

XAP 10

Global HTTP Session Sharing



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Agenda

- **Web Application Challenges**
- **Introduce XAP Global HTTP Session Sharing**
- **Application Session Sharing models**
 - Single-Application Session Sharing
 - Multiple-Applications Session Sharing
- **Session Sharing across different JEE Containers**
- **Session Sharing across different Data-Centers**
- **Configuration**
- **Demo**

Web Application Challenges

- **Scale the web app across multiple servers**
 - Handle **large web** app maintenance
- **Sharing user sessions between web applications transparently**
- **Sharing user session across multiple data centers**
- **High Web Server Memory Footprint**

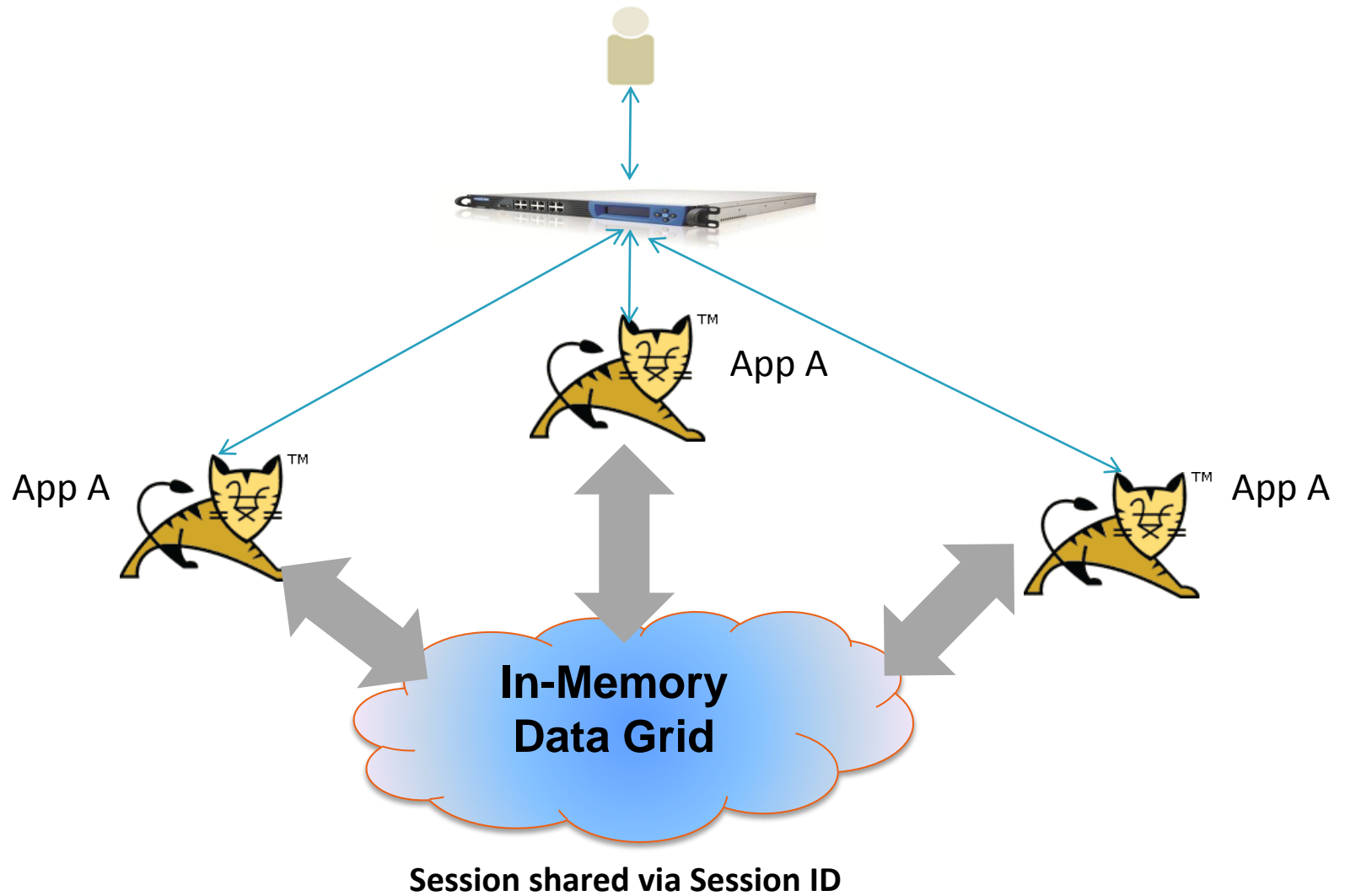
Meet XAP Global HTTP Session Sharing

- **Caches HTTP Session data within In-Memory Data-Grid**
- **Share HTTP Session across different web apps transparently**
- **Share HTTP session across different JEE Containers**
- **Share HTTP across different data centers**

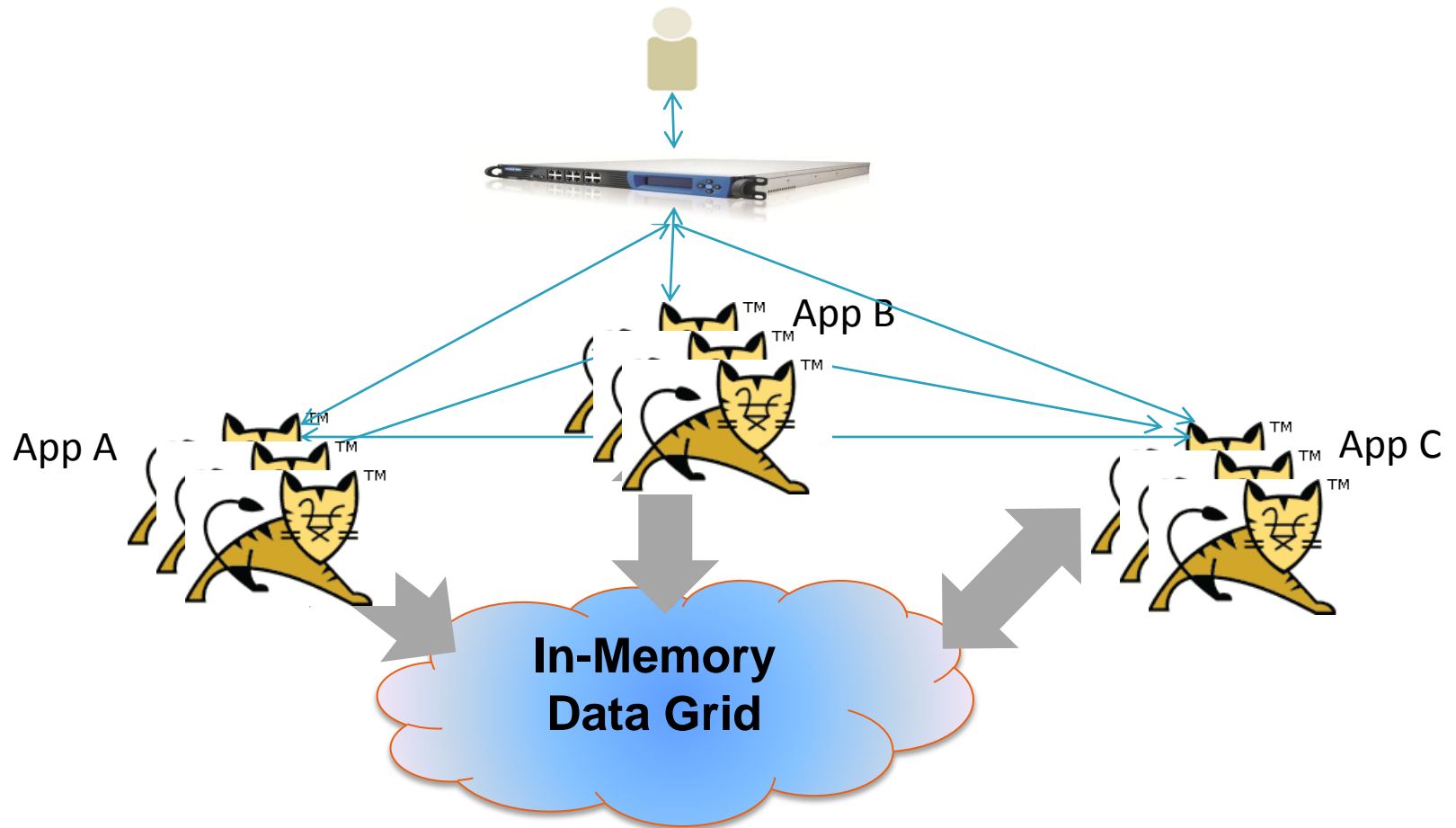
And there's More...

- **Transparent Web application Session Failover**
- **Any session data type attribute support**
- **Sticky session and Non-sticky session support**
- **Atomic HTTP request session access support**
- **Total session visibility**
- **Role based SSO Support**
- **Session Compression**
- **Simple setup**

Single Application Session Sharing

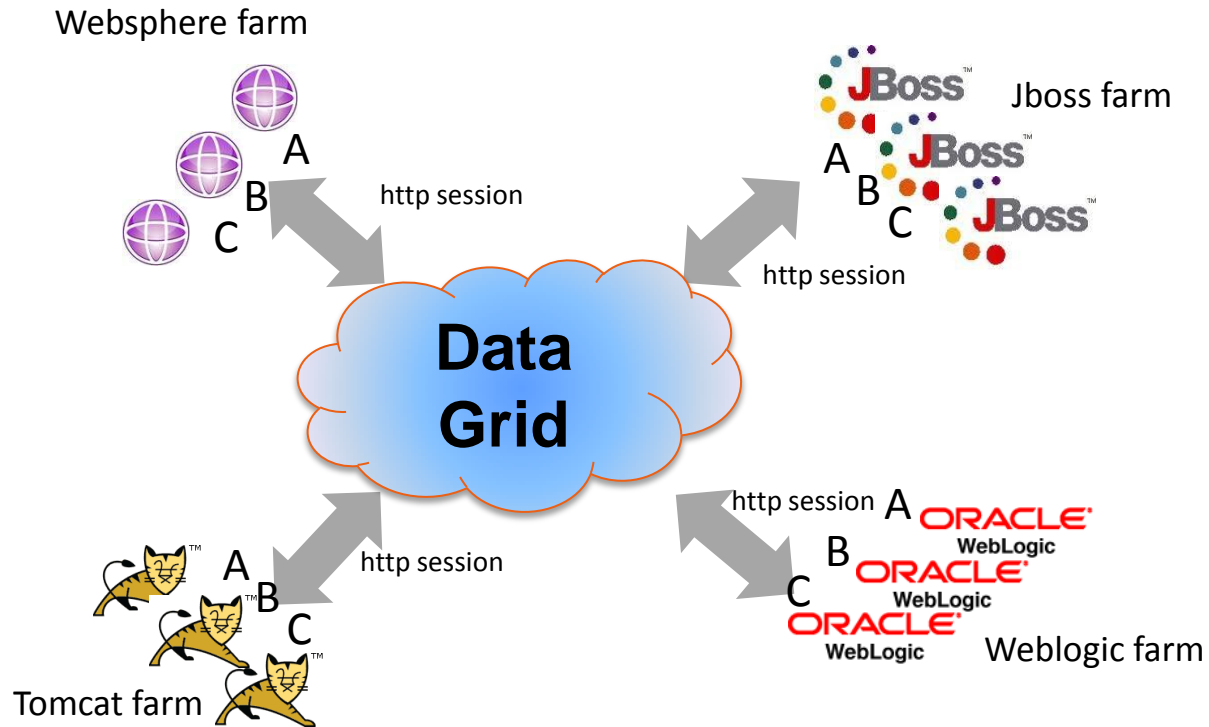


Multi-Applications Session Sharing

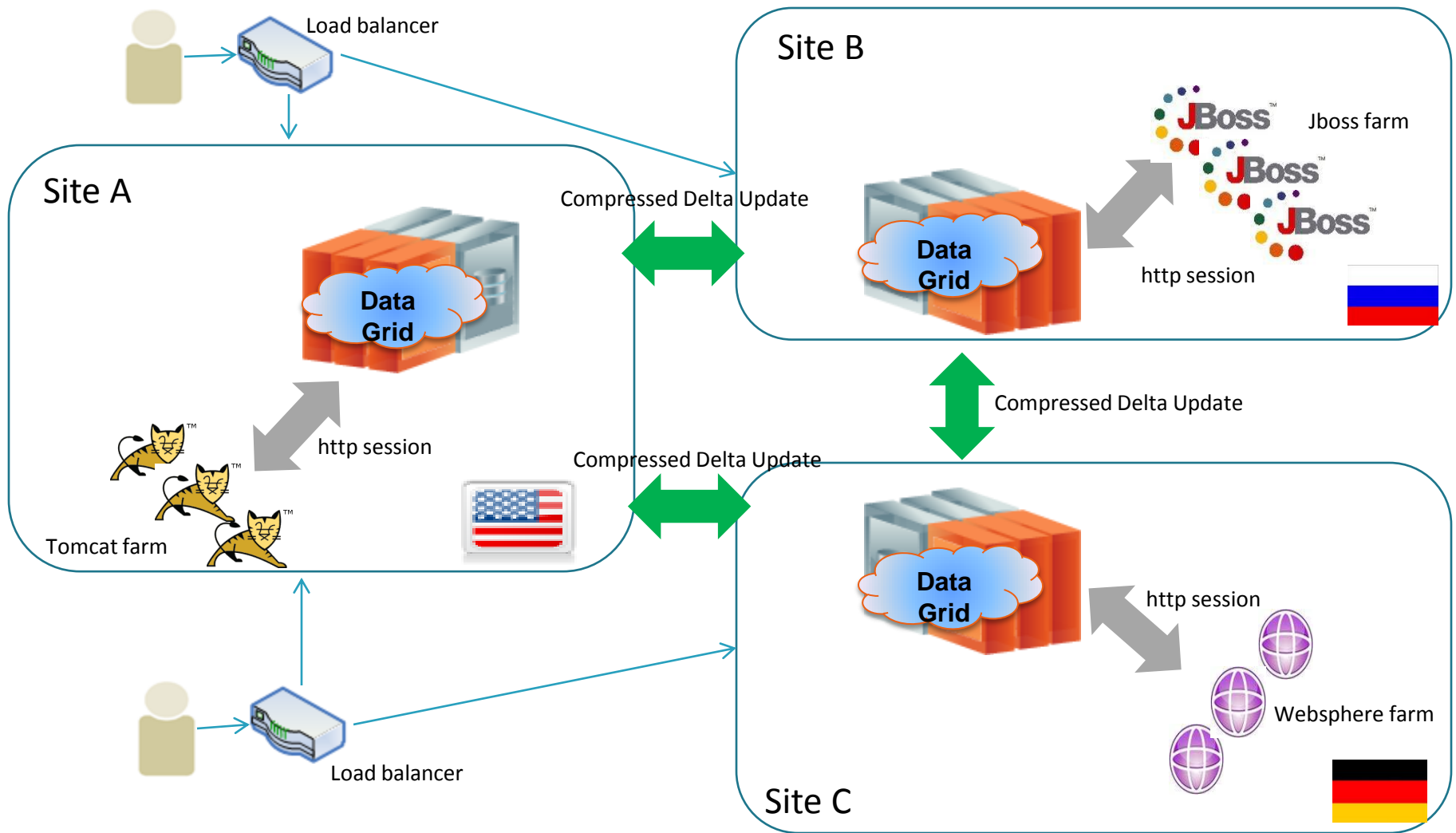


Session shared via user login principle
Timestamp check ensure recent session passed between apps
Session attributed merge

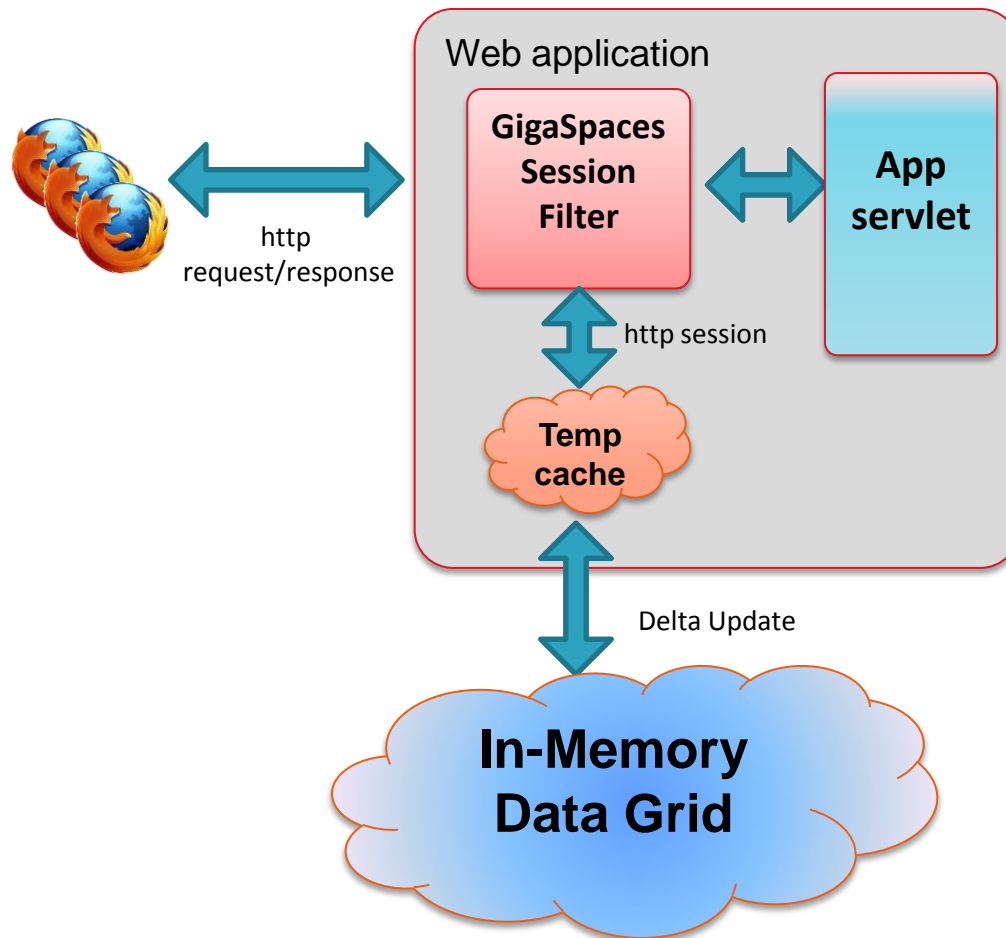
Session Replication across different JEE Containers



Session Replication across different Data-Centers



HTTP Session Management – A closer look



The WEB_INF/web.xml file

Add to the following
to your web.xml

```
<web-app>
    ....
    <filter>
        <filter-name>GigaSpacesHttpSessionFilter</filter-name>
        <filter-
class>com.gigaspaces.httpsession.web.GigaSpacesHttpSessionFilter</filter-class>
    </filter>
        <filter-mapping>
            <filter-name>GigaSpacesHttpSessionFilter</filter-name>
            <url-pattern>/*</url-pattern>
        </filter-mapping>
    </web-app>
```

Demo

- **Single-Application Session Sharing**
- **Multiple-Applications Session Sharing**

Available at:

- <http://docs.gigaspaces.com/xap100/global-http-session-sharing-configuration.html#example>






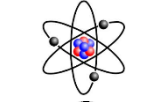


XAP HTTP Session Sharing - Demo 1

- **This demo simulates adding a new web server to scaling the web app or a node failure where requests are routed into another web app node with no User HTTP Session data loss.**
- **With this demo we will deploy a single web application into Tomcat 7.**
 - The same demo can use JBoss , WebShpere or any other JEE container.
- **We will update the session , terminate Tomcat and restart it and see how the HTTP session data is fully recovers.**
- **The demo app can be downloaded from the Global Session Sharing page.**

XAP HTTP Session Sharing - Demo 2

- **With this demo we will have multiple different web applications sharing the same HTTP Session.**
- **We will deploy one app into Tomcat 7 and another app into JBoss 7.**
- **We will update the session with the Tomcat app and see how it is shared with the JBoss app.**
- **We will terminate Tomcat and JBoss and restart these and see how the session fully recovers with both apps.**

Summary - Global HTTP Session Sharing

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- Improve user experience caching session information on external JVMs
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- Ensure business continuity & scalability by session high availability.
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- Scale to unlimited number of sessions and concurrent users using share nothing in memory architecture.
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- No code change – 5 minutes configuration and you're good to go.
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- Cross containers session sharing - share sessions between any Java Web / App server. Allows smooth rolling upgrade.
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- Atomic HTTP Request - Support concurrent session access
- 
- Delta Updates – Replicate only session changes
- 
- Non-Serializable Attributes Support – automatic

Thank You

