Orchestration For Modern IT: Helping IT Accelerate Business
The Traditional IT Runbook

In its most basic form, a runbook is an electronic or physical document that lists detailed procedures for handling every expected situation that an IT system may experience. Based on changes in system condition, incoming requests and other factors, system administrators determine which procedures to run and when to run them. Runbook procedures often include complex decision trees that indicate specific steps to follow depending on answers to pre-established questions.

Administrators are responsible for performing the appropriate steps of the procedure in painstaking detail, often by manually issuing commands to components and sub-systems. Primitive runbooks are notoriously inefficient, inflexible and error prone, sometimes relying on undocumented steps known to just a few staff members. Yet, if a critical step is missed or an incorrect command is entered, the entire process may be negatively impacted.

Orchestration for Modern IT

Orchestration for modern IT represents a comprehensive and holistic approach to defining, building, orchestrating, managing and reporting on intelligent workflows that work with third-party tools and operational processes. Whether your IT organization leverages good practices from the IT Infrastructure library (ITIL) or has developed its own proven practices, orchestration must support them. Users should gain self-service and automated request fulfillment. Support staff should receive guidance through incident and problem management processes. Managers should experience accurate change management, and trouble free approvals. All this should happen with the same underlying orchestration tool.

Too many orchestration offerings are focused exclusively on automation and efficiency, bogging down IT staff members with unmanageable scripts.

This white paper describes how ServiceNow Orchestration empowers IT organizations to do all of this and more.

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Orchestration

Orchestration makes complex procedures easy to repeat while reducing the possibility of human errors. Orchestration also helps less-skilled IT staffers implement complex activities that span networks, servers, storage, applications, databases and more. IT organizations that take advantage of orchestration are able to improve efficiency and service quality while reducing operational costs. Unfortunately, when it comes to flexibility, agility and integration with other tools and processes—especially in today’s world of cloud and virtualization—most orchestration solutions still fall short.

Modern IT requires an evolved approach to orchestration—one that erases the barriers between people, process and technology. Modern IT also demands tools, including orchestration, that promote action and agility. Without high levels of automation, virtual machines and cloud services will quickly grow out of control. Modern IT organizations choose evolved orchestration to deliver business agility while also maintaining control. This
Modern IT organizations are taking advantage of public and private cloud services in order to reduce capital costs, increase flexibility and drive business agility.

ServiceNow Orchestration goes beyond scripts and makes automation and efficiency both intuitive and manageable. To achieve this, orchestration needs advanced capabilities like graphical workflow visualization, drag and drop interfaces, pre-defined activities and integrations with and support for the latest in virtualization and cloud.

Orchestration drives the IT organization to evolve and improve. It allows all IT information and resources to be coordinated to improve the value and effectiveness of IT. By using orchestration, more and more human error can be eliminated. The use of consistent, predictable processes should improve quality and service levels. The reduction of mundane and repetitive tasks should decrease operational costs and increase job satisfaction.

Empowering IT to Accelerate the Business

When properly understood and correctly used, orchestration helps IT accelerate the business. It puts more power in the hands of users, connecting them with elastic resources. It gives control to IT staff members, helping speed problem resolution. It drives standardization and increases service availability, keeping employees productive. Orchestration gives IT more time to focus on helping move the business ahead.

Managing the Cloud From the Cloud – ServiceNow Orchestration

ServiceNow Orchestration is built on the ServiceNow Service Automation Platform. This means that ServiceNow Orchestration integrates directly and shares information with all ServiceNow Service Automation Applications, and offers the advantages of Software as a Service (SaaS). ServiceNow Orchestration was specifically designed for the challenges of modern IT and delivers all the associated capabilities and benefits discussed previously. It also offers automatic documentation, audit trails, project progress updates and process standardization.

In order to provide value quickly, ServiceNow Orchestration includes a library of runbook process packs that can simply be dropped into a workflow to quickly create runbooks. These include:

- **VMware** – management of VMware private cloud services
- **PowerShell** – automation of a variety of Windows management tasks
- **Amazon EC2** – management of Amazon EC2 public cloud services
- **SOAP** – automation of systems accessible via web services
- **SSH** – automation of Unix/Linux management tasks

Thanks to built-in capabilities and flexible configuration, ServiceNow Orchestration easily supports a nearly unlimited list of real-world scenarios. ServiceNow allows IT to use the cloud to manage the cloud.

Self-service Cloud Provisioning

Modern IT organizations are taking advantage of public and private cloud services in order to reduce capital costs, increase flexibility and drive business agility. Rather than waiting weeks to request, approve, order and install a new physical server, cloud compute resources can be ready in seconds. Yet, without proper control, this can lead to IT governance risks for data location, support, disaster recovery, spending and others. At the same time, there is no single approach to cloud and governance that meets the needs of all IT organizations. ServiceNow Orchestration lets each IT organization determine its own optimal balance of governance, control and agility for through the creation of custom workflows.

Users needing cloud services can request them directly from their company’s implementation of the ServiceNow Service Catalog & Request Management Application. The corresponding workflow can determine the type of approvals that need to happen. If the server is needed for development or test, the workflow may simply require that budget limits will not be exceeded. If instead the server is needed for a production application, a series of approvals may be required to ensure that all appropriate policies are followed. Whether the request is a zero-touch provisioning activity or a complex service roll out, ServiceNow Orchestration lets IT keep the necessary levels of control while maintaining the agility inherent to cloud computing.
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Other Orchestration Scenarios
ServiceNow Orchestration is modern IT process orchestration. It takes a comprehensive and holistic approach to service management, with seamless integration to other ServiceNow functions and any customer process. Workflows can be developed, based on powerful built-in capabilities, as well as extended to unique process or third-party applications, to provide an effective, fast and reliable course of action for any given scenario.

ServiceNow ITSM functionality makes possible many other ways ServiceNow Orchestration can be used to accelerate the business. For example, the ServiceNow Incident Management Application supports execution of workflows directly from incidents. This lets service desk staff run automated diagnostics on an application or server, avoiding the more costly involvement of second-level specialists. Common problems with repeatable remedies, such as a server reboot or a password reset, can also be quickly addressed through integrated ITSM and orchestration. This can eliminate days or weeks of emails and phone calls, sometimes reducing problem identification and resolution to minutes.

Whether it involves incident, problem, change or release management – or another process entirely – ServiceNow Orchestration puts the power in the hands of IT without compromising agility required by the business.

Summary
The heroes in IT are no longer just automating processes and improving efficiency. This cost-center mentality is too short sighted in the age of modern IT. Today’s IT heroes understand and embrace their role as key contributors to the business. They search for evolved IT solutions that drive business success. They use orchestration from the cloud to manage the cloud that has been proven to accelerate the business.