

Axibase Fabrica

v199b

Date: 14 Mar 2008

Agenda

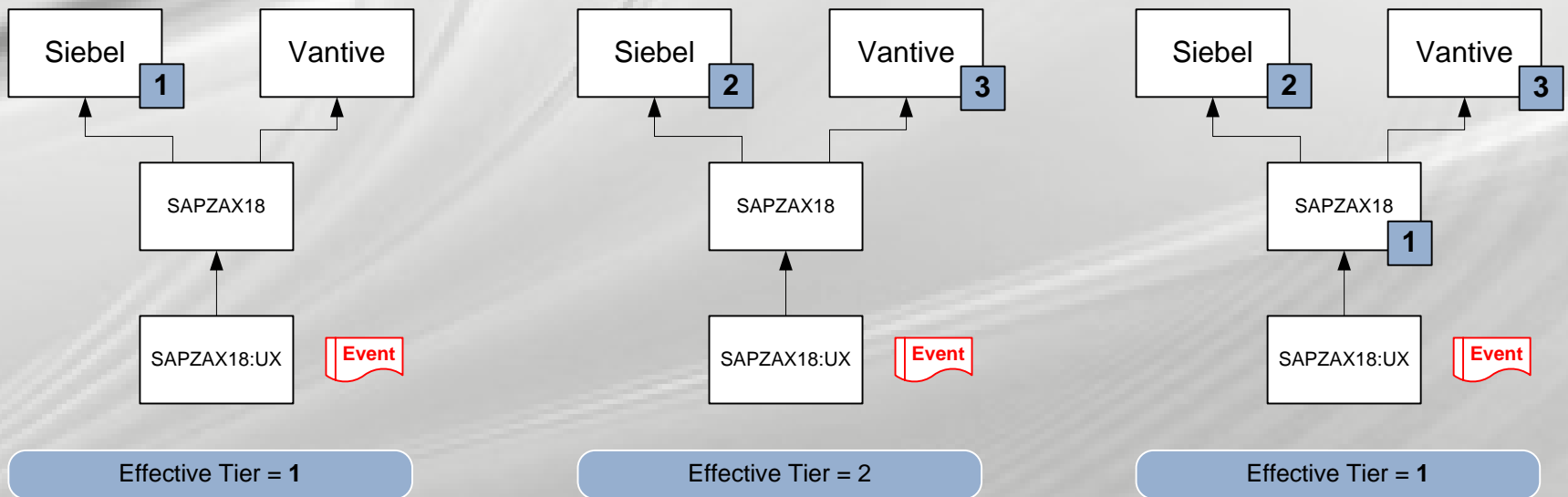
- **Event enrichment**
- Historical event reporting
- Event notifications
- Event acknowledgements

Event Enrichment

- Problem: Filter events in the OMNIBus console by tier (priority) and administrative status (maintenance).
- Solution:
 - Add Tier and AdminStatus columns to OMNIBus alert table. Re-instrument EIF probe.
 - Provide operations support an interface in Fabrica to define Tier and AdminStatus properties for selected agents, hosts, groups, applications, and situations.
 - Fabrica intercepts incoming ITM events and inserts tier and admin_status slots into the event prior to forwarding it to the Object Server.
 - OMNIBus AEL views are filtered by Tier and AdminStatus. Example: 'Tier 1 Non-Maintenance Alerts'.

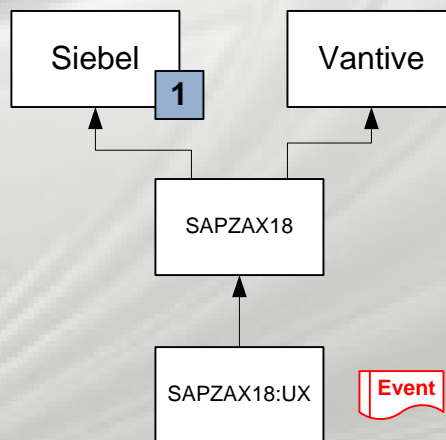
Event Enrichment – Effective Tier

- Tier is a positive integer representing a priority of an event source ranked in descending order (Tier 1 is more important than Tier 2).
- Effective Tier is the minimum positive Tier value for parent objects (such as resource groups and applications) with which the Tivoli agent is associated.
- Situation Tier (if defined) overrides Tier values at the agent/host level.

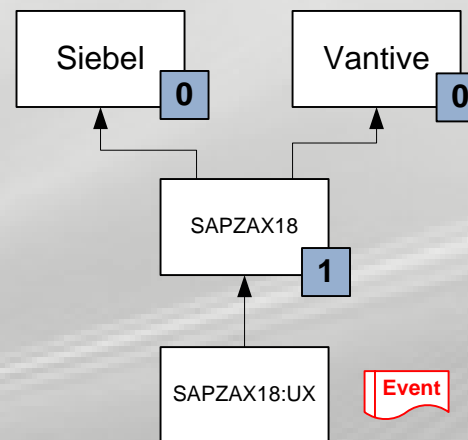


Event Enrichment – AdminStatus

- AdminStatus is a 0|1 bit representing administrative status of the event source. When AdminStatus is set to 1, the agent/host/group is in the maintenance mode.
- Effective AdminStatus is the result of disjunction (OR) operation on AdminStatus value for parent objects (such as groups and applications) with which the agent is associated.



Effective AdminStatus = 1



Effective AdminStatus = 1

Event Enrichment – Configuration

- To define a Tier for a resource, navigate to resource properties page -> 'Configuration' tab. Select 'Tier' = {1,2,3..N}. Click [Save].

The screenshot shows a web-based configuration interface. At the top, there is a navigation bar with tabs: Dashboard, Events, Resources, Warehouse, Reports, Security, Status, Availability, and Account. The 'Resources' tab is active. On the left, a tree view lists various resources, with 'CUPNTWAS01' selected and highlighted in blue. Below the tree is a search box. The main area is titled 'Configuration' and contains several fields: 'Admin Status' (set to 'OK'), 'Tier' (set to '1'), and 'Notification' (with sub-fields for 'Subscribers', 'Delay', and 'Expression'). There are also 'Custom Properties' fields and a 'Save' button. At the bottom, there is another navigation bar with tabs: Overview, Events, Reports, Groups, Availability, and Configuration. Two orange arrows point from the 'CUPNTWAS01' resource in the tree to the 'Tier' dropdown and the 'Configuration' tab in the bottom navigation bar.

Event Enrichment – Configuration

- To define Tier for a group of servers, open resource properties (as shown on previous page) or application Model editor. Select a model (e.g. Siebel). Click on 'Options' icon. Set Tier value, close Options window, click [Save] icon.

The screenshot displays the 'Model Editor' interface. On the left, a navigation menu lists various administrative tools, with 'Models' highlighted. The main area shows the 'Model Editor' for 'Siebel'. The 'Options' icon is highlighted with an orange arrow. The 'Configuration' window for 'Siebel' is open, showing the 'Tier' dropdown set to '1'. The 'Admin Status' dropdown is set to 'Off'. The 'Notification' section includes fields for 'Subscribers', 'Delay', and 'Expression'. The 'Custom Properties' section has two empty text boxes. A 'Save' button is located at the bottom of the configuration window. The browser window title is 'http://axicore - Siebel - Configuration - Mozilla Firefox'.

Event Enrichment – Configuration

- To define Tier for a particular situation, login with administrative privileges, open [Admin] -> 'TEMS Tools' -> 'Situation View', click on situation name, select Tier value from a drop-down list and click 'Submit'.

The screenshot shows a web browser window with the address bar displaying 'http://maps.axibase.com - NT_Available_Bytes_Critical Situation - Mozilla Firefox'. The page content is organized into three sections:

- Situation:** NT_Available_Bytes_Critical
- Properties:** A table-like structure showing:
 - Auto Start: Yes
 - Interval: 1 min
 - Modified: 31-Jan-08 13:43:32 by SYSADMIN
 - Report: [Open](#)
- Formula:** IF Available_Bytes < 40000000 AND Available_Bytes > 0
- Configuration:** A form with a 'Message' field containing 'Low memory: \$Available_Bytes\$' and a 'Tier' dropdown menu currently set to '2'. A 'Submit' button is located to the right of the dropdown.

The 'Tier' dropdown menu is highlighted with an orange border. The browser's status bar at the bottom shows 'Done' and standard navigation icons.

Event Enrichment – Configuration

- To place a group of servers into the maintenance mode, navigate to its overview page. Follow the same steps as for setting Tier.
- Maintenance mode is propagated to group members instantly.
- To remove resource from the maintenance mode, set its Admin Status to 'OK'. Also set Admin Status of parent groups to 'OK'.

Event Enrichment – Reports

- Click on 'Resources' tab, enter a query into the search box:
 - **select tier, p_tier, ip, type, id from src where tier > 0**
list effective and defined tier for all resources
 - **select adminstatus, p_adminstatus, ip, type, id from src where adminstatus > 0**
list effective and defined adminstatus for all resources
- tier is effective tier value, p_tier is defined tier value (submitted by users or via API)
- adminstatus – is effective maintenance status, p_adminstatus – defined maintenance status (submitted by users or via API)
- Click on export to generate the report in CSV format
- All reports are executed against an in-memory object repository

Event Enrichment – Sample Report

Axibase Fabrica

Evaluation key expires 16 Mar 2008

User: Administ

Dashboard Events **Resources** Warehouse Reports Security Status Availability Acc

- ⊕ Axibase Exchange
- ⊕ Axibase WMI Performance
- ⊕ CAM WAS Server
- ⊕ Itcam Websphere Agent
- ⊕ Linux System
- ⊕ Linux OS
- ⊕ Windows NT
- ⊕ NT System
- ⊕ Tivoli Monitoring Servers

Add Group

Export

tier	p_tier	ip	type	id
1		192.168.0.115	agent	AppSrv01\$server1:CUPNTWAS01:KYNS
2	2	192.168.0.110	host	AXIBOOK
3	3	192.168.0.107	host	CUPITMNT20
3		192.168.0.107	agent	CUPITMNT20:20
3		192.168.0.107	agent	CUPITMNT20:21
3		192.168.0.107	agent	CUPITMNT20:22
3		192.168.0.107	agent	CUPITMNT20:SY
3		192.168.0.107	agent	CUPITMNT20:Warehouse
1	1	192.168.0.109	host	CUPNTWAS01
1		192.168.0.109	agent	CUPNTWAS01:22
1		192.168.0.109	agent	CUPNTWAS01:31
3		192.168.0.107	agent	HUB_CUPITMNT20
2		192.168.0.110	agent	Primary:AXIBOOK:NT
3		192.168.0.107	agent	Primary:CUPITMNT20:NT
1		192.168.0.115	agent	Primary:CUPNTWAS01:KYNA
1		192.168.0.109	agent	Primary:CUPNTWAS01:NT

select tier, p_tier, ip, type, id from
src where tier > 0

Search

Event Enrichment – EIF

- Tier (tier) and AdminStatus (admin_status) slots are inserted into EIF only if Tier or AdminStatus value is a positive integer and only when the situation is raised (situation_status = 'Y').
Acknowledgement and Close events are forwarded into Object Server 'as is'.

```
ITM_NT_Paging_File;source='ITM';sub_source='Primary:CUPITMNT20:NT';cms_hostname='cupitmnt20.vm2
.axibase.com';cms_port='3661';integration_type='N';master_reset_flag='';appl_label='';situation
_name='NT_Paging_File_Critical';situation_type='S';situation_origin='Primary:CUPITMNT20:NT';sit
uation_time='01/23/2008 18:26:34.002';situation_status='Y';hostname='CUPITMNT20';
admin_status=1;tier=1;origin='192.168.0.107';adapter_host='CUPITMNT20';severit
y='CRITICAL';date='01/23/2008';msg='NT_Paging_File_Critical[(%_Usage>=80 AND
Pagefile_Name_U<>N"_Total" ) ON Primary:CUPITMNT20:NT ON \??\C:\pagefile.sys (%_Usage=87
Pagefile_Name_U=\??\C:\pagefile.sys
)]';situation_displayitem='\??\C:\pagefile.sys';sub_origin='\??\C:\pagefile.sys';pct__usage='87
';pct__usage_peak='90';pagefile_name='\??\C:\pagefile.sys';pagefile_name_u='\??\C:\pagefile.sys
';server_name='Primary:CUPITMNT20:NT';timestamp='1080123182632781';situation_eventdata='~';END
```

Event Enrichment – Configuration

- Open Adapter Editor, click 'Advanced Properties', set 'Add Tags' to TRUE. Save adapter.

TEMS Settings	
Host	<input type="text" value="cupitmnt20"/>
Port	<input type="text" value="1920"/>
User	<input type="text" value="sysadmin"/>
Password	<input type="password" value="*****"/>
EIF Port	<input type="text" value="5529"/>
TEC Host	<input type="text"/>
TEC Port	<input type="text" value="5529"/>
TEC Log Path	<input type="text"/>
Add Tags	<input type="text" value="True"/>

Event Enrichment – API

- setAdminStatus method provides an interface to set resource and models into Maintenance mode using Fabrica HTTP API
- status 1 enables Maintenance Mode, status 0 disables
- Examples:
 - set server SERVER into maintenance mode:
http://FABRICA_SRV/pub/api.srv?method=setAdminStatus&status=1&id=SERVER
 - remove server SERVER from maintenance mode:
http://FABRICA_SRV/pub/api.srv?method=setAdminStatus&status=0&id=SERVER
 - set servers SERVER1 and SERVER2 into maintenance mode:
http://FABRICA_SRV/pub/api.srv?method=setAdminStatus&status=1&id=SERVER1;SERVER2
 - set group of servers SRV_GROUP into maintenance mode:
http://FABRICA_SRV/pub/api.srv?method=setAdminStatus&status=1&id=SRV_GROUP
 - set model Siebel into maintenance mode (using model_name parameter):
http://FABRICA_SRV/pub/api.srv?method=setAdminStatus&status=1&model_name=Siebel

