

# PST Enterprise Workflow Service

## Workflow

The standard behaviour of this service is that it will regularly look for mailboxes whose assigned PSTs meet various criteria and then perform actions on the mailbox.

The only available criterion currently is that each PST assigned to the mailbox must have completed a named condition policy assigned to it. If any PST is assigned a different policy, or is assigned the condition policy but has not yet completed, the criterion is not met and no actions will be performed. The only exception to this is that PSTs that have the action policy (see later) assigned are excluded from this test, as it indicates they've already been processed by this service. You can specify multiple condition policies, in which case each PSTs need to be assigned to one of those policies (or the action policy).

One or more actions can be applied to the mailbox:

1. A mail will be sent to the owner of the mailbox, using an administrator-defined template
2. All the PSTs will be reassigned to a named action policy, and the policy will be configured to run at a specified date/time or delay (eg 30 days) after the assignment

Typical use of this is to assign a migration policy to all PSTs and configure that policy as the condition policy, then when this service detects that all PSTs have been migrated it will assign an action policy to the PSTs to delete them in 30 days and send a mail to the owner informing them of this so they can check over the PSTs and stop them being deleted if necessary.

You can specify multiple activities (sets of conditions and actions) in which case they will be applied independently to the mailboxes.

## Installation

To install, run the supplied MSI file on the server on which PST Enterprise is installed.

This will install a new service, "PST Enterprise Workflow Service", which will **not** start running after installation.

You need to change the configuration (see below) to match your environment and requirements.

The service on start-up will validate its configuration. If there are any problems, it will stop and an event log entry will report the reason for the failure.

So only start the service once you have a correct configuration.

## Configuring behaviour

The workflow behaviour is defined by the following file:

*C:\Program Files*

*(x86)\Barracuda\PSTEnterprise\PSTWorkflowService\Config\WorkflowConfiguration.xml*

If your PST Enterprise installation is in a non-standard location, this may vary.

This file can be edited with any text file editor. If an XML-aware editor is used, the file *WorkflowConfiguration.xsd* in the same directory defines the schema and can be configured into the XML-aware editor to report syntax problems in the file while typing into it.

The example ships with two activities. For the configuration file to be considered valid, all characteristics of all activities must be correct. If you are creating a configuration, you should take a copy of the example one for reference then edit it down (typically so it only defines one activity).

Within each activity there are four areas of the file that will need changing (where '<a/b>' means section <b> within section <a>):

- <mail> This defines details of an SMTP server and a 'from' address to be used for mail sending. The 'from' address does not have to be a real mailbox, but if it is then replies to the mail sent to users will go to that mailbox.
- <activities/activity/condition/policy\_meets\_state/policies/policy> This is the name of a PST Enterprise policy, only users for whom all PSTs have this policy assigned and have completed successfully will have actions applied to them (any PSTs that have the action policy assigned are exclude from this test). You can specify multiple policies here, in which case a mailbox will be processed if each of its PSTs is assigned to one of the listed policies and was successful.
- <activities/activity/action/send\_mail\_action> This defines the mail to be sent to users (only if this section is present). The mail template is explained in the next section
- <activities/activity/action/assign\_policy\_action> This defines the name of a PST Enterprise policy to be assigned to the PSTs and when the policy should run (only if this section is present). The date/time to run can be defined in one of two ways:
  - A defined delay between the assignment and the policy running and the units in which that delay is given (eg '30 days') using the 'delay' element
  - A defined date/time at which the policy should start, using the 'start' element. The base format of the element must be exactly 19 characters of the form '2017-03-26T12:00:00' (all numbers must be 2 digit except for year) but this can be annotated for time zones etc – any valid XML date/time format string can be used

After editing the configuration, start the PST Enterprise Workflow Service. If it stops immediately, check the application event log and you'll find a report of the configuration problem that caused the service not to start. Typically this will be that one of the policies or the email template file can't be found.

## Configuration rules

The configuration file *WorkflowConfiguration.xml* must comply with various rules to be considered valid:

- It must be a valid XML file and meet the formatting rules of the XML schema (the example files shows examples of this format)
- No condition policy can be listed in more than one activity
- It can have one or more activities, each of which meet the following rules:
  - The condition policies must exist in your PST Enterprise configuration
  - All condition policies must meet the following restrictions (in order to be detectable as an end state for a PST):
    - It must not have the action of 'Move PST'

- If the action is 'Copy PST' then it must not have a finalization action of 'Assign another policy'
- If the action is 'Copy to Message Archiver' then it must not have a finalization action of 'Assign another policy' or 'Disconnect and delete the PST'
- For any other action, it must have a finalization action of 'Disconnect PST when completed'
- There must be a 'send\_mail\_action' section or an 'assign\_policy\_action' section or both
- If the 'send\_mail\_action' section is present:
  - The email template file must exist
- If the 'assign\_policy\_action' section is present:
  - The action policy must be a policy that exist in your PST Enterprise configuration
  - The action policy must not be the same as any condition policy for the activity

## Configuring the email template

The email template file is an HTML file which will be used as the email body when sending mails to users. The file must be named in the *WorkflowConfiguration.xml* file and put into the same directory as that file.

The following tokens, if they appear in the file, will be replaced with the corresponding values for the user to whom the mail is being sent:

- {UserName} – the display name of the user
- {UserEmailAddress} – the email address of the user
- {ActivityName} – the name of the activity being applied

The template file must also contain the tokens {StartPST} and {EndPST}. All the text between these tokens will be repeated for each PST the user has assigned.

The following tokens, if they appear in the file, will be replaced with the corresponding values for the PST:

- {PSTName} – the display name of the PST
- {PSTFilePath} – the full path and filename of the PST
- {PSTMachin} – the machine on which the PST was found
- {PSTPolicyName} – the current policy assigned to the PST
- {PSTDataSize} – the size in bytes of the data in the PST
- {PSTDiskSize} – the size of the PST file

All tokens are options except that the file must contain one {StartPST} and one {EndPST} token.

A sample email template, *ExampleTemplate.htm*, is supplied.

## Running for testing environment

By default the service will examine PSTs and perform actions once an hour. For testing, you can modify the time taken between attempts. Edit the file *PSTWorkflowService.exe.config* in the service installation directory and change the value of 'CheckPeriodMinutes'.