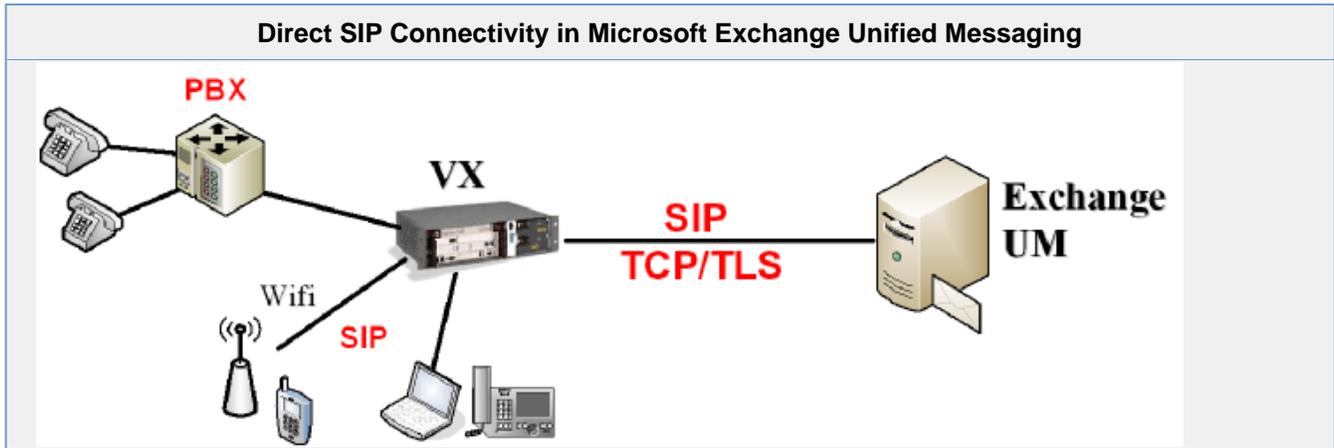


Microsoft Exchange Unified Messaging and SIP

Microsoft calls SIP trunking **Direct SIP Connectivity**, as shown in the illustration below.

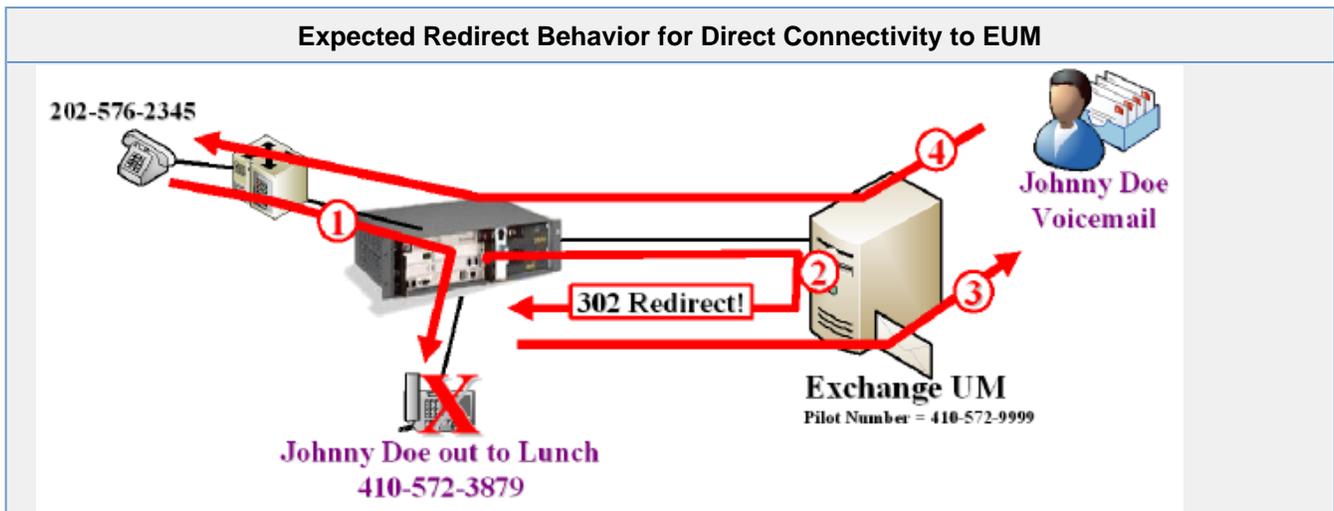


VX supports direct trunking to Exchange Unified Messaging (EUM). To configure SIP Trunking to EUM, you must:

- Configure SIP over TCP to port 5060
- Configure SIP over TLS to port 5061 (recommended for secure signaling)
- Support T.38 for Fax
- Support for Redirect and Diversion Headers (for forwarding to EUM for voicemail support). The Redirect message and the Diversion header functionality must BOTH be properly supported by the network elements involved for the forwarding to Voicemail feature to work.

Redirect

Inbound calls to Exchange UM are redirected to offload ports to improve EUM performance. The default transport is TCP and the port number is **5060**. TCP callers are redirected to port 5065/5067. TLS callers are redirected to port 5066/5068. An example of a redirected call is shown below.



In the call illustrated above the call flow is:

Caller = 202-576-2345, Called = 410-572-3879, no diversion yet

1. Caller = 202-576-2345, Called = 410-572-9999, diversion = 410-572-3879, gets redirected to TCP port 5065. (via 302 Moved Temporarily)
2. The diversion header must stay intact in the re-invite to EUM at port 5065, so the call can be answered with Johnny's voicemail greeting.
3. Caller hears Johnny's greeting, and may leave a message.

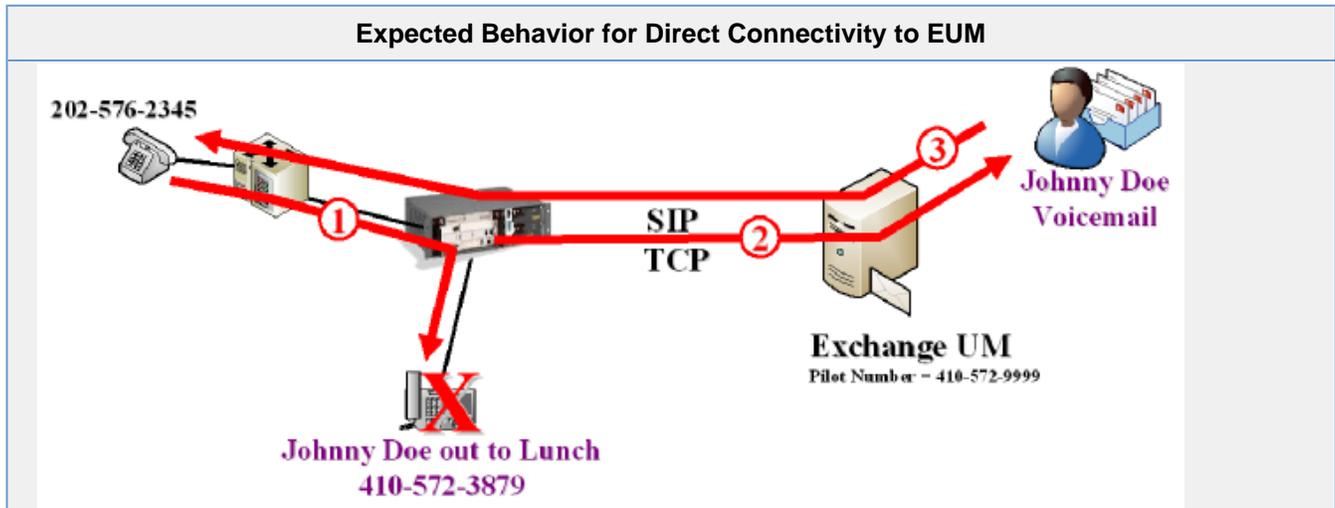
Diversion

Voicemail support also requires support for Diversion in SIP headers so calls not answered can be diverted to voicemail.

A user is typically configured to use voicemail for Call Forwarding No Answer (CFNA) and Call Forwarding on Busy (CFB) conditions. When an inbound call arrives to this "called" user, and they don't answer, the call is forwarded to, and answered by, their personal voicemail greeting.

The phone system (call agent/PBX/IP-PBX) sends the caller to the voicemail system and the user information in the Diversion field is used to open the right mailbox and greeting. This information is called the "Redirecting Number" or RDN (from the SS7/AIN world)

The diagram below illustrates how an unanswered call is diverted to voicemail.



In the call illustrated in the diagram above the call flow is: **Caller = 202-576-2345, Called = 410-572-3879, no diversion yet**

1. Caller = 202-576-2345, Called = 410-572-9999, diversion = 410-572-3879
2. Exchange UM answers the call, and sends the caller directly to Johnny's voicemail. Caller hears Johnny's greeting.

When a Call Agent sees a call go unanswered, it sends an invite to the EUM pilot number and includes a SIP Diversion header identifying the original called number.