

VX Solution Brief

Implementation of 911 Solution in VX



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OVERVIEW

This document gives a scenario of how to implement a 911 call routing solution using VX, including:

- Solution Scenario
- Normal Non-911 Call Routing Solution
- Emergency 911 Call Routing Solutions
 - If a Dialing Number Present
 - If No Dialing Number is Present
- Example Customer Script Flow for a 911 Call

SOLUTION SCENARIO

The Customer has an Avaya Call Manager PBX and is deploying a VX1200 and two Quintum AFT400 Analog Gateways into their new North and South office buildings.

There are two functions that the VX1200 is handling for the Customer:

- **Normal Non-911 Calls:** A SIP to SIP interface is used between the OCS R2 servers and an Avaya PBX.
- **Emergency 911 Calls:** Routing 911 Emergency Services phone calls properly out of either of their two new offices so that the Emergency Responders know which building they are being dispatched to for the call.

NORMAL NON-911 CALL ROUTING SOLUTION

The Customer requires a SIP to SIP interface to convert the OCS R2 SIP utilizing RFC3960 Early Media Handling to a format that the Avaya SIP Enablement Services Server understands. This is required so that calls placed to OCS R2 users have ring-back provided by the Avaya system.

The VX1200 properly converts the Early Media SIP 183 messages from the OCS R2 into ALERT SIP 180 messages to the Avaya system. This forces the Avaya system to play ring-back tones to the callers.

The VX1200 uses a Message Translation Table assigned to the matching route that converts any progress message from the OCS to an Alert message without any IEs to the Avaya system.

EMERGENCY 911 CALL ROUTING SOLUTIONS

The Customer's OCS installation has OCS users located in two locations, the North and South Buildings. If an OCS user dials 911 from their OCS client, the VX1200 queries the Active Directory for the user's office location, and then directs the 911 call to the Quintum AFT400 FXO gateway located in the assigned office location. The Quintum AFT400 routes the 911 call to the Avaya PSTN gateway and the 911 Emergency Responders are dispatched to the proper facility.

When an Emergency 911 Call is placed by an OCS Client, the VX1200 uses a script to check all called numbers from the OCS for a 911 dialed pattern. If the script finds a called number of 911, it checks to verify if a dialing number is present, as described below and in Figure 2. If no dialing number is present, the VX1200 places the call through the Avaya system, as described in the next section and Figure 3.

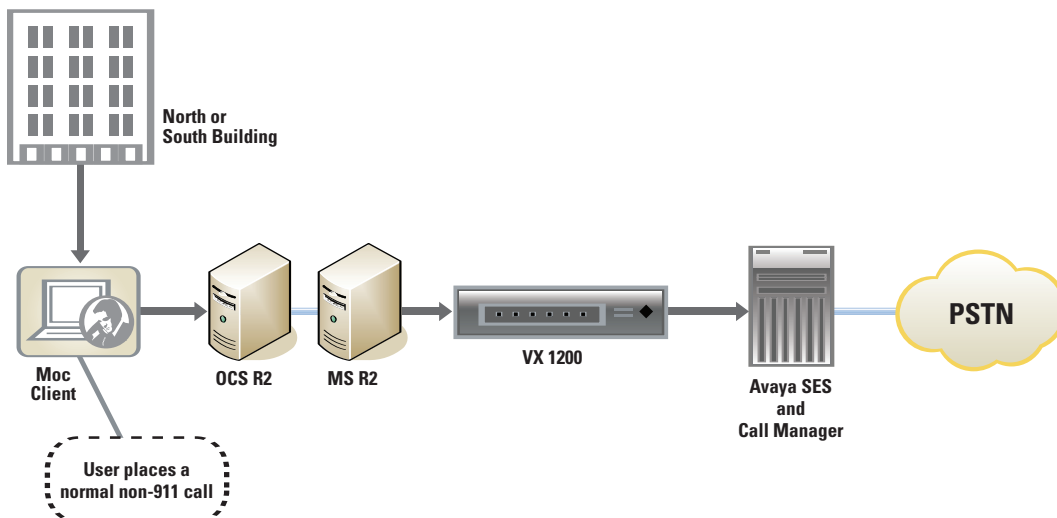


Figure 1: SIP to SIP Interface Solution for Normal Non-911 Calls

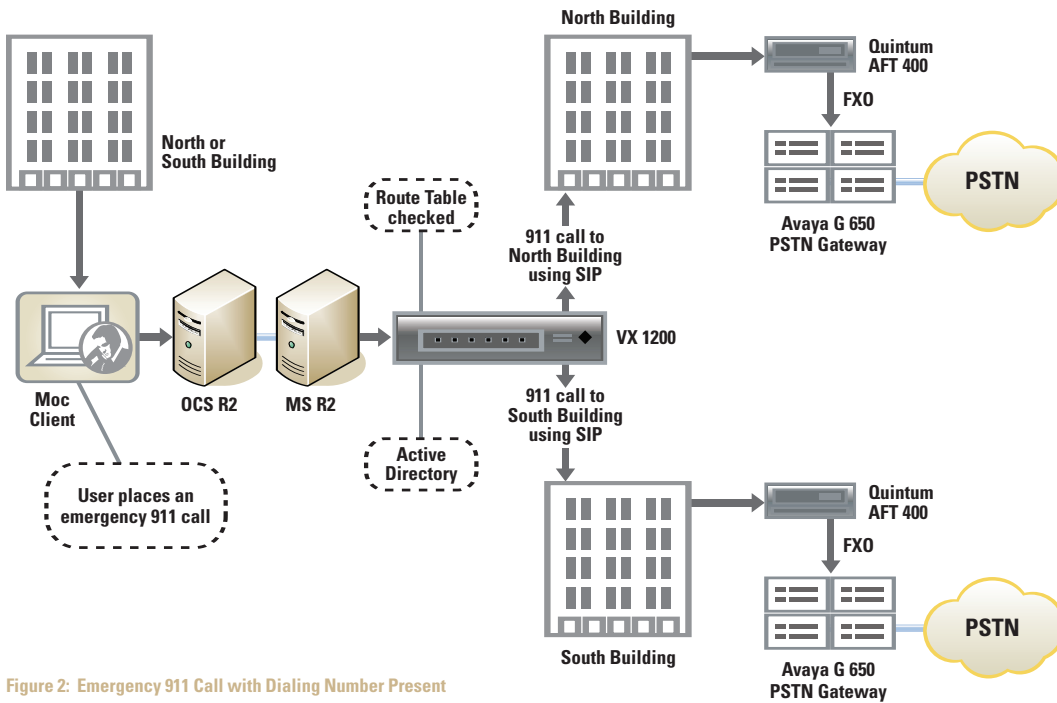


Figure 2: Emergency 911 Call with Dialing Number Present

If a Dialing Number Present

If the VX1200 finds a calling number, the VX performs a lookup in the Active Directory for the location of this calling number. Once this location is found, the VX1200 rewrites the called number with their location extracted from the Active Directory using the script and places the call. When a match is made in the Route Table, the route output pattern is explicitly set back to 911, and the call is routed to the Quintum AFT400 in the facility that the user is assigned. The Quintum AFT400 then places the 911 call out of one of its analog FXS interfaces.

If no Dialing Number is Present

If no dialing number is present, the VX1200 places the 911 call through the Avaya system. In this case, the 911 caller has to direct the Emergency Services responders to the proper facility.

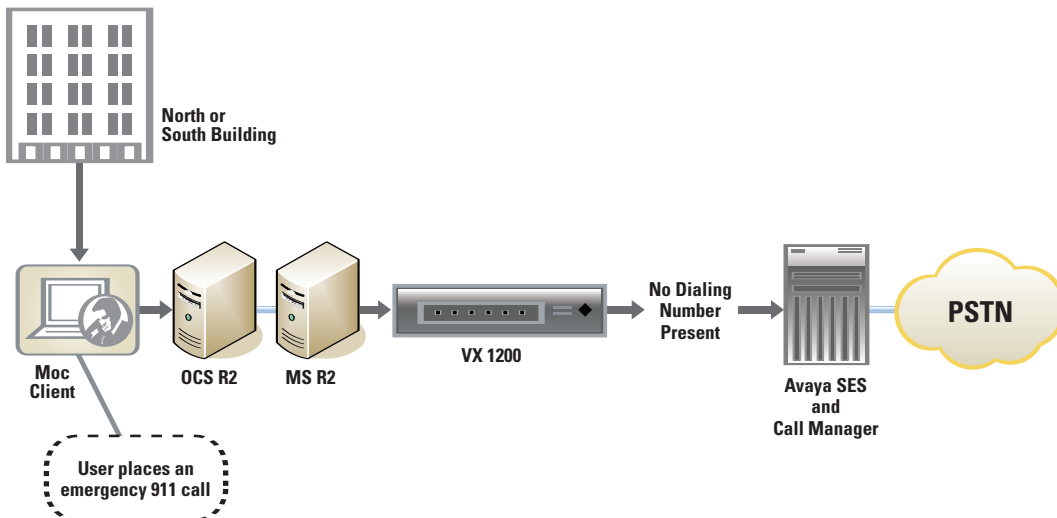
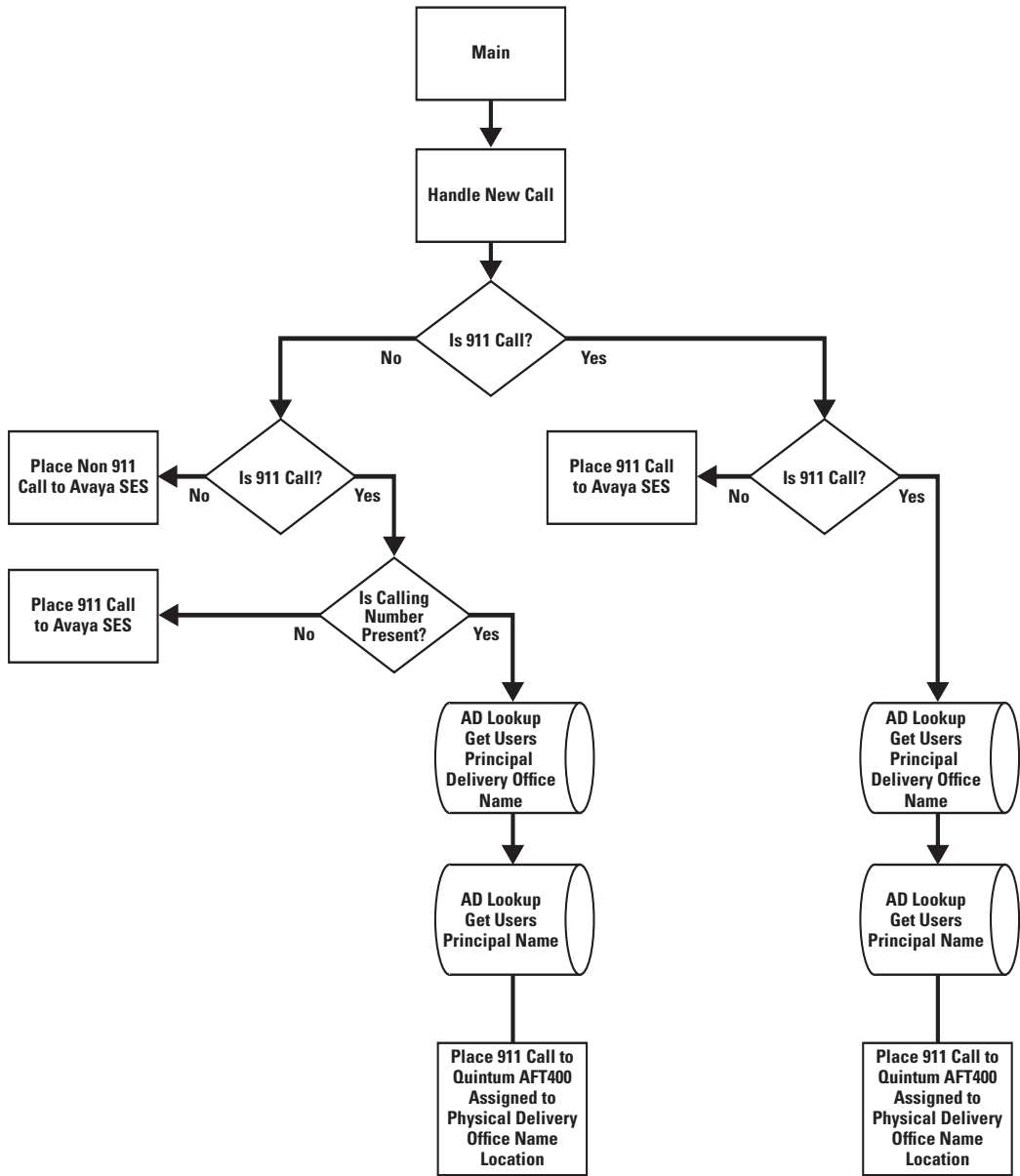


Figure 3: Emergency 911 Call with No Dialing Number Present

Example Customer Script Flow for a 911 Call



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