Esper JMX

Runtime management for the Esper CEP engine
Esper JMX
What it is

- **Server building blocks**
  - Server side JMX enablement: Esper server plugin behavior, single jar file
  - Exposes CEP Engine, Statements, Named Windows, Listeners and runtime metrics as JMX managed objects for standardized remote access

- **Java Management Extensions (JMX)**
  - A set of industry defined standards and API (Java Specification)
  - To enable runtime management of Java based middleware from external tools – similar to SNMP

- **No proprietary vendor lockin**
  - No code change in your Esper applications
  - The API is fully standardized if you access remotely to managed objects

    ```java
    import javax.management.*;
    ```
  - Esper JMX is JMX / JSR-3 / JSR-160 compliant

- **Very large set of knowledge sources available**
Esper JMX
What it does

- Exposes Esper key components as JMX managed objects
  - Get an exact view on the event processing logic deployed
  - Enables secured, standardized remote access
- Ensure interoperability with existing tools and infrastructure

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Sample Esper JMX use cases
Runtime management for the Esper CEP server

- CEP Engine discovery
- Deployment automation
- Runtime management

EsperJMX
Runtime management

Event Stream connectors & adapters

Event Processing Statements

Named Windows

Esper Continuous processing

Event Query & Causality Pattern Language

Esper core container

Historical data access layer

High-speed high-volume real-time data streams

Output adapters

Subscribers
Esper JMX Configuration

- Full control on ports, security, connectors, managed objects etc
- Esper (server) must add Esper JMX plugin
  - With XML configuration

```xml
<esper-configuration>
  <plugin-loader name="EsperJMX"
    class-name="com.espertech.esper.jmx.client.EsperJMXPlugin">
  </plugin-loader>
</esper-configuration>
```

- With code

```java
JMXEndpointConfiguration jmxConfig = new JMXEndpointConfiguration();
ConnectorConfigPlatform platformConfig = new ConnectorConfigPlatform();
jmxConfig.setConnectorConfiguration(platformConfig);
JMXEndpoint endpoint = new JMXEndpoint(engine, jmxConfig);
endpoint.start();
```
Thank you
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