Hardware Requirements

Introduction

The sipXcom IP PBX runs on standard Intel x86 servers able to run the Linux operating system. There is no additional special hardware required. In particular, no special voice cards are needed as all gateways are external.

Because of the distributed and multi-threaded architecture, sipXcom IP PBX directly profits from multi core CPUs.

Some sipXcom ISO images are available, they're based on CentOS 6 (64 bit only) operating system.

Recommendation for a Production System

For a reasonably performing system we recommend the following configuration. This is a rough guide line for a production system. Media server performance profits from a dual / quad CPU system (dual / quad core CPUs) and lots of memory.

Production systems can operate fine on modern Virtual Server infrastructures (VMWare 5+, Xen, KVM, ProxMox, Amazon EC2, Google Compute Engine, etc.). Physical hardware is of course not a problem either. A hybrid solution is also possible with some physical and some virtual servers.

Minimum Recommended Server:

- Pentium 4 or Xeon processor @ 2.0 GHz Core 64-bit or higher (2 cores minimum recommendation, 4 cores is better)
- Minimum 4 GB of RAM with sufficient swap space (6 to 8 GB = better)
- 80 GB disk (40 GB for logs/software and then 1Minute of VM = 1 MB or disk space, better if you choose mp3).

As with anything, more = better. And 'it depends' rules the day. For example, if you don't use conference bridge, call queue, park orbit or instant messaging in your system, you might be able to run 300 users on a single core server with 4 GB of RAM. The aforementioned services rely on media services on the server.

The sipXcom IP PBX supports an unlimited number of voicemail boxes, and the total number of hours of recorded messages is determined by the size of the hard disk. As a rule, for every minute of recorded messages you will need 1 MB of disk space (About 3 hours per 10 GB of disk space).

Distributed sipXcom IP PBX System

The sipXcom IP PBX can be installed as a distributed system spanning several servers that do not have to be geographically co-located. The sipXcom management system centrally manages the entire cluster. Scalability or redundancy can be achieved by running different components, such as redundant call control, voicemail services, conferencing service, call center ACD service or the SIP trunking service on dedicated hardware.

Installation of an additional server starts by creating the new server in the sipXcom Web admin console. A specific role for that new server can be assigned upon creation. A password is created for the new server. Then the same installation CD is used to install the additional server. When running the installation wizard (sipXcom-setup-system script), it will ask you whether this is the first or an additional server. For additional servers the password generated by the master is required so that the new server can contact the master and download its configuration. This will dedicate it into the chosen server role and make the new server part of the sipXcom distributed but centrally managed system.

For the system to be Highly Available a minimum of 3 servers is required (mongo db requirement). Two servers out of the 3 (or a database majority) need to 'see each other' for the cluster to stay operational.