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ENTERPRISEDB (EDB) POSTGRES (PGS) ADVANCED SERVER SUPPLEMENTAL PROCEDURES

Version 2, Release 1

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Developed by EnterpriseDB and DISA for the DoD

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1. TECHNOLOGY IMPLEMENTATION CONSIDERATIONS

1.1 PEM Thick Client Alert ShutdownDB Full Audit Log

- Open PEM Thick Client.
- Verify you are logged on to the PEM server. The PEM logon button should be grayed out and non-clickable:



• In the "Global Overview" tab, verify that the DB wanting to alert against is being monitored. Should see it with a status of "UP":

| 🖌 📻 Dependencies 🛛 📻 Dependents 🖉 📓 Global Overview 🗵 | | | | | | | | | |
|--|--------------|----------------------|-----------------|----------|------------|---------|-----------|--------------|----------------|
| Giobal Overview 😁 | | | | | | | | | |
| Enterprise Da | shboard | | | | | | | - | |
| | | s | tatus | | | | | | |
| | 1.00 | | | | | | | | |
| | 0.80 | | | | | | | | |
| | 0.60 | | | | | | | | |
| | € 0.40 | | | | | | | | |
| | 0.20 | | | | | | | | |
| | 0.20 | | | | | | | | |
| | 0.00 | Agents Up | Agents Down | | Servers Up | | Servers I | Down | |
| Agent Status | | | | | | | | | |
| | | | | | | | | | |
| Blackout | ÷ | Name | ≑ Status | + Alerts | Version | n ‡Proc | esses | Threads | CPU Utilie |
| Image: Image: Ima | Postgres Ent | erprise Manager Hos | UP | 0 | 6.0.0 | | 34 | 160 | |
| 4 | | | | | | | | | Þ |
| | | | | | | | | | |
| Postgres Server Status | | | | | | | | | |
| | | | | | | | | | |
| Blackout | \$ | Name | \$ Status | ¢ Conr | actions | Alerts | \$ | | |
| | Postgres Ent | erprise Manager Serv | er UP | | 8 | 0 | Enterp | riseDB 9.5.2 | .7 on x86_64-p |
| 4 | | | | | | | | | • |

- Click on the agent in the tree on the left to highlight.
- Select Management >> Probe Configuration from the menu.

• This will open the following dialog:

| O States Enterprise Manager | | | | | | |
|--|--|---|--|--|--------------------|--|
| Eile Edit Plugins View Management Tools Help | | | | | | |
| Object browser | Audit Manager <u>C</u> apacity Manager Log Manager | | 🕞 🌵 🔚 - I 🄇 | | 2 | |
| Server Groups PEM Server Direct Postgres Entern | Package Deployment Postgres Expert Postgres Log Analysis Expert | Probes | X Probe Configuration | 1 | | |
| Totagies interp Databases (3) Tablespaces (4) | SQL Profiler Streaming Replication Tuning Wizard | CPU Usage Disk Busy Info | 5 Minutes Yes 5 Minutes Yes | 180 days | | |
| Image: Second sec | Auto Discovery Queue Server Startup Queue Server Shutdown | Disk Space IO Analysis Load Average Memory Usage | 30 Minutes Yes 30 Minutes Yes 5 Minutes Yes 5 Minutes Yes | 180 days 180 days 180 days 180 days | | |
| Postgres Enterp | Dashboards Manage Charts Manage Dashboards | Network Statistics OS Information | 30 Minutes Yes 30 Minutes Yes | 180 days 180 days | | |
| | <u>C</u> opy Probe Configuration <u>C</u> ustom Probes <u>P</u> robe Configuration | Change Probe Options Interval | 🗌 Default | | | |
| | Alerting Alert Templates <u>C</u> opy Alerts | Enabled? | 0 Minutes 0 • Default O Yes | Seconds | ¢ CPU Utili: ▶ | |
| | Server Postgres Server Status | Data Retention | Default Day(s) | | | |
| | Blackout ¢ | Help | | K Cancel | 7 on x86_64-r ▶ | |

- Select the "Disk Space" row in the Probe Configuration dialog.
- Uncheck "Default" and change the interval to the interval desired (10 seconds was picked for testing).
- Click the "Yes" button by "Enabled".
- Click the "Change" button and notice that it updates the values in the "Disk Space" row above.
- Click "OK" to dismiss the dialog.

PEM has been configured to probe for disk space alerts every 10 seconds; now an alert needs to be created for the probe.

- Select Management >> Alerting.
- Enter "Audit Log Full" in the Definition Name field.
- Select "Disk Consumption Percentage" from the Template dropdown.
- Set Comparison Operator to ">" (greater than).
- Set the Threshold alerts to 95, 96, and 97.
 - All thresholds have general alerts; the 96/97 will not really be used. The DB will shut down when the threshold hits 95%.
 - Additional alerts can be configured to warn against the shut down before this alert actually shuts down the server.
- Set the Mount Point to be the mount point where the audit log is stored.

IMPORTANT NOTE: This must be the actual mount point, not just any directory. For example, if the audit log is just in the data directory and the data directory is in a /var mount

point, then just use "/var" for the mount point, not the entire directory to the audit log. If a separate mount point has been created for the audit log, for example: /edb_audit, use the /edb_audit mount point. All mount points can be seen via the Linux command "df -k".

- Click the "Notification" tab.
- Select the checkbox by "Alert Alerts" for email notification (if desired).
- Select the "Execute Script" checkbox.
- Enter this for the script: "systemctl stop ppas-9.5.service"

| • • • • | | 2 | Alerting | | | | |
|-----------------------------------|-------------|--------------|----------------|--------------|--------------------|-------------|------------------|
| Alert List | Definition | Notificatio | on | | | | |
| Alert Name | Name | Audit Log | Full | | | | |
| Memory used percentage | Template | Disk cons | umption per | centage | | | |
| Swap consumption percentage | | Percentage | e of disk cons | sumed. | | | A |
| Most used disk percentage | Description | Required r | arobe(s): disl | snace | | | _ |
| Agent Down | Alert Optio | nequirea p | nobe(s). uas | L_Space | | | |
| 5 | Frequency | .15 | ✓ Default | 1 | Minutes | | |
| | Enabled? | | O Vac |) - | | | |
| | Enableus | | • res () | NO | | | |
| | History Re | tention | ✓ Default | 30 | | | Day(s) |
| | Compariso | n Operator | < | | • | | |
| | Threshold | Values | Low 95 | | Medium 96 | High 97 | |
| | | | | | 1 | | |
| | Parameter | Options Name | | | Value | | |
| | 1 agent | Ivanie | ; | Postgres Ent | terprise Manager H | lost | |
| | 2 moun | i point | | /var/lib/ppa | as/9.5/data/edb_a | udit | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| <u>A</u> dd/Change <u>R</u> emove | • | | | | | | |
| 10 Help | | | | | | <u>е</u> ск | <u>} C</u> ancel |
| | | | | | _ | | |

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| 00 | X Alerting | | | | | | |
|--|--|--|--|--|--|--|--|
| Alert List | Definition Notification | | | | | | |
| Load Average per CPU Core (5 mir Memory used percentage | Email Notification All Alerts <default></default> | Trap Notification Send Trap O v1 O v2 | | | | | |
| Swap consumption percentage Most used disk percentage Package version mismatch | Low Alerts <default> Med Alerts <default></default></default> | Low Alert | | | | | |
| Agent Down | High Alerts Cefault> | 🗌 High Alert | | | | | |
| | Nagios Notification Submit passive service check result to Nagios | | | | | | |
| | Script Execution Execute Script Execute on alert cleared | 1 | | | | | |
| | Execute script on: O PEM Server O Monito Code: | ored Server | | | | | |
| | systemctl stop ppas-9.5.service | | | | | | |
| Add/Change <u>R</u> emove | | | | | | | |
| Help | | <u>←</u> <u>○</u> K <u>Cancel</u> | | | | | |
| Please verify threshold values and operator | | | | | | | |

- Click the "Add/Change" button on the left of the dialog and notice that the "Alert Log Full" alert name now shows up in the list on the left.
- Click the "OK" button to dismiss the dialog.
- Once the alert has fired, notice will appear in the alerts dashboard that the DB has been shut down:

