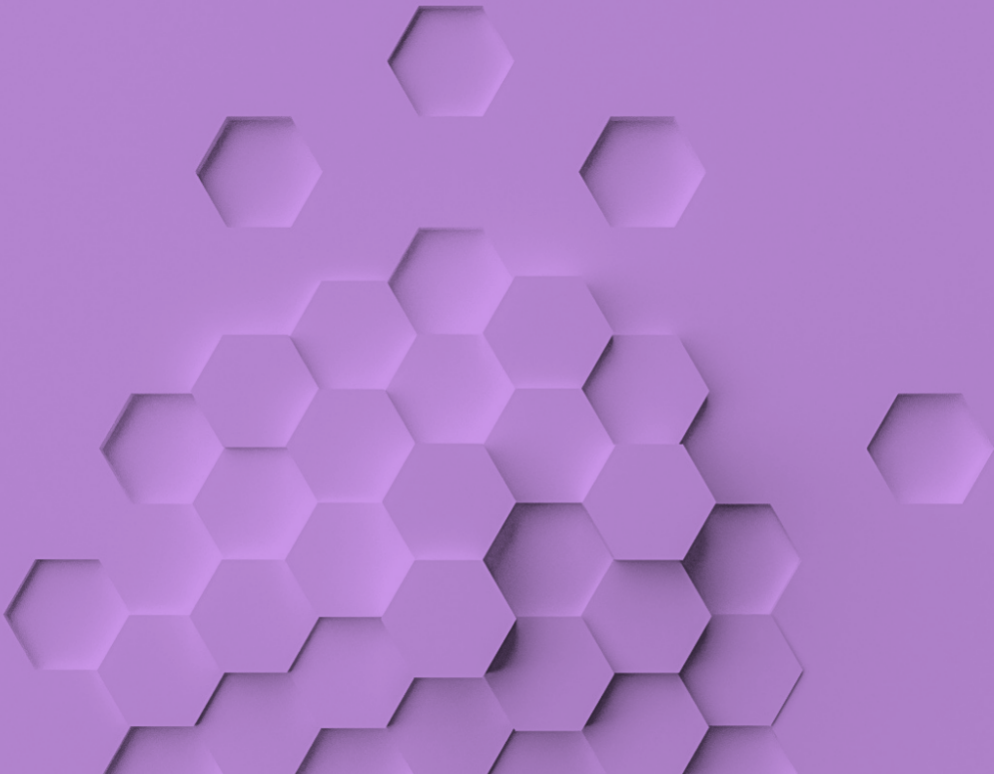


The **UNRIVALED** Guide to

SERVICE PROVIDER INTEGRATION



a  **perspectium** publication

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PREFACE

Due to our desire for each integration book to tell a complete story, some of the high-level content in this book is replicated from our Data Integration book – since it is applicable here too.



If you haven't read *The Unrivaled Guide to Data Integration*, you can download a copy for free from perspectium.com/dataguide

Service providers play a critical role in ensuring business continuity for their customers.

Managing customer services and environments requires constant attention, not only to ensure that your customer is getting the availability and response they expect, but also to ensure that your service provider business is operating at peak efficiency with minimal risk of SLA breaches.

But there are challenges to providing and monitoring a complete service:

- A combination of customers and a combination of services means that you will have some customers signed up for multiple services and some using only one;
- You need to manage the complexity of all the different services you offer;
- You may need to manage integration with other service providers; and
- Working in a customer's SIAM (service integration and management) environment - each one of which is unique



Service providers
face numerous
challenges to
ensuring
customers'
business continuity

Meeting Your Goals

As a service provider, you can take these challenges and focus them into key questions that will help you to pursue your goals.

- *“How do we get customers on board quickly?”* The faster you can get a customer on board, the faster you can be delivering a service for them (and charging them for that service), providing value for your own business.
- *“How can we ensure visibility and accountability across the entire service?”* Ensure your own accountability to the customer. And if other partners are involved, make clear what they are working on.
- *“How do we update the customer?”* When information about the service or components of the service is updated, it must be done in the fastest possible time.
- *“How do we operate effectively and scale our business while managing our costs?”* Keeping a close eye on service costs, and determining which services are more impactful to operating margins, requires visibility at customer-specific, application-specific and macro levels, monitoring performance across the entire business.

Dealing with Silos and Pursuing Integration

Processes and data will often be confined within “silos” in an organization. Managing data or process within a single application or team is pretty straightforward, but that’s not how business works.

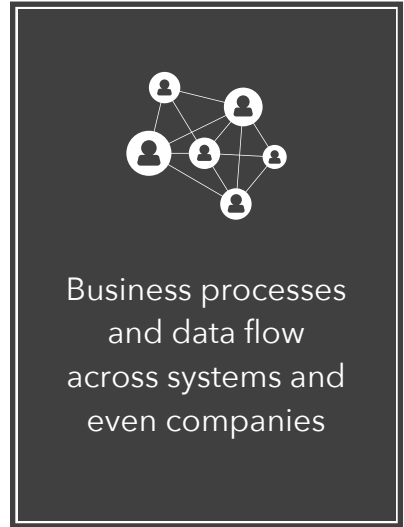
The reality today is that IT processes and data flow across applications, service providers and customers. And within those customers there will be multiple tools, departments and teams, multiplying the challenge even further.

Preparing for Better Delivery of Services

When a service provider takes on an integration project on its own without doing all the right homework or when it purchases the wrong solution, service delivery is delayed, customers get frustrated, the system performance lags, the data security is compromised, and the business is left with ongoing maintenance problems.

On the other hand, the right integration solution can both maintain and advance your customer onboarding and your service delivery. But it is important to know what to look for.

In this guide to integrations for service providers, we'll show you why service providers deploy integrations, what a good integration looks like, and how service providers use integrations to deliver customer value.



After reading through Chapter 1, you may have already considered the kinds of integrations that your business needs. Or perhaps you know of the basic business challenge that you or your customer has, but you need more help in thinking it through.

Service providers integrate data and processes for a variety of reasons. Take a moment to write down the problem you need to solve. Or if the reason for integrating is already clear, just note it mentally.

Browse over the various integration use cases in this chapter. It may be that one will stand out as applying especially to your situation. You may even find additional ways that you can enhance service through new use cases.

Use Cases for Data Integration

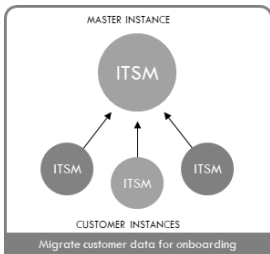
Whether you're onboarding a new customer or helping an existing customer with a zero-impact upgrade, you need to reliably move large quantities of data - without impacting the performance of your customers' systems or your own. Data integration is all about mass data synchronization between you and your customers - either in batch updates, or dynamically in real-time.

Connecting to your customers' business applications is fundamental to automating their business (and IT) processes. Often those applications will need data to be transformed to a different format as it moves into your system, and sometimes the applications are different versions or instances of the same tool -

but whatever the case, you need to be able to get data to its target at the right time.

Data integration helps service providers carry out a number of business functions.

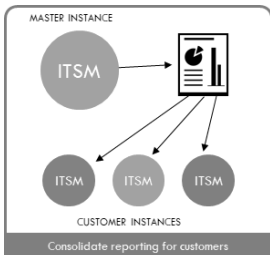
Migrate Customer Data for Onboarding



Use data integration to quickly onboard your customers, without having to worry about building or maintaining the integration. Faster onboarding = faster path to revenue.

Service providers onboard faster by replicating customer data, including CMDB, knowledge base, and past incident records. When the integration transforms data during transfer from varying ITSM tools, that data maps cleanly between the customers' systems and yours.

Consolidate Reporting for Customers

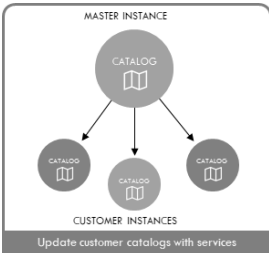


Deliver benchmark reporting by consolidating data from across your entire customer set.

Bringing this data together allows you to derive averages for a number of benchmarks (e.g., change failure rate, time to resolution). Communicating those averages to customers is additional value for them.

It also allows you to market additional services to them, because you uncover opportunities for process improvement and other value-add services with your customers.

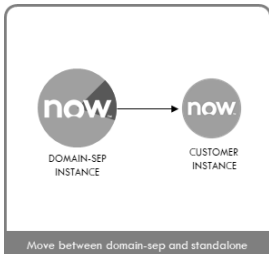
Update Customer Catalogs with Your Services



Push your service offerings into your customers' service catalogs with data integration. When you offer a new service (or a change to an existing one), make it available to all your customers - from within their own ITSM tools.

With streamlined ordering in place, the single point of access eliminates the need for separate communication of the catalog and for the inefficient swivel-chair practices of ordering elsewhere or logging into multiple instances.

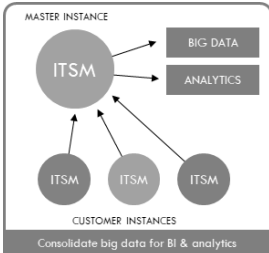
Move Between Domain-separated and Standalone



Assist your customers in moving from a domain separated ServiceNow® instance to a standalone instance or vice-versa. An integration can enable you to migrate data including any required transformations.

The transfer may include the movement of configuration items, past incidents, and knowledge.

Consolidate Big Data for Analytics



Get all your customer data into a big data repository for data warehousing or business intelligence analysis. Incorporate data from multiple customer sources for more meaningful analysis.

You can use this data to provide valuable benchmarks to your customers, helping them improve the services that they deliver directly to your own customers.

Assist Customers in Upgrading Their ITSM Tool



When customers consider upgrading or migrating their ITSM tool, they may want assistance in replicating some or all of their historical data. An integration solution can ensure that no data is lost, and that the required data transformations take place during the process.

While the upgrade is taking place, any newly updated data can be held in a queue, ready to write back to the original instance in case the first upgrade attempt doesn't go through.

Reporting at a Service Provider of As-a-service Solutions

Looking to integrate service-desk instances, **Crossfuz** needed a complete view of customers for reports while preserving the solid performance of the instances.

Because of their integration solution, Crossfuze offers its customers enhanced, scalable reporting.

“We’re running our SLA data, our metric data, our ticket data. We’re running that all to a SQL database to do advanced reporting and analytics on that data, so we can do further trending for all of our customers that we have integrated, as well as all the additional ticket information that’s in our instance. So that to me was a huge win for us to be able to bring that data down in a more real-time fashion and a more scalable fashion”

- Matt Miller, VP of Service Delivery, Crossfuze.

Onboarding and Reporting at a Fortune Global 500 Service Provider

Onboarding: **Accenture** integrates with customer instances to share foundation data and help automate the onboarding process. After new customers load foundation data into a provisioning tool, Accenture uses an integration solution to move the data from staging to production.

Reporting: Accenture needed an integration solution to meet its reporting requirements. Accenture set up a reporting data warehouse to bring in data from both ServiceNow and other tools. Their multi-tenant environment also means that there are some tables that their customers should not access.

Many of their customers requesting real-time reporting, Accenture also sought to provide ad-hoc reports, using SQL server reporting services. “We have to be very dynamic and limber” says Jeff Lowenthal, Enterprise Architect for Accenture.

Accenture's integration solution now enables robust reporting for Accenture's customers, adding columns dynamically as the incident form changes with field additions.

Use Cases for Process Integration

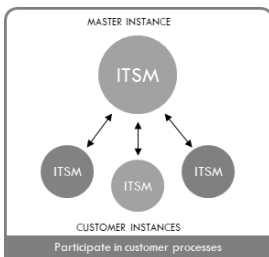
What does process integration look like for service providers?

Process integration enables inter-organization workflow. Process integration for service providers usually transfers less data than typical data integration would. But the data that does transfer is part of a critical business workflow between customer and service provider.

These integrations could be between your customers' enterprise applications (like ITSM tools, development tools, CRM tools, and more) and your own master instance. These are two-way, real-time integrations (often called eBonds) - delivering synchronization in both directions, and including attachments and related records.

Process integration helps service providers carry out important business functions.

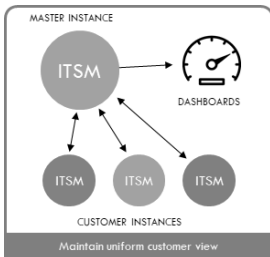
Participating in Customer Processes



Service providers can e-bond to their customers in real time to facilitate process integration without the hassle of building and managing the integration themselves or doing it manually.

Real-time, auditable data exchanges ensure that service level measurement is accurate and consistent. This has obvious financial implications when penalties are being imposed for the service provider.

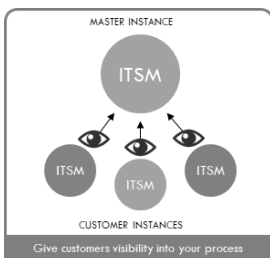
Maintaining a Uniform View of All the Service Provider's Customers



Even though customers may be using different tools, a common ITSM data model ensures that the service provider can view them all side-by-side in real time, and in a common language that the service provider's team understands.

So, service providers can understand their customer commitments constantly, not when something goes wrong.

Giving Customers Visibility into the Service Provider's Processes

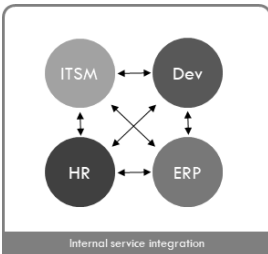


An ITSM data model ensures that customers get information from the service provider in a form they understand. So, when customers need to understand the provider's service, customers can get all they need from within their own ITSM tool, no matter what they use.

When your customers gain visibility, you also virtually eliminate the interruptions and inefficiencies of status checks – no need for

phone calls and email exchanges to solicit and provide status updates.

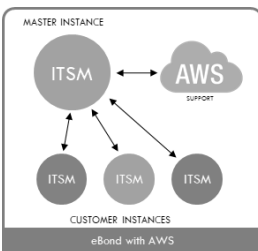
Internal Service Integration



Connect your own best-of-breed applications so that everyone gets the full picture - without anyone changing tools or moving to an expensive, all-encompassing "suite" that locks you in with a single vendor.

Seamlessly flow data and process across the tools that are best suited for their own spaces and that your departments prefer.

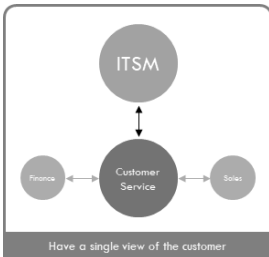
eBonding with AWS and other Service Providers



eBonding with the AWS Support Center (or other third-party service providers) helps you deliver superior service - providing automated creation, viewing, updating, and resolving of incidents from within the existing ITSM tool, with no need to enter duplicate information into a separate environment.

Such eBonding also helps you stay in good standing as a partner with third-party service providers - who often require their partners to maintain an electronic connection to their support center.

Having a Single View of the Customer



When you sync data between your ITSM tool and your CRM tool, customer service has complete visibility of all that is happening with any customer.

Customer service can also pull information from other systems (like finance or sales) to further enrich their

understanding. Bringing all this customer data to one place also means that your sales team can get a complete view of their customer by visiting just one place.

Functioning as a Service Desk for Customers' Users

Crossfuze, a service provider, was seeking “a single pane of glass” where they could monitor and control data related to their customers’ applications, including Salesforce and ServiceNow. Functioning as the service desk for multiple companies, Crossfuze receives up to 40,000 calls per month and needed to scale beyond the swivel-chair technology of moving between multiple ticketing systems.

Crossfuze achieved that single system of action that they desired by integrating with their customers’ ITSM instances. Crossfuze created a federated system of record for incidents, CMDB and knowledge; lowered costs by providing a single place to work for their agents; and increased security by not requiring multiple logins.

High Visibility, Real-Time Performance

The original integration setup at **CDW**, a leading managed service provider, hindered scalability. CDW needed low-coding, real-time, truly automated integrations that help to ensure accurate data, a hands-off approach for CDW delivery staff, and high visibility for customers into their environments.

Making use of integration as a service, CDW now has a scalable integration solution, complete from end to end, that serves CDW customers better.

1. No extra coding: CDW offers customer integration solutions that no longer require extra coding by them or by their customers.

2. High visibility and automation: Because CDW enables visibility into incidents, their customers have confidence about the status of their environment. Both CDW and their customers can easily make comments and assign tickets to one another.

3. Real-time data transfer: The real-time nature of the new dynamic shares takes the headache out of trying to ensure data integrity. According to Paul Liesse, Supervisor of Managed Service Applications, "We don't have to worry about when a particular job runs to query the ServiceNow data. ServiceNow will just put those records on the bus when they're updated, and those changes will get replicated out right away."

With a complete integration solution in place, CDW is well-positioned to scale their service management. "We're just in the platform, using it as a normal user," says Paul. "And the developers don't have to get involved. That's humongous for us."

Internal Use Cases for Data and Process Integration

As illustrated in use cases in this chapter, service providers integrate internally, in addition to integrating with customer systems. These internal integrations can be on the process level or the data level. Process integrations are low-volume integrations extending process between applications. And data integrations are high-volume integrations replicating data for BI, reporting or consolidation.

For more on these internal integrations, see *The Unrivaled Guide to Data Integration for Service Management* (perspectium.com/dataguide) and *The Unrivaled Guide to Process Integration for Service Management* (perspectium.com/processguide). Though the guide you are now reading focuses on integrating **between** you and your customers, Chapter 2 in each of these other guides explains use cases for integrating **within** your business or your customer's business.

Build or Buy?

As a service provider, those integrations relate directly to your revenue, and so they're important. But if you build them, you have to build and manage each integration separately - because each integration may be with a different system, with different processes, and there may be different "rules" that you put in place around different customers who have subscribed to differing levels of your service.

Should you build those integrations or buy them? Keep in mind that integrations take time to build, and constant effort to

maintain. And slowing down your onboarding means that you are delaying getting revenue from your customer, never mind the cost of the integration specialists that you have to engage to build and maintain the integrations.

Opportunities abound for managed service providers. As companies continue to increase their adoption of cloud technology, they outsource technology needs, giving MSPs more business.

But those business opportunities have drawn competitors. A host of small service providers scramble for their share of the market¹. Meanwhile, the presence of large providers cannot be ignored².

This contested and turbulent space requires innovation, differentiation, and service excellence. Those companies that seek service providers want to know that their data is safe, that you are serving their customers well, and that you are helping their business to grow more than any other service provider they could select.



For service providers, competition requires innovation and differentiation.

¹ <https://www.uctoday.com/unified-communications/service-management/what-does-2019-hold-for-managed-service-providers/>

² <https://blogs.wsj.com/cio/2016/06/30/managed-services-face-uncertainty-over-cloud-report/>

As you survey the landscape of your existing customers and services, you already see some of the challenges:

- Connecting to and updating customer systems
- Enabling customer visibility and therefore trust in you as a provider
- Connecting your own systems to preserve data quality
- Onboarding new customers quickly

Integrating systems is not the ultimate goal, but to meet your goals of delivering customer value, those integrations are absolutely essential. MSPs are discovering that they can connect systems in innovative ways that help them differentiate from the competition and deliver new value to customers.

Use this chapter to learn about several ways that service providers deliver value for customers through an integration solution, along with examples of service providers who are delivering that value. You will find that you can adopt some of these strategies. Or the stories may inspire you to create your own unique solutions through integrations.

1. Building Trust Through Transparency

When a company signs on with a service provider, the IT team at that company wants to know that their employees are being taken care of.

What if you could give your customer a window into how you are treating *their* customers? Can you give them a view the way your phone app monitors your living-room temperature, or the way your security camera lets you observe your property?

By integrating your ITSM tool with your customers' tools, you give them visibility into what's going on with their incidents, along with the ability to comment on them or make adjustments to them.

When those monitoring events come into our system and they [create] an incident, we can then transfer that ticket over to the customer system. And they'll have visibility into what's happening in their environment in their own ticketing solution, and then make comments or assign things back to us, or we can assign things to them.

- Paul Liesse, Supervisor of Managed Service Application, CDW

Problem: The MSP wants to preserve the trust of the customer, who has handed over data and processes to the MSP.

Solution: Integrate systems so that the customer has real-time visibility, enabling the customer to see current status, act on current data, and create reports.

2. Ensuring Customer Control over Data

Before handing over their data to a service provider, ITSM leaders will have questions about where the data is going, whether they will retain access and the ability to act on their data, and whether they can trust a service provider to keep their data secure.

With an automated, real-time connection between systems, however, you can deliver ITSM services to your customers while assuring them that they have access to control when and where

the data gets sent. And they can turn off the data-transfer faucet any time they want.

Every time we go through a customer onboarding, they always ask . . . “How is data controlled?” . . . And the conversation usually wraps up as soon as I’d let them know that, hey, we’re going to install the [integration] application. It’s going to be administered within your instance. Your admins have complete control to stop any data flow that they would like at any given time. . . . Not only do they have the access because that data is being pushed from their instance and not pulled, they retain the control. They can filter down as they feel.

- Matt Miller, VP of Service Delivery, Crossfuzer

Problem: Signing on with an integration provider means that the customer may have less certainty over the security and control of their data.

Solution: Give customers control over their data, letting them direct the flow of data where and when they want.

3. Reducing Incident Resolution Time and Preventing Escalation

Level one service desk personnel can handle frequent service requests and can help customers with basic issues that they face. But if they cannot provide a solution, the incident escalates to level two. When a service desk escalates many incidents, costs increase and customer satisfaction decreases.

One way that integration can prevent escalation of incidents is through real-time updates of knowledge articles. If level one personnel (or better yet, level zero - customer self-help) have the information they need to resolve an incident, value for everyone rises.

When an outage occurs at a company that has hired Crossfuzze, a service provider, level two or level three personnel at the client company can write a brief knowledge article that syncs with Crossfuzze's instance so that level one personnel at the Crossfuzze service desk have the knowledge they need to address incoming calls.

By us getting that data to our analysts in near real-time, that was less manual effort they needed to go around to escalate to a level two or level three resource.

- Matt Miller, Crossfuzze

Problem: Crises and other unexpected events require prompt communication for the service desk to support users.

Solution: Real-time knowledge integration empowers personnel to inform and support concerned users.

4. Keeping Costs Low Through Reduced Maintenance

Automation reduces the need for human intervention. And without integration - one form of automation - service providers task employees with work that systems should be performing by themselves.

A team of employees at Accenture was managing access for 300,000 users, with new hires needing to be provisioned constantly. After implementing an integration solution, Accenture was able to free up a significant number of resources.

It's been huge. . . . We had an entire team of people pretty much constantly working on managing access to engagement data. And this [integration solution] has just taken that away for us. We don't have to deal with this nearly as much there. . . . It just works.

- Jonathan Livingston, Application Architect, Accenture

Problem: High maintenance and the labor of repetitive tasks are expensive.

Solution: Through integration, automate predictable, scheduled, or rule-based tasks, freeing up resources.

5. Accelerating Time to Value (TTV)

The sooner you can onboard a customer, the sooner that customer starts realizing the benefits that you deliver, hastening the return on their investment.

It used to be that managing the technical side of an integration took just as long or longer than communicating and deciding with customers about mapping fields to be replicated. And yes, you are still at the mercy of a customer's ability to get their initial set of data ready to load.

But with an integration solution, especially one that makes use of a common data model based on ITSM, the technical work is

much simpler and quicker, allowing you to fast-track the onboarding of new customers.

Our customer onboarding previously took us anywhere from 8 to 12 weeks. Now, we've done them in as quick as 2 weeks and typically they take us about 4 weeks.

- Matt Miller, Crossfuzze

That's always sort of a litmus test - how quickly can we get on board people. Well, you know, if you got all your data ready, we can do it in a couple of minutes or a couple of hours.

- Jeff Lowenthal, Enterprise Architect, Accenture

Problem: You have value to deliver, and your customer wants that value. But technical hangups drag out onboarding, hurting the customer experience and reducing customer satisfaction.

Solution: An integration solution that accelerates customer onboarding helps the customer to start realizing that value faster, giving them the chance to brag on you - and bring in more business for you.

6. Keeping Costs Low by Reducing Labor

Service providers can pass on to their customers the cost savings of labor reduction. The right kind of integrations reduce labor in several ways:

Building cost savings: When a service provider signs on for integration as a service, the service provider saves the expense

of building custom integrations, which usually end up requiring more labor than expected.

Maintenance cost savings: Those integrations need to be maintained. When an integrated tool is updated or replaced or when personnel responsible for integrations leave, any custom-built integrations to those tools need maintenance, as well, if not replacement.

Swivel-chair cost savings: Entering data into or querying data in multiple systems is an inefficient, swivel-chair approach that requires unnecessary work. Integrations also eliminate the inefficient swivel-chair practice of logging in to multiple systems.

Communication cost savings: When you give customers visibility into their incident status, you and they don't have to exchange phone calls and emails to ask for and report on the status of incidents.

Problem: It is expensive to allocate labor to development, maintenance, and inefficient swivel-chair and communication practices.

Solution: The right integration solution, fully maintained by the integration provider, significantly reduces labor, letting service providers pass on cost savings to their customers.



By integrating,
service providers
pass cost savings
to customers

7. Offering Enhanced Reports

Any good ITSM application will offer a simple selection of reports within the tool. But typically, businesses need to run reports more advanced than what the application has inbuilt.

Or they need to combine the ITSM data with data elsewhere, perhaps in a data warehouse.

With their integration solution, Crossfuze offers its customers enhanced, scalable reporting.

We're running our SLA data, our metric data, our ticket data. We're running that all to a SQL database to do advanced reporting and analytics on that data, so we can do further trending for all of our customers that we have integrated, as well as all the additional ticket information that's in our instance. So that to me was a huge win for us to be able to bring that data down in a more real-time fashion and a more scalable fashion.

- Matt Miller, Crossfuze

Problem: Limited reporting and reporting on obsolete data precludes IT leaders' real-time visibility into their company and their customers.

Solution: Real-time integration means not only real-time visibility but also making use of enhanced reporting tools.

8. Eliminating Performance Impacts

Whether transferring data to run reports, keeping other ITSM applications in sync, or fulfilling other needs, businesses are challenged with replicating ITSM data without creating significant performance impact on the ITSM tool.

Running reports during the day can reduce a widely used application to a sputter, frustrating users throughout the organization and bringing business to a halt, like exit-ramp traffic at rush hour.

Rather than using a typical point-to-point replication tool, consider an integration solution that uses a message-bus architecture. Such a solution provides a flexible and highly scalable publish-and-subscribe framework that can be integrated into the administrative interface of your existing service management tool. Dynamically detecting changes in data, it pushes only updated data to another endpoint, preserving the performance of the application.

When we implemented ServiceNow, we used an open source tool . . . doing web services. And that worked okay for a little while. But those ETL's put a lot of stress on ServiceNow because of how the web services work. . . . We outgrew that after a little while.

- Paul Liesse, CDW

Problem: The performance of the ITSM tool lags when IT runs jobs that present demands on the tool.

Solution: An integration that pushes only the data that it has dynamically detected changes for preserves the performance of the ITSM tool.

9. Ensuring Accurate Views Through Real-time Transfer

A live view of customers and business processes gives companies actionable information. IT Directors and C-level Executives, eager to keep their teams agile, do not want a view of their companies from last week, yesterday, or even a few hours ago. They want to know what is happening right now.

If a major disruptive event occurs, service desk personnel need to know details and an explanation immediately to communicate with and assist those whose service has been disrupted.

The result: real-time data transfer and reporting, with minimal latency, is a highly desirable service. Such functions give service providers a chance to deliver extra value to customers.

We found that actually we needed [knowledge sharing] faster than once a day. . . . So if a knowledge article is updated by their team, we're pushing that over to Virteva's [Crossfuze's] instance immediately so that our analysts that are using those articles have that most recent content to provide support.

- Matt Miller, Crossfuze

Problem: Acting on non-current information hurts customer service and prompts uninformed executive decisions.

Solution: Real-time integration gives companies, including their service desks, the visibility and agility to offer the best service possible.

10. Adding New Features and Solutions for Customers

Having an integration solution in place opens the door for a wide range of integration endpoints, giving service providers the option of offering new features and solutions with minimal implementation and at minimal cost.

The return on investment makes the offering of new service subscriptions attractive for a service provider.

After Crossfuzze was using an existing integration service for some time to integrate with the ServiceNow instances of their customers, Crossfuzze began implementing Salesforce integrations so that they could also offer customer support for their customer base.

It's just another endpoint that's now connecting back to the . . . message bus. So it doesn't have a material impact on my performance.

- Matt Miller, Crossfuzze

Problem: Eager to differentiate in a competitive market, MSPs seek to offer new and unique services.

Solution: An existing integration solution lets companies add new integration endpoints quickly, speeding the rollout of new services.

11. More Efficient Knowledge Management

Service providers can use an integration solution to replicate a customer's knowledgebase. Such action alone can accelerate onboarding and time to value (#5 above).

Integrated Knowledge Base for Faster Onboarding

At your organization, you may need to maintain a copy of every customer's knowledge base so that your service delivery team has consistent knowledge when supporting your customers. Onboarding new customers means replicating each knowledge base, a laborious manual process that can take up to a hundred hours for especially large knowledge bases.

By implementing an automated integration solution, you can remove that manual process and expedite billable service delivery. When a new customer is being on-boarded, the integration automatically creates a copy of the customer's knowledge base in a couple of hours without anyone at your business having to do anything.

Integrated Knowledge Base for Efficiency of Ongoing Service

An integrated knowledge base also makes ongoing knowledge management more efficient. Every knowledge base has to be updated with new or revised articles created by the customer. But with an integration solution in place, when a customer

updates the knowledge base, the integration automatically synchronizes with your version.

By replicating their customers' knowledge bases, **Crossfuze** was able to onboard customers faster and eliminate all manual effort related to knowledge base article management. By syncing customer updates in real-time, they removed the need for KPIs. They also redeployed employees from knowledge base administration to customer service delivery, thus increasing their service delivery team without having to hire new staff.

More Business Through Consistently Superior Service

A reliable integration solution opens possibilities for delivering value in numerous ways.

Of course, enlisting new customers is just one way to grow your business. When service providers enrich the experiences of their current customers, customer satisfaction grows, making customers more likely to refer your services to new leads for the service provider.

The previous chapter discussed ways that service providers use integrations to deliver customer value. But a particular service-provider goal stands out above the others: rapid customer onboarding. In the last chapter, this goal was expressed as “5. Accelerated Time to Value (TTV).”

Setting up new customers every week at Accenture, enterprise architect Jeff Lowenthal identified this key concern of service providers: “That’s always sort of a litmus test - how quickly can we get customers on board?” MSPs know that a drawn-out, cumbersome implementation is costly, bringing unwelcome consequences:

- Tying up staffing resources
- Reducing customer satisfaction
- Delaying go-live, and therefore impacting the ability to collect revenue
- Delaying and jeopardizing future opportunities for upselling

Setting up integrations should not prolong or complicate the onboarding. Yet that scenario plays out too often, especially when the onboarding includes complex custom-built



Rapid customer onboarding is a high priority for service providers

integrations that attempt to account for attachments, comments, or bidirectional flow.

Why Accelerate? Benefits of Rapid Customer Onboarding

An integration solution that accelerates onboarding, instead of slowing it down, offers several benefits:

- Improving the marketing of your services by featuring rapid onboarding
- Delivering on those promises, courtesy of a simplified integration solution
- Satisfying customers, with the result of reducing customer turnover
- Going live and starting to collect revenue earlier
- Setting the stage for upsell opportunities and for creating customer evangelists for your services
- Better profit margins, thanks to serving and empowering more customers.

The Problem: Complex, Custom Integrations

It can take significant time and effort to onboard customers. And because every customer has different processes, requirements and tools, you can't even leverage most of that onboarding work for your next new customer.

Additionally, all those unique customer connections need to be monitored, managed and maintained over time - so that

resource-intensive onboarding process never really ends. When onboarding is completely different from one customer to the next, you're reinventing the wheel every single time.

The need becomes clear. Service providers need to be able to deploy rapid, repeatable integrations, all without sacrificing control and flexibility, letting them clear the onboarding bottleneck to unleash business growth.

What to Do? Simplify Customer Integrations

A key ingredient for speeding customer onboarding is a simplified integration solution.

Multiple customers mean multiple systems. And getting to all of those systems to set up and maintain endpoint integrations for all of those customers can be overwhelming.



A better approach is to manage all of those integrations from a single access point that uses pre-built ITSM processes that you can add to simply.

When you streamline the technical side of the onboarding process, you automate actions that you are currently doing by hand.

- **Managing from a single point:** You work best when, from a single pane of glass, you can manage all your

endpoint integrations, without having to hop from one place to another within the system.

- **Selecting a process:** ITSM processes are central to your rapid and simple integrations. Rather than starting with a blank slate, you should be able to select from a portfolio of pre-built processes that facilitate rapid integrations. You should also be able to add to these processes to account for specific relationships that you have with customers.
- **Maintaining data security:** Service providers emphasize domain separation, ensuring that data is not intermingled. An integration platform for creating integrations with customers should be domain-centric, keeping the transfer of data secure. Using a native application allows you and your customers to avoid having to exchange and manage a collection of usernames and passwords. Such a setup with a native application makes it easier for you to pass the security reviews that your customers require.

Accelerating Onboarding in Action

As a managed service provider for mid-sized organizations, **Crossfuz** is required to connect into each of their customers' systems to service their IT needs. But doing that manually, with "swivel-chair" integrations, meant that they were losing the economies of scale on which an MSP relies.

With a repeatable integration model in place, Crossfuzze have been able to integrate all their customers to a central MSP ServiceNow instance, replacing 20 custom integrations and supporting 10 million transactions a month. They have reduced their onboarding time by more than 80%, eliminated swivel-chair integration, and introduced common workflows and consistent service levels.

Having a Repeatable Onboarding Process

When service providers adopt a best-practice, standardized integration model, they get out of the business of hand-building new customer integrations for every new customer they onboard.

With blueprints that make integrations repeatable, service providers start delivering services to their customers sooner, lower costs by providing a single place to work for their agents, increase security by not requiring multiple logins, and increase visibility between them and their customers.

For you and your customers to integrate processes and get data where it needs to be, it's important to know what to look for.

Kick the tires and keep a discerning eye on your options for integration solutions. Integration projects require significant resources, so you'll want to opt for a solution that checks out.

Emphasis on Data Quality

A growing reliance on big data and its benefits highlights the critical importance of employing effective data governance. But only 37% of businesses have a formal framework for data governance in place³. The resulting inefficiency, missed opportunities, and operational drag is costly.

Your data should propagate without any loss to that data. To ensure data integrity, look for a cloud-based integration service that understands a variety of data schemas, including file attachments, reference fields, and hierarchical tables.

Real-time Delivery

Scheduling your data exchanges for the "off" hours means working with obsolete data. In fact, if your data does not sync

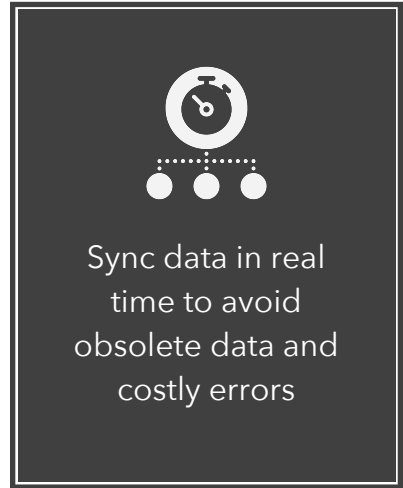
³ <https://www.gartner.com/en/audit-risk/insights/trending-topics/audit-hot-spots>

within seconds, it is out of date and could lead to costly errors. When you sync in real time, you work with certainty.

A live view of customers and business processes gives companies actionable information. IT Directors and C-level Executives, eager to keep their teams agile, do not want a view of their companies from last week or even yesterday. They need to know what is happening right now.

The result: real-time data transfer and reporting, with minimal latency, is a highly desirable service.

As a service provider, you know that your customers desire real-time delivery, too. Such functions give service providers a chance to deliver extra value to customers.



“It seems like anytime anyone comes to you with a reporting requirement, they precede it with ‘real-time’ reporting. . . . The idea of getting the data out of ServiceNow, into our reporting warehouse somewhat seamlessly . . . that really was a market improvement step and really helped with the messaging around reporting and near real-time reporting”

- Jeff Lowenthal, Enterprise Architect, Accenture

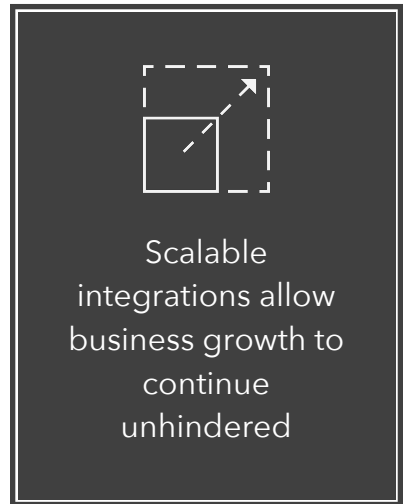
Scalability

IT leaders are aware that a breakdown at any point in the otherwise well-oiled machine will impair the whole system. They want seamless and supported connectivity that continues to function in the face of challenges to scalability:

- An increasing number of integration endpoints
- A growing volume of data to be transferred
- Systems needing to be updated or replaced
- Trained personnel leaving
- New security or privacy rules needing to be expertly applied

A scalable answer to these challenges is integration as a service.

Integrations scale easily when the integrations are implemented, monitored, and maintained as a service by an integration provider. Up front, you can know the provider's exact costs for integration as a service, without your having to worry about finding, hiring, and training more talent for growing integration needs. The scalability of personnel is inherent in integration as a service.



When an app updates, when an endpoint is replaced, when new security and privacy rules take effect, when personnel in the IT department move on, the integration provider handles the challenges to the integration itself, freeing you to focus on other matters.

Performance

Many integrations use the same communication channels as your users. So when you're moving large amounts of data in real time, your users' performance can be impacted severely.

For this reason, people often schedule integrations to occur in the middle of the night. The downside to that plan is that you can lose all the transactional benefits of real-time data exchange.

Your integration solution can preserve the performance of the production instance that it integrates with if the integration dynamically detects changes in data. Rather than relying on a batch poll, you should choose to push only the data that has changed, enabling the best possible throughput and flexibility with the least impact to the publishing application.

Security

Know where your data is going. Is it encrypted at the source to ensure protection? Does it require a key at the destination to ensure retrieval? If you purchase an integration solution rather than building one, for maximum security, pursue a solution that never sees unencrypted data.

Availability

With your integration solution, you should have the option to receive data at multiple targets after sharing once. Publish once, subscribe everywhere. Also, check on the solution's ability to function in the face of power and network outages.

Privacy

Companies are documenting processes, implementing privacy standards, and applying technology to automate and accelerate compliance relating to privacy regulations. Service management can be a complex function, central to many activities where the management of PII data is a normal part of daily life. It is exactly this complexity that integration solutions can help ease, especially through data obfuscation and deletion requests.

Throughput

A solid integration solution will copy mountains of application information, including complex objects, with negligible impacts on performance during application use. The solution should offer a real-time view of your data exchange. Look for activity monitoring that reveals performance and current status.

Bring Them All Together

Service providers seek real-time, scalable delivery of data without interruptions, slowdowns, or data loss - all while maintaining high levels of security and privacy.

Keep these qualities of good integrations in mind as you look toward implementing an integration solution for your own company or for your customers.

You can view the same integrations through a business lens or a technical lens. Through a business lens, you see five solution models: swivel-chair integration, do-it-yourself integration, vendor consolidation, integration toolkits, and integration as a service. Through a technical lens, you see three architectural models: point-to-point integrations, hub-and-spoke integrations, and message-bus integrations.

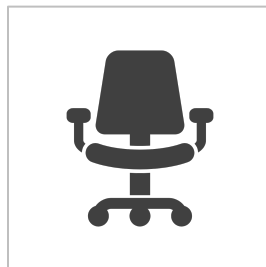
Solution Models

Businesses approach integration through one of five solution models. Their integrations may even progress through these models in the order below, ultimately embracing the end-to-end service available in the model “integration as a service.”

Swivel Chair

This approach is used in many companies. Someone reads data from one system, and re-enters it in another.

It may be transactional (like replicating an incident to create a development request) or batch (copy a snapshot of CMDB to database), but it can be inefficient, error-prone, and a risk to meeting response and resolution SLAs. This type of integration is suitable for very occasional data transfers only.

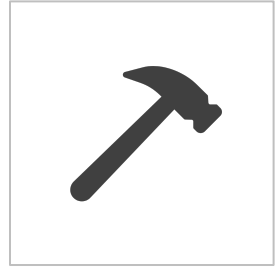


Do it Yourself

Businesses with large IT organizations often turn to this approach. Writing your own integrations (or having a consultant do it) might sound like a cheaper way of connecting to your suppliers, but anyone who has done it will tell you otherwise.

Creating and maintaining custom

integrations can be both inefficient and expensive. Also, integration development is not in your development team's wheelhouse - your developers should be focusing on developing your company's competencies since that is where they will add the most value. The *do it yourself* approach is only really viable for smaller, low volume "one-off" integrations.



Vendor Consolidation

An integration model often proposed by large software vendors involves either migrating all applications to a vendor "suite" (as opposed to the more common "best of breed" approach) or using the software vendor's own integration technology. Many suite products are

comprised of disparate components of self-developed, acquired, and/or open-source software. Exploring how these modules share data and operate collectively may lead to the discovery of an assortment of integration approaches that are less seamless than expected.

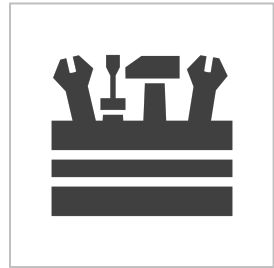


Additionally, the ambition of software vendors to be the singular "system of record" for your process usually means that the

integration technologies they create are far better at pulling data IN to their products than sending data OUT to the other repositories you may want to use.

Integration Toolkits

These came into being in the mid-2000s as an attempt to solve the enterprise integration problem. And while they might get you part of the way there, you still have to learn a proprietary language to create an integration, and you still need a team to build the integrations, and manage the data getting from point A to point B. These toolkits are often nothing more than an ETL bus, and a collection of adaptors. It's like the IKEA of integration - you still have to build it yourself, just from larger pieces. These days, these products are sometimes called iPaaS tools - but it's important to note that they provide an integration PLATFORM as a service - and specifically not integration as a service.



Integration as a Service

The modern approach to integration is delivered as an end-to-end service. The integration vendor takes responsibility for getting data from A to B, following rules defined by your business processes. In this model, there is nothing to write, assemble or maintain - and the integration is typically delivered as a subscription service with 24/7 support, in monitored and automated datacenters.



Integration as a service takes traditional "as a service" benefits and applies them to integration service. So, the reliability, simplicity, scalability, and accessibility that you get from software as a service are also benefits of integration as a service.

With integration as a service, you work with a vendor that can implement quickly, using standard deployment with in-built best practices. The vendor takes responsibility for the integration software, ensuring that the integration continues working securely and reliably . . .

- Even through app upgrades
- Even in the face of new security and privacy laws
- Even through your personnel changes
- Even as your business grows and your customers and processes scale

This model shifts the burden from the service provider's shoulders to those of the integration vendor. Upgrades, outages, version compatibility, and so forth are not problems for you - but for the integration vendor to take care of behind the scenes.

Architectural Models

To connect to their customers, service providers historically have used solutions that follow three main information architectures.

Point-to-point Integration

In this model, data flows directly from system to system. Point-to-point integration starts simple, but becomes complicated and

quickly turns into hard-to-manage “integration spaghetti” as customer and process counts get larger.

Hub-and-spoke Integration

With a hub, data flows through a central point. The hub may reformat the data, or make decisions on where to send it next. Hubs can simplify integration because they can connect systems with different data formats and data transfer methods. But hubs introduce complication because they add another place where development must take place and another runtime component.

For both of the above models, scalability quickly switches from a non-issue to a critical problem as datasets grow. Years of application use will often push data sizes into the terabytes and record counts into the 100 million+ record count range. Batch polling using SOAP starts to break down. The additional overhead not only limits transfer time but also significantly degrades application performance.

Message bus Integration

With a message bus, all systems follow the same standards and can share in a consistent method of transferring data between the systems. Any new system can plug into the bus, as long as it meets the standards. A Message Broker Service (MBS) allows the replication of data to as many endpoints as desired with no impact or change to the endpoints.

Any data source that can post to or retrieve data from the MBS can be effectively integrated to any other data source that can do the same. So if your customers already have an integration solution to that message bus, you can easily plug into that bus and manage the appropriate services for them. Similarly, if you

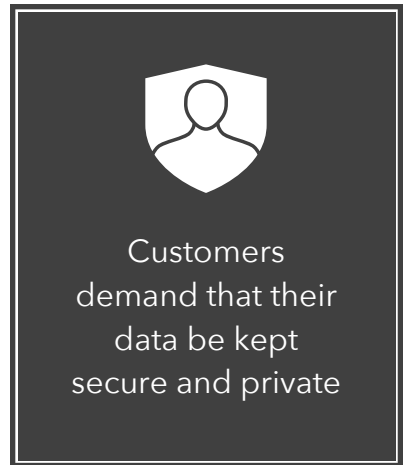
already have an integration solution that employs a message bus, your customers can plug in, letting you manage their services.

Before implementing such an integration solution via a message bus, **CDW** customers often needed to do development work on their end to complete integration projects with CDW – at price tags of \$50,000 in one case. *“That’s just not great when you’re trying to provide a solution to someone and they get a bill like that,”* says Paul Liesse, Supervisor of Managed Service Applications.

After implementing an integration solution via a message bus, CDW now offers their customers integration solutions that require no extra coding by the customer. *“It’s really nice to be able to go to the customer and say, we’ve got a solution ... the technical piece is super simple”.*

Digital transformation acknowledges the fact that customers are empowered. They have high expectations for innovative service. But they also expect high levels of security and privacy over their data, especially after every headline-grabbing breach of data security.

With the continuing rise in cloud computing, data security is a constant concern. The high level of risk led Gartner to feature security within their five risk areas to watch for 2019⁴. Also, the rise of privacy laws, including GDPR from the European Union and comparable laws in other countries plus US states, point to the paramount importance of keeping sensitive data private.



Public focus on security and privacy reveal their priority for your integrations, too.

⁴ <https://www.gartner.com/en/risk-audit/trends/audit-hot-spots>

Security

In addition to dealing with a general struggle for security, it's also critical that integrations are secure. Many, however, are not.

Challenges with Web Services

Web-services-based integrations to a database do not make use of any sort of security other than HTTPS transport. While there is no issue with encryption at rest in a direct web service, there is also no retry or store-and-forward capability available. Neither is there error checking and logging those errors. For web-service calls, you need to give users coming into your system the credentials to see your data.

Using web services for integrations also means risking data loss:

While **Crossfuze** used web services for integrations, they dealt with the regular frustrations of lost data and hours of maintenance - *"We were having challenges with data drops between REST calls between instances. So, we weren't getting all the updates from our customers' instances - working endless hours on troubleshooting where something left one instance but never showed up at the other, and understanding where that gap was, and what we could do to solve that problem. And really the problem was we had no queuing functionality, right?"*

"If I had a customer that I was integrating with to pull their data, . . . during that window that the instance was going through that upgrade, we had no way to queue any data that needed to be sent to them. And then send it once that upgrade was complete? We didn't have that capability"

- Matt Miller, VP of Delivery, Crossfuze.

Better Security Through Integration as a Service

In a push approach to integration, the system sending out the data is in control of what is sent out and where it goes. There are no system credentials required for the integration because it's not being pulled from a receiving system. A solution that is encrypted end-to-end ensures that data is secure.

Integration as a service via a native application provides encryption at the source and decryption at the target, using an encryption key provided by you. This setup provides a secure way to allow for additional data security, retry, and error management. Data security resides with the application owner, satisfying customer governance and privacy obligations. You alone view, own, and control the encryption keys for your data when you encrypt data in a native application, without the integration provider having to access those keys.

Integration as a service can also provide a redundant infrastructure of load-balanced servers and network connections, with data flow being restricted to specific regions as required. The cloud holds a message only until it is consumed by the intended data source. Usually, the data source will consume the data in less than a second.

Privacy

At the time of this document's writing, about half of US states have data-protection laws. In recent years, service-management professionals have expended even more effort toward complying with the General Data Protection Regulation (GDPR).

When implementing an integration solution, consider some ways to protect data privacy, both within ITSM systems and when in transit to other systems. Integration can help toward these efforts.

Data Obfuscation

Data obfuscation is the process of hiding original data with random characters or other data. This renders the original data unintelligible to users or other systems which do not have the authority to view it. For GDPR, this could include names, phone number or email addresses, social security numbers, or other PII data captured as part of the service delivery process.

It's critical to remain in compliance with data-protection laws after a data-cleansing exercise. Also, when moving data to service providers or even internally, it is important to be able to identify personally identifiable information (PII) when it needs to be removed or updated.

Using a data integration solution, customers can share data with a service provider's database, obfuscating the relevant data to stay compliant with GDPR.



Data obfuscation renders data unintelligible to those without the key to view it

Deletion Requests

“Right to be forgotten” is a key requirement within GDPR. If a user requests the removal of their personal data, or if workflow identifies data that is deemed inappropriate and a removal request is auto-created, IT must comply. This may involve collating PII data from multiple systems for validation by the user, so integration has to be able to bring together and standardize the required data. It’s also possible that data is being held on systems at external suppliers or service providers, and that data must be included in deletion requests.

Ideally workflow should automate and enforce the request/approval process so there is an audit trail to prove completion of the deletion of the user’s data.

After you decide on an integration solution, it will need to be implemented, maintained, and possibly enhanced.

Implementation

Integrations should demonstrate value rapidly, without requiring large teams of implementers at your organization.

To get up and running fast, select a solution that does not require coding or a complicated setup. Ideally, the solution is implemented as soon as you turn it on. The interface should also have familiar language and technology, enabling ease of use.

If you're shopping among vendors, look for an integration provider that is able to deploy subsequent integrations quickly.

As you prepare to implement, be ready to communicate some information to your integration provider. For example, at the least, have application names and locations available. But also, do some thinking about what you want to integrate that's more specific than just two instances or an instance to a database. Think about your integrations from a "business objective" perspective.

- What is the business goal you are trying to accomplish? Perhaps your integration vendor can suggest other ways that you can meet your objective - based on their experience
- You may plan to integrate one ITSM instance to another, but what fields do you wish to integrate?

- Will the data flow one way or bidirectionally? (Most data integrations are one way, but many service integrations are bidirectional.)
- Does your integration need to be real-time? Or should changes be batched together for nightly delivery?
- What event triggers the data flow? What should make the integration run?

The more you can tell your integration provider in advance what exactly you would like the integration to look like, the faster and more smoothly your implementation can take place.

Maintenance

Beware of do-it-yourself toolkits or packaged integrations, which can drain your time by requiring constant maintenance. It's probably obvious that in-house integrations usually require in-house maintenance. But even companies that use iPaaS platform toolkits for integration have huge teams managing them.

A different option is to select a complete solution, fully monitored, maintained, and supported by the solution provider. Clearly, it would be expected that such integration as a service



Maintenance
issues can
unexpectedly
disrupt service and
raise costs

would be more costly. But that's not always the case, especially once you factor in your reduced resource requirements.

Consider an example of a large service provider using a complete solution. Accenture uses fully maintained integration solutions for onboarding customers, for managing customers' tools, and for reporting. These integrations replicate over 2 million records per day. Before enlisting an integration provider, Accenture had a team that continually worked on managing access to data. With integration as a service, that overhead became unnecessary.

Continued Thriving of Integrations

You can take some simple steps to get even more value from your integration solution.

1. Articulate the business benefits. As companies move forward after they implement an integration, they find that analyzing and expressing business benefits in more detail prompts ideas for refining and expanding their integrations. Of course, in the face of budget pressure, articulated business benefits protect their integrations as well.

2. Articulate the ROI of your integrations. As you analyze the business problem and integration benefits in more detail, you are more likely to quantify the return on investment. To help you do so, consider the cost savings or new revenue made possible because of enhanced performance, stronger reporting, service continuity, new services made available, and reduced maintenance.

3. *Maintain communication with your integration provider.* If you selected a vendor for your integration rather than building the integration on your own, staying connected with your integration provider presents new ways to enhance business value. A complete integration solution will include the services of a customer success manager. This contact person is your advocate at the provider and a source of support for you. Also, a constantly evolving integration provider offers new developments to augment the integration possibilities for your company. Stay aware of new developments by attending webinars, following the blog, and connecting on social media.

4. *Learn new use cases.* A major advantage of using an integration provider's solution over a custom-built solution is that the integration provider has seen (and implemented) a host of integration use cases. Read online stories about those customers and ask your contact at the provider for ideas about business challenges that you face. Also, keep an eye out for new product releases. Integration providers often roll out extra features and functionality that they make available to customers at no extra charge. These changes can help you meet more needs and gain new business value.



5. *Engage in customer community.* When you sign up for an IT solution, you also often get the benefit of access to a network of customers who are in your shoes. Is there an online customer

community? Does the provider offer in-person events that let you meet with them and other service providers?

When your integrations thrive, you enhance business value for your company - and, in the process, you give solid evidence that your IT endeavors are critical to the success of your company.

At this point, you likely realize that integration is vital for effective delivery of services and the overall success of your business as a service provider.

What you may not have realized is that it also serves your efforts and that of your customers toward digital transformation. Like businesses around the world, your company and your customers may have started pursuing an organization-wide re-engineering of business and technological processes - a business overhaul known as digital transformation.

Consider how integration plays a role.

Digital Transformation at Your Company

Pursuing digital transformation, businesses adapt in order to secure the value of the Fourth Industrial Revolution, which is seeing advances in quantum computing, artificial intelligence, the Internet of Things, and robotics, among other fields. Digital transformation accounts for the fact that the current technological revolution means that businesses must adapt to remain competitive and to meet customer expectations.

One breakthrough of the Fourth Industrial Revolution is the phenomenon of big data. In 2017, it was determined that 90% of the world's data was created in the previous two years, with just

0.5% of that data having been analyzed⁵. Such a rate of data creation presents new and enormous opportunities for analytics. You and your customers have mountains of new data as well, giving you vast opportunities to report on and learn about your company, your suppliers, and your customers. Integrations will help you to strengthen your analytics without performance impacts on production instances.



Beyond big data, another key theme in digital transformation is automation⁶. Businesses automate for artificial intelligence, for robotics, and for Internet of Things. How does automation play a role in service management? IT teams automate many service-management elements, including knowledge management and incident management. Through integration, you and your customers can trigger automated status updates, assignment of incidents, and a number of other actions.

⁵ <http://reports.weforum.org/digital-transformation/big-data-analytics-and-the-cloud-a-smarter-more-connected-future-ahead/>

⁶ <http://reports.weforum.org/digital-transformation/maximizing-return-on-digital-investments/>

Yet another key theme in digital transformation is the reinvention of services to adapt to customer expectations⁷. Because siloed data and apps weaken the quality and reduce the efficiency of those services, integration is essential. With new services being made available, businesses create new streams of revenue, boosting their financial stability. Integration makes new services available, sometimes directly, and sometimes indirectly as a result of freeing up resources to let you focus on your mission as a service provider.

Integrations for the Growth of Service Providers

With digital transformation taking place at your company or among your customers, integration is an essential component for managing growth - and fueling future growth.

Service providers encounter a series of “growing” challenges, including a growing number of apps and databases to connect, a growing volume of data to transfer, and a growing number of customer implementations.

As you grow, you will be taking advantage of the increasing size of the market for service providers. These providers seek to adapt to new opportunities presented by customers. Service providers that stand out for prospective customers are those that innovate and differentiate.

⁷ <http://reports.weforum.org/digital-transformation/the-race-to-meet-customer-expectations/>)

Integration solutions will be critical for those efforts, as you seek success in your growing business as a service provider.

If you're ready to speak with someone about bringing integration as a service to your business, visit <https://www.perspectium.com/get-started>

or call us: +1 888 620 8880 (USA) or +44 208 068 5953 (UK).

**For additional information on integrations
for service providers, please visit
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