

ServiceNow MuleSoft Integration Challenges Addressed and Benefits Delivered



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This whitepaper will examine how some of the promised benefits are being delivered by the ServiceNow-MuleSoft integration.

INTRODUCTION

Application integration and API management product company MuleSoft announced an investment round in February 2015 with participation by service management product company ServiceNow. This followed certification of MuleSoft's AnyPoint ServiceNow connector for integrations with ServiceNow in December 2014. The certification was based on the connector passing various tests for integration, interoperability, performance and security as well as adherence to design and implementation standards. It is clear that the companies and their products are looking to present a unified image to their many enterprise customers.

This Whitepaper will briefly introduce ServiceNow and how organizations are addressing their ITSM challenges with the product as well as some gaps that the ServiceNow MuleSoft integration seeks to address. The paper will then examine how some of the promised benefits are being delivered by the integration.

ServiceNow Overview

IT Service Management is defined as a combination of people, processes, and tools that are deployed to support the production environment or for delivering other IT services to the organization's internal & external customers. ServiceNow is a cloud-based ITSM tool focused on the enterprise.

ServiceNow focuses on the workflows within the enterprise and helps enterprises define, codify and automate these workflows to ensure predictability and scalability on a day to day basis.

Enterprises deploying ServiceNow leverage the capabilities of the product in:

1. Incident Management: Address issues that could cause service disruption and fix them in a timely manner.
2. Issue Management: Identify the factors behind "incidents" that cause, or could potentially cause, service disruption, and find ways to fix them so incidents don't recur.

3. Request Management: Managing, routing and directing communications between groups within the enterprise including “requests” for services.
4. Knowledge Management: Collecting information on issues related to service delivery and making to available to users when required.
5. Tracking and Reporting: Robust monitoring and reporting of all the elements involved in the process of service delivery on an ongoing basis.

ServiceNow itself identifies the following capabilities⁽¹⁾ for its product offering:

1. Service Management: Improved workflow efficiency across IT, HR, Facilities, Field Services and other service areas.
2. IT Operations Management: Simplify service delivery, mapping and assurance, automated provisioning and monitoring.
3. Business Management: Tracking, monitoring and reporting tools.

ServiceNow focuses on a variety of business domains including Financial, Healthcare, Higher Education, Managed Services and various Government sectors.

Typical challenges organizations face while adopting ITSM

ServiceNow's SaaS-based approach has helped it differentiate itself from competing ITSM product offerings and, as a result it has gained wide acceptance in the Enterprise ITSM market. The product is feature rich and easy to implement. There has been a constant evolution in the product in response to demands from the market. An example of the commitment to innovation was the early announcement to mobile enable the entire application in November 2013. Most reports and reviews about challenges organizations face with implementing and leveraging ITSM in general and ServiceNow solutions in particular have traditionally focused on the following areas:

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1. Architecture: ServiceNow calls its architecture Hybrid Tenant. This is a single-tenant architecture but which allows multiple instances utilizing Virtualization. Single tenant architecture has sometimes been claimed to be more complex, especially during events like upgrades. Despite that ServiceNow has maintained that the single tenant architecture provides a greater degree of security to its customers and points to a track record of having managed several upgrades without significant customer disruption.
2. Reporting: While ServiceNow itself has robust reporting capabilities but in general organizations face some challenges during the implementation of most business intelligence tools.
 - a. Database: Relevant data resides around the organization in various databases and locations. This presents a challenge for reporting – how to identify what data is relevant, where it is available and what combinations with other relevant data should be considered to put together an accurate picture?
 - b. Time and Cost: It takes time, skilled resources and therefore money to design, implement and finally reporting that is most relevant for your specific organizational needs.
3. Organizational Challenges: ServiceNow is relatively easy to implement and maintain as it is SaaS based. Despite the ease of implementation organizations deploying any ITSM solutions have to make sufficient provision for resources. As with most specialized software products, this presents some challenges the organization has to address in terms of provisioning the right team staffed with people with the relevant skills. Organizations choosing to engage consultants for the task or looking to outsource it have the challenge of choosing the right consultant or agency with the experience and skills to see the whole implementation through.
4. Integration: Most organizations have complex IT infrastructure with several disparate systems of different capabilities. It follows that some of the biggest challenges organizations face while implementing ITSM relate to integration. Integration is inherently difficult since it calls for

bringing together these multiple different systems together and make them work seamlessly with each other. These systems have to exchange information with each other when required to provide a unified view of the service delivery across the enterprise.

a. One of the key integration challenges is that the way different systems look at data, classify it and identify it may be different from each other. Systems being integrated will have to account for these differences to ensure that they are able to work together seamlessly to deliver the quality of service the organization needs.

b. IT Systems being integrated with each other may not be well-suited to working together – for instance they may follow different standards or rules. In the case of licensed, packaged software the option to customize them to make the integration work is often not easy. The only option then would be to introduce a layer in between these incompatible systems to facilitate the integration. Adding more layers often adds complexity, cost, maintenance and customization effort and introduces new points of failure.

c. Integration becomes more difficult when the systems being integrated are geographically displaced. Organizations today are spread across many locations, each with its own complexity of networks, access speeds and protocols and local conditions. Integration may need to be achieved through the Cloud which would call for specialized technology skills.

d. Integration, especially complex integration, is sometimes thought to be cost intensive. Ovum has estimated that organization spending on integration middleware will reach \$ 17.9 billion in 2018 growing at a CAGR of over 9%.⁽²⁾ The effort of integration is also an important consideration – provisioning the right kind of resources with appropriate skills in the right numbers to be able to achieve the integration is a complex task. The larger the number of systems or the more complex they are the more is the effort involved and also the cost.

The integration challenges are quite formidable and if inadequately addressed can come in the way of the ITSM solution delivering the expected benefits. This is where specialised connectors, like MuleSoft Anypoint, can play a critically important role.

Overview of MuleSoft AnyPoint ServiceNow Connector

MuleSoft seeks to address one of the key challenges in today's complex and distributed IT environment – integration between the various applications, databases, data sources and APIs across either the Cloud or in-premise. The flagship product is AnyPoint, an integration Platform as a Services (iPaaS). MuleSoft itself says, "MuleSoft provides the platform that changes how businesses connect by making it fast, flexible and easy. APIs are the catalyst for this change, unleashing information and eliminating the friction of integration for unprecedented speed and agility. With Anypoint Platform's API-led connectivity approach, MuleSoft is lifting the weight of custom connections and freeing companies to innovate faster."⁽³⁾

The principal benefit is that the task of custom coding to create effective and seamless integration between devices, data sources and applications is greatly reduced. The AnyPoint platform comprises the following elements:

- 1 Mule: The runtime engine with the application and data integration capabilities.
- 2 AnyPoint Connectors: Ready connectors for a variety of applications, devices and data sources both on the Cloud and in-premise.
- 3 AnyPoint Design Center: Tools kits that can be used for building connectors and customizing workflows.
- 4 AnyPoint Management Center: Administration and management layer for the integration that has been facilitated.



Picture credit- MuleSoft

Chris Purpura, Vice President, and General Manager, Cloud Integration at MuleSoft states the value proposition clearly, "An explosion of disparate applications and data sources exists in the enterprise today. The need to build connections between on-premises systems and cloud solutions is fueling continually increasing demand for integration. Our certified integrations built on AnyPoint Platform enables global enterprises to connect ServiceNow with their existing systems and third-party solutions, making it easy to move data in and out of ServiceNow."

There are also functioning community aspects to the platform like AnyPoint Exchange – a forum for developers to search and share their own work and the AnyPoint Portal, a forum for API developers to connect with App developers.

The MuleSoft AnyPoint ServiceNow connector is now into its 5th version. In Dec. 2014 the connector received certification from ServiceNow based on clearing integration, interoperability, security and performance tests as also design and implementation parameters.⁽⁴⁾

The AnyPoint ServiceNow connector allows organizations to migrate data, integrate and consolidate applications and increase the effectiveness of their ITSM initiatives. This is achieved by allowing easier and faster integration between ServiceNow and business critical applications like Salesforce, SAP and Microsoft Dynamics among 120 applications with available connectors. MuleSoft itself makes the point that service delivery across most business functions like HR, Legal, Finance, Procurement, operations, Marketing and Facilities will be made easier with the extension in the ITSM capabilities.⁽⁵⁾

The Benefits of Adopting ServiceNow with the MuleSoft Integration

The core benefit of leveraging MuleSoft's API led connectivity is that all the heavy lifting of creating functional connections between applications, data, devices and business services is already done leaving no need for custom development of connectors or complex integrations. In the context of the ServiceNow MuleSoft integration the business key business benefit that could accrue is greater operational control of the

infrastructure and a more in-depth view of the production environments responsible for service delivery. The integration will result in:

- ▶ System driven generation of alerts, creation of incidents and requests, and assignment of these to the teams or people responsible for addressing them. In effect, the ServiceNow connector is an Incident Management System or Ticketing System. Connected applications can send quick alerts by creating incidents or tickets when something goes wrong.
- ▶ Tighter and more complete integration of business processes across functions like HR, legal, procurement, operations, marketing, and facilities.
- ▶ Better automation of IT services with on-premises and cloud connectivity between ServiceNow and other CRM, HCM, ERP applications, and services. The ServiceNow connector can be used for data replication, application integration, and data migration thereby allowing businesses to sync ServiceNow data and extend ITSM capabilities to SaaS and on-premises applications like Salesforce, SAP, Workday, and Dynamics.
- ▶ A quick, seamless and safe connected environment- from deployment to decommissioning across the enterprise. This connector provides access to standard tables in the ServiceNow database, enables to perform operations like Insert, Delete Record, Delete Multiple, Update, Get, Get Keys, and Get Record.

Another key benefit is the variety of “ready-to-use” templates created on the MuleSoftAnypoint platform™ for ServiceNow. These templates are user-friendly, easy to use and scalable. The available templates include:

1. Employee Aggregation: This template is designed to aggregate employees from Workday and users from ServiceNow into a CSV file. This basic pattern can be modified to collect data from various sources and produce formats other than CSV. Employees and users can be sorted in such a way that employees' data is shown first in Workday followed by users in ServiceNow and lastly employees/users found are found in both the systems. Data can be customized or can be easily modified as needed. This template can be used for building APIs using the Anypoint Platform.

2. User Broadcast and Service Request Broadcast : Information of a worker can be added or removed from Workday using this template. These templates allow the broadcast (sync) of changes to workers in Workday to users in ServiceNow in real time. Systems can be added indicating the changes made. Real time synchronization is achieved via rapid polling of Workday or by slowing down the interval to near-real time. This template ensures that only recent changes are captured.
3. Service Request Migration : This template is designed to move a large set of workers from Workday to ServiceNow where they are created as Service Requests. This template can be useful while changing infrastructure, office space, dealing with an acquisition and others. This template makes it easier to move large set of data with greater transparency.⁽⁶⁾

The MuleSoft ServiceNow integration scores in the ability it gives to enterprises with complex infrastructures to bring them together with the end objective of improving service delivery.

Alcor's capabilities in ITSM and ServiceNow

Alcor is a global cloud advisory and implementation services company serving Government establishments, Fortune 500 and other leading organizations in multiple industry verticals. We advise leading businesses on cloud platforms, architecture, enterprise service management and integrating IT service delivery. We provide focused and specialized skills to address the technology needs of our clients in the ITSM, IT Asset Management, systems integration, web development and mobility space. We have several years of deep expertise in providing solutions to our client organizations.

We take a strategic ITSM implementation approach and focus on solving the business problems of our clients by leveraging an integrated business process design and technology implementation capability. Alcor's ITSM solutions with ServiceNow leverage a business view of IT services. The objective is to enable the IT support organization to:

- ▶ Quickly resolve or escalate issues and problems
- ▶ Improve root cause isolation, and
- ▶ Provide higher levels of business user satisfaction.

We bring substantial process expertise, ServiceNow experience and depth of organizational governance modeling to build solutions that are effective and provide complete life cycle support for:

- ▶ Incident Management
- ▶ Problem Management
- ▶ Change Management
- ▶ Configuration Management

We also have a specific focus on ServiceNow Express – ServiceNow's SME targeted offering. Alcor has significant experience specifically in integrating MuleSoft with ServiceNow. We achieve this by leveraging our integrated business process design and technology implementation capability. Our professionals are the top talents in the business with deep personal understanding of the business verticals we service. This allows us to deliver flexible solutions that work in the real world. Our strength lies in delivering solutions that are customized to the specific requirements of our customers including complex integrations with the other systems in the eco-system like Financial and Procurement Management systems.

For more information about our capabilities or about IT Service Management and ServiceNow please write to us at information@alcortech.com

CONCLUSION

The business environment has become very complex with the advent of social, mobile, cloud and special purpose on-premise systems. Service delivery is directly impacted by any gaps or incompatibilities that emerge in the infrastructure and the MuleSoft ServiceNow integration seeks to address some of these challenges. Chris Purpura, Vice President, and General Manager, Cloud Integration at MuleSoft states the value proposition clearly, "An explosion of disparate applications and data sources exists in the enterprise today. The need to build connections between on-premises systems and cloud solutions is fueling continually increasing demand for integration. Our certified integrations built on Anypoint Platform enables global enterprises to connect ServiceNow with their existing systems and third-party solutions, making it easy to move data in and out of ServiceNow."⁽⁷⁾

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Alcor is a technology implementation company focusing on Enterprise and Government technology needs in ITSM, systems integration, web development and mobility space. We provide a strategic ITSM implementation approach to our clients and focus on solving business problems by leveraging an integrated business process design and technology implementation capability.

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