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## Additional Digitool JBOSS Hardening

- **Product:** Digitool
  - **Product Version:** All Versions
  - **Relevant for Installation Type:** Multi-Tenant Direct, Dedicated-Direct, Local, TotalCare
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## Overview

These steps have been developed and certified to mitigate several known security issues in the JBOSS component running in Digitool.

These hardening steps should be implemented in addition to the steps described in the article linked below:

[Securing JBoss Web Console JMX Invoker in Digitool](#)

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## Instructions

### Step One - Backup

To backup the JBOSS deployment you may make a compressed copy thus:

```
cd /exlibris/dtl/j3_1/digitool/home/system/thirdparty/openserver/  
tar -zcvf server_backup.tar.gz server
```

### Step Two - Remove components

**These components must be removed entirely. It is not sufficient to change their names**

From this path:

```
/exlibris/dtl/j3_1/digitool/home/system/thirdparty/openserver/server/default/deploy  
(Alias: jb_deploy)
```

Remove the following:

```
jmx-console.war  
uuid-key-generator.sar  
mail-service.xml  
scheduler-service.xml  
schedule-manager-service.xml  
sqlexception-service.xml
```

jboss-xa-jdbc.rar  
management/  
hsqldb-ds.xml

From this path:

/exlibris/dtl/j3\_1/digitool/home/system/thirdparty/openserver/server/default/lib

Remove the following:

scheduler-plugin-example.jar  
scheduler-plugin.jar

### Step Three - Edit files

In file /exlibris/dtl/j3\_1/digitool/home/system/thirdparty/openserver/server/default/conf/login-config.xml

make the following changes:

```
<!-- Security domain for JBossMQ -->
  <application-policy name = "jbossmq">
    <authentication>
      <login-module code =
        "org.jboss.security.auth.spi.DatabaseServerLoginModule"
flag =
        "required">
        <!-- Comment out this tag
        <module-option name = "unauthenticatedIdentity">
          guest</module-option>
        -->
        <!-- Comment out this tag and replace with new version in
green below
        <module-option name = "dsJndiName">
          java:/DefaultDS</module-option>
        -->
        <module-option name = "dsJndiName">
          java:/jdbc/LibraryDS</module-option>
        <module-option name = "principalsQuery">SELECT PASSWD FROM
          JMS_USERS WHERE USERID=?</module-option>
        <module-option name = "rolesQuery">SELECT ROLEID, 'Roles'
FROM
          JMS_ROLES WHERE USERID=?</module-option>
      </login-module>
    </authentication>
  </application-policy>
  <!-- Security domains for testing new jca framework -->
  <!-- Comment out this tag
  <application-policy name = "HsqlDbRealm">
    <authentication>
      <login-module code =
        "org.jboss.resource.security.ConfiguredIdentityLoginModule"
flag = "required">
        <module-option name = "principal">sa</module-option>
        <module-option name = "userName">sa</module-option>
        <module-option name = "password"></module-option>
```

```

        <module-option name = "managedConnectionFactoryName">
            jboss.jca:service=LocalTxCM,name=DefaultDS</module-
option>
        </login-module>
    </authentication>
</application-policy>
-->

```

In file /exlibris/dtl/j3\_1/digitool/home/system/thirdparty/opensever/server/default/deploy/jbossweb-tomcat.sar/web.xml

Make the following changes:

```

<servlet>
    <servlet-name>jsp</servlet-name>
    <servlet-class>org.apache.jasper.servlet.JspServlet</servlet-class>
    <init-param>
        <param-name>fork</param-name>
        <param-value>>false</param-value>
    </init-param>
    <init-param>
        <param-name>xpoweredBy</param-name>
        <param-value>>false</param-value>
    </init-param>
    <load-on-startup>3</load-on-startup>

    <!-- Add the tag in green below -->
    <init-param>
        <param-name>development</param-name>
        <param-value>>false</param-value>
    </init-param>
</servlet>

```

In file /exlibris/dtl/j3\_1/digitool/home/system/thirdparty/opensever/server/default/conf/jboss-service.xml

Make the Following changes:

```

<!-- ===== -->
<!-- Class Loading -->
<!-- ===== -->

<mbean code="org.jboss.web.WebService"
    name="jboss:service=WebService">
    <attribute name="Port">4801</attribute>
    <!-- Should resources and non-EJB classes be downloadable NO! - change attribute from
true to false as in red below -->
    <attribute name="DownloadServerClasses">false</attribute>
    <attribute name="Host">${jboss.bind.address}</attribute>
    <attribute name="BindAddress">${jboss.bind.address}</attribute>
</mbean>

```

## Step Four - Restart JBOSS

In the terminal as dtl user:

```
j_bin
```

./jboss\_shutdown.sh  
./jboss\_startup.sh

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- **Article last edited:** 11-Feb-2018