



Service Provider Management Package

Overview

The XOP Networks' Service Provider Management Package (SPMP) provides a number of capabilities that permit the Service Provider to offer virtual conferencing and other services to small, medium, and large companies and also to significantly improve system availability. The package provides the Service Provider company, the ability to segregate customer accounts within a single bridge, with each account having its own Moderators, billing records (CDRs) and call logs and Realview screens. Once set-up, the individual companies have only access to their own data and records, while the operating company may see all usage/details via the system admin screen. The following diagrams illustrate the functionality provided:

Figure 1: Company Set-up Page

Any number of company accounts can be set up and easily modified to suit changing conditions. The following figure illustrates the company accounts that have previously been set-up:

No.	Name	Edit	Delete
1	AAA	Edit	<input type="checkbox"/>
2	XOP Networks	Edit	<input type="checkbox"/>
3	BBB	Edit	<input type="checkbox"/>
4	CCC	Edit	<input type="checkbox"/>
5	DDD	Edit	<input type="checkbox"/>
6	Dialogic	Edit	<input type="checkbox"/>
7	EEE	Edit	<input type="checkbox"/>
8	Espre	Edit	<input type="checkbox"/>
9	Willow Bend Lakes HOA	Edit	<input type="checkbox"/>
10	FFF	Edit	<input type="checkbox"/>
11	GGG	Edit	<input type="checkbox"/>
12	Highland Creek Estates HOA	Edit	<input type="checkbox"/>
13	C & S Products	Edit	<input type="checkbox"/>
14	Telcom & Data	Edit	<input type="checkbox"/>
15	HHH	Edit	<input type="checkbox"/>

Figure 2: Defined Companies

XOP Networks: Service Provider Management Package – Data Sheet

The Service Provider package produces extensive call records and logs, that enable the service provider to bill the company entities with exact details of all of the moderators on any account, and/or individual moderators (very useful for departmental billing). The details can be downloaded in .csv file format. The following figure illustrates a typical usage reports:

Moderators					
Groups					
Prerecorded Messages	Jan 1 2010	Apr 3 2010	All	All	All
Service Selection	<input type="button" value="Select"/>				
Conferences					
Firebar Conferences					
Mass Notification					
Voicemail					
Click To Talk					
Realview					
System Configuration					
Maintenance					
System Status					
Reports					
Manage Profile					
Help					
Log out					

Company	Moderator	Service Type	Events	Total Time	Details
	Gupta, Dev	CN	3	4:10:59	View
Brahma Kumari Center for Meditation	Inamdar, Ranjanben	CN	328	1774:06:08	View
Espre	Hoggatt, James	CN	10	5:57:53	View
Integral Consulting	johri, abhai	CN	46	59:41:40	View
Intelsat	Calvert, Charles	CN	12	6:13:12	View
M R Insight	Courtney, Mike	CN	10	9:43:40	View
Q ASSOCIATES (USA) INC	Turner, Julian	CN	23	45:07:45	View
Strategenus	Desai, Mitesh	CN	1	0:01:35	View
Strategenus	Schwartz, Larry	CN	1	3:31:01	View
Telcom & Data	Hempel, Tom	CN	6	4:52:38	View
TextThis	Parkse, Michael	CN	4	8:44:51	View
Tristar Engineering	Engineering, Tristar	CN	1	0:38:50	View
XOP Networks	Bussey(Office), Chris	CN	31	42:22:01	View
XOP Networks	Gupta, Chitra	CN	9	0:17:18	View

Figure 3: Moderators Usage Report

Service Report detail showing the logs for individual conferences are available via the Service Report page. Any company/moderator can only see those logs applicable to that account, while the System Administrator may see all details of all activity:

Caller	Name	Called At	Disconnected At	Time (min)
4692581770	Bill Gates	2010-04-03 05:01:52 CDT	2010-04-03 05:02:10 CDT	0.3
8322761009	Fred Fired	2010-04-03 05:06:46 CDT	2010-04-03 05:55:48 CDT	49
4692581770	Joe Nought	2010-04-03 05:04:24 CDT	2010-04-03 05:55:51 CDT	51.5
9364046441	Bill hardy	2010-04-03 04:55:46 CDT	2010-04-03 05:56:01 CDT	60.2
8062836408	Doug Carter	2010-04-03 04:56:08 CDT	2010-04-03 05:56:03 CDT	59.9
8706230493	David Cheers	2010-04-03 05:00:24 CDT	2010-04-03 05:57:27 CDT	57
9722157509	Lance Spear	2010-04-03 05:03:39 CDT	2010-04-03 05:57:29 CDT	53.8
8179956017	Frank Worth	2010-04-03 04:59:36 CDT	2010-04-03 05:57:29 CDT	57.9
9724121202	Peter Austin	2010-04-03 04:57:20 CDT	2010-04-03 05:57:30 CDT	60.2
9723933938	David Houston	2010-04-03 05:06:15 CDT	2010-04-03 05:57:30 CDT	51.2
8068849157	Jane Doe	2010-04-03 05:05:41 CDT	2010-04-03 05:57:34 CDT	51.9
9722545562	Martha Homes	2010-04-03 05:02:23 CDT	2010-04-03 05:57:36 CDT	55.2
2143273417	Dr Watson	2010-04-03 05:05:57 CDT	2010-04-03 05:57:45 CDT	51.8
3257014248	Paul Merit	2010-04-03 05:03:44 CDT	2010-04-03 05:57:45 CDT	54

Figure 4: Individual Conference Usage Report

XOP Networks: Service Provider Management Package – Data Sheet

The following screen shot shows typical billing records for a system. The file is in a comma delineated (.csv) format, and may be exported manually or via a TCP/IP data interface to an external billing system (see diagram in Figure 7 following)

ID	Created-at	Company name	Moderator Ident	Moderator Name	oderator-pho	Service ID	Service Results	Service-type	Service-subject	Service Started at	Service Complete at	Service Scheduled?	Destination Number	Call Direction	Called-at	Joined-service-at	Disconnected-at	Port ID
24	2/25/2010 15:50		7	_l_name, subscri	407	11	7	FB	conference onc	2/25/2010 15:49	2/25/2010 15:50	N	403	OUT	2/25/2010 15:49	2/25/2010 15:49	2/25/2010 15:50	2
25	2/25/2010 15:50		7	_l_name, subscri	407	11	7	FB	conference onc	2/25/2010 15:49	2/25/2010 15:50	N	402	OUT	2/25/2010 15:49	2/25/2010 15:49	2/25/2010 15:50	1
26	2/25/2010 15:50		7	_l_name, subscri	407	11	7	FB	conference onc	2/25/2010 15:49	2/25/2010 15:50	N	401	OUT	2/25/2010 15:49	2/25/2010 15:49	2/25/2010 15:50	0
27	2/25/2010 15:50		7	_l_name, subscri	407	11	7	FB	conference onc	2/25/2010 15:49	2/25/2010 15:50	N	784	IN	2/25/2010 15:49	2/25/2010 15:49	2/25/2010 15:50	4
28	2/25/2010 15:51		7	_l_name, subscri	407	11	8	FB	conference onc	2/25/2010 15:50	2/25/2010 15:51	N	403	OUT	2/25/2010 15:50	2/25/2010 15:50	2/25/2010 15:51	2
29	2/25/2010 15:51		7	_l_name, subscri	407	11	8	FB	conference onc	2/25/2010 15:50	2/25/2010 15:51	N	784	IN	2/25/2010 15:50	2/25/2010 15:50	2/25/2010 15:51	5
30	2/25/2010 15:51		7	_l_name, subscri	407	11	8	FB	conference onc	2/25/2010 15:50	2/25/2010 15:51	N	401	OUT	2/25/2010 15:50	2/25/2010 15:50	2/25/2010 15:51	0
31	2/25/2010 15:51		7	_l_name, subscri	407	11	8	FB	conference onc	2/25/2010 15:50	2/25/2010 15:51	N	402	OUT	2/25/2010 15:50	2/25/2010 15:50	2/25/2010 15:51	1
32	2/25/2010 15:52		7	_l_name, subscri	407	11	9	FB	conference onc	2/25/2010 15:51	2/25/2010 15:52	N	402	OUT	2/25/2010 15:51	2/25/2010 15:51	2/25/2010 15:52	1
33	2/25/2010 15:52		7	_l_name, subscri	407	11	9	FB	conference onc	2/25/2010 15:51	2/25/2010 15:52	N	403	OUT	2/25/2010 15:51	2/25/2010 15:51	2/25/2010 15:52	2
34	2/25/2010 15:52		7	_l_name, subscri	407	11	9	FB	conference onc	2/25/2010 15:51	2/25/2010 15:52	N	784	IN	2/25/2010 15:51	2/25/2010 15:51	2/25/2010 15:52	6
35	2/25/2010 15:52		7	_l_name, subscri	407	11	9	FB	conference onc	2/25/2010 15:51	2/25/2010 15:52	N	401	OUT	2/25/2010 15:51	2/25/2010 15:51	2/25/2010 15:52	0

Note: some fields have been hidden for clarity purposes

Figure 5: Typical System Billing Record (CDR)

The system also produces System Status screens so that the Service Provider is able to determine the condition of any/all of the circuits that terminate on the bridge, and the “health” of the voice processing software. These reports are available for VoIP/SIP, TDM and Analog terminations.

The screenshot shows the XOP Networks web interface. The top navigation bar includes 'Admin Menu', 'system admin', 'Team Computers', and the date 'Friday October 2, 2009'. The main content area is titled 'System Status' and contains three sections:

- Voice Processor Status:** A green box indicating 'Running'.
- Port Status:** A table showing interface status for 'span-1' and 'span-2'. Each interface has 23 channels, and the status is represented by a row of green bars.
- Port Location Map:** A grid of 48 entries showing port numbers (1-48) and their corresponding locations (e.g., span-1:1, span-2:14).

Figure 6: System Health Report

There are also a number of other very powerful capabilities that will be of interest to the Service Provider that will significantly improve reliability in the event of network/switch/server problems (please contact XOP Networks for more information concerning your specific requirements).

- Duplicated Servers with database replication – enter user data on one server via the admin interface, and it is automatically replicated on the secondary server.
- Hot Standby configuration (Primary and Secondary servers) – in the event that one server becomes disabled, the secondary server automatically takes over.
- Load sharing operation – in a duplicated configuration it is possible to load share between the two servers. This is possible in a VoIP/SIP network environment as well as a TDM/T1/E1 network.

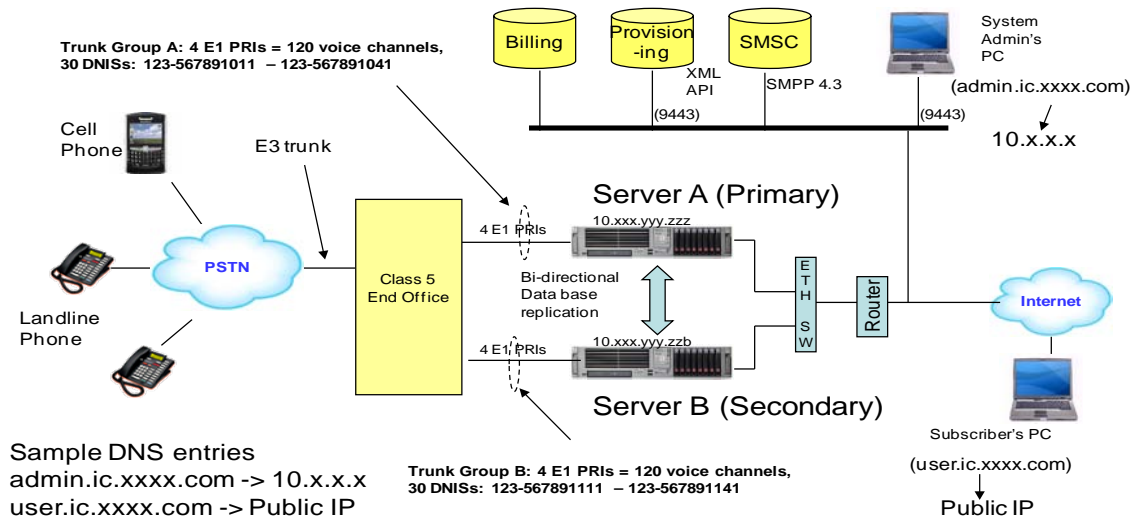


Figure 7: Typical Service Provider Network

Primary/Secondary Operation

- Server A will be Primary, Server B will be a hot standby Secondary.
- All 'provisioning' activity will take place on the Primary server
- The Database of Server A and B will be kept in sync 100% of the time using bi-directional replication.
- Each server will run a heart beat protocol that will keep each server informed about the health of the mate server.
- Trunk group's A and B will be set up for ascending trunk selection
- Trunk group A will be set up to 'route forward' on out-of-service to B and vice-versa.
- The switch routing and load balancer will normally keep all traffic (voice and data) on the Primary server. In case Server A is out of service, Server B will become Primary automatically.
- When Server A is restored into service, it will continue to serve as Secondary.
- The Primary Server will push CDRs to the Service Provider's FTP site on a periodic basis.