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Enable Self-Service Infrastructure Automation with Cohesity and ServiceNow

*Reduce Complexity with Seamless Infrastructure
Automation*

ABSTRACT

Automation in IT operations has moved from an add-on feature to a critical requirement. With ServiceNow, you can automate workflows, gain real-time operations visibility, and improve IT productivity, allowing you to switch your operational investments to innovation. Cohesity integrates with ServiceNow, helping you orchestrate and gain visibility on operations in your modern IT organization. Cohesity's integration with ServiceNow is applicable for the entire lifecycle of a VM, enabling data protection at VM deployment, management, and deprovisioning.

Table of Contents

Complexity in the Modern Data Center	4
Cohesity Addresses Management Complexity	5
API-First Architecture: Simplicity as a Foundation	6
Integration with ServiceNow	7
Solving Provisioning and Management Challenges	8
ServiceNow Plugin Capabilities	9
Enable Data Protection for the Entire Lifecycle of a VM	10
Provisioning	11
Management	12
Deprovisioning	13
Get Started with the Cohesity Plugin for ServiceNow	14
Learn More About Cohesity Automation and APIs	15
Your Feedback	16
About the Author	16
Document Version History	16

Figures

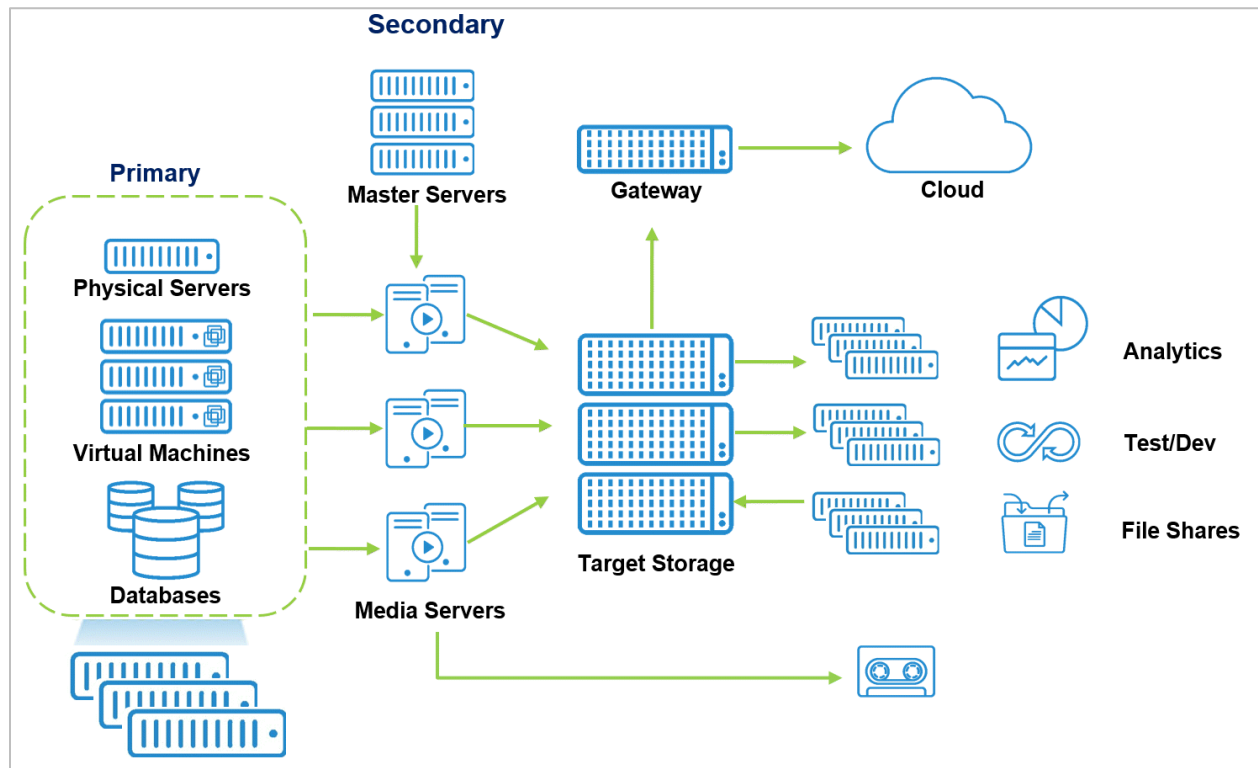
Figure 1: The Modern Data Center, with a Spectrum of Siloes, Layers, and Tools	4
Figure 2: Cohesity's Integration with ServiceNow	5
Figure 3: Cohesity's API-first Architecture	6
Figure 4: Cohesity Integration to ServiceNow through a REST API	8
Figure 5: Cohesity's ServiceNow Plugin	9
Figure 6: Access Data Protection Services from the ServiceNow Console	10
Figure 7: Assign VM to a Protection Job	11
Figure 8: Moving a VM from one Cohesity Protection Job to Another	12
Figure 9: Manage Cohesity Data Protection Workflows from the ServiceNow Console	12

Figure 10: Deprovisioning VM 13

Complexity in the Modern Data Center

The modern data center is complex, with a gamut of undesirable effects, including increased costs, reduced agility, and even downtime. Virtualization and hyperconvergence have addressed many of those challenges, reducing complexity and increasing efficiency. Efficiency can be taken a step further by integrating key workflows in your infrastructure, not just its physical components.

Figure 1: The Modern Data Center, with a Spectrum of Siloes, Layers, and Tools



In the typical modern data center, different tools orchestrate workflows to and from servers, storage, backups, and applications. The result: fragmentation, in every sense of the word. Not only is data siloed, but the workflows—and the tools to manage them—are fragmented, as well.

Among other factors, management complexity arises from:

- A plethora of management tools and applications for unstructured data.
- SLAs that are not updated to suit the needs of your organization.
- A lack of self-service capabilities for common, frequent IT workflows.

A steep learning curve in managing key elements of infrastructure.

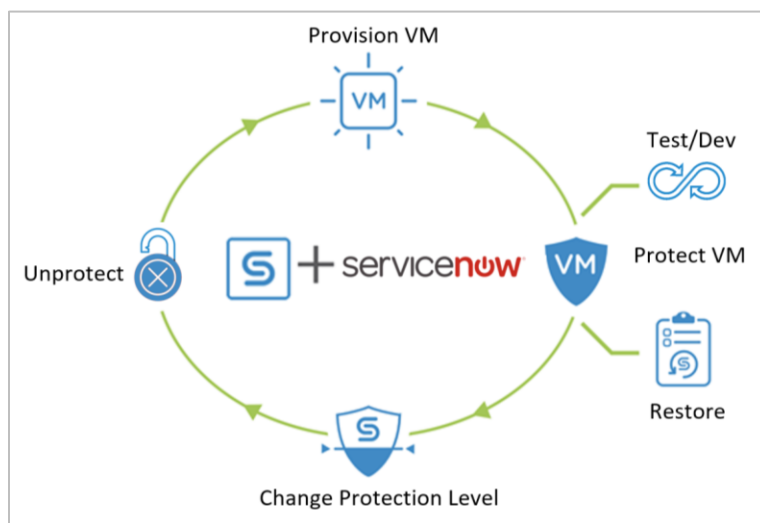
Without a single workflow-management interface, complexity in the data center grows exponentially, rather than incrementally. With every additional application or workflow, the management overhead increases. Every application is a new application to manage, and a new dialect to learn.

Cohesity Addresses Management Complexity

Cohesity is based on an API-first architecture, valuing automation, consumable-APIs, and self-service capabilities from the get-go. The businesses of today rely on automation and APIs to speed IT delivery and Cohesity understands this. Users can enjoy error-free consistency and self-service manageability that extends the capabilities of individual applications and enables IT to spend less time with management, and more time with ambitious, value-oriented projects.

As illustrated in Figure 2 below, using Cohesity's integration with ServiceNow to add Cohesity to your data infrastructure strategy immediately simplifies data protection, workflow automation, and self-service data management for your virtual machines (VMs), applications, and more.

Figure 2: Cohesity's Integration with ServiceNow



Cohesity simplifies secondary data protection and works in concert with other popular cloud management platforms; Cohesity's API-first architecture exposes functions including backup recovery, test and dev, and file and object services. Cohesity integrates with existing orchestration tools such as VMware vRealize and ServiceNow, and also enables teams to create homegrown custom portals for automation, reporting, and monitoring.

API-First Architecture: Simplicity as a Foundation

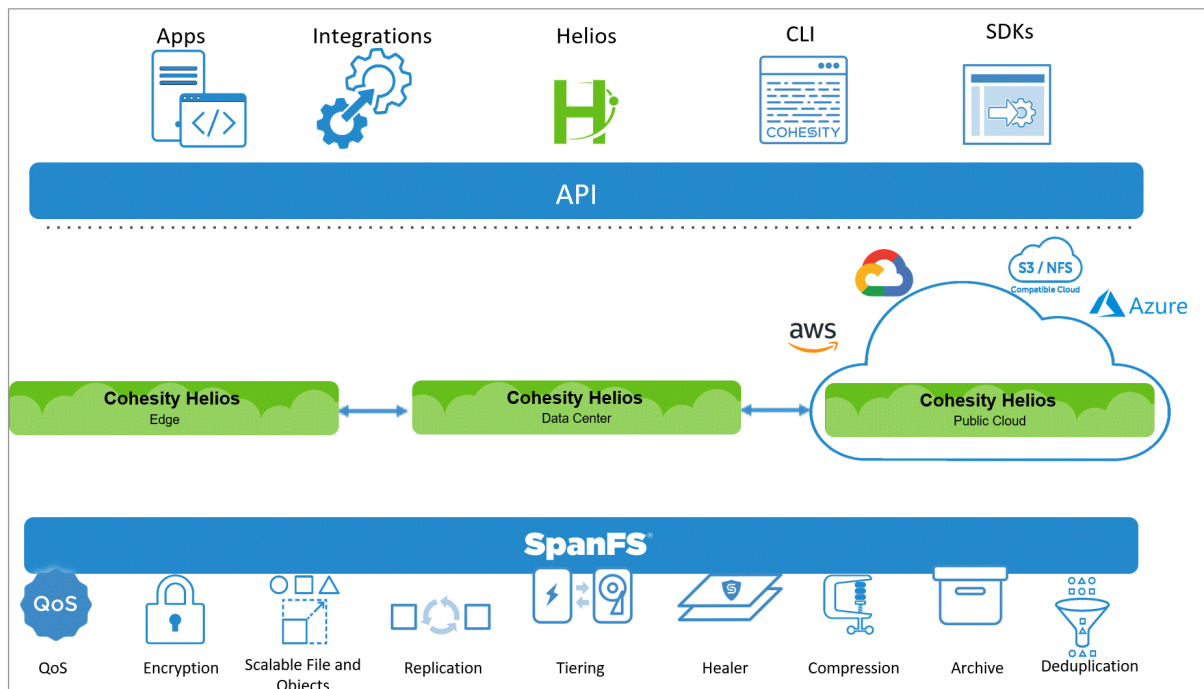
A well-designed platform echoes the notion of simplicity and extensibility. Among other factors, a well-designed and effective platform has these traits:

- Easy to manage
- Easy to extend
- Easy to integrate with

The ethos of API-first architecture and design revolves around the idea of putting the interests of target developers and consumers first. Core functions are viewed as the foundation of the system and can be extended to interface with new services to address new opportunities. A nimble organization starts with the underlying infrastructure; having an API-first approach as an undercurrent allows for rapid and cost-effective application development and deployment.

Cohesity has all three traits of a well-designed platform, keeping manageability, extensibility, and integrability central to the design process throughout, rather than as an afterthought. Adhering to OpenAPI specifications and API-first design principles, every interface, component, and integration is built on top of Cohesity’s REST API.

Figure 3: Cohesity’s API-first Architecture



Cohesity supports integrations with the tools your team already uses. Support for numerous orchestration and automation tools already includes ServiceNow, Ansible, and the vRealize suite. As a corollary, homegrown, custom tools can be integrated with Cohesity, allowing teams to move infrastructure rapidly to meet their evolving business and IT needs.

Integration with ServiceNow

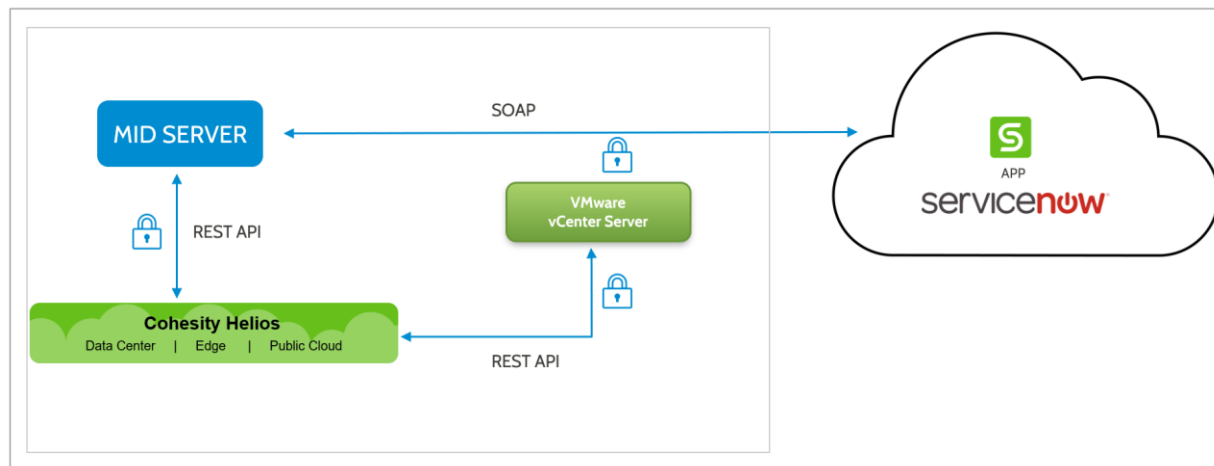
Automation in IT operations has moved from an add-on feature to a critical requirement. ServiceNow facilitates automation. ServiceNow provides a modern service management solution in the cloud. ServiceNow allows you to consolidate tools, transform the way you deliver services, and improve customer experience. With ServiceNow, you can automate workflows, gain real-time visibility, and improve IT productivity, allowing you to switch your operational investments to innovation.

Cohesity integrates with ServiceNow, helping you orchestrate and gain visibility towards the entire lifecycle of a VM.

Solving Provisioning and Management Challenges

ServiceNow can address the management of a variety of infrastructure components, bringing agility and flexibility as byproducts. Precisely, ServiceNow helps address Day One challenges, such as the provisioning of resources, and Day Two challenges, involving the ongoing management of infrastructure resources.

Figure 4: Cohesity Integration to ServiceNow through a REST API



ServiceNow addresses:

- The provisioning of VMs, a common task in the enterprise IT organization.
- Ongoing management of VMs and VM resources through a self-service mechanism.
- Virtual machine provisioning process optimization, eliminating the need to provision VMs on a case-by-case basis.

The Cohesity plugin for ServiceNow allows you to monitor and manage the Cohesity platform. Existing VMs in vCenter, Protection Jobs, Runs and Policies can be imported once you register the cluster with ServiceNow. The VMware vCenter Backup and Restore workflow through ServiceNow is also supported.

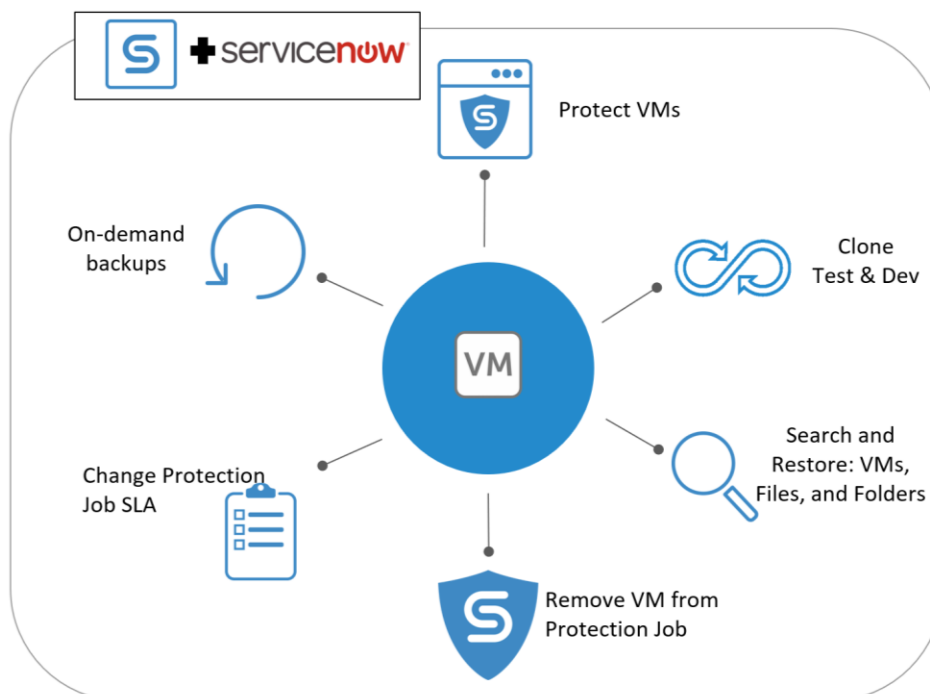
ServiceNow Plugin Capabilities

The Cohesity plugin for ServiceNow enables self-service for end users and the automation of repetitive tasks. At a granular level, the plugin allows data protection workflows to integrate with request, change, configuration, and incident management, bringing data protection to IT service management.

The Cohesity plugin for ServiceNow allows you to:

- Protect VMs.
- Search and recover VMs, files, and folders.
- Move VMs to different Protection Jobs.
- Change the SLA of a Protection Job.
- Remove VMs from a Protection Job.
- Back up and recover on demand.
- Clone and restore objects.

Figure 5: Cohesity's ServiceNow Plugin

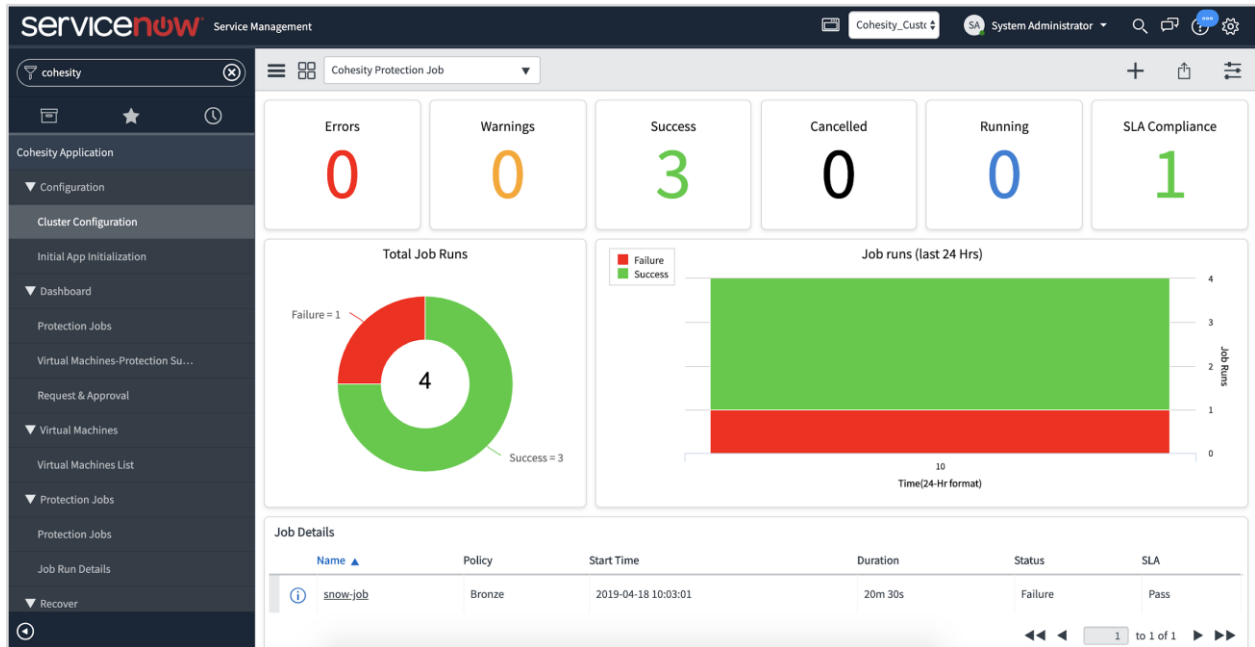


Enable Data Protection for the Entire Lifecycle of a VM

Cohesity's integration with ServiceNow is applicable for the entire lifecycle of a VM, enabling data protection at VM deployment, management, and deprovisioning.

A comprehensive dashboard provides an overview of the data protection workflows in your environment. You can see the state of Protection Job runs and adherence to compliance requirements, all within your ServiceNow administration console.

Figure 6: Access Data Protection Services from the ServiceNow Console

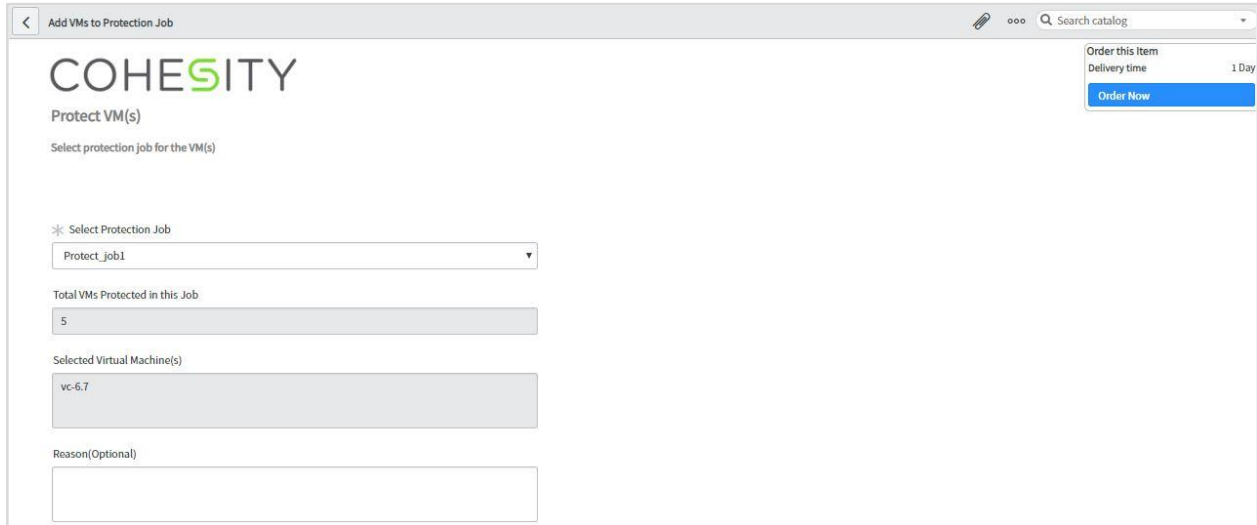


Provisioning

With Cohesity, you can start protecting VMs before deploying them. You can request to assign VMs to a Cohesity Protection Job on ServiceNow, allowing you to request data protection from a self-service catalog. As a result, data protection is not an afterthought, but a seamless part of deploying resources in your infrastructure.

As Figure 7 below illustrates, you can start assigning VMs to Protection Jobs during the time of provisioning.

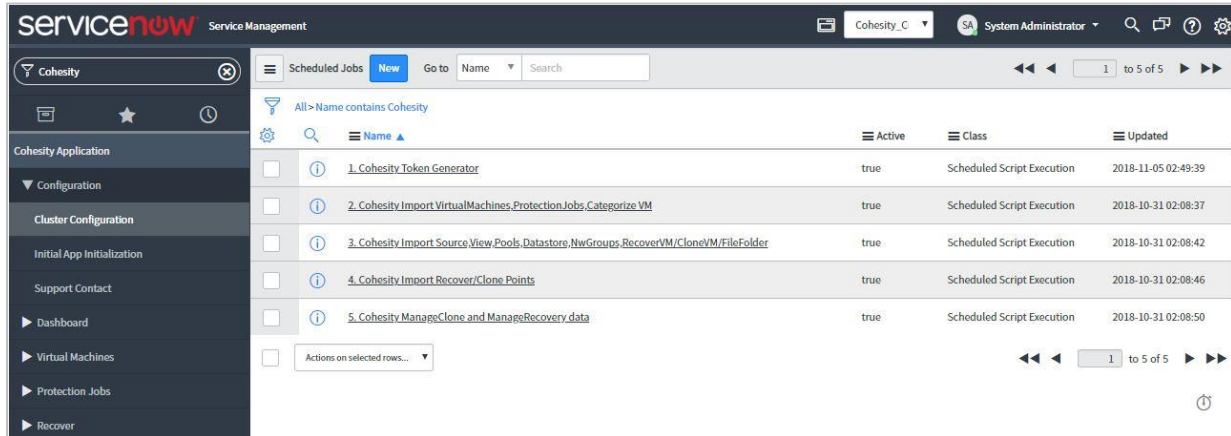
Figure 7: Assign VM to a Protection Job



Management

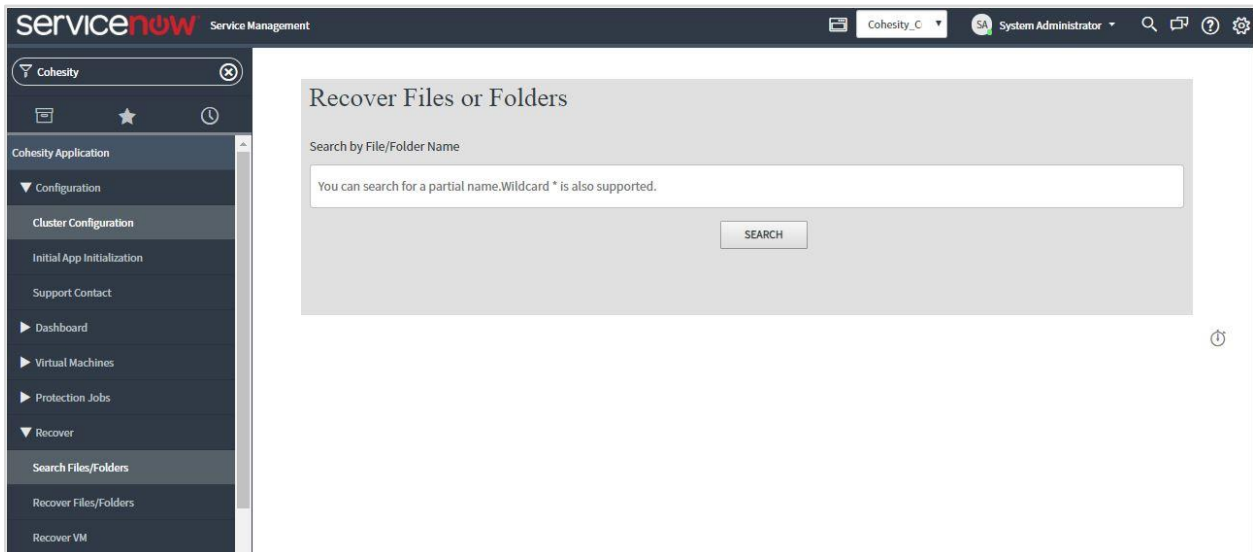
Today’s business needs are dynamic, changing quickly. Cohesity promotes infrastructure flexibility by enabling users to change data protection requirements. If an application grows in criticality, the data Protection Policy needs to echo this. Cohesity’s integration with ServiceNow allows users to move VMs from one Cohesity Protection Job to another and change SLAs, helping you automate compliance management.

Figure 8: Moving a VM from one Cohesity Protection Job to Another



This integration provides a self-service mechanism not just to allocate resources, but to manage them according to changing business needs. Users can move VMs to new Protection Jobs and recover VMs, files, and folders, all from a self-service catalog of IT services.

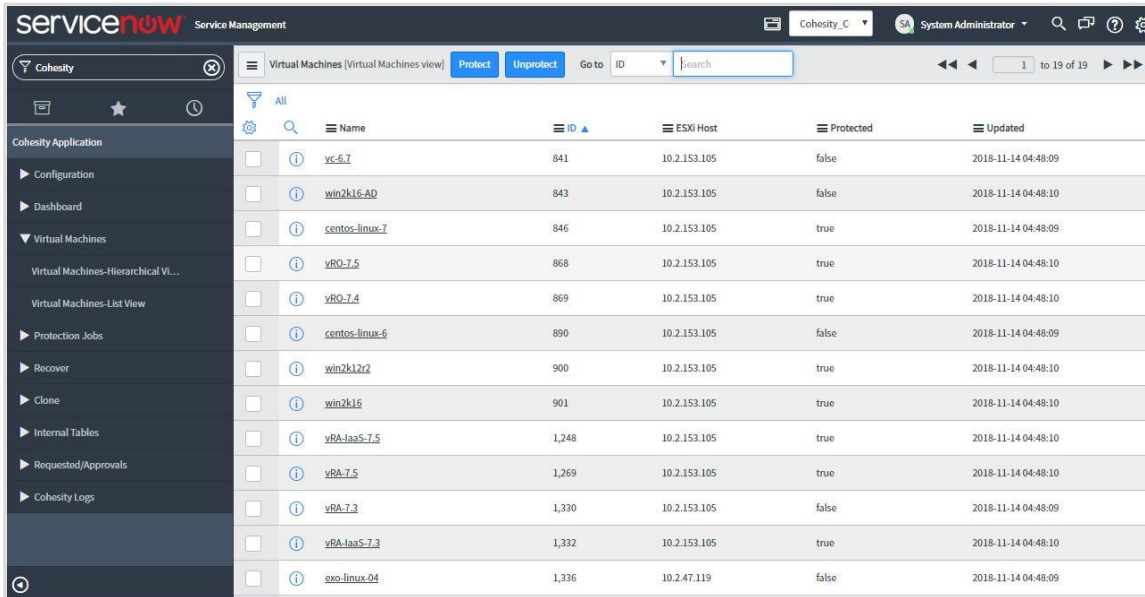
Figure 9: Manage Cohesity Data Protection Workflows from the ServiceNow Console



Deprovisioning

A deep integration with ServiceNow helps manage the end of a VM's lifecycle. When a VM reaches the end of its lifecycle, deprovisioning that virtual machine will remove it from existing Cohesity Protection Jobs. The ability to protect—and unprotect—VMs helps you manage the entire lifecycle and seamlessly protect the resources that power your organization.

Figure 10: Deprovisioning VM



	Name	ID	ESXI Host	Protected	Updated
<input type="checkbox"/>	vc-5.7	841	10.2.153.105	false	2018-11-14 04:48:09
<input type="checkbox"/>	win2k16-AD	843	10.2.153.105	false	2018-11-14 04:48:10
<input type="checkbox"/>	centos-linux-7	846	10.2.153.105	true	2018-11-14 04:48:09
<input type="checkbox"/>	vRO-7.5	868	10.2.153.105	true	2018-11-14 04:48:10
<input type="checkbox"/>	vRO-7.4	869	10.2.153.105	true	2018-11-14 04:48:10
<input type="checkbox"/>	centos-linux-6	890	10.2.153.105	false	2018-11-14 04:48:09
<input type="checkbox"/>	win2k12r2	900	10.2.153.105	true	2018-11-14 04:48:10
<input type="checkbox"/>	win2k16	901	10.2.153.105	true	2018-11-14 04:48:10
<input type="checkbox"/>	vBA-aaS-7.5	1,248	10.2.153.105	true	2018-11-14 04:48:10
<input type="checkbox"/>	vBA-7.5	1,269	10.2.153.105	true	2018-11-14 04:48:10
<input type="checkbox"/>	vBA-7.3	1,330	10.2.153.105	false	2018-11-14 04:48:09
<input type="checkbox"/>	vBA-aaS-7.3	1,332	10.2.153.105	true	2018-11-14 04:48:10
<input type="checkbox"/>	exo-linux-04	1,336	10.2.47.119	false	2018-11-14 04:48:09

With the Cohesity plugin for ServiceNow, all the processes in the lifecycle of a VM are requests. On ServiceNow, these requests can either be approved or rejected. This creates a self-service mechanism with verifiable requests, fostering a system created from the best of two worlds: IT automation that involves your team's judgment in making decisions about what gets automated when.

Get Started with the Cohesity Plugin for ServiceNow

The Cohesity plugin for ServiceNow is a certified app with the ability to support multiple workflows, including VM protection, cloning VMs for test and dev, searching and restoring files and folders, changing the level of protection for VMs, and enabling on-demand VM backup.

To get started with the Cohesity plugin for ServiceNow, see the [ServiceNow Store](#).

Learn More About Cohesity Automation and APIs

Cohesity enables agility, speed, and self-service. With deep integrations with numerous infrastructure solutions and an API-first architecture, Cohesity brings flexibility to infrastructure, allowing customers to do more and adapt to changing business needs.

For more information on Cohesity's automation and integration solutions, see <https://www.cohesity.com/solution/automation/>.

To understand how to work with our API-first architecture and take a closer look at the available APIs, see <https://developer.cohesity.com/>.

Your Feedback

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About the Author

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Document Version History

VERSION	DATE	DOCUMENT HISTORY
1.0	May 2019	First draft
1.1	July 2019	First release
1.2	Nov 2021	Rebranding updates

ABOUT COHESITY

[Cohesity](#) radically simplifies data management. We make it easy to protect, manage, and derive value from data -- across the data center, edge, and cloud. We offer a full suite of services consolidated on one multicloud data platform: backup and recovery, disaster recovery, file and object services, dev/test, and data compliance, security, and analytics -- reducing complexity and eliminating [mass data fragmentation](#). Cohesity can be delivered as a service, self-managed, or provided by a Cohesity-powered partner.

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