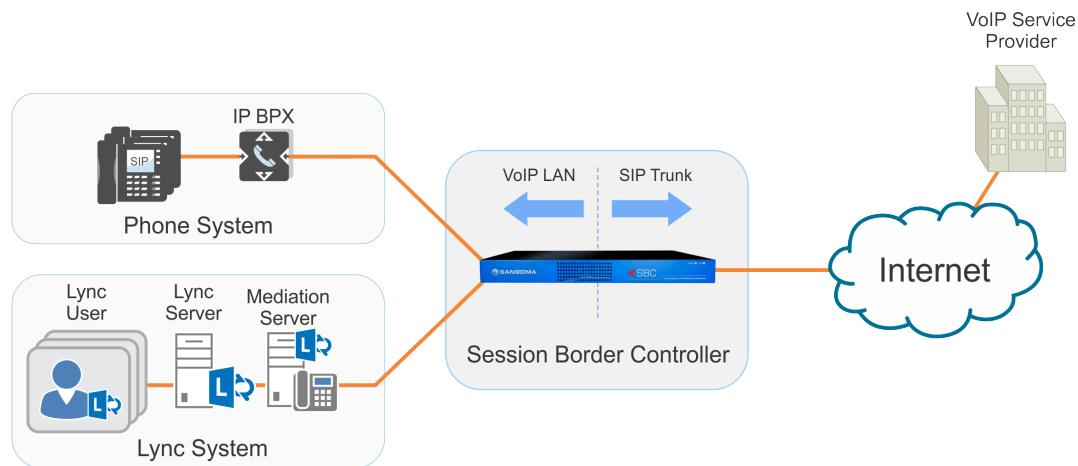# Lync Interworking with IP-PBX

Figure 1: SBC enables integration of Lync into existing VoIP system

Lync can be deployed as an adjunct to an existing corporate PBX or IP-PBX to deliver UC functions with a minimum of disruption to on-going business operations. By leveraging functions of the existing system (Dial Plan, Voice Mail, Automated Attendant, IVR) and using Lync to provide UC functions such as presence, screen sharing and instant messaging, the benefits of UC can be realized while still allowing staff to follow familiar and efficient practices through use of their existing telephone system.

Lync may not easily integrate with an IP-PBX however, because it uses a unique Microsoft implementation of SIP. Protocol conversion is required between the Lync system using Microsoft SIP and the IP-PBX system using its own flavor of SIP. Unless the SIP trunks supplied by the VoIP service provider are Lync certified, protocol conversion is required between Lync (which uses TCP) and the SIP trunks (which usually use UDP). If Lync is not implemented using Lync Express, an external SBC must be deployed to allow integration with the IP-PBX and interface to standard SIP trunks.

A Sangoma eSBC performs the required SIP protocol conversion tasks, along with several other important functions. In the scenario illustrated in *Figure 1*, SIP trunks are supplied by the VoIP service provider. The SBC provides a demarcation point at the edge of the corporate LAN, and protection of the corporate network from security threats. It also provides SIP interworking as required between the IP-PBX, the Lync server, SIP handsets, and other SIP equipment.

In a transition scenario where some users are switched to Lync and the remaining users stay on the existing phone system, the SBC can be configured to route calls to either the IP-

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PBX, to Lync, or to both simultaneously. The routing engine inside the SBC queries the LDAP database hosted by Active Directory. Every user in the company has an entry in Active Directory to handle email, and the same database can indicate if they are Lync users, along with associated routing information. By querying Active Directory via LDAP, the SBC is able to make appropriate routing decisions.

Besides SIP interworking between Lync and the IP-PBX, SIP interworking may be required if there is a mixture of vendor equipment on the corporate VoIP network.

When adding Lync to the corporate telecommunications system, a Sangoma eSBC helps to implement a smooth transition to the new corporate communications system. The SBC allows smooth interworking between the IP-PBX, Lync server, Lync phones, SIP trunks, and other SIP-based equipment on the network.