**Detailed Notes on TOCF, TCSERVER, TOCFEE, jBASE Agent, JCA, JBoss/WebSphere Integration, and T24 Browser Configuration**

**1️⃣ Overview of TOCF (EE) Listeners**

TOCF (**Temenos Object Code Framework**) provides a structured way to process **OFS (Open Financial Services) messages** using **listeners, message-driven beans (MDBs), and queues**. The key artefacts involved are:

**🔹 Key Components:**

* **Listener MDB (**``**)** → Consumes OFS requests from TOCF listeners and processes them via the OFS request queue.
* **Plugin Resource Adapter (**``**)** → A JCA resource adapter embedded in the EAR file that provides classic TOCF listeners like **Batch File Listener (BFL), Bytes Listener, etc.**

📌 **Configuration Files Involved:**

* tcserver.xml → Defines **adapters, message formatters, and listeners**.
* **Workflow:** Listeners → Adapters → Message Formatters **handle message transformation**.
* ejb-jar.xml → Defines **activation specifications** for listeners.

**2️⃣ Importance of JAR & WAR Files in TOCF**

**🔹 Key JAR Files and Their Role**

|  |  |
| --- | --- |
| **JAR File** | **Description** |
| tocflistener-ejb.jar | Contains Message-Driven Beans (MDBs) for processing OFS requests. |
| log4j-x.x.x.jar | Handles logging and debugging in TOCF. |
| jboss-ejb3.xml | Binds EJBs to server resources like queues and connection factories. |
| tocfee-core.jar | Core execution engine for TOCFEE, responsible for transaction execution. |
| tocfee-api.jar | Provides API interfaces for communication between TOCFEE and external systems. |
| tocf-services.jar | Contains utility services such as authentication, session management, and logging. |

**🔹 Key WAR & RAR Files and Their Role**

|  |  |
| --- | --- |
| **WAR/RAR File** | **Description** |
| tocfplugin-ra.rar | Embedded JCA resource adapter for handling inbound OFS requests. |
| tocfee.ear | Enterprise Archive containing TOCF plugins and configurations. |
| tocfT24ra-ra.rar | A specialized JCA resource adapter for integrating TOCFEE with T24, enabling efficient request handling and execution. |
| tocfee-web.war | Web-based interface for TOCFEE monitoring and configuration. |
| tocfadmin-console.war | Web application for managing TOCF settings and configurations. |
| BrowserWeb.war | Required for T24 Browser deployment on JBoss 7.x EAP. |

📌 **Why These Files Are Important?**

* Ensures **efficient message processing** in TOCF.
* Provides **high availability** using **JMS and MDB**.
* Defines **middleware connectivity and application bindings**.
* Allows **web-based management and monitoring** of TOCFEE.

**3️⃣ T24 Browser Configuration for Agent Mode (With JBoss 7.x EAP)**

**🔹 Updating browserParameter.xml**

📌 **File Path:**

\jboss-eap-7.xx\standalone\deployments\BrowserWeb.war\browserParameter.xml

📌 **Action:** Set the **Server Connection Method** to **AGENT** mode.

<parameter name="ServerConnectionMethod">AGENT</parameter>

**🔹 Ensuring Necessary Deployment Files**

📌 **Required Files:**

\jboss-eap-7.xx\standalone\deployments\BrowserWeb.war

\jboss-eap-7.xx\standalone\deployments\tocfT24ra-ra.rar (from the TOCFEE pack)

📌 **Deployment Process:**

* These components will **automatically deploy** when JBoss is started.

**🔹 Configuring standalone-full.xml**

📌 **File Path:**

..\jboss-eap-7.xx\standalone\configuration\standalone-full.xml

📌 **Key Configuration:**

* Create a **t24ConnectionFactory** under <resource-adapters> for **JCA agent connection**.

<resource-adapters>

<resource-adapter id="tocfT24ra-ra.rar">

<archive>tocfT24ra-ra.rar</archive>

<transaction-support>XATransaction</transaction-support>

<config-property name="listenPort">55007</config-property>

<config-property name="listenHost">127.0.0.1</config-property>

<connection-definitions>

<connection-definition class-name="com.temenos.tocf.t24ra.outbound.T24ManagedConnectionFactory"

jndi-name="java:/jca/t24ConnectionFactory"

pool-name="T24ConnectionFactory">

<config-property name="charset">ISO-8859-1</config-property>

<config-property name="ports">33993</config-property>

</connection-definition>

</connection-definitions>

</resource-adapter>

</resource-adapters>

**🔹 Modifying Deployment Descriptors**

📌 **Modify the following files:** 1️⃣ **jboss-web.xml** → Enable **jca/t24ConnectionFactory**, disable **jms/jmsConnectionFactory**. 2️⃣ **web.xml** → Ensure **ResourceRef\_t24ConnectionFactory** is enabled, and **jmsConnectionFactory** is disabled. 3️⃣ **jboss-deployment-structure.xml** → Ensure required dependencies are enabled for **jca/t24ConnectionFactory**.

**🔹 Starting Services**

📌 **1. Starting the jBASE Agent:**

jsh RXX ~ --> jbase\_agent -p 33993

📌 **2. Starting JBoss:**

standalone.bat --server-config=standalone-full.xml -b 0.0.0.0

📌 **Outcome:**

* JBoss deploys **BrowserWeb.war** and **tocfT24ra-ra.rar** components.

📌 **3. Accessing T24 Browser:**

http://localhost:8080/BrowserWeb

**4️⃣ Summary of TOCFEE in T24 Browser Configuration**

|  |  |
| --- | --- |
| **Component** | **Role in T24 Browser** |
| **TOCFEE** | Executes backend transactions for T24 Browser users. |
| **tocfT24ra-ra.rar** | JCA adapter enabling T24 Browser communication. |
| **BrowserWeb.war** | Provides web interface for T24 users. |
| **jboss-web.xml** | Ensures JCA agent-based communication. |
| **standalone-full.xml** | Configures JCA connection factories and ports. |

📌 **Key Takeaways:**

* TOCFEE enables **transaction processing** for **T24 Browser users**.
* JBoss **deploys the browser interface** and **handles JCA agent connectivity**.
* Ensures **secure** and **scalable** browser-based T24 interactions.