

SBC Core Tips

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This section describes general tips and other useful information for the SBC Core.



Hardware and BMC-related topics do not apply to the SBC SWe platform.

Congratulations on obtaining your SBC Core platform! Below is a summary of the steps to follow to get your SBC functional.

1. Create an IP plan. This plan lays out what the IP addresses the SBC will use for its management ports, media ports and next hop router. The media ports are used for SIP and RTP traffic. Example IP plans:
 - a. SBC 5000/7000 series: [Creating an IP Plan](#)
 - b. SBC SWe: [Creating IP Plan for SBC SWe](#).
2. Install the Hardware. See [Installing SBC 5000 Series Hardware](#) or [Installing SBC 7000 Series Hardware](#).
3. Configure the Field Service Port and Management Port IP address. The Field Service Port (FSP) is an Ethernet port located on the back of the SBC. This port allows you to access the SBC Baseboard Management Controller (BMC) web page. The BMC allows for system monitoring, power control, and configuring the Management Ports of the SBC.
4. Install SBC Application software. This is accomplished from the EMA. See [Installing SBC 5000 and 7000 Series Software](#).

You are now ready to configure your SBC platform for processing! See [How to Set up a Basic Call Flow](#).

Background on SIP Trunking and Access

The SBC basically acts as a SIP B2BUA (Back to Back User Agent). An important concept on the SBC is that all signaling and routing is based upon Trunk Groups.

SIP Trunk Groups are a logical connection between the SBC and a far end. A SIP Trunk can be one to one or one to many with the SBC always being a single point. A SIP Trunk for end point (phones) access will be one IP address on the SBC with the far end consisting of many different end points. A SIP Trunk for a carrier or PBX will generally be a one to one connection.

Access configurations involve end points (SIP phones, IADs, Soft Clients, etc.) that Register via the SBC to their feature server (Class 5, PBX, Hosted PBX, etc.). The SBC can cache Registrations in order to reduce the processing time the feature server spends on them. Even in Access configurations, a set of endpoints is represented by a trunk group.

From an SBC viewpoint, all calls (SIP sessions) involve two trunk groups on the SBC. For example, if Party A wished to connect to Party B via the SBC, two trunk groups on the SBC are involved, one to Party A and one to Party B. There are generally two types of point-to-point SIP Trunks: Interconnect between two carriers and Interconnect between a PBX and a carrier. Interconnection between carriers is static and do not require registrations.

In the case of interconnection between a carrier and a PBX, the amount of Registrations that can take place vary.

- In a static trunking environment, no registrations take place. This is similar to two carriers interconnecting.
- PBX can use Group registration for its endpoints.
- When a pilot number is Registered, calls are routed (via the feature server) to that pilot number (which would include the extension in the

INVITE) on the PBX.

- Each endpoint can Register

Both SIP Trunking and Access configurations may be implemented on the same SBC server.

Commonly Used Element Names

Below is a list of commonly used element names on the SBC platforms.

To see system name and hostname conventions and restrictions, see [System Name and Hostname Conventions](#) page.

Name	Description	Examples
System Name	<ul style="list-style-type: none"> • Should be in all CAPS. • On a HA system the units are referred to as one name. This name is used in billing, external PSX queries (if done), and system logs. • The 1st 3 letters describe the physical location of the system, for example Dallas = DAL • The 2nd 3 letters are NBS or SBC to indicate what this machine is. • The last two characters are numerical, indicating which number NBS at this particular location 	DALNBS01 DALSBC01
Unit #1 of HA name	The System name with an "a" appended on it	DALNBS01a
Unit #2 of HA name	The System name with an "b" appended on it	DALNBS01b
IP Interface Group	Represent the type of far ends.	TRUST_IPIG, UNTRUST_IPIG Or INTERNAL_IPIG, EXTERNAL_IPIG
IP Interface	Include the packet port number and VLAN tag (if used) in the name	IPIF0 IPIF1 IPIF2_200
Zone	All CAPS Describes the far end.	INTERNAL, EXTERNAL, CUSTOMER_A
Trunk Groups	<ul style="list-style-type: none"> • All CAPS • Can use underscores • Describes the far end. Will show up in billing records, so discuss with your downstream billing team 	CORE, PEER, CUSTOMER_A
Packet Service Profile	Create a unique one for each customer type. Append "PSP" at the end.	SIP_PEER_PSP
Signaling Peer	Lower case "peer" prefixing the trunk group	peerCUSTOMER_A

Routing Label	<ul style="list-style-type: none"> • The text "rITo" prefixing the trunk group. • Or prefix "TO_" to the trunk group name. • Appears in the billing record 	rIToCUSTOMER_A, TO_CUSTOMER_A
IP Signaling Profile	<ul style="list-style-type: none"> • Describes the signaling flags associated with the customer. Could be re-used among multiple customers • Leave the DEFAULT unmodified, create a new ones as needed. • Append "_IPSP" to the trunk group name or type of peer. 	CUSTOMER_A_IPSP ALLPEERS_PSP
Link Detection Groups	<p>The names should include the IP Interface Group.</p> <p>Include an "A" or "B" to indicate the unit.</p>	UNTRUST_LDG_A, UNTRUST_LDG_B, TRUST_LDG_A, TRUST_LDG_B, MGT_LDG_A, MGT_LDG_B