Synthesys Switch

Overview

The Synthesys Switch is a Windows Service which in conjunction with an Aculab Prosody X card/unit (or Aculab Prosody S software) provides core Telephone switch functionality.

This document is an overview of the Synthesys Switch system.

What does the Aculab card do?

See separate documentation 'Aculab Card.docx' and also Aculab documentation. The Aculab card fits inside a standard PC and has four main functions :

- A network interface. This has two uses, one is controlling the card, the other is acting as the endpoint for VOIP (SIP in particular) traffic.
- Up to 8 ISDN ports. These carry standard TDM protocols such as E1, T1 and QSIG, and can be used to connect to the PSTN (the outside world), Channel Banks or other telephone switches.
- Up to four DSP modules. Each has a number of functions, including playing of WAV files, recording WAV files, handling the codecs for VOIP calls and also doing answer machine detection. It also handles conferencing.
- A switching unit. This enables any combinations of TDM and VOIP calls to be linked together. Only two calls can be cross-switched together; for conferencing, the DSP module must be used in conjunction with the switch.

Aculab cards can be linked together in the same chassis, so as to increase capacity.

Synthesys Switch Agents

Different types of agent
Several methods will be supported :

- POTS phones connected through a channel bank.
- SIP Phones (hard and soft).
- Agents connected to the Aculab Switch through their existing telephony platform.
- Remote working, connecting via the PSTN.

Agent Environment
All methods currently require the agent phone to have a permanent call open to the Synthesys Switch. This is because we are essentially in a Predictive Dialling environment, and so we need to have tight control over the agent status, and this is generally not available unless we know a voice channel is already established. So if the agent hangs up the phone, the Synthesys Switch will normally call them back to re-establish the connection – they must log out to really kill the call.

Outside Lines

Again, several methods are supported :

- Direct E1/T1 connection via ISDN.
- Connection to ISDN via PABX (QSIG protocol).

- Connection via SIP.
- Connection via channel bank to analogue POTS lines.

Features

- Outbound
- Inbound
- Simple IVR
- Call Recording
- Predictive Dialling
- Answer Machine Detection

Some interesting scenarios

Traditional
Stick the Synthesys Switch in the call centre, link it to the outside world via the ISDN links, connect agents via channel bank or SIP phones.

Pure IP
Customer has a WAN link and is registered with SIPGate or similar. Agents have SIP phones. No phone system or ISDN lines are required at all. Possible to install Prosody S (software only) Aculab solution.

Home call centre
Agents phone up the call centre on their home phone (or receive a call from the call centre when they log on). They are then 'connected' to the Synthesys Switch and can use it as if in a call centre.

Hosting
We can host the switch on behalf of customers.