

Understand the Resource Conservation Mode on the Secure Email Gateway

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Introduction

This document describes what Resource Conservation mode on the Cisco Secure Email Gateway is.

Understand the Resource Conservation Mode on the Secure Email Gateway

Resource Conservation mode is a self-protective mode that the email gateway enters when it is short on internal system resources. For example, when RAM utilization exceeds 45% of capacity, AsyncOS enters into Resource Conservation mode.

Fundamentally, the Resource Conservation mode is entered when the rate of messages that come into an email gateway is higher than the rate of messages that leave the gateway. Although differentials in these rates are common, if the incoming rate exceeds the delivery rate for an extended period of time or by a huge differential, the email gateway does not have the resources to store additional messages.

The goal behind Resource Conservation mode is to slow down traffic that comes into the email gateway so that the delivery rate can exceed the acceptance rate and drain messages out of the system.

Resource Conservation mode is not an on/off switch. When AsyncOS enters Resource Conservation mode, it gradually slows down the rate at which it accepts messages to try and balance the incoming and outgoing message rates. In extreme cases where resources are totally exhausted, AsyncOS refuses to accept new messages.

When AsyncOS enters Resource Conservation mode, it sends an alert message. If you have configured alerts with the `alertconfig` command, you receive a copy of this alert.

Note: The alert does not go through the normal AsyncOS mail system, and thus can be delivered even when another message delivery is halted. When AsyncOS leaves Resource Conservation mode, you receive another alert.

You can see Resource Conservation mode in both the GUI and the CLI.

GUI

From the email gateway GUI, navigate to **Monitor > System Status** in order to view the Resource Conservation mode status.

CLI

Enter the **status detail** command into the CLI in order to verify whether an appliance has entered Resource Conservation mode.

The Resource Conservation value shown in both the GUI and CLI is a value between 0 and 60, or the number 999. Numbers from 0 to 60 represent the degree to which the system decreases its acceptance of messages in order to prevent the rapid depletion of critical system resources. Higher numbers represent a higher degree of decreased acceptance. Zero represents no decrease in acceptance, a system that operates at its full acceptance rate. If the Resource Conservation value shows 999, the system accepts no injected messages.