ServiceNow cloud capabilities
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Today, IT organizations are adopting hybrid architectures that combine on-premises infrastructure and multiple public clouds. While this offers significant advantages, it also leads to increased environmental complexity. To deal with this complexity, IT organizations want consistent management solutions that make public clouds a transparent extension of their on-premises operations. They also expect day-to-day operational processes such as service management, application planning/testing/deployment, issue identification and resolution, security and risk management, and cost optimization to function seamlessly across their entire estate, independent of the underlying cloud or on-premises infrastructure.

ServiceNow delivers this consistent management framework. It provides a rich set of management capabilities for both on-premises and public cloud environments, including AWS, Azure, GCP, and IBM. In this white paper, we look at ServiceNow cloud capabilities across the entire operational lifecycle shown in the figure below. Note that while this white paper focuses primarily on cloud capabilities, these are a natural extension of ServiceNow’s comprehensive on-premises features.

Let’s look at each of these areas in turn.

1. Plan (APM, ITBM)

**Plan cloud migration projects and manage agile work queues.** ServiceNow helps IT organizations to accurately plan and efficiently execute cloud migrations. With ServiceNow® Application Portfolio Management (APM), IT can rationalize its applications, deciding which ones are best suited to running in the cloud. Having made this determination, IT can then use ServiceNow® IT Business Management (ITBM) to handle its portfolio of migration projects, including managing and optimizing agile work queues.

2. Test/Pre-release (DevOps)

**Optimize CI/CD pipeline performance and automate changes.** Increasingly, IT is adopting DevOps to deliver cloud-native applications. ServiceNow® DevOps integrates seamlessly with CI/CD pipelines, providing the detailed visibility needed to optimize pipeline performance. It also automates change management, allowing DevOps teams to assess the risk of changes as they leave the CI/CD pipeline without compromising overall pipeline performance.¹

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¹ ServiceNow DevOps currently supports Jenkins and will support Azure DevOps in 2020.
3. Deploy (ITOM)

Manage resource provisioning on premises and in the cloud. ServiceNow integrates with multi-cloud provisioning tools such as Terraform, adding change management capabilities, including approvals and audit trails. With ServiceNow® ITOM Optimization, development teams can also provision AWS, Azure, GCP, IBM, and VMware resources directly from ServiceNow using intuitive self-service, applying the same policies, access controls, and governance model in the cloud that they use on premises.

4. Operate (ITOM, ITAM)

Create comprehensive application, infrastructure, and service visibility in hybrid environments. IT organizations need holistic visibility across their entire operational estate so they can make the right day-to-day operational decisions—for example, assessing the impact of a change or troubleshooting a business service. ServiceNow® ITOM Visibility creates this visibility across on-premises and cloud environments, discovering both applications and infrastructure which it then maps to specific business services. This creates a complete, accurate, and up-to-date record in the ServiceNow® CMDB. ITOM Visibility supports AWS, Azure, GCP, and IBM, including AWS API Gateway, AWS Lambda, and Azure Gateway. It also discovers Kubernetes clusters all the way down to container images.

Quickly identify and resolve service issues on premises and in the cloud. ServiceNow® ITOM Health collects, filters, correlates, and analyzes events from a wide range of monitoring tools, as well as cloud monitoring services such as Amazon CloudWatch. ITOM Health reduces event noise, prioritizes alerts based on business impact, and provides critical information that simplifies root-cause analysis. As a result, IT accelerates detection and resolution of service issues, including those that span on-premises and cloud infrastructure.

Manage the lifecycle of software and hardware cloud assets (for service providers). ServiceNow® IT Asset Management (ITAM) automates the entire lifecycle of hardware and software assets needed to provide cloud service, using powerful workflows to drive asset management activities from initial procurement through to final retirement. This includes financial, contractual, and inventory details, hardware maintenance activities, software license compliance, audits, and a range of other key asset management functions.

5. Manage security and risk (ITAM, GRC, SecOps)

Mitigate elevated software compliance risk in cloud environments. With ServiceNow ITAM, IT organizations can take charge of their software licenses in both on-premises and cloud environments. ITAM’s Software Asset Management capability allows IT to reduce license compliance risk for on-premise software, software they deploy to the cloud, and third-party SaaS offerings.

Manage cloud compliance. ServiceNow® Governance, Risk, and Compliance continuously monitors information, system, and operational risks across cloud and on-premises environments. This allows IT to respond quickly and effectively to changes in risk posture, including regulatory compliance, policy violations, security risks, and vendor risks. It also automates best-practice lifecycles, unifies compliance processes, and automates audit processes.
Respond quickly to security incidents and vulnerabilities on premises and in the cloud. ServiceNow® Security Operations (SecOps) connects security and IT teams, helping them to respond faster and more efficiently to security incidents and vulnerabilities through orchestration, automation, and better visibility. It integrates security tools from a wide range of vendors including Carbon Black, Check Point, CrowdStrike, HPE, IBM, McAfee, Microsoft, Palo Alto, Splunk, Qualys, Rapid7, and Tanium providing a single platform to manage security on premises and in the cloud. It also integrates with Microsoft Exchange Online and Exchange Server, allowing security analysts to search for and remove phishing emails.

6. Provide services

Automate service workflows across cloud and on-premises environments. With ServiceNow, IT can leverage ITSM Flow Designer/Integration Hub, and CSM capabilities to automate service fulfilment and drive support activities in hybrid environments. With the ServiceNow® Service Catalog, end users also have intuitive self-service access to cloud and on-premises services—for example, requesting new cloud resources or a desktop software install.

7. Optimize costs (ITAM, ITOM)

Optimize spend on cloud and on-premises infrastructure resources. With ServiceNow ITAM and ServiceNow® ITOM Optimization, IT can optimize spend for all their hardware and software assets. ITAM provides comprehensive hardware asset management capabilities on premises. ITOM Optimization² extends this to the cloud, providing detailed visibility of cloud resource spend tied to specific services and other business entities, as well as automating cloud optimization tasks. And, with ITAM’s advanced software asset management capabilities, IT can also optimize software license spend on premises and in cloud IaaS, PaaS, and SaaS environments.

For more information

To find out more about how ServiceNow can help you drive operational success in hybrid cloud environments, visit:

https://www.servicenow.com/solutions/it-workflows.html

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