



163 MOBILE MANAGEMENT FIXES FREE from Zenprise®

Automatically control and optimize mobile environment from 100 to 100,000 smartphones.

LEARN MORE

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WHO'S GOT YOUR BACK?

When trouble strikes, don't leave your VIPs stranded without service, or your IT staff struggling with error-prone troubleshooting methods. Zenprise has you covered.

We can help you manage BES and Enterprise Mobile Devices to eliminate enterprise activation problems and keep mobile users connected.

Zenprise Mobile Manager combines proactive monitoring, root cause diagnostics and accurate problem resolution in one automated solution for your end-to-end mobile enterprise.

This whitepaper identifies 160 of the most common and most difficult to solve problems and details the manual troubleshooting steps IT pros must complete to solve a problem. Zenprise automates the troubleshooting of every one of these problems and more than 6,300 other problems.

ZENPRO AUTOMATION

Without automation, enterprise mobility looks good on paper but is difficult to achieve. Zenprise takes automation of mobile management to a whole new level. ZenPro Automation is the driving force behind service, device, security and expense management functionality across the Zenprise MobileManager™ platform. This whitepaper identifies the different components and tests ZenPro runs to pinpoint the root cause of a problem.

ZenPro is constantly monitoring your end-to-end mobile infrastructure and proactively troubleshooting problems as performance degrades or components become unavailable.

Gathers Mobile Infrastructure and User Data

Data Collectors continually gather system and device data for use in monitoring and troubleshooting infrastructure issues. ZenPro analyzes collected data to provide you with detailed and highly accurate compliance/security, expense and asset reports.

Correlates Knowledge and Events

ZenPro automatically correlates events in the monitored environment with stored

knowledge to expose root causes of mobile user and infrastructure issues. You've got the industry's best knowledgebase for mobile management on your side with Zenprise.

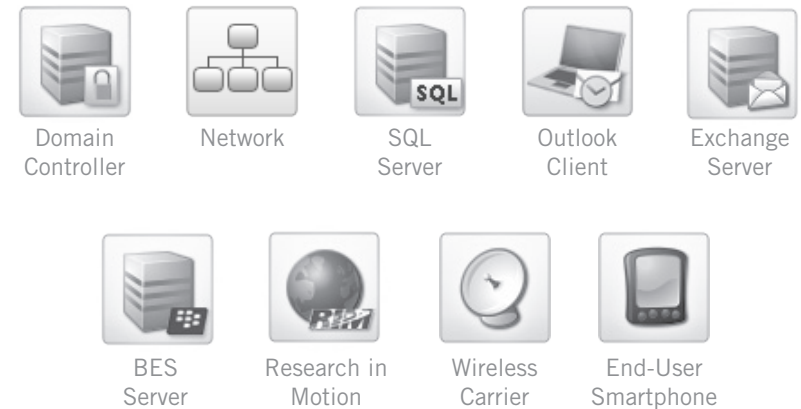
Translates Knowledge into Action

ZenPro translates issue-resolution data into step by step visual process workflows that guide your administrators and help desk to solve problems quickly and definitively the first time around.

WHITEPAPER CONVENTIONS

Zenprise collects and analyzes information across your mobile and shared infrastructure to ensure that critical IT services are available on employees' smartphones all the time. ZenPro examines the following components:

Components Monitored by Zenprise:



Zenprise automatically discovers these components in the managed environment. As new components are added or removed, Zenprise automatically updates its understanding of the topology required for end-to-end service delivery.

WHITEPAPER CONVENTIONS (continued)

Diagnostic Tests and Data Collection Categories

ZenPro performs dozens of different types of tests against these components when a problem occurs. For illustration purposes, the troubleshooting test types have been grouped into four categories in this whitepaper.



Check Configuration

Automatic checks include network, OS-level, DNS, AD, BES and Smartphone settings.



Run Diagnostics

Automated diagnostic tests include pings, telnets, DCdiag, MAPI Calls, etc.



Check Performance

Performance signatures are collected for message queues, OS performance, network, etc



Check Logfile

BES, OS and Application Event, and SQL Logs are collected and analyzed.

When you have ZenPro on your side, you're getting far more than just a logfile analysis engine. ZenPro looks far beyond the BES logfile into every component that could possibly affect your mobile workforce.

Issue Example Explained

The following format is used to describe more than 160 problems in this whitepaper.

Each problem has a title that describes the problem type or underlying cause. The key root cause or symptom is then described in detail. For example, in this case, the root cause is a registry setting subkey problem. The manual troubleshooting steps required to diagnose the problem are then described. Finally, the automated tests and components tested are

illustrated to show how ZenPro diagnoses problems across the infrastructure using different troubleshooting tests to identify the root cause with a high level of certainty.

Problem Type

72 REGISTRY SETTINGS

Symptom

An Instance0 subkey is missing from HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSExchangeDSAccess\Instance0.

Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

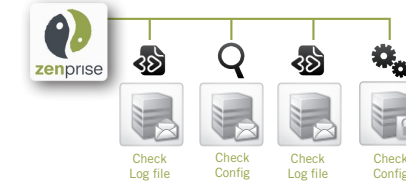
Step 2: Run regedit to check the registry settings.

Step 3: Open the Event Viewer and check for warnings/ errors.

Step 4: Open Domains and Trusts management console and check for more than one domain in the AD forest.

Steps Required When Not Using Zenprise

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Troubleshooting Tests Orchestrated by ZenPro to Pinpoint the Root Cause of the Problem

SECTION 1:

End-User Device Related Issues



1 OUT OF MEMORY

Symptom

A mobile device is running out of memory.

Manual Troubleshooting Tests

Have the mobile user report back available device memory

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2 CONTACT SEARCH

Symptom

Exchange OAB problems prevent a user from looking up contacts on her smartphone.

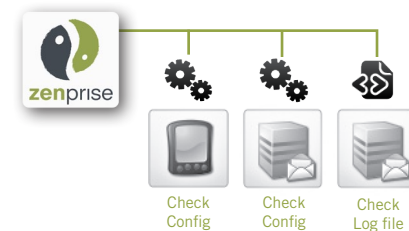
Manual Troubleshooting Tests

Step 1: Verify that the user cannot look up contacts on her device.

Step 2: Open Exchange System Manager and check system folder attributes for offline address book.

Step 3: Open Event Viewer on Exchange and check for errors.

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3 FAILED ACTIVATION

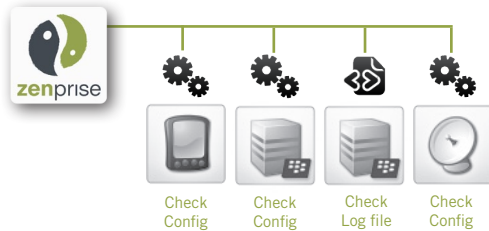
Symptom

Enterprise activation fails because a mobile device user is on the wrong data plan.

Manual Troubleshooting Tests

- Step 1: Verify that the user entered activation information correctly
- Step 2: Open BlackBerry Manager and check activation status
- Step 3: Analyze BES log files for activation errors and for device errors
- Step 4: Call carrier to verify enterprise plan

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4 VIEW ATTACHMENTS

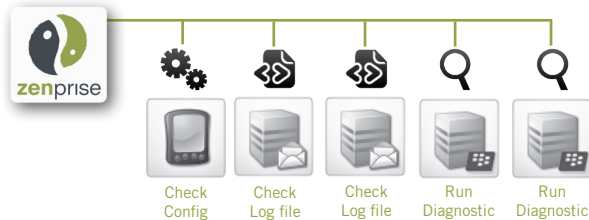
Symptom

A corrupt TIFF file sent to a mobile device user prevents him from viewing attachments.

Manual Troubleshooting Tests

- Step 1: Check mobile device for corrupted TIFF file.
- Step 2: Check Windows Event logs.
- Step 3: Check Windows registry for configuration settings.
- Step 4: Run connectivity tests between BES and the device.
- Step 5: Run network connectivity tests.

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5 DUPLICATE PIN

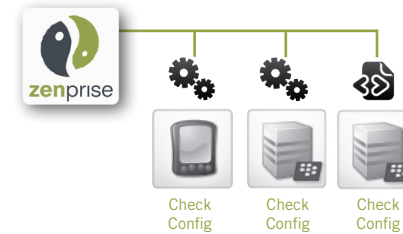
Symptom

A mobile device can no longer send or receive messages because a duplicate PIN is detected.

Manual Troubleshooting Tests

- Step 1: Have the user check the PIN on her smartphone.
- Step 2: Open BlackBerry Manager and check BES server configurations.
- Step 3: Analyze the BES log files for device errors.

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6 MAILBOX QUARANTINED

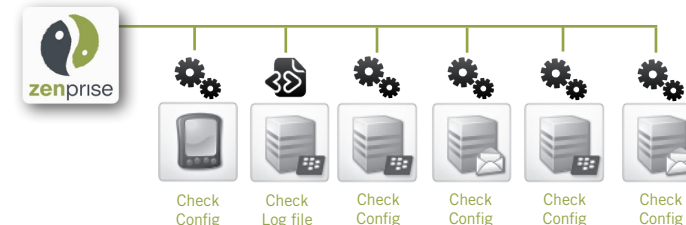
Symptom

Activation of email delivery to the smartphone user's mailbox is quarantined by antivirus software.

Manual Troubleshooting Tests

- Step 1: Verify that the smartphone user correctly entered activation information.
- Step 2: Analyze the BES log for activation errors.
- Step 3: Open BlackBerry Manager and get accounts set for activation.
- Step 4: Open Exchange Message Tracking Center and search for activation email.
- Step 5: Check BlackBerry Manager for the user's Exchange server.
- Step 6: Open Exchange System Manager and check mailbox limits.

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7 INTERNET NOT BROWSABLE

Symptom

An incorrect version of the JRE is installed on the user's mobile device.

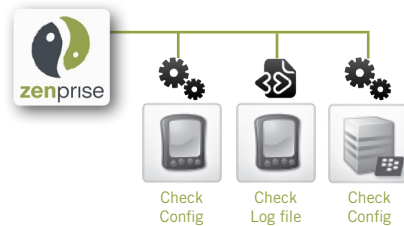
Manual Troubleshooting Tests

Step 1: Check the mobile device for the JRE file version.

Step 2: Check the device event log for errors.

Step 3: Open Services.msc on the BES server and check the state of MDS connection service.

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8 EXPIRED PASSWORD

Symptom

A user tries to activate his smartphone with an expired password.

Manual Troubleshooting Tests

Step 1: Verify that he correctly entered activation information.

Step 2: Analyze the BES log files for activation errors.

Step 3: Check BlackBerry Manager for the password expiration date.

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9 CAN'T OPEN ATTACHMENT

Symptom

A user cannot open any attachments on her smartphone.

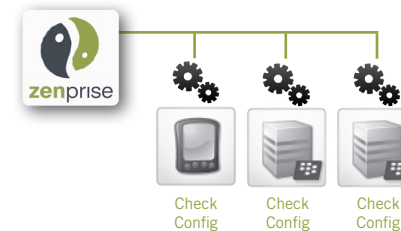
Manual Troubleshooting Tests

Step 1: Have her try opening an attachment on her smartphone.

Step 2: Check the BES Windows registry for configuration settings.

Step 3: Open Services.msc on the BES server and verify that the BB attachment service is operational.

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10 MAILBOX FULL

Symptom

Activation email fails to reach the smartphone user's mailbox because it is full.

Manual Troubleshooting Tests

Step 1: Verify that the user correctly entered activation information.

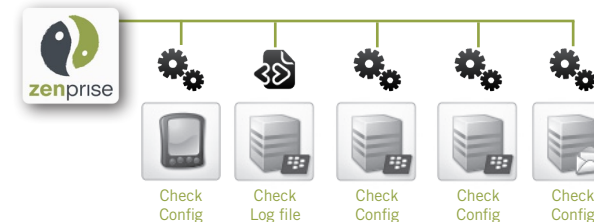
Step 2: Analyze the BES log for any activation errors.

Step 3: Open BlackBerry Manager and get accounts set for activation.

Step 4: Check BlackBerry Manager for the user's Exchange server.

Step 5: Open Exchange System Manager and check the mailbox limits.

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11 NO EMAIL FORWARDING

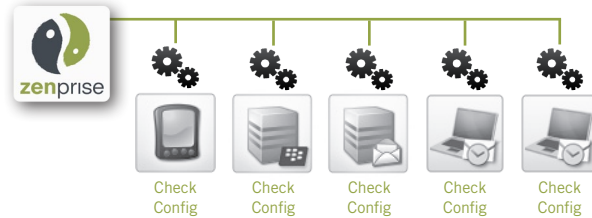
Symptom

Enterprise Activation fails because of the forwarding rules set up on the smartphone user's account.

Manual Troubleshooting Tests

- Step 1: Verify that the user correctly entered activation information.
- Step 2: Open BlackBerry Manager and check activation status.
- Step 3: Open Exchange Message Tracking Center and search for activation email.
- Step 4: Open the user's Outlook application to search for activation email.
- Step 5: Check Outlook to see if forwarding is enabled.

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12 LOOKUP FAILURES

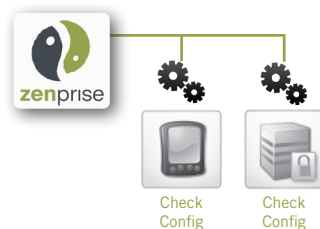
Symptom

A smartphone user cannot look up contact information for a specific user on his handheld.

Manual Troubleshooting Tests

- Step 1: Have him test contact information look-up from his device.
- Step 2: Check the AD configuration in the Active Directory Users and Computers.

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13 FAILED ACTIVATION

Symptom

Enterprise activation fails because the BlackBerry agent is not scanning for the smartphone user.

Manual Troubleshooting Tests

- Step 1: Verify that the user entered activation information correctly.
- Step 2: Open BlackBerry Manager and check user activation details.
- Step 3: Analyze the BES log files for any activation errors.

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14 ACTIVATION ON BES

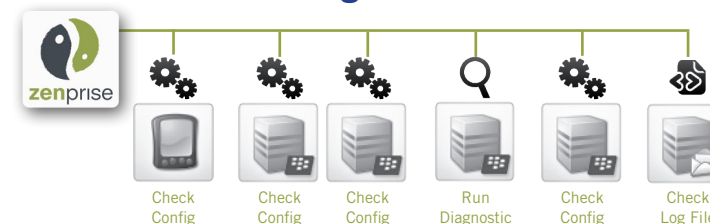
Symptom

The BES is not picking up an activation email from the smartphone user's inbox.

Manual Troubleshooting Tests

- Step 1: Verify that the user correctly entered activation information.
- Step 2: Open BlackBerry Manager and check activation status.
- Step 3: Open BlackBerry Manager and retrieve MAPI port info.
- Step 4: Run network test to check MAPI connections between BES and Exchange.
- Step 5: Open Exchange Message Tracking Center and search for activation email.
- Step 6: Analyze the BES log files for any activation errors.

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15 PASSWORD EXPIRATION

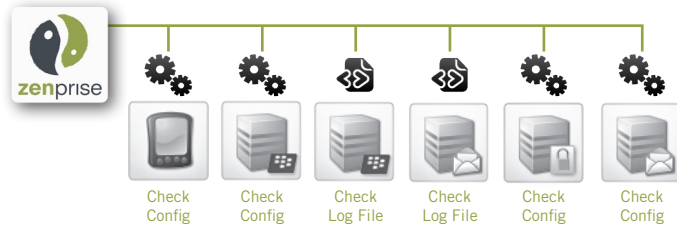
Symptom

A user's enterprise activation password is about to expire.

Manual Troubleshooting Tests

- Step 1: Verify that the user correctly entered activation information.
- Step 2: Open BlackBerry Manager and check for password expiration time.
- Step 3: Analyze the BES log files for any activation errors.
- Step 4: Open Windows Event Viewer on Exchange and search for errors.
- Step 5: Check the AD attributes in Adsiedit.
- Step 6: Check permissions/rights in the public folder on Exchange System Manager.

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16 PENDING LOCK-OUT

Symptom

A user has one more activation attempt left before getting locked out of his smartphone

Manual Troubleshooting Tests

Open BlackBerry Manager and check his activation status

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17 REMOTE ACTIVATION

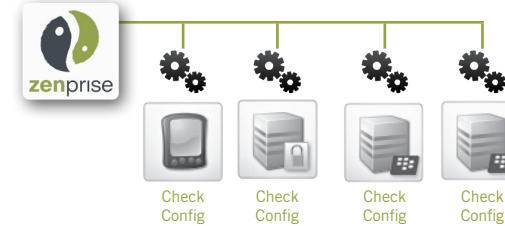
Symptom

A smartphone user is trying to activate her mobile device but is not yet set for activation on BES.

Manual Troubleshooting Tests

- Step 1: Verify that she correctly entered her activation information.
- Step 2: Open Active Directory Users and Computers to verify that she has an Exchange mailbox.
- Step 3: Open BlackBerry Manager and verify if she is set up for activation.
- Step 4: Check BlackBerry Manager for encryption between server and device.

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18 PIN - REMOTE ACTIVATION

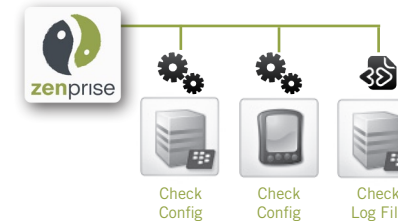
Symptom

The smartphone user's device PIN number is 0.

Manual Troubleshooting Tests

- Step 1: Open BlackBerry Manager and check details of user's device.
- Step 2: Check the smartphone for the correct PIN number.
- Step 3: Analyze the BES log files for device errors.

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19 DEVICE AUTHORIZATION

Symptom

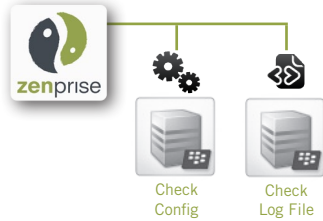
The smartphone user's device is not authorized in the BlackBerry Manager.

Manual Troubleshooting Tests

Step 1: Open BlackBerry Manager and check BES server configurations.

Step 2: Analyze the BES log files for device errors.

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21 EXPIRED PASSWORD

Symptom

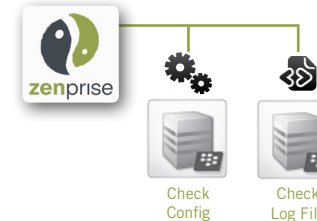
A smartphone user's activation password expires.

Manual Troubleshooting Tests

Step 1: Open BlackBerry Manager and check the password expiration time.

Step 2: Analyze the BES log files for activation errors.

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20 FAILED ACTIVATION

Symptom

A smartphone user cannot activate his device because the activation email is stuck in a Junk Folder.

Manual Troubleshooting Tests

Step 1: Verify that he correctly entered his activation information.

Step 2: Open BlackBerry Manager and check his activation status.

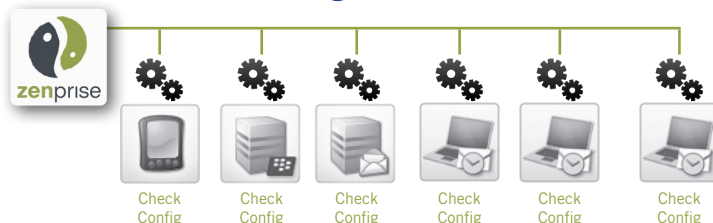
Step 3: Open Exchange Message Tracking Center and search for activation email.

Step 4: Open up the user's Outlook application to search for activation email.

Step 5: Check the user's Outlook to see if forwarding is enabled.

Step 6: Check the user's Outlook filters.

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22 NON-ACTIVATION

Symptom

A user is sent his enterprise activation password but never attempts to activate his smartphone.

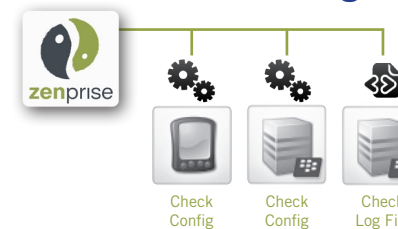
Manual Troubleshooting Tests

Step 1: Verify that he correctly entered his activation information.

Step 2: Open BlackBerry Manager and check his activation status.

Step 3: Analyze the BES log files for activation errors.

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23 UNVERIFIED USER

Symptom

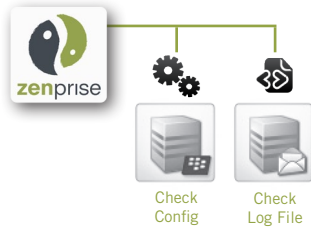
When a smartphone user is not yet recognized by the BES Server she cannot be verified for activation.

Manual Troubleshooting Tests

Step 1: Open BlackBerry Manager and check her activation status.

Step 2: Check Windows Event logs on Exchange.

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25 MISSING APPOINTMENTS

Symptom

Users' calendars may be missing appointments due to synchronization problems.

Manual Troubleshooting Tests

Analyze the BES log files for calendar sync errors.

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24 CALENDARS NOT IN SYNC

Symptom

A Memory Leak is affecting smartphone calendaring.

Manual Troubleshooting Tests

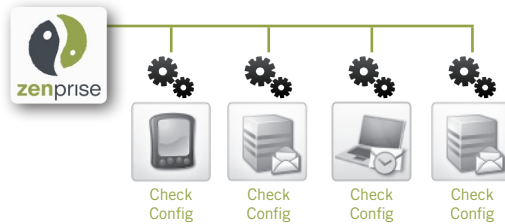
Step 1: Open BES Manager and check if the wireless activation is enabled.

Step 2: Check if you can open the CDO file on the server.

Step 3: Check CPU process utilization for the CDO.

Step 4: Analyze the BES log files for calendaring errors.

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SECTION 2: Mail/Calendar/Contacts/Attachment Issues



26 NON-RESPONSIVE MAPI

Symptom

Non-responsive MAPI thread on a BES server; Could affect message activity for users.

Manual Troubleshooting Tests

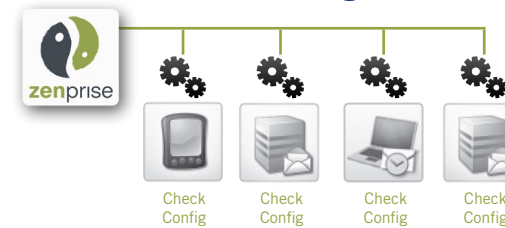
Step 1: Analyze the BES log files for MAPI errors.

Step 2: Open BlackBerry Manager and check MAPI profile, installation and registration.

Step 3: Logging into Test mailbox login using MAPI profile.

Step 4: Run ping tests between BES and Exchange to measure latency.

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27 BLOCKED AGENT THREADS

Symptom

All agent threads are blocked, preventing email delivery to smartphone users.

Manual Troubleshooting Tests

Analyze the BES log files for blocked threads.

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28 MAPI STABILITY

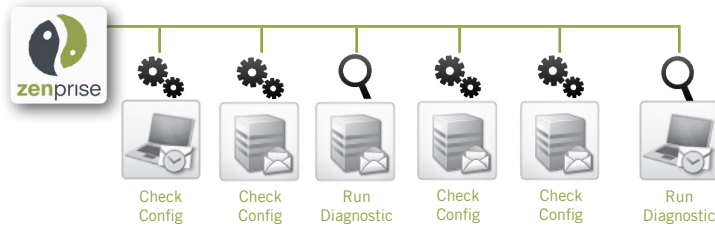
Symptom

Mobile device email is being impacted by a possible MAPI Profile or MAPI stability issue.

Manual Troubleshooting Tests

- Step 1: Check that MAPI is installed and registered.
- Step 2: Check MAPI versions.
- Step 3: Try logging on to user's mailbox using BES MAPI profile.
- Step 4: Check server names in profile.
- Step 5: Check for valid mailbox name.
- Step 6: Check password authentication for profile.

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29 DATABASE OFFLINE

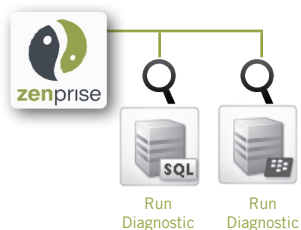
Symptom

The SQL database is offline.

Manual Troubleshooting Tests

Run Telnet tests to verify connectivity between BES and SQL.

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30 DATABASE UNREACHABLE

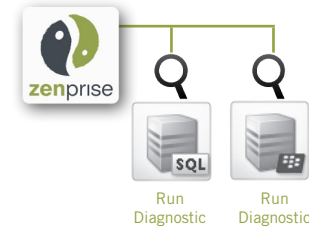
Symptom

The SQL server is unreachable.

Manual Troubleshooting Tests

- Step 1: Run Telnet tests to verify connectivity between BES and SQL.
- Step 2: Ping SQL host.

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31 MAPI AGENT DOWN

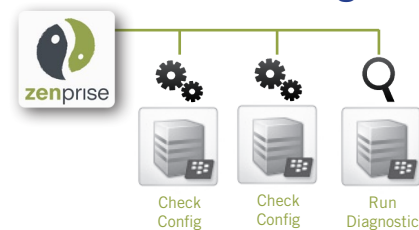
Symptom

Mail cannot be delivered to smartphone users because the MAPI agent is down.

Manual Troubleshooting Tests

- Step 1: Open BlackBerry Manager and identify all agents.
- Step 2: Check process ID state for all agents on the BES server.
- Step 3: Analyze the BES log files for MAPI errors.

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32 CALENDAR ERROR

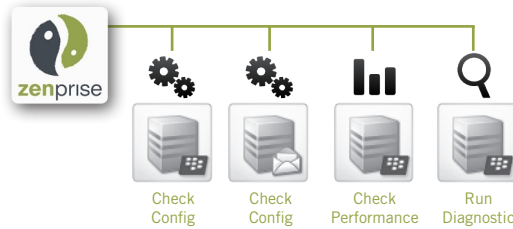
Symptom

Users cannot sync their mobile device calendars because of possible corruption of an object in Mailbox, or the Mailbox itself.

Manual Troubleshooting Tests

- Step 1: Log on to the BES and check CDO version.
- Step 2: Log on to Exchange and check CDO file version.
- Step 3: Check for high CPU utilization by CDO files.
- Step 4: Analyze the BES log files for CDO helper timeout.

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33 BES MAPI ERRORS

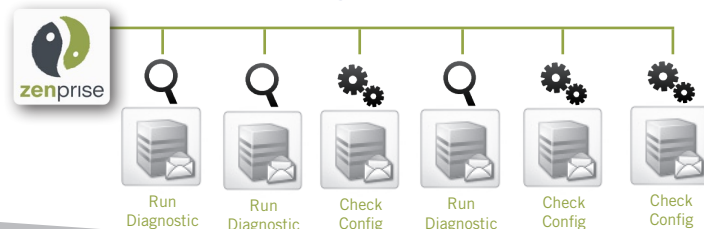
Symptom

Errors are detected because the private information store has run out of disk space.

Manual Troubleshooting Tests

- Step 1: Run Microsoft utility to check the IS RPC interface registration.
- Step 2: Test BES-Exchange connectivity by running test MAPI connection.
- Step 3: Open Exchange System Manager and check whether mail store is mounted.
- Step 4: Open Exchange System Manager and check if the store is marked "Do not mount".
- Step 5: Open Exchange System Manager and check store mount points for logs and mail store.
- Step 6: Check Exchange server for disk utilization of each mount point.
- Step 6: Open Services.msc and check critical Exchange services.

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34 BES MAPI ERRORS

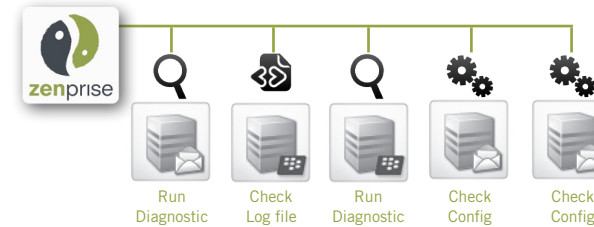
Symptom

Detect BES MAPI errors because Exchange Information Store service is paused.

Manual Troubleshooting Tests

- Step 1: Run Microsoft utility to check the IS RPC interface registration.
- Step 2: Analyze the BES log files for MAPI errors.
- Step 3: Check connectivity between Exchange and BES by running Telnet to the Exchange IS port.
- Step 4: Open Exchange System Manager and check health of the mail store.
- Step 5: Open up Services.msc and check the Information Store service.

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35 STORE IS OFFLINE

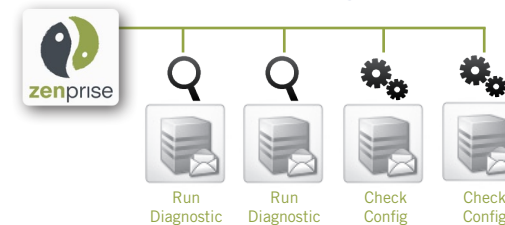
Symptom

When the Exchange Server is rebooted, the store is not a configured mount at start-up.

Manual Troubleshooting Tests

- Step 1: Test Exchange availability by running Telnet tests.
- Step 2: Try logging on to a mailbox via MAPI.
- Step 3: Open Exchange System Manager and check if the store is offline.
- Step 4: Open Exchange System Manager and check if the store is mounted.

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36 BES ACCOUNT RIGHTS ERROR

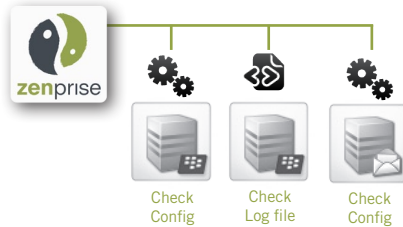
Symptom

A critical service on the Exchange service is paused.

Manual Troubleshooting Tests

- Step 1: Open BlackBerry Manager and identify BES-Exchange relationships.
- Step 2: Analyze the BES log files for mail delivery errors.
- Step 3: Open Services.msc on Exchange servers and check the state of critical services.

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37 CALENDAR ERROR

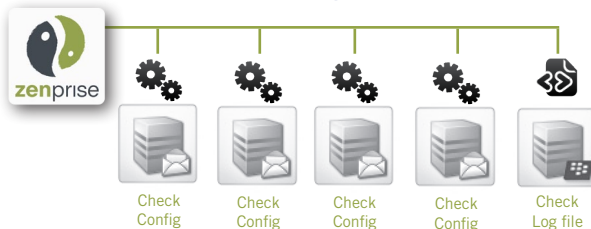
Symptom

Calendaring sync fails because the calhelper.exe and calhelper.pdb files are corrupt.

Manual Troubleshooting Tests

- Step 1: Open BlackBerry Manager and check if wireless sync is enabled.
- Step 2: Log on to BES and check if CDO is registered.
- Step 3: Log on to BES and check the CDO version.
- Step 4: Log on to BES and check if the CDO files are corrupt.
- Step 5: Analyze the BES log files for errors.

ZenPro Automated Diagnostics



38 NO CONNECTION

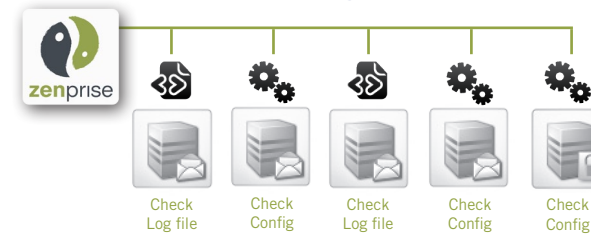
Symptom

Exchange cannot connect to the DC.

Manual Troubleshooting Tests

- Step 1: Check Windows Event logs for any port conflicts.
- Step 2: Open Services.msc to check if the Netlogon is running.
- Step 3: Open the event viewer and check for IP conflicts errors.
- Step 4: Check the TCP/IP settings for NIC filters.
- Step 5: Open Routing and Remote Access MMC and check RRAS configurations.

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39 BLOCKED EMAILS

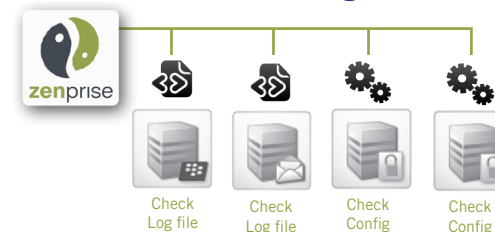
Symptom

A smartphone user cannot receive mail because of inheritance permission issues on his mailbox.

Manual Troubleshooting Tests

- Step 1: Open Windows Event Viewer and check for any errors on BES.
- Step 2: Open Windows Event Viewer and check for any errors on Exchange.
- Step 3: Check permissions on BES service account.
- Step 4: Open Adsiedit and check if inheritance propagation is enabled.

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40 CALENDARING ERRORS

Symptom

Smartphone users' calendars may be missing appointments due to synchronization problems.

Manual Troubleshooting Tests

Analyze the BES log files for any errors.

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41 SRP AUTHORIZATION

Symptom

The SRP authentication key is invalid.

Manual Troubleshooting Tests

Step 1: Analyze the BES log files for warnings.

Step 2: Open the BlackBerry Server Configuration utility, validate the SRP key.

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42 MOBILE INFRASTRUCTURE

Symptom

BES cannot connect to the Domain Controller because traffic is blocked by RRAS filters.

Manual Troubleshooting Tests

Step 1: Check Windows Event logs for any port conflicts.

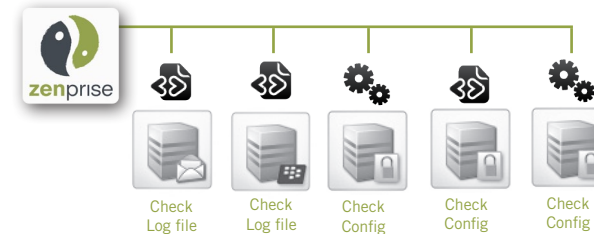
Step 2: Open Services.msc and check if netlogon is running.

Step 3: Open event viewer and check for errors on IP conflicts.

Step 4: Open TCP/IP and check NIC configurations.

Step 5: Open Routing and Remote Access MMC and check RRAS configurations .

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43 GC OFFLINE

Symptom

The Domain Controller/Global Catalog used by the BES is down.

Manual Troubleshooting Tests

Step 1: Open Event Viewer on DC/GC and check for errors.

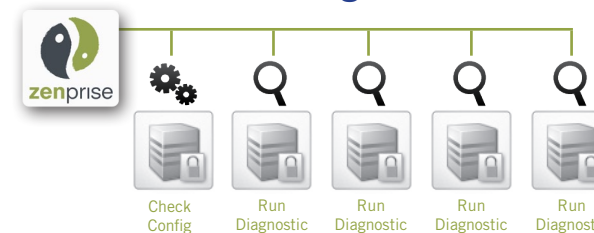
Step 2: Check BES-GC connectivity by running Telnet tests.

Step 3: Check BES-DC connectivity by running Telnet tests.

Step 4: Check BES-GC response times by running ping test.

Step 5: Open Routing and Remote Access MMC and check RRAS configurations.

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44 REMOTE GC DOWN

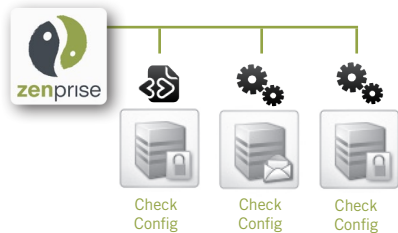
Symptom

A GC in a remote domain cannot be contacted.

Manual Troubleshooting Tests

- Step 1: Open Event Viewer on GC and check for errors.
- Step 2: Check Exchange System Manager, and AD User and Computers to verify if MS Exchange is installed in multiple domains.
- Step 3: Check AD Users and Computers to verify if GC is in multiple domains.

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45 GC ADVERTISING

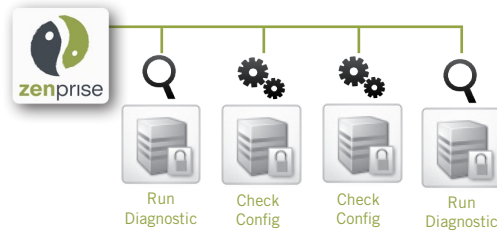
Symptom

A Global Catalog server is not properly advertising.

Manual Troubleshooting Tests

- Step 1: Test BES-GC connectivity by running Telnet test to port 53 UDP.
- Step 2: Open DNS MMC and check for valid Global Catalog record.
- Step 3: Open Sites and Services Management Console and check that DC is designated GC.
- Step 4: See if GC is responsive by running ping test.

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46 EXCHANGE AUTH FAILS

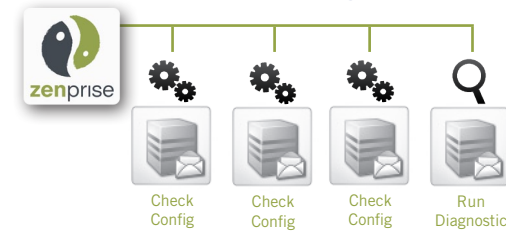
Symptom

Exchange cannot contact any Kerberos servers.

Manual Troubleshooting Tests

- Step 1: Open Services.msc on Exchange and check if the System Attendant is running.
- Step 2: Open Exchange Manager and check if information store is running.
- Step 3: Open Services.msc on Exchange and check if Microsoft MTA stacks services is running.
- Step 4: Use DCdiag to check if Exchange can contact any Kerberos servers in the domain.

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47 PERMISSION ERROR

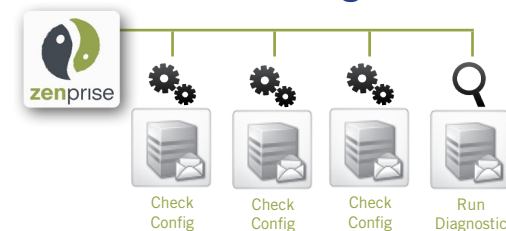
Symptom

Smartphone users cannot receive their mail because “Send As” permission is revoked when hotfix KBA 895949 is applied.

Manual Troubleshooting Tests

- Step 1: Log on to Exchange and check for any hot fixes applied.
- Step 2: Open Exchange System Manager and check if the BES admin has account permissions.

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48 MAILBOX ERROR

Symptom

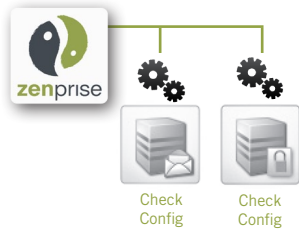
A BES user's Exchange mailbox has been deleted.

Manual Troubleshooting Tests

Step 1: Log on to Exchange, open Event Viewer and check for warnings/ errors.

Step 2: Open AD Users and Computers and verify if BB user exists and is mailbox-enabled.

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49 CALENDARING ERROR

Symptom

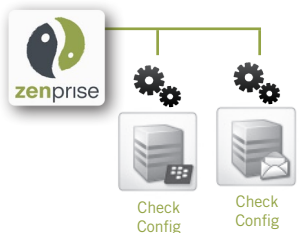
Calendar sync failed because the version of CDO.DLL on the BES is older than the version on Exchange Server(s).

Manual Troubleshooting Tests

Step 1: Log on to the BES and check the CDO file version.

Step 2: Log on to Exchange and check the CDO file version.

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50 MAPI THREADS

Symptom

MAPI sessions are holding several messages open.

Manual Troubleshooting Tests

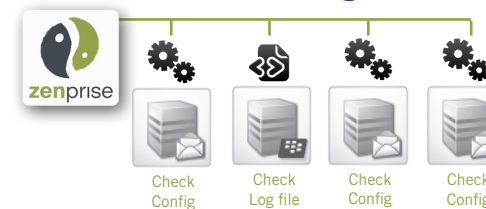
Step 1: Open Adsiedit and check the security descriptors.

Step 2: Open the Event Viewer and check for any errors.

Step 3: Log on to Exchange server and check for log file.

Step 4: Open Exchange System Manager and check if the storage group is mounted.

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51 BES DB FULL

Symptom

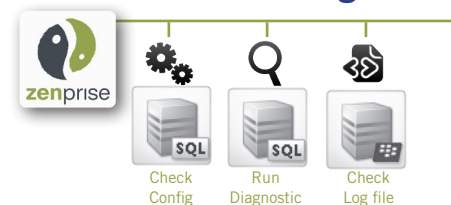
The BES database on the SQL Server is out of space.

Manual Troubleshooting Tests

Step 1: Open up Services.msc and check the BES services.

Step 2: Open the Event Viewer and check for any errors.

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52 LOG DISK FULL

Symptom

The Log disk free space is too low on the Exchange server.

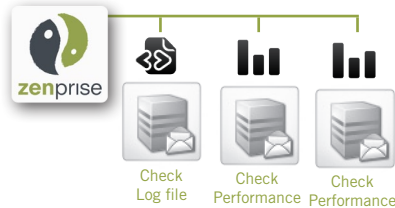
Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for disk space errors.

Step 2: Check perform counters.

Step 3: Check for free disk space on the server.

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53 EXCHANGE DISK FULL

Symptom

The disk volume on the Exchange server storing the logs is full.

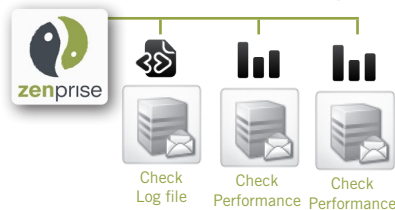
Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for disk space errors.

Step 2: Check perform counters.

Step 3: Check free disk space on the server.

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SECTION 3:

BES Mailbox and Permission Related Issues



54 NO EMAIL ACCES

Symptom

Smartphone users cannot receive mail on the BES server because the MAPI32.DLL version is lower than that on the Exchange Server.

Manual Troubleshooting Tests

Step 1: Log on to the BES and check the MAPI32 version.

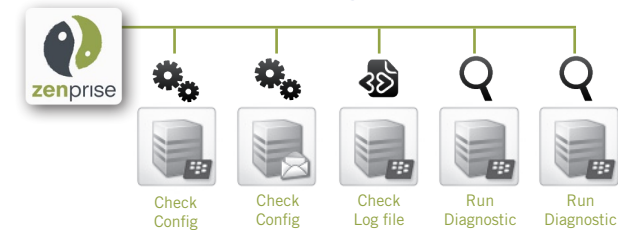
Step 2: Log on to Exchange and check the MAPI32 file version.

Step 3: Analyze the BES log files for any errors.

Step 4: Run network tests to verify BES-Exchange connectivity.

Step 5: Check the BES connection to Information Store by logging onto the mailbox via MAPI.

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55 CALENDARING ERROR

Symptom

The Wireless Calendar Sync is not enabled.

Manual Troubleshooting Tests

Open BlackBerry Manager and check if the wireless sync is enabled.

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56 MAPI ERROR

Symptom

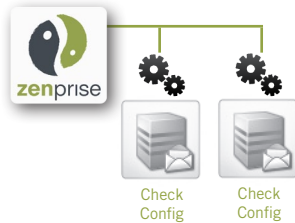
The MAPI profile is not pointing to the correct Microsoft Exchange Server and mailbox.

Manual Troubleshooting Tests

Step 1: Check the BES service account Exchange configuration against the BES MAPI profile.

Step 2: Check if the BES service account is a different mailbox value in the MAPI profile.

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57 PERMISSIONS ERROR

Symptom

The NTFS permissions on the system/log folders are insufficient on BES Server.

Manual Troubleshooting Tests

Open the Event Viewer and check for any errors.

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58 FILE SIZE ERROR

Symptom

The folder list data exceeds the maximum size (127KB) which can be sent via the BlackBerry Dispatcher.

Manual Troubleshooting Tests

Analyze the BES log files for any errors.

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59 BES ADMIN RIGHTS

Symptom

The BES Admin Account does not have “Read” Rights on the Administrative Group object.

Manual Troubleshooting Tests

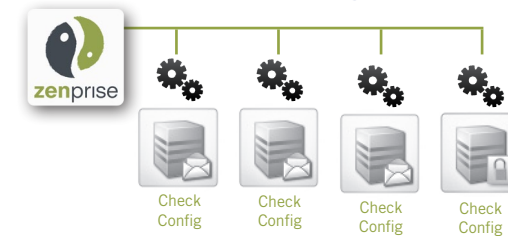
Step 1: Open Exchange System Manager and check for “send as” rights on the BES account.

Step 2: Check whether the BES service account has “read” rights on storage group and server objects.

Step 3: Open Exchange System Manager and check permissions on the parent object.

Step 4: Open Adsiedit and check if inheritance is enabled.

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60 BES ADMIN STORE RIGHTS

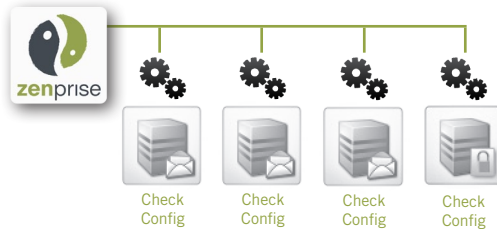
Symptom

The BES Admin Account may have an explicit deny for “Administer Information Store” Permissions on the Store object.

Manual Troubleshooting Tests

- Step 1: Open Exchange System Manager and check for “send as” rights on the BES account.
- Step 2: Check whether the BES service account has “read” rights on storage group and server objects.
- Step 3: Open Exchange System Manager and check permissions on the parent object.
- Step 4: Open Adsiedit and check if inheritance is enabled.

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61 BES ADMIN EXECUTE RIGHTS

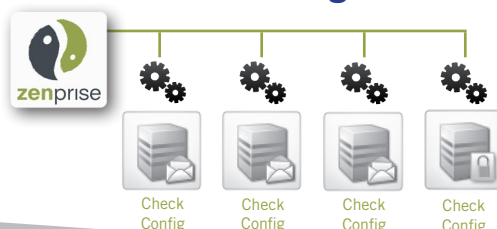
Symptom

The BES Admin Account may have an explicit deny for “Execute” Permissions on the Store object.

Manual Troubleshooting Tests

- Step 1: Open Exchange System Manager and check for “send as” rights on the BES account.
- Step 2: Check whether the BES service account has “read” rights on storage group and server objects.
- Step 3: Open Exchange System Manager and check permissions on the parent object.
- Step 4: Open Adsiedit and check if inheritance is enabled.

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62 BES SEND AS

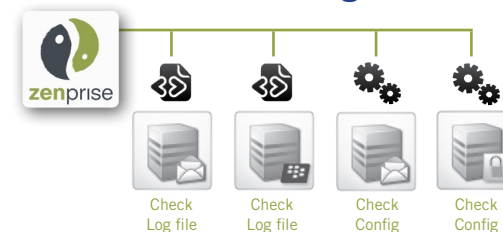
Symptom

The BES Administrator does not have a “Send As” permission on the object.

Manual Troubleshooting Tests

- Step 1: Open Event Viewer on Exchange and check for errors.
- Step 2: Analyze the BES log files for any errors.
- Step 3: Open Exchange System Manager and check for “send as” rights on BES account on object.
- Step 4: Open Adsiedit and check if inheritance propagation is enabled.

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63 BES ERROR

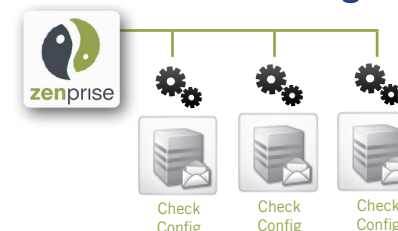
Symptom

The BES services account does not have appropriate permissions.

Manual Troubleshooting Tests

- Step 1: Open Exchange System Manager and check the BES account permissions for Exchange View-only.
- Step 2: Open Exchange System Manager and check if permissions inheritance is disabled.
- Step 3: Open Exchange System Manager and check the BES account rights on every Exchange server.

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64 BES ADMIN EXPIRED

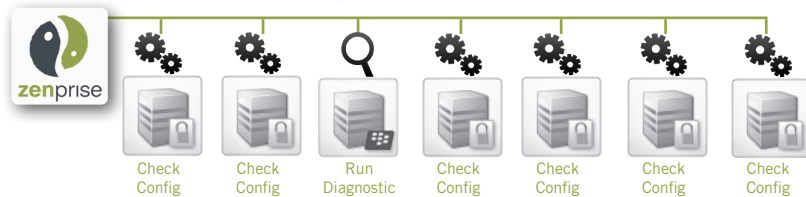
Symptom

The BES Admin account has expired.

Manual Troubleshooting Tests

- Step 1: Open Services.msc and check if the BES account is the domain account.
- Step 2: Open the Security Policies management console and check the security rights for the BES account.
- Step 3: Open Services.msc and check the state of BES services.
- Step 4: Check login.
- Step 5: Check for BES account expiration.
- Step 6: Check if the account is disabled.
- Step 7: Check if the account is locked.

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65 BES ADMIN DISABLED

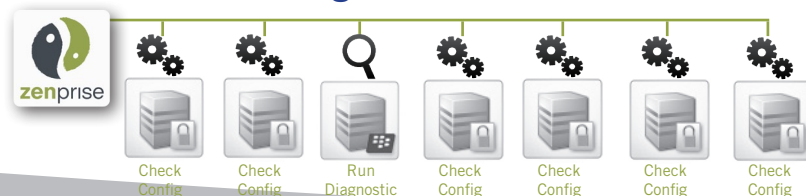
Symptom

The BES Admin account is disabled.

Manual Troubleshooting Tests

- Step 1: Open Services.msc and check if the BES account is the domain account.
- Step 2: Open the Security Policies management console and check the security rights for the BES account.
- Step 3: Open Services.msc and check the state of BES services.
- Step 4: Check login.
- Step 5: Check for BES account expiration.
- Step 6: Check if the account is disabled.
- Step 7: Check if the account is locked.

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66 BES ADMIN LOCKED

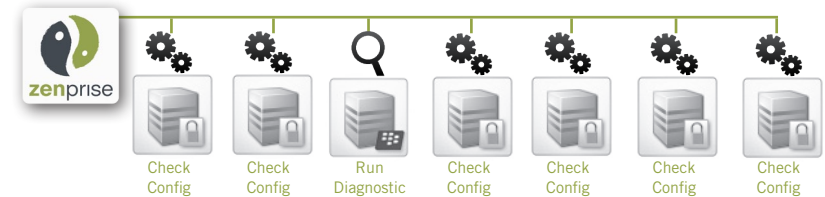
Symptom

The BES Admin account is locked.

Manual Troubleshooting Tests

- Step 1: Open Services.msc and check if the BES account is the domain account.
- Step 2: Open the Security Policies management console and check the security rights for the BES account.
- Step 3: Open Services.msc and check the state of BES services.
- Step 4: Check login.
- Step 5: Check for BES account expiration.
- Step 6: Check if the account is disabled.
- Step 7: Check if the account is locked.

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67 BES ADMIN LIMITED

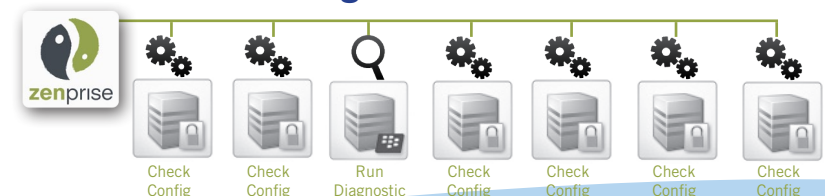
Symptom

The BES Admin does not has enough permissions on the user.

Manual Troubleshooting Tests

- Step 1: Open Services.msc and check if the BES account is the domain account.
- Step 2: Open the Security Policies management console and check the security rights for the BES account.
- Step 3: Open Services.msc and check the state of BES services.
- Step 4: Check login.
- Step 5: Check for BES account expiration.
- Step 6: Check if the account is disabled.
- Step 7: Check if the account is locked.

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68 LOCAL ADMIN

Symptom

The BES Admin does not have local administrator permissions.

Manual Troubleshooting Tests

Step 1: Open Services.msc and check if the BES account is the domain account.

Step 2: Open the Security Policies management console and check the security rights for the BES account.

Step 3: Open Services.msc and check the state of BES services.

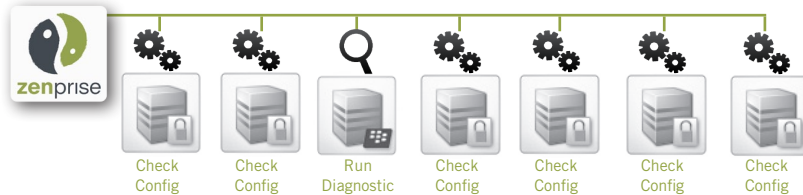
Step 4: Check login.

Step 5: Check for BES account expiration.

Step 6: Check if the account is disabled.

Step 7: Check if the account is locked.

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69 BES LOGON RIGHTS

Symptom

The BES Admin does not have logon as service rights.

Manual Troubleshooting Tests

Step 1: Open Services.msc and check if the BES account is the domain account.

Step 2: Open the Security Policies management console and check the security rights for the BES account.

Step 3: Open Services.msc and check the state of BES services.

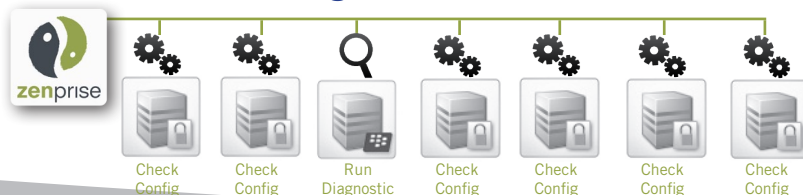
Step 4: Check login.

Step 5: Check for BES account expiration.

Step 6: Check if the account is disabled.

Step 7: Check if the account is locked.

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70 GC PROMO INCOMPLETE

Symptom

The process of promoting a Global Catalog is not completed.

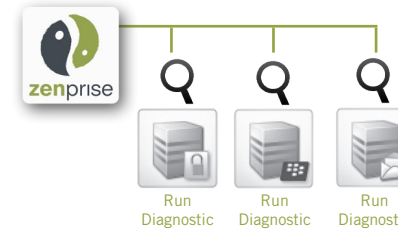
Manual Troubleshooting Tests

Step 1: Run DCdiag to check the value for the GC configuration.

Step 2: Run network connectivity tests between BES-GC.

Step 3: Run network connectivity tests between Exchange-GC.

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SECTION 4: Infrastructure Related Issues



71 GC ERROR

Symptom

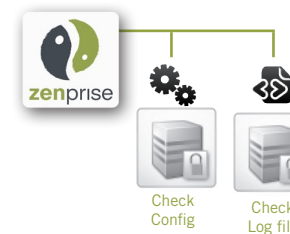
There is an incorrect GC entry (a computer account exists in the Computers container or a container/OU other than the Domain Controller OU).

Manual Troubleshooting Tests

Step 1: Open AD Users and Computers to see if the GC computer account is in OU or container.

Step 2: Open the Event Viewer and check for any errors.

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72 CDO OWA BLOCKS

Symptom

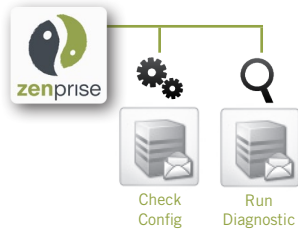
A CDO issue may be preventing the system attendant from receiving messages from OWA.

Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Send a test message via OWA.

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73 REGISTRY SETTINGS

Symptom

An Instance0 subkey is missing from HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\MSExchangeDSAccess\Instance0.

Manual Troubleshooting Tests

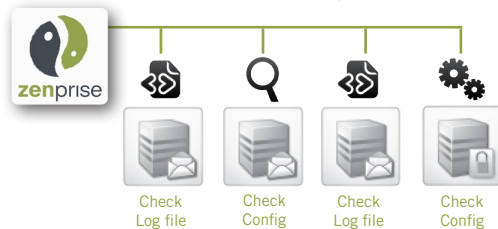
Step 1: Open the Event Viewer and check for any errors.

Step 2: Run regedit to check the registry settings.

Step 3: Open the Event Viewer and check for warnings/ errors.

Step 4: Open Domains and Trusts management console and check for more than one domain in the AD forest.

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74 HOTFIX MISSING

Symptom

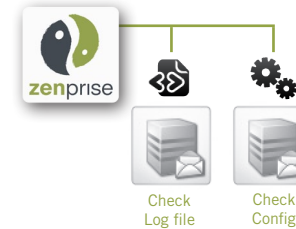
Application of the hotfix for KBA 873393 is required.

Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Log on to Exchange and check the hotfix level.

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75 MAILBOX ERROR

Symptom

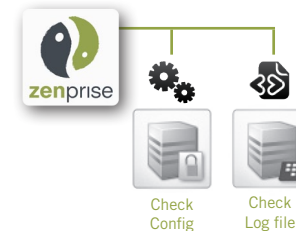
A smartphone-enabled Mailbox is hidden from Exchange Address Lists (GAL).

Manual Troubleshooting Tests

Step 1: Open AD Users and Computers and check the GAL attributes.

Step 2: Analyze the BES log files for any errors.

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76 SECURITY ERROR

Symptom

Clients are using SSL but the virtual server is not configured for it.

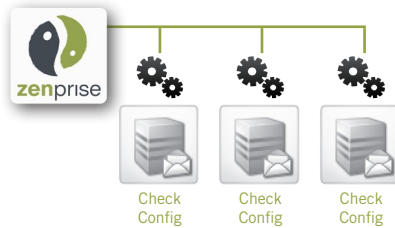
Manual Troubleshooting Tests

Step 1: Open the IIS management console and check the SSL configurations.

Step 2: Open Event Viewer and check for any errors.

Step 3: Open up Services.msc and check the IMAP service.

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77 SMTP MAILBOX MISSING

Symptom

A smartphone user is not receiving mail because the AD object for the SMTP mailbox is missing.

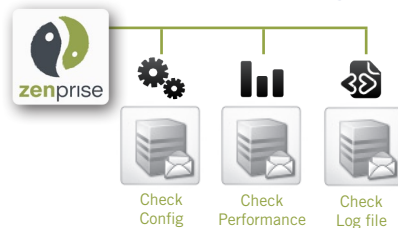
Manual Troubleshooting Tests

Step 1: Send a test message to any account on the mailbox store.

Step 2: Open perfmon and check for messages in the local queue.

Step 3: Open the Event Viewer and check for any errors.

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78 REGISTRY SETTINGS

Symptom

Mailbox store's streaming file (.stm) is missing.

Manual Troubleshooting Tests

Step 1: Open up Services.msc and check the IS service.

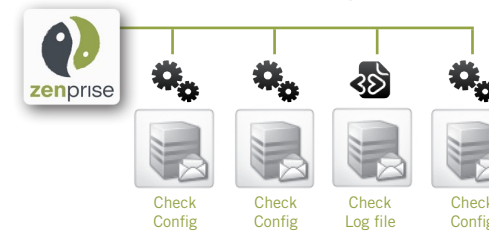
Step 2: Open the Event Viewer and check for any errors.

Step 3: Open Exchange System Manager and check for the STM file.

Step 4: Log on to Exchange server and verify the STM file

Step 5: Open Exchange System Manager and check the store mount.

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79 EXCHANGE PERFORMANCE

Symptom

The DLL file information for the Exchange Performance Monitor counters is lost or has become corrupted in the Windows registry.

Manual Troubleshooting Tests

Open the Event Viewer and check for any errors.

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80 ACCOUNT DN ERROR

Symptom

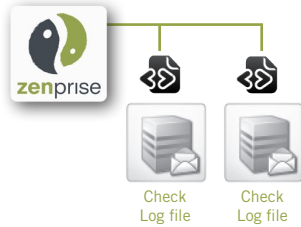
The Exchange Server's Computer Account DN has recently been changed.

Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Open the Event Viewer and check for errors with a computer DN listed.

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81 EMAIL ERROR

Symptom

A smartphone user is not receiving mail because the primary SMTP address does not match the default Recipient Policy.

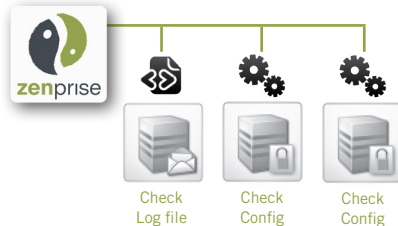
Manual Troubleshooting Tests

Step 1: Analyze the IIS log files for mail delivery errors.

Step 2: Open AD Users and Computers and look up the SMTP address.

Step 3: Open AD Users and Computers and verify the proxy address.

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82 EMAIL ERROR

Symptom

Smartphone users on mailstore are not receiving mail because the public information store has been moved to the Lost&Found container.

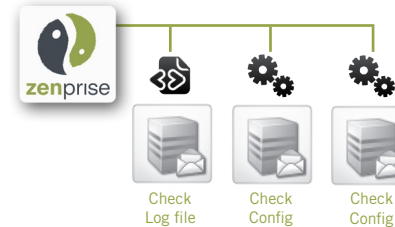
Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Open Adsiedit and check for GUID in the Lost&Found container.

Step 3: Open Exchange System Manager and check the configurations.

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83 STREAMING ERROR

Symptom

The streaming file for the mailbox store has moved or has been deleted.

Manual Troubleshooting Tests

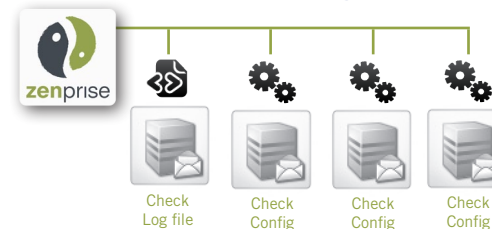
Step 1: Open the Event Viewer and check for any errors.

Step 2: Open Exchange System Manager and check for the STM file.

Step 3: Log on to Exchange server and verify the STM file.

Step 4: Open Exchange System Manager and check if the store is mounted.

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84 AD DUPLICATES

Symptom

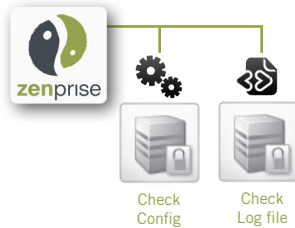
The Exchange Server's Computer Account DN has recently been changed.

Manual Troubleshooting Tests

Step 1: Open Adsiedit and check the AD attributes.

Step 2: Open the Event Viewer and check for any errors.

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85 INVALID MAILBOX

Symptom

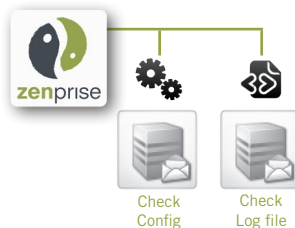
Journaling is enabled but the mailbox is invalid.

Manual Troubleshooting Tests

Step 1: Open Exchange System Manager and check if journaling is enabled.

Step 2: Open the Event Viewer and check for any errors.

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86 RPC BINDING

Symptom

The value of the registry key Rpc\ClientProtocols\ncacn_http is missing.

Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Open regedit and check the registry value.

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87 PERMISSION ERROR

Symptom

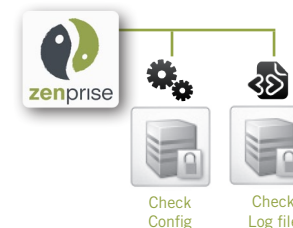
“Manage auditing and security log” permission is removed from the Exchange Enterprise Servers group on DCs.

Manual Troubleshooting Tests

Step 1: Open Exchange System Manager and check if the store is running.

Step 2: Open the Event Viewer and check for any errors.

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88 DUPLICATION ERROR

Symptom

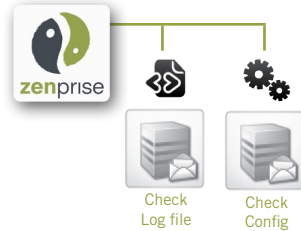
Another copy of the same private database is already running.

Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Open Adsiedit and check AD attributes for storage groups and DB objects.

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90 NAMING ERROR

Symptom

Information stores on different computers have the same name.

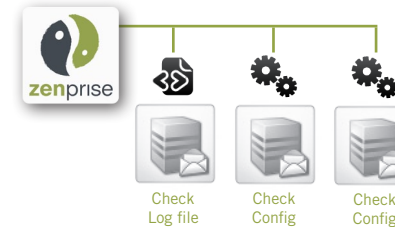
Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Open Exchange System Manager and check for duplicate store names.

Step 3: Open Exchange System Manager and check for duplicate store names and proxy addresses.

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89 PERMISSION ERROR

Symptom

Exchange Enterprise Servers lack permissions.

Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

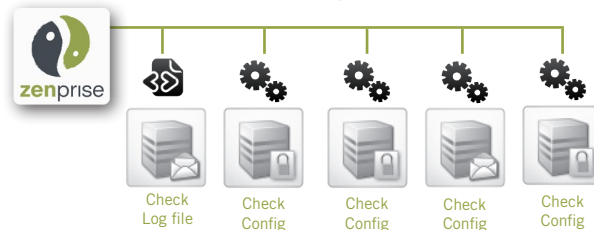
Step 2: Open AD Users and Computers and look up AD objects.

Step 3: Open AD Users and Computers and check the permissions in AD.

Step 4: Open Exchange System Manager and check the Exchange rights.

Step 5: Open Adsiedit and check if inheritance propagation is enabled.

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91 INHERITED PERMISSION ERROR

Symptom

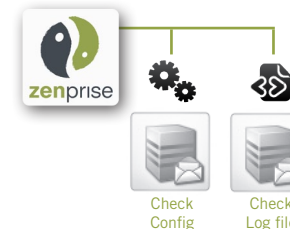
Inherited permissions are not propagated.

Manual Troubleshooting Tests

Step 1: Open Adsiedit and retrieve GUIDs.

Step 2: Open the Event Viewer and check for any errors.

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92 DNS SLOW

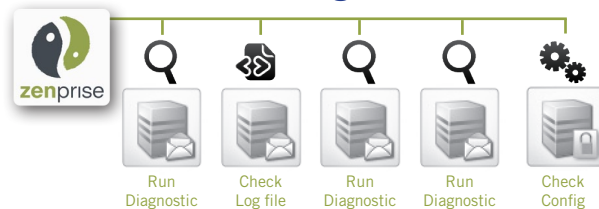
Symptom

The DNS server is less responsive.

Manual Troubleshooting Tests

- Step 1: Open Exchange System Manager and check SMTP queue growth.
- Step 2: Open the Event Viewer and check for any errors.
- Step 3: Run Telnet test to verify connectivity between Exchange and DNS.
- Step 4: Run a ping test to verify DNS response time.

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93 STORAGE GROUP PROPAGATION

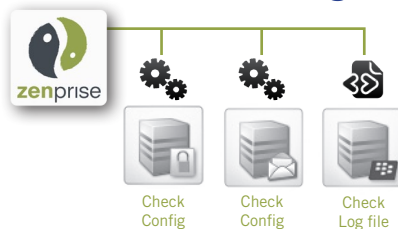
Symptom

Some users are not receiving mail because permissions on Storage Group are not allowed to propagate correctly.

Manual Troubleshooting Tests

- Step 1: Check BES service account rights.
- Step 2: Open Exchange System Manager and check permissions on Storage group.
- Step 3: Analyze the BES log files for any errors.

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94 MIGRATION ISSUE

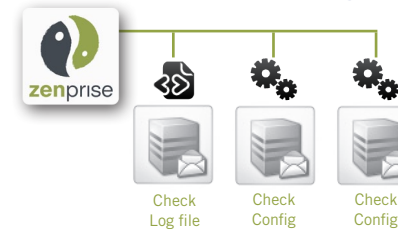
Symptom

Some of the permissions necessary for a user's mailbox access have not been migrated.

Manual Troubleshooting Tests

- Step 1: Open the Event Viewer and check for any errors.
- Step 2: Open Exchange System Manager and check the user's mailbox permissions.
- Step 3: Open Exchange System Manager and check the permissions/rights on the user's mailbox.

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95 EVERYONE GROUP

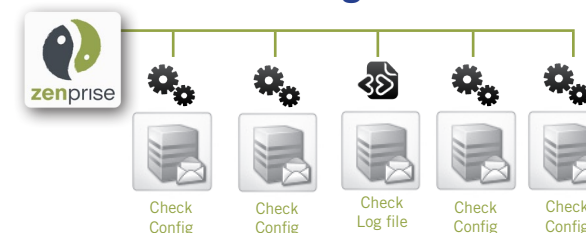
Symptom

The Everyone group lacks necessary read permissions.

Manual Troubleshooting Tests

- Step 1: Open Exchange System Manager and check if the Exchange server is a member server.
- Step 2: Open up Services.msc and check if the IS service is down.
- Step 3: Open the Event Viewer and check for any errors.
- Step 4: Open Exchange System Manager and check if everyone has group rights.
- Step 5: Open Exchange System Manager and check the security descriptors.

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96 EXCHANGE GROUP

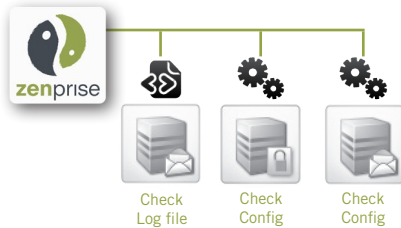
Symptom

The Exchange Server (Domain or Enterprise) group is not in the smartphone user's container.

Manual Troubleshooting Tests

- Step 1: Open the Event Viewer and check for any errors.
- Step 2: Open AD Users and Computers and check the Exchange attributes.
- Step 3: Open Adsiedit and verify the Exchange configurations.

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97 EXCHANGE READ RIGHTS

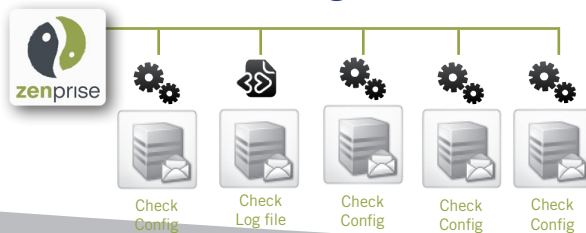
Symptom

The Exchange server Computer Account lacks “read” permissions to the Information Store.

Manual Troubleshooting Tests

- Step 1: Open up Services.msc and check if the IS service is running.
- Step 2: Open the Event Viewer and check for any errors.
- Step 3: Open Exchange System Manager and check the Exchange server group membership.
- Step 4: Open Exchange System Manager and check the permissions on the Information Store.
- Step 5: Open Adsiedit and check the security descriptors.

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98 GPO DELETED

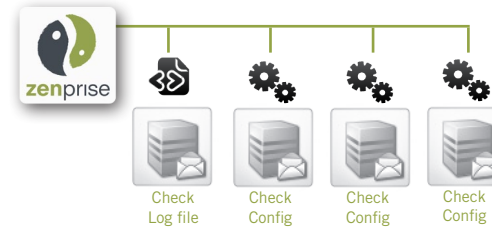
Symptom

The Group Policy Object has been deleted.

Manual Troubleshooting Tests

- Step 1: Open the Event Viewer and check for any errors.
- Step 2: Open up Services.msc and check the state of the IS service.
- Step 3: Open Exchange System Manager and check if the mailbox is mounted.
- Step 4: Run the policy test utility.

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99 SECURITY ERROR

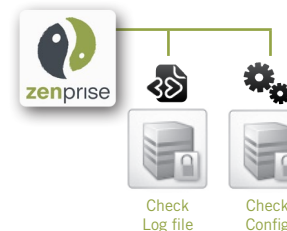
Symptom

Universal security groups are only supported in a native mode domain.

Manual Troubleshooting Tests

- Step 1: Open the Event Viewer and check for any errors.
- Step 2: Check the mode of the domain for the group.

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100 MESSAGES QUEUED

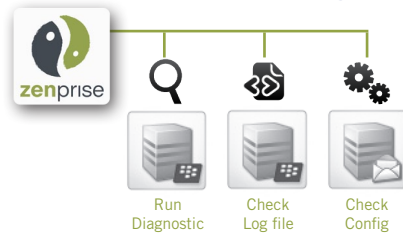
Symptom

A smartphone user is not receiving mail because the AD object for the SMTP mailbox is missing

Manual Troubleshooting Tests

- Step 1: Check for queued messages.
- Step 2: Open the Event Viewer and check for any errors.
- Step 3: Lookup mailbox.

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101 BES UPGRADE FAILS

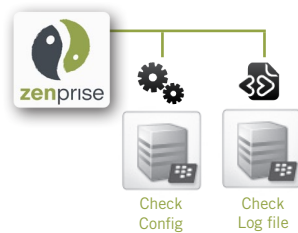
Symptom

BES install/upgrade failed because the BES name entered during installation contains one or more spaces.

Manual Troubleshooting Tests

- Step 1: Open BlackBerry Manager and check the credentials.
- Step 2: Analyze the BES log files for any errors.

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102 SMTP PERFORMANCE

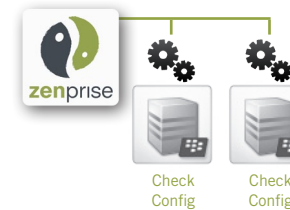
Symptom

There is a race condition in the SMTP protocol in Exchange Server 2003 Service Pack 2.

Manual Troubleshooting Tests

- Step 1: Open Exchange System Manager and check if the sender is activated.
- Step 2: Log on to Exchange and check the version level.

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103 MAILBOX UNMOUNTED

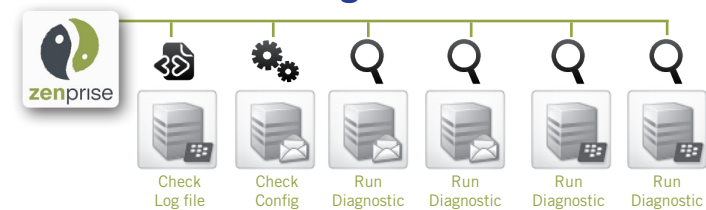
Symptom

The BES cannot connect to the Exchange server (mailbox Store is not mounted, MAPI Connectivity).

Manual Troubleshooting Tests

- Step 1: Analyze the BES log files for MAPI errors.
- Step 2: Open Exchange System Manager and check if the stores are mounted.
- Step 3: Run network connectivity tests on BES-Exchange.
- Step 4: Run RPC tests to check RPC connectivity.

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SECTION 5:

Network Issues (LAN/WAN, Carrier, RIM SRP)



104 CARRIER NETWORK

Symptom

The carrier network is experiencing outage or performance issues.

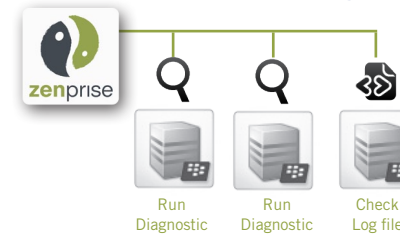
Manual Troubleshooting Tests

Step 1: Open the BES Manager and identify users with pending messages.

Step 2: Open the BES Manager and identify carriers for users with pending messages.

Step 3: Analyze the BES log files for mail delivery errors.

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105 SRP OUTAGE

Symptom

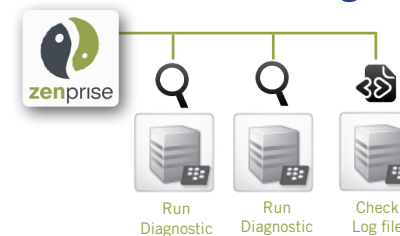
The RIM SRP network is experiencing an outage.

Manual Troubleshooting Tests

Step 1: Analyze the BES log files for connection timeout errors.

Step 2: Run BBSrptest from the RIM resource kit.

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106 ISP DOWN

Symptom

The Internet Service Provider is currently down.

Manual Troubleshooting Tests

Try sending test email messages to external mail accounts (e.g., Yahoo, Gmail, etc.).

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107 DNS UNAVAILABLE

Symptom

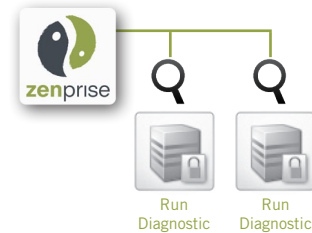
There are DNS name resolution problems between the BES and Exchange server.

Manual Troubleshooting Tests

Step 1: Test DNS availability by running Telnet to DNS port 53.

Step 2: Test DNS health by running nslookup against the Exchange server.

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108 SQL TCP-IP

Symptom

The SQL Server hosting the BES Database does not accept TCP-IP connections.

Manual Troubleshooting Tests

Step 1: Open SQL Enterprise Manager and check if the TCP protocol is disabled.

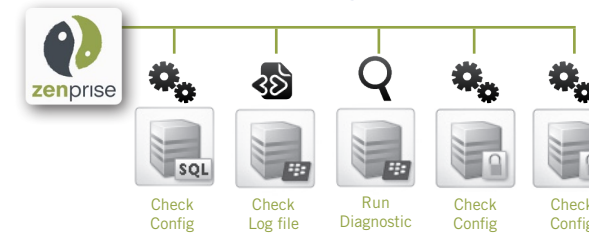
Step 2: Open the Event Viewer and check for any errors.

Step 3: Test DNS availability by running Telnet to DNS port 53.

Step 4: Open Routing and Remote Access MMC and check if RRAS is started.

Step 5: Open Routing and Remote Access MMC and check the RRAS filters.

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109 VS IP CONFLICT

Symptom

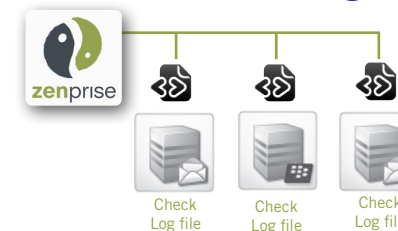
The same IP and port setting is being used by more than one Virtual Server.

Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Open Exchange System Manager and check the AD attributes for SMTP virtual servers.

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110 NIC FILTER

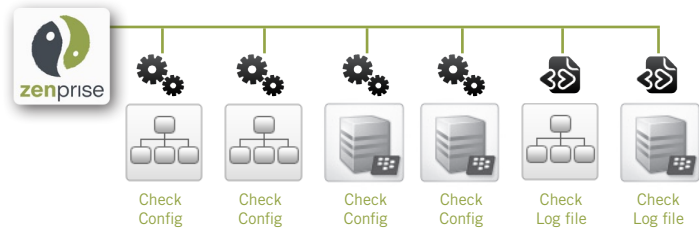
Symptom

Local NIC filters are blocking traffic between the BES and SQL.

Manual Troubleshooting Tests

- Step 1: Open up Services.msc and check if the SQL service is started.
- Step 2: Open the Event Viewer and check for SQL Server IP conflicts errors.
- Step 3: Check TCP/IP settings for the NIC filters.

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112 TCP QUERIES

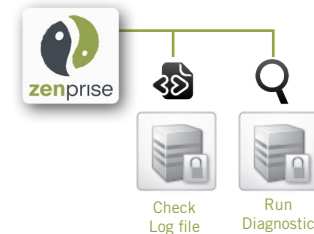
Symptom

The DNS server does not support TCP queries.

Manual Troubleshooting Tests

- Step 1: Open the Event Viewer and check for any errors.
- Step 2: Run Nslookup to verify the MX record.

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111 REAL IP CONFLICT

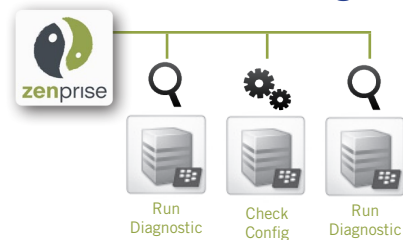
Symptom

There is an IP address conflict with another network node.

Manual Troubleshooting Tests

- Step 1: Test LDAP health by running Telnet test to 389.
- Step 2: Open up Services.msc and check if netlogon is running.
- Step 3: Open the Event Viewer and check for errors of IP conflict.

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113 SQL TRAFFIC FILTERED

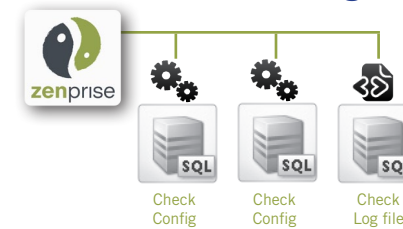
Symptom

SQL traffic is blocked by IP filtering.

Manual Troubleshooting Tests

- Step 1: Open up Services.msc and check if the SQL service is started.
- Step 2: Check TCP/IP settings for the NIC filters.
- Step 3: Open the Event Viewer and check for SQL Server IP conflicts errors.

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114 DNS SUFFIX

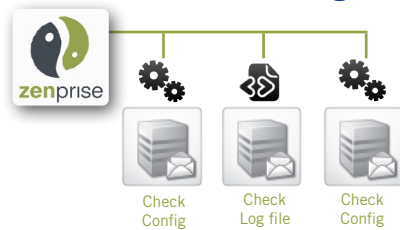
Symptom

The DNS suffix of the server is not in the DNS search list.

Manual Troubleshooting Tests

- Step 1: Open up Services.msc and check Exchange System Attendant service.
- Step 2: Open the Event Viewer and check for any errors.
- Step 3: Open local TCP/IP properties and verify if the DNS suffix is removed from the search list.

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115 DNS ZONE FILE

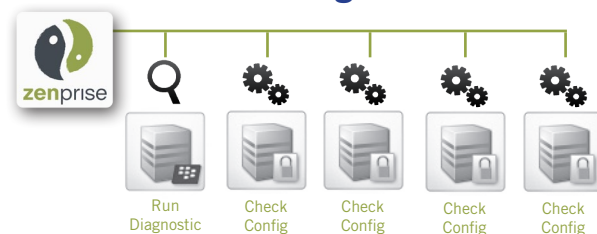
Symptom

A DNS server lacks a copy of the DNS zone.

Manual Troubleshooting Tests

- Step 1: Run Telnet on port 54 UDP from remote clients.
- Step 2: Open DNS MMC and check the primary zone configuration.
- Step 3: Open DNS MMC and check for AD integrated zones.
- Step 4: Open DNS MMC and check the replication configurations.
- Step 5: Open DNS MMC and check if the DNS zone exists.

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116 DC GUID MISMATCH

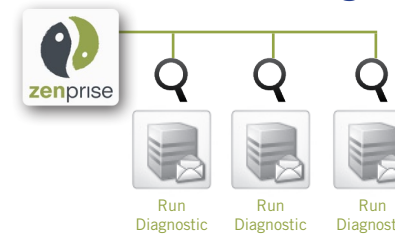
Symptom

A DSACNAME record does not match a Domain Controller GUID.

Manual Troubleshooting Tests

- Step 1: Test connectivity to DNS by running Telnet to port 54 UDP.
- Step 2: Run Nslookup to verify the DsaCname record.
- Step 3: Run Nslookup to check for matching GUID.

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117 SRV RECORD

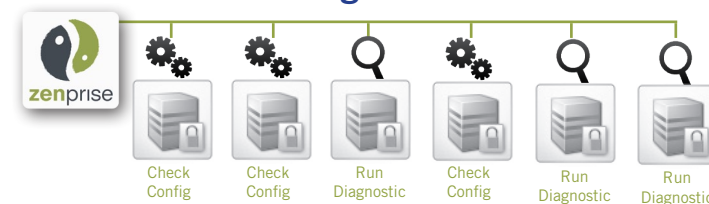
Symptom

A Global Catalog SRV record cannot be found in the forest DNS zone.

Manual Troubleshooting Tests

- Step 1: Open DNS MMC and check for a single PDC SRV record.
- Step 2: Open DNS MMC and check for a GC SRV record.
- Step 3: Run IPconfig on the GC server to check for an IP address.
- Step 4: Open DNS management console and check attributes for servers in the forest.
- Step 5: Test GC-DNS health by running a ping test to the GC server.
- Step 6: Run DcDiag to check if the GC is advertising.

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118 RECORD MISSING

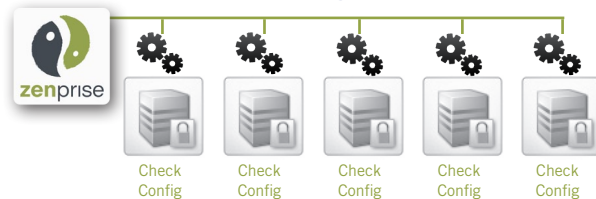
Symptom

A record does not exist in the upper level zone.

Manual Troubleshooting Tests

- Step 1: Get computer name.
- Step 2: Open DNS MMC and check if the zone is paused.
- Step 3: Open DNS MMC and check forwarder zone.
- Step 4: Open DNS MMC and check Stub zone.
- Step 5: Open DNS MMC and check secondary zone.

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119 BOOT DNS

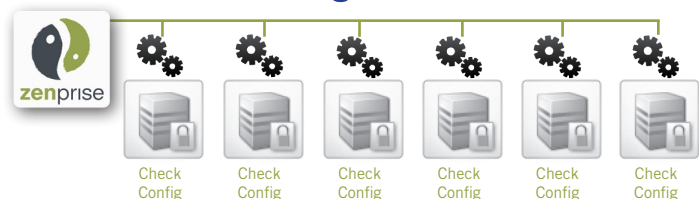
Symptom

An Active Directory-integrated DNS server is not configured to boot DNS from AD or the registry.

Manual Troubleshooting Tests

- Step 1: Open DNS management console and check for non AD-integrated DNS servers.
- Step 2: Open DNS management console and check zone replication.
- Step 3: Open DNS management console and check for DBS zones.
- Step 4: Open DNS management console and query LDAP.
- Step 5: Open Adsiedit and check DNS partition replication.
- Step 6: Open DNS management console and contact DNS boot settings.

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120 DUPLICATE ZONES

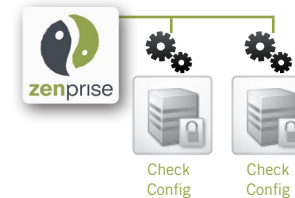
Symptom

Duplicate DNS zones exist outside of the domain of authority.

Manual Troubleshooting Tests

- Step 1: Open DNS management console and check for AD integrated zones.
- Step 2: Open DNS management console and check AD replicated zones configuration.

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121 ZONE TRANSFER

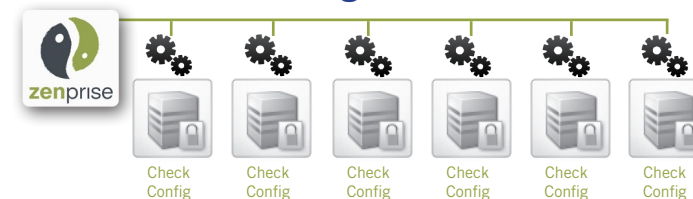
Symptom

Zone transfers from the master server are not allowed.

Manual Troubleshooting Tests

- Step 1: Open DNS management console and check zone type.
- Step 2: Open DNS management console and check zone expiration.
- Step 3: Open DNS management console and contact master servers.
- Step 4: Open DNS management console and check if zone is present on master servers.
- Step 5: Open DNS management console and check if zone is primary or secondary.

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122 SRP UNREACHABLE

Symptom

The BES server cannot connect to the RIM network.

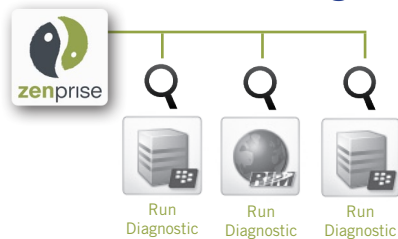
Manual Troubleshooting Tests

Step 1: Test Http connectivity by doing HTTP GET.

Step 2: Test DNS health by running nslookup against the RIM SRP address.

Step 3: Test RIM network availability by running Telnet to the RIM network.

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124 BES ROUTER PROBLEM

Symptom

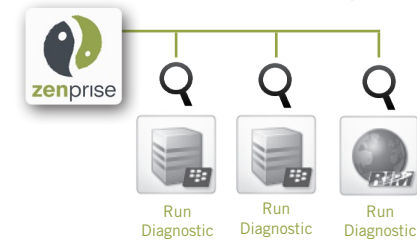
The BES Router cannot connect to the RIM SRP network.

Manual Troubleshooting Tests

Step 1: Run a BBSrptest from the RIM resource kit.

Step 2: Log on to the BES Configuration Panel and check the SRP keys.

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123 DNS RESOLUTION

Symptom

An Exchange server in the routing group cannot be resolved by the DNS server.

Manual Troubleshooting Tests

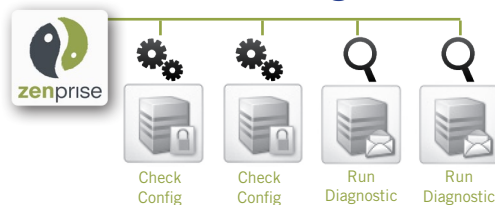
Step 1: Open DNS management console and check if zone is paused.

Step 2: Open DNS management console and check forwarder zone.

Step 3: Run a test to check the response from forwarders.

Step 4: Run Nslookup to check if the target record is resolvable.

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125 PORT CONFLICT

Symptom

Port 4101 on the BES is being used by another application, thereby causing BES Router errors.

Manual Troubleshooting Tests

Run netstat to check if port 4101 is in use by another application.

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126 SSL CONFIGURATION

Symptom

A procedure does not release memory properly when SSL is configured.

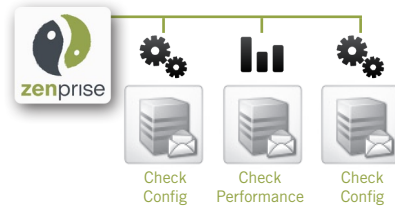
Manual Troubleshooting Tests

Step 1: Open IIS Manager and check the file version.

Step 2: Check perform counters.

Step 3: Open up Services.msc and check the IIS service state.

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SECTION 6: Slow Mail Delivery



127 DELAYED EMAILS - ALL USERS

Symptom

Message delivery to the smartphone is delayed for all users.

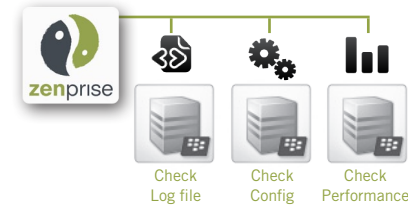
Manual Troubleshooting Tests

Step 1: Analyze the BES log files for mail delivery errors.

Step 2: Log on to the BES and check the CDO version.

Step 3: Check perfmon counters for high server utilization.

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128 SLOW EMAIL - SINGLE USER

Symptom

Delivery time to a single smartphone user is too high.

Manual Troubleshooting Tests

Analyze the BES log files for delivery times.

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129 HIGH RESCANS

Symptom

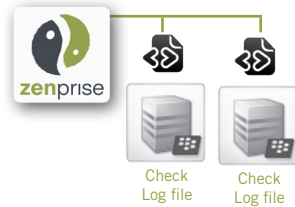
The proportion of messages queued by rescan is too high.

Manual Troubleshooting Tests

Step 1: Analyze the BES log files for rescan errors.

Step 2: Open the Event Viewer and check for any errors.

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130 RPC MEMORY LEAK

Symptom

A Windows 2003 Service Pack 1 upgrade introduced a memory leak into the RPC cache.

Manual Troubleshooting Tests

Log on to the server and check the OS version.

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131 DELAY NOTIFICATION

Symptom

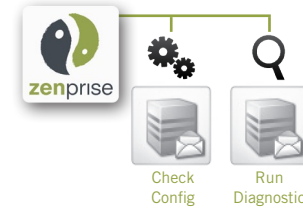
The Delay Notification time is set too low.

Manual Troubleshooting Tests

Step 1: Check Exchange System Manager for delay notification settings.

Step 2: Send test messages and measure delivery times.

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132 BES CPU LOAD

Symptom

The BES server is experiencing high CPU utilization.

Manual Troubleshooting Tests

Check perfmon counters.

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133 BANDWIDTH USAGE

Symptom

Exchange is not using the bandwidth throttling registry.

Manual Troubleshooting Tests

Log on to Exchange and check the OS and app file versions.

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135 HIGH DISK WRITES

Symptom

The BES server is experiencing I/O problems (sustained log disk write time too high).

Manual Troubleshooting Tests

Check disk write performance monitor counters.

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134 HIGH I/O

Symptom

The BES server is experiencing I/O problems (disk read time too high).

Manual Troubleshooting Tests

Watch disk read performance monitor counters.

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136 PRIVATE MEMORY

Symptom

Smartphone users' mail delivery is slow because of the load on Exchange (IS private memory usage is high).

Manual Troubleshooting Tests

Watch Information Store Private Memory performance counters.

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137 VIRTUAL MEMORY

Symptom

Mail delivery is slow because of the load on Exchange (IS virtual memory usage is high).

Manual Troubleshooting Tests

Watch Information Store Virtual Memory performance counters.

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138 RETRY QUEUE HIGH

Symptom

Mail delivery is slow because of the load on Exchange (local retry queue length is high)

Manual Troubleshooting Tests

Watch Mail Retry Queue Rate performance counters.

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139 DISK LOAD

Symptom

Mail delivery is slow because of the disk load on Exchange (disk write time is too high).

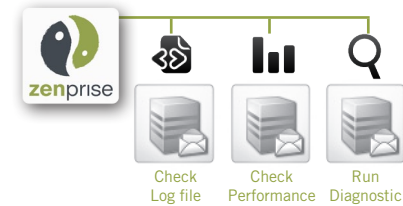
Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Check performance counters.

Step 3: Ping the Exchange server and measure the response times.

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140 LOW DISKSPACE

Symptom

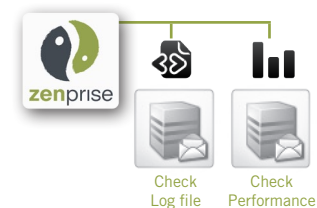
Mail delivery is slow because of the load on Exchange (disk free space is too low).

Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Check performance counters.

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141 NO FREE BLOCKS

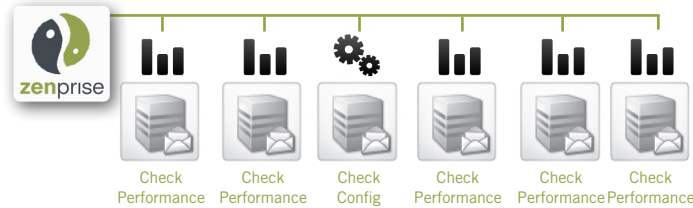
Symptom

Mail delivery is slow because of the load on Exchange (there are no free IS virtual memory blocks).

Manual Troubleshooting Tests

- Step 1: Check for available RAM.
- Step 2: Check for paging usage.
- Step 3: Open Boot.ini file and check if the 3gb switch is enabled.
- Step 4: Check paged pool size.
- Step 5: Check non-paged pool size.
- Step 6: Check VM free blocks.

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142 MESSAGES STUCK

Symptom

Messages are stuck in the Exchange local queue.

Manual Troubleshooting Tests

Check local queue length on Exchange Server.

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143 PAGING HIGH

Symptom

Mail delivery is slow because of the load on Exchange (paging is too high).

Manual Troubleshooting Tests

Check pages per sec on Exchange Server.

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144 NIC UTILIZATION

Symptom

Mail delivery is slow because of the load on Exchange (NIC utilization is high).

Manual Troubleshooting Tests

Check NIC bytes per sec performance on Exchange Server.

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145 CORRUPT MESSAGE

Symptom

There is a large, corrupted MIME message in the queue.

Manual Troubleshooting Tests

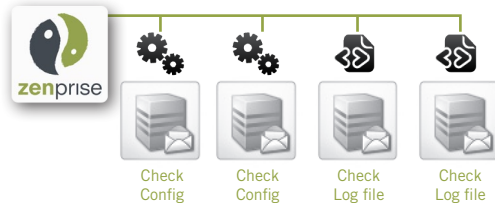
Step 1: Check the Message Queue for a large, corrupted MIME message.

Step 2: Log on to Exchange and check the file version.

Step 3: Open Exchange System Manager and check for a large message in the queue.

Step 4: Open the Event Viewer and check for any errors.

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146 NO FREE SPACE

Symptom

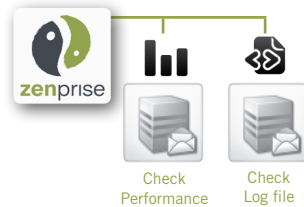
There is insufficient disk space on the mailbox store drive.

Manual Troubleshooting Tests

Step 1: Open the Event Viewer and check for any errors.

Step 2: Check free disk space on the Exchange server.

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147 IS DB FAULTS

Symptom

Information Store issue on the server: There are DB page faults that cannot be serviced

Manual Troubleshooting Tests

Check page fault performance counter for high number of faults.

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148 IS LOG THREADS

Symptom

Information Store performance issue on the server: Too many log threads waiting.

Manual Troubleshooting Tests

Step 1: Run ping tests and measure network adapter speeds.

Step 2: Check performance counters for thread wait times.

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149 LOG DISK FULL

Symptom

Log disk free space is too low.

Manual Troubleshooting Tests

Check disk space performance counters for logs partition.

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150 IS MEMORY HEAPS

Symptom

Mail delivery is slow because of load on Exchange Memory (Exchange IS is allocating too many additional heaps).

Manual Troubleshooting Tests

Check memory heaps performance counters.

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151 BUFFER SIZES

Symptom

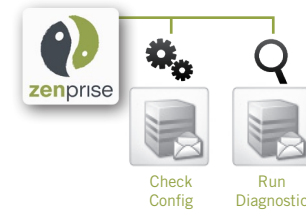
The buffer sizes for POP3/IMAP4 are not adjusted.

Manual Troubleshooting Tests

Step 1: Run ping tests and measure response times.

Step 2: Open the IIS Manager and check the configurations.

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152 DELIVERY STATUS

Symptom

Email messages received that contain deeply nested delivery status notification messages.

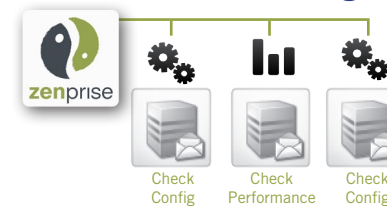
Manual Troubleshooting Tests

Step 1: Log on to Exchange and check what hotfixes are installed.

Step 2: Open Perfmon and check the store.exe CPU consumption.

Step 3: Open Exchange Message Tracking and check for deep nested recipients in the mailflow.

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153 DNS RESPONSE

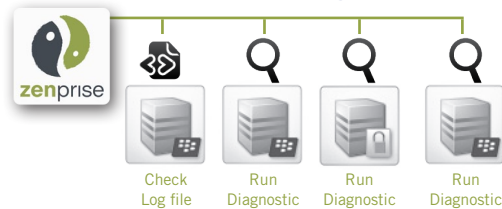
Symptom

BES experiencing delays because DNS server response time is slow.

Manual Troubleshooting Tests

- Step 1: Open the Event Viewer and check for any errors.
- Step 2: Run Telnet to test between BES-DNS.
- Step 3: Run ping tests and measure response times.

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154 MAIL DELIVERY SLOW

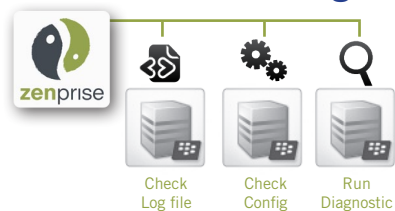
Symptom

Message delivery to the smartphone delayed for most users.

Manual Troubleshooting Tests

- Step 1: Analyze the BES log files for delivery times.
- Step 2: Log on to the BES and check the CDO version.
- Step 3: Check perfmon counters.

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155 SLOW DELIVERY

Symptom

Performance degradation is occurring for mail delivered outside your organization.

Manual Troubleshooting Tests

Send test message and measure delivery times to external mail account.

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156 PENDING DELIVERY

Symptom

An unusually large number of messages are pending on the BES server.

Manual Troubleshooting Tests

Check BES Manager for number of pending messages.

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157 VM FRAGMENTATION

Symptom

Mail delivery is slow because of the load on Exchange (virtual memory is fragmented).

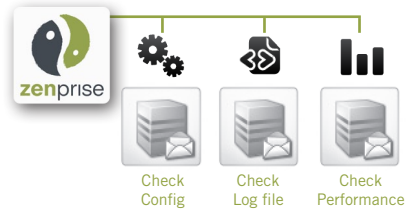
Manual Troubleshooting Tests

Step 1: Log on to Exchange and check file version.

Step 2: Open the Event Viewer and check for any errors.

Step 3: Check VM block size performance overtime.

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158 LOW MEMORY

Symptom

Mail delivery is slow because of the load on Exchange (available memory is low).

Manual Troubleshooting Tests

Check performance for available memory bytes.

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159 SLOW RESPONSES

Symptom

Exchange server response time is too slow

Manual Troubleshooting Tests

Run ping tests and measure response times from BES to Exchange.

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160 SMTP QUEUE READS

Symptom

Check SMTP queue disk read time performance.

Manual Troubleshooting Tests

Check performance for available memory bytes.

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161 RPC CACHE ISSUE

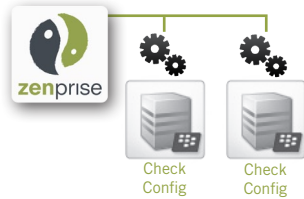
Symptom

A Windows 2003 Service Pack 1 upgrade introduced a memory leak into the RPC cache used by WMI.

Manual Troubleshooting Tests

- Step 1: Log on to the server and check the OS version.
- Step 2: Check the DLL versions.
- Step 3: Check VM block size performance overtime.

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163 BES MEMORY LEAK

Symptom

The MAPI subsystem on the BES is experiencing a memory leak issue.

Manual Troubleshooting Tests

Open the Event Viewer and check for any errors.

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162 ANTIVIRUS DELAYS

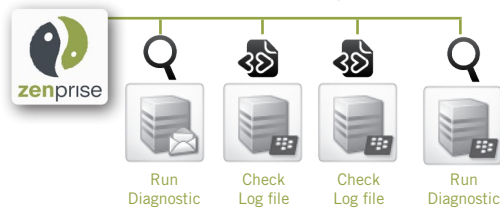
Symptom

Antivirus software may be causing delays in messages.

Manual Troubleshooting Tests

- Step 1: Try logging onto the mailbox via the MAPI profile.
- Step 2: Analyze the BES log files for mail delivery errors.
- Step 3: Open the Event Viewer and check for any errors.
- Step 4: Send test mail messages and measure delivery times.

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Zenprise's **award winning software** automates all aspects of mobile management, from monitoring to troubleshooting, from expense management to device management, from security to compliance. Using Zenprise, customers can reduce their mobile TCO costs by over 25 percent, increase customer service levels by over 75 percent and ensure corporate compliance rates of 100 percent. Supported smartphone platforms include BlackBerry®, iPhone, Palm, Windows Mobile and Android devices. Founded in 2003, Zenprise is headquartered in Fremont, California and is privately held with funding from investors Bay Partners, Ignition Partners, Mayfield Fund, and Shasta Ventures. Zenprise's executive and product teams bring enterprise software experience from companies such as Mercury, EDS, Zambeel, Bay Networks, and Loudcloud. For more information, go to www.zenprise.com.