Adjust WaterMark in RTMT of Call Manager Procedure

Contents

Introduction

Prerequisites

- Requirements
- Components Used

Background Information

- LogPartitionHighWaterMarkExceeded
- LogPartitionLowWaterMarkExceeded

Procedure

- Adjust Low WaterMark
- Adjust High WaterMark

Verify

Troubleshoot

Introduction

This document describes the procedure to create additional disk space in logging partition of Cisco Call Manager with High and Low WaterMark settings.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The information in this document is based on these software and hardware versions:

- Cisco Call Manager version 10.0.1-10000-24
- Cisco Real-Time Monitoring Tool (RTMT) version 10.0(001)

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

Tip: The information in this tech document also applies to adjust the watermark in RTMT for the Cisco IM and Presence Service Server.

Low WaterMark is a percentage value of the total logging disk space post which when you receive an alert, indicates the disk space is full by the configured percentage of Low WaterMark.

High WaterMark is a percentage value of the total logging disk space post which the older log files are purged.

High WaterMark Exceeded and Low WaterMark Exceeded are events that indicate the percentage of used disk space in the logging partition.

LogPartitionHighWaterMarkExceeded

This event indicates that the percentage of used disk space in the log partition has exceeded the configured High Watermark.

LogPartitionLowWaterMarkExceeded

This event indicates that the percentage of used disk space in the log partition has exceeded the configured Low WaterMark.

The threshold percentage value of both events could be configured in RTMT based on the requirement. By default, High WaterMark is set to 95% of the total logging partition and Low WaterMark is set to 90% of the total logging partition.

At times, a need arises for certain activities in the call manager to take place when there is insufficient space in the Logging Partition and additional space needs to be created. During such events, additional space could be created in the Logging Partition by adjusting the threshold values of High WaterMark and LowWaterMark, respectively.

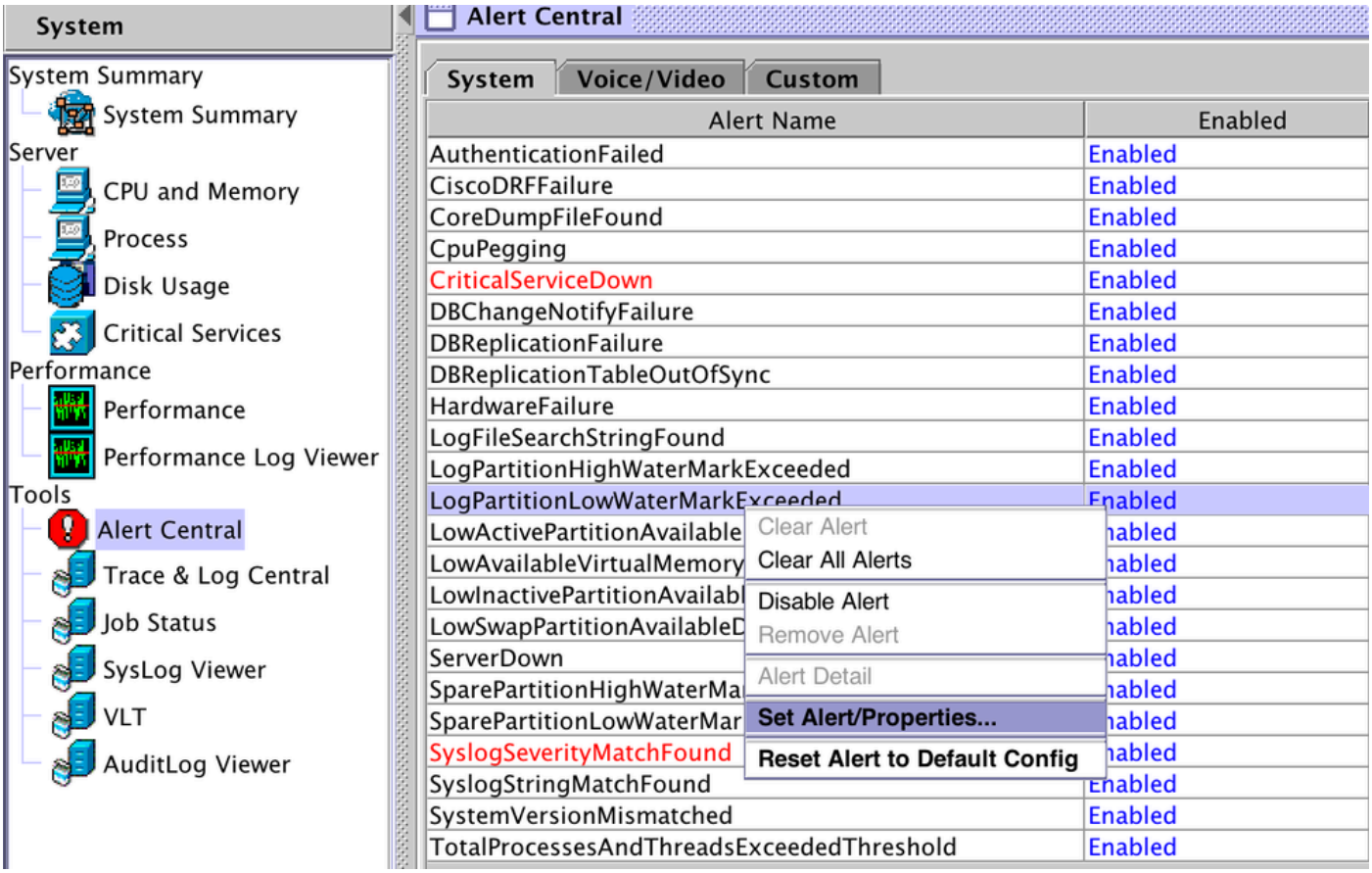
When the threshold value of High WaterMark is lowered, it purges older log files, thereby creating additional disk space in the logging partition.

Procedure

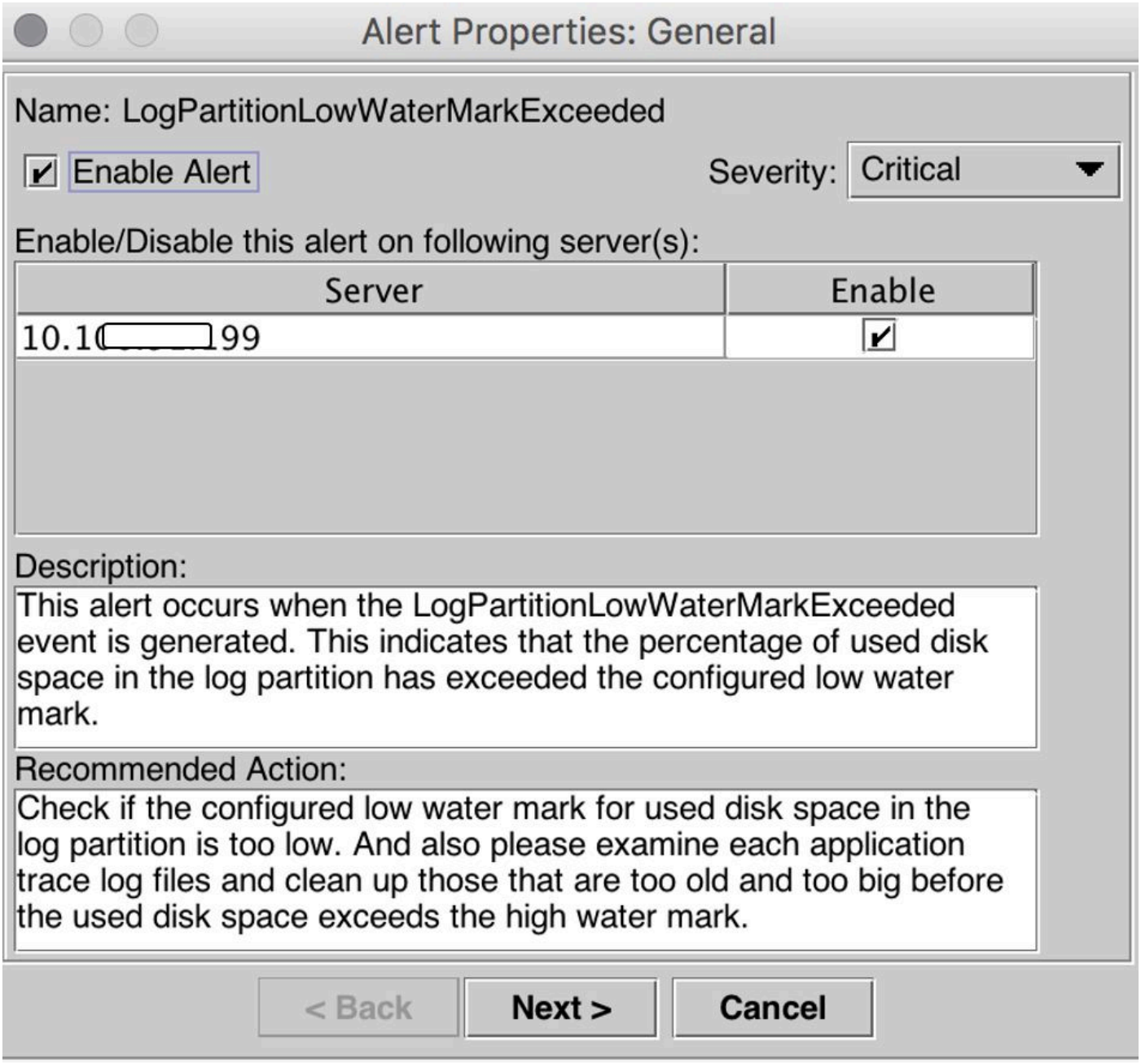
Adjust Low WaterMark

Launch RTMT, and log in to the desired **cluster**. On the left pane, navigate to **System > Tool > Alert Central**.

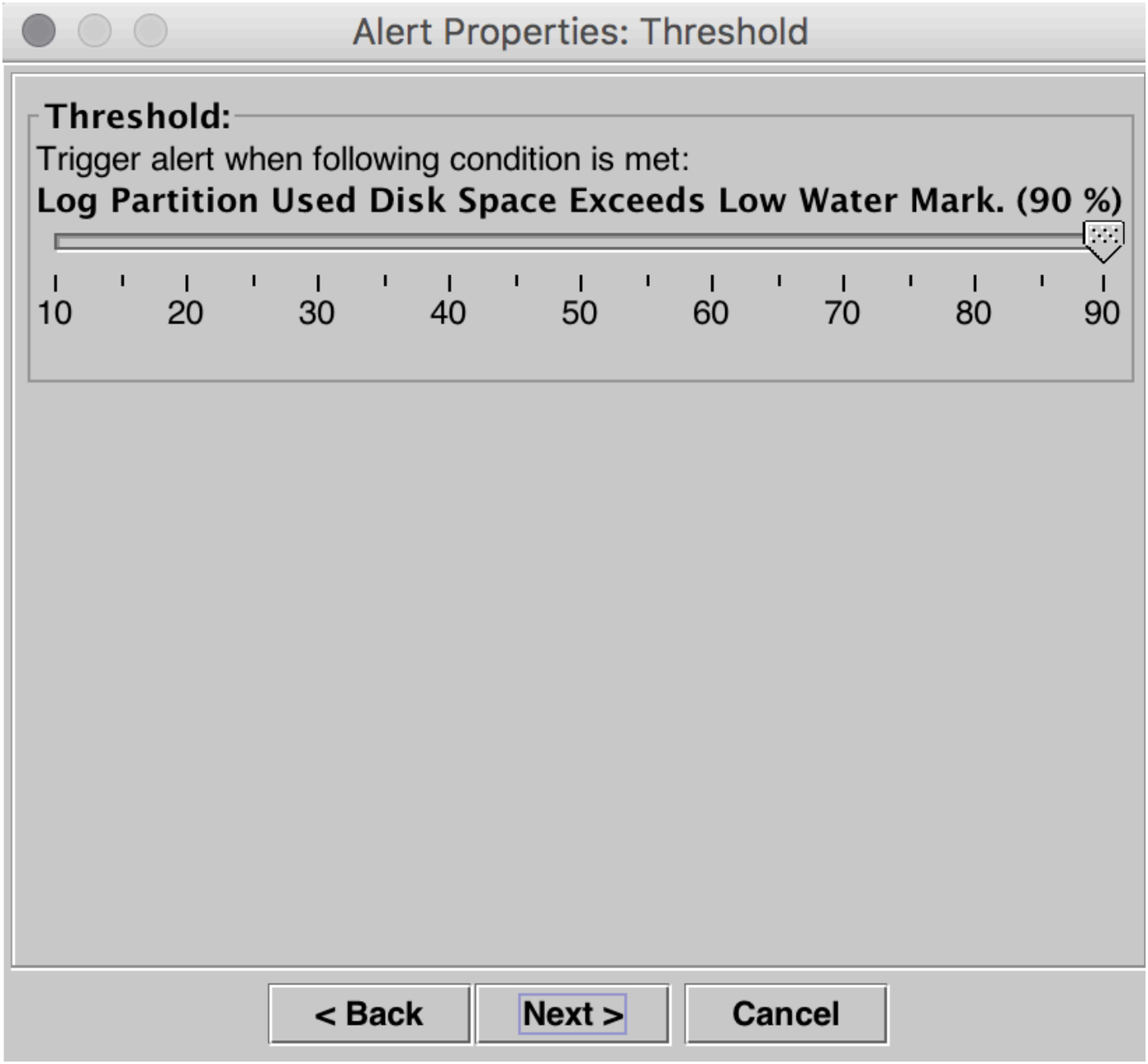
On the right pane, under **System Right**, click **LogPartitionLowWaterMarkExceeded > Set Alert/Properties**.


System
System Summary
System Summary
Server
CPU and Memory
Process
Disk Usage
Critical Services
Performance
Performance
Performance Log Viewer
Tools
Alert Central
Trace & Log Central
Job Status
SysLog Viewer
VLT
AuditLog Viewer
Alert Central
System
Voice/Video
Custom
Alert Name
Enabled
AuthenticationFailed
CiscoDRFFailure
CoreDumpFileFound
CpuPegging
CriticalServiceDown
DBChangeNotifyFailure
DBReplicationFailure
DBReplicationTableOutOfSync
HardwareFailure
LogFileSearchStringFound
LogPartitionHighWaterMarkExceeded
LogPartitionLowWaterMarkExceeded
LowActivePartitionAvailable
LowAvailableVirtualMemory
LowInactivePartitionAvailabl
LowSwapPartitionAvailableD
ServerDown
SparePartitionHighWaterMa
SparePartitionLowWaterMar
SyslogSeverityMatchFound
SyslogStringMatchFound
SystemVersionMismatched
TotalProcessesAndThreadsExceededThreshold
Clear Alert
Clear All Alerts
Disable Alert
Remove Alert
Alert Detail
Set Alert/Properties...
Reset Alert to Default Config

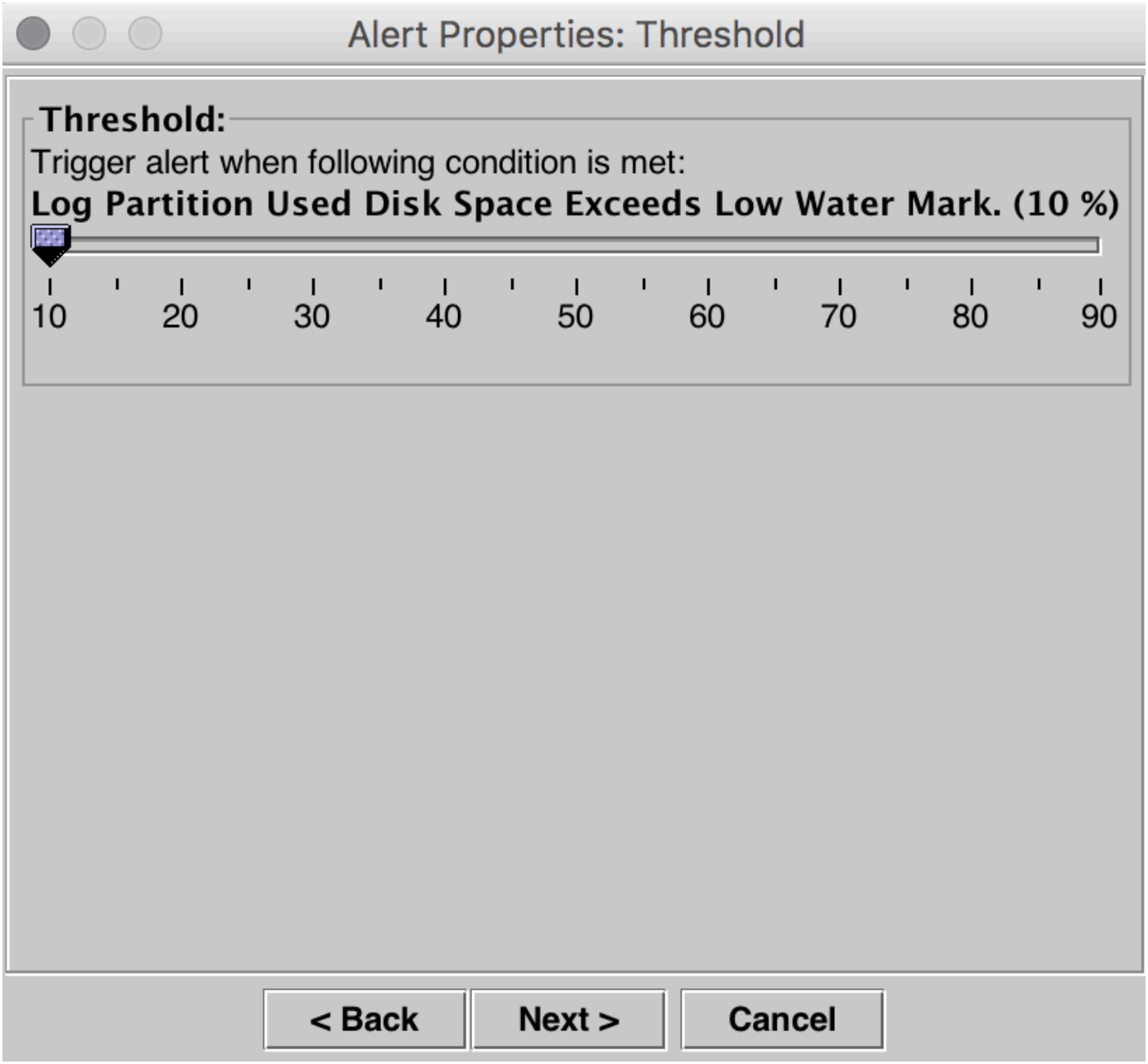
Click **Next**.



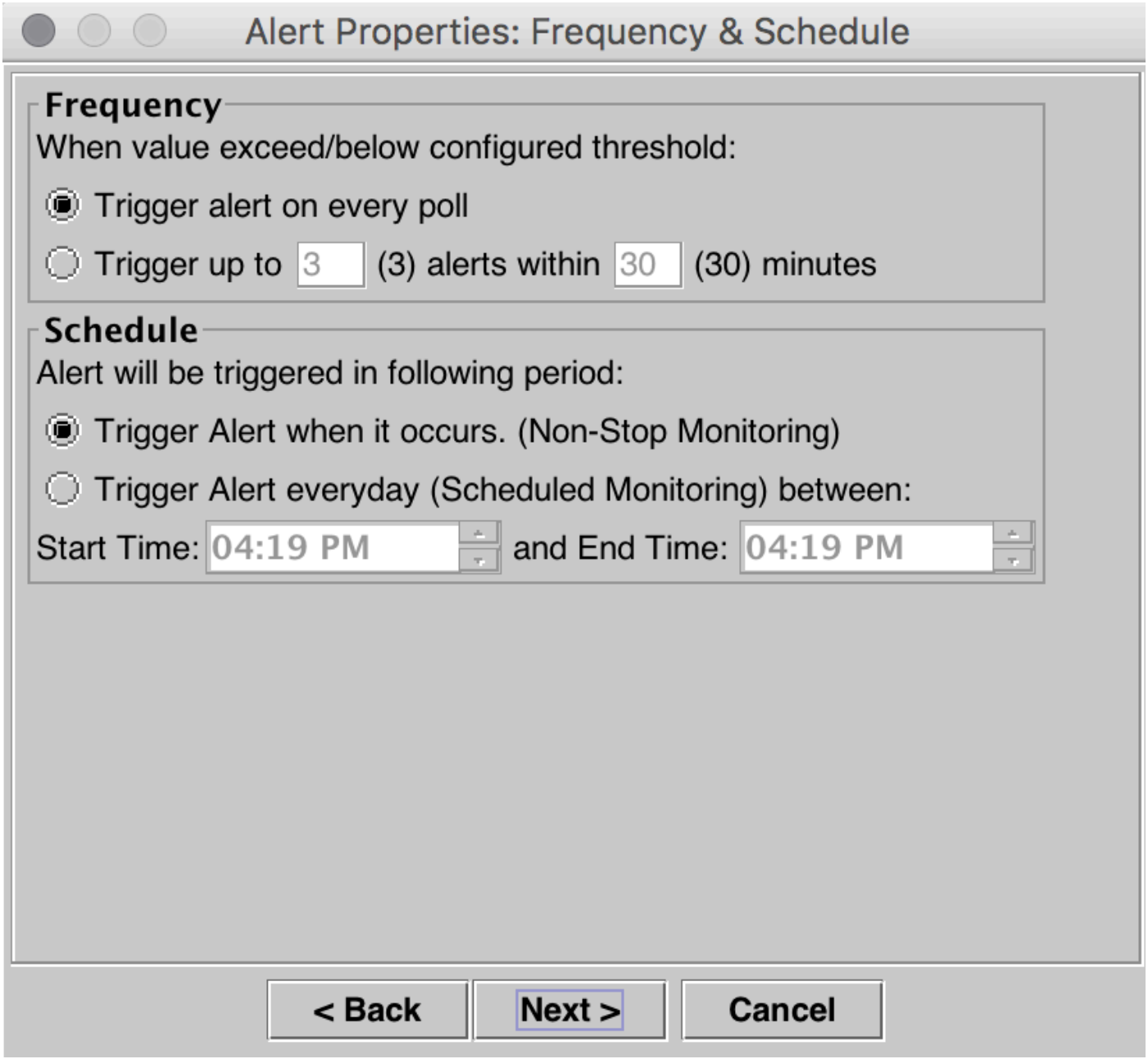
By default, Low WaterMark is set to 90%.



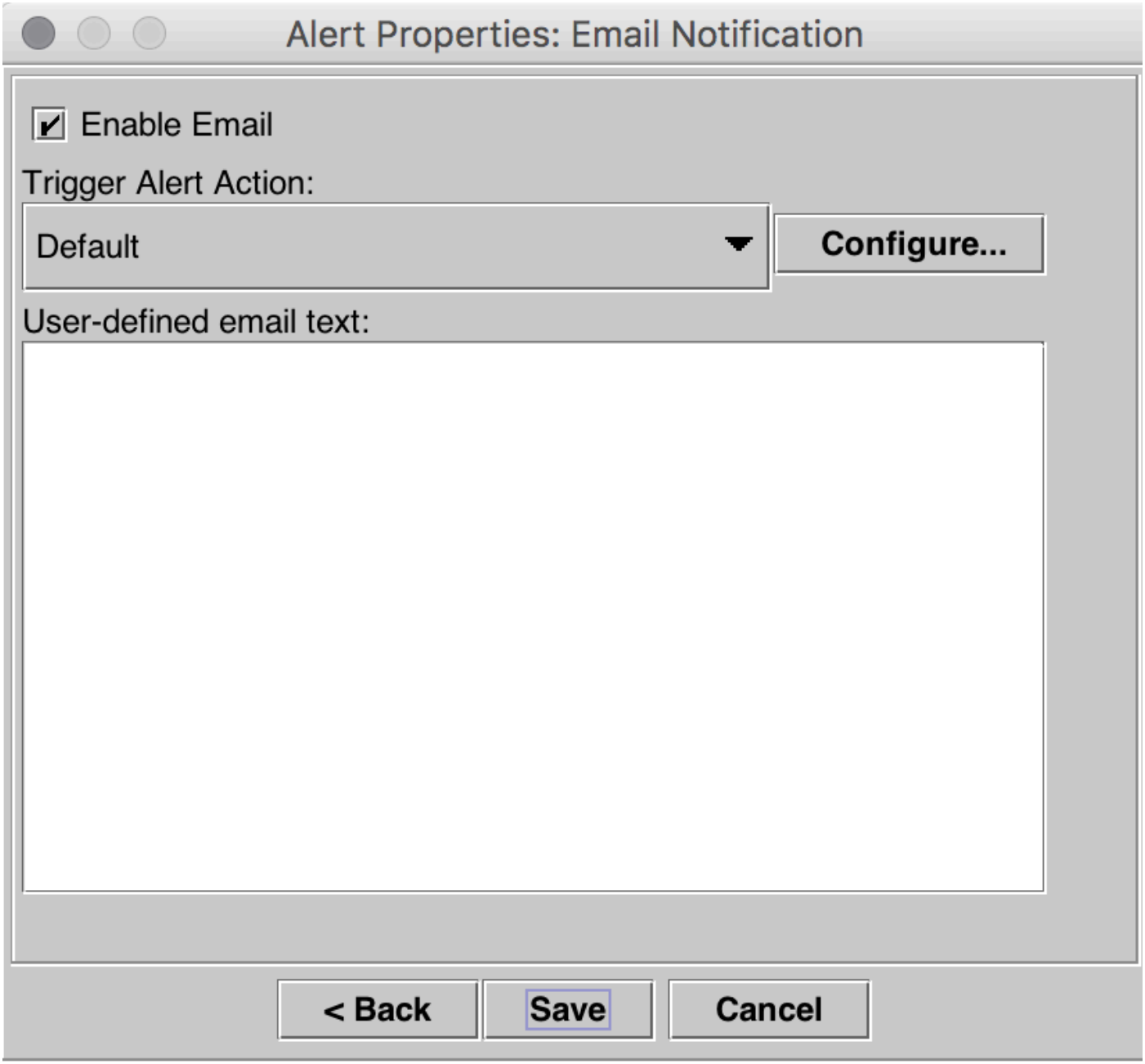
Set the **Low WaterMark** to a lower value, based on your requirement, and then click **Next**.


Alert Properties: Threshold
Threshold:
Trigger alert when following condition is met:
Log Partition Used Disk Space Exceeds Low Water Mark. (10 %)
10
20
30
40
50
60
70
80
90
< Back
Next >
Cancel

Click **Next**.

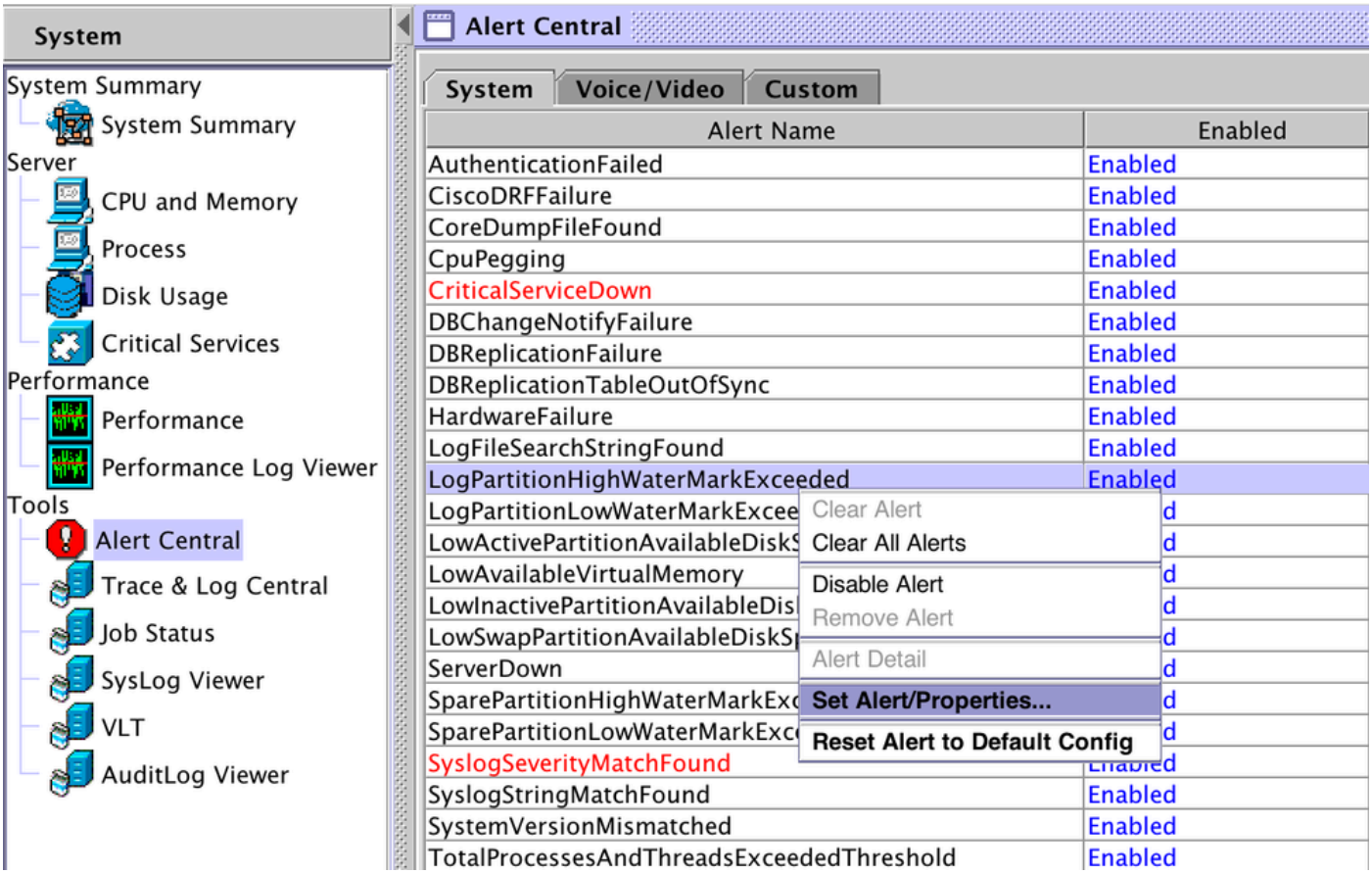

Alert Properties: Frequency & Schedule
Frequency
When value exceed/below configured threshold:
Trigger alert on every poll
Trigger up to 3 (3) alerts within 30 (30) minutes
Schedule
Alert will be triggered in following period:
Trigger Alert when it occurs. (Non-Stop Monitoring)
Trigger Alert everyday (Scheduled Monitoring) between:
Start Time: 04:19 PM
and End Time: 04:19 PM
< Back
Next >
Cancel

Click **Save**.



Adjust High WaterMark

When on the right pane, under **System Right**, click **LogPartitionHighWaterMarkExceeded > Set Alert/Properties**.


System
System Summary
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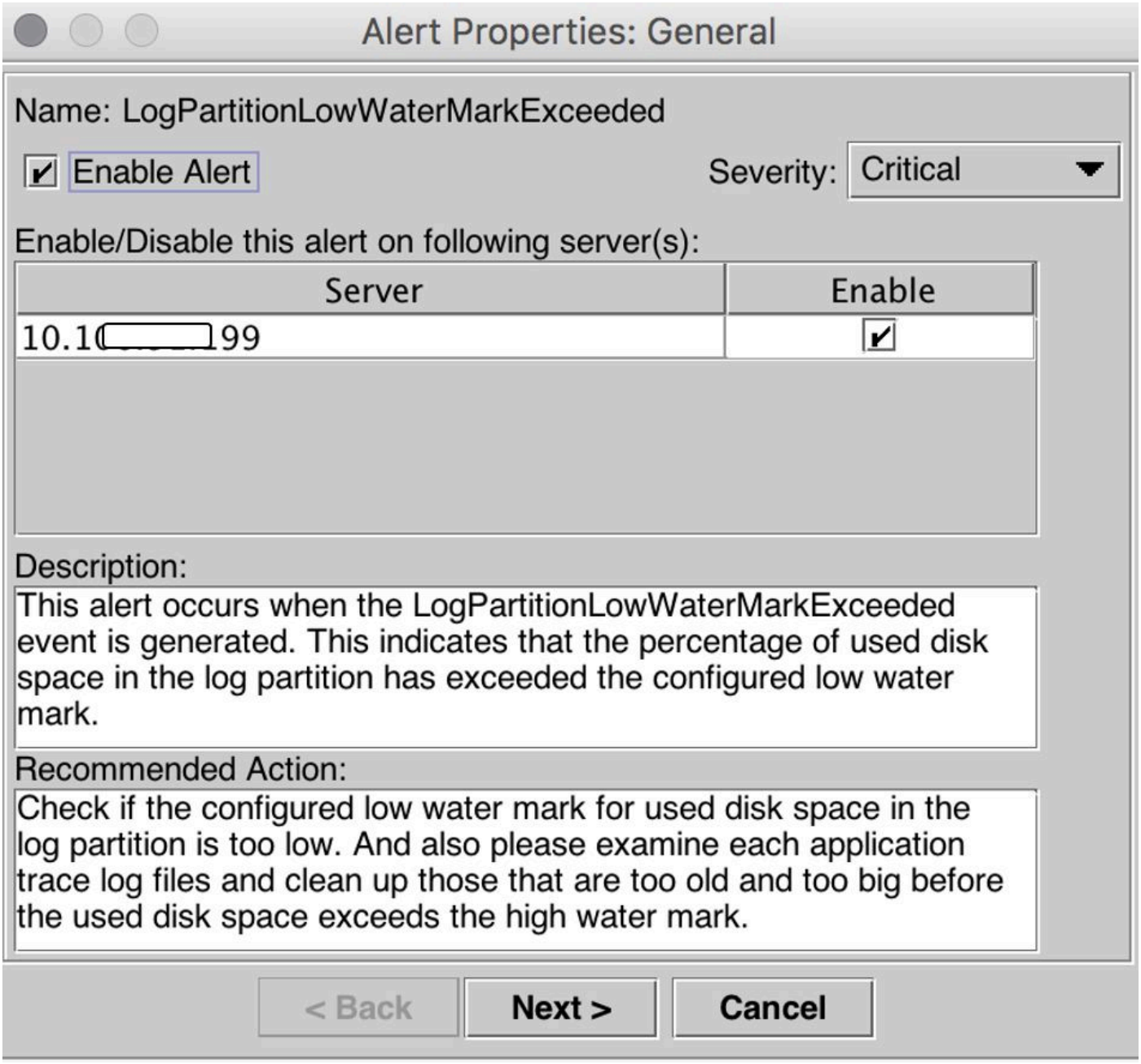
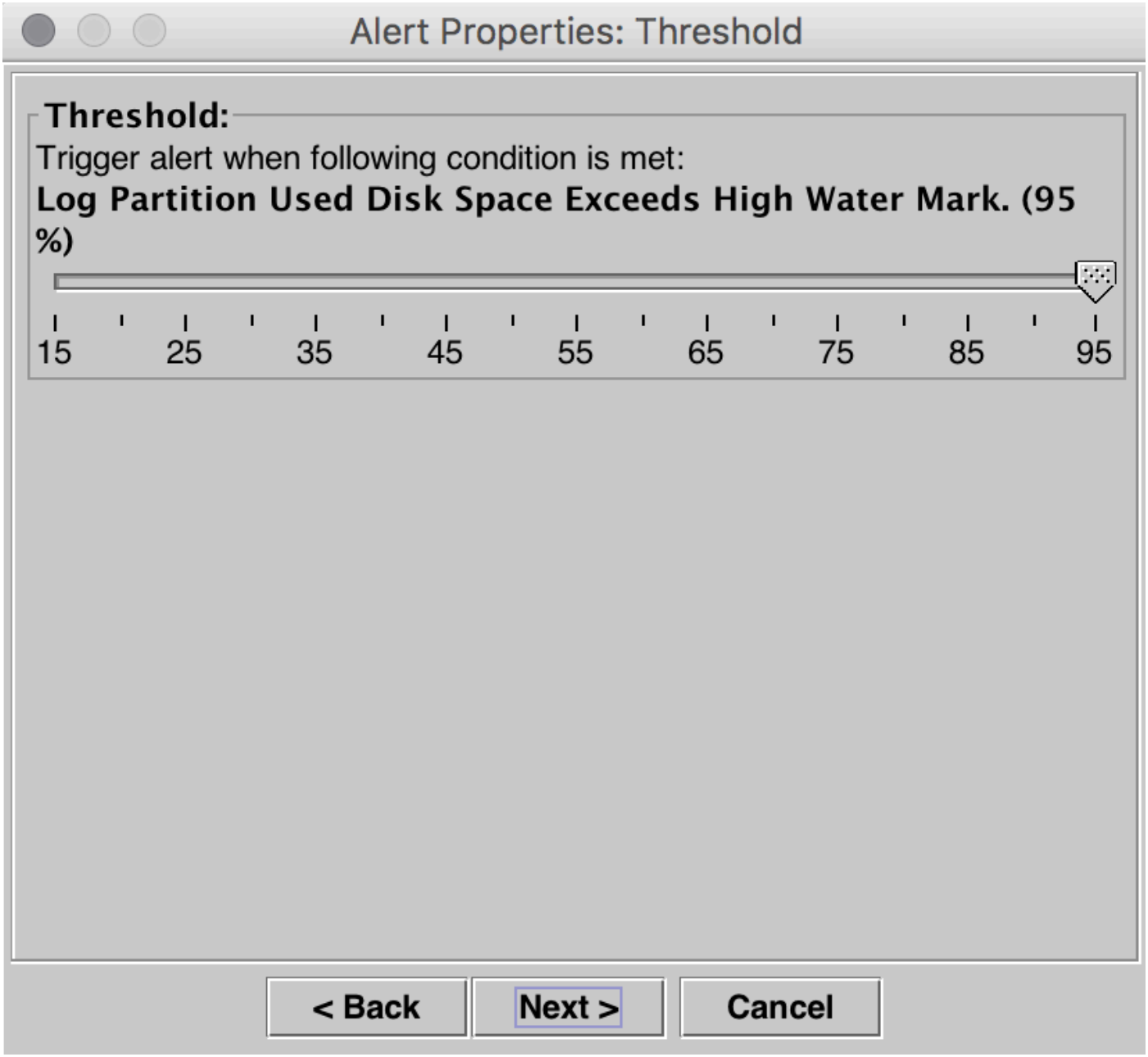
Server
CPU and Memory
Process
Disk Usage
Critical Services
Performance
Performance
Performance Log Viewer
Tools
Alert Central
Trace & Log Central
Job Status
SysLog Viewer
VLT
AuditLog Viewer
Alert Central
System
Voice/Video
Custom
Alert Name
Enabled
AuthenticationFailed
CiscoDRFFailure
CoreDumpFileFound
CpuPegging
CriticalServiceDown
DBChangeNotifyFailure
DBReplicationFailure
DBReplicationTableOutOfSync
HardwareFailure
LogFileSearchStringFound
LogPartitionHighWaterMarkExceeded
LogPartitionLowWaterMarkExcee
LowActivePartitionAvailableDisk
LowAvailableVirtualMemory
LowInactivePartitionAvailableDis
LowSwapPartitionAvailableDiskS
ServerDown
SparePartitionHighWaterMarkExc
SparePartitionLowWaterMarkExc
SyslogSeverityMatchFound
SyslogStringMatchFound
SystemVersionMismatched
TotalProcessesAndThreadsExceededThreshold
Clear Alert
Clear All Alerts
Disable Alert
Remove Alert
Alert Detail
Set Alert/Properties...
Reset Alert to Default Config

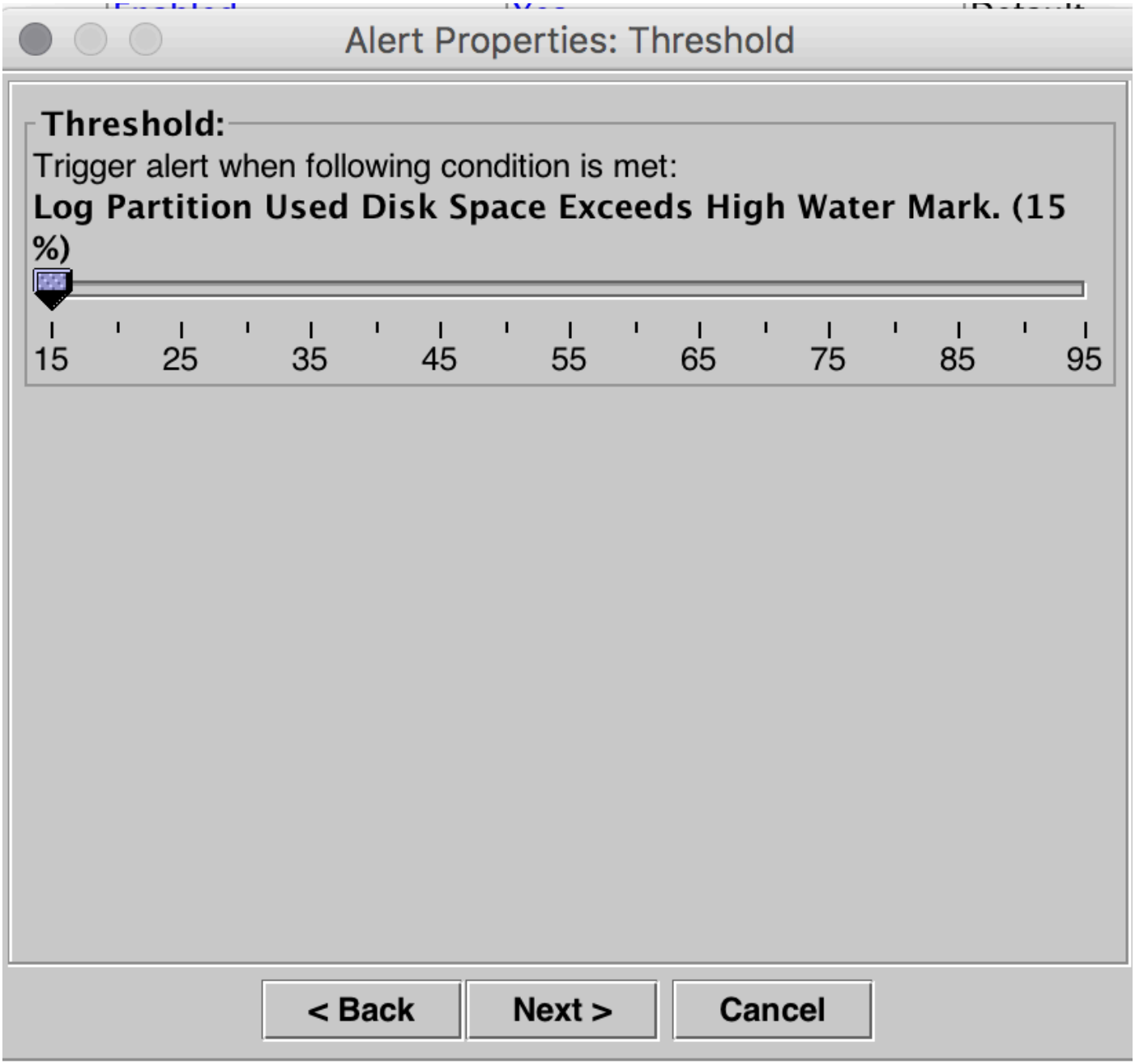
Click **Next**.



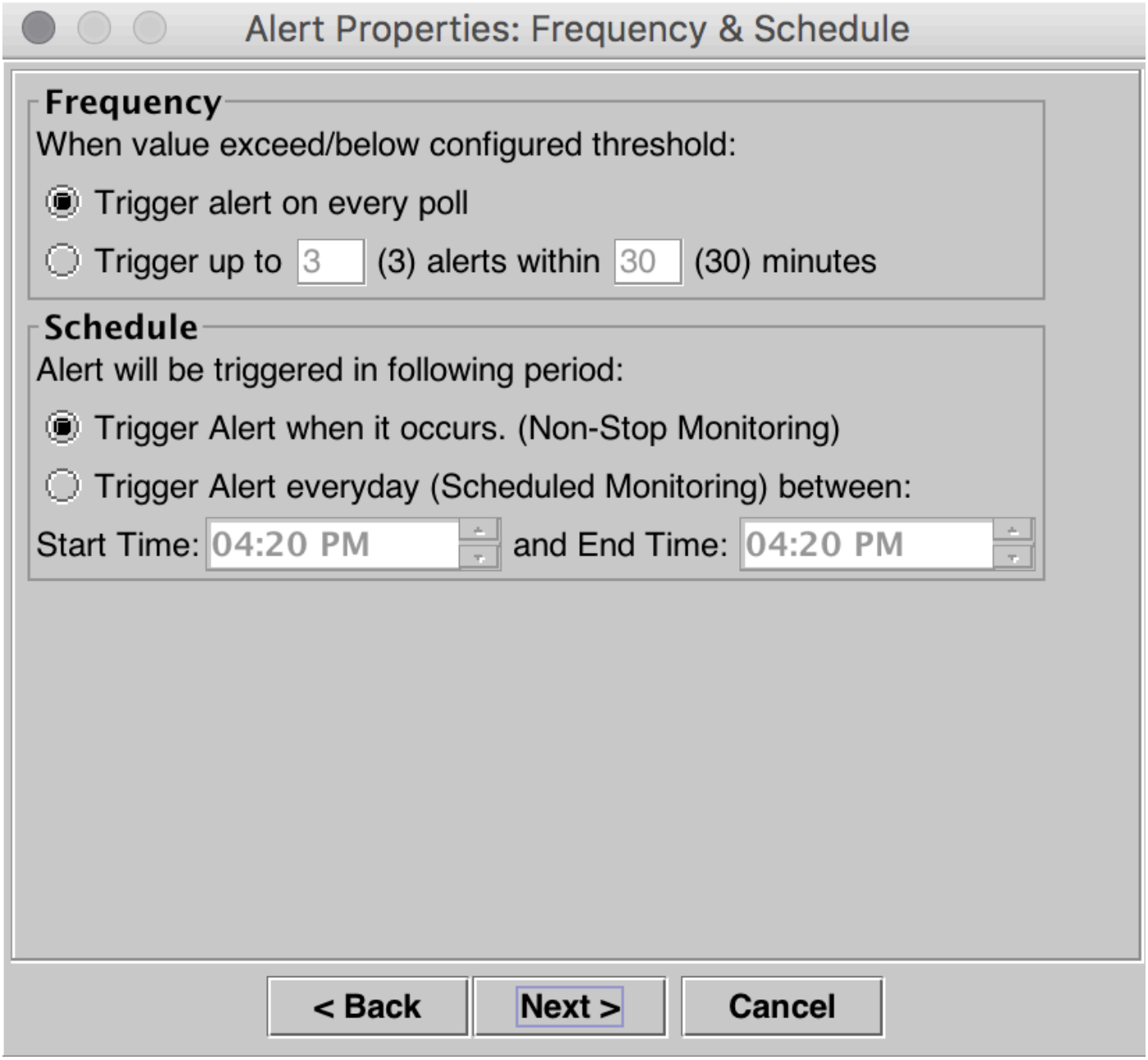
By default, High WaterMark is set to 95%.



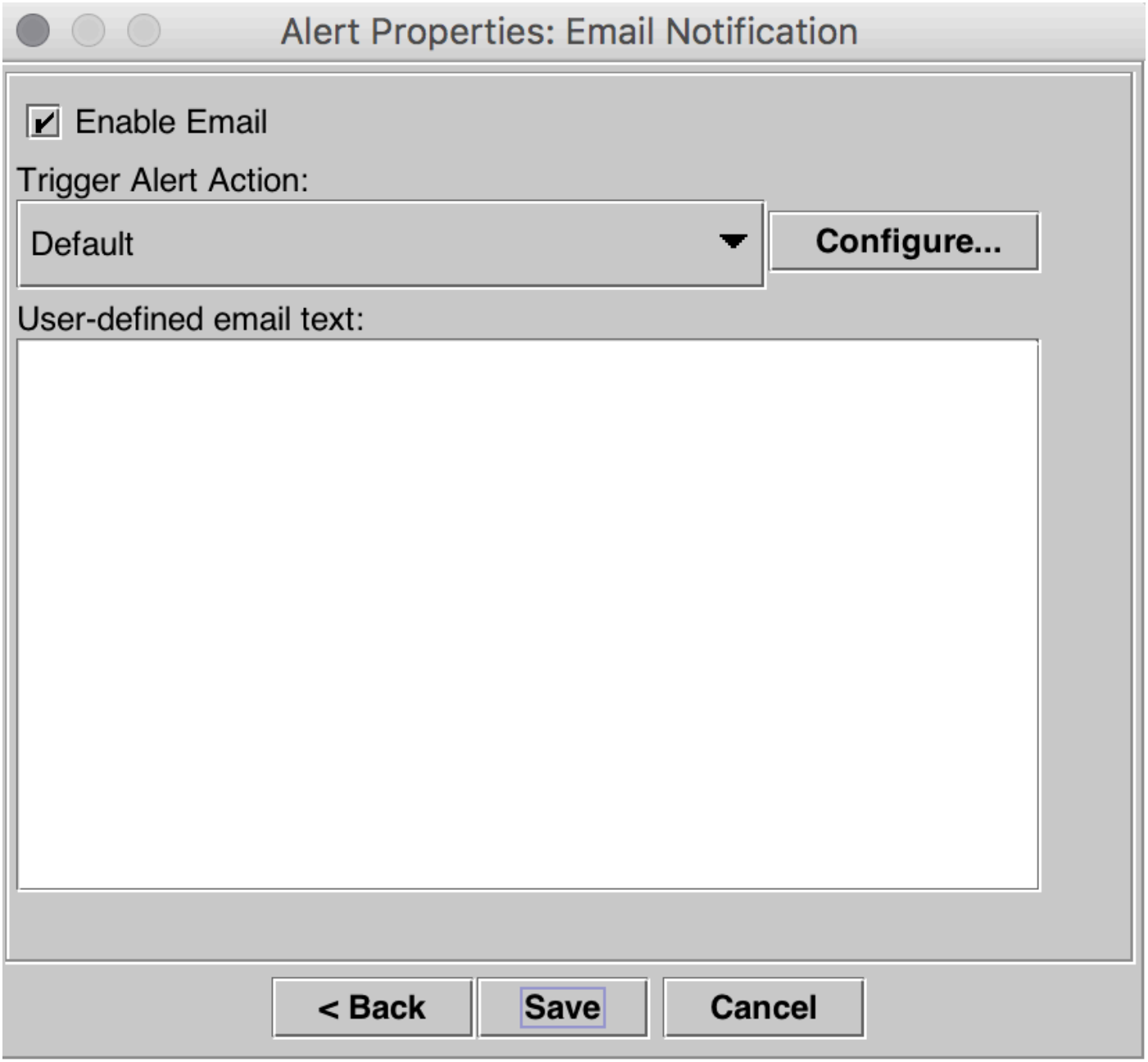
Set the **High WaterMark** to a lower value, based on your requirement, and then click **Next**.


Alert Properties: Threshold
Threshold:
Trigger alert when following condition is met:
Log Partition Used Disk Space Exceeds High Water Mark. (15 %)
15
25
35
45
55
65
75
85
95
< Back
Next >
Cancel

Click **Next**.


Alert Properties: Frequency & Schedule
Frequency
When value exceed/below configured threshold:
Trigger alert on every poll
Trigger up to 3 (3) alerts within 30 (30) minutes
Schedule
Alert will be triggered in following period:
Trigger Alert when it occurs. (Non-Stop Monitoring)
Trigger Alert everyday (Scheduled Monitoring) between:
Start Time: 04:20 PM
and End Time: 04:20 PM
< Back
Next >
Cancel

Click **Save**.



Verify

The additional disk space is created in the logging partition. After you adjust the High and Low WaterMarks, it can be verified through the **Show Status** command on the CLI on the Call Manager.

Before the WaterMark was adjusted.

<#root>

```
admin:show status

Host Name          : publisher
Date               : Thu Jul 21, 2016 16:07:16
Time Zone          : India Standard Time (Asia/Kolkata)
Locale             : en_US.UTF-8
Product Ver        : 10.0.1.10000-24
Unified OS Version : 10.0.0.0-2
```

```
Uptime:
 16:07:17 up 72 days, 21:01,  1 user,  load average: 0.21, 0.16, 0.11

CPU Idle:   93.06%  System:   02.40%    User:   04.29%
  IOWAIT:   00.25%     IRQ:   00.00%    Soft:   00.00%

Memory Total:        8062096K
        Free:         133808K
        Used:        7928288K
      Cached:        3312040K
      Shared:              0K
     Buffers:         342228K

                       Total            Free            Used
Disk/active         22187548K        9256672K       12705464K (58%)
Disk/inactive       22187548K       20884420K         176064K (1%)

Disk/logging        77201424K       47443520K       25836240K (36%)
```

After the WaterMark was adjusted.

<#root>

```
admin:show status

Host Name          : publisher
Date               : Thu Jul 21, 2016 16:35:48
Time Zone          : India Standard Time (Asia/Kolkata)
Locale             : en_US.UTF-8
Product Ver        : 10.0.1.10000-24
Unified OS Version : 10.0.0.0-2

Uptime:
 16:35:49 up 72 days, 21:29,  1 user,  load average: 0.09, 0.12, 0.16

CPU Idle:   98.61%  System:   00.88%    User:   00.51%
  IOWAIT:   00.00%     IRQ:   00.00%    Soft:   00.00%

Memory Total:        8062096K
        Free:        1957460K
        Used:        6104636K
      Cached:        1477332K
      Shared:              0K
     Buffers:         360100K

                       Total            Free            Used
Disk/active         22187548K        9256660K       12705476K (58%)
Disk/inactive       22187548K       20884420K         176064K (1%)

Disk/logging        77201424K       54805132K       18474628K (26%)
```

As seen in the **Show Status** output, the percentage value of the Used Disk/Logging partition has changed from 36% to 26%.

Troubleshoot

There is currently no specific information available to troubleshoot this configuration.