Multi-Tenant Architecture:

Delivering Rapid Deployment, Infrastructure Flexibility, and Cost-Effective Solutions

WHITE PAPER

Cincom In-depth Analysis and Review

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Introduction

In today's economy, traditional business models endure a variety of stresses. Businesses are forced to focus on core competencies and key value-added processes. Consequently, there is a clear trend of outsourcing activities to third parties as long as it proves to be more efficient and effective. Contact center providers (CCPs) foresee strong demand for their sales, marketing, and customer service offerings. But, just as today's economy creates competitive stress for the outsourcing or "client" firms, this pressure is also intensifying for contact center providers.

Several barriers prevent development of effective outsourcing relationships between the client firms and the CCP. From the client's perspective, a strategic transition to outsourcing is unacceptable until rapid deployment, clear cost savings, and superior customer service levels are assured. From the CCPs perspective, it is difficult to meet client demands while maintaining adequate profit margins.

Cincom's Synchrony enables contact center providers to implement multiple client programs and scale existing operations from a single database and application instance, while meeting the unique data and communication channel needs of each client.

Contact center providers face increased service commoditization due to intense price pressures and limited operational cost-reduction opportunities. The potential does exist to capitalize on higher margins through specialized contact center services such as, outbound predictive dialing, web-enabled customer service and integrated business process support (e.g., customer service for fulfillment/billing). Constructing and delivering these specialized service offerings is difficult. Extending such services to midsized and small market accounts has traditionally proven infeasible. This scenario demonstrates outsource providers' urgency to find solutions that help them meet client expectations while dramatically improving efficiency and profitability.

Cincom's unique Synchrony solution helps contact center providers manage growing client bases and growth within existing accounts. Synchrony's architecture enables contact center providers to implement multiple client solutions and scale existing operations from a single database and application instance, while meeting the unique data and communication channel needs of each client. Synchrony's patented unique capability, referred to as "multi-tenancy," is formally defined as:

A solution design allowing the hosting of multiple clients on a single application and database instance while leveraging a web-based architecture for rapid deployment, customized functionality, and improved scalability.

This paper explains how Synchrony's software leverages multi-tenancy to produce tangible business results for contact center providers who serve multiple clients from a central office. Throughout this document, Synchrony's innovative multi-tenant solution is compared and contrasted with traditional solutions in two ways: (1) the technical architecture approach and design, and (2) the business impact across the client life cycle.

Comparison of Technical Architecture Approach and Design

Traditional Architecture Approach and Design

The traditional approach to designing and implementing a contact center solution for a group of clients involves several procedures that are repeated for every client. The activities include:

- Procure and install hardware into data center

- Configure hardware to meet new client data and communications needs

- Procure needed software applications for sales, service, contact management, knowledge management, CTI, etc.

- Configure software applications based on each client's individual needs

- Integrate software applications with existing infrastructure

- Maintain client-specific infrastructure

These activities are necessary because each client has different software requirements and varied hardware needs. The CCP must master multiple hardware technologies and establish a new server cluster for every client. Configuring software to meet specific client needs requires installing multiple application instances and often involves intensive programming.

Traditional Technical Architecture

Fragmented Customer Views

Figure 1 depicts the outcome of deploying a traditional solution for several clients in a contact center provider's technical infrastructure.

Companies A, B, and C are clients of a CCP who provides inbound and outbound front-office staffing services, and hosting and application management. Each client requires industry-specific services. Application requirements also vary, as one requires only offline telephony services and the others need hybrid, web-telephony services. Customization, data security, and data integrity are critical requirements for all of them. The CCP is required to implement and manage dedicated hardware and software for each client, and in many cases, for individual client programs.

Obviously, starting from scratch for every client implementation does not help the clients or the CCP achieve their business objectives. The clients want a minimum cost per interaction. The CCP wants manageable implementations without hidden costs. The CCP attempts to identify all costs before quoting the setup and delivery. Any unexpected costs must be either absorbed or passed to the new client.

Synchrony's Multi-Tenant Architecture Approach and Design

Synchrony's next-generation, multi-tenant solution takes a completely different approach to designing and implementing the architectural infrastructure. It follows a simplified process:

1. Install hardware and Synchrony's multi-tenant software in a data center.

2. Configure a dedicated client program for the customer by leveraging the single application and database instance.

3. Maintain a simplified infrastructure across client accounts without compromising client data or application security.
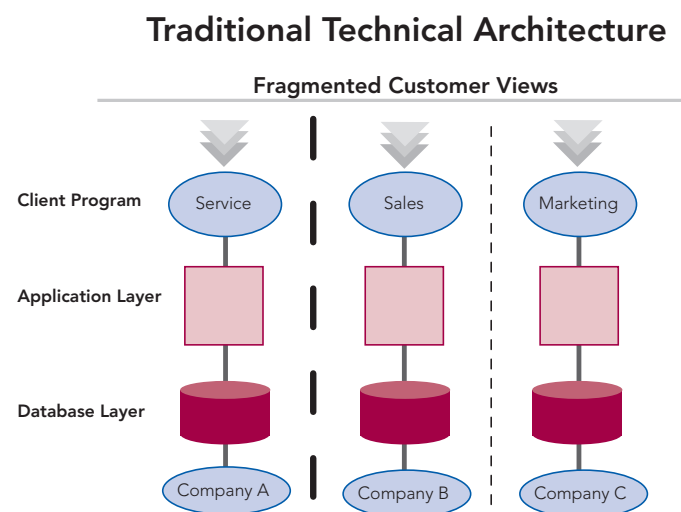
In contrast to traditional solutions, Synchrony's internet application framework functions as a next-generation, interaction-management overlay for legacy applications and business-process integration. Telephony, hardware, and software are pre-integrated to support inbound, outbound, and blended interactions through the application layer. The CCP's only task is to apply template-driven configuration components such as CTI, knowledge management, queuing and routing/workflows, e-mail, chat, analog and digital phone, and fax communication tools.

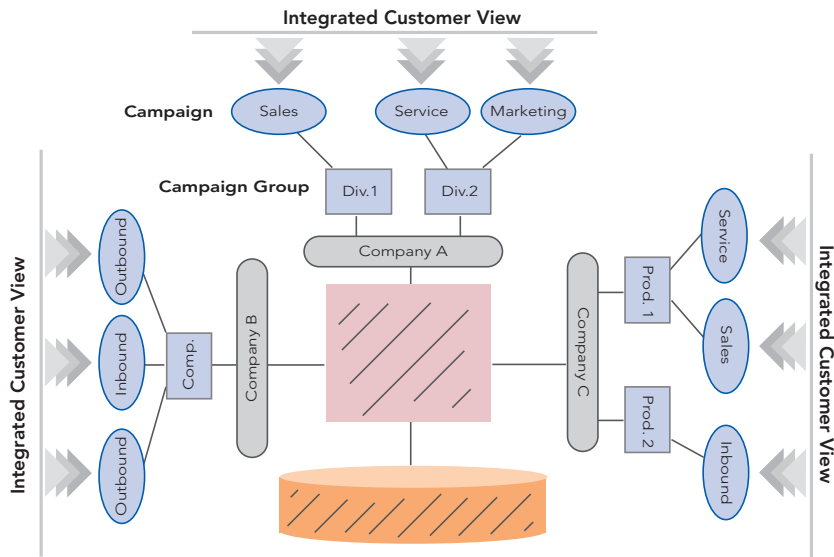# Synchrony Multi-Tenant Architecture

Figure 2: Synchrony Multi-Tenant Architecture

The example shown in Figure 2 depicts the inherent strength of a multi-tenant solution in a CCP environment. From a central office, the CCP handles contact center business operations and communications for clients A, B, and C. With the multi-tenant architecture, the company is able to operate and manage a single database and application instance for many clients. This leads to a variety of business benefits affecting the CCP's technical operations and client solution performance. The contact center can scale operations by adding new clients without incurring traditional labor-intensive infrastructure, configurations, and implementation costs. The contact center can more effectively utilize technical personnel by leveraging existing systems and code when setting up and managing client operations. Software updates, script changes, routing definitions, workflow rules, fulfillment packages, list groups, and content management for client programs, using the internet and traditional call center functions, can be centrally managed. Multi-tenancy also enables unified business intelligence to create an integrated view of client activity across inbound and outbound campaigns – for measuring ROI and optimizing resource allocation. Perhaps most importantly, multi-tenancy enables the contact center to offer integrated services to their clients so they can obtain an integrated view of all company activity.

Business Impact Across the Client Life Cycle
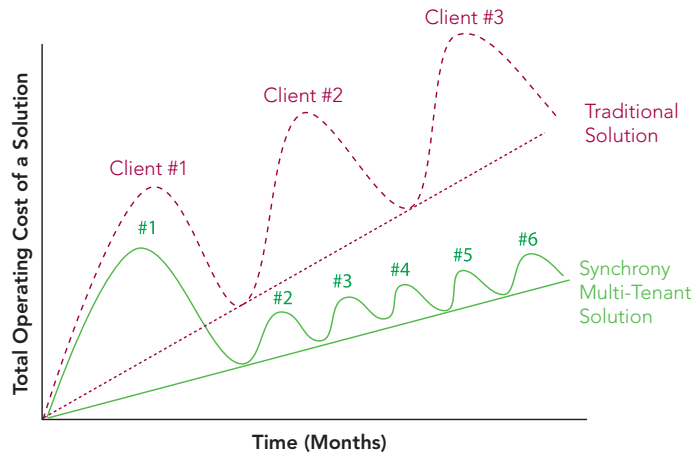
Multi-Tenant vs. Traditional Architectures

Figure 3: Multi-Tenant vs. Traditional Architectures

Service providers utilizing a multi-tenant solution can drastically reduce their cost-to-scalability ratio by fully leveraging existing hardware and software configurations to create new client campaigns.

Synchrony's multi-tenant architecture provides benefits during the first client implementation and subsequent client implementations. Figure 3 highlights these benefits. The x-axis represents time in months and the y-axis represents total operational costs incurred in a given month. The first client implementation causes the CCP to incur standard software and hardware implementation costs. Costs for the Synchrony solution peak at a lower point on the first implementation than competitive solutions due to superior communication channel integration, knowledge authoring tools, and pre-configured extensibility options to existing data and systems. Synchrony's web-based solution also allows immediate deployment to agent desktops. Agents are more easily and quickly trained because a common clickstream is used for handling interactions across any communication channel.

The red (top) line in Figure 3 signifies the cost involved in trying to scale traditional hardware and software implementations to meet multiple clients' needs. This entails repeating the entire process of establishing, configuring, and integrating separate hardware and software instances. In contrast, the green (bottom) line in Figure 3 depicts the cost a CCP would incur in scaling a single instance of Synchrony's multi-tenant solution. Because hardware and software components are fully leveraged and "recycled" during new implementations, configuration and integration are minimized.

In Figure 3, the slope of the traditional solution line is steeper than the slope of the Synchrony solution line. This shows that ongoing management and control of several Synchrony implementations are lower than multiple implementations of disparate CRM point solutions. Disparate technology support and maintenance is an unknown resource drain for a client's internal IT operations. CCPs clearly understand these costs. There is a constant need for dedicated resources including hardware and network monitoring support, and application-specific help-desk services.

Synchrony's multi-tenant solution's business benefits are obvious. Rapid implementations allow for more implementations with fewer IT resources. Software maintenance, support, and updates as well as infrastructure systems and network monitoring are centrally administered. Implementation of traditional CRM solutions in a CCP environment is too slow and costly to justify their use for small or short-term contracts. Whereas the Synchrony solution fundamentally lets the contact center consider these opportunities. For some new clients, if a CCP successfully completes a small campaign, they are more willing to outsource larger contracts.

The traditional CRM software solution's design forces the CCP IT staff to focus on low, value-added activities such as hardware installations and maintenance of multiple implementations. This task redundancy and focus on non-critical, maintenance-intensive tasks such as testing, data administration, systems integration, and system support generates significant support and maintenance costs. Synchrony's solution allows the IT groups to focus on strategy, design, and business development activities. This allows a re-orientation of effort toward creating higher, value-added services such as deeper integration with client business processes.

Conclusion

When compared to traditional software applications, Synchrony's multi-tenant solution presents CCPs with a compelling business case for creating and sustaining competitive advantage. Multi-tenancy gives CCPs the unparalleled ability to meet growing client demands while cost-effectively scaling technical operations. It allows them to enter new integrated service markets and bolster services to existing clients. It also provides centralized management control and independence in deploying and managing technical operations across campaigns. Ultimately, the efficiencies in process and technology created by multi-tenancy allow market orientation of CCP employee efforts and business development activity. In today's competitive outsourcing market, building the technical foundation around multi-tenant capabilities can mean the difference between success and failure in today's economy.