

Samsung Technical Bulletin

OAS Resources

Bulletin Authorisation Detail	
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Date	19/05/15
TB Number	TB-15007
Description	OAS Resource Reminder

Summary

Please use this bulletin as a reminder to the available resources and their usage on the OAS module (OfficeServ Application Server).

What Does the OAS Module Deliver?

The OAS module provides three main resources for the system. The resources can be used in single type or combined type mode, which is configured via the system programming interface:

1. MGI resources (Media Gateway Interface)
2. MPS resources (Media Proxy Server)
3. MOBEX resources (DTMF for MOBEX Executive)

This bulletin will focus on the MGI and MPS parts of the OAS module.

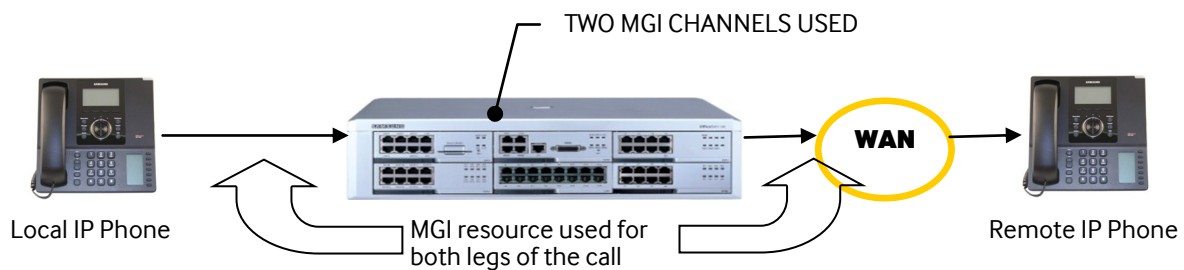
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Why use MPS and NOT MGI?

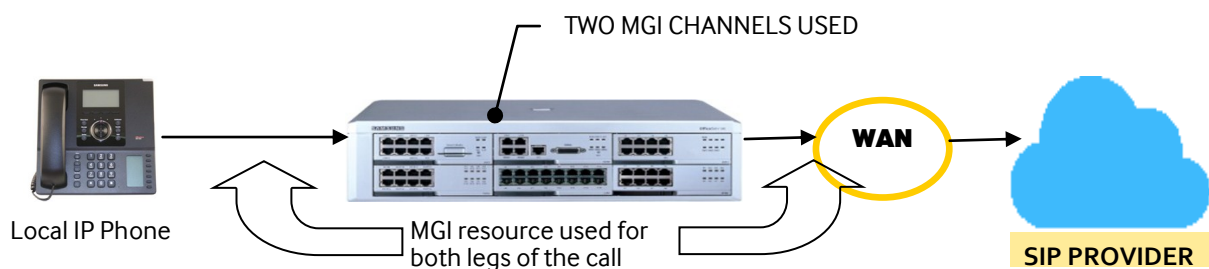
To answer that question, we must first look at a typical VoIP call between a local IP phone on a customer's LAN, and a remote IP phone at either another site, or at a home worker location.

In the above call scenario, the system would utilise two MGI resources; one for the call from the internal IP phone into the system, and one for the second leg of the call out of the system and across the WAN to the remote IP phone; as shown in the below diagram:



Using MGI channels in this manner is not only resource hungry, but also increases the possibility of losing some call quality and adding latency to the call.

This also applies to a call from an IP phone to a SIP trunk:

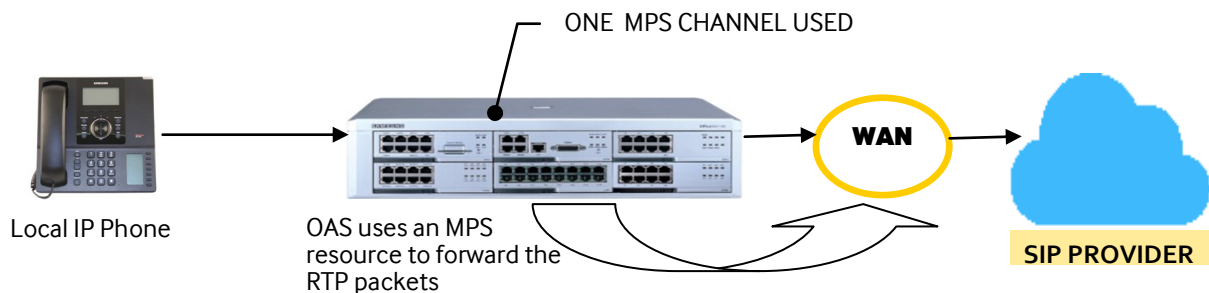
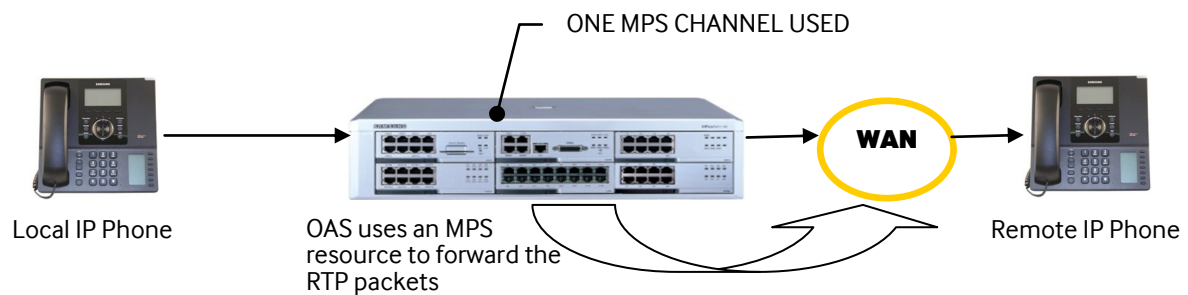


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How does MPS Deal with IP Calls?

MPS channels are used to forward the speech to the destination and it does not have to manipulate or change the traffic in any way, as an MGI channel does. This reduces the load on system resources; improving call quality and reducing latency.



- Using MPS uses less resources
- Using MPS improving call quality and reduces latency



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MGI and MPS Resource Usage Matrix Tables

The following tables detail what and how many of each resource are used in each call scenario.

MGI ONLY CONFIG IN A PRIVATE NETWORK (Number of MGIs used)

Private Network	IP Phone / Softphone	Wi-Fi Handset	SIP UA	Digital Phone	ISDN/Alog Trunk	SVM Voicemail	SIP Trunk	SPNet
IP Phone / Softphone	0	0	0	1	1	1	2	2
Wi Fi Handset	0	0	0	1	1	1	2	2
SIP UA	0	0	0	1	1	1	2	2
Digital Phone	1	1	1	N/A	N/A	N/A	1	1
ISDN/Alog Trunk	1	1	1	N/A	N/A	N/A	1	1
SVM Voicemail	1	1	1	N/A	N/A	N/A	1	1
SIP Trunk	2	2	2	1	1	1	2	2
SPNet	1	1	1	1	1	1	2	1

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MGI ONLY CONFIG IN A WAN (NAT) NETWORK (Number of MGIs used)

Public/WAN Network	IP Phone / Softphone	Wi-Fi Handset	SIP UA	Digital Phone	ISDN/Alog Trunk	SVM Voicemail	SIP Trunk	SPNet
IP Phone / Softphone	2	2	2	1	1	1	2	2
Wi Fi Handset	2	2	2	1	1	1	2	2
SIP UA	2	2	2	1	1	1	2	2
Digital Phone	1	1	1	N/A	N/A	N/A	1	1
ISDN/Alog Trunk	1	1	1	N/A	N/A	N/A	1	1
SVM Voicemail	2	2	2	N/A	N/A	N/A	1	1
SIP Trunk	2	2	2	1	1	1	2	2
SPNet	2	2	2	1	1	1	2	2

MPS & MGI USAGE (With MPS enabled)

		Digital Devices		Local IP Devices		Remote IP Devices	
		STN	TRK	STN	TRK	STN	TRK
Digital Devices	STN	NONE	NONE	MGI	MGI	MGI	MGI
	TRK	NONE	NONE	MGI	MGI	MGI	MGI
Local IP Devices	STN	MGI	MGI	NONE	NONE	MPS	MPS
	TRK	MGI	MGI	MPS	MPS	MPS	MPS
Remote IP Devices	STN	MGI	MGI	MPS	MPS	MPS	MPS
	TRK	MGI	MGI	MPS	MPS	MPS	MPS

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MPS & MGI CAPACITIES

System	MPS Channels Embedded	MPS Channels via OAS Modules	MGI Channels Embedded	MGI Channels via OAS Modules	Max Number of OAS Modules
OS7030	8	N/A	4 + 2 with expansion cab	N/A	N/A
OS7100	8	N/A	8	16	1
OS7200S	8	96	6	48	3
OS7200	N/A	128	N/A	80	5
OS7400	N/A	256	N/A	512	32

All figures in the above table assume that the maximum number of OAS modules are installed.

*When an OAS module is used in the OS7100, it can only provide MGI, and not MPS services.

The OfficeServ OAS card provides 64 digital signal processors (DSPs) that can be configured as MGI channels, MOBEX DTMF receivers used by the Executive MOBEX feature, or a mix of the two. MGI channels are enabled in 4 port increments, and each increment will decrease the available MOBEX DTMF receivers. See the table below for OAS configuration options 0 ~4 based on what universal slot the OAS module is installed:

Option	Type	16 Time Slots	32 Time Slots	64 Time Slots
0	All MOBEX	ONLY 16 MOBEX	ONLY 32 MOBEX	ONLY 64 MOBEX
1	MIXED	4 MGI + 12 MOBEX	4 MGI + 28 MOBEX	4 MGI + 48 MOBEX
2	MIXED	8 MGI + 8 MOBEX	8 MGI + 24 MOBEX	8 MGI + 32 MOBEX
3	MIXED	12 MGI + 4 MOBEX	12 MGI + 16 MOBEX	12 MGI + 16 MOBEX
4	ALL MGI	ONLY 16 MGI	ONLY 16 MGI	ONLY 16 MGI