

ServiceNow Configuration Automation

Benefits

- Gain Control of IT Infrastructure**
 Use the ServiceNow CMDB as the “gold master” single system of record to define and drive the desired configuration of IT infrastructure, while maintaining an accurate single system of record that drives business-critical processes.
- Improve Quality of Service**
 Automate the configuration of IT Infrastructure and respond quickly to configuration change requests by offering ServiceNow Configuration Automation through the ServiceNow Service Catalog.
- Ensure Compliance of Complex Infrastructure**
 Govern all configuration changes according to established change processes using built-in integration with ServiceNow Change Management.
- The Best of Both Worlds**
 Bring the power of Puppet, Chef, and other third-party configuration management tools together with the governance and control of ServiceNow.

The IT Challenge

Enterprises expect IT to provide high quality services, ensure compliance with all policies and, increasingly, to do more with less. But IT staff often has to manage complex physical, virtual, and cloud infrastructure through manual processes or piecemeal automation. Infrastructure configuration has largely remained a manual, tedious, and error-prone activity. Legacy software products have tried to address this challenge using an approach grounded in the enforcement of static policies, but they lack the operational agility required to manage a dynamic infrastructure.

A new breed of infrastructure automation products has emerged that transforms infrastructure into code. Yet as powerful as these products are, it is challenging to integrate the code developed in them into the ITSM processes required to govern enterprise infrastructure. So, even simple changes to infrastructure remain risky, as IT is uncertain of how modification to one part of the infrastructure may impact another part. Without proper governance, the reliability of the infrastructure suffers and IT cannot deliver the quality of service expected by the business.

The ServiceNow Solution

ServiceNow Configuration Automation is an orchestration application that automates IT infrastructure management. The application integrates ServiceNow Configuration Management and ServiceNow Change Management with third-party configuration management automation tools, including Puppet and Chef, to automate IT infrastructure deployments and other changes. More tools can be added using configuration automation extensions. Together, ServiceNow and these tools create a single system of record that drives automated, governed configuration changes.

Modifying the configuration of physical, virtual, or cloud assets is as easy as editing data in the configuration management database (CMDB) and following established change management processes. For a more consumerized experience, self-service configuration changes may be ordered through a familiar service catalog. Change management processes such as drafting, approval, and publication apply wherever configuration definitions may be changed. When used with ServiceNow Cloud Provisioning, ServiceNow Configuration Automation simplifies the management of public or private cloud assets offered in the service catalog and enables configuration changes any time while the assets are under lease. As a result, IT can regain control of infrastructure, quickly and dynamically respond to business needs, and become a strategic enabler of the enterprise.

Service Catalog > Software > Modify node configuration

Modify the configuration of a node

Request a configuration modification of a node assigned to you.

1. Select a node. Only those assigned to you are available.
2. Select node definition from the Configuration automation choice list.
3. Select the node definition to apply.

Note: this request may be subject to your internal change approval process.

Node: RELAY

Configuration automation: Puppet Node Definition

Node definition: MySQL Server

Subtotal: \$0.00

Edit Cart

Proceed to Checkout

Continue Shopping

Request node configuration changes through the ServiceNow Service Catalog

Puppet and Chef Integrations

ServiceNow Configuration Automation has built-in integrations with Puppet and Chef to automate the deployment and enforcement of infrastructure changes. Other third-party tools can be integrated using configuration automation extensions. Configuration Management Automation tools use code to describe infrastructure and application configurations to easily automate repetitive tasks, quickly deploy critical applications, and proactively manage change. ServiceNow Configuration Automation discovers existing code in these tools and brings it into ServiceNow where IT can define the desired node configurations. When a node checks in with its master server to determine its desired configuration, the server checks with ServiceNow for the appropriate code and then configures the node accordingly.

“Gold Master” Single System of Record

ServiceNow incorporates the code that Puppet, Chef, and similar tools use to define infrastructure configurations into the CMDB. As a result, the CMDB becomes the single system of record for all nodes managed by these tools. IT can browse the list of available code to compose node definitions that ServiceNow Configuration Automation adds to node configuration item records. IT can then simply edit these definitions to direct how nodes should be configured. Because the ServiceNow CMDB proactively drives configuration changes, ServiceNow Configuration Automation reverses the standard model of the CMDB trying to catch up to new, unknown configurations. Instead, the CMDB becomes the source of configuration changes and therefore serves as an accurate, single version of truth.

Self-Service Change Requests Through a Familiar Catalog

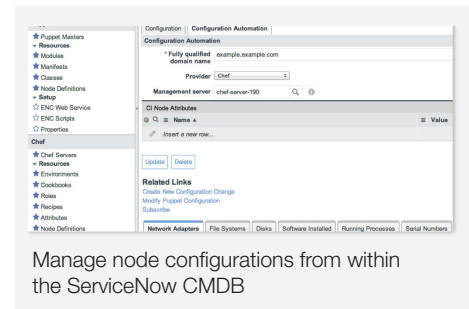
Configuration changes may be offered in the ServiceNow Service Catalog to deliver a consumerized IT experience. End users simply visit the service catalog, select the configuration change service, choose an assigned configuration item, and request a new node definition. Self-service configuration automation makes infrastructure change requests fast and flexible and aligns with the way end users order services.

Integrated Governance

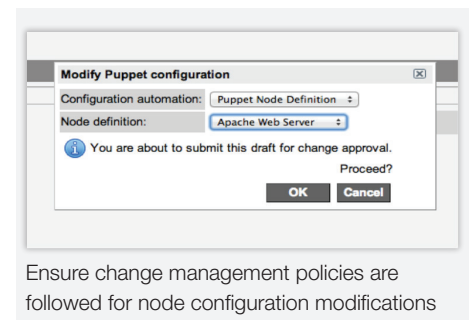
Changing a node definition that has been applied to hundreds or thousands of infrastructure elements could have a tremendous, unanticipated impact on business-critical processes. ServiceNow Configuration Automation manages this risk through comprehensive integration with ServiceNow Change Management. Change management processes are applied when there is a desired change in a node definition. Node definitions may be “checked out” for drafting offline, and then “checked in” for approval and publishing to production. ServiceNow Configuration Automation applies this governance and IT process control wherever node definitions are changed through the CMDB or the service catalog.

Simplified and Dynamic Cloud Provisioning

ServiceNow Configuration Automation may be used with ServiceNow Cloud Provisioning to reduce the number of virtual machine (VM) templates used for self-service ordering and to change the configuration of VMs during the course of their leases. Rather than creating many VM templates that map to many service catalog items, IT can use one base VM template to create all VMs offered in the



Manage node configurations from within the ServiceNow CMDB



Ensure change management policies are followed for node configuration modifications

catalog. Fulfillment of a service catalog item then involves cloning this base VM and assigning the node definition that matches the requested service catalog item. When the VM boots up, ServiceNow Configuration Automation applies the desired configuration and the VM is configured and handed over to the self-service user. Once provisioned, the VM can be updated as needed throughout the duration of the VM lease by simply changing its node definition. All future requests for the VM, as well as previously provisioned VMs, will be updated to match the new configuration.

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