

Bulletin No.: 210_MPS_SIP

December 14, 2009

OfficeServ™ Media Proxy Service (MPS) Channel and SIP Trunk Compatibility Update

In June of 2009, Samsung launched V4.30i main system software, and with it the OfficeServ 7100 system gained access to Media Proxy Service, or MPS, channels. Today we are launching V4.41a/V4.42a/V4.45a software which will allow the rest of the OfficeServ 7000 Series systems (including the brand new OfficeServ 7030 and OfficeServ 7200-S systems) to gain access to the MPS channels as well. MPS channels are used to allow two IP devices (such as an IP phone and a SIP trunk, 2 SPNet trunks, or a SIP phone and a SIP trunk) to communicate without using an MGI channel, thus significantly lowering the cost of all-IP installations.

In the months since launching the MPS service on the OS7100 we have seen a number of systems installed with all SIP trunking among various SIP Service Providers (ITSPs). We have recently discovered some information we feel is critical to pass on to you in the field regarding the interoperation of MPS channels and SIP trunks. We are seeing that ITSP's differ in the way that they handle **trunk-to-trunk** transfers, and certain providers are not compatible with the way the MPS channels initiate this kind of transfer.

During a normal SIP trunk-to-SIP trunk transfer the system alerts the ITSP that the call will be placed on hold. Then the second trunk is accessed and dialed. When the user attempts to drop from the call the system sends a REINVITE message to the ITSP alerting them the first trunk is being taken off of hold. This step is where ITSP behavior differs: some ITSP's will acknowledge the REINVITE and immediately resume sending audio data, but others wait for the OfficeServ system to begin sending audio first.

Currently the MPS channel will not initiate the sending of audio after the REINVITE confirmation; it requires the ITSP to begin sending first. This means that for some ITSP's a SIP trunk-to-SIP trunk transfer will result in no audio being passed between the trunks because both the MPS channel and the ITSP are in a standoff waiting for the other to send the first RTP packet.

Before making the sale it is critical that you check with your SIP service provider to determine how they deal with transferred calls, as with some SIP providers a trunk-to-trunk transfer will get no audio when using MPS channels. This means that MOBEX calls, external call forwarding, and the voice mail Find Me/Follow Me feature WILL NOT work.

OfficeServ™ MPS Channel and SIP Trunk Compatibility Update

There are 3 ways to prevent this situation from occurring:

1. Locate an ITSP who initiates the audio after REINVITE messages.
 - These providers will begin to send RTP data immediately after acknowledging the REINVITE message. This means the MPS will receive RTP data and begin sending its own, allowing audio to pass in both directions. It may be difficult to ascertain from the ITSP if their servers work in this way or not.
2. Locate an ITSP who supports the REFER message.
 - These providers support a more modern transfer mechanism that is much more efficient. With these providers the REINVITE message is replaced with a REFER message. The REFER message alerts the ITSP that the system is going to connect two SIP trunks together. The provider responds to this by connecting the two trunks together at the ITSP level, bypassing the OfficeServ altogether. This is the preferred method, because once the transfer is completed there are no system resources being devoted to the call. ITSPs who support the REFER method typically advertise this fact as a competitive advantage, and so are very easy to locate.
3. Disable the MPS service in **MMC 861** and instead use MGI channels.
 - The MGI channel does not pause audio delivery while holding the first SIP trunk, so audio will always be sent to the ITSP, so regardless of ITSP type audio will be passed. This scenario is the easiest to implement in situations where the ITSP has already been chosen and configured, but may also incur extra cost if there are no MGI channels already present in the system.

Samsung is hard at work modifying the MPS channels to send audio as soon as the acknowledge message is received from the ITSP, and we hope to provide support for ITSP's that don't support REINVITE and REFER message soon. Until this enhancement is announced it is important to be aware that your installs that have all SIP trunks may have "no audio" reports when doing trunk-to-trunk transfers when the MPS service is enabled. This includes not only manual transfers, but also external call forwarding scenarios and MOBEX calls. With MPS channels launching for all product lines this month we felt it critical to make you aware of the issue to ensure a minimal loss of time and cost trying to troubleshoot these situations.

If you have any further questions about SIP trunking, MPS channels, or anything else mentioned in this bulletin please call Samsung Technical Support at 1-800-737-7008.