High Availability

an extra layer of protection against downtime

voipcortex IP PBX

who needs high availability?

In short, high availability is essential for any business that simply can't afford to suffer phone system downtime.

As a hybrid system, the VoIPCortex IP PBX already reduces the risk associated with loss of connectivity by encouraging the use of multiple SIP providers as well as SIP in conjunction with ISDN lines. High availability provides an additional layer of protection against loss of productivity or income by using a pair of identical, synchronised PBX units to ensure that if one unit becomes unavailable, then there is another that can continue offering the service.

Introduced in version 4.0 of the VoIPCortex software, high availability requires an identical pair of Standard, Pro or Multi Tenant IP PBX units running the same software version. There is no need for any additional licences, meaning that high availability has become highly affordable for businesses of all sizes and is no longer the sole preserve of the Enterprise.

how does it work?

True high availability is about more than just having a replacement PBX on standby – it's about synchronising the two units constantly to ensure that the latest configuration and state is preserved so that there is a minimum impact on the user experience if failover occurs.

What sets VoIPCortex HA apart from the competition is that when a pair of VoIPCortex units are deployed within an HA setup, live configuration changes are automatically pushed to the secondary unit as they are made on the primary. In addition, call data, messages, and recordings are automatically replicated to the secondary unit within seconds of call completion. Operating in an active/passive pair, the secondary unit monitors the primary and takes over operation using the latest system configuration and data should the primary unit fail to respond to regular heartbeat polls.

This failover to the secondary unit completes within seconds, picking up at the point where the primary unit left off to ensure a rapid return to full service.

Whilst calls in progress will terminate if they are flowing through the unit at the point where it becomes unavailable, both inbound and outbound calls can once again proceed moments after failover and all handsets will continue to operate as normal with no re-registration delay or reboot required.

If the unavailable unit subsequently returns to service, both devices will then heuristically determine which should continue as the primary, reducing the need for human intervention.

key benefits

- Real value. The high availability on the VoIPCortex IP PBX offers a level of synchronisation and hand-over previously only available on much more expensive systems.
- Easy to manage. Once set up in an HA arrangement, changes to system behaviour are made from one single interface and are instantly replicated across both units.
- Continuous synchronisation. All call data, messages, and recordings are automatically synchronised to the secondary unit within seconds of call completion on the primary unit.
- Sophisticated service failover. This includes the SIP service for handsets and trunks, IAX trunk service and other PBX services such as XMPP IM/presence, the OCM and PBX web interface.
- A comprehensive solution. ISDN trunks are not network based and can only generally terminate on one of the units. Either multiple redundant ISDN trunk connections, or an external ISDN switching box are required to ensure that an ISDN service is presented to the active PBX unit in a redundant pair if failover of ISDN based trunk calls is required.
- Swift and seamless. All SIP devices connected to the primary unit will seamlessly make outbound calls and accept incoming calls from the secondary device after failover has occurred. There is no requirement for a handset reboot or delay for a re-registration timeout, meaning that the failure of the primary unit will only be noticed by users that are on a call at the time.

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