



Global Routing and Contact Center Management

Modernizing the behavior of legacy systems for today's distributed, outsourced contact centers with the cloud and analytics

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Global call routing overcomes the restrictions of proprietary on-premises equipment located at multiple sites, giving businesses the flexibility to adapt to constantly changing demands, add multimedia, centrally manage distributed contact centers, and improve contact center performance without having to replace existing systems.

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Who Should Read This

This Whitepaper is for the business and IT management of multi-site contact centers with investments in legacy on-premise contact center technologies. It will particularly be of value to those dealing with distributed contact center environments (in-house, outsourced, or both) and those dealing with heterogeneous technologies at different locations.

Executive Summary

Contact centers and the business processes and technologies that support them have evolved dramatically since the first Automatic Call Distributor (ACD) was introduced by Rockwell Electronic Commerce Ltd in the early 1970s.

Most started as centrally-located call centers, relying primarily on person-to-person phone interactions with expensive on-premise telephony equipment and tightly integrated software. As technology evolved, new systems, also with tightly integrated hardware and software, were patched on to the existing infrastructure such as Voice Response Systems, Workforce Management, and Quality Management. With the advent of multimedia channels such as email, chat, SMS, social and now mobile, these infrastructures have become increasingly complex. According to a 2013 research study by Aberdeen Group, 60% of contact centers are using seven or more channels for customer interactions.

With the globalization of the workforce, mergers and acquisitions, and the cost-effective availability of agent outsourcers, contact centers now find themselves dealing with complex, contact system infrastructure in multiple locations, often with heterogeneous technologies. Integration between these systems is minimal if existent at all. This poses four key problems for contact center management:

- Inefficient and inflexible routing strategies that result in costly, high abandon rates
- Lack of visibility into the overall performance of the various sites and outsourcers
- Inconsistent user experience across sites and agents
- Infrastructure that is risky and expensive to replace

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This whitepaper explores the opportunity to easily modernize the behavior of these systems and address these problems without a full-scale replacement. Customer experiences and business outcomes can be maximized with cloud-based contact center software that creates a central queue in the cloud for all incoming interactions and then distributes them to a variety of systems, locations, and agents using analytics-based rules. This approach:

- Reduces risks
- Minimizes initial costs
- Maximizes business results
- Provides a consistent customer experience globally
- Delivers a compelling return on investment

The Challenges

Statically Load Balancing Calls Has Lost its Relevance

When contact centers started to become distributed, the concept of call load balancing was introduced. It was an effective technique to evenly route incoming calls to multiple queues at multiple sites. This kept the workload even across teams and sites and worked quite well when every site was centrally controlled. However, a number of different factors ranging from offshoring to outsourcing to home agents have complicated this originally simpler operating model.

With the new diverse workforce, working hours vary, skill levels vary, and the effectiveness and efficiency of accomplishing the same tasks vary. If centrally managed, load balancing sends the calls statically to the various queues, regardless of the agent proficiency, handling time, or the number of well-trained agents taking calls from that queue, this results in queues getting backed up and some callers experiencing longer wait times than others.

Another approach has been to assign different telephone numbers to different teams in different locations, but again, if the call load varies and the team performance varies, some queues will get backed up resulting in long wait times, while agents serving other queues may be sitting idle.

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Regardless of the cause, we know that wait times result in abandons, and a significant increase in wait times significantly increases abandons. Unfortunately, some of the abandoned calls may very well be from your most valuable customers, while those being handled quickly may be of lower value.



FIGURE 1
Static Load Balancing
creates uneven queues

The Need for a Global View of Performance

The distributed and outsourced work force adds another challenge today. If the sites have emerged as a result of merger and acquisition, they usually have their own infrastructure and applications. So, data regarding call volume, agent proficiency, service levels, and call outcomes are distributed in different systems, presenting a significant challenge in gaining a global view. This becomes even more complex when outsourcers use their own applications and have their own reporting methods and more complex again with multimedia. This makes it difficult to effectively manage the business of a contact center without a unified view into the performance of the various sites, agents and vendors.

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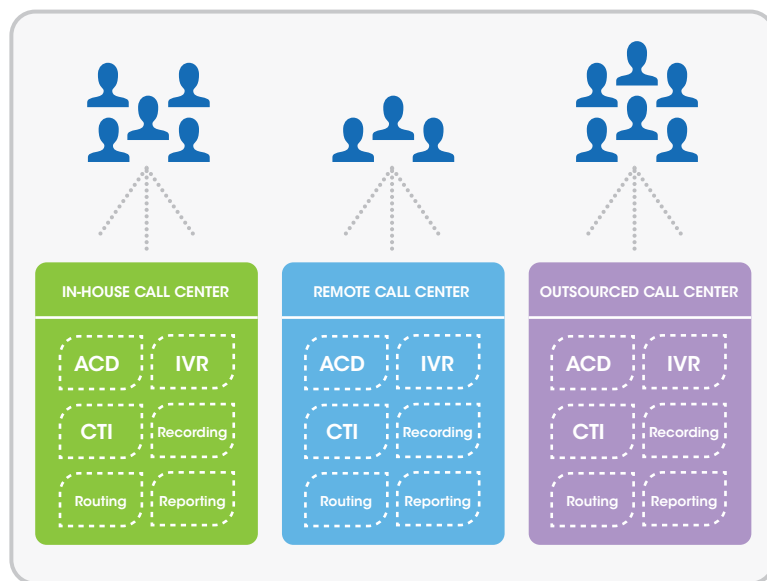


FIGURE 2
Redundant systems,
no global visibility

Contact Center Systems are Expensive and Difficult to Change

For many companies, their contact center is an integral, mission-critical component of their operations. It is their primary method of directly interacting with their customers, getting to know them and ultimately serving them. Call volumes are continuous and systems must be up and running without interruption during calling hours. Although they need their share of maintenance and care, many on-premise contact center systems have been installed for decades and have been running effectively with minimal downtime. They are the PBX boxes in the closet that don't let you down. This makes the thought of a wholesale rip and replace of infrastructure seem very daunting.

In addition, these systems were expensive. Significant capital investment went into purchasing these systems and significant resources are used to configure, install and maintain them. Allocating the budget required for a global, distributed replacement of these systems can appear to be dangerous to champion.

Light at the End of the Tunnel

Fortunately, many advances have been made over the past two decades regarding telephony, distributed systems, standard integration APIs and the decoupling of telephony hardware and software so that these challenges can be addressed in an effective, low risk and affordable way.

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Global Call Routing in the Cloud

Separate the Software Intelligence from the Telephony Hardware

With the advent of the internet, cloud computing and advances in voice technology, it is now possible to separate the software that routes the calls from the boxes that handle the calls. With this separation, calls can come into a central location and the software routes it to the various other systems and locations of the contact center based on rules that are more intelligent and effective than load balancing. This is called global call routing, and the technology required to add global call routing to an existing contact center infrastructure requires no on-premise footprint, capital outlay, or replacement of the existing boxes that are working. It is a subscription service in the cloud that integrates with existing on-premise systems. And, it can handle multimedia.

Global call routing overcomes the restrictions of proprietary on-premises equipment located at multiple sites, giving businesses the flexibility to adapt to constantly changing demands, add multimedia interactions, centrally manage distributed contact centers, and improve customer service and agent performance.

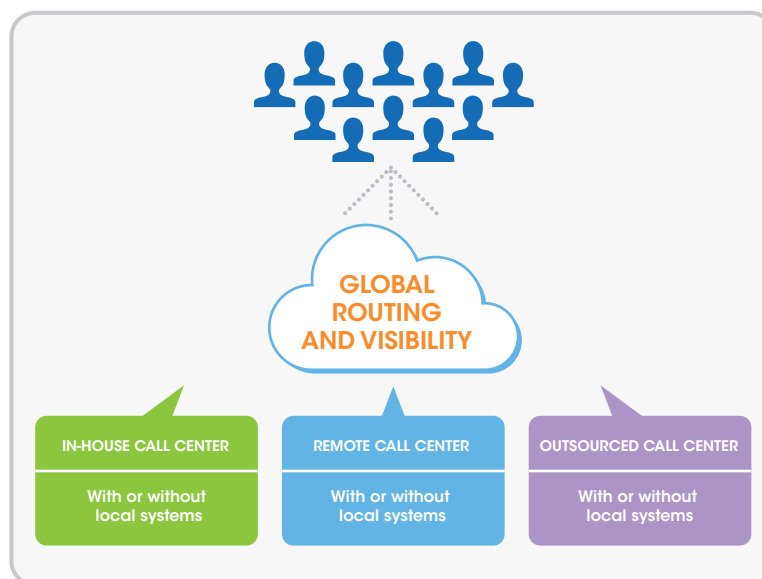


FIGURE 3

Moving contact center intelligence into the cloud

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Global call routing arms executives with the ability to centrally manage day-to-day operations across every location, maximize the performance of all agents regardless of their affiliation, and optimize the quality of service delivered to customers worldwide. And, with real-time information at their fingertips, those executives are now able to take rapid proactive or corrective action in response to business demands or unforeseen circumstances.

Receive and Dynamically Distribute Calls Globally

Global call routing allows calls from anywhere in the world to be queued for agents located anywhere by maintaining a centralized queue that intelligently distributes calls across dispersed contact center operations. Calls are queued centrally in the cloud and only routed to agents at the time they become available rather than being queued for each location based on predicted loads for each agent queue (See Figure 3). The customer experience is enhanced because callers wait in a single “line” and do not wait on hold longer than other callers.

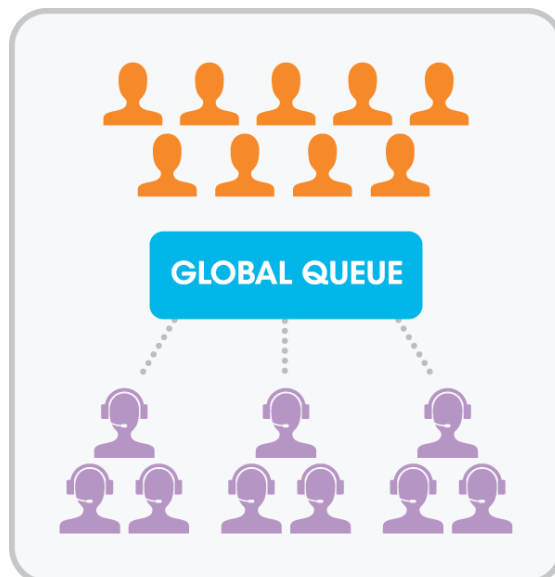


FIGURE 4

Global queue for balanced wait times

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Manage Calls from a Midpoint

This concept of a dynamic central queue is what we will call midpoint management. This contact center technology is hardware independent, using internet protocols, Voice over IP (VoIP), and other standards to work on a variety of commodity servers. It allows calls to be received from any originating network and distributed to any terminating network, regardless of network type or carrier or location. The midpoint knows which agents in which locations are logged in and available at any given time and extends each call to the agent appropriate for handling it. This midpoint is not constrained by traditional boundaries of organization, technology or location, and allows supervisors to view and manage the full life-cycle of every call. The midpoint reduces the need to back-haul voice traffic and greatly increases the visibility and control supervisors have over every incoming or outbound call. The midpoint also enables recording of calls centrally, regardless of the agent, site or outsourcer taking the call, and stores them in a cloud repository for long-term archival, replay, and analysis via a web-based interface.

When calls are queued centrally via global call routing, the caller experience is identical for each customer. Each customer can receive the same IVR prompts, the same IVR voice, the same hold times, the same call-routing rules, and the same call-transfer process regardless of their location or reason for calling. And, as call-routing rules change over time, they can be modified from one location in the network, allowing new business requirements to be met quickly and cost-effectively.

Analytics-based Multimedia Interaction Distribution

Now that calls are being centrally managed and routed with midpoint management, there is opportunity to incorporate multimedia and apply more intelligence to the routing before the interactions are delivered to the distributed locations or the on-premise systems. With the interaction distribution software being its own entity in the cloud, layered above the other contact center systems and independent of the on-site equipment, it can:

- Centrally apply standard routing rules
- Dynamically create and change rules using real-time analytics
- Route multimedia interactions
- Centrally manage and administer agent scripts

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Centrally Apply Standard Routing Rules

Regardless of where the agents are—on-premise, outsourced, at home, on-shore, or off-shore—supervisors can centrally change routing strategies to respond quickly to changing traffic conditions and performance. Some standard examples of this are:

- **Service-level routing** – Define maximum wait times and reroute calls to overflow agents and vendors when required
- **Skills-based routing** – Assign agents proficiency scores and sending calls to the agents and teams that best match their skills

Analytics-driven Rules for Dynamic Routing Strategies

As an independent software service, global routing systems can collect data from IVR, CRM and ACD systems, customer databases and public demographic sources, wherever they are located, and use that data to dynamically route interactions based on a variety of factors. The software might monitor the activity of the agents in real-time and note when they are having good and bad days, or profile customers based on a variety of factors so they get routed based on who they are or their customer status. This creates the opportunity to drive interaction distribution strategies based on real-time data. For example:

- **Performance routing** – match customers in real time with the agents that will drive the best business outcomes
- **Demographic and personality routing** – match customers with agents with which they will most likely have an affinity
- **Customer status routing** – route based on their current status, such as delinquent payment callers directly to collections, or those in an early customer phase to help services
- **Value-based routing** – route customer with high propensity to buy or higher lifetime value with priority to higher-skilled agents

Route Multimedia Interactions

In addition to voice (phone calls), global routing solutions can route multiple media types, such as email and chat. By centrally routing all interaction types through the midpoint, advanced routing rules can be created that allow for prioritization of different media types, as well as the ability to route interactions to specific agent resources based on their proficiency with a specific media type. If these

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specific agent resources are not available, the routing engine can look across the entire environment and find the next best available resource to handle that interaction type. This ability to integrate routing of interactions across media types delivers efficiencies that are not possible in the standard deployment model where voice and non-voice interactions are typically deployed in silos.

Centrally Manage and Administer Agent Scripts

In addition to ensuring interactions are delivered efficiently and to the best qualified agent, a global routing solution can be further enhanced by adding functionality at the agent desktop to guide the agent with regards to what should be communicated to the customer in order to provide the best customer experience. Distributed contact center environments today typically have to manage decentralized scripting systems at each location. This entails significant operational overhead in terms of moving, adding, and changing scripts across all locations, and ensuring that all systems have the current version of a given script. A cloud-based scripting solution integrated with a global routing platform provides contact centers the ability to centrally manage and administer agent scripts. This approach provides a “create once and publish everywhere” model that significantly reduces management costs and overhead while improving customer experience through consistent treatment of customers regardless of which agent is handling the interaction.

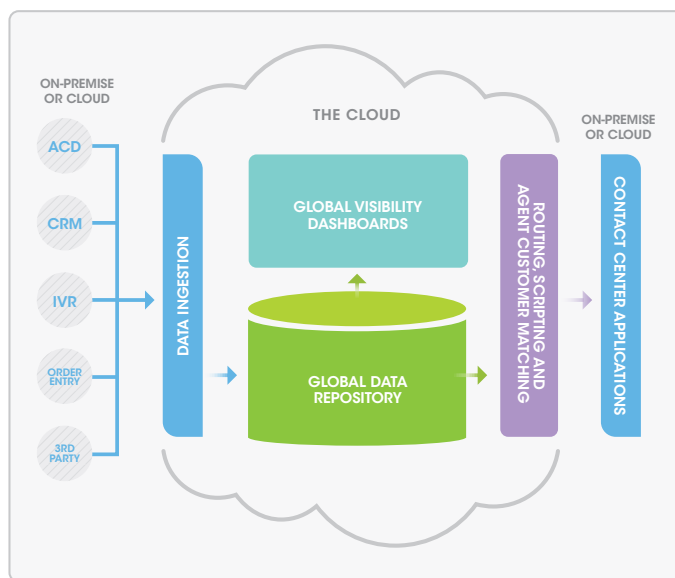


FIGURE 5

Analytics-driven routing and contact center management from the cloud

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Gain Global Visibility

Global interaction routing can help you regain control of your contact center by offering centralized real-time operational reporting and monitoring to give you a birds-eye view of agent, team and contact center performance. With real-time operational information you can quickly take proactive or corrective actions in response to changing business demands or unforeseen circumstances. Implementing A/B testing to optimize call flows and improve overall customer satisfaction becomes much easier. This global visibility can be accomplished in two ways, extending global interaction routing technology from the cloud to all locations or integrating it with on-premise systems.

Integrate Data from On-premise Contact Center Systems with Global Routing

As an overlay solution routing calls to various on-site systems, global interaction routing can also act as the data collection hub for the various contact center systems. Through a variety of standard cloud APIs, CTI and published APIs, data can be collected from the IVR, ACD and CRM systems installed on-premise within the company and at the various outsourcer sites to bring the distributed contact center data into a central repository.

With a central repository, global interaction routing can:

- Extract performance data and present it in real-time to business, operations, and IT managers
- Eliminate the need to understand and convert metrics from each site
- Provide visual dashboards with a view of key performance indicators and service levels across all contact center operations
- Deliver global operational performance reports across sites on scheduled based
- Provide interactive analytics to find new insights about the contact center and vendors that can be used to further improve performance

With such capabilities global multi-site contact centers can be managed in a unified method that:

- Flags technical problems impeding service delivery
- Determines if staffing levels are adequate for that sudden jump in call volume
- Scores how each outsourcer is performing
- Identifies whether a campaign that was just launched is meeting expectations

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Extend Global Routing to all Locations, Agents, and Vendors

As a service in the cloud, communicating through internet protocols, global routing can extend directly to teams and agents throughout the world regardless of their location and without any special hardware installed locally. This puts all the agents and vendors on one system that delivers and monitors their calls as well as gathers the detailed activity data for each agent. All they need locally is internet access and a phone.

No Additional Hardware or Capital Outlay Required

Global routing and management solutions are based on cloud computing—either public or private. This is a software as a service (SaaS) model with zero technology footprint, which means that the infrastructure and applications required to route calls are delivered as a service. There are no upfront equipment or software costs for each of your contact center locations. Instead, you subscribe to a service that allows you to scale your use of the service up and down based on demand. Agents need only a browser and an Internet connection.

The applications in the cloud are separated from voice technology which gives enterprises the flexibility to choose the voice telephony and transport networks that best meet their business needs. This provides significant benefits in terms of vendor choice, reduction in costs, and operational agility.

With the use of open standards (SIP, XML, MSCML/MSML, VoiceXML, HTTP) and off-the-shelf network components (media gateways, media servers, session border controllers), the software integrates easily with traditional contact center technologies and leverages existing telephony and IP carrier networks already in place.

On-demand computer telephony integration (CTI) and screen pop can be provided virtually without requiring the installation and maintenance of expensive CTI servers at every location with links to one another.

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Summary

Adding cloud-based global call routing and management to your existing on-premise infrastructure has many benefits, including lower costs, simplified management of your operations, and a centralized view of your contact center's performance. Global call routing in the cloud can solve many of the challenges introduced by multisource, distributed contact centers.

- **A Centralized, Global Queue** reduces abandons and gives all customers a consistent user experience globally.
- **Analytics-based Multimedia Routing** creates the opportunity to proactively route customers across all media types in such a way that matches agents and customers and maximizes business outcomes.
- **Global Visibility** is provided by providing a unified view into all contact center sites, teams and vendors and can extend to gathering information from on-premise systems for an even deeper view.
- **Augmenting Existing Systems with Value-add Software as a Service (SaaS) Capabilities** reduces upfront costs and risks since you only pay as you use the application.

With global routing and management, some innovative contact centers have significantly reduced agent costs by better utilizing the agent pool at each location. Sales-oriented centers have increased sales by reducing overall hold times and cutting the number of abandoned calls by up to 50%, especially in peak periods. Finally, it gives contact center managers real-time visibility into call traffic and global call delivery, making it easier to exceed service-level objectives.

To learn more about how global routing can give you global management and control of your contact centers, visit www.transerainc.com or email grccm@transerainc.com.