

PATROL® for Microsoft Exchange Server – Diagnose

Key benefits

- Analyzes and correlates events generated by Exchange and Windows NT domain servers and network devices
- Quickly isolates and diagnoses the root cause of a loss of service and reports diagnosis to a central console
- Automatically distinguishes the true root-causative faults that are the real problem from sympathetic symptoms
- Identifies the effect the diagnosed problem will have on interrelated nodes, devices and dependent application services throughout the managed enterprise
- Provides an audit trail of the raw events used to make the root-cause diagnosis
- Installs and discovers all managed nodes and application topology objects automatically in any environment

The challenge

Microsoft Exchange is one of the group messaging solutions of choice. The rich feature set and level of interoperability with existing messaging standards are part of its attractiveness.

However, spending a significant part of your day simply trying to diagnose a problem is unacceptable given the “visible” nature of your Exchange service. Managed objects such as routers, switches, operating systems, RDBMSs and applications are ultimately dependent upon one another; a failure in one object can quickly result in the failure of other dependent objects, resulting in a tremendous number of events flooding your console.

While this information has intrinsic value, the onslaught only masks the real problem. To combat this, Exchange administrators need a solution that analyzes events automatically, diagnoses the real problem quickly and suggests a correct restorative action.

The solution

The PATROL for Microsoft Exchange Server – Diagnose product automatically pinpoints the root causes of availability and

performance problems on Exchange Servers managed by PATROL in near-real time. This enables Exchange administrators to quickly and confidently initiate appropriate recovery actions.

Diagnosing with PATROL

PATROL for Exchange Server – Diagnose analyzes alarms generated by PATROL at the network, operating system and application levels.

When events are detected, PATROL performs tests to eliminate potential root causes and automatically isolates the root cause. With the completion of the diagnosis, a root-cause event is communicated to users through a central console along with the potential effect of the failure.

Additional capabilities

PATROL for Exchange Server – Diagnose provides operators with:

- A report indicating the effect the outage will have on related managed objects

- An audit trail of the events that led to the diagnosis
- Recommendations for the appropriate recovery actions

A powerful feature of PATROL for Exchange Server – Diagnose is its awareness of the physical topology of the managed enterprise and its maintenance of an accurate domain map. This means should enterprise topology change over time, the product automatically and dynamically reconfigures to reflect the new managed object relationships and dependencies.

Key components

PATROL for Exchange Server – Diagnose enhances the current BMC Software line of integrated applications and solutions for Windows NT Servers and Windows 2000 Servers with:

- PATROL for Microsoft Windows Server 2000: provides Windows 2000 operating system monitoring
- PATROL for Microsoft Windows 2000 – Diagnose: provides Exchange Server root-cause analysis
- PATROL for Microsoft Exchange Server: provides Exchange Server monitoring
- PATROL for IP Network – Diagnose: provides network fault isolation and monitoring of IP device accessibility
- PATROL for Microsoft Exchange Server – Diagnose: provides fault isolation and diagnoses a variety of complex problems Exchange Servers experience in a distributed environment

Diagnosed problems

PATROL for Exchange Server – Diagnose pinpoints many time-consuming problems, including problems caused by a lack of network connectivity such as:

System attendant

- Loss of services:
 - LanManServer
 - LanManWorkstation
 - LTLMSS
 - EventLog
 - RPCLocator
 - RPCServer
 - MExchangeSA
- Start-up failure

Directory service

- Loss of MExchangeDS service
- Directory of replication errors
- Start-up failure
 - PATROL also recommends the following manual checks:
- Configuration of directory service
- Directory-store database errors using utility

Information

- Loss of MExchangeIS service
- Server disk full
- Corrupted IS log files
- GUID conflicts
- Public and private queue growth
 - In addition, PATROL recommends the following manual checks to the user:
- Configuration of information store
- Information-store database errors using utility

Message Transfer Agent (MTA)

- Loss of MExchangeMTA service
- MTA queue growth
- Server performance problems
- Disk space problems
- Start-up failures
- Network problem reaching computer
- MTA problems on connected Exchange Server
 - It also recommends the following manual checks to the user:

- Configuration of MTA
- Message-routing table-build schedule

Internet mail service

- Loss of MExchangeIMC service
- Server performance problems
- Network problem reaching computer
- Start-up problems
- IMC queue growth
 - PATROL also recommends the following manual check to the user:
- Configuration of IMC

Server performance

- Disk space problems
- CPU limitations
- Memory limitations (both Exchange and Server)
- Disk (thrashing)
- Paging problems
- Server disk full
 - In addition, PATROL recommends the following manual checks to the user:

- Disk fragmentation
- IS database fragmentation state with utility

Key management server

- Loss of MExchangeKMS service
- Network problem reaching computer

Event service

- Loss of MExchangeES service

Internet information service

- Loss of IISADMIN service

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