Drive down cloud costs with ServiceNow® ITOM Optimization

The IT challenge

Today, cloud services are rapidly becoming the foundation for digital operations, replacing static on-premise infrastructure with dynamic, scalable computing power. As enterprises transition to this utility computing model, anyone in the business can provision and access new cloud resources almost instantly—just like renting a blockbuster movie on Google Play.

On-demand cloud resources and services have dramatically accelerated digital innovation. However, this unprecedented speed comes with a heavy price. Unless IT teams manage this agility, cloud costs spiral upwards. In fact, IDC estimates that 20% to 30% of total enterprise cloud spend is wasted due to lack of visibility and control.

Creating this visibility and control can be a huge challenge. When individual users have carte blanche to create their own cloud resources, it's difficult to connect cloud costs to delivered business value. Without knowing how cloud spend is tied to specific business services, applications, projects, or other business initiatives, cloud budgets become black holes.

And, even if IT could tie cloud costs to business value, it still doesn't have visibility of actual cloud usage. Instead, it is forced to overdimension cloud resources and keep them active 24 hours a day—whether they are needed or not. This leads to further unnecessary cloud costs, breaking cloud budgets, and inhibiting cloud adoption.

On the other hand, IT can't simply create visibility and control by locking down cloud services. Traditional on-premise approaches, where users submit a request and then wait weeks for IT to provision a server or VM, just don't translate to the cloud. Here's the challenge—how do you preserve the cloud's agility while managing costs and creating effective governance?

The ServiceNow solution

ServiceNow® ITOM Optimization delivers the visibility and control you need while enhancing the agility of the cloud. It provides comprehensive visibility of cloud costs and usage, identifying and automating opportunities to optimize cloud spend. And, it also includes automated cloud provisioning capabilities, allowing you to establish an effective, agile cloud governance model.

ITOM Optimization consists of two complementary features:

- **Cloud Insights** gives you visibility and control of your cloud usage and costs. It uses the power of the Now Platform® to discover all of your cloud resources; breaks down cloud spend by cost center, business service, or other entity; provides recommendations on how to reduce cloud spend; and automates repetitive cost optimization tasks.

- **Cloud Management**[1] provisions and configures on-demand cloud services, accelerating cloud service delivery while providing consistent, nonintrusive governance guardrails that prevent uncontrolled cloud spend. It directly leverages native cloud provisioning capabilities, so you have unrestricted access to the full power of cloud vendors. It also works seamlessly with ServiceNow IT Service Management—including the service catalog and change management—providing a unified operating model across both your cloud and non-cloud IT estate.

Note that Cloud Insights works seamlessly with Cloud Management, but it doesn't require Cloud Management to measure and optimize your cloud usage and spend.

1. Supports Amazon, Microsoft, Google, IBM, and VMware clouds, and can be easily extended to other clouds

Optimize cloud costs and usage

Get complete visibility of your cloud spend and usage, broken down by services, applications, cost centers, and other entities. Identify cost optimization targets, including areas of high spend and stranded cloud assets.

Eliminate wasted cloud spend

Rightsize your cloud resources to match usage, and automatically turn off cloud resources outside of working hours.

Create a consistent operating model

Leverage your existing ITSM processes, quickly creating a unified management framework across cloud and non-cloud resources.

Deliver cloud services faster

Easily define new types of cloud services and offer them through a unified service catalog. Provision cloud services in real time, responding instantly to requests from DevOps and other cloud users.

Strengthen cloud governance

Establish non-intrusive policy guardrails, including quotas, available cloud service types, naming conventions, workload placement, and more. Automatically manage approvals for policy exceptions while instantly fulfilling compliant requests.

Empower your users with self-service

Deliver a streamlined, responsive user experience with an intuitive self-service portal where users can create and manage their cloud resources.

Leverage out-of-the-box integrations

Take advantage of integrations with configuration providers and other vendors, including Ansible, Puppet, and Chef, Infoblox, and CyberArk.

Automatically identify who is using your cloud resources

With Cloud Insights, you can automatically determine who is using cloud resources. Flexible, configurable policies classify each cloud resource based on attributes such as tags, assigning each resource to specific owners, cost centers, business services, applications, and other entities.

If you use ServiceNow® Discovery, Cloud Insights leverages this data to classify cloud resources. And, if you don't currently use Discovery, Cloud Insights can still leverage billing reports and similar sources for classification.

Find unused machines

You can also find Machines that have little to 0 utilization and identify machines that appear to be completely unused. You can perform Terminate and Power off actions and direct integrations into change control.

Understand and optimize cloud spend

Cloud Insights combines cloud billing data with resource ownership information, giving you an accurate, detailed view of your cloud spend. With ServiceNow dashboards and reporting, you can easily visualize this cost information, creating aggregate views across your entire organization, as well as fine-grained analyses that allow you to pinpoint cost optimization targets.

Save money by not running cloud resources 24x7

We all have to sleep—and so should your cloud resources. For example, if a department is only open 12 hours a day, there's no point in providing cloud resources for the other 12 hours. Cloud Insights lets you define policies that determine when resources need to be turned off. It even estimates potential savings and tracks actuals. Once a policy identifies that a cloud resource needs to be put on a schedule, it sends a change request to the resource owner for approval. It then turns resources off and on automatically at the appropriate times, eliminating manual effort.

Reduce costs by rightsizing your cloud infrastructure

Because Cloud Insights analyzes resource usage, it can identify excess resource capacity—for example, if a virtual server is too large. It then produces rightsizing recommendations and automatically sends a change request to the resource owner for approval.

Standardize your cloud service catalog

With Cloud Management, you can create a catalog of standard-ized cloud services using ServiceNow's role-based service catalog. DevOps and other users simply select the cloud service they want from the catalog, enter configuration parameters into a form, and submit their request. Cloud Management then automatically provisions the requested cloud resources—often in seconds when no approvals are required.

These services are defined using cloud vendors' native provisioning templates, giving you access to the cloud's unique capabilities, rather than restricting you to a common subset of functionality.

Out of the box, Cloud Management supports CloudFormation, ARM, Google Deployment Manager, and Terraform templates, and it also provides provisioning support for virtualized VMware environments.
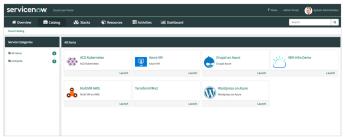
Create non-intrusive policy guardrails

While consistent and effective governance is crucial, it can't get in the way of time-critical processes such as your DevOps CI/CD chain. That's why Cloud Management allows you to define non-intrusive, role-based policy guardrails for your users, only requiring approvals for exception conditions. For example, you can:

- Establish quotas for storage, CPUs, and other resources
- Define the types of cloud service each user can access based on their role
- Enforce naming conventions for provisioned resources
- Control workload placement
- Set limits on the sizing of individual resources
- Enforce resource tagging policies
- Trigger approval workflows for requests only when specific conditions are met

These policy guardrails are applied when a user requests a cloud service via the service catalogue or through the built-in REST API.

Empower your cloud users with intuitive self-service

Cloud Management's Cloud User Portal makes it easy for cloud users to manage all of their cloud resources in one place. This includes creating new cloud services, modifying existing services, tracking approvals, monitoring costs, budgets, and quotas, and seeing associated incidents and changes.

Cloud User Portal

Cloud Management also includes a dedicated Cloud Administration Portal, providing a single pane of glass where IT managers can govern their cloud resources and deployment policies.

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