## Basic Setup for pbxnsip / Exchange Server 2007 UM Interoperability

This document describes a simple set up for Microsoft Exchange 2007 UM and pbxnsip software. Although this setup provides basic functionality to get you started, keep in mind both Exchange and pbxnsip offer extensive customization allowing much more complex configurations.

## **Configuring Exchange for pbxnsip**

1. Install the unified messaging role on your exchange server. Run Exchange Management Console:



 Create a new unified messaging dial plan: Using the Exchange management console, select <u>Organization Configuration/Unified Messaging</u>. Under actions select <u>new UM dial plan</u>. Name the dial plan 'pbxnsip' and set the 'number of digits in extension numbers' to 3. Click 'new' and then 'finish'.

New UM	Dial Plan
New UM Dial Plan Completion	New UM Dial Plan           This wizard helps you create a UM dial plan for use by Microsoft Exchange Unified Messaging. A dial plan is a grouping of unique telephone extension numbers.           Name:
	pbxnsip Number of digits in extension numbers: 3
	After you create a new dial plan, the dial plan must be added to one or more UM servers before it will be used.
Help	< <u>B</u> ack <u>N</u> ew Cancel

3. **Create a new unified messaging IP gateway**: Under actions select <u>New UM IP Gateway</u>. Name the gateway 'PBXnSIP', select <u>IP address</u> and enter the IP address of your pbxnsip server. Click the 'browse' button next to <u>dial plan</u> and select the 'pbxnsip' dial plan you created in step two.

Click 'new' and then 'finish'.

<ul> <li>New UM IP Gateway</li> <li>Completion</li> </ul>	New UM IP Gateway This wizard helps you create a UM IP gateway for use by Microsoft Exchange Unified Messaging. UM IP gateways represent the connection between a physical gateway or IP/PBX and Unified Messaging.
	Name:
	IPAddress:
	192 . 168 . 0 . 100
	Example: 192.168.10.10
	C <u>F</u> ully qualified domain name (FQDN):
	Example: smatthost company com
	Dial plan:
	pbxnsip Browse.
	If a dial plan is selected, a default hunt group will be created to associate this new U IP gateway to the specified dial plan. If no dial plan is selected, a hunt group must be created manually.

4. Associate the dial plan with the unified messaging server: Using the Exchange management console, select Server Configuration/Unified Messaging. Under actions click <u>properties</u> and then click the 'UM settings' tab. Under associated dial plans click the add button. Choose the

PBXNSIP Properties		×
General UM Settings		
Associated Dial Plans		
🛟 A <u>d</u> d 🗡		
Name		
pbxnsip		
Miscellaneous Configuration —	English (United States)	
_tompclanguages.		×
Maximum concurrent calls:		100
Maximum concurrent <u>f</u> ax ca	lls:	100
OK	Cancel	Apply Help

'pbxnsip' dial plan created in step two. Click OK.

5. Enable mailbox recipients for unified messaging: Using the Exchange management console, select Recipient Configuration/Mailbox. Select the mailbox you wish to enable and then under actions click <u>enable unified messaging</u>. Next to unified messaging mailbox policy click the browse button and then select the PBXnSIP default policy. Enter a mailbox extension for this user which matches their extension number on the pbxnsip server. Manually specify the PIN

and click enable. Repeat this step for each mailbox.

Enable Unified Messaging Completion	Enable Unified Messaging The selected mailbox will be enabled for Unified Messaging. Upon completion, an e-mail message will be sent to the mailbox notifying the user that they have been enabled for Unified Messaging. The message will include the PIN and the number to dial to gain acces to their mailbox. By default, an extension number and PIN are automatically generated. Yo can also manually specify an extension number and PIN. Unified Messaging Mailbox Policy:		
	pbxnsip Default Policy	Brows	
	C Automatically generated mailbox extension		
	• <u>Manually entered mailbox extension</u> :	518	
	PIN Settings	The second se	
	C Automatically generate PIN to access Outlook Voice Ac	cess	
	Manually specify PIN:		
	Require user to reset <u>P</u> IN at first telephone logon		
	Unified Messaging is a premium feature and requires an Access License (CAL) to enable it for the mailbox.	Exchange Enterprise Clier	

## **Configuring the pbxnsip Server for Exchange**

1. Create a new trunk to connect to Exchange: Using the pbxnsip Domain Administrator, select the Trunks tab. Name the new trunk 'exchange gateway' and set its type to <u>SIP Gateway</u>. Click the create button. Click the edit icon next to the Exchange Gateway. In the Domain box, enter the FQDN or IP Address of your Exchange Server (i.e., exchange.company.com). In the outbound proxy box, enter: <u>sip:exchange.company.com</u>:5060;transport=tcp but replace <u>exchange.company.com</u> with the FQDN or IP Address of your Exchange Server. The example below assumes the address is 100.200.100.200. Click the 'Accept redirect' radio button and then click save.

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Strict RTP Routing:	⊖ on ⊙ off			
Accept redirect:	⊙ on ◯ off			
Prefix:				
Visible in all dial plans:	⊖ ves ⊙ no			
Explicit Remote-Party-ID:				
Privacy Indication:	No Indication			
Failover Behavior:	No failover			
	⊖ yes ⊙ no			
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Is Secure:				

2. Add the Exchange gateway to your current dial plan: Click the dial plans tab and then click the edit icon next to your current dial plan. In the top dial plan slot, select 'Exchange Gateway',

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Quick Usage: Use simple patterns for matching the input (for example, "9*" or "911"), and just leave the replacement empty. Please see the online help for more information on how to use the advanced features of the dial relat.	
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Save	
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enter $7^{*}$ as the Pattern and $^{*}$ as Replacement. Click Sa
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**3.** Set the pbxnsip "External Voicemail System": This Domain field value contains the number that will be dialed when the PBX wants to send a call to the mailbox. The redirection target should be a telephone number, not a SIP URI. It must be possible to dial that number through the dial plan and the extension must have the permission to do that. You can use the replacement fields known from the caller-ID representation in the trunks. For example, "\$u" is being replaced with the extension number. The redirection to the mailbox works only if the mailbox is enabled for that account.

Domain Administration [localhost] - Windows	Internet Explorer	
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Timezone:	Default Time Zone	
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Country code (e.g. "1"):		
Area code (e.g. "978"):		
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Require Entering Malibox PIN:	V FSO NO	
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Mailbox Direct Dial Prefix:		
External Voicemail System:	7Su	
Mailbox Explanation Prompt:		
Call Forward On No Answer Timeout:	20	
Speed Dial Prefix:		

**4.** You must not use the "Mailbox Direct Dial Prefix": In the Domain settings, make sure this field is empty because it would interfere with the mailbox redirection logic and create an endless redirection loop.