

Infrastructure at your Service.

How to monitor Middleware targets

dbi services



Infrastructure at your Service.

About me

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Who we are dbi services

Experts At Your Service

- > 30 specialists in IT infrastructure
- > Certified, experienced, passionate

Based In Switzerland

- > 100% self-financed Swiss company
- > More than CHF 3 mio. in sales

Leading In Infrastructure Services

- > Over 70 customers in CH, D, & F
- > 30 SLAs **dbi FlexService** signed



Agenda

1. Incident
2. Event
3. Monitoring middleware components
4. Out-of-the-Box monitoring
5. Demo
6. Some metrics

Incident

It is a situation or issue you need to act on

- > It impacts your business applications
- > Significant event (Managed server is down)
- > Set of related significant events
 - > CPU high + memory high = load is high

Enterprise Manager provides incident management features.

- > Assign incident ownership,
- > Track incident
- > Resolution status
- > Set incident priority
- > Set incident escalation level

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Event Concept

It is a significant occurrence that can be detected

Notify interested parties or take action on

Event has very specific attributes that allow the event

- > Identification
- > Categorization

Attributes

- > Type
- > Severity
- > Entity on which the event is raised
- > Message
- > Timestamp
- > Category

Event Types

Before Enterprise Manager 12c

- > Monitor and manage by discrete signals
- > Notified you by raising a metric alert as a result of threshold violations

Enterprise Manager 12c

- > Several types of event conditions
 - > Metrics
 - > Target availability
 - > Compliance standard rule violation
 - > High Availability
 - > Job status change
 - > JVM Diagnostics threshold violation
 - > Service Level Agreement
 - > aso

Event Severity

Fatal

- > Highest level severity
- > Only applies to the Target Availability event type

Critical

- > Immediate action is required
- > Particular area not functional or indicative of imminent problems

Warning

- > Attention is required in a particular area
- > The area is still functional

Event Severity

Advisory

- > Particular area does not require immediate attention
- > Caution is recommended
- > Used primarily for compliance standards

Informational

- > A specific condition has just occurred

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Monitoring middleware components

Oracle Fusion Middleware components

- > WebLogic server domains, clusters, and managed servers
- > Oracle SOA Suite
- > Oracle Business Intelligence
- > aso.

Oracle Application Server Components (10g)

- > Oracle application servers
- > OC4J
- > Oracle HTTP servers
- > aso.

Monitoring middleware components

Non-Oracle middleware components

- > WebSphere application server
- > JBoss application server
- > Apache tomcat
- > Apache HTTP server
- > Microsoft Exchange server
- > Microsoft Internet Information services
- > Microsoft Active Directory
- > aso.

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Out-of-the-Box monitoring

Out-of-the-box metrics

- > Set of pre-defined performance metrics
- > For each Middleware target
- > Metric data is collected and stored in the management repository
- > See Oracle Fusion Middleware Metric Reference Manual 12c Release 1 (12.1.0.2.0) - E25158-05

Analyzing historical performance

Setting metric thresholds for alert notifications

Monitoring templates

Managing and creating blackouts

Out-of-the-Box monitoring

Why using Cloud Control for monitoring

- > One tool to monitor several technologies
- > Use historical data to set the correct thresholds
- > Incident management

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Some metrics

Monitoring but not systematic notifications

First metrics to set using percentage

Some metrics are not available

- > e.g. JMS queue destination current consume or message count
- > Integrate Metric Extensions

Some metrics

Datasource

- > Datasource - Successful Connections (%)
- > Datasource - Unavailable Connections
- > Datasource - Connection Requests Waiting
- > Datasource - Failed Waiting Connection Requests (per minute)
- > Datasource - State

Enterprise Java Bean

- > EJB Module - EJB Cache Misses (per minute)
- > EJB Transaction - Bean Transaction Commits (%)

Some metrics

JMS Destination - Messages Pending Count

JTA:

- > JCommitted Transactions (%)
- > Transaction Rollbacks (per minute)
- > Transaction Rollbacks due to Application Error (per minute)
- > Transaction Rollbacks due to Resource Error (per minute)
- > Transaction Rollbacks due to System Error (per minute)
- > Transaction Rollbacks due to Timeout (per minute)

Some metrics

JVM:

- > CPU Usage (%)
- > Heap Usage (%)
- > JVM ThreadContention:
- > Blocked Count

JVM Threads:

- > Deadlocked Threads

Response:

- > Status

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Any questions? Please do ask.

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We look forward to working with you!