

Cluster-aware updating

Cluster-aware updating (CAU) is a new feature in Windows Server 2012 that addresses the difficulty of performing software updates on failover cluster nodes. This difficulty stems from the fact that updating software normally requires a system restart. To maintain the availability of services hosted on failover clusters in previous versions of Windows, you needed to move all roles off one node, update the software on that node, restart the node, and then repeat the process on every other node, one at a time. Windows Server 2008 R2 failover clusters could include up to 16 nodes, so this process sometimes had to be repeated as many times. In Windows Server 2012, failover clusters can scale up to 64 nodes. At this point, the older, manual method of updating software on failover clusters is simply no longer practical.

Instead, Windows Server 2012 automates the process of updating software for you. To initiate the process of updating a failover cluster, simply right-click the cluster in the list of servers in Server Manager, and then select Update Cluster from the shortcut menu, as shown in Figure 10-7.

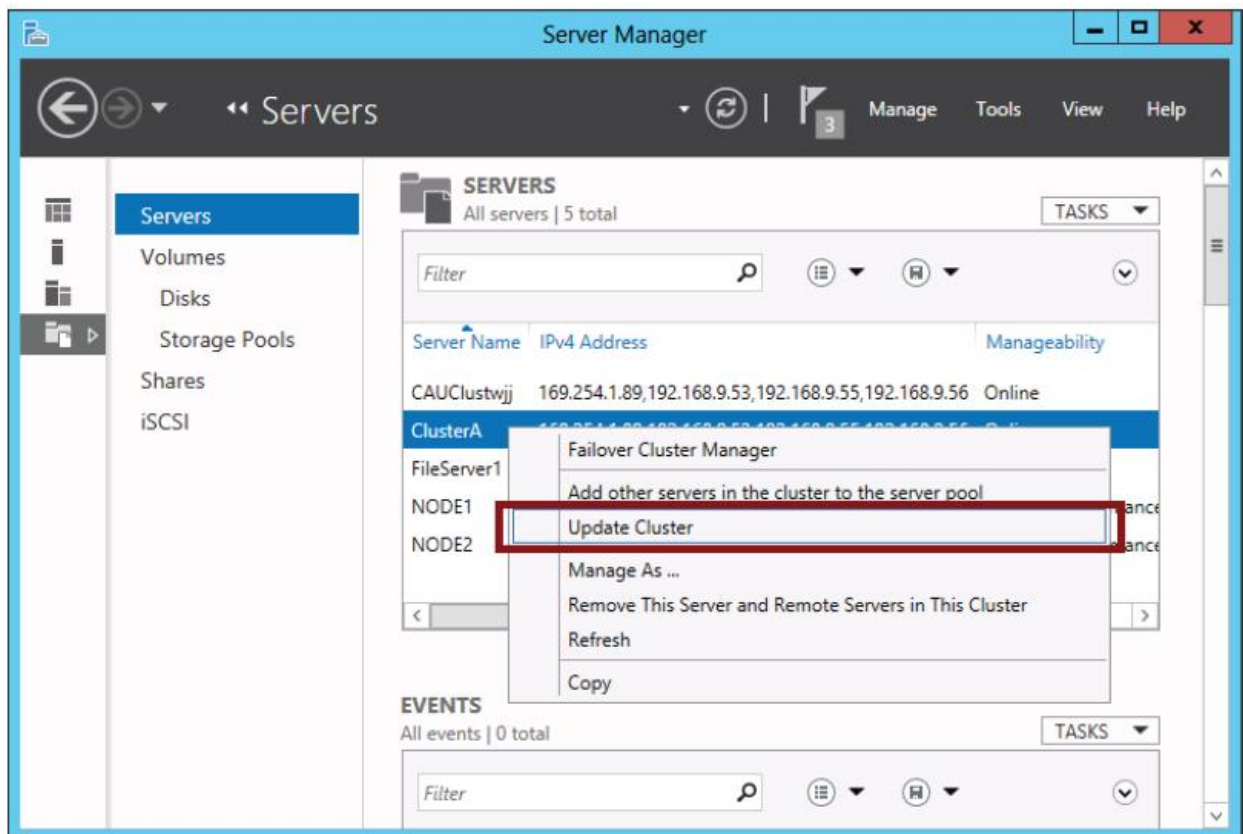


FIGURE 10-7 Manually updating a cluster.

By default, only updates configured through Windows Update are performed. Updates are received as they normally would be, either directly from the Microsoft Update servers or through Windows Software Update Services (WSUS), depending on how Windows Update is configured. Beyond this default functionality, CAU can be extended through third-party plug-ins so that other software updates can also be performed.

The preceding step shows how to trigger an update to a cluster manually. Triggering updates manually might be too straightforward a task to appear on the 70-412 exam. More likely, you could see a question about configuring self-updates. You can access these self-update configuration settings in Failover Cluster Manager by right-clicking the cluster name in the console tree, pointing to More Actions, and then selecting Cluster-Aware Updating, as shown in Figure 10-8

Note: Manual updating is called *remote updating mode* when you use this method to update a failover cluster from a remote machine on which the failover cluster management tools have been installed.

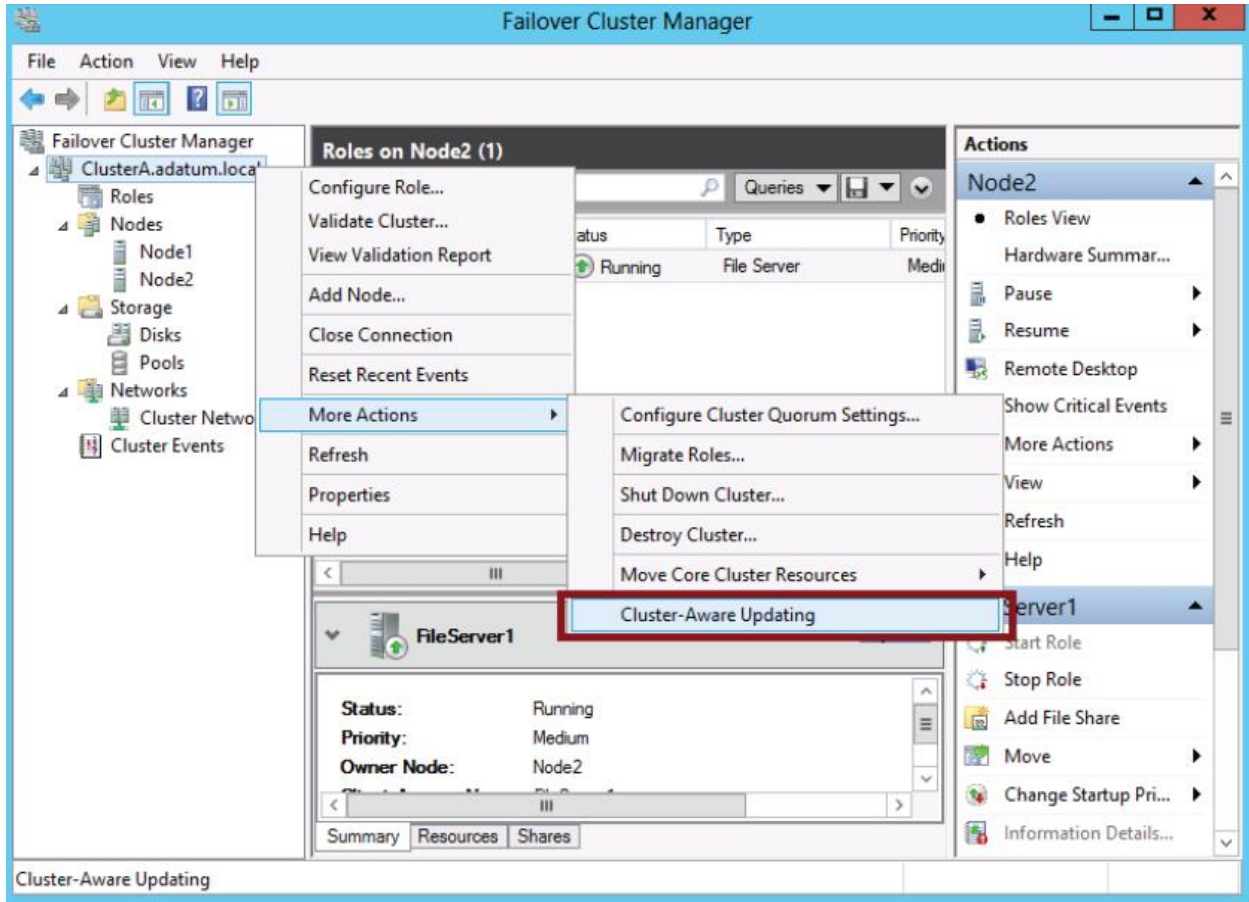


FIGURE 10-8 Opening CAU actions.

This step opens the Cluster-Aware Updating dialog box, shown in Figure 10-9.

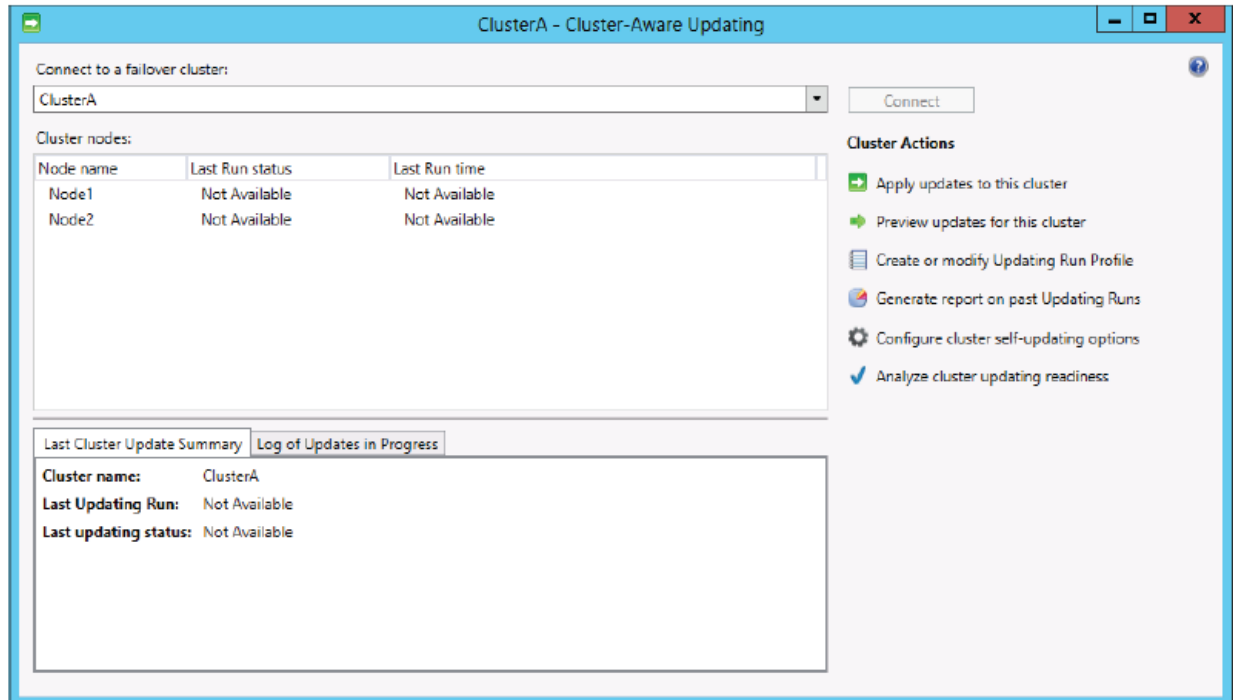


FIGURE 10-9 CAU actions

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To configure self-updating for the cluster, click **Configure Self-Updating Options** beneath **Cluster Actions**. This step will open the **Configure Self-Updating Options Wizard**. You can enable self-updating on the cluster on the second (**Add Clustered Role**) page of the wizard by selecting the option to add the CAU clustered role, with self-updating mode enabled (shown in Figure 10-10).

NOTE The Cluster-Aware Updating dialog box also allows you to perform the following actions:

- Apply updates to the cluster
- Preview updates for the cluster
- Create or modify Updating Run Profile directly (without running a wizard)
- Generate report on past Updating Runs
- Analyze cluster updating readiness

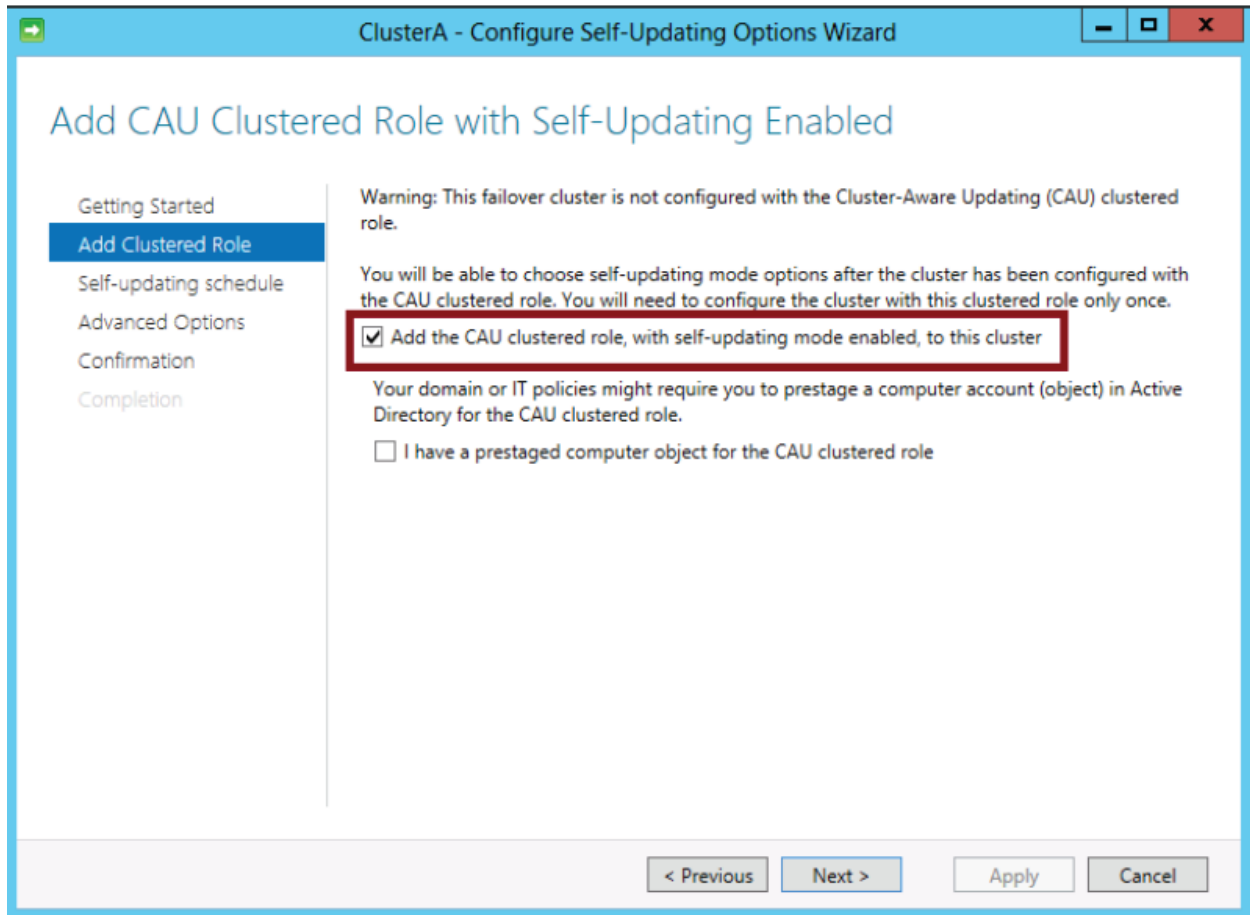


FIGURE 10-10 Enabling self-updating mode for CAU.

The third (Self-Updating Schedule) page of the wizard lets you specify a schedule for updating. The fourth (Advanced Options) page lets you change profile options, as shown in Figure 10-11. These profile options let you set time boundaries for the update process and other advanced parameters.

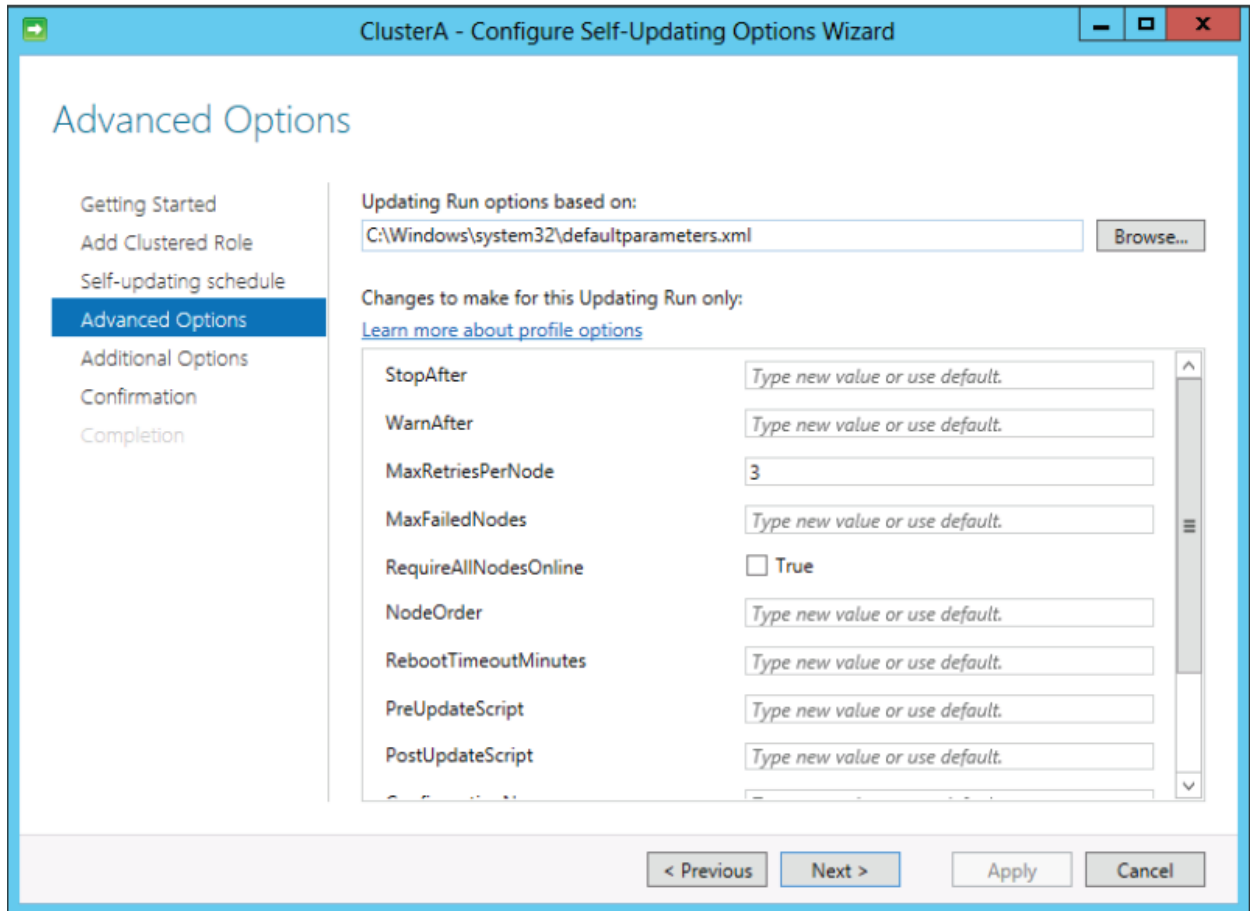


FIGURE 10-11 Configuring advanced options for Cluster-Aware Self-Updating.