AS ARVATO SYSTEMS

STREAMWORKS
WORKLOAD
AUTOMATION

Automate Server Patches
Best Practice Patch Management | Workflow Automation

This sample application shows how to patch any number of servers using a standard batch process.

Background Situation

lnstalling patches for operating systems, databases, Web servers, and applications is a complex IT task. The process is becoming more and more time-consuming and requires more intensive coordination due to the increasing complexity of IT systems. A solution was developed combining Streamworks with other tools such as configuration management systems (previously CMDB, or configuration management databases) change and incident management, and established monitoring procedures in order to face this challenge. Arvato Systems has already achieved a high degree of automation in the first phase.

Your Benefits

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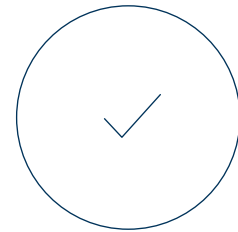
– Establish, roll out, and automatically execute a standard patch process

– Centrally control all ongoing patch activities

– Synchronize patch actions with business and operational processes

– Optimally use patch windows by means of parallelization

The Challenge: Patch 200 Servers in Four Hours

One of the tasks at Arvato Systems was to optimize existing patch procedures and patch up to 200 servers in a coordinated manner within a four hour time frame. The organizational environment presented a major challenge, in addition to the actual patching procedure. Servers generally cannot be simply rebooted. First off, applications being run on the server have to be properly stopped. It is essential to temporarily deactivate monitors and stop batch processing on the servers in order to avoid unnecessary incidents during the patch action.

It is also important for IT operations to create a standard policy for patches that meets its internal and external customers' requirements. The goal must be to establish a policy with a sense of proportion that allows a high degree of automation. This way, the small number of administrators can focus on the remaining small number of individual solutions.

The Solution: A Standard Patch Process for all Servers

The necessary information on the application landscape is automatically exported from the CMDB per server at the beginning of the patch process. Using this data, Streamworks generates dynamic processes, or more precisely, individual jobs that execute the corresponding tasks (stopping, starting etc.) per configuration item (CI). When shutting down a multi-level application landscape, the Web server is stopped first, followed by the application server and finally the database. Scheduled and thoroughly tested patch actions are executed after the application has been properly shut down. Here, too, the process is initiated via Streamworks. The successful completion of the sub-steps defined that can affect several IT divisions is checked in each instance. The application is archived in reverse shutdown order.

Using the easy-to-use Streamworks GUI ensures a high level of transparency. System administrators and the IT operations team can view the status of the process of every server at a glance. Errors that occur in the central Streamworks incident view (such as problems when stopping a database) are documented in such a way that the name of the affected database is visible from the job name of the batch job. This ensures a quick response, either automatically or with manual intervention.

You have questions, need information or a contact? Get in touch with us.

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