Automation Beats Integration: Meeting Your Business Goals with Automated Connections

April 2020

Automation Beats Integration: Meeting Your Business Goals with Automated Connections

"We need an integration."

When a company decides that one system should connect to another, they often have a legitimate business goal in mind. But when the integration requirements arrive to the IT team that creates the integration, the business need can be forgotten.

The IT team is often more focused on solving the technical problem of building the integration than on the underlying business value. Or the IT team just doesn't have the resources to build the kind of automated connections that do justice to the business goal. The result is that an integration gets created. And that's it.

However, to realize business value, a company needs much more than integration. It needs automation.

Where Integrations Come From

How have companies traditionally decided to pursue integrations? Usually, the integration is already in action — but only as a manual swivel-chair integration. To illustrate, an email may arrive, and a person copies data from the email and into an application. Eventually, it occurs to the company that this error-prone, inefficient approach should be replaced by a technical solution.

To replace the swivel-chair integration, someone builds a point-to-point integration, most often via web services. This is an ad-hoc integration. It may be built by individuals tasked with producing reports and analytics, populating data warehouses, replicating records between prod and sub-prod instances, training machine learning tools, and many more activities.

But these manually created integrations are severely limited. When the business needs to extract information from disparate streams of data in a timely fashion, they discover that the existing ad-hoc point-to-point integrations are time-consuming, performance-impacting, difficult, and error-prone.

Why Standalone Integrations Fail

The problem with so many integrations is that the vision to build them was nearsighted. It was thought that simply connecting two systems would solve the problem. But just linking two pieces of technology to exchange data is severely lacking ...

- A lack of considering the originating business need
- A lack of understanding of what's going to happen with the data at the destination
- A lack of recognition that business processes, business demands, and technology change constantly
- A lack of thought about how the connection will be maintained over time through software updates and other changes
- A lack of monitoring to tell you whether your integration is actually working
- A lack of strategic plan about where else the data could be used

The creators of these integrations were more concerned with solving a technical issue (connecting A to B) than solving a business challenge.

The creators of standalone integrations too often focus more on solving a technical issue than solving a business challenge.

Nearsighted View	Big-picture Business Goal
We need to connect ServiceNow to an Oracle database.	*We need real-time actionable insights on the business impact of IT.*
We need to copy data from production to development.	*We need to test and develop with real data to give us confidence about the positive business impact of our product update.*
We need to pass incidents to the new service provider.	*We need to adopt a service portfolio model, with transparency across processes whether service is delivered internally or by 3rd party service providers.*

The result of creating integrations with a nearsighted view is that they fail to support business growth. These integrations are, in fact, standalone integrations - and over time, they end up creating an entire mess of integration spaghetti.

What kind of solution is built with business value in mind? Automation.

How Integration Relates to Automation

To get from home to the office, which one will you choose?

OR

The wheel is a wonderful invention. But by itself, it's not that useful when you want to get to work. The objective is to get from home to the office. The wheels are just not going to get you there by themselves. That's because the wheel is a transportation component, but not a transportation solution.

Your transportation solution is the entire car — wheels, engine, seats, navigation system, lights, and hundreds of other components — a complete and superior experience for getting between home and work.

Integration is a necessary component of an automated solution to connecting systems and replicating data. But integration, on its own, does not meet business goals. This challenge requires automation, which includes both integration and a whole lot more.

When we talk about integration, we're referring to the connection of a source to a destination to allow for data or process movement. But integration is just one part of automation.

Automation
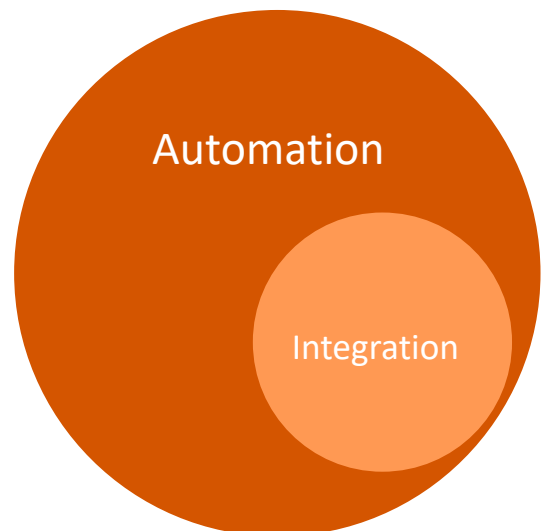
Integration

Why Automation Surpasses Integration

Both integration and automation exchange data between a source and a destination. But what else does automation include? How does automation exceed integration in value toward achieving business objectives?

No New Tools

A very common way to integrate two tools is to add yet another tool to make the connection. But this approach reduces or eliminates the chance for you to retain control, security, and privacy over the data exchange.

When you automate a connection from ServiceNow, it would be a lot easier to control that connection from within ServiceNow.

- No new tools to learn
- No new permissions to manage
- No new user licenses to buy
- No credentials to pass around

Too often, integrations are managed by separate integration teams, leaving the service management team in a long line or queue, waiting their turn for the integration project - along with everyone else in the business that has any kind of integration need.

Modern automation is managed from within the application creating the data. As a result, data owners are also process owners, allowing them to stay in control of their data. This arrangement prevents potential security problems arising from credentials being passed around in web service calls. It also allows the automation to be aware of the applications that underlie it, so the changes in those applications can be automatically reflected in the automation.

Transform Data at the Source

Another benefit of controlling the automation from within ServiceNow is that you have the ability to transform data at the source.

As data moves, it often needs to be changed. The modification could be a simple format change joining a first-name field to a last-name field to create a full-name field. Or the transformation could be significantly more complex.

Organizations often need to move data into a data warehouse, but only after removing all of the personal identifying information first. While there are different ways to scrub data as it moves from place to place, it is completely counterintuitive to replicate the private data to an external system first and then clean it.

A modern automation solution will let you transform data before it leaves your system of record. The data owner retains control over the data.

Automatically Create Schemas

When you export data to a database, you have to set up that database first. Simply dumping data into that database will not ensure that it all ends up in the right place. So, automation solutions often require work from database administrators (DBAs) to set up the data repository, ensuring that it captures data the right way.

But the DBA is another external resource that you have to rely on - a resource that is probably already in high demand across the business, and a resource that you will need to engage every time you change your service management process or data.

Modern automation solutions don't require you to engage a DBA every time you make a change to your application or the data you want to extract. Modern solutions configure the schemas automatically. There's no delay in getting the right data to the right place at the right time. You also have the flexibility of being able to change whatever you need to change, allowing you to support the business without worrying about getting onto someone else's calendar first.

Highly Available and Monitored 24/7

Once you have everything set up, you need to make sure that your automation keeps doing what you think it's doing. After all, your automation is useless if it's not extracting everything it's supposed to or if it's not working at all.

But if you're creating your own automation solution, you'll need to ensure that it's always working. Yet, a series of challenges raise the level of maintenance.

- What happens if you have a network or power outage? Will your data transfers automatically happen once connectivity is reestablished?
- What happens if the integration doesn't fail completely but just slows down?
- How will you know that there's a problem in the first place? How long might that problem go undetected?

When your business operates based on data that failed to transfer, such incomplete data can lead to errors, ill-informed decisions, a worsened customer experience, and decreased revenue.

Modern automation solutions are highly available and are monitored 24/7 to ensure that if there is a problem, you find out about it quickly. The problem gets fixed fast, and you have the ability to go back and audit your data transfers to understand exactly what data moved and what didn't.

Real-time Data Transfer

Your business and your IT department operate in real time. And so should your automation. Due to the impact that some forms of integration have on ServiceNow performance, businesses often elect to perform their data exchanges after business hours. But this means that the data you're delivering to the business is, at best, several hours old - and perhaps up to a day (or more) old.

Imagine having to wait until you park to find out how fast you were driving or how low the fuel level was. You don't drive a car - or a business - with old information.

The problem is that web-services integrations impact ServiceNow performance because they're using the same communication channels that your users are using to connect with ServiceNow. And web services weren't meant to move large amounts of data in the first place.

Modern automation solutions don't impact performance, and they operate in real time - just like your business.

Security for Your Connections

A do-it-yourself solution that uses web services often means exchanging login credentials with each of the data exchanges. And those login credentials probably have admin access so that they can get to all of the data that they need to extract.

Those credentials most likely also need to be changed on a regular basis, which means you must recreate those web-service integrations each time you update your integration user's password.

Modern automation solutions don't have this issue. They're not exchanging credentials. In addition, they provide encryption while your data is at rest and in transit. Automation is important to your business, and so is security. You should not have to compromise one to get the other.

Allowing a Data Engineering Approach

Instead of extracting everything for each data destination and relying on the receiver to make sense of the data, think about what data is needed, where it is needed, and in what form. You can even fan out the data so that you send it out once, but it's received by multiple destinations.

A data engineering approach intentionally ensures that the right data gets to the right place at the right time, as opposed to extracting everything and then trusting that the destination application knows what to do with the data.

	Integration	Automation
Move data from a source to a destination	●	●
No new tools		●
Transform data before it leaves the source		●
Automatic schema creation/modification		●
Highly available and monitored 24/7		●
Real-time data replication		●
Security for your connections		●
Allows a data-engineering approach		●

What Automation Looks Like in Action

What does automation look like in action? Consider some actual business examples.

Crossfuze provides as-a-service solutions for ServiceNow and Microsoft Cloud customers. They needed to connect into each of their customer 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 a service provider relies. So automating this process resulted in their reducing new-customer onboarding time by up to 83 percent.

They have been able to eliminate the need for manual replication of data between systems. Crossfuze has also introduced common workflows and consistent service levels. They now support more than 10 million customer transactions every month and have expanded their service portfolio to include knowledge management and CMDB. Crossfuze has created a federated system of record for incidents, CMDB, and knowledge. They have lowered costs by providing a single place to work for their agents. They have increased security by not requiring multiple logins. And they have increased visibility with accurate centralized reporting.

When the business need is driving the automation, this is the sort of solution that you end up with.

ServiceNow is the leading provider of service management with solutions for every department in the enterprise, including IT, human resources, facilities, field service, and more.

They needed to integrate CRM data from multiple production applications into their big-data environment, providing business decision makers with real time access to essential analytics data, without creating a performance impact on their production environments. Perspectium has worked with them to automate the replication of data from 10 production instances of ServiceNow into 4 SAP HANA databases for analysis by sales, marketing, finance, and other departments.

This has resulted in the movement of around 13 million transactions every day at ServiceNow, without losing or dropping any of them. The ServiceNow BI team now provides quick results to the business, and they turn around analytics requests in just a few days.

At **Accenture**, the managed services team needed to automate a series of processes, including reporting, onboarding, and migration. On the reporting front, they needed to set up a reporting data warehouse to bring in data from ServiceNow and other tools. The data replication needed to be secure, and it needed to ensure that only customers had visibility of their own information.

The solution also needed to be automated so that changes in the data didn't require additional intervention at the database level. After all, the managed services business is one of continuous change.

Accenture is growing rapidly. They're onboarding new customers every week, and they've been able to eliminate the need for eleven custom standalone integrations. They're automating the transfer of 2 million records every day and are offering real-time ServiceNow reporting access to over 100 million records per month.

In the past, Accenture had a team that continually worked on managing access to data. And now Perspectium is there in the background, keeping it all working for them.

Meeting Your Business Goals with Automated Connections

Business-driven automation is how you drive business success. Both integration and automation give you the basic capability to move data from one place to another, but automation delivers a complete solution.

All of the benefits of automation are available for free through Perspectium's free version of DataSync, available in the ServiceNow store. Experience the benefits of automation, and exchange up to 1 million incident records every month, at no cost, ever.

If you're ready to speak with someone about bringing automation to your business, visit
https://www.perspectium.com/get-started

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