



# Configuration Guide

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## Session Border Controllers in AOS

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This guide describes the session border controller (SBC) functionality incorporated into ADTRAN Operating System (AOS) products. The guide includes information about how SBCs function, their purpose in the network, and links to relevant SBC feature configuration guides.

This guide includes the following sections:

- *SBC Overview on page 2*
- *ADTRAN SBCs in the Network on page 2*
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## SBC Overview

SBCs are network elements that streamline the initial deployment and subsequent management of voice network products in Voice over Internet Protocol (VoIP) networks. SBC can control the voice protocol signaling and media streams used in VoIP communications. Typically, SBCs provide demarcation between service provider networks and customer networks, thus creating a border between the carrier's and the customer's networks. In addition, SBCs can provide the following services:

- Better interoperability with the service provider network by providing Session Initiation Protocol (SIP) to SIP communication, network address translation (NAT) traversal, SIP header manipulation, and much more.
- Added quality of service (QoS) functionality by providing traffic shaping, resource allocation, and rate limiting.
- Additional media services, such as media anchoring and support for voice and video calls.
- Ability to gather usage and network monitoring statistics.

With the release of AOS firmware R10.1.0, ADTRAN introduced its first SBC features. ADTRAN SBCs address interworking and interoperability between service providers' VoIP network and IP private branch exchanges (PBXs) at the customer site. These devices handle NAT and firewall traversal, VoIP protocol interworking, and media anchoring, as well as providing numerous service provider troubleshooting tools. ADTRAN SBC features are outlined in the *AOS Product Feature Matrix*, available online at <http://supportforums.adtran.com>.

## ADTRAN SBCs in the Network

ADTRAN SBCs, whether Total Access IP business gateways or NetVanta routers, play an important part in enterprise network configurations by providing normalization, security, and monitoring for SIP trunking services traditionally monitored by service providers. In addition, ADTRAN SBCs support a wide variety of IP PBXs and can provide SIP-to-SIP communications, an important factor as communication standards move from the traditional SIP-to-time-division multiplexing (TDM) communication structure. Lastly, ADTRAN SBCs can be used to enhance unified communication solutions when used in conjunction with the NetVanta Unified Communications systems.

*Figure 1* illustrates the use of ADTRAN SBCs in a typical network topology.

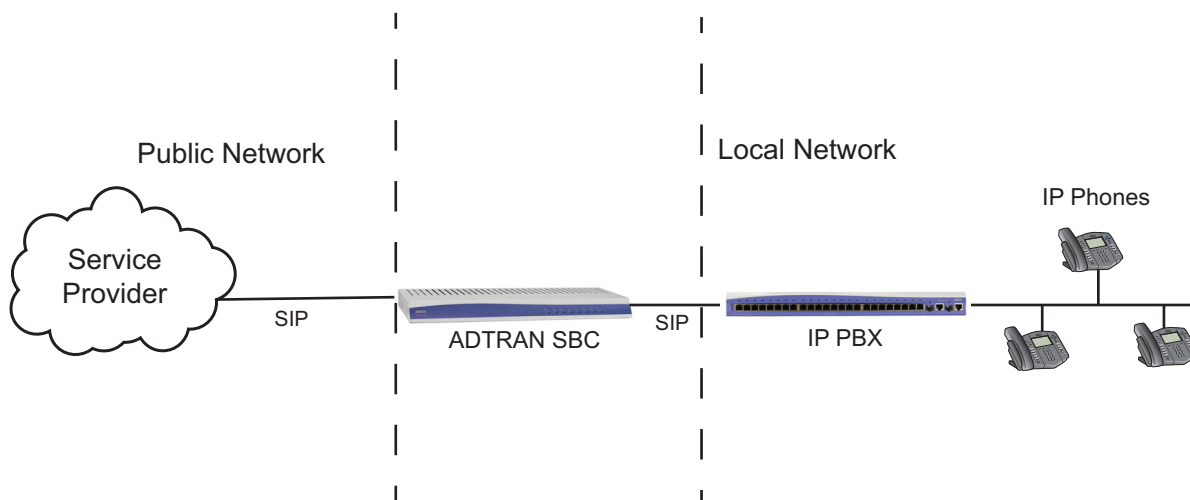


Figure 1. ADTRAN SBC in the Network

## ADTRAN SBC Feature Documentation

There are many important features that are part of ADTRAN's SBC feature set. In addition to providing the traditional voice features such as back-to-back user agent (B2BUA) functionality, voice quality monitoring (VQM), failover capabilities, SIP media loopback, and SIP-aware NAT, ADTRAN SBCs also provide SIP header manipulation rules (HMR), media anchoring, packet capturing, and added support for remote workers. *Table 1* lists the documentation available for the additional features of ADTRAN's SBCs. These informative documents are all available online at <http://supportforums.adtran.com> (ADTRAN's Support Forum).

Table 1. ADTRAN SBC Feature Documentation

Feature	Document Title
Media Anchoring	<i>Configuring Media Anchoring in AOS</i>
SIP HMR	<i>Manipulating SIP Headers and Messages in AOS</i>
Packet Capturing	<i>Configuring Packet Capture in AOS</i>
ADTRAN SBC for use with NetVanta UC Servers	<i>SIP Trunking Gateway for use with the NetVanta ECS</i>
Remote Phone Configuration for an AOS SIP Gateway	<i>Configuring Remote Phones with an AOS SIP Gateway</i>
Transcoding	<i>Configuring Transcoding in AOS</i>