

THE BUSINESS CASE FOR DESKTOP INTEGRATION

A Practical Solution with a Rapid ROI



A Frost & Sullivan White Paper

EXECUTIVE SUMMARY

The mission of a contact center is to provide excellent service at a reasonable cost, but the tangle of applications on the agent desktop makes that a challenging task. Instead, the profusion of applications vying for agent attention creates a *productivity choke point* that compromises the center's ability to deliver an outstanding customer experience at a reasonable cost.

Solving this problem requires a coordinated effort to unify the applications and share data among them, ultimately improving productivity, reducing errors, and streamlining processes.

This paper describes the relationship between desktop integration and customer experience, the business benefits of building a logically integrated structure, and the best architecture for achieving the maximum benefits. Two successful implementations demonstrate how desktop application integration produces measurable results: one reduced Average Handle Time by 30 seconds per call, and the other reduced expenses for internal infrastructure.

THE PRODUCTIVITY CHOKe POINT

Agents operate amid a myriad of tools. Each tool may be critical to the customer interaction but often they create information silos that hinder the overall interaction. This hindrance can be expressed from a variety of viewpoints using different metrics: sub-par customer satisfaction or above-average churn; high agent turnover driving high training costs; low up-sell conversion rates resulting in reduced revenue potential, and high software maintenance and integration costs. Wherever you sit in the organization, the agent desktop application environment can be more than a pain point; it becomes a *productivity choke point*. This choke point can occur at the point of contact – the most important customer-facing point of any organization.

Every day most contact center agents face desktops that do not reflect best practices and streamlined workflows. Rather, they reveal the ad hoc nature of multiple applications that have accumulated over time. The desktops are rarely, if ever, harnessed to amplify the agent's effectiveness. Instead, they often work independently and compete for agent attention. The result is largely a negative customer experience that impacts customer loyalty, retention, and overall profitability.

In addition, the proliferation of complex applications that tie together the contact center and the back office provide the underpinnings for profit-making up-sell or cross-sell opportunities that can become part of a call. However, the way those applications are traditionally deployed, and the poor connectivity between them hinders overall efficiency.

Eliminating barriers to providing quality service requires a coordinated effort to unify the applications and share data among them, ultimately improving productivity, reducing errors, and streamlining processes.

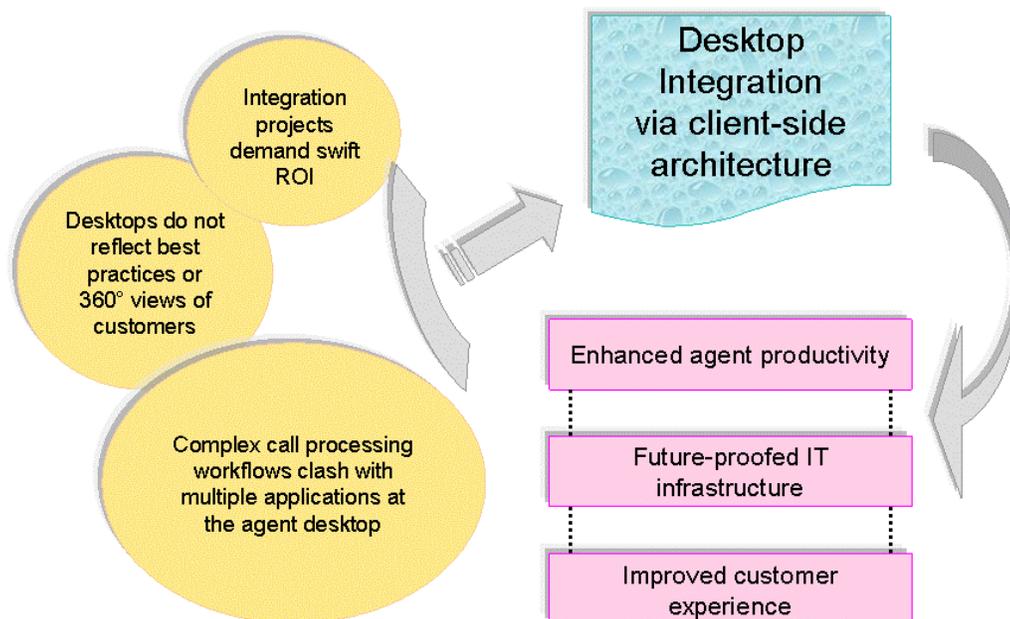
Every day most contact center agents face desktops that do not reflect best practices and streamlined workflows. Rather, they reveal the ad hoc nature of multiple applications that have accumulated over time.

What contact centers need is a way to provide more information to the agent without adding additional applications or screens to access. The goal is to create a new level of customer experience by tailoring the interaction and anticipating the customer's need. Only with the most recent iteration of desktop integration tools are we able to meaningfully achieve this goal.

WHAT IS DESKTOP INTEGRATION?

Desktop integration is a technique of combining various applications in a manner that is seamless and non-invasive. Systems that can be incorporated range from the standard contact center telephony applications to legacy Windows, 3270 and custom in-house developed systems, as well as more current Java or browser-based applications. Many companies are also looking for an integration to combine applications that may be running in a completely different (but just as important) environment such as a Citrix remote application.

The Rationale for Desktop Integration



The agent desktop is the key customer-facing entity in any company. Integrating its applications is essential to ensuring agent productivity and customer satisfaction. The bottlenecks and barriers to productivity (left side of diagram) can be ameliorated through client-side desktop integration delivering significant benefits.

The possible permutations of available applications to work with are immense, and the challenges of putting them all together are great. The role of the integration is to put those applications together into a framework that helps the managers of the contact center automate the agent's activity. This framework highlights the pathway through those

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applications in a way that minimizes the amount of wasted time during each interaction. Other tasks like training and error control are also streamlined.

Many different solutions to this problem have been tried. Years ago, the development of CRM itself was a precursor to dealing with the problem of how to store and display customer information from different databases for the agent's use in real time. Computer-Telephony Integration (CTI) and screen pop were other manifestations of the issue: a telephony switch and a computer network join together at a single point (the agent's screen) to provide information from separate domains in a way that would smooth the transaction. More recently, integration technologies have been trying to wed the various applications more seamlessly and non-invasively.

There are several different ways to attempt integration. The most common is to build a custom connection between separate applications. Essentially, this scenario involves taking two applications and trying to construct an integration between them, creating a third application as a bridge. This is usually done by either internal developers or through specialists of one of the two software applications in question. It is an expensive process, extremely time-consuming, and creates complications when retiring or upgrading applications included in the customization. More importantly, it will not address the underlying complexities or solve the multifaceted problems.

Faced with a series of incremental one-off integrations, the logical next step is to try to untangle the entire application mess by going to a dedicated technology integrator. There are two main strategies to holistically integrating the desktop: client-side integration and server-side integration.

Server-side integration, as the name implies, involves deploying an application server that runs a series of interconnections, including a combination of APIs, Web Services, custom coding, and other Enterprise Application Integration (EAI) solutions. A software middle-layer is introduced into the network that handles the communications between the applications, and pushes forward something akin to a composite application or portal for the end user to view them all together on one screen. A new front-end and middle-tier layer is created, pushing the core applications into a behind-the-scenes role where they are managed by IT, rather than directly accessed by agents.

This approach introduces a set of complications of its own. Most critically, it requires a huge investment in code writing to deploy, and intensive maintenance as each component application evolves and upgrades. Bringing a server-side deployment of any significant size online can take months to years, and requires a deep commitment from the IT resource base to go forward. Adding a layer of middleware into the technology mix introduces the need for additional bandwidth, servers, and other infrastructure to allow it to function properly and to scale across a contact center-sized user group.

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At the agent level, a new “application,” such as a portal that provides entree into the integrated whole, is also introduced. Training and ramp-up time are a necessary part of the investment equation when considering deployment. All of this is in service to *streamlining* the process and making it *more efficient and effective*.

While there are several methods of accomplishing this goal, the most effective is a method developed by Cicero, which loosely couples systems without touching the code of the applications themselves. In a working desktop integration scenario the applications that an agent uses is organized around a flexible and intuitive workspace with data flowing between the applications in a manner that is invisible to the user. More importantly, desktop integration streamlines workflow by eliminating unneeded steps in processes and procedures. For example, a Cicero integration can eliminate the need for an agent to re-login after an application times out. It could also verify a caller’s available credit before ordering a new product.

Cicero’s approach is called client-side integration, using a Service-Oriented Architecture. In this model, designers exploit the interactions between the applications and the platforms on which they run without forcing the developers to replace existing applications or modify the code base in any way. (Client-side architecture also eliminates the need for code changes and/or bandwidth issues on network servers. Nothing needs to run on the server; no additional hardware or network bandwidth are required.)

The integration designer creates a logical model or map of each application’s elements (entry fields, buttons, etc.), and the events that trigger the application (such as mouse clicks). It does not matter what the code base of the application consists of because you are working with the application’s desktop interface (user interface, Web Services, etc.). This lets you use the Cicero workflow you have created to build a description of *business processes* that an agent will confront plugging in the application objects as they become relevant (and eliminating them when they are no longer needed).

From an integrator perspective, this allows for a task-oriented approach that dramatically speeds the creation and deployment of inter-application connections. At the client side, a runtime application listens for events between the applications and the operating system and inserts the integration logic between the application objects (within a single application and across multiple applications) creating the integrated desktop. This is more akin to mediation between applications than outright integration, which is desirable because it has a lighter footprint. There is no need to replace the user interface, and no need to write code because it leverages a “composite desktop” that includes the existing agent user interface. Organizations do not have to put time or money into writing new code for an interface.

The applications are not just linked under the hood. There are two techniques used to meld applications: *pass-through* integration, and *overlay* integration. Pass-through presents

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the user with a more logically organized visual environment, displaying applications in their native user interface. The overlay integration technique involves creating a composite application on top of existing applications. Cicero's integrations are done via either or both (hybrid) of these techniques depending on the contact center's specific requirements. The toolkit used to create the integrations, Cicero Studio, supports both.

One important advantage to the approach Cicero takes is that it incorporates Web Services as part of a Service-Oriented Architecture. SOA is a technique that allows applications to share data in a loose integration. Cicero's integration allows legacy applications to loosely connect through its SOA interface without a change to the core systems. These systems can then become full participants in the modern world of loosely coupled, distributed service providers and consumers.

Another key advantage to the client-side integration is that it dramatically shortens development and delivery cycles. Integration components are reusable from one application to another through the Cicero Studio integration toolkit, which includes a set of wizards that greatly simplify the task of application integration. The Studio toolkit is used to graphically describe the integration in terms of high-level integration objects and its user-friendly interface requires no programming.

THE BUSINESS BENEFITS OF DESKTOP INTEGRATION

From a business point of view, there are clear ways to justify the investment in time and money needed to integrate the desktop environment. The main benefit comes in the form of improved overall productivity metrics, especially those that directly measure how quickly an agent performs basic tasks. The labor pool in a contact center typically consumes as much as 75-80% of ongoing expenses through salaries, benefits, and training costs. Additionally, the costs of recruiting and re-hiring in a high turnover environment are substantial. A fully integrated desktop reduces the number of steps agents take to perform transactions. It allows you to build streamlined processes for routine interactions, and gives agents quick access to better information during non-routine interactions. Improvements gained by making the labor pool even slightly more efficient are magnified to great effect: shaved seconds quickly translate into man-hours and man-days.

The advantage of integrating using a client-side architecture is that it has a drastically shorter implementation time than server-side integrations. Implementations of five to eight weeks are not unusual, leading to potential ROI payback periods as short as two to three months.

The hard dollar savings are significant, but beyond them are some other potentially transformative benefits that cascade through the organization. Relieving the pain point that exists at the agent desktop means relieving pressure in several other areas. For example, the organization's IT infrastructure saves time and money by preserving existing

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applications and not re-coding them to adapt to a new desktop environment. IT doesn't have to rip and replace, invest in new technologies, or pay for the support and training for that new technology. The organization gets greater value out of the applications it already owns for longer periods of time.

Desktop integration is a way of future-proofing the existing infrastructure in two ways. First, the investment in existing applications is leveraged or extended. The applications are not prematurely rendered obsolete based on false criteria created by an unnecessarily complex desktop environment. Secondly, the extensibility of the underlying unified platform means that neither IT nor business leadership has to forego new technologies or applications as they become available because they can be seamlessly incorporated at any time. The integration model supports the continual evolution of the mix of applications that agents use.

Another benefit stems from the aggregation of the data held by the underlying applications themselves. When applications and services are tied together, they become available to business decision-makers through complex analytics systems. Leading-edge companies are beginning to see that having sophisticated data shared with their applications can give decision-makers a fresh understanding of the processes that impact how agents work and what their customers experience.

Cicero's approach to desktop integration lets you identify the difference between problems that are caused by flawed application workflows and those that are caused by human error. Once you identify them, you can focus your resources to allay problems where they exist, therefore yielding results more quickly. When you improve the agent experience by making the agents more productive, you create a productive feedback loop where best practices are reinforced, turnover is reduced, and expenditures for training, coaching, and recruitment become more manageable. As that happens, the feedback allows you to better allocate the saved resources, improving productivity even more. The key to beginning the integration is attacking the problem where information and processes get tangled — at the agent's desk.

CASE STUDIES: INTEGRATION IN ACTION

N.E.W. Customer Services Companies is one of many firms that have benefited from integrating their desktop applications. N.E.W. is a Virginia-based third-party administrator of extended service plans, buyer protection services, and product support programs. The company runs five contact centers in the U.S.

Since N.E.W. typically provides 24x7 outsourced call center services for several large customers in the retail, manufacturing, financial, and utility sectors, business applications running on multiple platforms were not readily accessible. This meant that any sort of application integration that required modification to the business applications would be nearly impossible. What was needed was a non-invasive, flexible, and scalable integration approach that would deliver quick results.

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N.E.W. focused on significantly reducing Average Handle Time (AHT) for a specified group of Technical and Customer Service Representatives (TCSRs) in four centers. These 850 TCSRs supported an industry-leading communications and entertainment company.

N.E.W.'s analysis determined that they could realize savings amounting to thousands of dollars per year for every second AHT was reduced. When the Cicero application integration technology was introduced, a cost-benefit calculation determined that an acceptable return on investment would require an 18-second reduction in AHT.

It took just three days for the Cicero team to perform a comprehensive analysis of the technical platforms and functional use of the business applications and processes in the N.E.W. call centers. The team developed a findings report that detailed where efficiencies and related savings could be achieved, and built a conceptual design illustrating the integration approach.

The goal was to develop and deliver an integrated workstation that would:

- Reduce AHT by 18 seconds or more
- Minimize disruption to the call center agents
- Require minimal training
- Increase agent satisfaction
- Meet an aggressive project schedule and
- Ensure a successful ROI

N.E.W. needed the solution to be deployed and in production within seven weeks. And in that compressed timeframe, the Cicero team was able to train N.E.W. personnel to use the Cicero integration environment, Cicero Studio. They also developed an integrated workstation and assisted with the development of internal training materials. The project was delivered on time and on budget with a core team of five N.E.W. and Cicero integration specialists.

The Cicero deployment exceeded N.E.W.'s expectations. AHT was reduced by at least 30 seconds per call, and in some cases by as much as 40 seconds per call. The newly developed composite desktop significantly reduced data entry and simplified application navigation, yet it required less than two hours of agent training. N.E.W. realized overall savings in the high six figures with an ROI in less than six months.

Another precedent comes from Nationwide Financial, a major American insurance and investment firm. Before implementing Cicero's application integration system, Nationwide's CSRs had to manually navigate between up to 25-30 different applications, frequently having to re-key data between systems. Detailed training was required on all of the different applications to be able to navigate them. Doug Stafford, Associate Vice President, IT Applications of Nationwide Financial says that with Cicero, the CSRs use a

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central, integrated dashboard to navigate between applications, with key information (like customer and policy numbers) passed automatically between applications.

Nationwide built a business case for this turnaround project based on improving CSR productivity (measured through reduced call times) and on CSR job satisfaction, reduction in training, and improved advisor and customer satisfaction.

A key consideration that led to the selection of Cicero was that it could overlay the existing applications with Cicero's framework. "With Cicero, we were not required to completely redesign our GUI for each application. This also reduced our expense for internal infrastructure requirements since we didn't have to emulate our applications behind the scenes," says Stafford.

THE TAKE-AWAY: IMMEDIATE RESULTS

The agent desktop is a productivity choke point that can have a decisively negative impact on the customer experience and agent efficiency. The problem *can* be fixed, and the best way to do that is through a light application integration that does not interfere with the code bases of the target applications.

What the N.E.W. and Nationwide examples illustrate is twofold. First, the process itself does not have to be lengthy or expensive; Cicero's model of desktop integration is fast and flexible. Second, the benefits are solid and predictable, measurable by concrete metrics, and reflect substantial savings in productivity.

The typical deployment of a desktop integration project — from beginning to end — can be achieved in as little as five to eight weeks, with a payback period measured in as few as two to three months.

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