

## Multi-tenancy 2.0: Service Provider Innovation and Customizing the Client Experience

By Brett Norgaard

*Multi-tenant service desks and their supporting applications have traditionally centered on keeping client or tenant data segregated and delivering cookie-cutter customer experiences. But evolving client expectations for uniquely tailored services and service innovation, and the challenge of differentiation in the mature outsourced IT services industry, are requiring service providers to take a second look at their business models. For many service providers, the next wave of Multi-tenancy—Multi-tenancy 2.0—requires a configurable client-centric approach.*

### Multi-tenancy 1.0

Multi-tenancy has long been the model of the outsourcing industry. Multi-tenancy is usually defined as using a single instance of an application to service multiple client organizations (or tenants) over a single, shared infrastructure. The value of this approach increased when service providers discovered that comprehensive IT service management platforms (such as BMC Remedy™) could be re-architected to serve multiple clients if customer data could be kept segmented and secure. The same service—help desk, desktop management, IT asset management or other IT service—could be pushed out to multiple clients. Clients enjoyed all of the benefits typically associated with outsourcing: cost-savings, efficiency and the ability to focus resources on core business competencies rather than on IT. Outsourcers benefited from the ability to easily scale up to serve multiple clients without needing to purchase and support multiple instances of the same software. The model served outsourcers well for many years.

The preceding description might be called Multi-tenancy 1.0. In Multi-tenancy 1.0, all clients shared all tiers of a service platform, including the client interface or presentation layer, the workflow layer, and the underlying database. This means the customer experience is virtually the same for all clients. While each client's data is unique and kept separate, the ways in which they interact with the service are limited to prebuilt functions.

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In the case of a service desk, most end users report problems in the same way (over the phone to an agent), share the same problem resolution techniques, and get the same reports. If a client wants something different, the differences must be programmed, resulting in changes to the single instance of the service desk application. This requires an expensive software development process, which inevitably creates the risk of introducing unintended consequences for clients who share the same applications, as well as an unwieldy mass of “spaghetti code” that complicates upgrades to newer software versions. For this reason, service providers have preferred to take a cookie-cutter approach to the way their services are delivered and experienced by clients, and most clients have accepted this.

But three trends are making Multi-tenancy 1.0 obsolete. The first is the pressure to innovate. The outsourcing market is reasonably mature. While new players continue to enter the market, familiar faces often compete for the same business. This has placed more pressure on service providers to innovate and to demonstrate to clients that they understand their unique business requirements and offer the capacity for value-added solutions delivery. Indeed, industry analysts at Gartner Inc., Forrester Research and others have noted an emerging trend in outsourcing delivery: innovation is included as a deliverable in an increasing number of deals, even as competition is driving down the cost of outsourced services.

Second, outsourced IT services have expanded well beyond traditional service desk functions. Instead of handling only problem resolution, outsourcers are now processing requests, handling approvals, coordinating fulfillment, and more. Self-service, self-provisioning, and self-help are among the new capabilities clients have come to expect, and delivery of these services has expanded into interactive Web, email, and chat modes. Moreover, services are migrating beyond IT to encompass procurement, facilities, and HR for everything from simple processes (such as laptop or smart phone requisitioning) to complex processes (such as employee on-boarding and transitioning new clients onto the service platform). This requires service providers to interact and collaborate with clients in the co-creation of services that link these tasks into client-specific workflows.

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However, the underlying one-to-many architecture of Multi-tenancy 1.0 makes such innovation on a client-by-client basis difficult since it is still rooted in a one-size-fits-all approach. Making code changes in an attempt to customize for one client can impact other tenants. And when it's time to upgrade, most customizations are lost in the process, meaning service providers often have to rewrite, test and monitor the code changes—a vicious circle.

Third and perhaps most fundamentally, businesses are changing their thinking about IT, a change being driven by the ways employees are using the IT services provided to them. When employees leave their physical workplace, they often continue working using laptops, tablets, smart phones and home computers. Often, employees need to access enterprise applications through such “unauthorized devices.” Meanwhile, Amazon, Pandora, Facebook, Twitter and other social media are making IT a much more interactive and personal experience. Simply put, people have come to expect technology to be easy, engaging and empowering. They are increasingly frustrated by applications and services that don't provide this experience.

These trends place new pressure on service providers. Their business models are based on the ability to apply one software infrastructure across many clients. But those infrastructures weren't originally envisioned to support a client-centric environment in which:

- Clients increasingly demand a uniquely tailored interactive experience;
- Employees want co-created self-service, self-help and self-provisioning; and
- Clients want end-to-end services that require integration with enterprise applications beyond IT, such as HR, facilities, and procurement.

Service providers have made multimillion-dollar investments in their software infrastructures. Few relish the prospect of abandoning these investments, but many are beginning to realize that Multi-tenancy 1.0, as described here, no longer allows them to keep up with changing client needs and marketplace conditions. Customization at the client level, which requires programming at the application level, will continue to be too expensive, time-consuming and risky. Changes or additions will continue to amplify risks. Customizations will be lost during upgrades and need to be redone, which again means more money, time, and risk.

These problems will limit the service providers' ability to scale. Worse, they mean that business customers won't get the uniquely tailored service experience many now expect from their service providers.

### Multi-tenancy 2.0

Half a decade ago, Web 2.0 conceptualized a shift from the passive viewing of prebuilt content (Web 1.0) to an interactive user-centric Internet. Multi-tenancy 2.0 conceptualizes a similar approach for services providers. It doesn't require service providers to abandon their well-established service platforms, but rather positions those platforms as back-office applications instead of forcing them to serve both front-end and back-office needs simultaneously. This, as noted, is the Achilles' Heel of Multi-tenant 1.0 infrastructures.

As back-office tools, IT service management platforms (like BMC Remedy) will continue to provide robust, stable, process-driven, and standards-based platforms for addressing incident and problem resolution, change management, service-level agreements, and configuration management databases. But in front-end roles where there is a growing need to provide tailored and client-centric customer innovations—such as request management via self-service portals, service catalogs, approvals, fulfillment, visibility, interactivity, collaboration, and co-created services—most IT service management platforms are inadequate. In today's outsourcing environment, forcing a back-office system to accommodate both back- and front-end roles is an increasingly untenable proposition.

Moving from Multi-tenancy 1.0 to 2.0 imposes the following eight new demands on service providers:

- Configurability at the client level that is swift to deploy, requires no programming, is persistent through upgrades, and is adaptable to a continually changing environment;
- The ability to configure a secure, tailored experience for each client—whether at the user, department, group or enterprise level;
- The capability for client innovation with low risk—meaning customizations for one client should have no impact on others;
- Service item portability—new service items can be created in a test environment, zipped up, installed, and run in the production environment with no manual rework, and best-practice service items can be imported into different environments and run confidently;
- The ability to accommodate today's interactive and collaborative way of working whenever, wherever and from any device—company or personally owned;

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- The ability to integrate service items to enterprise applications for both simple and complex services;
- The ability to swiftly transition new clients to a service platform<sup>1</sup>; and
- Continual improvement and the ability to innovate.<sup>2</sup>

### **Kinetic Data + IT Service Management Application = Multi-tenancy 2.0**

Kinetic Data's Multi-Tenant Suite provides Multi-tenancy 2.0 capabilities to service providers by enabling them to tailor services for specific clients, as well create new services in response to dynamically changing customer needs, without making risky and expensive programming changes to their existing infrastructures and data layers. The Kinetic Data Multi-Tenant Suite is a configuration-driven platform that installs on the BMC Remedy platform and extends functionality through:

- Client configuration done at the Kinetic Data configuration layer rather than via service platform code changes that introduce risk and expense into the process and limit a service provider's ability to scale and swiftly deploy services;
- Unique branding and theming, which can be deployed for any number of clients;
- Workflows that can be integrated with PeopleSoft, SAP, Oracle and other applications in addition to BMC Remedy; and
- Workflows and approval processes that can be extended beyond IT to HR, facilities, procurement and other enterprise systems.

These four innovations enable services providers to build, test, and deploy an unlimited number of customized service items quickly, inexpensively, and without risk. And each can be uniquely branded and themed and reused for any number of clients.

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<sup>1</sup> See Kinetic Data White Paper, "Divide and Conquer to Accelerate Client Transitions"

<sup>2</sup> See Kinetic Data White Paper, "Innovation and Differentiation for Outsourced Service Providers"

### Service Provider Innovation

The reusability of service items is one of the keys to service provider innovation in the new world of Multi-tenancy 2.0. With the Kinetic Data Multi-Tenant Suite, service providers can capture, replicate, and re-deploy new service items developed for one client across their entire customer base. Service items configured using Kinetic Data's architecture contain a task tree that is a visible representation of the actual service item. It is abstracted from the branding and theming to provide reusability and portability in any BMC Remedy environment version 6 or greater.<sup>3</sup> Innovations designed for one purpose or client can be captured, re-branded, zipped up, installed, tested, and registered for another client.

The Kinetic Data architecture makes it easy to clone and modify an existing service, in effect creating a new innovation. An example of this might be adding a robust approval process for service/product requests that are routed on different paths based on the type of data collected, such as dollar amounts or level of urgency. This approval process can be pulled into any service item and connected, configured, tested, zipped up, installed, and registered as a new service item.

Indeed, Kinetic Data encourages service innovation experimentation. Since service items are made up of configuration data with no programming change to the underlying service platform source code, modifying, testing, and experimenting are encouraged and do not pose a risk. This type of sense-and-respond innovation can be implemented without the time, cost and risk of programming. Service innovators need only business process analyst-level familiarity in order to create, test and deploy new service items.

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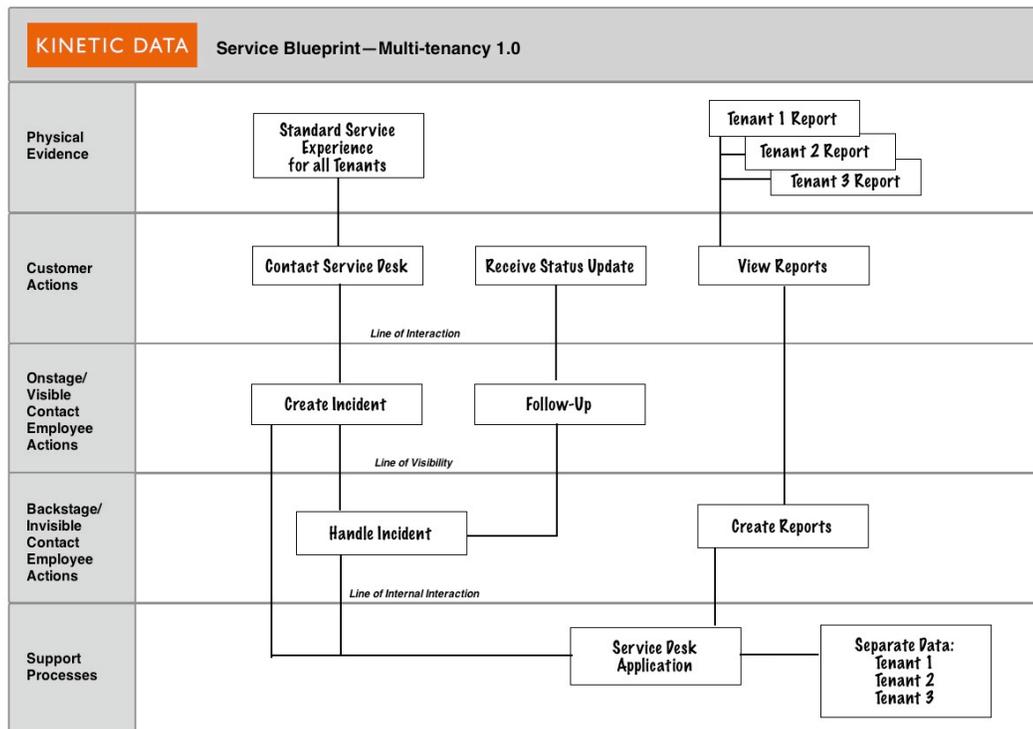
<sup>3</sup> See Kinetic Data blog series on [Service Item Portability](#)

## Moving From a Multi-tenancy 1.0 Blueprint to a Multi-tenancy 2.0 Blueprint

Service blueprinting maps out all the client touch points for any particular service and provides a way to visualize a design that ensures meaningful and memorable results when clients and the service interact.<sup>4</sup> While there are more complex methods for envisioning and designing a service innovation, no other method so clearly focuses on the customer experience and his or her perception of value—which ultimately determines the success or failure of a service offering.

Figure 1 shows how service blueprinting works in a Multi-tenancy 1.0 environment. It shows how a service call is placed, logged and reported. The service desk application, forms and experience are standardized. Only the data is kept separate for reporting purposes.

Figure 1

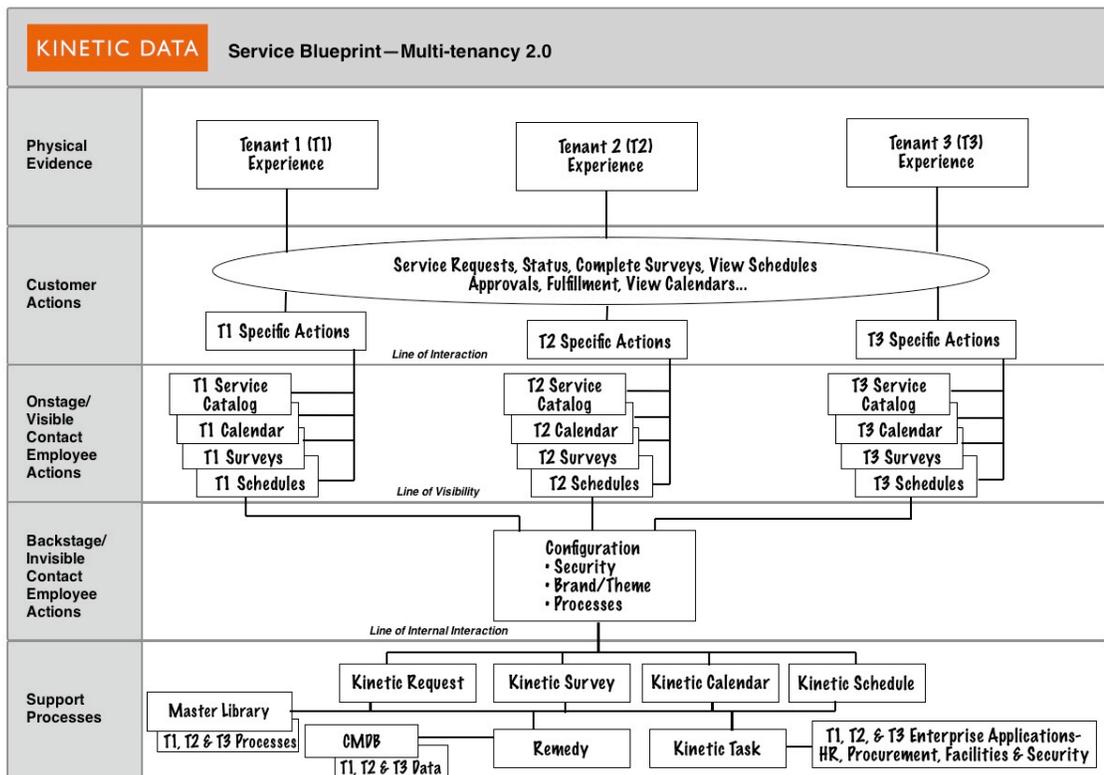


<sup>4</sup> Mary Jo Bitner, Amy L. Ostrom, Felicia N. Morgan, "Service Blueprinting: A Practical Technique for Service Innovation," Center for Services Leadership, Arizona State University, 2007.

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Figure 2 shows how service blueprinting works in a Multi-tenancy 2.0 environment. The physical evidence and client actions used in the blueprint are the customized service items and unique experiences shared by multiple clients (Tenants 1–3) enabled through the use of configurable Kinetic Data modules. For this example, while the same types of items are created and delivered to all three tenants, they are configured, branded, and themed, as well as integrated with specific client business rules and approval processes at the “backstage/invisible” tier. Each service item appears unique to the different clients, and each can be modified, relabeled, and reused for other clients. It all happens within Kinetic Data’s framework and requires no changes to the underlying service platform.

**Figure 2**



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*Figure 2* illustrates how the Kinetic Multi-Tenant Suite enables service providers to go live faster with standard, optional and customized client services. It shows how Kinetic Data, in this case, can support four specific client services, which, while essentially the same items, are configured and branded according to specific client requests. Kinetic Data allows business analysts at service providers to configure, validate, and activate the services—with no programming required.

### Conclusion

Service providers today face the challenge of moving from the cookie-cutter world of Multi-tenancy 1.0 to the interactive, experiential mode of Multi-tenancy 2.0, which is exemplified by co-created, engaging client-centric services and an accelerated pace of service innovation. The five modular applications in the Kinetic Data Multi-Tenant Suite support these capabilities by enabling service providers to configure unique customer service experiences and deliver innovative, value-added, client-centric service options to any number of managed services clients in a multi-tenant environment. Services can be created and customized for individual clients simply by switching features on or off—with no programming required in the underlying service desk or IT management platform—then modified, relabeled and reused for any number of clients. This happens while continuing to use the current IT service management platform.

#### **The Kinetic Multi-Tenant Suite consists of:**

**Kinetic Request**—a service catalog and request management portal application that lets operational personnel design and automatically manage processes and approvals for service and product requests.

**Kinetic Task**—an advanced workflow automation and enterprise application integration engine bundled with Kinetic Request that enables users to easily configure a limitless number of tasks and approvals to manage processes ranging from simple to the most complex and between the client and the service provider.

**Kinetic Survey**—a process-driven, interactive survey- and feedback-management application used by service providers to gauge customer satisfaction and to initiate remedial action in real time.

**Kinetic Calendar**—an actionable Web calendar tool that allows service providers to create and share drill-down calendars (change calendars, on-call calendars, outage calendars, etc.) for virtually any purpose using time-based data.

**Kinetic Schedule**—a resource schedule calendar designed for service providers requiring visibility into resource availability and resource scheduling in the delivery of service.

### About the Author

Brett Norgaard directs Kinetic Data's Outsourced Service Provider Initiative. In this role, he developed and is executing on the strategy that enables firms to maximize the business value they receive from their investments in software to create and deliver service innovations for their clients. Prior to joining Kinetic Data, Norgaard worked with dozens of high-technology sales and marketing executives to improve their revenue and market share. He also designed a managed service offering that received market leadership status by Gartner, Inc. Norgaard is also a frequent guest lecturer on service innovation at St. Olaf College and sponsors entrepreneurial student internships as part of the school's Estenson Program.

### About Kinetic Data, Inc.

Kinetic Data offers the most extensive portfolio of third-party, software applications available. Kinetic Data has helped over 200 Fortune 500 and federal government customers—including General Mills, Avon, Intel, 3M, and the U.S. Department of Transportation—implement its award-winning BSM and service request management (SRM) applications aligned with ITIL best practices. The company has earned coveted recognition from the independent BMC Remedy user community—having received the “Best Customer Service and Support” award in 2010, and the “Innovator of the Year” award in 2009. Kinetic Data serves customers from its headquarters in St. Paul, Minn., offices in Sydney, Australia, and through a network of leading BMC Remedy reseller partners. For more information, visit [www.kineticdata.com](http://www.kineticdata.com).