



Alerting Capabilities of GSX Monitor

#### **Document Information**

**Document Name:** Alerting Capabilities of GSX Monitor

**Document Version: 1.0** 

Release Date:
Part Number:

Authors: Eileen Fitzgerald - VP Product Management and Customer Service

Sebastien Giraud - VP Software Development

#### **Legal Statement**

This document, in addition to the software described within, is under the copyright owned by GSX Groupware Solutions. The GSX brand name and the GSX logo are, unless otherwise stated, registered trademarks. All reproduction, use and/or modification made without the prior written permission of GSX, may constitute an infringement of copyright.

Drawings, photographs, images, and texts within this document are subject to industrial and/or intellectual property laws and, as such, are the property of GSX or of a third party having granted GSX limited permission to use them. As such, any reproduction, representation, adaptation, translation and/or transformation, be it whole or in part, or transfer to another document are prohibited.

These items may be copied for private, non-commercial use, but may not be distributed further.

Reproduction of these items, be it whole or in part, without the prior written permission of GSX Groupware Solutions, is strictly prohibited.

#### **Disclaimer**

GSX does not make any representation, and does not assume any warranty with respect to the accuracy or reliability of the information contained in this document, or reproduced from this document. Furthermore, GSX shall not be liable and expressly excludes any warranty with regards to its products, information, software or other materials (together the "Products") purchased on the basis of, or in connection with, or related to any information included in this document. GSX may not be held liable for any indirect, special, incidental consequential or any other loss or damage which may arise in respect of the Products, their use or in respect of equipment or property, or for loss of profit, business, revenue, goodwill, or anticipated savings.

#### **Company Information**

GSX has its registered office at 36 Boulevard Helvétique, 1207 Genève, Switzerland.

# **Contents**

1	ABOUT THIS DOCUMENT	.5
	Purpose	5
	Related Documents	5
	Terminology	5
2	OVERVIEW	.7
3	THE GSX APPROACH	.8
4	WHY FLEXIBILITY IS IMPORTANT	.9
5	CONFIGURATION OF ALERTING OPTIONS	10
	Global Settings	10
	Email	11
	Events Configuration	12
	Alerts	13
	Images	14
	GSM Modem	15
6	INDIVIDUAL SERVER SETTINGS	16
7	ALERT PROFILES AND DEFINITIONS	18
8	INDIVIDUAL ALERTS IN DETAIL	20
	Domino Down/Domino Up	20
	Domino Network Down/Domino Network Up	20
	Domino Task Down/Domino Task Up	20
	Domino Cluster Down/Domino Cluster Up	22
	Log Scanning: Critical Errors/Log Scanning: Non Critical Errors	22
	Pending/Dead Mail Threshold	23
	Disk Space Threshold	
	Mail Routing Down/Mail Routing Up	
	Replication Down/Replication Up	
	Sametime Down/Sametime Up	
	Sametime Network Down/Sametime Network Up	
	Sametime Service Down/Sametime Service Up	
	Sametime Cluster Down/Sametime Cluster Up	
	URL Down or Time-Out/URL Up	
	BES Down/BES Up	
	BES SRP Connection Failure/BES SRP Connection Up	
	BES Log Scanning: Critical Errors/BES Log Scanning: Non Critical Errors	
	BES Hung Thread Alert	
	BES Pending Mail Threshold	
	BES No Forwarded Mail Threshold	
	BES Critical User Alert/BES Non Critical User Alert	οU



No More BES Critical User Alert	31
DB Performance Down	31
DB monitoring alert	32
Port Down/Port Up	32
Timeout on LDAP Request	33
Exchange Down/Exchange Up	34
Exchange Network Down/Exchange Network Up	35
Exchange Cluster Down/Exchange Cluster Up	36
Exchange Pending/Dead Mail Threshold	36
Exchange Disk Space Threshold	37
9 SUMMARY	39
LO TIPS AND TECHNIQUES	40
Copy and Paste	
11 ABOUT GSX GROUPWARE SOLUTIONS	
	/13



## **1 About This Document**

This section outlines the purpose and aim of the document, related documents, and any source materials or terminology used.

Please note that this document is regarded as confidential and is for customer use only.

## **Purpose**

The purpose of this document is to provide a detailed overview of the alerting capabilities of *GSX Monitor* software.

#### **Related Documents**

In addition to this guide, you can also refer to the following documents in the GSX Groupware Solutions documentation set for information:

- GSX Environmental Health
- Database Monitoring and Reporting Capabilities of GSX Monitor

## **Terminology**

The following table contains a definition of the terms commonly used in the document:



Term	Definition
Server	The physical server (or VMWare slice) that is being monitored.
System	The system that resides on the server. For example, BES, Sametime, or Exchange.
Threshold	A customer defined point that generates an action and or event when reached.
Alerts	Alarms that are generated when a specific monitored Key Performance Indicator (KPI) has exceeded a predefined threshold.
Delivery Method	The method by which an alert is delivered to one or more predefined recipients. For example, phone, pager, email, or fax.
Reminders	If an alert is generated and the condition generating this alert is not addressed within a predefined time frame, a reminder is sent to the original recipient.
Escalation	If a reminder concerning an alert is sent and the condition generating the alert is still not addressed, an escalation alert is generated. This escalation is delivered to a recipient other than the recipient of the original and reminder alerts, such as a manager.
Severity	Defined severity levels for different alerts. For example, pending mail greater than a predefined threshold may be a severity 3 alert, while a server down may be defined as a greater, severity 1, alert. The ability to associate several different severity levels with every alert enables administrators and IT managers to prioritize their response to alerts.
Profiles	Tailored alert settings that can be applied to the alerts that you want activated. Profile details include, Profile Name, Delivery Mechanism, Target, Severity, Reminder, and Escalation.
Maintenance	The time period where a server can be taken offline for systems maintenance. In some cases the server may be unavailable to the business. GSX Monitor enables you to specify repeat or once off maintenance periods that can be excluded from reporting and alerting if required.



## 2 Overview

**GSX Monitor** is the most widely used monitoring tool on the market today and currently safeguards over 5 million email accounts. The software can simultaneously monitor IBM Lotus Domino and Sametime, Microsoft Exchange, Blackberry Enterprise Servers, LDAP and SMTP ports, and URLs.

Alert capability is an integral part of the *GSX Monitor* software solution and warns administrators of potential problems before they lead to performance problems or outages. Alerts can be configured so the correct personnel are notified when performance indicators reach defined levels. As a result, remedial action can be taken *before* a problem actually occurs. The use of this proactive, automated monitoring can save money for your business, while ensuring a reliable service from your communications infrastructure.

In this increasingly technology driven, fast-paced and demanding business environment it is vital that IT Systems function efficiently and do not create a potentially crippling business impact when they are not available. A sobering example of this potential impact is the response from a hospital messaging administrator when asked what was the monetary impact of system downtime "It's not a question of money, it's a question of lives."

This demonstrates how vital it is to receive alerts when your system performance is threatened. Alerts can identify server problems and also service problems, such as problems with applications running on servers.

This document provides a detailed description of the alerting options available with *GSX Monitor*, along with configuration details, and some handy tips and techniques for using the software.



# 3 The GSX Approach

The GSX team have been developing monitoring, reporting, and alerting solutions for collaboration platforms for over 14 years. We work with global multinational customers and partners to ensure that our products are customer focused and new releases incorporate customers' requirements and suggestions.

**GSX Monitor** can be installed on any client machine on your network and enables the following:

#### **Service and Server Monitoring**

The GSX approach is unique and is tried and tested over the many years that we have been in business. Our competitors have tried to imitate this approach with very limited success.

As GSX software emulates a customer accessing the system we, uniquely, simulate the level of service that your customers are experiencing and provide quantifiable metrics on the level of service and Service Level Agreements (SLAs) that they are experiencing and expecting. For example, a server may be up and running, but if your customer cannot work with their data on the server then your service is unavailable. GSX software removes this risk by providing a real-time view of the health of your entire communications infrastructure.

#### **Non Invasive Installation on Servers**

As no installation on your servers is required, *GSX Monitor* software results in a low maintenance and management overhead. You can install the software on a client and monitor hundreds of servers from that one single installation.

#### **Consistent Reporting Across Multiple Platforms**

As **GSX Monitor** software tracks and gathers information, this information is consolidated into **GSX Analyzer**. Using the software's powerful and highly customizable report building capabilities, you can generate consistent reports across multiple platforms and/or metrics. This ensures you build the reports that you want to deliver.



# 4 Why Flexibility is Important

At GSX we provide a reporting solution that is highly customizable to suit your business and provide multiple configuration points on alerts. These include:

- The type of alert
- The threshold level that triggers alert generation
- Who the alert is sent to
- How the alert is delivered
- How often the alert is repeated

Such flexibility is vital as the tools that comprise the collaboration suite frequently consist of email, Blackberry, and online collaboration systems. *GSX Monitor* will monitor and report on all of these environments at a highly detailed level. If there is a potential issue it is critical that notification is received rapidly, by the correct personnel. This ensures they can address the issue, perhaps before it is even noticed by the business.

The ability to configure different alerting profiles and apply them to different incident scenarios ensures the right information gets to the right person at the right time. Another factor to consider is, as IT departments grow and develop, responsibility becomes more and more segmented and distributed. Therefore, sending all alerts to everyone in the department, or sending alerts to irrelevant teams may result in them being treated as a nuisance and ignored. This may result in a negative impact on the response time to a relevant alert.

With *GSX Monitor* you can target your alerts to ensure that they are delivered only to relevant personnel. Ideally, you should set alerts to give warnings of threats to your service and ensure they get the response that they deserve by tailoring and configuring them to meet your business service expectations and organizational support structure.

**Important:** Set your alerts at a threshold that indicates they are an alert and not just information. This ensures alerts generated in your environment are treated with the urgency that they merit.



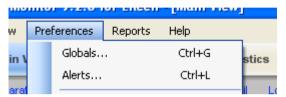
# **5 Configuration of Alerting Options**

In this section we will discuss the various global options available for configuration in *GSX Monitor*.

## **Global Settings**

The initial step in configuring *GSX Monitor* is to set some global settings.

From the main **Preferences** menu, select **Alerts**.



The **Alert Preferences** screen is displayed containing several tabs in which you can specify some of the fundamental alerting specifications. These tabs include:

- Email
- Events Configuration
- Alerts
- Images
- GSM Modem

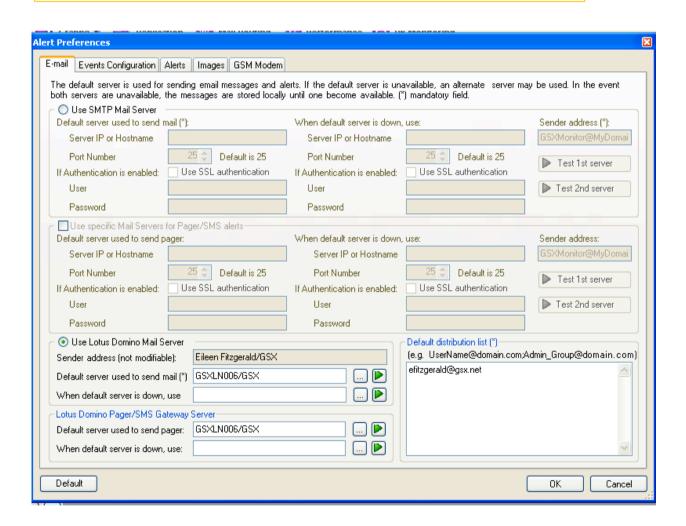


#### **Email**

The **Email** setting is very important as from it you configure the primary and secondary servers that are used to send alerts via the following devices:

- SMTP Email
- SMS
- Pager

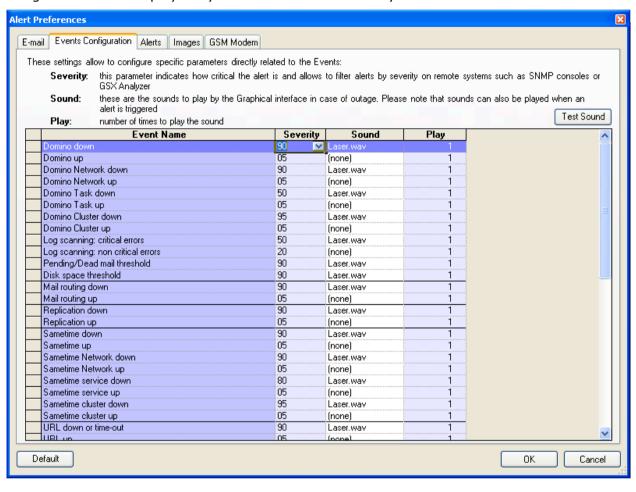
**Important:** It is very strongly recommended that, following the configuration of your servers, you use the test functionality to confirm they are configured correctly.





#### **Events Configuration**

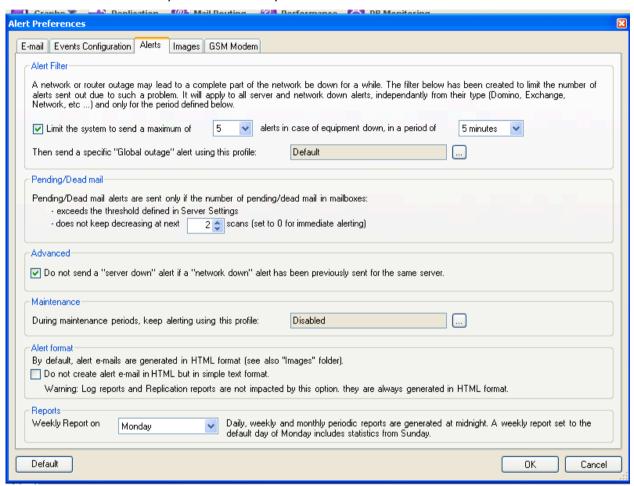
The **Events Configuration** tab displays a list of all possible alerts that **GSX Monitor** can generate. You can assign a severity to them and, if required, also assign a sound to be played by the monitor station if they occur.





#### **Alerts**

The **Alerts** tab enables you to customize the alerts to align and meet your company's requirements. This streamlines your alerting process to ensure critical information is reported to you in a succinct manner in order to ensure that you receive the information you need when you need it.



The customizable options include:

#### **Alert Filter**

One *GSX Monitor* station can monitor hundreds of servers. However, if one router goes down, hundreds of servers may become unavailable, potentially resulting in thousands of alerts depending on your settings. By setting this filter, if multiple servers are down simultaneously you receive a global outage alert instead of hundreds of individual alerts.

#### Pending/Dead Mail

Some companies are very sensitive to mail throughput. This setting enables you to set up advance warning in the event of a potential issue with pending mail. In an individual server setting you can set the threshold for pending mail, for



example generate an alert if there is a predefined amount of pending mail. However, in addition, you may require a warning that pending mail is approaching that predefined threshold. You can use this setting to override the threshold setting and generate an alert if the volume of pending mail has not decreased in XXX scanning cycles.

#### **Advanced**

As previously discussed, *GSX Monitor* simulates your users experience. If the network is down and the server is up and running but your users cannot access it, then your service is not available. Because of this scenario, *GSX Monitor* has a two system process to identify where the fault in the service lies. The Advanced setting allows you to receive one alert versus two if the network is down as, if the network is down then the Domino service cannot be accessed, and Domino is down.

In Server Settings you can set up alerts on Domino down or network down, see <u>Individual Alerts in Detail</u>. *GSX Monitor* will test to see if the Domino service is available by establishing a Domino session. If it cannot establish a session it generates a Domino down alert. It will then attempt to ping the server using the IP address or hostname provided. If it cannot ping the server it generates a network down alert.

#### **Maintenance**

By default, when you specify a maintenance period, your alerting profile is excluded for that maintenance period. However, you may want to be informed of server availability during a maintenance period and can override individual server schedules with a specific alerting profile for maintenance periods.

#### **Alert Format**

By default, all email alerts are created in HTML format. This option enables you to override this setting and send alerts in a simple text format.

#### Reports

This option enables you to define the day on which you send your weekly statistic report to *GSX Analyzer*.

#### **Images**

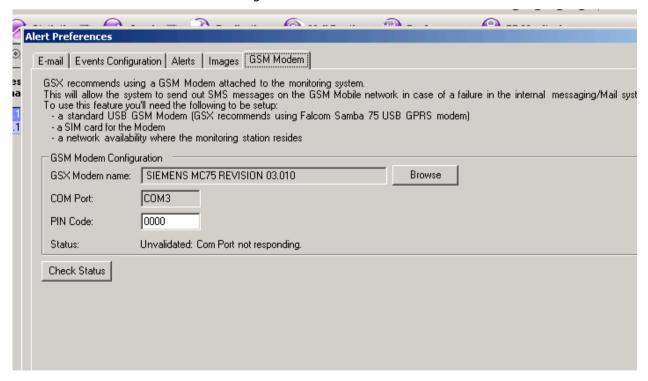
The **Images** tab enables you to customize the presentation and logos used on your alerts to bring them in line with your company's look and feel.





#### **GSM Modem**

**GSX Monitor** enables you to set up a primary and secondary server and also facilitates another level of alerting if required. The **GSM Modem** tab enables you to configure a GSM modem to be used as an alert delivery mechanism in the event of all other mechanisms failing.

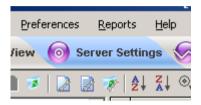




# 6 Individual Server Settings

You can configure your servers to scan for service availability and define the thresholds and parameters for your alerting strategy in the **Server Settings** screen

To display the **Server Settings** screen, from the main menu select Server Settings → Scanning.



Each option available in the **Server Settings** screen is described in sequence below, including an explanation of how your selection impacts alerting.

- **Domino Server Name** The Domino name of the server as found in the Name and Address Book (NAB).
- Domino Server Alias The name of the server as displayed in GSX
   Monitor. This name can be different to the Domino name.
- Network IP Address or Hostname –The IP or hostname of the server. This is used by GSX Monitor to check network availability when Domino or hostname are detected as down. It is very important it is the exact server name used in the Domino, DNS, or Active Directory, as the Monitor station uses it to find the server and perform the secondary check.
- **Scanning Frequency** Defines the polling interval in minutes. It is recommended to define a lower interval for more critical servers.
- Retry Frequency if Device is down GSX Monitor works by checking if
  it can open a session on a server. Sometimes a server may reject a
  session but accept the subsequent request, so you may want to specify
  the number of rejected sessions that can occur before you generate a
  service down alert. However, if you do not want your retries to become
  part of the existing cycle, this option enables you to 'fast track' your
  server scans if a specific server has been reported down on a scan.
- Alert Threshold During Bus. Hours Specifies the wait period before generating an alert. This allows the system time to double check availability before generating a service unavailable alert.
- **Business Hours** Specifies your company's business hours. This flexibility is important and enables you to prioritize alerts and assign different time periods before sending an alert, depending on whether the incident occurs during or outside business hours. This enables you to closely align your service monitoring and alerting profiles with business service availability.
- Alert threshold during off hours Defines the time period the system waits before ending an alert outside of business hours.



- **Trigger this alert if XXX is down** –Specifies the type and profile of alert to be triggered if the service being monitoring is down. For more information on the types of alerts and different profiles, see <u>Alert Profiles and Definitions</u>.
- Trigger this Alert if Network is down If GSX Monitor has determined
  that it cannot open a session on the server it will try and ping it via the IP
  or hostname. If it cannot ping the server, this indicates the network is
  down. In this case, you can define a different profile to inform a different
  team of potential errors.
- Trigger this Alert if XXX is up Defines an alert for when the service is back on line and available.
- Trigger this Alert if network is up Defines an alert for when GSX
   Monitor can ping the server again.

**Note:** Ensure you have notification that both the network and service are back on line, as network availability does not guarantee service availability.

Server Distribution list for Errors relating to this server – This setting
enables you to assign standard profiles across multiple servers, as well as
adding additional distribution lists that may be specific to individual
servers. For example, if you assign a standard alert profile in the event of
service unavailability for servers A, B, and C, but server A hosts a critical
business application, you can set a distribution list specific to alerts on
server A. Therefore, in the event of an outage on server A, the database
manager is informed.



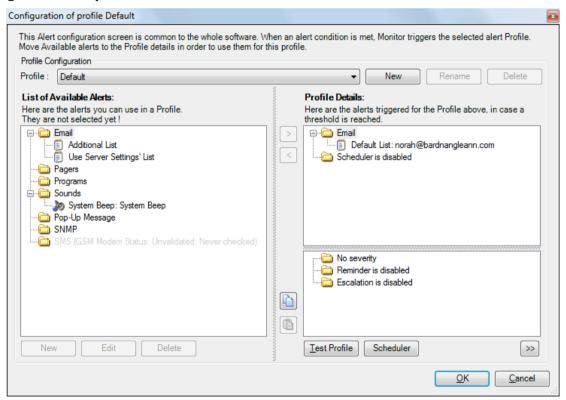
## 7 Alert Profiles and Definitions

**GSX Monitor** can be configured to alert and report on hundreds, if not thousands, of possible scenarios. For each of these scenarios you may not want the same severity, recipients, or delivery mechanism applied, or to have to define an alert profile for each and every alert scenario that you create. **GSX Monitor** enables you to create tailored profiles that can be applied to the alerts that you want activated. In each profile you can define the following:

- Profile Name
- Delivery Mechanism
- Target Recipients
- Severity
- Reminder
- Escalation

You can define your profiles in advance and apply to your alerts as you activate them, or you can set up profiles as you activate alerts and add to the profile options available.

**GSX Monitor** enables you to both define and assign alert profiles in the **Configuration of profile** screen.



You can assign an alert profile to be activated when a specific alert condition occurs. You can also create on the fly alert profiles that you can use for subsequent alert conditions.



The **List of Available Alerts** menu on the left-hand side of the screen enables you to select alerts or the delivery mechanism of alerts. You can specify how you want to receive alerts by selecting one or multiple options available.

**Note:** You can configure how these options route the alert in **Global Settings**.

The options enable you to do the following:

- Email Enter email distribution lists
- Pager Send alerts via a pager
- **Program** –Invoke a program accessible to **GSX Monitor**
- **Sound** Generate a sound when an alert is activated
- **Pop-Up** Generate a Windows pop up when an alert is activated
- **SMNP** Generate an SNMP Trap that can be used by an external system
- **SMS** Send an SMS message via Global System for Mobile communications (GSM) when an alert is activated

The options that you associated specifically with this profile are then displayed on the upper right-hand side of the screen. You can further refine these settings by enabling the scheduler for pager options.

There are three very powerful options that can be associated with this profile on the lower left-hand side of the menu. These options include:

- **Severity** Enables you to define the severity of your alerts. We advise you align this with the impact to the business of this alert condition being reached and the alert being generated. This severity is reported to **GSX Analyzer** for reporting purposes and can be critical for defining the quality of service delivery and prioritization of problem management within your business. For example, how many severity 1's have occurred in the past month, what was the root cause, and how to resolve them. Setting the Severity parameter here overrides the one defined in **Events** tab for this profile. See **Events Configuration**.
- **Reminder** Enables you to set up a reminder alert. This means an alert is resent every predefined number of minutes during the time period that the cause of the alert has not been addressed.
- **Escalation** Enables you to set up an escalation profile independent of the original alert profile. When a reminder concerning an alert is sent and the condition generating the alert is still not addressed within a specific, predefined time frame, an escalation alert is generated. This escalation is delivered to a recipient other than the recipient of the original and reminder alerts, such as a manager.



## 8 Individual Alerts in Detail

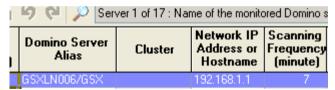
In this section we will discuss the various individual alerts available in **GSX** 

## Domino Down/Domino Up

This alert indicates the basic availability settings of your Domino service; whether it is up or down. You can configure this alert to activate when your Domino service is back on line.

## Domino Network Down/Domino Network Up

This alert indicates if the Domino network is up or down. If *GSX Monitor* detects that it is unable to open a Domino session on the server, it will ping the server, on the IP or hostname you have provided, and try and establish if Domino or the network/service is unavailable.



If **GSX Monitor** cannot open a Domino session, a Domino down alert is generated. If it then cannot ping the server a network down alert is generated. Both alerts are related to the same disruption in service and one could, technically, be sufficient. For that reason you can set a global preference to suppress a server down alert if a network down alert has already been sent. See the **Advanced** feature in Alerts.

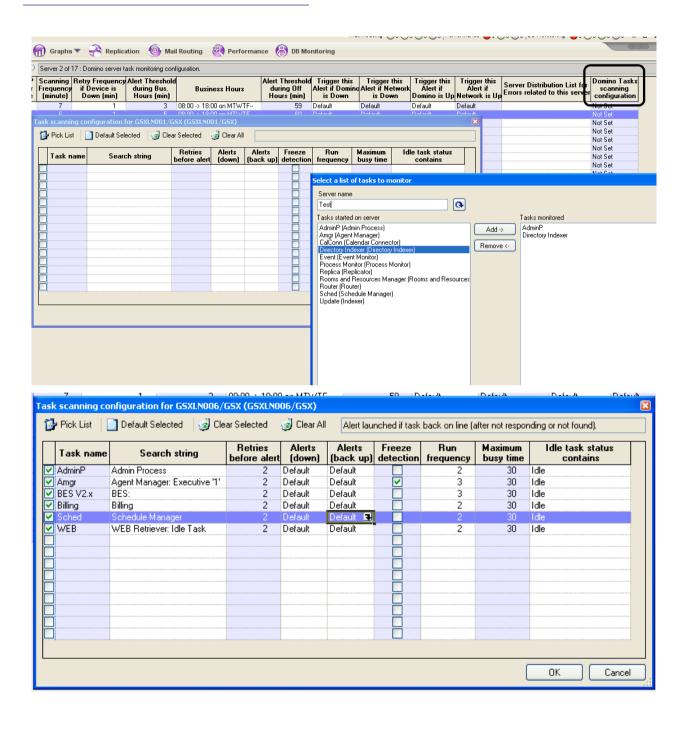


# Domino Task Down/Domino Task Up

This alert indicates if the Domino server is running at task level. *GSX Monitor* focuses on monitoring and measuring the quality of service that you deliver to your customers, down to the task level. If the Domino server is running, but the router task is down, then your mail service is not available to your customer. Because of this it is imperative to monitor the status of your tasks on your server.

In Domino, you can set more detailed monitoring on specific statistics. You can specify *GSX Monitor* to monitor for availability and also for a "frozen task", where the task is running but not performing. Even if the server or server component is running, a check is performed to ensure it is actually providing a service.

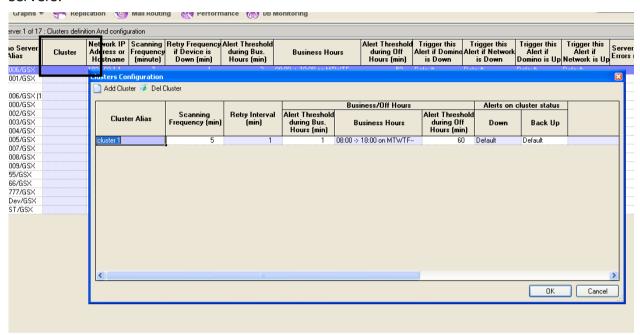






## Domino Cluster Down/Domino Cluster Up

This alert provides scanning and performance metrics on clusters of Domino servers.



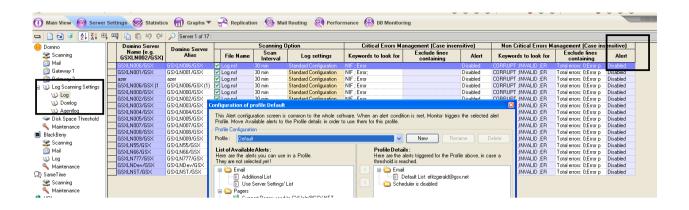
When a server is identified as part of a cluster, *GSX Monitor* performs the following activities:

- Ensures at least one server in the cluster is available. If not, a special alert is issued unless all servers in the cluster have entered a maintenance window.
- Utilizes the same parameters for scanning frequency, retry interval, and alerting for all of the cluster members.
- Scans all servers in a cluster as a group.
- Generates availability statistics and reports on the overall availability of the cluster.

# Log Scanning: Critical Errors/Log Scanning: Non Critical Errors

This alert can differentiate between critical or non critical errors detected by a log scan. Many customers use *GSX Monitor* to scan their logs and search for and retrieve information to assist them in proactively managing their collaborative environment. The Domino, Domlog, and AgentLog contain a lot of information and, depending on the size and complexity of the environment, can take time to review. You can set alerts on critical keywords, for example "unauthorized access", that will generate an alert when this keyword is found. This ensures administrators react in a timely manner to any critical situations that occur.

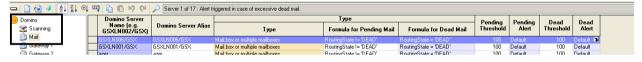




## Pending/Dead Mail Threshold

This alert is triggered if the pending or dead mail threshold on a server has been or is about to be reached. All administrators will accept some level of dead mail in the business environment. The threshold levels set up for this alert are very specific to each company but the level needs to be monitored for numerous reasons:

- Increasing levels of pending mail can suggest that there is an issue with mail routing and the administrator needs to react before it impacts customers.
- Pending mail may build up if a destination server is down and unreachable. As
  the router recycles in trying to send pending mail, it will delay the routers
  response time to sending all mail.
- The larger the volume of dead mail in your mailbox, the less efficient your mailbox is, making it prone to corruption.

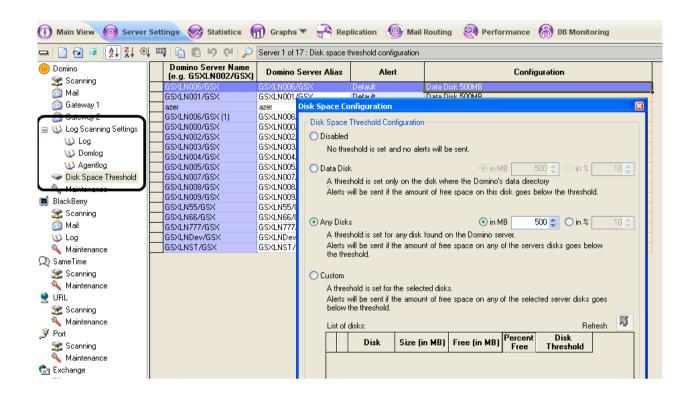


# Disk Space Threshold

This alert is triggered if the disk space on the server has reached or is about to reach a predefined threshold. Sufficient disk space is critical to the efficient running of any system. However, email specifically has the unexpected capacity to rapidly increase in size in a very short period of time. If the shortage of disk space becomes critical, it could have a serious impact on the availability of your service.

Availability and capacity planning administrators and infrastructure managers need to be alerted on disk space utilization and free space on their servers. If either of these exceeds a predefined threshold, they need to be notified immediately. With *GSX Monitor* you can configure your disk space alerts to suit your organizational requirements by setting specific thresholds for either free disk space available or disk space currently used at both megabyte (MB) level and percentage level.

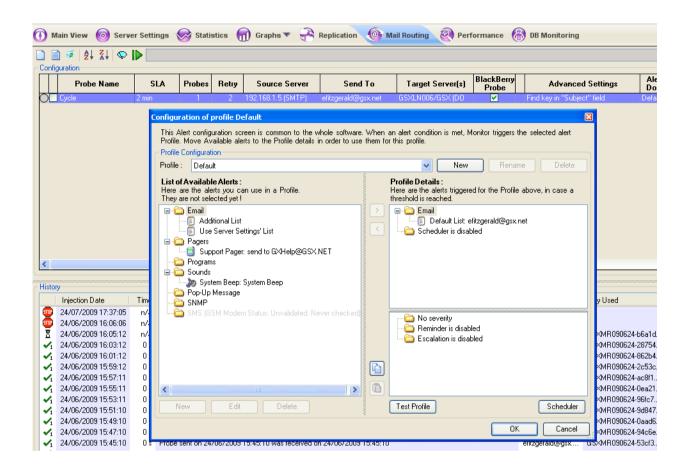




## Mail Routing Down/Mail Routing Up

Under Mail Routing you can set up mail routing probes to monitor mail routing between server A and Server B. You can also set expected Service Level Agreements (SLAs) for routing time between both points and use echo points for external destination points. If your SLA is breached, you can set up alert notifications, using the standard profiles or specifically defined ones, to alert administrators or service managers that mail routing is up or down.

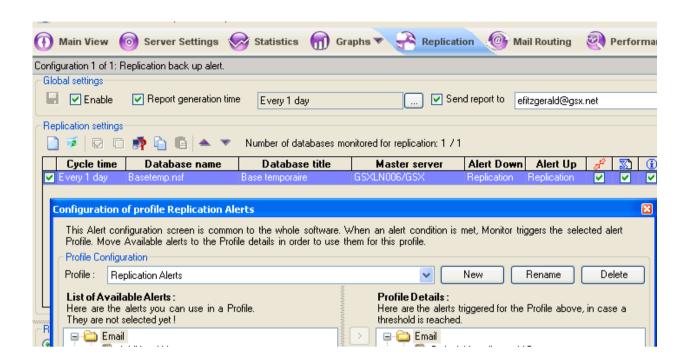




## Replication Down/Replication Up

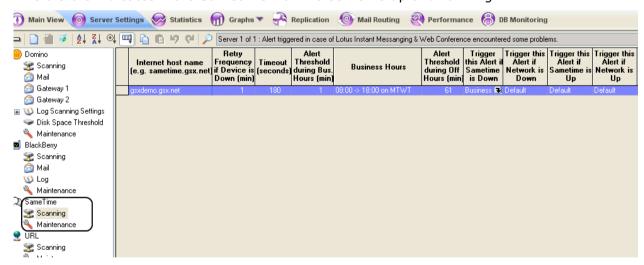
This alert is triggered if *GSX Monitor* is unable to process a replication report. This indicates an access or availability issue on the replication server or issues with the overall replication process.





## Sametime Down/Sametime Up

This alert is indicates if the Sametime Domino server is up and running.



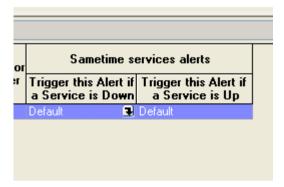
# Sametime Network Down/Sametime Network Up

This alert indicates if the Sametime server is reachable via ping. It is a similar alert to the Domino Network Down/Up alert. See <a href="Domino Network Down/Domino Network Up">Domino Network Up</a>.



## Sametime Service Down/Sametime Service Up

This alert indicates if the Sametime service on the Sametime server is up and running. You can also set up a specific alerting profile if required.

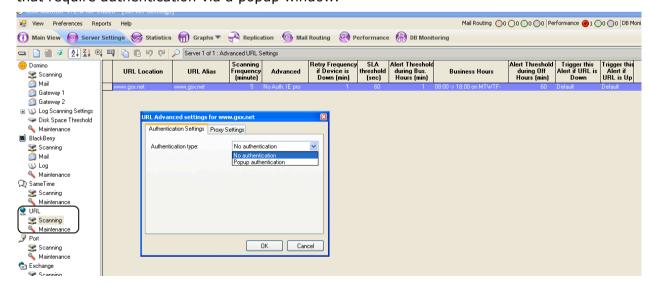


## Sametime Cluster Down/Sametime Cluster Up

This alert indicates if the cluster that contains the Sametime server is available. It is a similar alert to the Domino Cluster Down/Up alert. See <u>Domino Cluster Down/Domino Cluster Up.</u>

## URL Down or Time-Out/URL Up

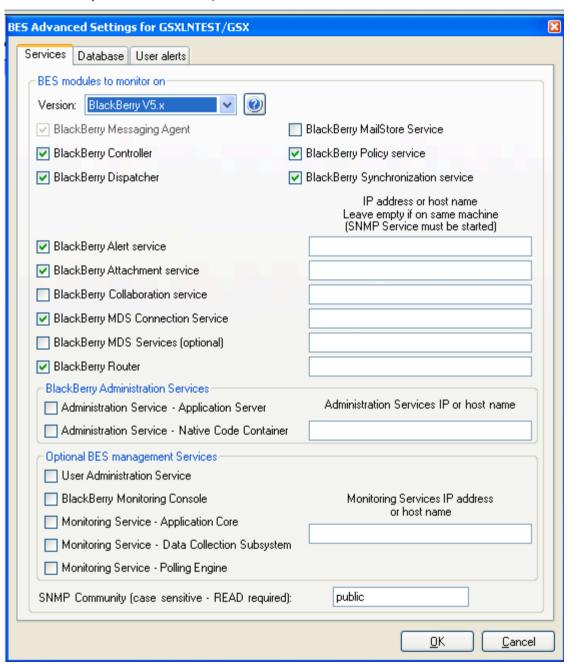
This alert is triggered when a company URL is unavailable. Many companies depend on business critical applications that are accessed via a browser whether internal customer facing or external customer facing, such as a Web Site. With *GSX Monitor* you can set scanning and alerts in your business critical web sites to ensure their availability and define whether or not they meet your internally or externally set expectations. You can also set authentication settings for servers that require authentication via a popup window.





## BES Down/BES Up

This alert is triggered when a Blackberry Enterprise Server (BES) is unavailable. You can choose the BES components that you want to monitor and if at least one of these components are down, the BES is considered down.

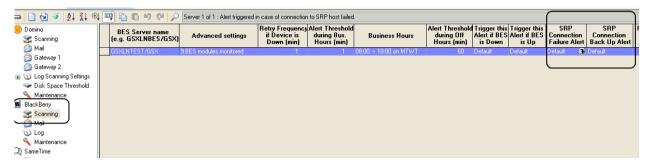


# BES SRP Connection Failure/BES SRP Connection Up

This alert is triggered when the BES Server Routing Protocol (SRP) connection is unavailable. It is critically important to monitor the status of your SRP



connectivity because, if the current SRP ID for the BlackBerry Enterprise Server is not running, BlackBerry services are unable to communicate with the BlackBerry Infrastructure and cannot start.



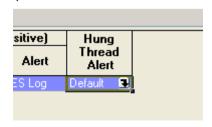
# BES Log Scanning: Critical Errors/BES Log Scanning: Non Critical Errors

This alert differentiates between critical or non critical errors detected during a BES log scan using predefined critical or non critical keywords. These alerts can then be sent to the profile of your choice.



# **BES Hung Thread Alert**

Under **Server Settings** → **Blackberry Log**, you can configure **GSX Monitor** to search for and report on hung threads. This alert is triggered when a BES thread has hung and is vital in assisting administrators in identifying potential issues with routing that may not impact the key services but can cause issues for specific users.





## BES Pending Mail Threshold

This alert is triggered if pending messages waiting to be sent by the BES messaging agent exceed a predefined threshold. It is vital to ensure that message routing at the BES level is monitored as well as message routing on the underlying messaging server.

<u> </u>				
DEC Corner name	BES Alias (for display only)	Pending messages		
(e.g. GSXLNBES/GSX)		Threshold	Alert	
GSXLNTEST/GSX	GSXLNTEST/GSX	1000	Default	

### BES No Forwarded Mail Threshold

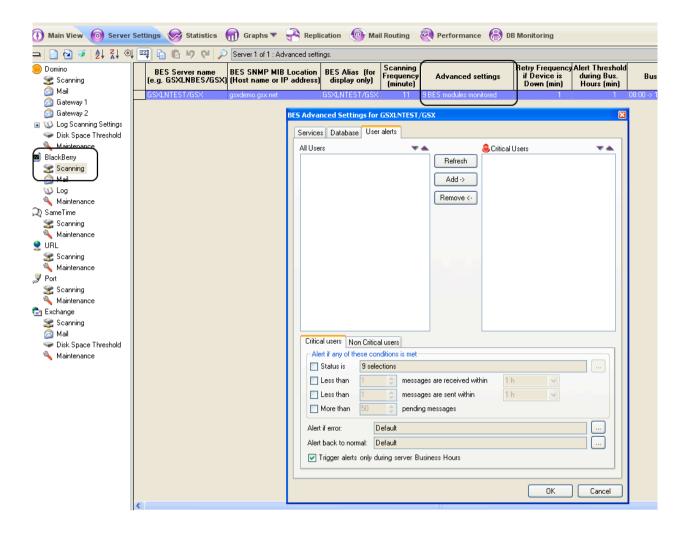
This alert is triggered when mail forwarding from your BES server to handhelds reduces substantially or stops completely. In many environments email, especially email on BES servers is one of the busiest applications in the IT service portfolio. While there may be periods of inactivity, it is highly unlikely that these indicate anything other than negative service disruption. This alert notifies your administrators that, if this metric does not decrease in a given period of time, there is a strong indication of problems with service.



## BES Critical User Alert/BES Non Critical User Alert

While all users are important, it is usually management or sales that depend on Blackberry the most. You can define certain personnel as critical users and set alerts to trigger if their mail routing pattern does not conform to normal levels.





### No More BES Critical User Alert

This alert is triggered when a critical user has returned to normal services and is no longer in a critical status.

#### **DB** Performance Down

This alert is triggered when the performance of a database is reduced. It is very important to monitor the performance of your business critical databases as it can have a very negative impact on the business if they become unavailable or do not respond within an acceptable timeframe.

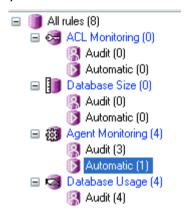
**Note:** Just because the server is running does not mean that the service is available.





## DB monitoring alert

There are multiple alerts that can be set to monitor the status and performance of your databases.



You can monitor and receive alerts on the following:

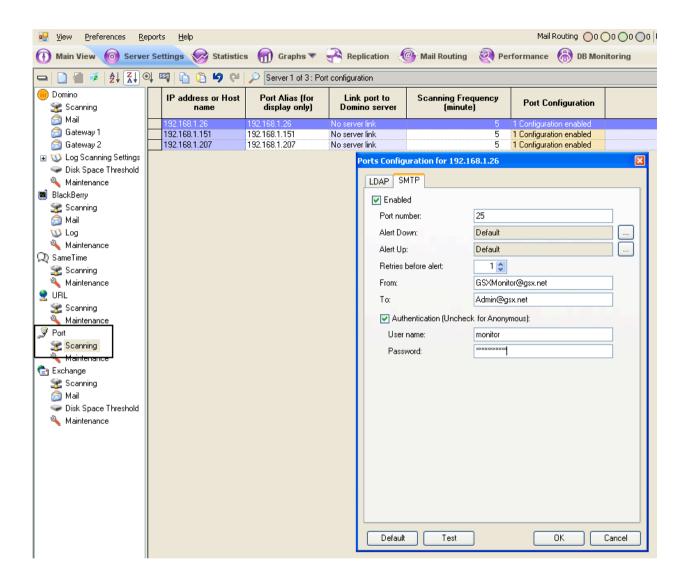
- ACL Monitoring Monitor and send alerts if changes are made to an ACL on a database
- Database Size Monitor a database size
- Agent Monitoring Monitor any issues agents may have, such as error generation run for a period of time
- Database Usage Monitor and generate reports on database usage

## Port Down/Port Up

This alert is triggered Port Down when a SMTP task is busy and rejecting sessions. When the connection between *GSX Monitor* and the port is accepted, a Port Up alert is sent.

In a working environment monitoring the status of tasks may not be enough. The task could be up and running, but busy, and reject or delay connections. *GSX Monitor* eliminates this issue by simulating an end user and connecting at the protocol level. The software then interacts with the system by, for example, performing an LDAP/AD search or sending a SMTP mail.

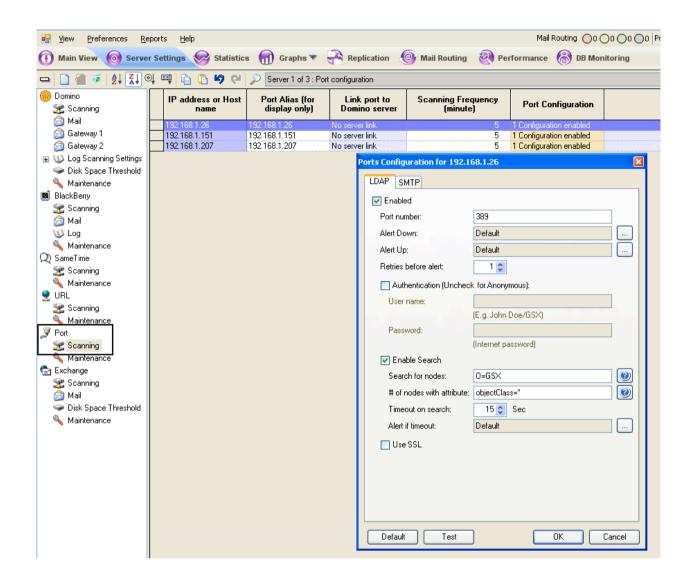




# Timeout on LDAP Request

This alert is triggered when a LDAP Port scan reports an abnormally long delay in executing a LDAP search. As this identifies any lag in the response time that users are experiencing, it is an important task in the efficient running of your business.



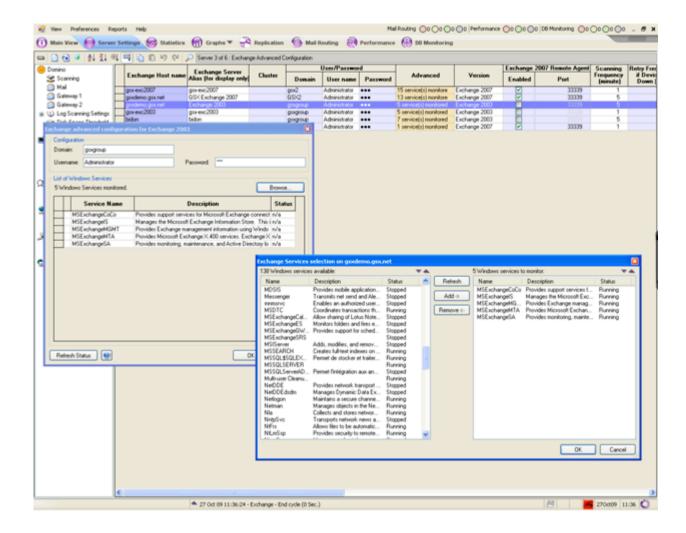


# Exchange Down/Exchange Up

This alert is triggered when your Exchange Windows services or other important services become unavailable. If at least one of these services is not running, *GSX Monitor* assumes that the service is not guaranteed and sends an Exchange Down alert.

An Exchange Up alert is sent when all the services are running again.





# Exchange Network Down/Exchange Network Up

This alert indicates if the Exchange network is up or down. If *GSX Monitor* detects that it is unable to access the server, it will ping the server, on the hostname you have provided, and try and establish if Exchange or the network/service is unavailable.

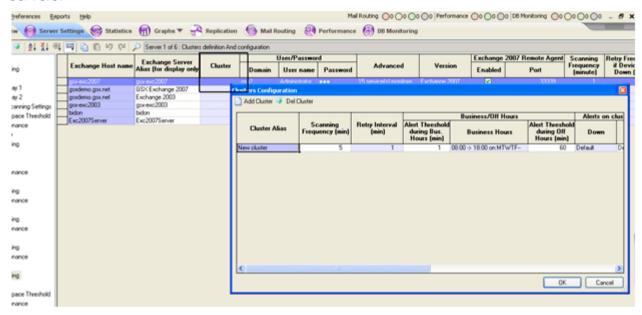
If *GSX Monitor* fails to access the Exchange server, an Exchange Down alert is generated. If it then cannot ping the server a Network Down alert is generated. Both alerts are related to the same disruption in service and one could, technically, be sufficient. For that reason you can set a global preference to suppress a server down alert if a network down alert has already been sent. See the **Advanced** feature in <u>Alerts</u>.





# Exchange Cluster Down/Exchange Cluster Up

This alert provides scanning and performance metrics on clusters of Exchange servers.



When a server is identified as part of a cluster, **GSX Monitor** performs the following activities:

- Ensures at least one server in the cluster is available. If not, a special alert is issued unless all servers in the cluster have entered a maintenance window.
- Utilizes the same parameters for scanning frequency, retry interval, and alerting for all of the cluster members.
- Scans all servers in a cluster as a group.
- Generates availability statistics and reports on the overall availability of the cluster.

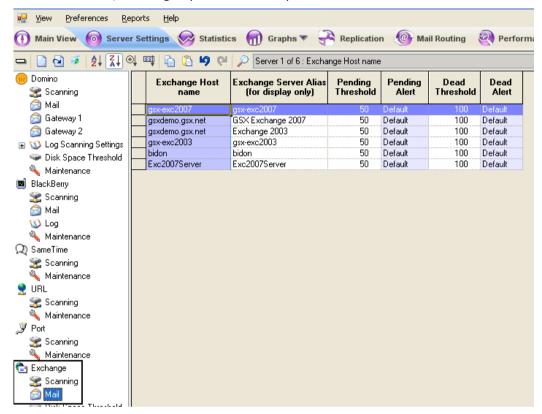
# Exchange Pending/Dead Mail Threshold

This alert is triggered if the pending or dead mail threshold on an Exchange server has been or is about to be reached. All administrators will accept some level of dead mail in the business environment. The threshold levels set up for this alert are very specific to each company but the level needs to be monitored for numerous reasons:

- Increasing levels of pending mail can suggest that there is an issue with mail routing and the administrator needs to react before it impacts customers.
- Pending mail may build up if a destination server is down and unreachable.
   As the router recycles in trying to send pending mail, it will delay the routers response time to sending all mail.



• The larger the volume of dead mail in your mailbox, the less efficient your mailbox is, making it prone to corruption.

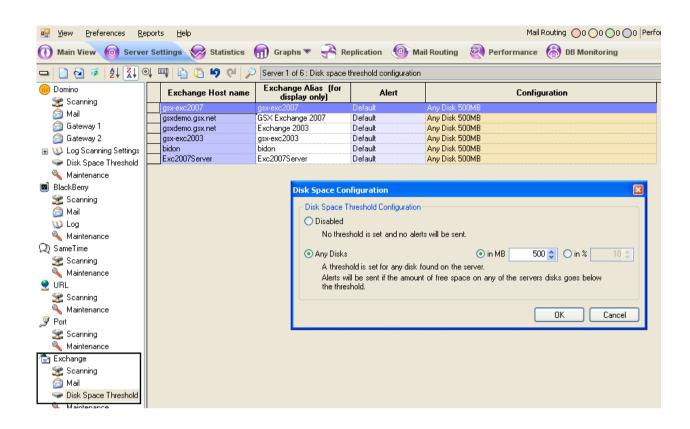


# **Exchange Disk Space Threshold**

This alert is triggered if the disk space on the Exchange server has reached or is about to reach a predefined threshold. Sufficient disk space is critical to the efficient running of any system. However, email specifically has the unexpected capacity to rapidly increase in size in a very short period of time. If the shortage of disk space becomes critical, it could have a serious impact on the availability of your service.

Availability and capacity planning administrators and infrastructure managers need to be alerted on disk space utilization and free space on their servers. If either of these exceeds a predefined threshold, they need to be notified immediately. With *GSX Monitor* you can configure your disk space alerts to suit your organizational requirements by setting specific thresholds for either free disk space available or disk space currently used at both megabyte (MB) level and percentage level.







# 9 Summary

Reliable communication and collaboration systems are essential to the way modern businesses function. More and more companies need these systems available 24/7, 365 days of the year. In today's challenging economy and with IT budgets constrained, the ability to quickly and efficiently monitor your environment **and** measure the performance of your servers and services is the key to staying ahead of your competitors. It is crucial to ensure the continuous and efficient operation of these systems and identify potential problems **before** they occur.

As all organizations vary in infrastructure and configuration, flexibility in the monitoring solution is crucial and is one of the main features of *GSX Monitor*. This flexibility ensures *GSX Monitor* can monitor the key components of your environment that are critical to availability and the service delivery. At the same time, you can specifically configure *GSX Monitor* for your organizational requirements; it's not just a generic configuration.

The level of detail and the type of alerting required can vary greatly from company to company. Therefore, flexibility and various options in the following areas are important:

- Checking (scanning interval)
- Prioritization
- Method of Notification
- Reminders
- Maintenance, Bank Holidays, and Business hours

The presence of multiple components within a company's collaborative environment, such as Email, Wireless, and shared databases makes it vital to ensure that the method of monitoring and reporting is consistent across the entire collaboration solution. Not only to ensure consistency of reporting on quality of service delivery, but also to reduce the overhead associated with managing your collaboration solution.

Last but not least, remember, it is not enough to report on server availability alone. Your server may be up and running but if your customers cannot access the service then your business is not working for you. Without an effective monitoring solution, you'll only know there's a problem when the complaints start coming through to the support team. Ensure that collaboration servers are monitored for availability at both the hardware and service provision level.



# 10 Tips and Techniques

## Copy and Paste

**GSX Monitor** provides great flexibility in configuring alerts. You can specify alerts on thresholds designed to suit your business requirements and to targeted profiles such as specifying:

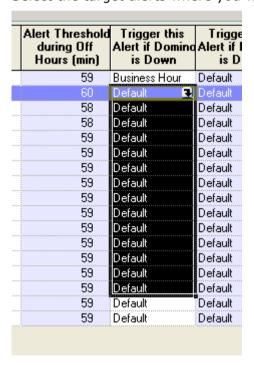
- · Who gets alerted
- When they get alerted
- · How they get alerted

You may, however, want to have one alert profile across all configurations and this is very easy to achieve using *GSX Monitor*. Simply copy the profile you want to apply, select multiple alerts, and paste.

1. Select the profile you want to copy.



2. Select the target alerts where you want to apply the profile.





### 3. Paste the profile.

Alert Threshold during Off Hours (min)	Trigger this Alert if Domina is Down	Ale
59	Business Hour	De
60	Business Hour	De
58	Business Hour	De
58	Business Hour	De
59	Default	De
59	Default	De



# 11 About GSX Groupware Solutions

Thank you for your interest in GSX Groupware Solutions. GSX is the leading provider of monitoring solutions for messaging and communication environments with more than 500 clients worldwide, including 30% of Fortune 100 companies.

Our clients rely on GSX solutions to monitor their communications infrastructure, and ensure reliable and continuous services. The GSX solution is the only tool available that enables you to monitor, and proactively manage all of your messaging environments through one effective interface.

With a proven track record, GSX solutions offer the most reliable and effective monitoring solution available today. Our strategic partners include IBM, Blackberry Alliance, Microsoft, Double Take Software, Bluewave, Lotus Notes User Group, BMC, and AT&T.







#### For More Information:

For more information, visit www.gsx.com where our resource center contains FAQs, Case Studies, Podcasts, White Papers and Webinars. You can also download a fully functional, 60 day evaluation copy of *GSX Monitor*, *GSX Server Guard*, and *GSX 360*.



## 12 Contact Us

#### By Email:

Technical Support: <u>support@gsx.com</u>

Sales and Licensing Information: <u>sales@gsx.com</u>

Marketing, business development or partnerships: feedback@gsx.com

Careers and other information: gsx@gsx.com

#### By Phone or Mail:

#### **HEAD OFFICE:**

GSX Groupware Solutions Headquarters 36 Boulevard Helvétique 1207 Genève

Switzerland

Tel: + 41 22 735 82 40 Fax: +41 22 735 82 45

#### **NORTH AMERICA:**

GSX Groupware Solutions 240 Redtail Road, Suite 14 Orchard Park, NY 14127 Office: +1 310 765 4139

Toll Free: +1 877 894 0961

Fax: +1 781 670 9122

#### **EUROPE:**

GSX Groupware Solutions

SARL

"Le Marina 7"

1545 route nationale 706270 Villeneuve-Loubet

France

Tel: +33 4 93 81 17 98 Fax: +33 4 93 53 92 33