Tackle alert fatigue with Event Compression and Dynamic Runbooks

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Agenda

Managing alert fatigue

Event Compression

Dynamic Runbooks

Resources

Managing alert fatigue

As enterprises grow, alerts increase causing event fatigue

How do you work smarter instead of just harder?

Solution:

1. **Create incidents** for actionable events
2. **Compress events** to reduce volume of incidents
3. **Use Dynamic Runbooks** to triage and resolve incidents in a streamlined way

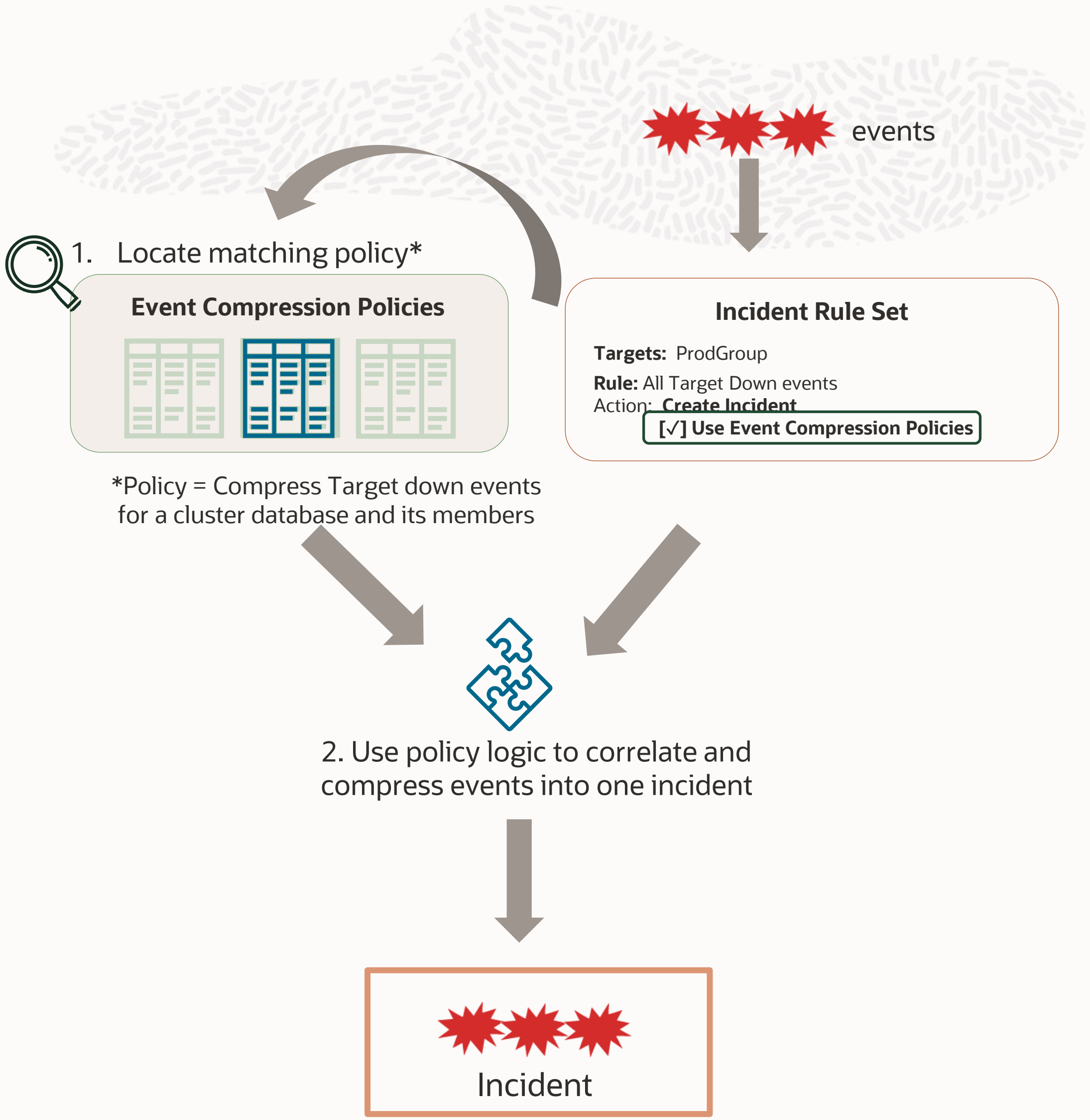
Event Compression

Compress events into Incidents

Reduces incident volume by compressing related events into incidents

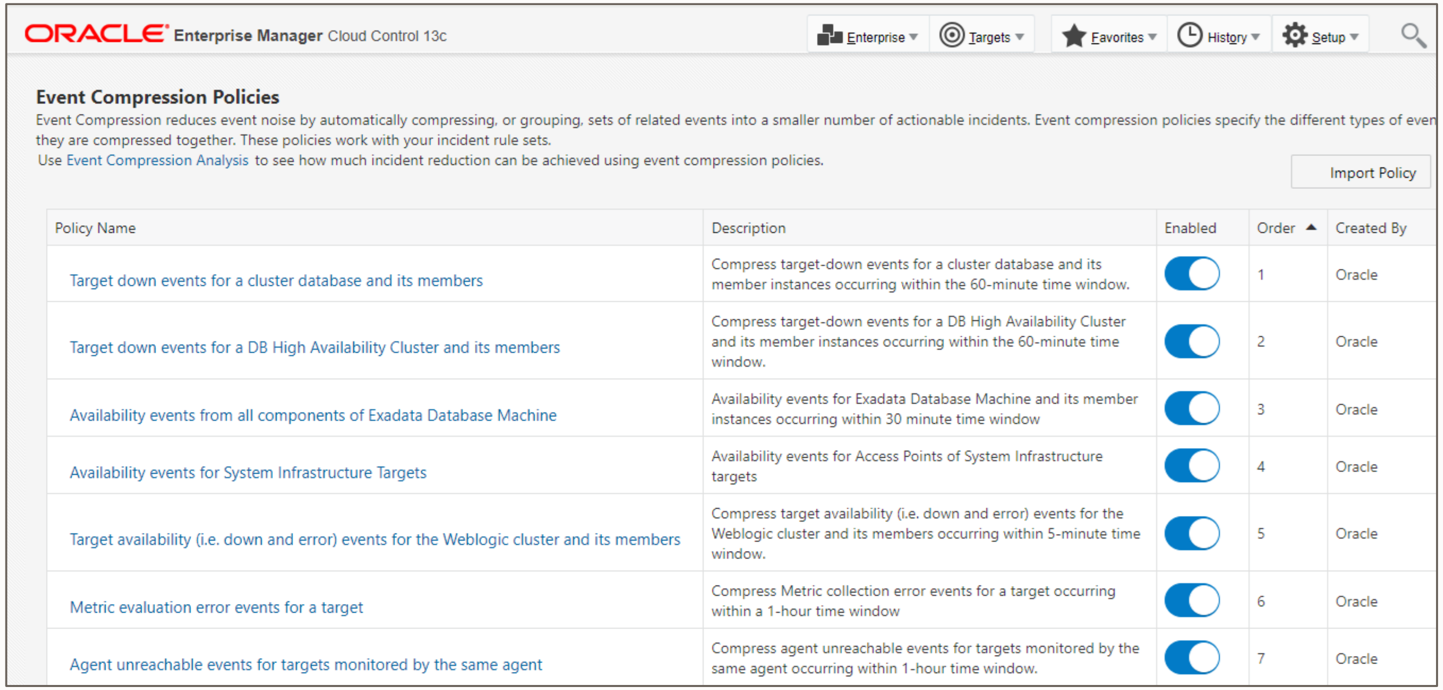
How to set it up:

- **Event Compression Policy**
  - Identifies…
    - WHAT set of events should be grouped together
    - HOW they should be grouped together
  - Oracle-provided event compression policies
  - You can create new policies
- **Incident Rule Set**
  - Identify events and create an incident using Event Compression Policies

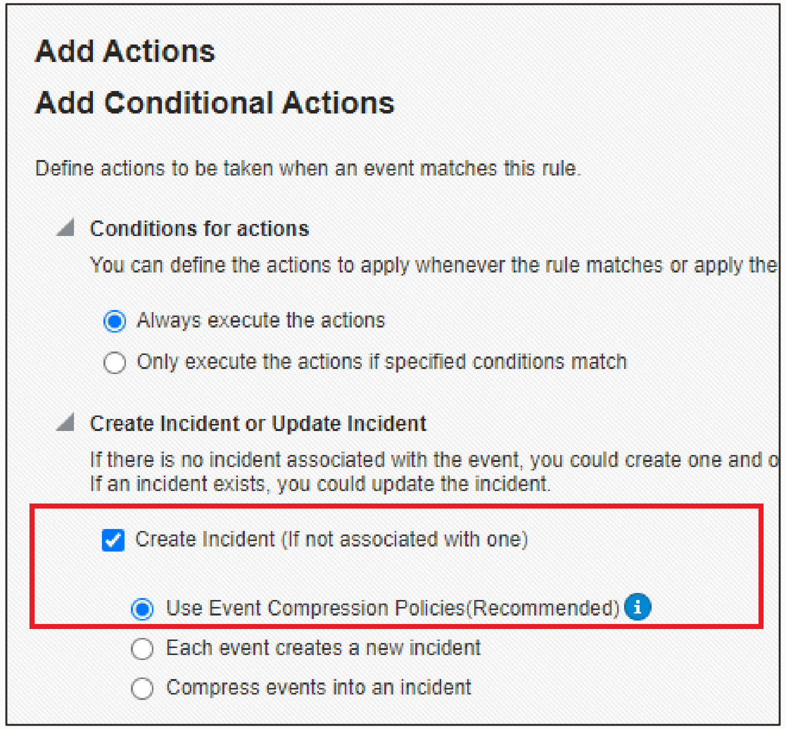


Event Compression Policies and Incident Rule Sets

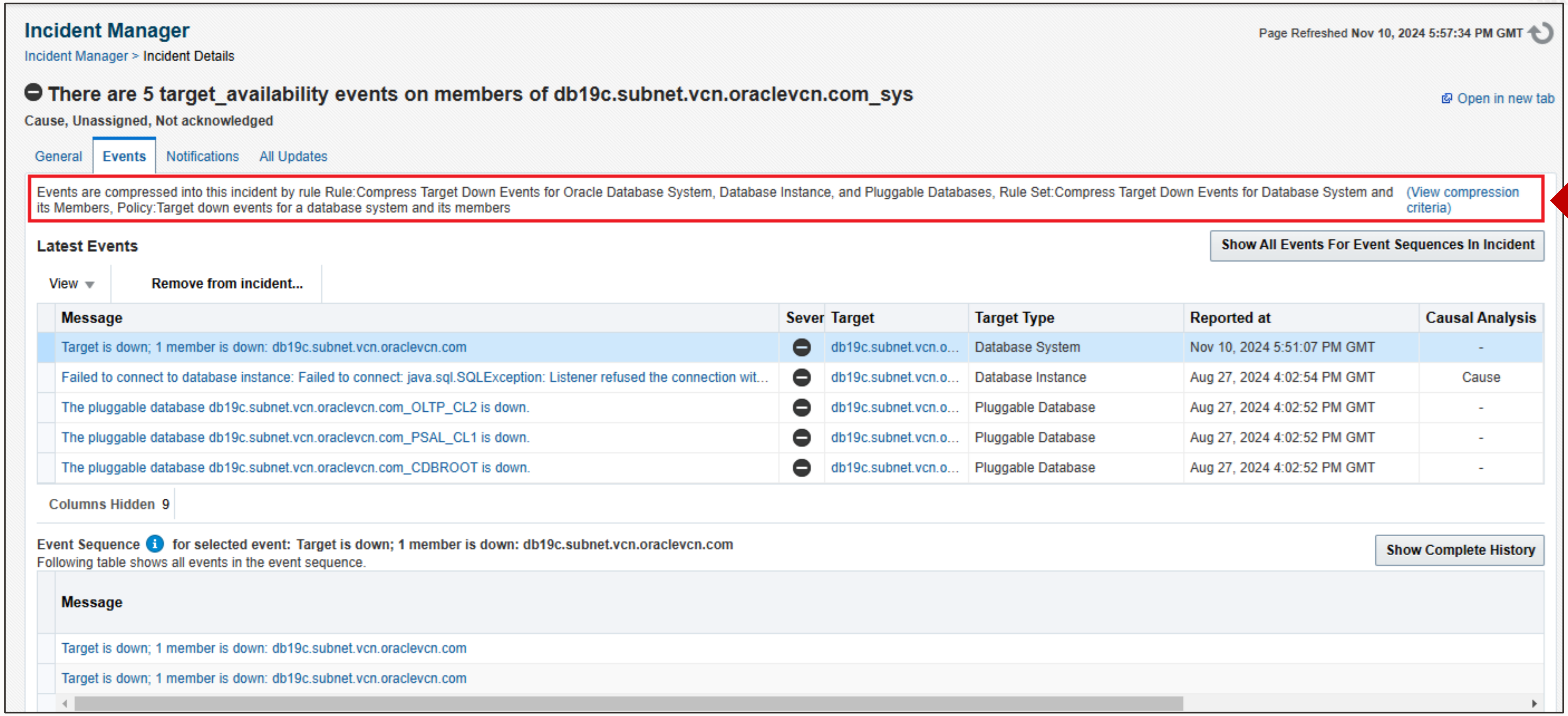
Setup (menu) → Incidents → Event Compression Policies



Event Rule with Event Compression enabled



Incident with compressed events



Event Compression Policy and *Incident Rule Set* used for compression

Creating your own Event Compression Policies

What types of events can I compress together?

Multiple events of the **same event type**

Example:

RAC and RAC instances are down

Events:

- *Target Availability* events on RAC and its RAC instances

Event Compression Policy:

•All **Target Availability (down) events** from the (RAC) cluster database and its RAC instance targets

Multiple events across **different event types**

Example:

In an Exadata, InfiniBand switch goes down

Events:

- *Target Availability* (down) event(s) on InfiniBand Switch
- *Metric Alerts* on each compute node connected to InfiniBand Switch
- *Metric Alerts* on each storage server connected to InfiniBand switch

Event Compression Policy:

All **Target Availability (down) events** and all **Metric Alerts events** from targets from the same Exadata system

Demo: Creating and Using Event Compression Policies

Handling *Agent Unreachable* event scenarios

If there are network outages or load balancer issues causing communication issues between OMS and agents, you may see a large set of *Agent Unreachable* (AUR) events

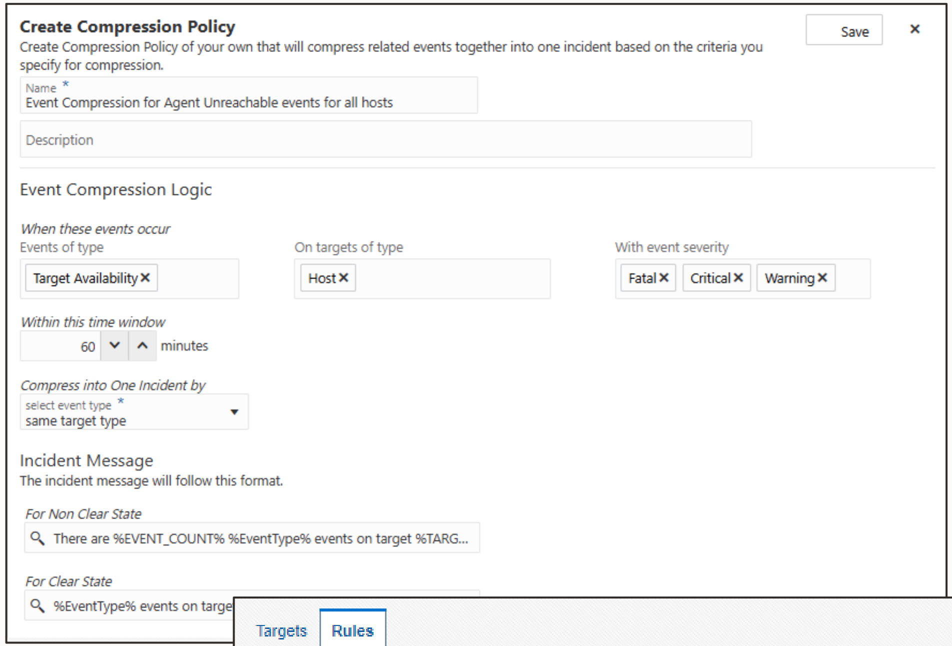
- *Agent Unreachable* means OMS and agent cannot communicate with each other
- AUR events generated for the agent, host, all targets on the host

Solution:

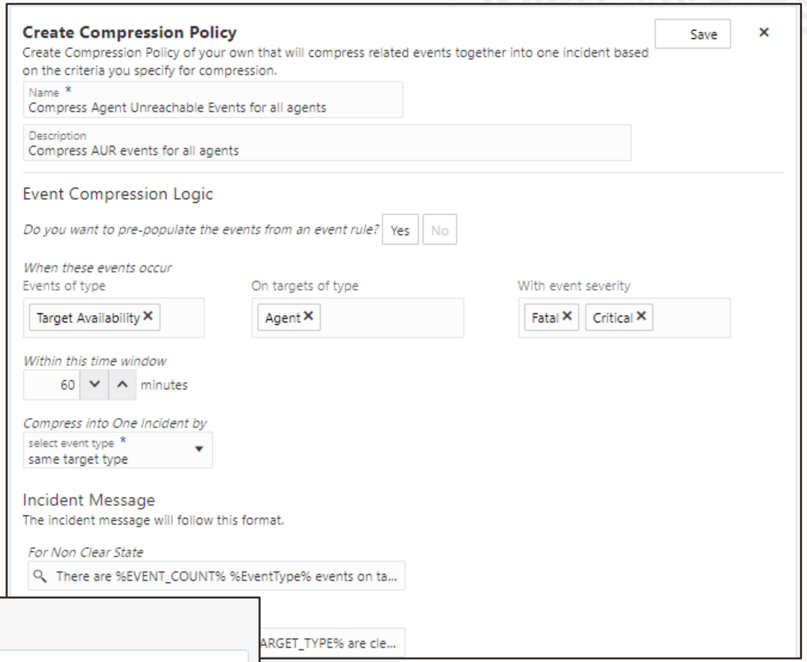
- Prevent generation of AUR events for all non-host targets (database, listener, WebLogic server, etc.)
  - Set OMS property *oracle.sysman.emdrep.target.PublishUnreachableEventsForAll* = FALSE
  - Once property is set, AUR events will trigger only for the host and agent targets
- Use Event Compression to compress AUR events for agents and hosts
- Example: One team manages all hosts, another team manages all agents
  - Event Compression Policy #1: compress all AUR events **across all hosts** into 1 Incident
  - Event Compression Policy #2: compress all AUR events **across all agents** into 1 Incident
  - Order these policies ahead of ”Agent Unreachable events for targets monitored by the same agent”

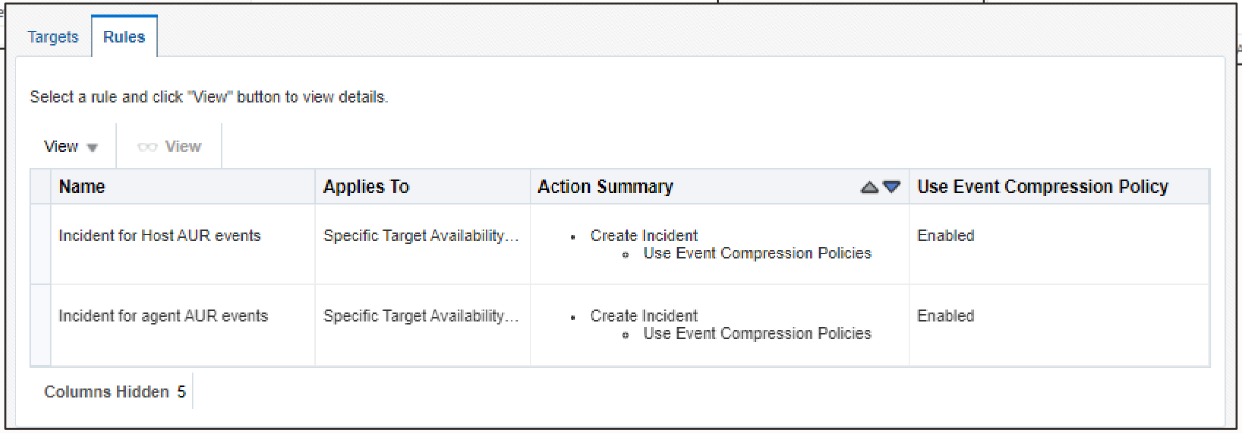
Solution: Event Compression Policies and Incident Rule

Event Compression Policy for AUR events on Hosts



Event Compression Policy for AUR events on Agents





Incident Rule

- Create incident for Host AUR events, use compression
- Create incident for Agent AUR events, use compression

Event Compression Policies and Incident Rule Sets

Additional considerations

Order matters

- Incident Rule Sets are evaluated based on order
- Event Compression Policies are evaluated based on order

Scope of targets in Incident Rule Sets

- Set of events eligible for compression are based on targets in Incident Rule Set

Event Compression Policies

1

2

3

*Policy = Compress all AUR events on all hosts

Incident Rule Set - PROD

Targets: ProdGroup

Rule: All AUR events for host

Action: **Create Incident**

[✓] Use Event Compression Policies

Incident Rule Set – Non-PROD

Targets: **Non-ProdGroup**

Rule: All AUR events for host

Action: **Create Incident**

[✓] Use Event Compression Policies

Incident 1

AUR event –ProdHost3

AUR event -ProdHost1

AUR event –ProdHost2

Incident 2

AUR event –NonProdHost5

AUR event –NonProdHost4

Dynamic Runbooks

Dynamic Runbooks

Enables subject matter experts to capture standard operational procedures in the form of **executable runbooks in EM.** Use it for **incidents** and **metrics** (more to come…)

Create Runbooks

Create Runbook from Incident or Metric

Runbook Draft

Add and Test Runbook Steps

Publish Runbook

Published Runbook

What actions can I do in a Runbook?

Use Runbooks

In *Incident Manager* or *All Metrics*

select Runbook…

Start Runbook Session

Execute Steps in Runbook Session

Dynamic Runbook Steps

Runbook Step Type	Used for…
Note	• Providing instructions, can use markdown syntax • Add link to MOS note [MOS Link Text](MOS:*MOS ID*) • Add link to anywhere [*Link Text*](http//www.somesite.com) • Add link to any EM page [Link Text](relative link to EM page) • Jump to any runbook step
Target SQL	• Running queries, DML, DDL against a target database • Uses Named Credentials (including PAM-integrated credentials)
Repository SQL	Running queries against EM repository views
Metric Data	Showing metric data in a chart for the target or related targets
OS Command	Running synchronous OS command or script against: • Host target • Target's host Uses Named Credentials (including PAM-integrated credentials)

Demo: Using and Creating Dynamic Runbooks

Summary: Managing alert fatigue

Create Incidents	• Create incidents for actionable events
Compress Events	• Reduce incidents by using event compression policies
Use Dynamic Runbooks	• Use Dynamic Runbooks to capture expertise and streamline incident resolution

Q&A
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