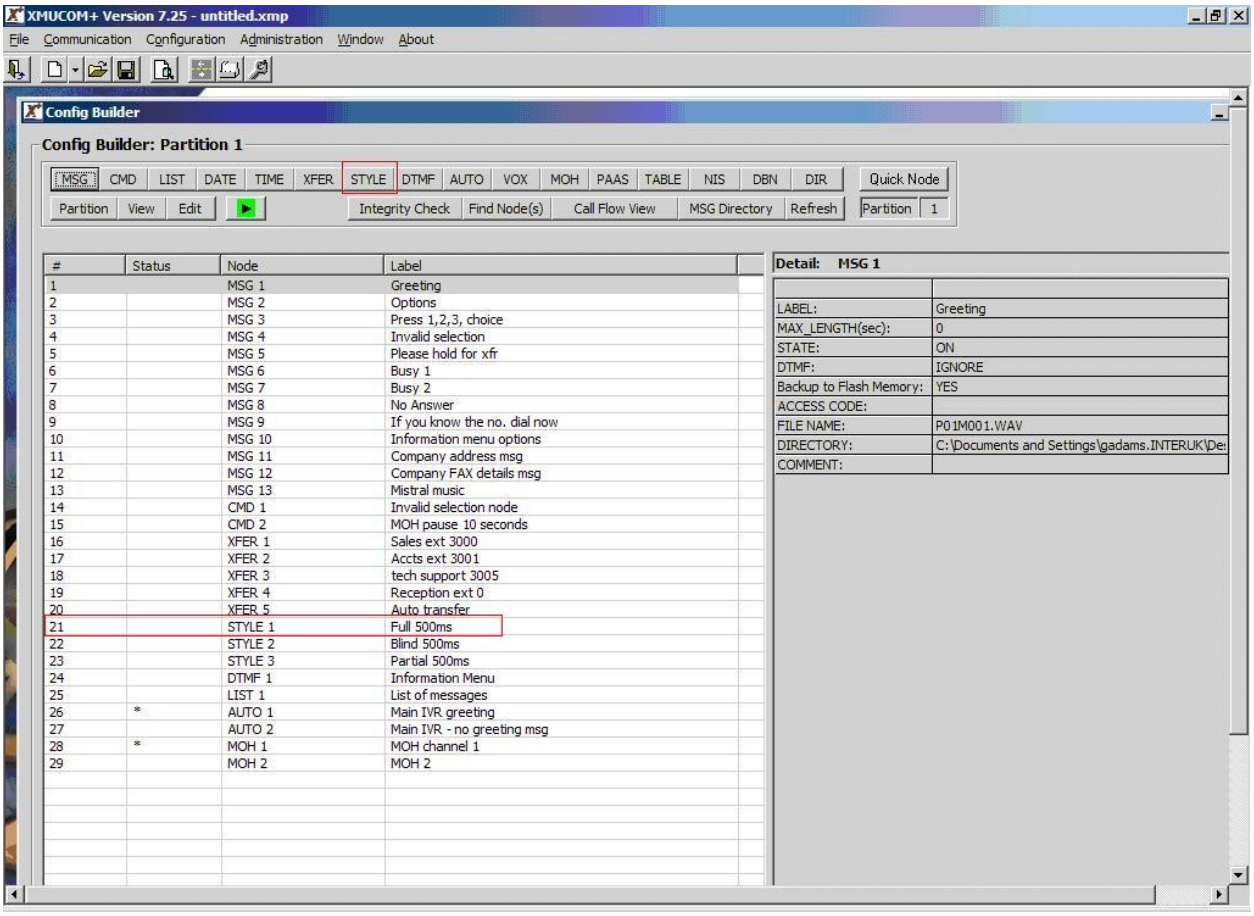


Double-click the entry for the **Node** displaying **AUTO 1** from the **Config builder** screen above to open it for editing and the **AUTO Node Editor** screen appears as shown below. It displays set **Prompts**, **Actions** and **Exceptions.**

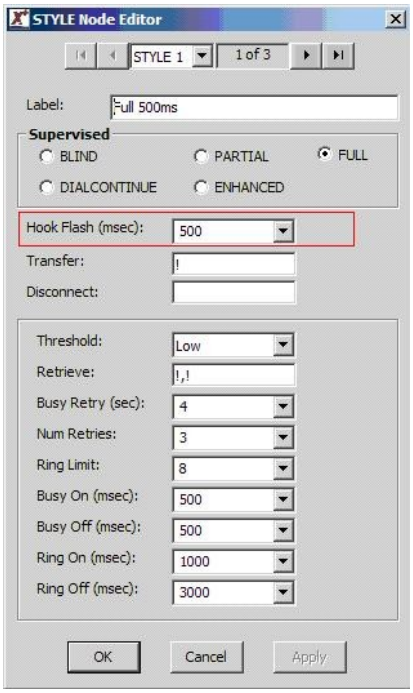


Incoming calls are directed to the Table which plays message 1, 2, or 3 depending on the time of day, calls then go to the Auto Node where a known extension can be dialed, listen to a recorded bulletin message or get transferred to a queue.

In order to manage a call, the XMU+ will monitor for a busy or no answer indication, this is achieved by setting the Style node. Create a style node through the **STYLE** tab as highlighted below. In the configuration builder note the three transfer styles that require setting (Blind, Partial or Supervised).

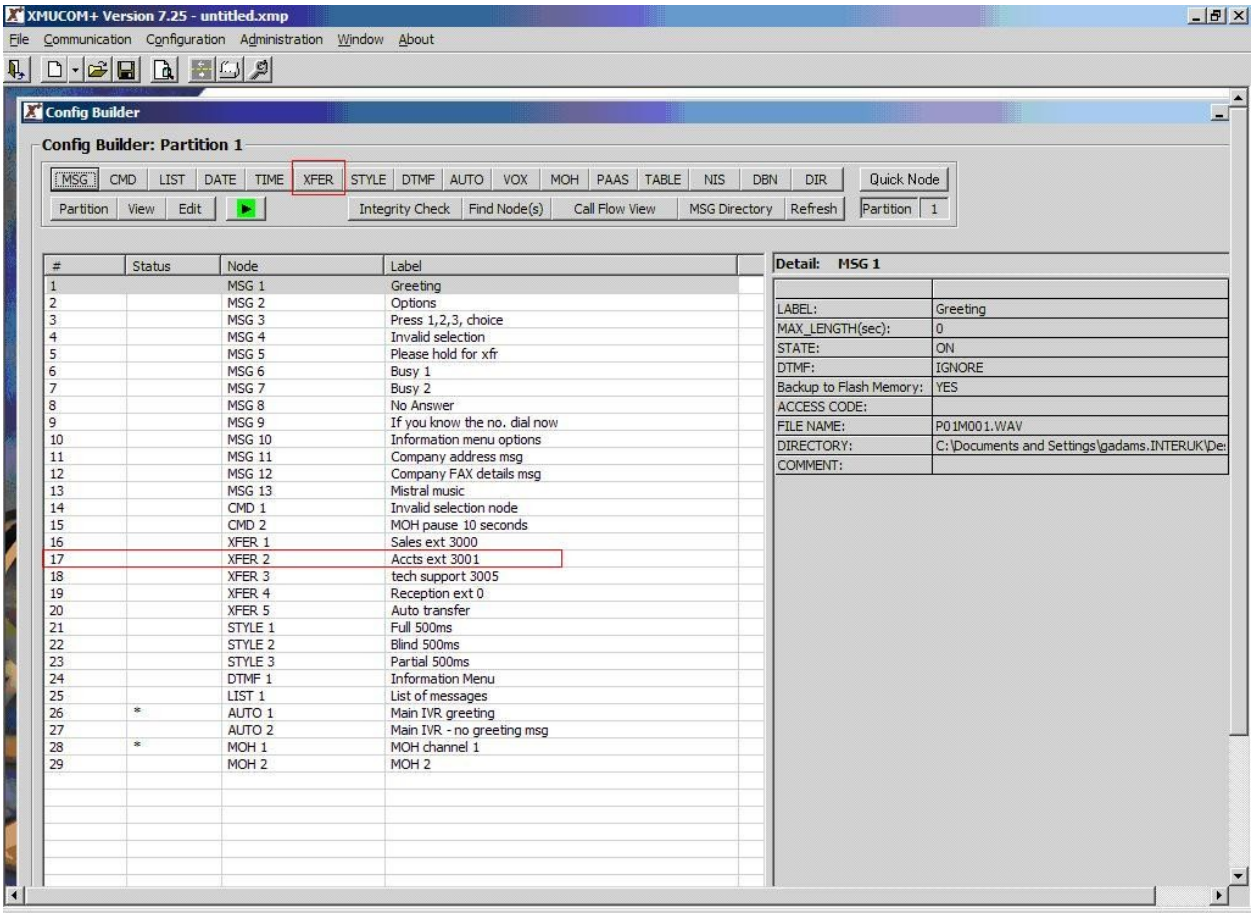


Double click the **Style 1** entry from the Config builder screen which is highlighted in the screen above as Line 21. The Style 1 entry below will appear so the settings can be reviewed and edited. The transfer style shows the **Hook Flash (msec)** being set as **500ms** in order to perform the transfer / retrieval of a call.

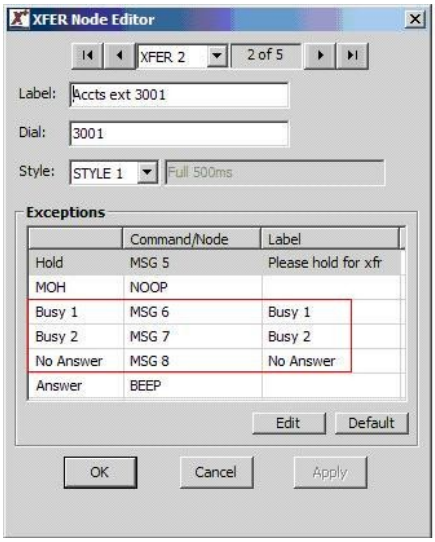


Alter the Hook Flash values according to the call progress tones set for country option.

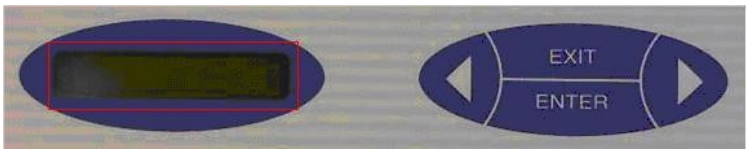
During the monitoring of a call, it is possible to inform the caller of their progress. In the main configuration builder window you can edit calls transfers i.e. Xfer 2. Click on the **XFER** node as highlighted in the diagram below.



By double clicking the XFER 2 entry from the Config builder screen highlighted in the screen above, the **XFER 2** entry below will appear so the settings can be reviewed and edited. If the extension is busy, messages 6 and 7 (**MSG 6** and **MSG 7**) will play according to the Xfer Style (Num Retries). If there is no answer, then the **No Answer** message (**MSG 8**) is set to play.

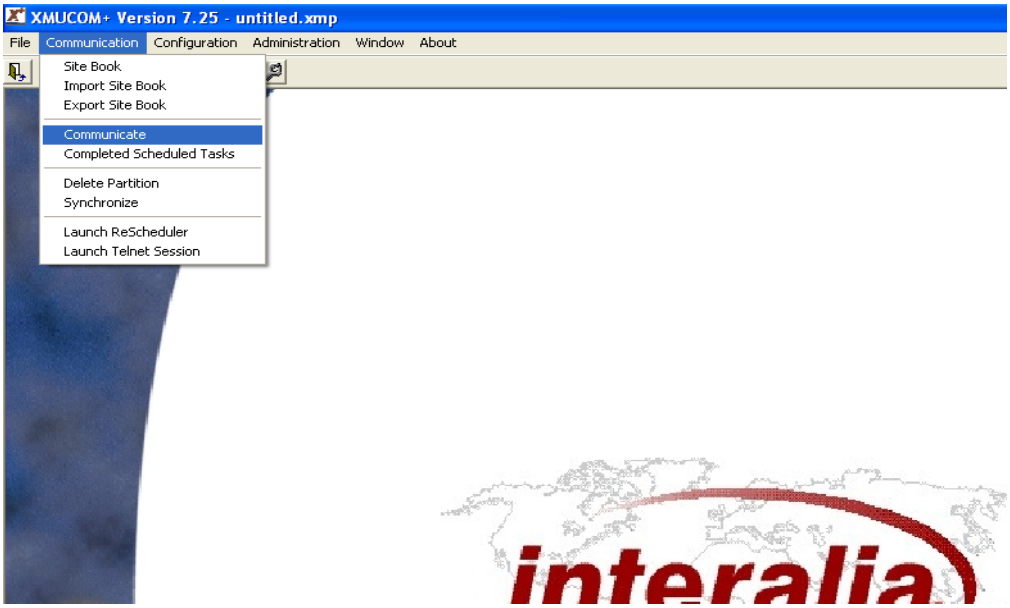


Note: Whilst carrying out the fully supervised transfers, the status mode on the front of the XMU+ display will change to indicate the different call states e.g. B, b, B etc or R, r, R.

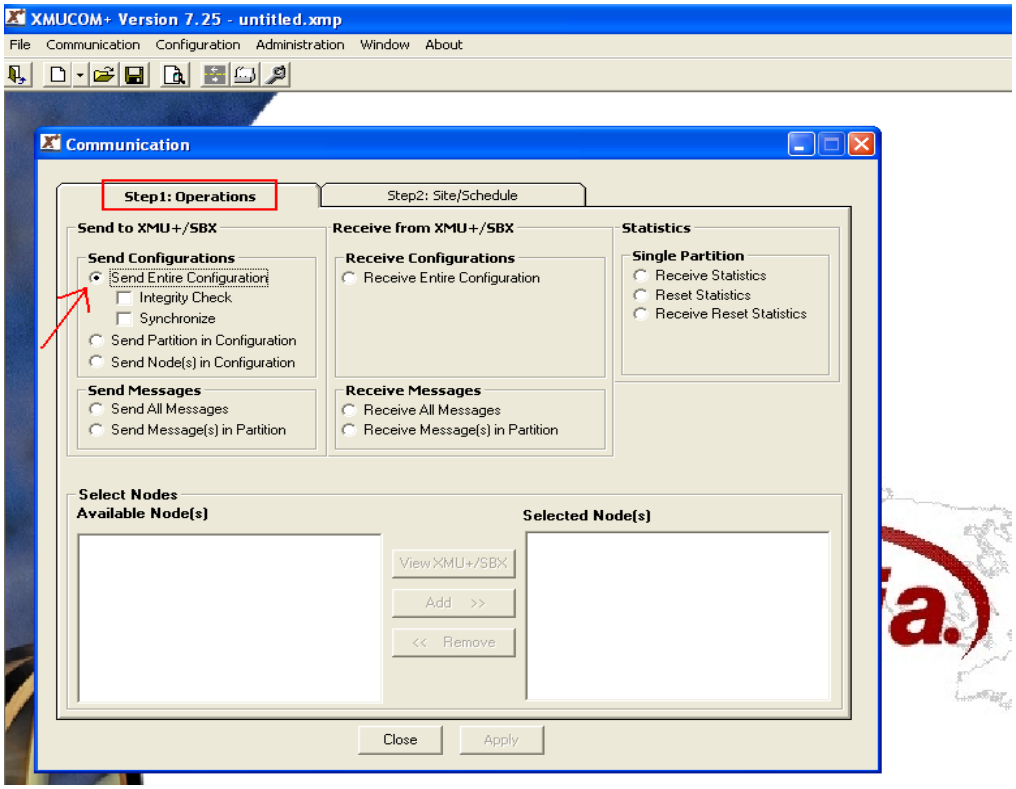


7.6. Downloading configuration to the Interalia XMU+

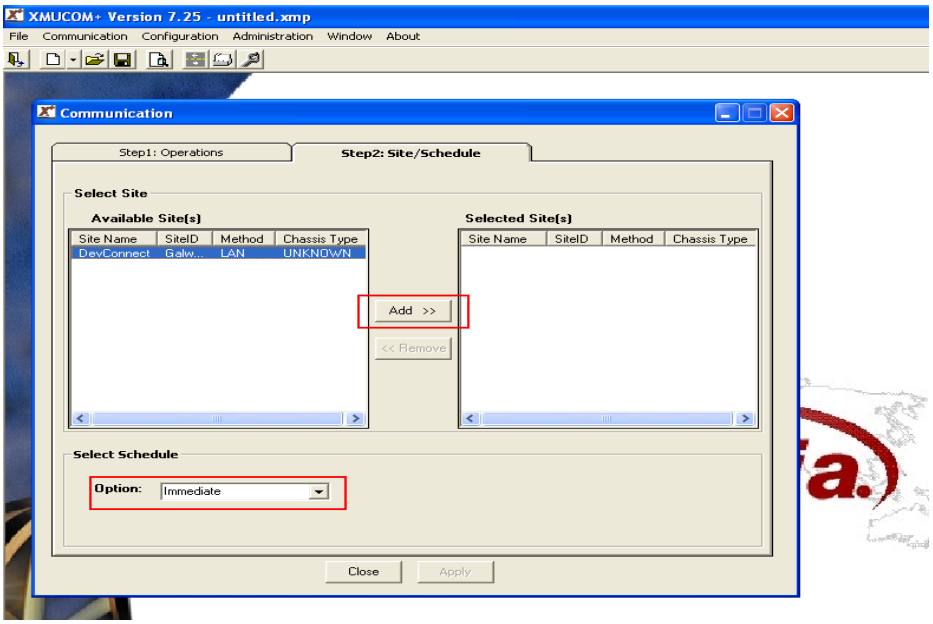
Choose the **Communicate** from the **Communication** menu.



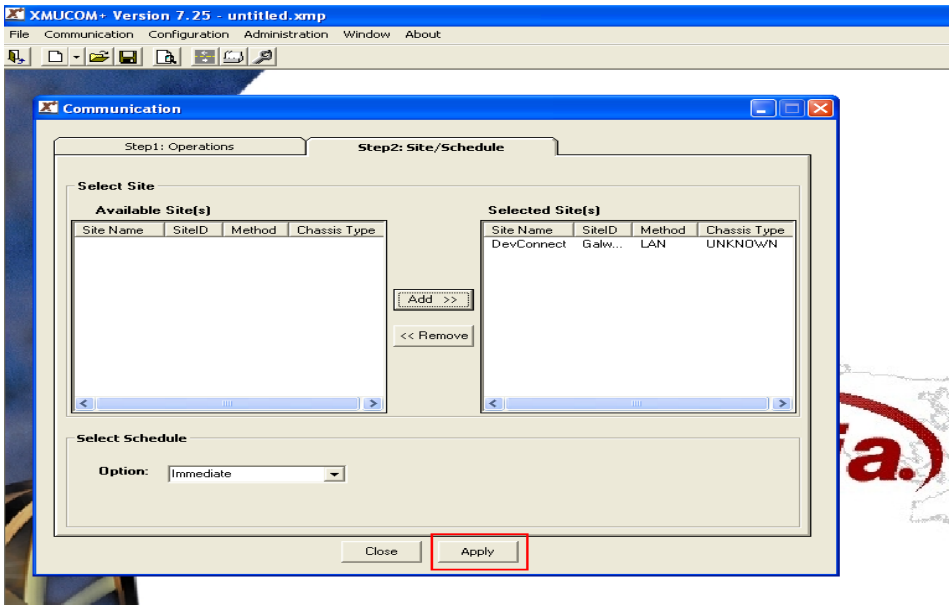
In the **Communication** window, select Tab **Step 1: Operations** check the **Send Entire Configuration Button.**



Select tab **Step2: site/Schedule** and choose the site followed by clicking the **Add >>** button. **Select Schedule Option** can be set to **Immediate**.



Click the **Apply** button to download the configuration to the XMU+.



The download process could take some time depending on the speed of the selected communication connection and the number of messages you are downloading. XMUCOM+ will display a response dialog box while it is sending the messages, and notifies when all messages are sent.

8. Verification Steps

This section provides the tests that can be performed to verify correct configuration of the CS1000E and XMU.

8.1. Verify Avaya Communication Server 1000E

The following steps can ensure that the communication between the CS1000E and the XMU is functioning correctly.

8.1.1. Status of the Analog Trunks on Avaya Communication Server 1000E

Check the status of the analog trunks setup in **Sections 5.1** and **5.5** by running the command **STAT LSC (loop shelf card)** in overlay 20 as shown below to ensure they all appear **idle.**

LD 20

```
Prompt          Response        Description
>               LD 20           Enter Overlay 20
REQ             STAT 4 0 4      Stat Loop Shelf Card
```

Example:

```
REQ: stat 4 0 4
00 = UNIT 00 = IDLE          (TRK)(MUS   OWK )
01 = UNIT 01 = IDLE          (TRK)(MUS   OWK )
02 = UNIT 02 = IDLE          (TRK)(RAN AUD)
03 = UNIT 03 = IDLE          (TRK)(RAN AUD)
04 = UNIT 04 = IDLE          (TRK)(RAN AUD)
05 = UNIT 05 = IDLE          (TRK)(RAN AUD)
06 = UNIT 06 = UNEQ
07 = UNIT 07 = UNEQ
```

8.1.2. Status of the analog extensions on Avaya Communication Server 1000E

Check the status of the analog extensions setup in **Section 5.7** by running the command **STAT LSC (loop shelf card)** in overlay 20 as shown below extensions to ensure they all appear **idle.**

LD 20

```
Prompt          Response        Description
>               LD 20           Enter Overlay 20
>               STAT 4 0 4      Stat Loop Shelf Card
```

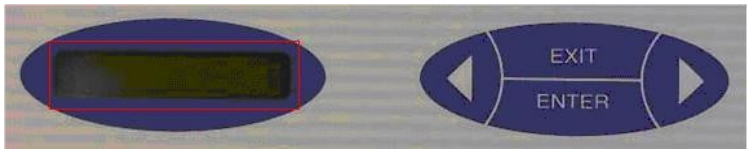
Example:

```
REQ: stat 4 0 7
00 = UNIT 00 = IDLE  (500)
01 = UNIT 01 = IDLE  (500)
02 = UNIT 02 = IDLE  (500)
03 = UNIT 03 = IDLE  (500)
04 = UNIT 04 = UNEQ
05 = UNIT 05 = UNEQ
06 = UNIT 06 = UNEQ
```

```
07 = UNIT 07 = UNEQ
```

8.2. Verify Interalia XMU+ Status

The **Status** window, as highlighted below, on the display on the front of the XMU can be used to verify the communication of the XMU. It is accessible by pressing the right arrow to enter the **Status** window. This shows the call flow as calls are made and received by the interactive voice response system.



9. Conclusion

These Application Notes describe the configuration steps required for Interalia XMU to successfully interoperate with Avaya Communication Server 1000E using Analog trunks on a Universal Trunk Card and analog extensions on a FALC Card. All functionality and serviceability test cases were completed successfully.

10. Additional References

This section references the Avaya and Interalia product documentation that are relevant to these Application Notes. Product documentation for Avaya products may be found at http://support.avaya.com

[1] *Software Input Reference Administration Avaya Communication Server 1000, Release 7.5; Document No. NN43001-611_05.02, Dec 2010*

[2] *Administering Avaya Aura® Session Manager, Doc # 03603324, Issue 1 Release 6.1*

The Interalia documentation can be found at the following location:

[1] *http://www.interalia.com/Products/XMU/XMU-Overview*

[2] *http://www.interalia.com/Products/XMU/XMU-Overview*

Appendix

VERSION 4121
RELEASE 7
ISSUE 50 Q +
DepList 1: core Issue: 01 (created: 2011-03-15 10:26:33 (est))

IN-SERVICE PEPS

PAT#	CR #	PATCH REF #	NAME	DATE	FILENAME	SPECINS
000	wi00688505	ISS1:1OF1	p30595_1	14/06/2011	p30595_1.cpl	NO
001	wi00835294	ISS1:1OF1	p30565_1	14/06/2011	p30565_1.cpl	NO
002	wi00832106	ISS1:1OF1	p30550_1	14/06/2011	p30550_1.cpl	NO
003	wi00837618	ISS1:1OF1	p30594_1	14/06/2011	p30594_1.cpl	NO
004	wi00852365	ISS1:1OF1	p30707_1	14/06/2011	p30707_1.cpl	NO
005	wi00843623	ISS1:1OF1	p30731_1	14/06/2011	p30731_1.cpl	YES
006	wi00839255	ISS1:1OF1	p30591_1	14/06/2011	p30591_1.cpl	NO
007	wi00832626	ISS2:1OF1	p30560_2	14/06/2011	p30560_2.cpl	NO
008	wi00857566	ISS1:1OF1	p30766_1	14/06/2011	p30766_1.cpl	NO
009	wi00841980	ISS1:1OF1	p30618_1	14/06/2011	p30618_1.cpl	NO
010	wi00837461	ISS1:1OF1	p30597_1	14/06/2011	p30597_1.cpl	NO
011	wi00839821	ISS1:1OF1	p30619_1	14/06/2011	p30619_1.cpl	NO
012	wi00842409	ISS1:1OF1	p30621_1	14/06/2011	p30621_1.cpl	NO
013	wi00838073	ISS1:1OF1	p30588_1	14/06/2011	p30588_1.cpl	NO
014	wi00850521	ISS1:1OF1	p30709_1	14/06/2011	p30709_1.cpl	YES
015	wi00860722	ISS1:1OF1	p30784_1	14/06/2011	p30784_1.cpl	YES
016	wi00839134	ISS1:1OF1	p30698_1	14/06/2011	p30698_1.cpl	YES
017	wi00836981	ISS1:1OF1	p30613_1	14/06/2011	p30613_1.cpl	NO

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.