How to implement a secure cloud contact centre in an enterprise environment

Why security concerns shouldn't stop you from unlocking the benefits of cloud based communications.

Hostcomm

Business VoIP Solutions

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About the Author

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Chris is founder and Managing Director of hosted telephony provider Hostcomm. The business was one of the first of its kind in the UK and today offers an unrivalled VoIP network infrastructure. Chris's 20 years' experience in voice and data networking and pursuit of innovative new technologies ensure Hostcomm's services are stable, cost-effective and continuously evolving.

What's in the way of your cloud contact centre?

The potential benefits of a cloud based contact centre are huge, and most of us are familiar with them by now.

With no capital expenditure and no commitment, you can quickly launch a more flexible call centre that scales based on your campaigns. You don't pay for seats you don't need – simply get the resources you require without waiting for new lines to be set up. And calls can be routed, transferred, and integrated with your systems in new and innovative ways.

So, given these benefits, why isn't every large enterprise already using a cloud contact centre? Why would anyone choose not to take advantage of the very latest technology, particularly if it saved time, saved money, and improved both campaign outcomes and profitability?

The answer is in the technology and IT infrastructure that already exists.

Key obstacles to cloud adoption

According to a study by KPMG titled Breaking Through the Cloud Adoption Barriers, many enterprises share similar concerns about using the cloud effectively. 41% of respondents were concerned about integration with existing architecture, while 39% were concerned about data loss and information security risks.

However, these concerns are highly interlinked. In many cases, it is network security that makes an integration seem so intimidating. The bigger the enterprise, the more complicated the integration. And, at the same time, larger organisations have more to lose in the event of a breach – in both a financial and reputational sense.

Fortunately, much of the technical knowhow can come directly from your service provider, who should offer the benefit of experience with hundreds of implementations like yours. This process begins with an understanding of the obstacles your enterprise faces.

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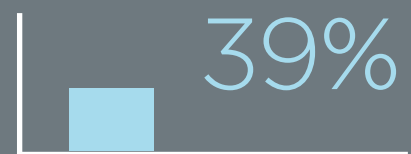
Understanding your existing infrastructure

The type of infrastructure your enterprise uses can have a significant impact on the convenience of a cloud implementation.

In particular, MPLS networks provided by BT are a popular choice for large enterprises. They deliver excellent performance and security, through a unique configuration.

However, this unique configuration can be a showstopper when it comes to implementing a cloud contact centre.

Understanding your existing security

With so much at stake, most large organisations have invested in substantial internet security. Often, this is built on the foundation of a firewall, which works as a 'door' to the internet by blocking unwanted traffic from going out of or in to the network.
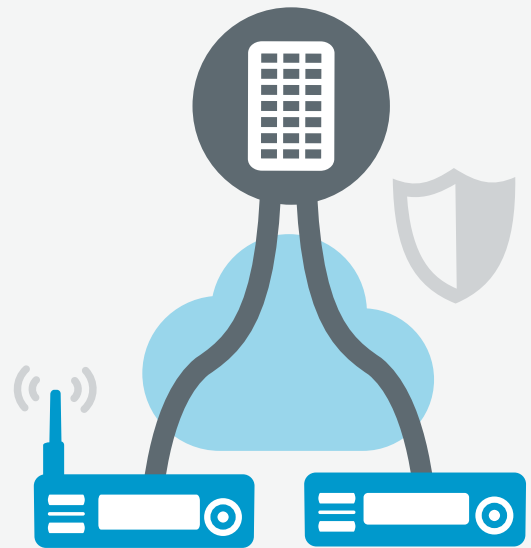
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This is usually achieved through port-based filtering, which blocks traffic from flowing through specific ports. For example, port 80 is usually used for internet browsing, and port 5060 is often used for voiceoverIP (VoIP). While most networks will leave port 80 open, 5060 is often blocked as standard.

To get VoIP working, ports need to be opened and port forwarding may need to be configured. But this isn't always as easy as it sounds.

In the best case, someone within the IT team would need to find time to make the changes. In some cases, a thirdparty may be responsible for making the change – a process that could take weeks to schedule.

Overcoming the obstacles to your cloud contact centre

While the adoption rate of cloud call centre services in large enterprises has been stifled by these technical challenges, that doesn't have to be the case.

There are several tried and tested methods for implementing a cloud call centre into even the biggest, most complicated networks – without compromising on security. And, best of all, they have little to no impact on network performance and IT support staff workloads.

Virtual Private Network (VPN)

A longestablished technology, a virtual private network (VPN) is dependable and secure.

In essence, a VPN is a virtual tunnel between two endpoints. For example, this could be the cloud contact centre server and the enterprise contact centre agent group. All of the relevant traffic (including SIP signalling and RTP) can be encrypted and sent through this 'tunnel', as opposed to working across several different ports.

As a result, enterprises only need to open a single port – which is already open on the majority of firewalls. To use a VPN, agents need to run a VPN client. This handles the process of connecting to the VPN, encrypting, decrypting, and transferring data. VPN clients come in two different forms:

⊕ **Software clients based on agent PCs:** these are usually installed by default (for example, Windows PPTP VPN) or freely available to download

⊕ **Hardware clients:** these remove the need for software clients, eliminating the IT requirement to deploy instances of the application

Agent Direct Inbound Dialling (DID) Numbers

Some cloud call centre services sign agents on by ringing their telephone number automatically after they log in via the web interface. While the telephone number the system calls is usually a VoIP extension, it can be configured to call the agent's direct inbound dialling (DID) number.

This routes the call – and subsequent call traffic – through the direct line, rather than VoIP. The network is bypassed altogether.

When you configure the cloud contact centre service to call the DID number, this does not involve the network infrastructure. As a result, there is no need to open ports or change settings, other than allowing a browser session (which is usually allowed by default).

However, this process does incur a cost, charged at a UK landline tariff. Of course, if enterprises select a bundled minute deal, this eliminates the cost of call time.

Firewall Traversal

Enterprises can avoid opening ports with standards based firewall traversal techniques. In simple terms, this method assesses your existing firewall configuration and uses the ports that make most sense for your organisation.

These techniques include STUN, TURN, and ICE, all of which can be used to allow VoIP calls to proceed without any changes to your enterprise network. The only requirement is often a small clientside application, which can be installed on agent PCs or network servers.

This application than works with your cloud service provider's server to establish which open ports can be used for VoIP traffic.

Alternative Approaches

The implementation methods described above are all relatively quick, convenient, and affordable. They make getting cloud contact centre and telephony services up and running a painless process that need not affect your network security (or require extensive technical expertise).

Of course, some enterprises would prefer to commit more resources to an implementation upfront. In those instances, you could try:

A dedicated internet connection

Effectively isolating your call traffic from the rest of your network can be an excellent way to minimise the impact of a potential security breach.

4G wireless

A wireless router could be used to handle call traffic for your agent group, delivering up to 100Mbps. However, while this is easy to implement, call quality may be affected by contention at the local mast.

Asterisk IAX

If your cloud call centre platforms supports the Asterisk IAX protocol, all your VoIP signalling and media traffic will flow through the same port (4569). While this port will need to be opened manually, the consolidated nature of the traffic makes it easier to manage and control longterm.

Conclusion

Enterprise concerns around cloud services are understandable. After all, unlocking the benefits of the cloud takes a completely new approach to data one that can be intimidating and feel like an unnecessary risk.

But the fact is that the benefits are huge. A cloud contact centre has the power to transform the way you do business and the outcome of your campaigns.

And, using the strategies outlined above, it need not transform your entire infrastructure.

Cloud Contact Centre Services from Hostcomm

With extensive experience working closely with enterprises of all sizes, Hostcomm is a specialist provider of cloud contact centre services. And, thanks to that experience and expertise, they can help you assess your existing infrastructure and plan your cloud implementation.

Hostcomm's cloud contact centre services include a comprehensive range of features across both inbound and outbound practices.

Features include:

- Call management, conferencing, recording, and routing

- Advanced business process automation to speed up your processes and reduce agent workloads

- Deep integration for customer relationship management (CRM) systems

- Multichannel contact centre with a unified queue to bring all your methods of communication together from calls to emails and SMS messages

- Hosted dialler functionality to automate your outbound campaigns

- Much more

All built on proven, compliant technology and hosted in Hostcomm's high availability, high resilience, and highly secure data centres.

Find out more

If you want to learn more about how you can improve service delivery with cloud contact centre services from Hostcomm please visit:

www.hostcomm.co.uk

Talk to us... we are here to help

If you have any questions or require further information, please get in touch:

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