Monitoring IT-DES services using Oracle Enterprise Manager

Openlab Minor Review Meeting

15 December 2009

Lucia Moreno Lopez,
Juan Manuel Guijarro
**Goal:** To centralize and standardize the monitoring of the group.

- CERN active directory Monitoring
- Infrastructure Monitoring (NAS, hosts)
- Host open ports Monitoring
- Database Monitoring
- Oracle Enterprise Manager
- Web applications Monitoring
- etc, etc, etc…
OEM – Service tests and beacons

- Services already migrated:
  - J2EE Public Service
  - CERN Central SVN Service
  - TWiki - Web-based collaboration platform
  - EDMS - Engineering and Equipment Data Management Service
  - AIS - Administrative Information Services at CERN
OEM – Service tests and beacons

- **Ongoing migration:**
  - Feed from OEM to CERN SLS (Service Level Status)
Example of the steps followed to create the services:

- J2EE Public Service Beacon A
- J2EE Public Service Beacon B
- J2EE Public Service System
- J2EE Public Service Test A
  - Web transaction type
- J2EE Public Service Test B
  - Port Checker type
- J2EE Public Service Test C
  - LDAP type
- OEM service tests – Used test types:
  - Web Transactions:
    - ✓ SSO: CERN authentication
    - ✓ Form authentication: AIS login
    - ✓ Realm: Tomcat Realm
  - JDBC SQL Timing
  - LDAP
  - Port Checker
  - Custom script
**IT-DES Services Dashboard Report**

<table>
<thead>
<tr>
<th>Service</th>
<th>Status</th>
<th>Performance</th>
<th>Components</th>
<th>Service Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIS_PROD - AISLOGIN</td>
<td>Up</td>
<td>34.00 Perceived Time per P...</td>
<td>Up 2 Up</td>
<td>100.00%</td>
</tr>
<tr>
<td>AIS_PROD - AISMEDIA</td>
<td>Up</td>
<td>34.00 Perceived Time per P...</td>
<td>Up 1 Up</td>
<td>99.30%</td>
</tr>
<tr>
<td>AIS_PROD - BAAN</td>
<td>Up</td>
<td>35.00 Perceived Time per P...</td>
<td>Up 1 Up</td>
<td>100.00%</td>
</tr>
<tr>
<td>AIS_PROD - CET</td>
<td>Up</td>
<td>32.00 Perceived Time per P...</td>
<td>Up 1 Up</td>
<td>99.65%</td>
</tr>
<tr>
<td>AIS_PROD - CFU</td>
<td>Up</td>
<td>28.00 Perceived Time per P...</td>
<td>Up 1 Up</td>
<td>100.00%</td>
</tr>
<tr>
<td>AIS_PROD - COCKPIT</td>
<td>Up</td>
<td>33.00 Perceived Time per P...</td>
<td>Up 1 Up</td>
<td>99.65%</td>
</tr>
<tr>
<td>AIS_PROD - CRA</td>
<td>Up</td>
<td>33.00 Perceived Time per P...</td>
<td>Up 1 Up</td>
<td>100.00%</td>
</tr>
<tr>
<td>AIS_PROD - EDH</td>
<td>Up</td>
<td>37.00 Perceived Time per P...</td>
<td>Up 1 Up</td>
<td>98.95%</td>
</tr>
</tbody>
</table>

OEM – Service tests and beacons
OEM – Service tests and beacons

IT-DES Services Dashboard – Service PPTLHC

General
- Current Status: Up
- Availability (%): 99.88
- Down Time (minutes): 1.75
- Unmonitored Time (minutes): 6.17

Availability
- AIS_PROD - PPTLHC
- APT
- PPTLHC - xsq1
- ATLAS OTP
- PPT EGEE3
- PPT ETC5
- PPT ETC52
- PPT SLHCPP
- PPTCHG
- PPTCHG - xsq1
- PPTLHC
### IT-DES Services Notification Rules

Notification rules allow you to choose the targets and conditions for which you want to receive notifications from Enterprise Manager. These notifications include e-mail, SNMP traps and running custom scripts.

<table>
<thead>
<tr>
<th>Select</th>
<th>Name</th>
<th>Owner</th>
<th>Description</th>
<th>Public</th>
<th>Subscribe (Send E-mail)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWiki service notification rule</td>
<td>SYSMAN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SVN service notification rule</td>
<td>SYSMAN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>OMS service initialization errors</td>
<td>SYSMAN</td>
<td>System-generated notification rule for monitoring OMS service initialization errors</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>J2EEPS service notification rule</td>
<td>SYSMAN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AIS_PROD service notification rule</td>
<td>SYSMAN</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
OEM – Service tests and beacons

- IT-DES Services Notification Rules

Message:

From: Enterprise Manager [oracle.support@cern.ch]  
To: service-j2ee (Service email address for J2EE Public Service)  
Cc:  
Subject: EM Alert: Clear:J2EEPS service - Containers hosting user apps from J2EEPS beacon dbsrvd242 is up.

Target Name=J2EEPS service  
Target type=Generic Service  
Host=  
Occurred At=Dec 15, 2009 7:39:53 AM CET  
Message=Containers hosting user apps from J2EEPS beacon dbsrvd242 is up.  
Metric=HTTP Transaction Status  
Metric value=1  
Transaction Name=Containers hosting user apps  
Beacon Name=J2EEPS beacon dbsrvd242  
Severity=Clear  
Acknowledged=No  
Notification Rule Name=J2EEPS service notification rule  
Notification Rule Owner=SYSMAN
Conclusion

- High availability monitoring by using various beacons to monitor each service
- Better understanding of the infrastructure by using the Service-System concept
- Easy creation of Web transactions thanks to the Replay/Record Web Transaction features
- Single point to monitor the database infrastructure and services.