**Customer Installation Manual (CIM)**

**Univita Health**

**4/15/2013**

**xPression 4.5 & JAVA & JBOSS 6.1.0**

Table of contents

[1 JBOSS Installation 5](#_Toc293404730)

[1.1 Prerequisites to Installing JBOSS 5](#_Toc293404731)

[1.2 Installing JBOSS 5 5](#_Toc293404732)

[1.3 Configure JBoss Ports 6](#_Toc293404733)

[2 Setting up JBoss as a Windows Service 7](#_Toc293404734)

[2.2 Prerequisites to setting up the Windows Service 7](#_Toc293404735)

[2.3 Setting Up the Wrapper 7](#_Toc293404736)

[2.4 Adding the license to the wrapper configuration file 10](#_Toc293404737)

[2.5 Testing the Service 11](#_Toc293404738)

[2.6 Installing the Service 11](#_Toc293404739)

[2.7 Uninstall the Service (If Needed) 11](#_Toc293404740)

[2.8 Final Windows Service Configuration 11](#_Toc293404741)

[3 Pre-Installation Validation 12](#_Toc293404742)

[3.1 Application Server Pre-Installation Validation 12](#_Toc293404743)

[3.2 Connectivity between Application Server and Database Server 12](#_Toc293404744)

[4 Setup for JBoss 14](#_Toc293404745)

[4.1 To create MBean for encoding/decoding LDAP bind credential: 14](#_Toc293404746)

[4.2 To create a LDAP security domain for the consoles to use: 14](#_Toc293404747)

[4.3 Generate tomcat.keystore 15](#_Toc293404748)

[4.4 Enable SSL/TLS Connector in JBoss 16](#_Toc293404749)

[4.5 To secure access to the JMX console (Optional): 16](#_Toc293404750)

[4.6 To secure access to the Web console (Optional): 17](#_Toc293404751)

[4.7 To secure access to the Status page (Optional): 17](#_Toc293404752)

[4.8 Set Transaction Timeout 19](#_Toc293404753)

[4.9 Set HTTP Session Timeout 19](#_Toc293404754)

[4.10 Create xPression Deployment Directories 19](#_Toc293404755)

[4.11 Deploying the EAR Files 19](#_Toc293404756)

[4.12 To secure access to the xAdmin application: 19](#_Toc293404757)

[4.13 To Secure access to the xDashboard application 20](#_Toc293404758)

[5 Setup for MSSQL Databases 21](#_Toc293404759)

[5.1 About the xPression Database 21](#_Toc293404760)

[5.2 SQL Limitations and Known Issues 21](#_Toc293404761)

[5.3 Step One: Create a New Database 22](#_Toc293404762)

[5.4 Step Two: Create a New Database User 23](#_Toc293404763)

[5.5 Step Three: Run xPression Database Scripts 24](#_Toc293404764)

[5.6 Step Four: Test the xPression Database 25](#_Toc293404765)

[5.7 Step Five: Installing the Microsoft JDBC Driver 25](#_Toc293404766)

[5.8 Step Six: Grant Special Permissions 26](#_Toc293404767)

[5.9 Step Seven: Final Configuration Tasks 26](#_Toc293404768)

[5.10 Final Configuration Tasks for SQL Server 2005/2008 26](#_Toc293404769)

[5.11 Backup Your Database 27](#_Toc293404770)

[6 Install xPression 28](#_Toc293404771)

[6.1 GUI-Based Installation 28](#_Toc293404772)

[7 SQL Server Authentication 30](#_Toc293404773)

[7.1 Verify that the application service account has access to the Database 30](#_Toc293404774)

[7.2 Add Integrated Security to Data Source Connection 30](#_Toc293404775)

[7.3 SQLJDBC\_AUTH.DLL 30](#_Toc293404776)

[8 Jgroups.jar 31](#_Toc293404777)

[8.1 Retrieve jgroups.jar from the JBoss 5 ALL configuration. Copy to jboss\_home\xPression2\lib 31](#_Toc293404778)

[9 Authentication on the xPression Server 32](#_Toc293404779)

[9.1 ldapcfg.txt file 32](#_Toc293404780)

[9.2 User Exit Authentication 32](#_Toc293404781)

[10 Log Configuration (Optional) 33](#_Toc293404782)

[10.1 Backup Based On Day 33](#_Toc293404783)

[11 MultiCast Addresses 34](#_Toc293404784)

[12 Add xAdmin and xDashboard Login Users (Optional) 35](#_Toc293404785)

[13 Enable xAdmin Mapping Tab 36](#_Toc293404786)

[14 Locking Down JBOSS 37](#_Toc293404787)

[14.1 Change Default xAdmin and xDashboard Login User 37](#_Toc293404788)

[14.2 Remove Default JBOSS Page 37](#_Toc293404789)

[14.3 Set Windows Service to Run as Specific User 38](#_Toc293404790)

[14.4 Lock Down xPression JBOSS windows service user 39](#_Toc293404791)

[15 xDesign 40](#_Toc293404792)

[15.1 Connectivity between Client Machine and Server Machine 40](#_Toc293404793)

[15.2 Uninstalling xDesign 40](#_Toc293404794)

[15.3 Install Visual Basic for Applications 40](#_Toc293404795)

[15.4 Installing xDesign 41](#_Toc293404796)

[15.5 Add New Servers to xDesign 41](#_Toc293404797)

[16 Setup Test Documents 43](#_Toc293404798)

[16.1 Set up File System 43](#_Toc293404799)

[16.2 Import PDP 43](#_Toc293404800)

[16.3 Set up Publish Output Profile 43](#_Toc293404801)

[16.4 Set up Return Output Profile 44](#_Toc293404802)

[16.5 Setup Customer Data Source 45](#_Toc293404803)

[16.6 Setup Category 46](#_Toc293404804)

[16.7 Setup xDashboard Job 46](#_Toc293404805)

[17 Test xPression 48](#_Toc293404806)

[17.1 xDashboard Test 48](#_Toc293404807)

[17.2 BatchRunner Test 48](#_Toc293404808)

[17.3 xDesign Test 48](#_Toc293404809)

[18 Sanity Check List 51](#_Toc293404810)

# Configuration Essentials

|  |  |
| --- | --- |
| **xPression Version** | 4.5 |
| **Hot Fixes or Service Packs** | Latest |
| **Application Server** | JBOSS 6.1.0 |
| **Operating System** | Windows 2008 Server 64-bit std |
| **Application Server Cluster** | N/A |
| **Name/IP of machines** | MNEPAPP81-D |
| **Database Server** | SQL Server 2012 |
| **Operating System** | Windows 2012 Server 64-bit |
| **Database Cluster** | N/A |
| **Name of machine** | MNEPSQL1000D |
| **Customer data source(s)** | XML |
| **Customer Environment** | DEV |
| **xPression Design** |  |
| **Operating System** | Windows 7 |
| **Connectivity to server** | xDesign will be installed on the client’s desktops |
| **Connectivity method** | Servlet |

|  |  |
| --- | --- |
| **xPression Version** | 4.5 |
| **Hot Fixes or Service Packs** | Latest |
| **Application Server** | JBOSS 6.1.0 |
| **Operating System** | Windows 2008 Server 64-bit std |
| **Application Server Cluster** | N/A |
| **Name/IP of machines** | MNEPAPP81-T |
| **Database Server** | SQL Server 2012 |
| **Operating System** | Windows 2012 Server 64-bit |
| **Database Cluster** | N/A |
| **Name of machine** | MNEPSQL1000T |
| **Customer data source(s)** | XML |
| **Customer Environment** | DEV |
| **xPression Design** |  |
| **Operating System** | Windows 7 |
| **Connectivity to server** | xDesign will be installed on the client’s desktops |
| **Connectivity method** | Servlet |

|  |  |
| --- | --- |
| **xPression Version** | 4.5 |
| **Hot Fixes or Service Packs** | Latest |
| **Application Server** | JBOSS 6.1.0 |
| **Operating System** | Windows 2008 Server 64-bit std |
| **Application Server Cluster** | N/A |
| **Name/IP of machines** | MNEPAPP81-P |
| **Database Server** | SQL Server 2012 |
| **Operating System** | Windows 2012 Server 64-bit |
| **Database Cluster** | N/A |
| **Name of machine** | MNEPSQL1000P |
| **Customer data source(s)** | XML |
| **Customer Environment** | DEV |
| **xPression Design** |  |
| **Operating System** | Windows 7 |
| **Connectivity to server** | xDesign will be installed on the client’s desktops |
| **Connectivity method** | Servlet |

# JBOSS Installation

## Prerequisites to Installing JBOSS

### Make certain all service packs are installed for the operating system.

### Make sure MSSQL2012 JDBC 4 driver is extracted onto the computer.

* 1. You can download it from the internet at <http://www.microsoft.com/en-us/download/details.aspx?id=11774>
  2. Unzip it to the **D:\ from R:\EPS Share\EPS\SQL JDBC Driver 4**

### Make sure the latest Java 1.6 64-bit update JDK and JRE is installed on the computer.

Install JDK and JRE from here: [\\software\sws\Java](file://software/sws/Java)

Install the JDK at **D:\Java\** **jdk1.6.0\_43**

Only install the **Development Tools**.

Change the path of the installation to the location above.

Install the JRE at **D:\Java\** **jre6**

Choose custom setup for the installation.

Change the path of the installation to the location above.

Add a **JAVA\_HOME** windows environmental **system variable** to the machine (Control Panel 🡪 System 🡪 Advanced 🡪 Environment Variables)

Variable Name: **JAVA\_HOME**

Variable Value: **D:\Java\ jdk1.6.0\_43**

## Installing JBOSS 6.1.0

1. Unzip file to d:\ jboss-6.1.0.Final from [\\software\SWS\JBoss\6.1.0](file://software/SWS/JBoss/6.1.0) to install JBoss.
2. Select ‘I accept the terms of this license agreement’, then Next.
3. Set JBOSS\_HOME = D:\ jboss-6.1.0.Final
4. Copy <JBOSS\_HOME>\server\default to <JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>
   1. i.e. <ENVIRONMENT\_NAME> = xPression1

## Configure JBoss Ports

### Open the file %JBOSS\_HOME\server\<ENVIRONMENT\_NAME>\conf\bindingservice.beans\META-INF\bindings-jboss-beans.xml

### Locate the lines:

### <bean name="PortsDefaultBindings" class="org.jboss.services.binding.impl.ServiceBindingSet">

### Locate

#### <!-- The port offset -->

#### <parameter>0</parameter>

### Change 0 to x0000, where x is the number of the environment. For example, xPression2 would be 20000, xPression3 would be 30000, and so on.

### Later in this document, when you see <HTTP\_PORT>, the value will be 8080, plus the offset value in the previous step. i.e. 8080 + 20000 = 28080 = <HTTP\_PORT>

### IF Changing the JBoss Port AFTER xPression has been installed, the following steps need to be completed:

### IN D:\jboss\jboss-as\conf\bindingservice.beans\meta-inf\bindings-jboss-beans.xml

### replace 20000 with 0

### IN D:\xPression2

### com2ejbbridge.properties(15): BridgeURL=https://MNEPAPP15-D:28080/servlet/COM2EJB

### Replace 28080 and 21099

### eCor.properties(3): HtmlTempURI=https://MNEPAPP15-D:28080/xResponse/html/tempFolders/

### Replace 28080

### installer.properties(15): APPSERVER\_PORT=28080

### Replace 28080

### MigrationServer.xml(2): <Server name="MNEPAPP15-D\xPression2" url="https://MNEPAPP15-D:28080" context="/xAdmin" uid="" password="" socketport="5678"/>

### Replace 28080

### revise.properties(3): reviseHtmlTempURI = https://MNEPAPP15-D:28080/xRevise/tempFolders/

### revise.properties(4): reviseHtmlClientSupport = https://MNEPAPP15-D:28080/xRevise/html/ClientSupport/

### revise.properties(5): reviseUploadServerURI = https://MNEPAPP15-D:28080/xRevise/

### Replace 28080

### UninstallerData\installvariables.properties(249): APPSERVER\_PORT=28080

### Replace 28080

### contentRepository.properties(5): URL=jnp://MNEPAPP15-D:21099

### Replace 21099

### installer.properties(16): WAS\_PORT=21099

### Replace 21099

### servers.xml(2): <Server name="MNEPAPP15-D\xPression2" url="jnp://MNEPAPP15-D:21099" uid="" password=""/>

### Replace 21099

# Setting up JBoss as a Windows Service

## Initial Windows Service Configuration

### In <JBOSS\_HOME>\bin, locate service.bat

### Create custom version of service.bat called servicexPression1.bat

### In a command prompt window, run the following command: serviceXpression1.bat install

### Open services.msc and look for the installed windows service, name starting with “Jboss”

## Final Windows Service Configuration

The final configuration is to change the service to run as the user when not logged in. To accomplish this, perform the following steps:

### Shut down the JBOSS server if it is currently running.

### Open up the windows services (Start 🡪 Run 🡪 services.msc)

### Right-click on the JBoss <ENVIRONMENT\_NAME> Server service and go to properties.

### Switch Startup Mode to Automatic.

### Select the Logon tab and enter the service account name and password.

### Click OK when done.

### Start the service.

### Verify that the server starts up correctly.

### Verify that the server has started by accessing **http://<APP\_SERVER\_NAME>:<HTTP\_PORT>/**. You should see the JBoss Admin Home Screen

**INSTALL xPression 4.5**

* *Create New xPression Database*

The xPression database is the center of the xPression system and must be installed first. It is the

centralized location for all your content, images, and xPression data. The xPression database is

a relational database that stores all the data needed for assembling, formatting and publishing

personalized documents. The xPression database is a fully indexed database that holds all the

content, images, document templates, rules, profiles, and internal data that xPression uses to create,manage, and publish your documents.

**Step One: Create a New Database**

**Create a New Database on SQL Server 2012**

To create the xPression database, start the Microsoft SQL Server Management Studio and complete the following steps:

1. Log in as the database system administrator.

2. Expand the server instance and right-click the **Databases** folder and select **New Database**.

On the General page, supply the following information.

|  |  |
| --- | --- |
| **Option** | **Definition** |
| **Database name** | Supply a name for your database. In this document we will use the name DEV1XPRESS & DEV2XPRESS2 MSTRXPRESS |
| **Owner** | Leave at the default setting. |
| **Use full-text**  **Indexing** | Select this option. |
| **Database files list** | By default you should see a Data and Log file entry in this list. SQL Server Management Studio will prepend these file names with the data base name you provided. You can accept these file names or change them. |

4. In the ’Select a page’ panel, click **Options**. The Options page appears. On the Options page,

Supply the following information.

|  |  |
| --- | --- |
| **Option** | **Definition** |
| **Collation** | The collation you select must be case insensitive. Document  Sciences recommends **SQL\_Latin1\_General\_CP1\_CI\_AS** .  If you are using xPressForms or xPression Catalog and also  want to use non-English text in the xPressForms and xPression  Catalog application, you must ensure the Collation setting  specifies a collation that can process the non-English characters.  For more information about SQL Server collations, see the  Microsoft MSDN Library |
| **Recovery model** | Full |
| **Compatibility level** | Leave this setting at the default value. |
| **Other options** | In the Other options section, locate the Miscellaneous section.  Locate the item for **ANSI NULL DEFAULT**.  Change this value from False to **True**. |

**Step Two: Create a New Database User**

* + - 1. Create a new login. xPression requires SQL Server authentication.
         1. Username: **xpression**
         2. Password: tpwpCXih
      2. Set default database to **DEV1XPRESS, MSTRXPRESS**
         1. Click on User Mapping on the left.
         2. Map user to **DEV1XPRESS , MSTRXPRESS**
         3. Give the database role of **public** and **db\_owner.**
         4. Click **Okay**.
      3. Add user name same as MNEPAPP15-D / DEVXPRESS1
         1. *CORP\SQL.DEVELOPMENT.XPRESSDB.DB\_OWNER*
         2. *CORP\SVC-JBS-MNEPAPP81-D*

**Step Three: Run xPression Database Scripts**

In this step you will execute two SQL scripts that will create all the xPression database tables and

supply the base data for the xPression database.

Complete the following steps:

1. Re-login to the Microsoft SQL Server Management Studio using the database user name you

created in *“xpression/xpression”*

1. Expand the **Databases** folder and right-click the xPression database you created Select **New**

**Query**.

1. To install the xPression database, you will need to run the following SQL scripts:

- SQL\_install\_v4.5.sql

- SQL\_basicdata\_v4.5.sql

- SQL\_Satori\_Fields\_CA.ddl

- SQL\_Satori\_Fields\_UK.ddl

**Step FOUR:Installing the Microsoft JDBC Driver**

Install followingMicrosoft SQL Server 2012 JDBC Driver to your application server machine and your

database machine.

**Step FIVE: Final Configuration Tasks**

Complete the final configuration tasks for your database version.

**Determine Port Number**

To determine your port number, complete the following steps:

1. Start the SQL Server Configuration Manager.

2. Expand the **SQL Server 2012 Network Configuration** item.

3. Click **Protocols for MSSQLSERVER**.

4. In the right pane, ensure that TCP/IP is enabled.

5. Right-click **TCP/IP** and select **Properties**.

6. Click the **IP Addresses** tab.

7. In the IPALL section, look up the value for TCP Port. This is your database port number. Please

record this value for use later in the installation process.

You must configure full-text searching on your database to enable text searching in xPression.

Full-Text searching in SQL server requires MS Search Service, which is installed by default. To

enable full-text searching in SQL 2012:

1. Open Microsoft SQL Server Management Studio.

2. Expand the SQL Server Group, the element for your database server, the databases folder, and the xPression database element.

3. Right-click the xPression database element and then click **Tables**.

4. Locate the T\_TEXTDATA table, right-click T\_TEXTDATA, point to **Full-Text Index**, and then

click **Define Full-Text Indexing on a table**.

5. Click **Next** on the opening page of the Full-Text Indexing Wizard.

6. On the Select an Index page, select **PK\_T\_TEXTDATA\_DATA\_ID** from the **Unique index** list.

7. Click **Next**.

8. On the Select Table Columns page select **Data**.

9. Click **Next**.

10. On the Select Change Tracking page ensure that **Automatically** is selected.

11. Click **Next**.

12. On the Select a Catalog page, if a usable catalog is not defined, select **Create a new catalog**

and then click **Next**. If one is defined that can be used, click **Next** and skip the following step.

13. This step applies if creating a new catalog only. On the Define Population Schedules page

leave all default settings and then click **Next**.

14. Click **Finish**.

15. Click **Close** when wizard reports that the indexing succeeded.

Verify that full-text searching has been enabled by viewing the DATA field in the T\_TEXTDATA table.

The value for Full Text should be TRUE.

**Backup Your Database**

The best time to back up your new xPression database is immediately after completing Step Six above.

Please contact your database administrator for assistance in backing up your database.

* *Install xPression 4.5*

## GUI-Based Installation

**Prepare Your JBoss Environment for Installation**

To prepare your environment for installation, complete the following steps:

1. Locate the Server\_Installer directory in your installation package and locate **xPression\_Server\_Installer.jar**.
2. Locate the xPression EAR file for your version of JBoss and copy it to same directory as the xPression\_Server\_Installer.jar. The xPression installer will autodeploy your EAR file.

Rename the xPression EAR file as follows: **xPression.ear**.

For JBoss 7.1

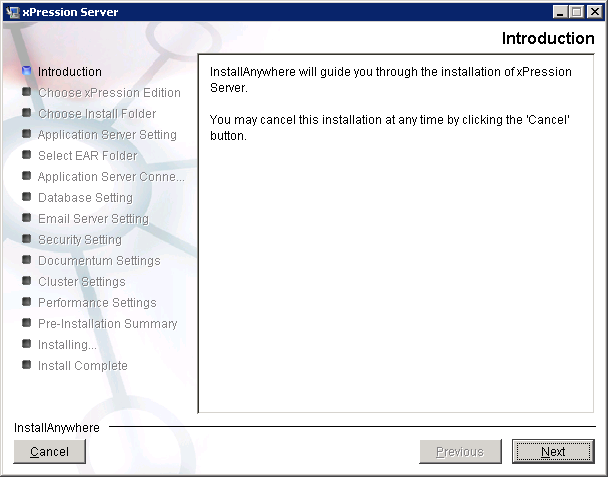
1. Open xPression-standalone.xml from the following directory:

<Jboss\_Install\_Dir>\standalone\configuration

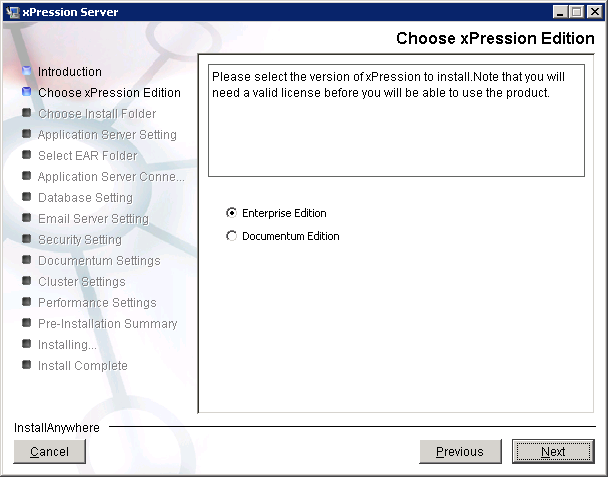
2. The HTTP port is defined in the following property:

<socket-binding name="http" port="8080"/>

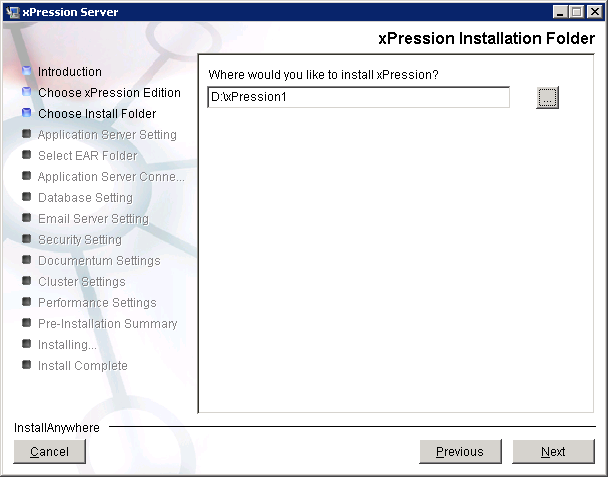
1. Open the Installer directory and locate **xPression\_Server\_with\_CompuSet\_Installer\_Windows.exe**.
2. Click **Next** on Introduction window.



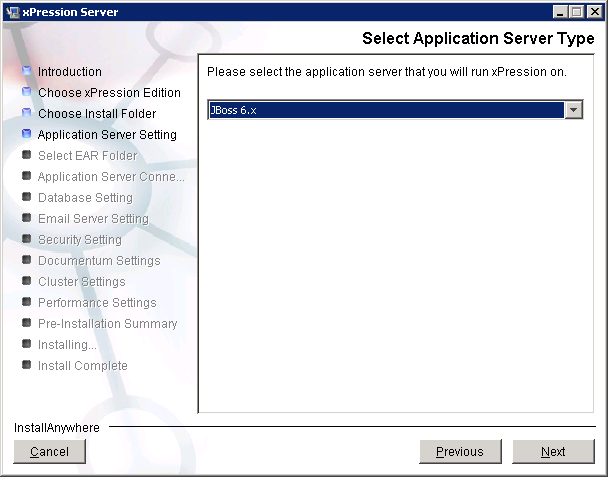
1. Choose the Enterprise Edition and click next



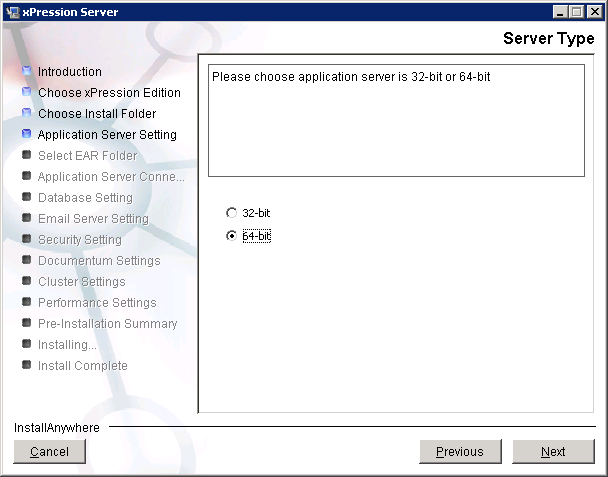
1. Choose the folder where xPression server files are going to located: **D:\xPression**. Click **Next**.



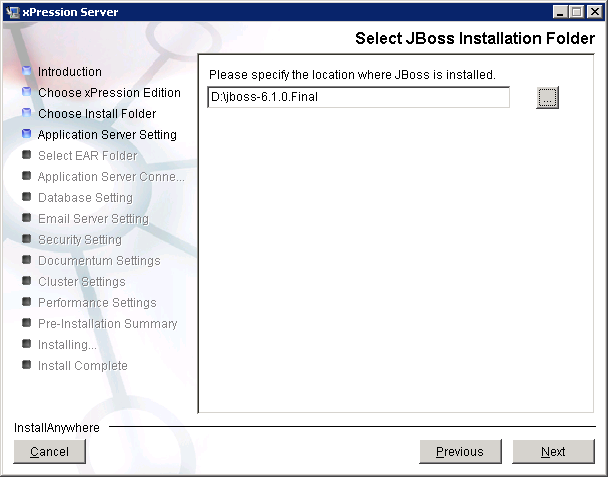
1. Select Application Server Type, **JBoss 6.x**. Click **Next**.



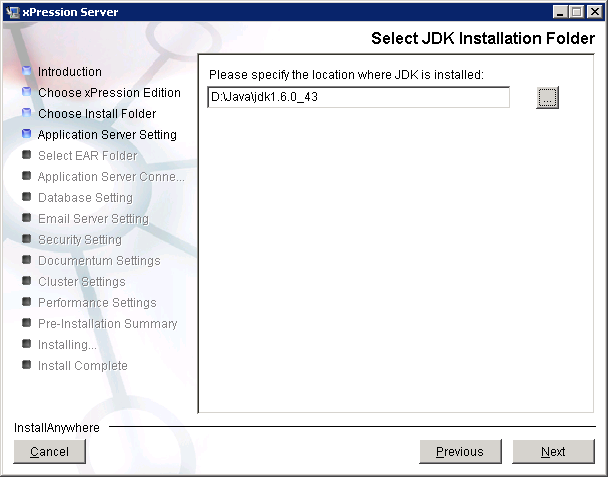
1. Select **64-bit**. Click **Next**.



1. Browse to the JBoss 6 Home directory. Click **Next**.



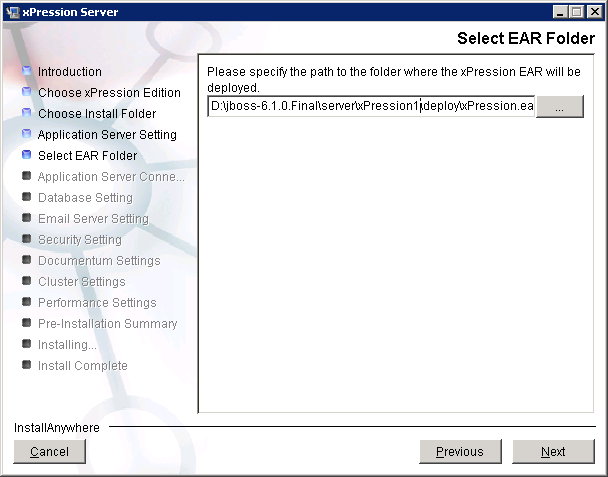
1. Browse to your java 1.6 home directory. Click **Next**.



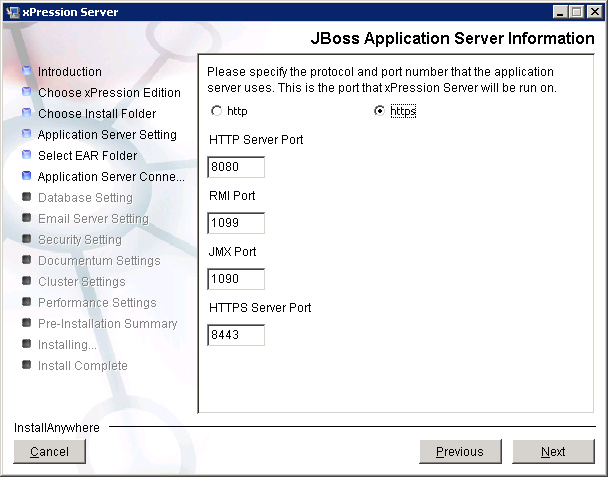
1. Next, we will need to specify the paths in which the xPression.ear file has been created.
   1. Supply the path to the directory where you want to deploy the xPression.ear file. This file should currently reside in the **same** directory as the xPression Server Installer. When completed, proceed

<JBoss\_install\_dir>\server\xpression1\deploy\

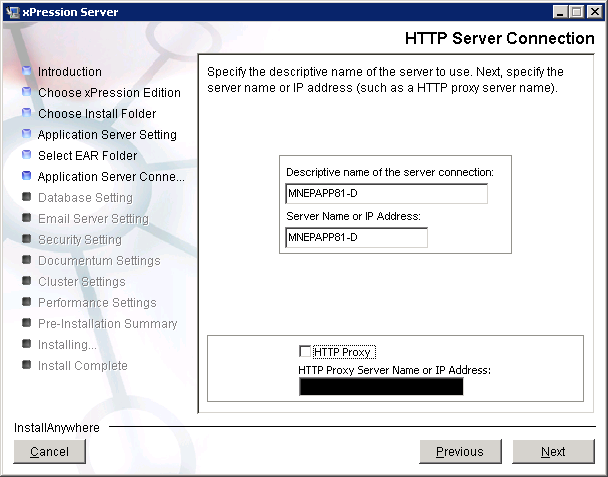
1. to the next step.



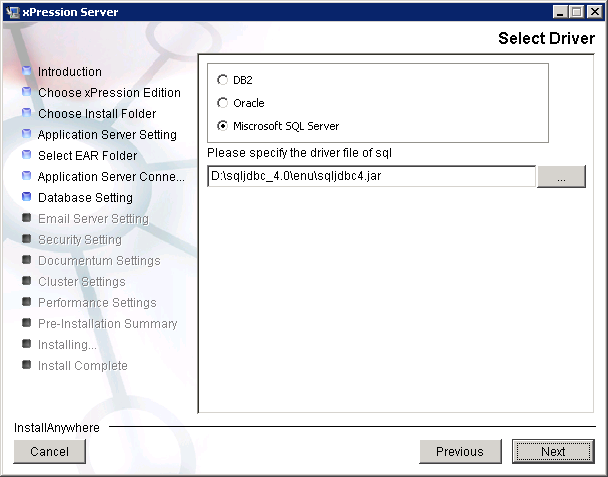
1. Click **Next**.
2. The following screen will ask for the HTTP,HTTPS and RMI port numbers. HTTP is 8080 + offset, RMI is 1099 + offset, so for a 20000 offset, the ports would be:
   1. HTTP: **8080**
   2. RMI: **1099**
   3. HTTPS: 8443
   4. Select Https and click next



1. The next page will ask for the server information
   1. Descriptive Server Name: **<New Server Name>**
   2. Server Name/IP Address: **<New Server Name>**
   3. No HTTP proxy. Click **Next**.
   4. **Note:** Change the connection information for the other servers.



1. The next page will ask for the SQL driver. Select the **SQL Server 2012** radio button and locate the MSSQL Server 2012 JDBC driver (e.g. **D:\sqljdbc\_1.2\enu\sqljdbc4.jar**). Click **Next**.



1. Enter in the Database connection information:   
   *(See Section 5.2 for a listing of the database names)*

Host Name: **DB Server name**

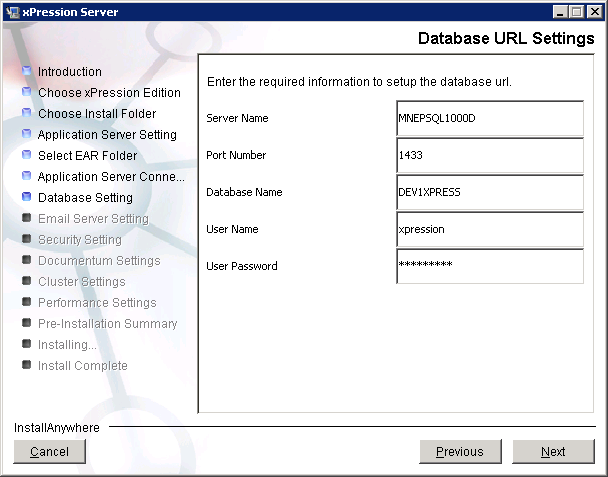
Port Number: **1433**

Database Name: **DEV1XPRESS**

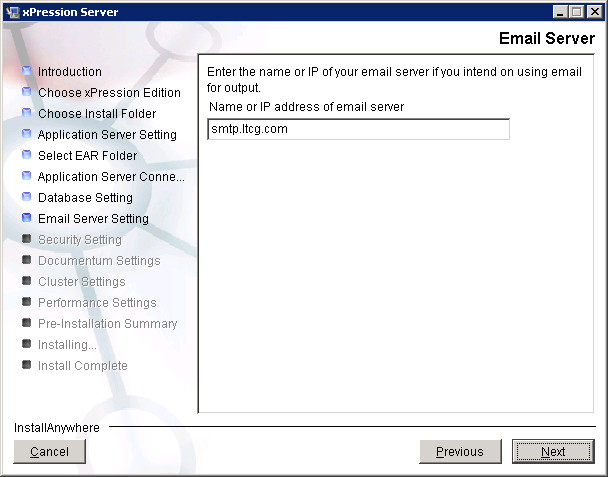
Username: **xpression**

Password: **xpression**

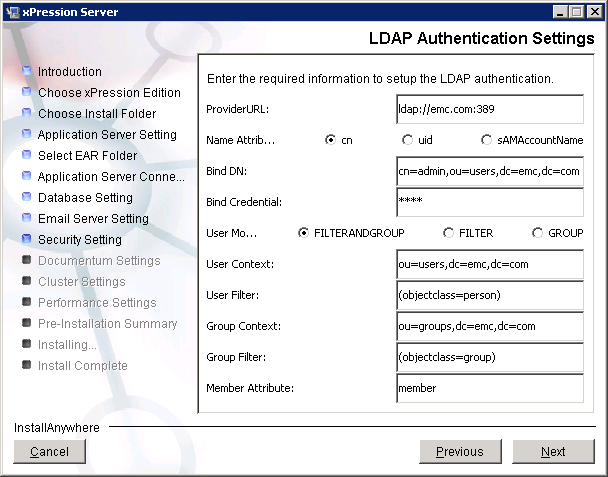
The setup may not be able to connect, just click Yes as we will set this up later.



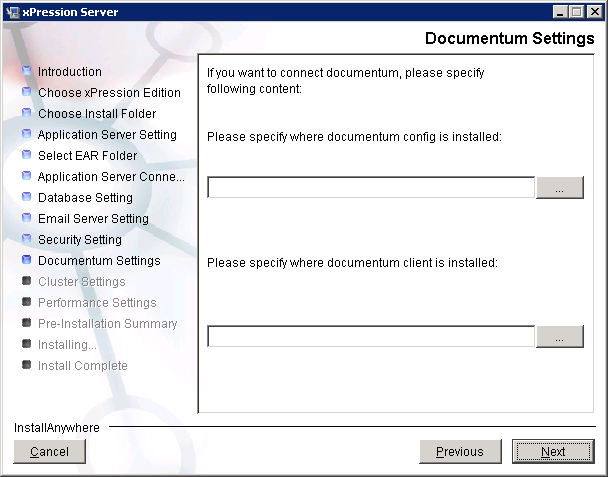
1. Enter in the email address: **smtp.ltcg.com**. Click **Next**.



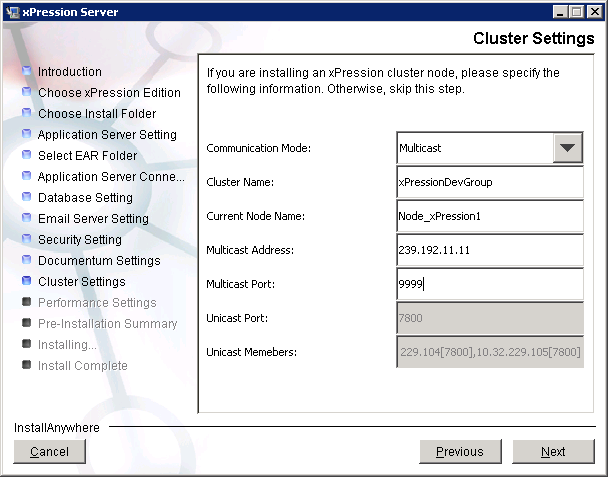
1. Choose **LDAP** authentication.
2. Enter in **test** for the password and click **Next**. (LDAP will be configured after the installation.



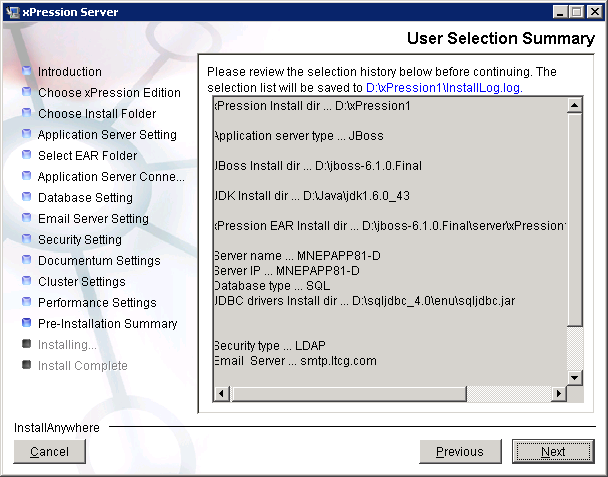
1. Click Next



1. Setting Cluster and click Next



1. Verify the configurations are correct and click **Install**.



1. After the installation is complete, click **Done** to exit the installer.
2. Restart the **MNEPAPP81-D**.
3. To check if the server is back up. Open up a command window (Start 🡪 Run 🡪 cmd) and type the following command:

**ping –t MNEPAPP15-D**

1. Once you get a reply from the server, you can log back in.
2. Verify that the JBoss Service Account has full privileges on the xPression installation directory: d:\<ENVIRONMENT\_NAME>

**The “Performance Settings” Page**

Define the following performance settings according to your business requirements. Select Medium,

Large, or Custom. If you select Medium, the initial memory will be set to 128 and the maximum

memory will be set to 512. If you select Large, the initial memory will be set to 512 and the maximum

memory will be set to 1024. If you select Custom, you can supply your own values. When finished,

proceed to the next step.

**Increase Memory Settings in JBoss 6.1.0**

If you are using JBoss 6.1.0, you must increase the Java memory settings.

1. Locate startxPressionServer.bat in the following directory:

<JBoss\_install\_dir>\bin\

2. Open the file for editing.

3. Locate the following statement (your parameter values may be different than shown):

SET "JAVA\_OPTS=%JAVA\_OPTS% -Xms128M -Xmx512M -XX:MaxPermSize=512M"

4. Increase the Xmx and MaxPermSize values to 1024M or higher.

# Setup for JBoss

## To create a LDAP security domain for the consoles to use:

<JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\conf\login-config.xml

Add the following:

<!-- A LDAP based security configuration for the jmx-console and

web-console web applications and the status servlet. -->

<application-policy name="JBoss-consoles">

<authentication>

<login-module code="org.jboss.security.auth.spi.LdapExtLoginModule" flag="required">

<module-option name="java.naming.provider.url">ldap://AD-CORP-Primary.ltcg.com:389</module-option>

<module-option name="java.naming.security.authentication">simple</module-option>

<module-option name="bindDN">CN=**SVC\_DS\_EPS\_DEV/ SVC\_DS\_EPS\_Test/ SVC\_DS\_EPS\_Prod**,OU=System Accounts,OU=Users and Groups,DC=corporate,DC=ltcg,DC=com</module-option>

<module-option name="jaasSecurityDomain">jboss.security:service=JaasSecurityDomain,domain=jmx-console</module-option>

<module-option name="bindCredential">**encrypted\_password**</module-option>

<module-option name="baseCtxDN">OU=Users and Groups,dc=corporate,dc=ltcg,dc=com</module-option>

<module-option name="baseFilter">(sAMAccountName={0})</module-option>

<module-option name="rolesCtxDN">OU=Users and Groups,DC=corporate,DC=ltcg,DC=com</module-option>

<module-option name="roleFilter">(member={1})</module-option>

<module-option name="roleAttributeID">memberOf</module-option>

<module-option name="roleAttributeIsDN">true</module-option>

<module-option name="roleRecursion">0</module-option>

<module-option name="searchScope">SUBTREE\_SCOPE</module-option>

<module-option name="searchTimeLimit">30000</module-option>

<module-option name="allowEmptyPasswords">false</module-option>

</login-module>

</authentication>

</application-policy>

## Generate tomcat.keystore

### This only needs to be done once per application server. If already done, you can locate the tomcat.keystore file in a previous JBoss configuration <JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\conf.

### Use the keytool application to create a keystore by executing the following in a command window:

keytool -genkey -keyalg RSA -keystore tomcat.keystore -validity 1825

### **Enter the following responses to the prompts:**

Enter keystore password: **univita2013**

What is your first and last name?

[Unknown]: **MNEPAPP81-D/T/P** (this needs to be the url of the web site to avoid a certificate error)

What is the name of your organizational unit?

[Unknown]: **IT**

What is the name of your organization?

[Unknown]: **UNIVITA**

What is the name of your City or Locality?

[Unknown]: **Eden Prairie**

What is the name of your State or Province?

[Unknown]: **MN**

What is the two-letter country code for this unit?

[Unknown]: **US**

Is CN=ltcg.com, OU=IT, O=LTCG, L=Eden Prairie, ST=MN, C=US correct?

[no]: **yes**

Enter key password for <mykey>

(RETURN if same as keystore password): **<return>**

### A file named tomcat.keystore will have been created in the directory you ran the keytool application from. Copy this file to the directory <JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\conf.

### Note: This creates a self signed certificate valid for 5 years. The web browser will complain about this because the certificate is not from a trusted source so the user will have to choose to continue to the website when they get the warning message or add it to the list of trusted source in explorer.

## Enable SSL/TLS Connector in JBoss

### Edit the file <JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\deploy\jbossweb.sar\server.xml

### Uncomment and change the bold values to match the keystore location and password:

<!-- SSL/TLS Connector configuration using the admin devl guide keystore -->

<Connector port="8443" address="${jboss.bind.address}"

maxThreads="100" strategy="ms" maxHttpHeaderSize="8192"

emptySessionPath="true"

scheme="https" secure="true" clientAuth="false"

keystoreFile="**${jboss.server.home.dir}/conf/tomcat.keystore**"

keystorePass="**univita2013**" sslProtocol = "TLS" />

## To secure access to the JMX console (Optional):

<JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\deploy\jmx-console.war\WEB-INF\web.xml

Uncomment:

<security-constraint>

<web-resource-collection>

<web-resource-name>HtmlAdaptor</web-resource-name>

<description>An example security config that only allows users with the

role JBossAdmin to access the HTML JMX console web application

</description>

<url-pattern>/\*</url-pattern>

<http-method>GET</http-method>

<http-method>POST</http-method>

</web-resource-collection>

<auth-constraint>

<role-name>JBossAdmin</role-name>

</auth-constraint>

<user-data-constraint>

<transport-guarantee>CONFIDENTIAL</transport-guarantee>

</user-data-constraint>

</security-constraint>

Replace **JBossAdmin** with **role\_name** setup in LDAP for users who should have access to the JBoss consoles. This should be replaced in the comment above the <security-constraint> tag, in the text of the <security-constraint><web-resource-collection><description tag>, in the <auth-constraint><role-name> tag value, and in the <security-role><role-name> tag value.

<JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\deploy\jmx-console.war\WEB-INF\jboss-web.xml

Uncomment:

<security-domain>java:/jaas/jmx-console</security-domain>

Replace **jmx-console** with **JBoss-consoles**

## To secure access to the Web console (Optional):

<JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\deploy\management\console-mgr.sar\web-console.war\WEB-INF\web.xml

Uncomment:

<security-constraint>

<web-resource-collection>

<web-resource-name>HtmlAdaptor</web-resource-name>

<description>An example security config that only allows users with the

role JBossAdmin to access the HTML JMX console web application

</description>

<url-pattern>/\*</url-pattern>

<http-method>GET</http-method>

<http-method>POST</http-method>

</web-resource-collection>

<auth-constraint>

<role-name>JBossAdmin</role-name>

</auth-constraint>

<user-data-constraint>

<transport-guarantee>CONFIDENTIAL</transport-guarantee>

</user-data-constraint>

</security-constraint>

Replace **JBossAdmin** with **role\_name** setup in LDAP for users who should have access to the JBoss consoles. This should be replaced in the comment above the <security-constraint> tag, in the text of the <security-constraint><web-resource-collection><description tag>, in the <auth-constraint><role-name> tag value, and in the <security-role><role-name> tag value.

<JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\deploy\management\console-mgr.sar\web-console.war\WEB-INF\jboss-web.xml

Uncomment:

<security-domain>java:/jaas/web-console</security-domain>

Replace **web-console** with **JBoss-consoles**

## To secure access to the Status page (Optional):

<JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\deploy\jbossweb-tomcat55.sar\ROOT.war\WEB-INF\web.xml

Add the following just before the </web-app> tag:

<!-- A security constraint that restricts access to the Status servlet

to users with the role JBossAdmin. Edit the roles to what you want and

uncomment the WEB-INF/jboss-web.xml/security-domain element to enable

secured access to the Status servlet.

-->

<security-constraint>

<web-resource-collection>

<web-resource-name>HtmlAdaptor</web-resource-name>

<description>An example security config that only allows users with the

role JBossAdmin to access the Status servlet

</description>

<url-pattern>/\*</url-pattern>

<http-method>GET</http-method>

<http-method>POST</http-method>

</web-resource-collection>

<auth-constraint>

<role-name>JBossAdmin</role-name>

</auth-constraint>

<user-data-constraint>

<transport-guarantee>CONFIDENTIAL</transport-guarantee>

</user-data-constraint>

</security-constraint>

<login-config>

<auth-method>BASIC</auth-method>

<realm-name>Status Servlet</realm-name>

</login-config>

<security-role>

<role-name>JBossAdmin</role-name>

</security-role>

Replace **JBossAdmin** with **role\_name** setup in LDAP for users who should have access to the JBoss consoles. This should be replaced in the comment above the <security-constraint> tag, in the text of the <security-constraint><web-resource-collection><description tag>, in the <auth-constraint><role-name> tag value, and in the <security-role><role-name> tag value.

Create a file named jboss-web.xml with the following content in the directory

<JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\deploy\jbossweb-tomcat55.sar\ROOT.war\WEB-INF

<jboss-web>

<!-- Uncomment the security-domain to enable security. You will

need to edit the htmladaptor login configuration to setup the

login modules used to authentication users.

-->

<security-domain>java:/jaas/JBoss-consoles</security-domain>

</jboss-web>

## Set Transaction Timeout

### Open <JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\deploy\transaction-jboss-beans.xml

### Set the Transaction Timeout attribute to 3600.

## Set HTTP Session Timeout

Edit deploy/jbossweb.sar/web.xml

   <!-- ==================== Default Session Configuration ================= -->

   <!-- You can set the default session timeout (in minutes) for all newly   -->

   <!-- created sessions by modifying the value below.                       -->

   <session-config>

      <session-timeout>120</session-timeout>

   </session-config>

## Create xPression Deployment Directories

### Create the directory <JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\*deploy\xPression.ear*.

## Deploying the EAR Files

### Extract the contents of \\software\sws\EMC (DocScience)\xPression4\xPRS\_EE\_EAR\xPRS\_EE4.0\_JBOSS5.ear to <JBOSS\_HOME>\server\<ENVIRONMENT\_NAME>\deploy\xPression.ear

### The entire contents of the enterprise archive file(s) should now be copied to their respective xPression deployment directories.

# SQL Server Authentication

## Verify that the application service account has access to the Database

### i.e. CORP\SVC-JBC-MNEPAPP81-D should be listed as a DBO user to the database and have Login rights to the SQL Server.

## Add Integrated Security to Data Source Connection

### Edit xPression-mssql-ds.xml

### Remove the username and password fields.

### Add integratedSecurity=true; to the end of the <connection-url>

### Change <max\_pool\_size> = 100

## SQLJDBC\_AUTH.DLL

### Copy d:\sqljdbc4\enu\auth\sqljdbc4.dll to d:\<ENVIRONMENT\_NAME>\drivers

# Jgroups.jar

## Retrieve jgroups.jar from the JBoss 6.1 ALL configuration. Copy to jboss\_home\xPression1\lib

# Authentication on the xPression Server

In order to use LDAP authentication, the dscsecurity.properties and ldapcfg.txt files need to be properly configured. These files are located in the **D:\xPression1** directory.

## ldapcfg.txt file

Replace the current ldapcfg.txt file with the following:

#Tue Dec 18 13:41:07 EST 2007

LDAP\_NAME\_ATTRIBUTE=sAMAccountName

LDAP\_USER\_MODE=FILTERANDGROUP

LDAP\_ADMIN\_PWD=**<SERVICE ACCOUNT PASSWORD>**

LDAP\_ADMIN\_DN=cn=SVC\_DS\_MNEPAPP15-D,ou=Service Accounts,ou=Users,ou=Eden Prairie (Corporate),ou=Long Term Care Group,dc=corporate,dc=ltcg,dc=com

LDAP\_USER\_FILTER=(memberOf=cn=xPression Users,ou=Security,ou=Eden Prairie (Corporate),ou=Long Term Care Group,dc=corporate,dc=ltcg,dc=com)

LDAP\_MEMBER\_ATTRIBUTE=member

LDAP\_GROUP\_FILTER=(objectclass=group)

LDAP\_SERVER\_URL=ldap://corpdc01:389

LDAP\_NAME\_CONTEXT=dc=corporate,dc=ltcg,dc=com

LDAP\_GROUP\_CONTEXT= cn=xPression Users,ou=Security,ou=Eden Prairie (Corporate),ou=Long Term Care Group,dc=corporate,dc=ltcg,dc=com LDAP\_INITIAL\_CONTEXT\_FACTORY=com.sun.jndi.ldap.LdapCtxFactory

When the server restarts, the LDAP\_ADMIN\_PWD field will encrypted.

If you would like to test LDAP, use **LDAP Browser 2.6**, which can be downloaded from <http://www.ldapadministrator.com/download.htm>

## User Exit Authentication

Authentication is the process of verifying that a person or system communicating with xPression is who they say they are. All xPression authentication is by user name and password. xPression does not conduct authentication actions itself for security reason. Instead, xPression must connect to an external directory service provider. That provider performs the authentication action so that xPression does not become a source of identity information in a potentially large enterprise of different vendor products.

You can implement a Java user exit to provide authentication. This process involves modifying the

dscsecurity.properties file, creating some new properties files, and compiling the Java code that you have

created.

# Log Configuration (Optional)

The xPression logs can get rather large with all the information from the system, especially when set to DEBUG mode. It is generally good practice to enable the logs to be automatically backed up when either they reach a certain size or at the end of the day to ensure manageability.

**Note:** The following modifications can be added to any configuration file that uses org.apache.log4j.FileAppender.

## Backup Based On Day

Alternatively, the backup can be created at the advent of each new day. This can be accomplished by adding the word **DailyRolling** to a single location within any of the log configuration files within XPRESSHOME, e.g. LogConfiguration:

# ToFile is set to be a FileAppender.

#log4j.appender.ToFile=com.dsc.uniarch.util.UTF8FileAppender

log4j.appender.ToFile=org.apache.log4j.**DailyRolling**FileAppender

log4j.appender.ToFile.File=D:\\xPression\\xPression.log

log4j.appender.ToFile.Encoding=UTF-8

That is all that is necessary. Now at the beginning of the next system day, a backup will be made of the xPression log with the format xPression.log.YY.MM.DD

Edit each file ending in LogConfiguration, making sure the log path is d:\\<XPRESSION\_HOME>\\log

# xPression Groups Messages (MultiCast,Unicast,Localcast) MultiCast Addresses

In order to ensure that the servers talk to the right database, and to each other, we need to specify unique multicast addresses and caching information. To do this, perform the following steps;

1. Navigate to xPression home: D:\xPression1
2. Choose to edit **xPressionCache.properties**.
3. Locate the following lines:

Cache\_Channel=UDP(mcast\_addr=**239.192.11.11**;mcast\_port=9999)

Cache\_Group=**xPressionGroup**

1. Change the mcast\_address value to the value indicated in the table below.
2. Change the Cache\_Group value to the value indicated in the table below.
3. Save the file
4. Choose to edit **xPressionFontAgent.properties**
5. Locate the line:

MULTICAST\_ADDRESS=**239.192.11.11**

1. Provide the same new value for MULTICAST\_ADDRESS as above.
2. Save the file.

For the other installations, you will want to modify the files as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Server Name** | **mcast\_addr** | **Cache\_Group** | **MULTICAST\_ADDRESS** |
| Test1 | 239.192.11.12 | xPressionTestGroup | 239.192.11.12 |
| Test2 | 239.192.11.212 | xPressionTest2Group | 239.192.11.212 |
| Prod | 239.192.11.13 | xPressionProdGroup | 239.192.11.13 |
| Prod2 | 239.192.11.213 | xPressionProd2Group | 239.192.11.213 |
| Dev1 | 239.192.11.11 | xPressionDevGroup | 239.192.11.11 |
| Dev2 | 239.192.11.211 | xPressionDev2Group | 239.192.11.211 |

# Add xAdmin and xDashboard Login Users (Optional)

By default, when xPression is installed on JBOSS the user xpression/xpression can log into xAdmin and xDashboard. To add additional users, perform the following steps:

1. Navigate to
2. Choose to edit **user.properties**
3. Add another line below “xpression=xpression” in the format **<USERNAME>=<PASSWORD>**   
   where USERNAME is the new desired username and PASSWORD is the new password.
4. Save the file.
5. Choose to edit **roles.properties**.
6. Add a line below **xpression=xPressionAdministrator** in the format <USERNAME>=xPressionAdministrator
7. Save the file.

**Note**: the password will not be encrypted.

# Enable xAdmin Mapping Tab

To enable the xAdmin Mapping tab, please follow the below steps:

1. Launch IE and log into xAdmin: <http://MNEPAPP81-D:8443/xAdmin>
2. At the top of IE, go to **Tools 🡪 Internet Options**
3. Click on the **Security** tab
4. Click on **Trusted Sites** and click on the **Sites** button.
5. Enter in MNEPAPP15-D or the name of the server on the left and click **Add**.
6. Click **Close**
7. Click on **Custom Level** below
8. Under “Reset custom settings” at the bottom choose **Low** and click **Reset**
9. Within xAdmin, go to Category Management 🡪 Customer Data Sources and click an a data source
10. Click on the Mapping Tab, and you should now be prompted to install it.

# Locking Down JBOSS

## Change Default xAdmin and xDashboard Login User

By default, when xPression is installed on JBOSS the user xpression/xpression can log into xAdmin and xDashboard. To change this, perform the following steps:

1. Navigate to **D:\jboss.4.0.5.GA\server\xPression\conf**
2. Choose to edit **user.properties**
3. Replace the line “xpression=xpression” with **<USERNAME>=<PASSWORD>** where USERNAME is the new desired username and PASSWORD is the new password.
4. Save the file.
5. Choose to edit **roles.properties**.
6. Make sure there line reads: **xpression=xPressionAdministrator**

If you wish to allow more than one person to log into xAdmin and xDashboard, then add their names below the newly added line in the **user.properties** file in the same format of <USERNAME>=<PASSWORD>

You will also need to add the new user to the roles.properties file as well in the format <USERNAME>=xPressionAdministrator

**Note**: the password will not be encrypted.

## Set Windows Service to Run as Specific User

1. Shut down the JBOSS server if it is currently running.
2. Open up the windows services (Start 🡪 Run 🡪 services.msc)
3. Right-click on the **JBoss xPression Server** service and go to properties.
4. Click the **Log On** tab.
5. Choose to **log on as a specific account**, and provide the username and password of a windows account that you wish to run the service as.
6. Click **Apply**.

You may see a notification saying the user has been granted the “Log On As Service” right. This is what we want.

1. Click **OK** when done.

## Lock Down xPression JBOSS windows service user

You can lock down the xPression JBOSS windows service user to prevent them from being able to access all of the server directories. However, the following directories must be accessible and with the following rights:

Modify:

* D:\xPression1
* D:\ jboss-6.1.0.Final\server\xPression1

Read and Execute:

* D:\ jboss-6.1.0.Final
* D:\

Remember to stop the JBOSS server from the Windows Service (Start 🡪 run 🡪 services.msc) before making these changes.

# xDesign

xDesign is a thick-client application that interfaces with our xPression suite software to produce content documents. As a thick-client, it must be physically installed on all machines that wish to create and manage documents.

## Connectivity between Client Machine and Server Machine

Prior to install xDesign, confirm that the client machine can talk to the xPression server.

|  |  |  |
| --- | --- | --- |
| **Test** | **Result** | **Time** |
| Run *ping*s and *tracert* and record results   1. From a client machine, execute the following commands:    1. Ping *MNEPAPP81-D*    2. tracert *MNEPAPP81-D* | <Success or Failed | <Total\_Roundtrip\_  in\_MS> |
| The results of these two commands should validate connectivity and any major network delays between client machines and servers. |  |  |

## Uninstalling xDesign

1. To uninstall old versions of xDesign, please go to Control Panel 🡪 Add or Remove Programs.
2. Find xPression Design 4.1 and click on the Change/Remove button.

## Install Visual Basic for Applications

xDesign relies on macros when communicating with Microsoft Word, which are part of the Visual Basic for Applications plug-in. If this component is not installed, then xDesign will not function properly. To install Visual Basic for Applications follow the steps below.

1. Make sure that the client computer can access the Microsoft Windows 2003 Professional installation files.
2. Launch Control Panel and go to **Add or Remove Programs**.
3. Find Microsoft Office 2003 Professional and choose **Change**.
4. Choose to **Add or Remove Features**.
5. Click **Next**.
6. Check **Choose advanced customization of applications** (if available).
7. Click **Next**.
8. Expand **Office Shared Features**.
9. Click the drop-down next to *Visual Basic for Applications* and choose **Run from My Computer**.
10. Click **Continue**.

## Installing xDesign

1. Navigate to the **xDesign** folder contained with the installation files.
2. Run the **setup.exe** file.
3. Click **Next**.
4. The next screen will ask where you would like to install xDesign (Default: **C:\Program Files\xPression**). Click **Next**.
5. Choose **Typical** installation and click **Next**.
6. The next screen will ask the type of application server that xDesign will interface with. Choose **JBOSS**.
7. Since the connection to the server is through EJB, choose **Servlet** connection method.
8. Finally, enter in the server information. This is the same information that was entered in during the installation of xPression:

Descriptive Server Name: **MNEPAPP81-D**

Server Name/IP Address: **MNEPAPP81-D**

Port: **8080**

1. Click **Next** to add it to the Program Menu
2. The next screen contains the summary. Click **Next**.
3. xDesign will be installed. Once complete you will be prompted to restart. Restart is essential for interfacing with Microsoft Word. Leave the bullet next to “**Yes, I want to restart my computer now**” and click **Finish.**

xDesign is now ready for use.

## Add New Servers to xDesign

If you ever need to add additional servers to an xDesign client, follow these steps:

1. Navigate to the installation directory of xDesign: **C:\Program Files\xPression**.
2. Choose to edit the **servers.xml** file.
3. Add a new line between <ServerList></ServerList> in the format:

**<Server name="APP\_SERVER\_NAME" url="http://APP\_SERVER\_NAME:PORT\_NUMBER/servlet/COM2EJB" uid="" password=""/>**

Where APP\_SERVER\_NAME is the name of the application server, and

PORT\_NUMBER is the port number for the application server.

e.g.

<ServerList>

<Server name=" MNEPAPP15-D" url="http:// MNEPAPP15-D:8080/servlet/COM2EJB" uid="" password=""/>

</ServerList>

1. **Save** the file.

# Setup Test Documents

Follow the steps below in order to setup the test documents for the sanity testing section of the installation manual.

## Set up File System

1. Unzip the **AutoPay\_Test\_Files.zip** file onto the file system.
2. Upload the AutoPay.xml, AutoPay.xsd and AutoPay\_ReadingDef.xml files from the newly unzipped AutoPay\_Test\_Files folder to the **D:\xPression\CustomerData** directory on the server.
3. Move the **AutoPay.xsd** to the **D:\xPression\CustomerData\Schema** directory.
4. Move the **AutoPay\_ReadingDef.xml** to the **D:\xPression\CustomerData\ReadingDef** directory.

## Import PDP

1. Open IE and go xAdmin: http://MNEPAPP81-D:8443/xAdmin
2. Log into **xAdmin** user and password (default installation is xpression/xpression)
3. Go to **Migration Utilities**
4. Click on **Import**
5. If used Enterprise\_Edition\_Server\_Installer.jar file, browse to the location of the **AutoPDP\_PublishOnly.zip** on the local file system contained in the AutoPay\_Test\_Files folder.
6. If used Enterprise\_Edition\_Server\_with\_CompuSet\_Installer\_Windows.exe file, browse to the location of the **AutoPDP.zip** on the local file system contained in the AutoPay\_Test\_Files folder.
7. Click Start (little green arrow icon under the first set of actions at the top)

You should see Migration successful.

## Set up Publish Output Profile

1. Go to **Publish Output Management** on the left.
2. Click on **Distribution Definition**
3. Click the Add button to create a new one
4. Call it **SinglePrint.**
5. Click **Save** at the top.
6. Make sure the output directory for print files path is set to **D:\xPression\Publish\output**
7. Under **Print File Naming convention**, add Literal.
8. Type **test** in the box.
9. Click **Save** at the top (little disk icon under actions).
10. Click on **Output Profiles** on the left under Publish Output Management.
11. Click Add to create a new one.
12. Call it **SinglePrint\_PDF**.
13. Click the **Add** button under Output Profile Combination.
14. Choose **EmptyStream** for the Output Stream
15. Choose **PDF** for the Output Definition
16. Choose **SinglePrint** for the Distribution Definition
17. Click **Save** at the top.

You should see “Publish Output Profiles: General Information for SinglePrint\_PDF” at the top if it is created successfully. If not, double-check settings.

## Set up Return Output Profile

1. Go to **Publish Output Management** on the left.
2. Click on **Distribution Definition**
3. Click the Add button to create a new one
4. Call it **Return.**
5. Select the **Return to Calling Application** bullet below the name.
6. Click **Save** at the top.
7. Click on **Output Profiles** on the left
8. Click **Add** to create a new one.
9. Call it **Return\_PDF**.
10. Click the **Add** button below.
11. Choose **EmptyStream** for the Output Stream
12. Choose **PDF** for the Output Definition
13. Choose **Return** for the Distribution Definition
14. Click **Save**

You should see “Publish Output Profiles: General Information for Return\_PDF” at the top if it is created successfully. If not, double-check settings.

## Setup Customer Data Source

1. Go to **Category Management** on the left.
2. Click on **Customer Data Sources** below it
3. Click on **Automatic Payment Letter**
4. Click on the Find File button on the right.
5. Select **AutoPay.xsd** and click **Open**.
6. Click on the **Get Schema** button.
7. Make sure the **AUTOPAY** table at the bottom is light blue.
   1. If AUTOPAY is not light blue, check the box to the left of it and click **Set Primary** button above.
8. Click on the **AUTOPAY** table name.
9. Check the box on the right next to **AUTOPAY\_KEY** under the PK column.
   1. You should see the AUTOPAY\_KEY row turn dark blue.
10. Click **Update** at the bottom.
11. Click the **Save** icon at the top of the window.
12. Click on **Customer Data Sources** on the left again
13. Click on **AUTOPAY-XML** this time
14. Make sure the path in the “Customer Data Location” box is **D:\xPression1\CustomerData\AUTOPAY.xml**.
15. Click **Save** icon at the top to be sure it can find the XML.
16. Click the **Get Reading Definition** button in the middle of the page.
17. Select the **AutoPay\_ReadingDef.xml** file and click Open.
18. Click **Save** icon at the top.

Customer Data Source is now set up.

## Setup Category

1. Click on **Category Management** on the left.
2. Click on **Categories** on the left
3. Click on the **Automatic Payment Letter** category name.
4. Click on the **Access Rights** tab.
5. Click on **xPression Design**.
6. Click on **Add**
7. **Add** the **xPression** **Users** group from available users to new selected users
8. Click **Save** at the top.
9. Check all available boxes to the right of the name.
10. Click **Save** at the top.
11. Click on the **Workflow** tab.
12. Click on **View/Change** next to xPression Design**.**
13. Check the box next to **SUBMITTED** and click **Set User Access**.
14. Click **Add Approver**.
15. Select the newly added user and click **Add**.
16. Click the **Save** icon at the top.
17. Check the box next to the newly added userand click **Add Submitter.**
18. Select the newly added user and click **Add**.
19. Click the **Save** icon at the top.
20. Click the **Save** icon at the top again.

## Setup xDashboard Job

1. Click on **xDashboard in the top-right corner.**
2. **Login** with the same xAdmin user and password.
3. Click on the **Add** icon to create a new job (looks like a blank piece of paper with a plus).
4. Enter in **Test** for the name.
5. Choose **xPression Publish** type
6. Choose **SinglePrint\_PDF** for the output profile
7. Click **Save** at the top
8. Click **Add Step** under Job Steps on the right
9. Enter in **test** for the name.
10. Choose **Assemble** for the type
11. Choose **xPression** for the document type
12. Choose **Automatic Payment Letter** for the category
13. Choose **Automatic Payment Letter** for the document
14. Choose **AUTOMATIC PAYMENT LETTER** for the datasource group
15. Choose **AUTOPAY-XML** for the data source
16. Click **Save** at the top.
17. Click **Save** again**.**

# Test xPression

Now that everything has been set up, the next step is to run the tests.

## xDashboard Test

1. Open IE and go xDashboard: **http://MNEPAPP81-D:8443/xDashboard**
2. Click on the **Test** job.
3. Click **Start**.
4. Once notified that the job has completed, click on **Job History tab** at the top.
5. Verify that the job ran successfully.
   1. If not, confirm setup of xDashboard is correct using the previous section.
6. Navigate to D:\xPression\Publish\output on the file system.
7. Open up test.pdf and confirm it looks okay.

## BatchRunner Test

1. Log onto the MNEPAPP81-D server
2. Navigate to D:\xPression1
3. Run BatchRunner with the following command:

**BatchRunner.bat –j Test**

1. Confirm that BatchRunner finished with an error count of **0**
2. Navigate to D:\xPression\Publish\output on the file system.
3. Open up test.pdf and confirm it looks okay.

If not, confirm setup of xDashboard is correct using the previous section.

## xDesign Test

1. **Launch** xDesign
2. Log in as the **user** added to the Automatic Payment Letter category in xAdmin
3. Go to **File menu 🡪 Open**
4. Select the **Automatic Payment Letter** document
5. Click on the **Preview** tab in the lower-left.
6. **Confirm** that a list of customer data records is available.
   1. If not, make sure the path to the XML file is correct in xAdmin (see the section on setting up the customer data above)
7. Double-click on data record **1**.
8. Right-click on it and choose **View Document**.
9. Verify that an HTML preview is created.
10. Go to the View menu 🡪 Word
11. Verify that a Word preview is created on the right.
    1. If it opens up a new Word document, just close it.
    2. If notified that macros are disabled, just close it. That is normal.
12. Go to the View menu 🡪 xPression Publish
13. Verify that a PDP preview is created on the right.
14. Right-click on data record 1 again and choose **Publish Document**.
15. Choose the **Return\_PDF** output profile
16. Save the file and view it.
17. Back within xDesign, close the document.
18. Go to File menu 🡪 New
19. Call the document New Doc Test and click **Finish**
20. Right-click on New Doc Test and choose New Rule
21. Select Content rule and call it **New Doc Test**
22. Click **Next** and then **Add**.
23. Click **Skip Criteria**
24. Click **Add** and **Next**.
25. Within the Content Item, select all Jurisdictions and click **Finish**.
26. Add text and click **Save and Return to xDesign**.
    1. In Word 2007, go to Add-Ins at the top
27. Go to **Document menu 🡪 Submit All**.
28. Click **OK** when notified that the submit action has completed.
29. Go to **Tools menu 🡪 Approve...**
30. Click the **Select All** button
31. Click the **Approve** button.
32. Enter in **2001/10/29** for the date.
33. Click **OK for All**.
34. Click **OK** when notified that the approve action has completed.
35. Click on **Document menu 🡪 Create Document Version**
36. Provide a date of 2001/10/29 and click **Create**.
37. Click **OK** when notified that the document version has been create.
38. Close out of the document version window.
39. Quit xDesign.

# Sanity Check List

Verify the installation was successful by performing the following checks:

**xAdmin**

|  |  |
| --- | --- |
| 1. Enter a new license | Success |
| 1. Get schema for a customer data source | Success |
| 1. Edit customer data source group | Success |
| 1. Edit customer data source | Success |
| 1. View an attribute set | Success |
| 1. Add a new category and define the properties in the General, Data Sources, Mapping, Access Rights and Workflow tabs. | Success |
| 1. Add /Delete a xPublish Printer Definition | Success |
| 1. Add /Delete a xPublish Distribution Definition | Success |
| 1. Add /Delete a xPublish Output Profile | Success |

**xDesign**

|  |  |
| --- | --- |
| 1. Open an xPublish category |  |
| 1. Change MS Word template |  |
| 1. Generate XML for xPublish Doc |  |
| 1. Assemble a record |  |
| 1. View in Word |  |
| 1. View with HTML |  |
| 1. Publish using the PDF Output Profile |  |
| 1. View published PDF file |  |
| 1. Submit and Approve content in preparation for xResponse/xRevise |  |

**xDashboard**

|  |  |
| --- | --- |
| 1. Create a Job | Success |
| 1. Create a Job step | Success |
| 1. Run a test job. | Success |

**BatchRunner**

|  |  |
| --- | --- |
| 1. Edit the Batchrunner.bat file so that the paths are correct. | Success |
| 1. Run an Job created in xDashboard. | Success |