

F5 PRO-Enabled Management Pack Configurability



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The F5 PRO-Enabled Management Pack is configurable in several ways and allows for many different customized monitoring scenarios. This article will describe how to configure the pack to match your organization's needs.

The general configurability model is based off something similar to creating a Rule in Microsoft Outlook:

When [a statistic threshold is crossed] for any pool members in [this group], respond with an [action]

The bracketed terms are configurable, some more than others. I'll describe each configurability point below:

- **The Statistic Threshold**

The event is the trigger that sets the recovery action in motion. Currently this event can be configured to be a statistic threshold based on any of the pool member statistics that the management pack collects.

To configure the event, you need to override some parameters on the Add Resource PRO monitor:

- In the **Authoring** pane, expand **Management Pack Objects** and click on **Monitors**
- In the **Look For:** field, type "F5 PRO" and click **Find Now**
- Right click on **F5 PRO Performance Monitor (Add)**
- Select **Overrides => Override the Monitor => For all objects of class: F5 PRO Pool Member**
- In the **Override Properties** screen, configure the following parameters:
 - CounterName: this can be any of the LTM Pool Member statistics:
 - Server - Bytes In (avg/sec)
 - Server - Bytes Out (avg/sec)
 - Server - Packets In (avg/sec)
 - Server - Packets Out (avg/sec)
 - Server - Maximum Connections (avg/sec)
 - Server - Total Connections (avg/sec)
 - Server - Current Connections
 - GreenStateOperator: this can be any of the following:
 - Equal
 - NotEqual
 - Greater
 - Less
 - GreaterEqual
 - LessEqual
 - GreenStateThreshold: this must be a number
 - RedStateOperator: the range of values is the same as for GreenStateOperator
 - RedStateThreshold: this must be a number

The default event trigger is defined as being in a healthy (green) state when the Server Current Connections statistic is less than or equal to zero. It is in a critical (red) state when the statistic is greater than zero.

- **The Group**

This can be any group of LTM Pool Members. To create the group, right click on Groups in the Authoring Pane. Use the flexible wizard to create your group.

Once your group is created, enable the monitor only for that group:

- In the **Authoring** pane, expand **Management Pack Objects** and click on **Monitors**
- In the **Look For:** field, type "F5 PRO" and click **Find Now**
- Right click on **F5 PRO Performance Monitor (Add)**
- Select **Overrides => Override the Monitor => For a group...** => Select your new group

- Configure the **Enabled** property to have an override value of **True**

Alternately, you could skip creating a group and simply enable the monitor for ALL pool members. This is not recommended due to the fact that the monitor is meant to watch for a small group of pool members that server as the overflow pool during a traffic spike.

- **The Action**

The built-in action is to create a PRO tip that adds a server resource. In the current pack, this cannot be overridden via the UI in Operations Manager, though there is a way to replace this action with your own script. I'll discuss that possibility in the following "advanced" section.

You can configure several parameters for this action.

- In the **Authoring** pane, expand **Management Pack Objects** and click on **Monitors**
- In the **Look For:** field, enter "F5 PRO" and click **Find Now**
- Right click on **F5 PRO Performance Monitor (Add)**
- Select **Overrides => Override Diagnostic => Create PRO Tip for Adding Virtualized Pool Member Resources => For all objects of class: F5 PRO Pool Member**
- Configure the following parameters:
 - Enabled: By default this is True. Set to False if you do not want a PRO Tip to be created.
 - Log Level: This can be one of the following values. The value you choose indicates the verbosity of messages written to the F5 Monitoring Log during operation:
 - Error
 - Warning
 - Verbose
 - Debug
 - New Pool Member IP and Port: This should be the IP and port of the new server resource that will be created in the form: 10.10.10.1:80.
 - Virtual Machine Manager Server: This must be the FQDN of the desired VMM server.
 - Virtual Machine Name: This must be the VM name as known by your VMM server that will be dynamically started.

You need to also configure the same parameters for the Recovery action: Select **Overrides => Override Diagnostic => Add Pool Resource => For all objects of class: F5 PRO Pool Member**.

Advanced Configuration for MP Authors

The current implementation of the PRO-Enabled pack is flexible but still targeted at a fairly specific scenario. The previous instructions allow configurability via the Operations Manager UI but there are advanced alternatives for the more adventurous out there. By using the basic workflows and modules types defined in the F5 PRO-Enabled pack you can create your own monitors tailored to your exact needs. Some of the possibilities include:

- Use events raised by objects other than LTM Pool Members, such as Virtual Servers to trigger your actions
- Completely replace the default action of Adding or Removing server resources with your own scripts, such as moving a VM to a new host via Live Migration

If you have questions about these kinds of scenarios, please visit the [Management Pack Support Forum](#).

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