XO SIP Service
Customer Configuration Guide for
Sutus BC200 with XO SIP
1. Overview

**About This Document**
This document describes interoperability between XO SIP Package 1 (G.711) and Sutus BC200 IP PBX, deployed with an XO-provided Cisco 2432 IAD as the router/demarcation device. This document assumes the audience has a general understanding of network provisioning and the connectivity requirements of XO Communications SIP service offering.

**Known Issues**
While XO certifies interoperability between XO SIP service and the IP PBX as outlined herein, the following known issues were identified during Interoperability testing. The customer should be aware that certain features and functions may not be fully supportable. In some cases, special configurations and/or PBX software patches may be available from the vendor:

- Local operator calls (dial ‘0’) not supported. According to Sutus, this will be fixed version is 1.6.6, planned for 9/09.
- Sutus BC200 does not have ‘hunt group’ feature, but does support “ring all” group
- Sutus BC200 always sends pilot number as an outgoing Calling Line ID number for any extension
- If an incoming PSTN call is forwarded off-net, the off-net PSTN phone will see the caller ID of the Sutus PBX pilot DID
- XO SIP optional Call Center feature is not supported with Sutus BC200
- Sutus BC200 does not support CFB (Call Forward Busy). It supports CFA (Call Forward Always) and CFNA (Call Forward No Answer).
- Sutus BC200 does not support conference call with more than 3 parties (including extension itself)
- T.38 codec for FAX is not supported. XO and Sutus recommend using analog lines off of the XO-managed router’s FXS ports for FAX (available with 1.5 Mbps and 3.0 Mbps XO SIP).

**Registration Method**
Static registration is utilized between the Sutus BC200 IP PBX and the XO call agent.

**XO SIP Service Packages Supported**

<table>
<thead>
<tr>
<th>Pkg</th>
<th>Codec</th>
<th>DTMF</th>
<th>Fax</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G.711</td>
<td>RFC2833 (in-band RTP DTMF fall-back)</td>
<td>Not supported—see known issues.</td>
</tr>
<tr>
<td>2</td>
<td>G.729a</td>
<td>Not Supported</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>
2. Testing of Sutus BC200

2.1. Software and Hardware Versions Tested

1. Cisco 2400 used as a router
   Cisco IOS Software, 2400 Software (C2430-IS-M), Experimental Version 12.4(20060718:201451) [acphan-V124_4_T2_1 104]
   System image file is "flash:c2430-is-mz.xo"

2. Sutus
   Software version Sutus : 1.6.4.090709.18

3. 2 - IP Phone
   Model no.: Polycom - Soundpoint IP 330 SIP

4. ATA for analog phone
   Grandstream “Handy Tone 286”.

3. **Sutus BC200 Configuration**

In This Section
XO performed the minimum amount of configuration required to achieve successful completion of test calls over XO SIP. It is beyond the scope of this document and the testing efforts to show a complete configuration, therefore screenshots of the GUI interface are provided only for the details of the SIP trunk configuration that are relevant to interfacing with XO’s SIP product.

This section contains screenshots which detail the SIP trunk configurations.

Sutus Login:

Login to Sutus GUI via web browser “https://central/start

System Status & Alerts
Manage Workspaces:

- Place to add user (work space)
Workspace configuration:
Workspace configuration: (cont.)
Workspace configuration: (cont.)
Manage Phones
VOIP configuration:
VOIP configuration: (Cont.)
VOIP configuration: (Cont.)

1. Enter the phone number for the direct line

   Enter the phone number for the direct line configured for your VoIP service. This phone number cannot match the pilot phone number for the VoIP service or another direct line phone number you have already added.

   Called inbound phone number: 4593873302 (7 digits minimum)

2. Select a workspace to direct these calls to

   Select the workspace’s incoming call flow for this direct line phone number. Learn More...

   Incoming workspace call flow: ADG XO Lab (x 2001)  
   Hunt Group (x 2003)  
   Reception (x 2000)
Internet Settings (SIP Trunk configuration):

![Internet Settings Screenshot]

Firewall:

![Firewall Settings Screenshot]
LAN settings: