APPLICATION NOTE

Connecting Contact Centers

Contact Center Survivability

Survivability for Remote Sites and Hosted Contact Centers

Ensuring communication continuity and disaster recovery is significantly magnified when it comes to Contact Centers. Whether your agents respond to incoming sales calls or customer service inquiries, it is no secret that customers who cannot reach you will not stay your customers for very long.

Many organizations have evolved by expanding or acquiring disparate contact center solutions, often in multiple locations, with diverse technologies from different vendors. This fragmentation inevitably results in multi-site and distributed Contact Center deployments that present a significant challenge when it comes to building a cost-effective and reliable communication infrastructure. Managed and hosted Contact Center solutions share similar connectivity concerns. Such Contact Center deployments, utilizing a centralized communication center with small branch offices of Contact Center agents, present an even greater challenge.

The Challenge

Remote branch locations may lose all voice services (including internal calls and PSTN breakout) due to connectivity loss between the remote site and the main communication site or the hosting Contact Center provider.

Therefore, when purchasing a Contact Center infrastructure solution it is critical to consider its reliability, flexibility and redundancy capabilities to protect the business from potential cutoff threats such as a network outage or a natural disaster.

AudioCodes devices are designed to provide multiple layers of survivability:

1. **Device component redundancy (“No single point of failure”)**
2. **Remote site connectivity to alternate or backup Contact Center servers**
3. **Stand Alone Survivability (SAS) for local agents**
4. **Mated pair redundancy**

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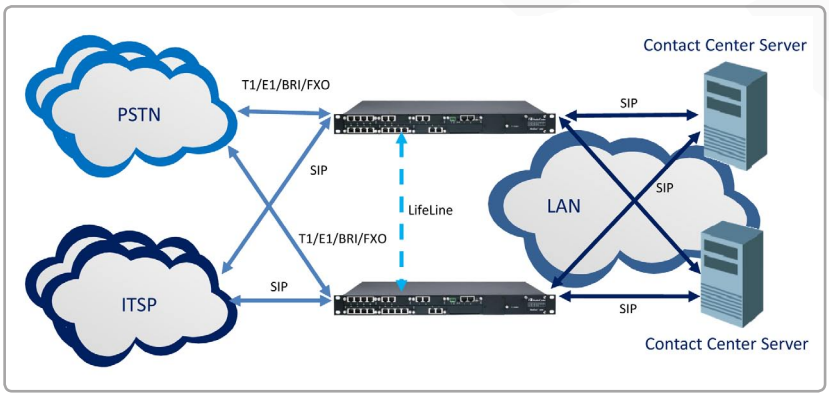
High Availability Architecture

AudioCodes Mediant gateways and Enterprise Session Border Controllers (E-SBCs) offer robust architecture meeting Contact Center operators' stringent requirements for carrier grade high availability. AudioCodes high availability architecture is based on cost-effective N+1 redundancy of the processing blades and load sharing of fans and power supplies.

Mated Pair Configuration

AudioCodes mated pair configuration provides for building highly available networks using low-cost, non-redundant Media Gateway and E-SBC platforms such as Mediant 800 and Mediant 1000. Under normal operation, the mated pair gateways share the load. If one of the gateways (or E-SBCs) fails, the other device takes the full load until the problem with its mated device has been rectified.



Automatic Network Learning and Failover

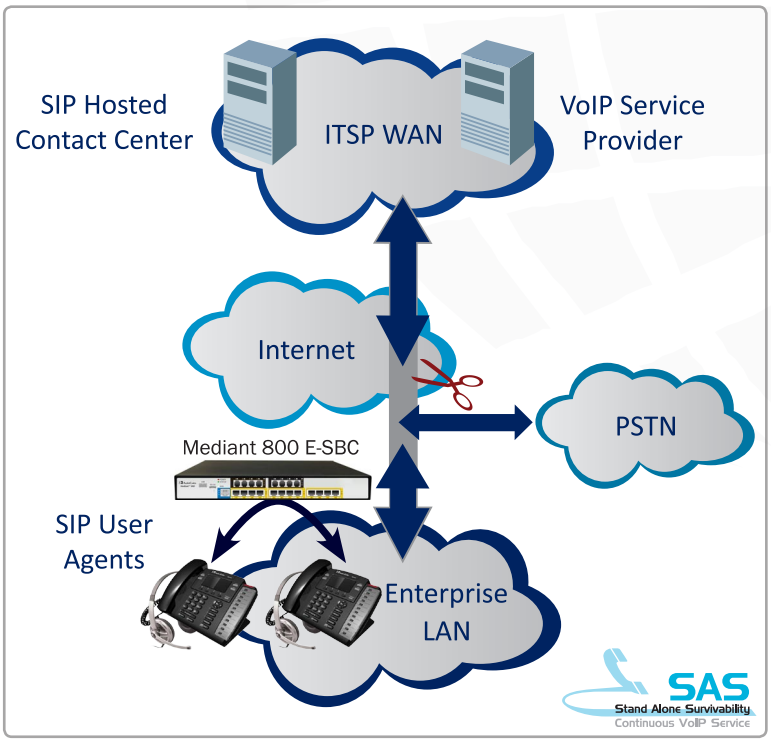
In regular network situations, AudioCodes' Mediant platform acts as an outbound Proxy and Registrar which registers all IP-Phones in the local branch network and simultaneously transfers the registration transactions to the main Contact Center servers. This process ensures automatic double and redundant registration for all phones in the network. Simultaneously, AudioCodes survivability application constantly monitors the health of the Contact Center control servers (e.g. SIP Server or Communication Manager) by sending keep-alive packets using SIP method OPTIONS and by monitoring the server responses to REGISTER and INVITE messages as the heartbeat.

Alternate Contact Center Server Connectivity

In case of a network element failure, the AudioCodes Mediant platform, with previously registered endpoints, searches for alternate or backup servers and eventually (or alternatively) takes over call control and utilizing its inherent fallback mechanism along with its physical PSTN/ITSP connectivity to the external network, the Gateway maintains complete call control and media connectivity to and from the external telephony network.

AudioCodes Stand Alone Survivability

AudioCodes Stand Alone Survivability (SAS) application is embedded in the Mediant product lines of media gateways and Enterprise Session Border Controllers (E-SBCs). In the event of a WAN link failure or an unavailable central server, AudioCodes Stand Alone Survivability takes over call control and allows AudioCodes Mediant platform to perform backup call processing to support sites with up to 2000 agents*. During such a communication failure, the Mediant platform maintains voice call service capabilities for internal calls and PSTN or ITSP breakout.



While in Stand Alone Survivability mode, AudioCodes Mediant platform is able to support both Contact Center inbound calls (i.e. calls into the Contact Center number) as well as direct or private calls directly into agents (i.e. calls using DID numbers to specific agents).

**Note: The number of supported agents depends upon which platform is used.*

Agent Grouping

Many local survivability engines route incoming calls while in survivability mode based on the assumption that all agents are equal. Therefore, incoming calls are routed to the next available agent. Similar to a full automatic call distribution (ACD) system, AudioCodes SAS application supports grouping of agents. Agent groups may represent basic skills such as role, language, etc. Therefore, agent grouping can be used to intelligently route incoming calls based on agent skills.

Automatic Recovery

The Gateway will continuously monitor network connectivity and once the connection with the Contact Center has been resumed, it will switch back to its normal mode in which control is provided by the primary Contact Center server.

Ease of Configuration

Unlike traditional solutions that are based on proprietary hardware and software solutions offered by network equipment providers, AudioCodes provides a standard-based solution which is integrated into the customer's existing network without requiring modifications in its operating network architecture.

AudioCodes survivability is fully manageable and controlled remotely with a web based Graphical User Interface (GUI) that enables customers easy control and customization.

Conclusion

AudioCodes survivability for Contact Centers offers customers several key advantages:

1. **Low cost** Contact Center application resiliency solution
2. Intelligent and **automatic failover** configuration without manual IT or telecom intervention
3. **Multiple resiliency layers** to meet required levels of availability at different price levels
4. **Simple installation** and configuration; integrate seamlessly into an existing network architecture with a single configuration procedure
5. Complete standalone **standard solution**; passed interoperability tests with VoIP leading marketplace vendors
6. Provides a **comprehensive security** umbrella by supporting SRTP and SIPS*

About AudioCodes

AudioCodes Ltd. (NasdaqGS: AUDC) designs, develops and sells advanced Voice over IP (VoIP) and converged VoIP and Data networking products and applications to Service Providers and Enterprises. AudioCodes is a VoIP technology market leader focused on converged VoIP & data communications and its products are deployed globally in Broadband, Mobile, Cable, and Enterprise networks. The company provides a range of innovative, cost-effective products including Media Gateways, Multi-Service Business Gateways, Session Border Controllers (SBC), Residential Gateways, IP Phones, Media Servers and Value Added Applications. AudioCodes' underlying technology, VoIPerfectHD™, relies on AudioCodes' leadership in DSP, voice coding and voice processing technologies. AudioCodes High Definition (HD) VoIP technologies and products provide enhanced intelligibility and a better end user communication experience in Voice communications.

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