JetPatch Patch Management

Customer Guide
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1) **Endpoint Management**

This is the place where we actually prepare the endpoints to be managed.

**a) Management**

The Management library contains an overall view of the servers and their patching status.

1. Select **Endpoints > Management** from the main menu
2. The Search bar at the top left corner will enable you to search by the Endpoint name
3. You can also filter the library by **Remediation Plan / Endpoint Group / Operating System / Patch / Patch Status / Exemption**
4. When hovering over the Patching status bar you will see how many patches were installed/Not Installed on each endpoint

**Setting Suspensions**
1. Select the **Management tab** located under the Endpoints menu
2. Select the endpoints you want to suspend
3. Click on **Select Action > Set Suspensions**
4. A popup will appear enabling you to either **Set Suspension** or **Remove Suspension**
   - **Set Suspension**: You can either skip the coming maintenance schedules or suspend the Endpoint between certain dates
   - **Remove Suspension**: You can remove a set suspension at any time by clicking on **Remove Suspension**

   ![Set Suspension Definitions]

   Please choose or remove suspension for selected servers
   - Set suspension
   - Remove suspension

   Select suspension type
   - Between Dates

   Timezone
   - Select timezone

   Start Date
   - End Date

   ![Save]

   More information about EP management can be found here

**b) Activity**

- To view the library:
- Select Activities from the main menu
- The Search bar at the top left corner will enable you to search by the Activity or Endpoint name
- You can also filter the library by Remediation Plan/Endpoint Group/ Operating System and Patch Status
- For more information about a Task/Patch click on the triple dots, than View Details. The activity details can be copied or downloaded
- You can cancel activities but only if they are in queued status
c) Maintenance

Here you can assign servers to a particular maintenance window provided we have a Maintenance window (Will be discussed in the forthcoming topics) set in place. Each server can only be part of one maintenance window.

The Maintenance library contains a list of all the endpoints and the Maintenances Schedules they are assigned to.

1. To view the Library Select Maintenance from the main menu
2. The Search bar at the top left corner will enable you to search by endpoint name only
3. You can also filter the library for Endpoint Groups and Maintenance Schedules
4. Once a Schedule is added you can view its details by clicking on the triple dots, than View Schedules

Assigning servers to a Maintenance Schedule

1. Select Maintenance from the main menu
2. Select the endpoints you want to assign to the Maintenance Schedule
3. Click on Assign To Maintenance > a pop up will appear with a list of the Maintenance Schedules you have created (see Maintenance Schedules)
4. Choose maintenance schedule and click Assign Maintenance
5. To remove a Maintenance schedule click on the X in the schedule tab in the Maintenance Name column (it becomes darker when you hover the mouse over it)
**d) Groups**

Here you can assign endpoints to different computer groups. Each endpoint can only be part of one computer group. The groups are created under *Computer Groups* tab. The Groups library contains a list of all your endpoints, in the last column you can see which group they are assigned to.

1. The Search bar at the top left corner will enable you to search by endpoint name only
2. You can also filter the library for Smart Groups / Endpoint Groups and Operating Systems

**Assigning Groups**

3. Select *Groups* from the main menu
4. Select the endpoints you want to assign to the group
5. Click on Assign Endpoint Group > a pop up will appear with a list of the Endpoint groups you have created
6. Choose the group you want and click on Assign Group
7. To unassign an endpoint from a group click on the X in the Group Tag

Check here for other details
2) System

a) Endpoint Groups

Endpoint groups are the cluster of endpoints grouped on the basis of some common factor (ex: Down time, Application, Business Unit etc). These groups can be used for targeting the Remediation plans.

The Endpoint Groups library contains groups you have created.

To view the Library Select System > Endpoint Groups from the main menu

1. The Search bar at the top left corner will enable you to search by group name only.
2. In the table, you will see the number of Endpoints assigned to each Group.
3. You can Edit, Delete or Unassign all computers in the Internally created groups by clicking on the action button on the right.
Create a new Endpoint Group

1. Select **Endpoint Groups** from the main menu
2. Click on **Create Endpoint Group**
3. Fill in the relevant details: **Endpoint Group Name** and **Description**
4. Click **Save**

- Adding endpoints to the groups is done via Groups tab

**Create Endpoint Group**

< Back to endpoint groups

**Endpoint Group Name**

Production

**Description**

Production EndPoints

For more information see here
b) Maintenance Schedules

Maintenance Schedules are independent time slots enabling you to decide when you would like your Remediation Plans to run on your endpoints. Connecting a server to a Maintenance Schedules is done through the Maintenance tab under Servers.

Please note: If a server is not associated with a maintenance schedule and is part of an active remediation plan the remediation plan will move to ‘Pending’ Column with status 'Waiting for Execution'.

The Maintenance Schedule Library contains the Schedules you have created and the number of endpoints connected to them.

1. To view the Library Select **Maintenance Schedule** from the main menu
2. The Search bar at the top left corner will enable you to search through the Maintenance Schedules by name only.
3. You can **Edit, Delete or Unassign all computers** by clicking on the action button on the right. They appear whenever you hover the mouse over the schedule.

![Maintenance Schedules Image]

Create a new Maintenance Schedule:

1. Select the **Maintenance Schedules tab** located under the System menu
2. Click on “**Create Maintenance Schedule**”
3. Fill in the relevant details: **Maintenance Schedules Name, Description, Timezone**
4. Click **Save**
5. Click **Add Schedule Entry**
6. Fill in the relevant details: Schedule Entry Name, Description, From and To Date, Repeat Type.
7. Click **Save**
● When creating a new schedule entry make sure that 'From Date' 'To Date' values can be completed in the 'Repeat Type' you have entered. For example from 1-1-2020 to 1-1-2021 with repeat type Daily cannot be completed daily.
● Active Remediation plans with Future maintenance windows (that have no other actions left) will move to completed with status 'waiting for execution' with tooltip 'Awaiting for Maintenance Window'.

For more information see here

c) Workflows

The workflow consists of pre and post deployment tasks. Workflow should be created after adding tasks and scripts into the library.

The Workflow Library contains Workflows you have created in addition to two automatically created workflows, one for Windows and one for Linux.

1. To view the Library select Workflows from the main menu
2. The Search bar at the top left corner will enable you to search through the Workflows by name only.
3. You can Edit, Delete or Set as default any of the Workflows by clicking on the action button on the right.

Note: When creating a remediation plan the default workflow will be selected automatically for patch deployment unless you choose otherwise.
Create Workflow

1. Select **Workflows** from the main menu
2. Click on **Create Workflow**
3. Fill in the relevant details: **Workflow Name**, **Operating System** and **Pre+Post tasks**.
4. Click **Save**

For more information see here

d) **Tasks**

Tasks contain the deployment parameters you want to use in different remediation plans. You can also use tasks to run scripts on your servers, regardless of the Remediation Plan.
When creating a task you can use a Script, an Execution Line or both. Before creating a task, you should add scripts to your library.

The Task library contains the tasks you have created and Built-in Tasks created by JetPatch, these Tasks can’t be changed in any way.

1. To view the Library Select Task Library from the main menu
2. The Search bar at the top left corner will enable you to search by Task name only.
3. Filter Option: Category, Created by and Script
4. You can Duplicate, Edit or Delete Tasks by clicking on the action button on the right
   - Note: you are unable to delete a task that was added to a workflow assigned to a remediation plan or the built-in ones.

Create a new Task:

- Select Tasks from the main menu
- Click on Add Task
- Fill in the relevant details:
  - Task name
  - Description
  - Configuration
  - Task Source: Choose Script, Execution Line or Both (you will be asked to add in the relevant information for each option).
- Execution preview
- Timeout
- Parameters
- Click Save

For more information see here
e) Run Task:

You can run tasks directly from the management table (Endpoints > Management).
To do so, select an endpoint and click on "SELECT ACTION", then choose "Run Task" and execute your tasks.

f) Scripts

Here you can enter your installation specifications for the different patches. Scripts can be either uploaded files or one-liner scripts written directly into the console. Each script must be connected to a task and can’t run independently.
The Script library contains the Scripts you have created and Built-in Tasks created by JetPatch, these Tasks can’t be changed in any way.

1. To view the Library Go to System from the main menu and select Scripts
2. The Search bar at the top left corner will enable you to search through the Script Name by name only
3. Filter Option: Category, Created by
4. You can Edit, Delete, Enable/Disable and Download Scripts by clicking on the action button on the right or one of the relevant icons.

Note: Scripts that are currently used by active Remediation Plans cannot be edited.

Built-in Scripts

Built-in scripts are scripts that are managed by JetPatch and therefore cannot be edited, disabled or deleted. The B icon tells you if the script is indeed a built-in script.

Enable / Disable a Script

You can enable or disable the scripts in your library. Please note that if you disable a script, it cannot be used.
- Tasks that are created based on disabled scripts - are saved but do not appear in tasks list.
- Tasks that are created based on enabled scripts - are saved and appear in tasks list.

Create a new Script
1. Select **Script** from the main menu
2. Click on “Add Script”
3. Fill in the relevant details:
   - Script name
   - Description
   - Configuration:
     - Category
     - Operating system (choose from Dropdown)
     - Run Type
   - Script source, you can either:
     - Upload file
     - One-liner script
   - Exit codes
   - Parameters
   - New scripts are set by default to **Enabled**, you can change the setting in the top right corner of the pop-up box.
   - Click **Save**

For more information see here
3) Patches & Remediation Plans

a) Patch Catalog:

The patch catalog in Jetpatch console will contain all the patches discovered for Windows and Linux operating systems. The required patches for Linux endpoints will be discovered based on the information obtained by the installed Jetpatch connector and for the windows, it is obtained from WSUS.

Jetpatch -> Patches -> Patches Catalog
Thus, all the required patches will be displayed in the patch catalog. The required patches can be selected manually or based upon the filter options. Listed below are the filtering criteria available in the Jetpatch Console,

- Search - filter by the full name / KB article / ELSA / ELBA / CESA / CEBA / RHSA / RHBA
- Approval Status - filter by the patch approval status
- Operating System
- Endpoint Name
- Endpoint Group
- Remediation Plan
- Show Patches - filter by the patches status - needed patches, in progress, installed or failed
- From date / To date - Patch release date
- Severity - Patch severity definition
- Category
- Vulnerability
- Product

For more information see here

b) Remediation Plans

Remediation plans are like projects JetPatch automatically executes for you. It can also be considered as a policy. When the endpoint is found to be non-compliant JetPatch will create a mini project – a remediation plan — to fix it. Each Remediation Plan consists of
patches, what action should be taken with each patch, and how the patch should be deployed on specific endpoint groups.

Remediation plans can be created automatically or manually. Automatic remediation plans are marked with a ‘#’ sign and manual RPs are marked with ⚖️. Automatic remediation plans group all patches that are not part of any other remediation plan and are needed on at least one endpoint in the environment. Patches can be grouped in one automatic remediation plan or separated into critical and non-critical remediation plans, based on defined JetPatch system settings. Critical remediation plans will be created or updated every 24 hours, assuming JetPatch discovered new critical patches. Non Critical remediation plans are created every 30 days.

Creating a remediation Plan

1. Click on Patches > Patches Catalog in the main menu
2. Select the Patches you would like to install. (To easily create the Remediation Plan you can filter by the specific patch name, patch severity, category, etc.)
3. Click on Create Remediation Plan and enter a Name and Description click Save & Continue
4. Approve Patches: Select the actions you would like to perform on the patches: Install/Remove/Not Approved/Decline. You can also add and edit your patch selection by Clicking on Edit Patches
5. Note: After a patch is created you can also access and edit it via the Remediation Plans dashboard
6. After deciding which actions you would like to perform, click on Save & Continue
7. Create Cycle: Select the Endpoint Groups you want the remediation plan to run on and the workflows you would like to run
8. Choose if you want to Save Cycle or Save & Activate Plan

When a plan is approved it goes to In Progress status ((in the RP dashboard) and is activated according to the maintenance windows set for the endpoints. When a plan is rejected it will return to the New status (in the RP dashboard) awaiting further action. Save Cycle - the plan will be saved and appear in the RP dashboard under New Save & Activate - Plan the plan will be set to Pending status and a ticket will be sent to ITSM for approval.

Once the remediation plan is activated, it gets listed in the RO dashboard as follows. The remediation plan dashboard provides real-time visibility for all remediation plans.

Remediation plans are placed in the below columns according to the remediation plans progression:

- **New** - all newly created remediation plans and rejected remediation plans will be listed here.
- **Pending** - all remediation plans that were activated and pending for approval from ITSM, See Integration with ITSM for more information. Please note that if JetPatch is configured
not to integrate with ITSM, the remediation plan will automatically move from Pending to In Progress after a few seconds.

- **In Progress** - Remediation plans that are currently being executed.
- **Completed** - lists all remediation plans that have finished patches deployment
- **Archived** - a completed remediation plan can be moved to the Archive column by the user.

### Patches Compliance and Installation Progress

The Remediation Plan provides several indications related to its content and functionality
The Remediation Plan compliance report gives you a complete overview of the compliance report status.

- Go to: **Patches > Remediation Plans** > Choose Remediation Plan and click on **Compliance Report icon**.

### Applicable Endpoints Compliance Status:

- The compliance status of endpoints assigned to this remediation plan.
- Clicking on the Patching Status bar will take you to the patch catalog for more information.
● Filter by: Name, Group, Operating System, Patching Status, Compliance, Vulnerability Scan, Exemption.
● Exemptions column: indicates the reasons why an endpoint will be exempted from this remediation plan. If the exemption column is empty the server can be patched.

If there is an issue with a patch that is being installed, the system generates an error code. [Here is an article on how to understand them.](#)

**For more information about Remediation plans, check here and here**
4) Dashboard and Reports

a) Systems Summary

Effective Compliance: Endpoint compliance excluding exempted/suspended endpoints
Total Compliance: Overall managed endpoints compliance
Remediation Plans: Status of all remediation plans (including archived plans)

b) Detailed Data By Operating System

Here you can see a breakdown of endpoint compliance by the operating system.

c) Download Reports

There are two optional reports you can download:

Compliance Summary: Provides the following data (detailed by operating system):

- Total Servers
- Failed Servers
- In Progress Servers
- Pending Servers
- Exempted Servers
- Compliant Servers

SLA Summary: Provides the status of remediation plan according to their SLA time
6) **Troubleshooting**

**a. Patching Checklist**

JetPatch has built-in features that help ensure the patching process is more successful. There are four things that can be done:

1. Verify that Endpoint Readiness is Turned On - This feature allows users to see the state of endpoints, and if the endpoint has reported an issue that will be in the way of patching, the Endpoint Readiness dashboard will show it.
2. Run Predictive Patching - After a Remediation plan was created, a predictive test can be made, in order to understand if all was set up correctly.
3. Verify that System Tasks are Running Properly - By checking the system tasks, if they failed or succeeded, the end user can know if any issues have occurred. As well, error codes can help understand what is the origin of the issue.
4. Verify Workflow Selection - Just before executing the Remediation plan, the workflow is worth checking, making sure the endpoints will go through the needed pre- and post-workflows.

For more details, please check here.

**b. Understanding Errors**

When facing an error while working with JetPatch, the first thing to do is to attempt to search it in the JetPatch Knowledge Center. Most errors will be described there, as well as a way on how to solve them.

Some errors have exit codes. The best is to check them here.

**c. Advanced Troubleshooting - Reading Logs**

In the article that describes How do I generate connector logs?, there is also a link to the instruction that explains how to read the logs.

**d. Getting in Touch with JetPatch Support**

If none of the above helped, feel free to get in touch with JetPatch support. That can be done from this link.

In most cases, JetPatch support will ask for logs, so it is a good idea to generate the logs and send them with the support request.