

## SIP Trunking

Written by Administrator

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### **Address more customers by allowing many more IP PBXes to be connected to your VoIP service!**

If you offer, or are planning to offer, SIP Trunking services, you need the Intertex IX78, a Router/Firewall/ADSL-modem with built in E-SBC (Enterprise Session Border Controller) functionality.

SIP Trunking – connecting business PBXs to operator’s SIP based telephony infrastructure via IP instead of TDM lines – has opened up new market segments and new business opportunities for telecom operators. The shift to IP-PBXs at the customer site and to IP based infrastructure at the carrier side, is making SIP Trunking an obvious development. Today, almost every ISP, broadband provider or telco in general are planning to offer or are already offering SIP Trunking services.

However, getting business customers’ telephony traffic, isn’t just about having a good service and roll it out over a good IP pipe (dedicated/managed or over the Internet) – one also has to be able to connect the service to the customer’s PBX in the customer’s environment. Having a SIP Trunking interface on an IP-PBX is not sufficient!

Most obvious is the firewall/NAT traversal problem. Modern IP Phones and IP- PBXs reside on the business LAN which is protected by a firewall. But SIP communication does not pass ordinary firewalls or even NATs. A NAT/firewall traversal method is required, which is one of the functions the IX78 E-SBC provide.

In addition, there are many variants in the SIP capabilities and implementations in PBXs as well as the trunking service and delivery, something that the IX78 E-SBC can normalize. The picture below shows the functions and benefits the IX78 E-SCB brings when SIP Trunking various types of PBXs.

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The diagram illustrates the connection between a PSTN SIP Trunking Provider Network and a PBX system. It shows a SIP Trunk connecting to an IP PBX, which then connects to a system of phones. The diagram is divided into two sections: 'PBX Type 1' and 'PBX Type 2'. PBX Type 1 is labeled 'Modern IP-PBXs are of this type. Media goes directly between phone and SIP Trunk' and shows a 'VoIP & Data LAN' connection. PBX Type 2 is labeled 'Few PBXs are of this type. At-risk with firewall (SBCs, NIS, etc.) can be complex and configured incorrectly, but require a lot' and shows a 'Data LAN only' connection. A central 'SIP Trunk Interface' connects the two PBX types. A list of reasons 'Why may an IX78 be required to connect a PBX?' is provided: 1) NAT/Firewall Traversal - Must NAT to same address space; 2) Basic SIP and Network Interoperability - E.g. Authentication, Registrations, UDP/TLS/TCP, dynamic IP address, etc.; 3) SIP Repair - E.g. Call Transfer, Fragmented packets, Bugs, etc.; 4) Features - E.g. Remote Users, Administration (remote and local); 5) Security - E.g. Will LAN be opened? Is the PBX designed to be public? Below the diagram is a screenshot of the 'Telia SIP-anslutning Wizard' in a Microsoft Internet Explorer browser window. The wizard is titled 'Telia SIP-anslutning Wizard' and contains the following text: 'Welcome! This wizard will help you configure the E-SBC together with a PBX and Telia SIP-anslutning. The E-SBC is Intertex Surfinbird IX78.' It includes instructions on what to do if the E-SBC has old settings and what happens when finished. A 'SELECT YOUR PBX' dropdown menu is visible, listing various PBX models such as 3Com VCC, Aastra OpenCom 1301/50, 510, Aastra Ascotel Intelligate A150, A300, 2025, 2045, Aastra OpenCom X20, Aastra/Ericsson Business Phone + M600 GW, Aastra/Ericsson MD Evolution, Aastra/Ericsson MX ONE, Actaris, Avaya IP Office, Avaya Quick Edition, Avaya CM/SEP, Cisco CDM, CUOM, OME, UC 500, Clear Access EG30WV, Innovaphone PBX, Iwetsu ECS, LG-Nortel IFLDK-20, Microsoft OCS 2007, Mitel 3300 ICP (CX, CXi, MXi), Nortel SCS 500, Nortel BCM, Objectworld UC Server, Panasonic KXTDA15, 30, TDE-100, Pingtel SIPexchange ECS, Samsung OS7000 Series, ShoreTel ShoreGear, Xcelerator IP, and Generic PBXs. A 'Next' button is at the bottom right of the wizard window.