



ArcGIS Server Geoportal Extension 10 Installation Guide

Copyright © 2010 Esri
All rights reserved.
Printed in the United States of America.

Use Subject to Esri License Agreement

esri® the Esri Globe Logo, and other included marks are trademarks of Esri. All Rights Reserved

The information contained in this document is the exclusive property of Esri. This work is protected under United States copyright law and other international copyright treaties and conventions. No part of this work may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or by any information storage or retrieval system, except as expressly permitted in writing by Esri. All requests should be sent to Attention: Contracts and Legal Services Manager, Esri, 380 New York Street, Redlands, CA 92373-8100 USA.

The information contained in this document is subject to change without notice.

U.S. GOVERNMENT RIGHTS

The Software, Data, Web Services, and Documentation are commercial computer software, commercial data, commercial computer software documentation, and commercial Web Services. The commercial license rights in the License Agreement strictly govern Licensee's use, reproduction, or disclosure of the Software, Data, Web Services, and Documentation. No other license terms or conditions shall apply unless expressly agreed in writing by Esri and Licensee. Esri Software source code is unpublished and all rights to the Software, Data, Web Services, and Documentation are reserved under copyright laws of the United States. In the event any court, arbitrator, or board holds that the Licensee has greater rights to any portion of the Software, Data, Web Services, or Documentation under applicable public procurement law, such rights shall extend only to the portions affected, and use, duplication, or disclosure by the Licensee is subject to restrictions as provided in FAR 52.227-19 (June 1987), FAR 52.227-14 (ALT III) (June 1987), DFARS 252.227-7015 (NOV 1995), or NFS 1852.227-86 (December 1987), or the local, state, or foreign equivalent, as applicable. Contractor/Manufacturer is Esri, 380 New York Street, Redlands, CA 92373-8100, USA."

Contents

1. PRE-INSTALLATION REQUIREMENTS	1
2. SELECT AN AUTHENTICATION MECHANISM FOR THE GEOPORTAL EXTENSION.....	1
3. CONFIGURE A DIRECTORY SERVER FOR THE GEOPORTAL EXTENSION	2
3.1. INSTALL A NEW DIRECTORY SERVER AND CLIENT	2
3.1.1. <i>Install Directory Server</i>	<i>2</i>
3.1.2. <i>Install Directory Server Client.....</i>	<i>3</i>
3.1.3. <i>Define a Connection from the client to the server</i>	<i>3</i>
3.1.4. <i>Create an initial user</i>	<i>4</i>
3.2. ADAPT AN EXISTING DIRECTORY SERVER	6
3.2.1. <i>Create groups for the Geoportals extension roles.....</i>	<i>6</i>
4. RUN THE GEOPORTAL EXTENSION INSTALLER	8
5. SET UP THE DATABASE	9
5.1. ORACLE	9
5.1.1. <i>Setup the Geoportals extension tablespace</i>	<i>10</i>
5.1.2. <i>Create database schema.....</i>	<i>10</i>
5.1.3. <i>Grants: grants_proxy_oracle.cmd</i>	<i>10</i>
5.1.4. <i>Schema: create_schema_oracle.cmd</i>	<i>11</i>
5.2. SQL SERVER.....	12
5.2.1. <i>Create database schema.....</i>	<i>13</i>
5.3. POSTGRESQL	14
5.3.1. <i>Grants: grants_pg.cmd</i>	<i>14</i>
5.3.2. <i>Schema: Run create_schema_pg.cmd</i>	<i>15</i>
6. DEPLOY AND CONFIGURE THE GEOPORTAL EXTENSION APPLICATION	17
6.1. DEPLOY GEOPORTAL.WAR	17
6.2. CONFIGURE GEOPORTAL.....	17
6.2.1. <i>General Geoportals settings</i>	<i>18</i>
6.2.2. <i>Authentication Settings.....</i>	<i>24</i>
6.2.3. <i>Scheduler Settings.....</i>	<i>30</i>
6.2.4. <i>Optional Configurations within gpt.xml.....</i>	<i>31</i>

7. DEPLOY AND CONFIGURE THE SERVLET WEB APPLICATION	34
8. JDBC CONFIGURATION.....	35
9. SMOKETEST THE GEOPORTAL	37
10. DESKTOP TOOLS.....	38
10.1. GEOPORTAL EXTENSION CSW CLIENTS.....	38
10.2. GEOPORTAL EXTENSION PUBLISH CLIENT	39
10.3. GEOPORTAL EXTENSION WMC CLIENT.....	40
Appendix A: Upgrade from Geoportal extension 9.3.x to 10.....	42

INTRODUCTION

This document is a guide for installing and initial configuration of the ArcGIS Server Geoportal Extension 10. There are two common scenarios for installing this software: 1) your organization installed a previous 9.3.x version of the Geoportal extension and now you want to upgrade to version 10, or 2) your organization has purchased the Geoportal extension and will be deploying the 10 version as the initial Geoportal implementation.

This document addresses both scenarios. **IMPORTANT:** If you have already implemented the Geoportal extension at version 9.3.x and just want to upgrade, please go to **Appendix A** at the end of this document and follow the guidelines there. If this is your organization's initial installation of the Geoportal extension, begin at the first step below and follow instructions all the way through.

After installing Geoportal extension 10, the webhelp documentation available at http://help.arcgis.com/en/geoportal_extension/10.0/help/index.html provides additional information for customizations, usage, troubleshooting, and more.

1. PRE-INSTALLATION REQUIREMENTS

Prior to installing, please review the system and pre-installation requirements. See http://help.arcgis.com/en/geoportal_extension/10.0/help/index.html#/Preinstallation_Requirements/00t000000041000000/.

2. SELECT AN AUTHENTICATION MECHANISM FOR THE GEOPORTAL EXTENSION

Geoportal extension 10 offers two different authentication mechanisms – 1. Simple Authentication and 2. LDAP Authentication. Which one you select depends solely on your Geoportal instance requirements. The table below gives a quick summary of features available in each option, followed by a more detailed explanation.

Feature	Simple Authentication	LDAP Authentication
Single sign-on with other applications		•
User roles		•
User accounts/profiles		•
LDAP software required		•
Authentication configured in property file	•	
Quick installation	•	

Simple Authentication

With simple authentication, there is only one user in the Geoportal extension – the administrator. This user is specified in the main Geoportal extension configuration file, `gpt.xml`. Choosing this authentication mechanism does not require any additional external software to be installed. Single sign-on between the Geoportal extension and other applications is not possible.

This mechanism is a quick option for initial application testing, but is not recommended for a production environment.

If you choose simple authentication for your Geoportal extension instance, please skip *Section 3: Configuring a Directory Server for the Geoportal extension*, and proceed to *Section 4: Running the Geoportal extension Installer*.

LDAP Authentication

For full functionality of user-based roles in Geoportal extension 10, and to have the possibility of single sign-on with other applications, an LDAP-enabled Directory Server is required for the authentication mechanism. You may use an existing Directory Server if you already have one in your organization. If you currently do not have a Directory Server, and you wish to have user-based roles, and/or single sign-on, you will need to install a Directory Server.

If you choose LDAP authentication for your Geoportal extension instance, please proceed with *Section 3: Configure a Directory Server for the Geoportal extension*.

3. CONFIGURE A DIRECTORY SERVER FOR THE GEOPORTAL EXTENSION

For a complete feature-rich Geoportal extension instance, the authentication mechanism must rely on LDAP communication. If you already have an existing Directory Server setup in your organization, you may use it for Geoportal extension purposes with minimal configuration customizations. For users without a pre-existing Directory Server, section 3.1 will help you through the steps of setting up an open source Directory Server for the Geoportal extension.

If you have an existing Directory server accessible via LDAP, skip step 3.1 and proceed directly to step 3.2.

3.1. INSTALL A NEW DIRECTORY SERVER AND CLIENT

3.1.1. Install Directory Server

There are quite a few open source directory servers available. For the purposes of this installation guide we have selected Apache Directory Server. However other Directory Servers that support LDAP version 3, such as Sun OpenDS or Microsoft Active Directory can be used.

Apache Directory Server can be downloaded from: <http://directory.apache.org>

After the installation of your Directory Server is complete, make sure that the Directory Server is active, by checking whether its service is started.

- Open Control Panel>Administrative Tools>Services
- Highlight the service representing your Directory Server.
- If its status is not “Started”, click “Start”.


3.1.2. *Install Directory Server Client*

Like with Directory Servers, there are quite a few open source directory server clients available for browsing your directory structure. For the purposes of this installation guide we have selected JXplorer. However other directory server clients such as Apache Directory Studio can be used.

Jxplorer can be downloaded from: <http://www.jxplorer.org>

3.1.3. *Define a Connection from the client to the server*

The information in this section assumes you have installed Apache Directory Server and JXplorer. If you have a different combination of software, you can skip this step or use the information within it as a guide.

- Launch JXplorer.
- From the File menu, select “Connect” or click on the “Connect to DSA” button. 
The Open LDAP/DSML Connection window opens.
- Enter the following parameters:
 - a. Host – the machine name on which the LDAP server was installed.
 - b. Port – the port number on which the LDAP server is running. Apache Directory Server default is usually 10389 or 19389.
 - c. Protocol – select LDAP v3

- d. DSML Service – leave blank
 - e. Base DN – leave blank
 - f. Level – select “User + Password”
 - g. User DN – the **distinguished name** (identifier) of the default admin user. Apache Server default is: *uid=admin,ou=system*
 - h. Password – the password to the LDAP server. Apache Server default is: *secret*
- Click OK.
- If all settings are correct, the connection dialog will disappear, and in the left-hand pane of the JXplorer window, with the “Explore” tab selected, you should see a tree structure, with “World” being the top node, with “com”, “schema” and “system” nodes beneath it.
- If the connection settings are incorrect, an error message will appear, and the connection dialog will still be open. Verify your settings and try establishing the connection again.
- Next time you go into the connection dialog, the settings you entered will no longer be present. To save the settings:
- a. Enter in all necessary information from step 2 above.
 - b. Click the “Save” button in the bottom left corner.
 - c. Enter a template name in the “Replace/Create Template” dialog.
 - d. Click OK.
- To open a connection with saved settings, open the connection dialog, and choose a saved template from the drop down list near the bottom of the dialog. All previous settings should automatically fill out, except for the password.
- Enter the password for the admin user and click OK.

Now that you have a directory server available, and a client with which to browse it, you need to configure the directory server for the Geoportal extension.

3.1.4. *Create an initial user*

In this step you will create a user entry, to which you will later grant Geoportal extension administrator privileges.

- Open JXplorer if it isn’t already open and connect to your Directory Server.

- Right-click on the “users” organizational unit and select “New” from the context menu. The Set Entry Object Classes dialog appears.
- Ensure that the checkmark is on for the “Suggest Classes?” option at the top of the dialog.
- The following four (4) classes need to be chosen for this node:
 - organizationalPerson
 - inetOrgPerson
 - person
 - top
- If any of the four classes listed above are not listed in the “Selected Classes:” panel on the right, add them to the panel by selecting them in the left-hand panel “Available Classes:” and clicking the “Add” button.
- If more than the four classes listed above are listed, remove the extras by selecting them in the right-hand panel “Selected Classes:” and clicking the “Remove” button.
- In the second text box, labeled “Enter RDN”, type in “cn=gptadmin”. This sets the user’s name as “gptadmin”. You can choose a different name if you want, as the geoportals does not rely on the name of the user but rather the group the user belongs to for role-based functionality.
- Click OK. This creates a user called gptadmin. Later, you will move this newly created user to a geoportals administrators group.
- You are taken immediately to the Table Editor tab, where additional properties need to be filled in for this user.

Fill out the following additional attributes by clicking in the “value” column by each attribute and typing in an entry:

- sn – user’s last name. Type “gptadmin”
- mail – user’s email (in case of forgotten password).
- uid – user’s userId. This needs to be the same as the username used to create the entry (and the same as the cn attribute value listed in the table) i.e. “gptadmin”
- userpassword – user’s password. When the value column of the password field is clicked, a “User Password Data” dialog will appear:
 - Enter the user password in the 1st box.
 - Re-enter the user password in the 2nd box.
 - Select “SHA” from the drop-down list.
 - Click OK.

- ❑ Click Submit.
- ❑ The new gptadmin user should appear as a new node under the “users” organizational group in the explorer tree.
- ❑ Repeat the above steps, creating new users for the remaining Geoportal extension roles. We suggest using the following user names:
 - gtpublisher
 - gptuser

Your Directory Server is now ready to be populated with additional Geoportal extension specific entries. Follow the steps in Section 3.2 to finish configuring your Directory Server for the Geoportal extension.

3.2. ADAPT AN EXISTING DIRECTORY SERVER

The Geoportal extension relies on user roles in order to grant various user and functionality privileges. The three pre-defined Geoportal extension roles are:

- Administrator
- Publisher
- Registered User

With LDAP authentication, the definition of the Geoportal extension roles is achieved by creating Directory Server “group” entries. A group entry is defined as an entry that has an object class of “groupOfUniqueNames”, thereby allowing it to have member (person) entries.

3.2.1. Create groups for the Geoportal extension roles

The group structure in your Directory Server does not have to adhere to any particular schema. However it is strongly recommended that you adhere to a group structure which maps directly to the pre-defined Geoportal extension roles.

If you are working with a newly installed Directory Server, this is fairly straightforward to create, and instructions are provided in this section.

If you are working with an existing Directory Server, you can either create a new set of groups specifically for the Geoportal extension, or decide what the best possible mapping is of your existing groups to the new Geoportal extension roles. This needs to be done in such

a way that it does not disrupt your existing applications' authentication mechanisms, yet can be adapted to the Geoportals extension requirements.

The steps in this section assume the following:

- a) You are using JXplorer as your Directory Server client browser.
 - b) You will be creating groups that directly map to the Geoportals extension roles.
 - c) You have an organizational unit in your directory structure called "groups". If you have another organizational unit, substitute your organizational unit's name for the word "groups" in the steps below.
1. Open JXplorer if it isn't already open and connect to your Directory Server.
 2. Right-click on "groups" and select "New" from the context menu. The Set Entry Object Classes dialog appears.
 3. Ensure that the checkmark is on for the "Suggest Classes?" option at the top of the dialog.
 4. The following two (2) classes need to be chosen for this node:
 - a. groupOfUniqueNames
 - b. top
 5. If any of the two classes listed above are not listed, add them to the panel by selecting them in the left-hand panel "Available Classes:" and clicking the "Add" button.
 6. If more than the two classes listed above are listed, remove the extra ones by selecting them in the right-hand panel "Selected Classes:" and clicking the "Remove" button.
 7. Now you will create a group for the geoportals administrators. Enter a group name of "gpt_administrators" by filling out the second text box, labeled "Enter RDN". Leave the "cn=" text present in the box or enter in "cn=" if the text is not present and type in your group name after the equals ("=") sign. i.e. cn=gpt_administrators
 8. Click OK.
 9. You are taken immediately to the Table Editor tab, where the "uniqueMember" attribute must be specified:
 - Since member ids are not trivial, temporarily enter dummy information for the value of uniqueMember. Even though you are putting in dummy info, it still has to conform to LDAP standards. Enter "cn=abc".
 - Click Submit to create the group. The new group "gpt_administrators" should appear as a new entry under "Groups" in the explorer tree

10. Now you will add a real user to this group. Navigate to the Users branch, and right-click on a user to be a member of the geoportal administrators group you just created.
 - Select “Copy DN” from the context menu. This copies the user’s distinguished name (a unique LDAP user identifier) to the clipboard.
 - Go back to the Groups branch and click on the gpt_administrators group.
 - In the table editor panel on the right-hand side, click inside the value column for the “uniquemember” attribute that has the dummy “cn=abc” value.
 - Press ctrl+v on your keyboard to paste the copied DN from the clipboard into this value field.
 - Click Submit.
- Repeat the above steps, creating new groups for the remaining Geoportal extension roles. Use the following group names and associate the appropriately corresponding users that you created in Step 3.1.4, or who already exist in the directory structure for your organization:
 - For geoportal publisher users, create a group called gpt_publishers
 - For geoportal registered users, create a group called gpt_registeredUsers

4. RUN THE GEOPORTAL EXTENSION INSTALLER

The ArcGIS Server Geoportal extension comes with an installer that installs and unzips all the files that make up the ArcGIS Server Geoportal extension

- Insert the ArcGIS Server Geoportal extension 10 installation media.
- A screen should automatically launch, providing links to the Quick Start Guide, Release Notes, and the Setup files.
- Click the 'Setup' link on the screen, or run setup.exe from the DVD root.
- If you receive a security warning dialog, click Run.
- On the Welcome screen, click Next.
- Read and accept the license agreement. Click Next.
- On the next screen, you will be asked for your name and organization, and also you’re Authorization Code. The Authorization Code comes from an email that your organization received upon order the Geoportal extension software. Enter the Authorization Code – three letter code and then nine digit number – on this screen. Click Next.

- Change or accept the default installation directory of C:\Esri\Geoportal Extension 10. Click Next.
- Click Install.
- When the installer finishes, click Finish to dismiss the Installer dialog.

5. SET UP THE DATABASE

The Geoportal extension database scripts create a schema in the default database in your system. If you would like the Geoportal extension tables to exist in its own database, you will want to create a new database upon which you will run the Geoportal extension database scripts. This is recommended for requirements on backing up or restoring your Geoportal database.

IMPORTANT: The database setup instructions vary significantly depending on the database software used.

If you are a Linux user, please refer to the document <Geoportal extension Installation Dir>Documentation\Installation\Geoportal10_InstallationGuide_Linux.pdf for Linux specific instructions.

For Windows users:

- Oracle users please follow the steps in section 5.1.
- SQL Server users please skip to section 5.2.
- PostgreSQL users please skip to section 5.3.

5.1. ORACLE

In this section you will set up the tablespace and schema that will be used for the Geoportal extension. The Geoportal extension should run in its own tablespace and schema. You will be using SQL commands to set up the user schema, and then a SQL script to populate the schema with tables. The sample values below are used as examples but can be set to different values if necessary for your Geoportal implementation. When you choose different values, you may need to alter some default values in the Geoportal extension configuration files:

- Tablespace name: geoportal10
- Database User: geoportal10
- Database User Password: geoportal10pwd

5.1.1. Setup the Geoportal extension tablespace

Open the command console (Start>Run>cmd)

Type: sqlplus /nolog



Tip: In the following commands, be sure to include the semicolons.

SQL>connect sys/sys as sysdba;

SQL>create tablespace geoportal10 datafile 'C:\oracle\oradata\geoportal10.dbf' size 500M AUTOEXTEND ON;

SQL>create user geoportal10 identified by geoportal10pwd default tablespace geoportal10 temporary tablespace temp;

SQL>commit;

SQL>quit.

5.1.2. Create database schema

Creating the database schema involves running two scripts:

1. A “grants” script that sets the user permissions for creating the geoportal10 schema.
2. A “create schema” script that creates the table structure, procedures and triggers and populates tables in the geoportal10 schema.

The scripts are located in <Geoportal extension Installation Dir>\Database Scripts\Oracle.

5.1.3. Grants: grants_proxy_oracle.cmd

Syntax of the grants_proxy_oracle.cmd

- o sys username—Oracle database sys user name. Default = sys
- o sys password—Password of the Oracle database sys user. Default = sys
- o geoportal10 username—The user name of the geoportal10 schema owner. Default = geoportal10

Open a command prompt window. Start>Run>cmd

Change directories to point to <Geoportal extension Installation Dir>\Database Scripts\Oracle.

- ❑ Run the grants_oracle.cmd file from the command prompt window using the following parameters:
Usage: grants_oracle [sys username] [sys password] [geoportals10 username] Where
[sys username] is the username of the sys user in Oracle
[sys password] is the password of the sys user in Oracle
[geoportals10 username] is the geoportals10 user

Sample Input: grants_oracle sys sys geoportals10

- ❑ When the script finishes executing you will be returned back to the command prompt and a text file (grants.txt) will open. Check the grants.txt file for any possible error messages.



IMPORTANT: You must fix any errors appearing in the grants.txt file, except for errors that result from dropping tables and indexes – these are normal. For other errors, do not continue until the script runs without errors.

5.1.4. Schema: create_schema_oracle.cmd

The create_schema_oracle script will create the necessary tables in Oracle to support the Geoportals extension 10 application. This script is for new instances of the Geoportals extension, or for scenarios where you want to have a clean database. If you run this script on top of an existing Geoportals extension installation, you will overwrite your existing Geoportals database!


Syntax of the create_schema_oracle.cmd

- geoportals10 username – The user name of the geoportals10 schema owner. Default = geoportals10
- geoportals10 _password—The password for the geoportals10 schema owner. Default = geoportals10pwd

- ❑ Open a command window. Start>Run>cmd
- ❑ Change the directory to the <Geoportals extension Installation Dir>\Database Scripts\Oracle folder
- ❑ Run the create_schema_oracle.cmd file from the command prompt window using the following parameters:
Usage: create_schema_oracle [geoportals10 username] [geoportals10 password]
Where
[geoportals10 username] is the username of the geoportals10 schema owner.
[geoportals10 password] is the password of the geoportals10 schema owner.

Sample Input: create_schema_oracle geoportal10 geoportal10pwd

- When the script finishes executing you will be returned back to the command prompt and a text file (GPT_Schema.txt) will open. Check the GPT_Schema.txt file for any possible error messages. Error messages and warnings, which state that Table or view does not exist, can be ignored. It simply means that the script was trying to delete a nonexistent table.

Select	Schema 	Table Name	Tablespace
<input checked="" type="radio"/>	GEOPORTAL10	GPT_HARVESTING_HISTORY	GEOPORTAL10
<input type="radio"/>	GEOPORTAL10	GPT_HARVESTING_JOBS_COMPLETED	GEOPORTAL10
<input type="radio"/>	GEOPORTAL10	GPT_HARVESTING_JOBS_PENDING	GEOPORTAL10
<input type="radio"/>	GEOPORTAL10	GPT_RESOURCE	GEOPORTAL10
<input type="radio"/>	GEOPORTAL10	GPT_RESOURCE_DATA	GEOPORTAL10
<input type="radio"/>	GEOPORTAL10	GPT_SEARCH	GEOPORTAL10
<input type="radio"/>	GEOPORTAL10	GPT_USER	GEOPORTAL10

5.2. SQL SERVER

In this section you will use a script to set up the database, users and server logins that will be used for the Geoportal extension. The Geoportal extension should run in its own database. The sample values below are used as examples but can be set to different values if necessary for your Geoportal implementation. When you choose different values, you may need to alter some default values in the Geoportal extension configuration files:

- Database name: geoportal10
 - Database Login and User: geoportal10
 - Database Login and User Password: geoportal10pwd
- Verify that your server allows both Windows authentication and SQL Server authentication. If your server only allows Windows authentication, then the user that the script creates will not be able to logon to create the tables. The error in the build_schema.log file will read 'Login failed for user'. To check and possibly change the security authentication mode (as per Microsoft, article <http://msdn.microsoft.com/en-us/library/ms188670.aspx>), do the following:
 - Login to SQL Server Management Studio.
 - In SQL Server Management Studio Object Explorer, right-click the server, and then click Properties.

- On the Security page, under Server authentication, select the "SQL Server and Windows Authentication Mode" radial if it is not already selected, and then click OK.
 - In the SQL Server Management Studio dialog box, click OK to acknowledge the requirement to restart SQL Server.
- Open a command window. Start>Run>cmd
 - Change the directory to the <Geoportal extension Installation Dir>\Database Scripts\SQL Server folder

5.2.1. *Create database schema*

To support multi-lingual geoportals, the SQL Server database must be able to support Unicode characters. If your geoportal will be in a language other than English, you should run the `create_schema_mssql_unicode` script for this step. If not, then use the `create_schema_mssql` script as shown below. Input parameters are the same for the Unicode version of the script.

- Run the `create_schema_mssql` script by typing the following:

```
create_schema_mssql [database server machine] [Geoportal database name]
[Geoportal database user] [Geoportal database user password]
```

Where

- [database server machine] is the name of the machine on which SQL Server is installed, or the named SQL Server Instance (e.g. <machineName>\instance) if applicable
- [Geoportal database name] is the name you designate for the Geoportal database
- [Geoportal database user] is the name of the login and user that will have access to the Geoportal database. This script creates a user if one does not already exist
- [Geoportal database user password] is the password for the login and user of the Geoportal database

In our example, the command line would look like this:

```
create_schema_mssql mymachine geoportal10 geoportal10 geoportal10pwd
```

- After running the script, open SQL Server Management Studio and refresh the Databases folder from the Object Browser. Verify that a new database was created, and has the list of tables as shown in the image below. If the tables were not created, consult the build log file for any potential errors. The log file can be found in the same folder as the scripts that you ran.



- Open the build_schema.log file that was created when the database script finished. You will find this file in the same folder as the source sql scripts. The file should not contain any errors. It may possibly contain the following warnings, which you can safely ignore:

```
Warning! The maximum key length is 900 bytes. The index
'GPT_RESOURCE_IDX2' has maximum length of 4000 bytes. For some
combination of large values, the insert/update operation will fail.
Warning! The maximum key length is 900 bytes. The index
'GPT_RESOURCE_IDX3' has maximum length of 4000 bytes. For some
combination of large values, the insert/update operation will fail.
Warning! The maximum key length is 900 bytes. The index
'GPT_RESOURCE_IDX5' has maximum length of 4000 bytes. For some
combination of large values, the insert/update operation will fail.
Warning! The maximum key length is 900 bytes. The index
'GPT_RESOURCE_IDX11' has maximum length of 4000 bytes. For some
combination of large values, the insert/update operation will fail.
```

5.3. POSTGRESQL

Setting up a PostgreSQL database for the Geoportals extension consists of two steps – setting up database permissions, and creating the database schema. Each of these steps is accomplished by running a script:

1. A “grants” script that sets the user permissions for creating the geoportal10 schema
2. A “create schema” script that creates the table structure, procedures, and triggers and populates tables in the geoportal10 schema.

The scripts are located in <Geoportals extension Installation Dir>\Database Scripts\PostgreSQL

5.3.1. Grants: grants_pg.cmd

This script creates a database schema called 'geoportal10', as well as an associated user, also named 'geoportal10'. It also establishes permissions for the geoportal10 user to the geoportal10 schema.

- Open a command prompt window. Start>Run>cmd
- Change directories to point to <Geoportal extension Installation Dir>\Database Scripts\PostgreSQL.
- Run the grants_pg.cmd file from the command prompt window using the following parameters:

Usage: grants_pg [host] [port] [database] [geoportal schema] [userToConnect]
[geoportalUser]

Where

[host] is the machine name hosting PostgreSQL

[port] is the port number of PostgreSQL. Default = 5432

[database] is the database name for the geoportal. Default = postgres

[geoportal schema] is the name for the geoportal schema. Default=geoportal10

[userToConnect] is the name of the user to connect to the database as.

Default=postgres

[geoportalUser] is the name for the geoportal schema owner. Default=geoportal10

Sample Input: grants_proxy_pg localhost 5432 postgres geoportal10 postgres
geoportal10

- When prompted with the message "Enter password for new role:", input the password for the geoportal10 user
- When prompted with the message "Enter it again:", input the password for the geoportal10 user again.
- When the script finishes executing you will be returned back to the command prompt and a text file (grants_pg.txt) will open. Check the grants_pg.txt file for any possible error messages.



IMPORTANT: You must fix errors appearing in the grants_pg.txt file, except for errors that result from dropping tables and indexes – these are normal. For other errors, do not continue until the script runs without errors.

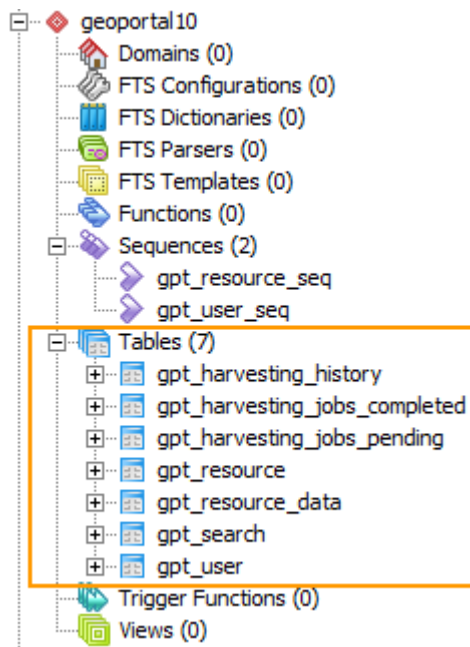
5.3.2. Schema: Run create_schema_pg.cmd

This script creates the table structure for the Geoportal and populates some tables.

- ❑ Run the create_schema_pg.cmd file from the command prompt window using the following parameters:
Usage: create_schema_pg [host] [port] [geoportals database] [geoportals user]
Where
[host] is the machine name hosting PostgreSQL
[port] is the port number of PostgreSQL. Default = 5432
[geoportals database] is the Geoportals database name. Default = geoportals10
[geoportals user] is the name for the geoportals schema owner. Default = geoportals10

Sample Input: create_schema_pg machineName 5432 geoportals10 geoportals10

- ❑ When prompted with the message “Enter password for geoportals10 user:”, input the password for the geoportals10 user
- ❑ When the script finishes executing you will be returned back to the command prompt and a text file (Geoportals_Schema.txt) will open. Check the Geoportals_Schema.txt file for any possible error messages. Error messages and warnings, which state that Table or view does not exist, can be ignored. It simply means that the script was trying to delete a nonexistent table.
- ❑ Open the PostgreSQL Administrator tool.
- ❑ Verify that a new database was created, and that it has a list of tables as show in the image below:



6. DEPLOY AND CONFIGURE THE GEOPORTAL EXTENSION APPLICATION

This step deploys the ArcGIS Server Geoportal extension web application. First you will deploy the `geoportal.war` file, and then you will configure its property file so that the web application can successfully communicate with other components of your system.

The steps in this section assume you are running Tomcat. If you are running WebLogic, GlassFish, or ServletExec refer to the appropriate installation document as below:

- *WebLogic: <Geoportal extension Installation Dir>\Documentation\Installation\Geoportal10_InstallationGuide_WebLogic.pdf*
- *GlassFish: <Geoportal extension Installation Dir>\Documentation\Installation\Geoportal10_InstallationGuide_GlassFish.pdf*
- *ServletExec : <Geoportal extension Installation Dir>\Documentation\Installation\Geoportal10_InstallationGuide_ServletExec.pdf*

6.1. DEPLOY GEOPORTAL.WAR

- Copy the `geoportal.war` file from the <Geoportal extension Installation Dir>\Web Applications\Geoportal folder to your <Tomcat>\webapps folder.
- After a few moments, Tomcat should automatically recognize the new war file and deploy it by creating a `geoportal` folder. If it does not, restart Tomcat.



IMPORTANT: If your geoportal will need to support searching multibyte characters – such as Chinese - then you must configure the Tomcat `server.xml` file to support UTF-8 character encoding. In a text editor, open the `server.xml` file from the `\\Tomcat\conf` folder. Add the **`URIEncoding="UTF-8"`** attribute below to the connector settings referenced by the `<connector>` tags for any port the geoportal web application will be using. For example:

```
<Connector port="8080" protocol="HTTP/1.1" connectionTimeout="20000"
redirectPort="8443" URIEncoding="UTF-8" />
```

6.2. CONFIGURE GEOPORTAL

- Navigate to: <Tomcat Installation Directory>\geoportal\WEB-INF\classes\gpt\config
- Open the `gpt.xml` file in a text editor.



The settings mentioned in the tables below are the ones that need modification. If a setting is not mentioned, it should be left with its default value. Additionally, there are a number of optional configuration settings that can be inserted into the *gpt.xml* file but are not included by default. These are indicated in the ‘Optional Configurations within *gpt.xml*’ section below.

6.2.1. General Geoportal settings

Find the section just after the “Mail server configuration” comment. This section defines the *mail* settings to determine who will receive feedback forms submitted from the Geoportal application. It will also determine the return address for any mail sent from the Geoportal, such as password reminders. Set the following properties:

√	Property Name	Function	Accepted Values
	smtpHost	smtp of your mail server	Any valid smtp address.
	smtpPort	Port on which the mail server runs	Integer specifying a port.
	siteEmailAddress	The email address of the person who is to receive feedback forms, and is the email address from whom email is sent out from the Geoportal.	Any valid email address.
	smtpAuth	Settings for username, password and whether the password is encrypted if the smtp server requires authentication	Valid string values for username and password. True or false for the “encrypted” parameter.

Next, find the “interactiveMap” start tag. The *interactiveMap* settings determine information about the map used on the search page. Set the properties as per the table below. For properties not mentioned, leave the defaults already set in the file.

√	Property Name	Function	Accepted Values
	jsapiUrl	URL to the ArcGIS Server JavaScript API. Default: http://serverapi.arcgisonline.com/jsapi/arcgis/?v=2.0	Any valid URL pointing to the ArcGIS Server JavaScript API.
	mapServiceUrl	REST URL to a map service that is to be used for the map on the search page. Example: http://localhost:8399/arcgis/rest/services/MapServiceName/MapServer	Any valid REST URL pointing to an ArcGIS Server map service.
	mapServiceType	The caching scheme for the map service	String. “dynamic” or “tiled”. Note: the search map may not display tiled services correctly. For best results, set this to “dynamic”.

geometryService Url	REST URL to a geometry service that is used to handle the projection of coordinates when using a projected map service. Example: http://localhost:8399/arcgis/rest/services/Geometry/GeometryServer	Any valid REST URL pointing to an ArcGIS Server Geometry Service.
locatorUrl	URL to an ArcGIS Server locator service, used for the find place functionality.	Any valid URL pointing to an ArcGIS Server locator service.
locatorSingleFieldParameter	Parameter name associated with a single field locator. This is used for the place search function in the geoportal search page map.	String value representing a locator field. This will be one of the Address Fields parameters when you view the locator service information in a web browser (Examples: City, State, Zip).

Find the catalog start tag. The *catalog* settings contain general information needed by the Geoportal to connect to the database and appropriate schema. Set the following properties:

√	Property Name	Function	Accepted Values
	gptTablePrefix	The prefix that is used for all database tables created for the Geoportal	String representing a table prefix. Default: GPT_

The *lucene* settings contain information about the Lucene index. Lucene is the local indexing engine used by the Geoportal for indexing published documents for fast retrieval in a search (see webhelp http://help.arcgis.com/en/geoportal_extension/10.0/help/index.html#/Using_Lucene_Search_Text_Queries/00t0000000004000000/ for more information). **IMPORTANT:** You will need to create a folder to hold the index files. After creating a new folder and giving it a sensible name (e.g., “lucene”) set the following properties:

√	Property Name	Function	Accepted Values
	indexLocation	Absolute path to the folder that will hold indexed documents. This can be any path on your machine. Example: C:\lucene	String representing an absolute path.

writeLockTimeout	Time in milli-seconds that Lucene will wait to acquire a write-lock. The write-lock is used to keep processes from concurrently attempting to modify an index. Lucene will at times generate an inactive write-lock file within the indexLocation folder, and this file may require manual deletion.	Any integer. Default: "60000", which is 60 seconds
useNativeFSLockFactory	If true a NativeFSLockFactory is used otherwise use a SimpleFSLockFactory. For NativeFSLockFactory documentation, see http://lucene.apache.org/java/2_4_0/api/org/apache/lucene/store/NativeFSLockFactory.html	Boolean value: "true" or "false". Default: "true"
analyzerClassName	The class name for the Lucene analyzer	Default: org.apache.lucene.analysis.standard.StandardAnalyzer

There are additional parameters that define the Lucene index for the ability to comment and rate resources. The Lucene *index based assertions* settings define where the comment and rating index is stored and other settings for this feature. Set the following properties:

✓	Property Name	Function	Accepted Values
	assertion.index.enabled	Indicates if ratings and comments should be enabled.	true or false
	assertion.index.location	Filepath to the folder that will hold the indexed comments and ratings.	String representing an absolute path. NOTE: This index should not be deleted and should be on a file backup/restore plan. Also, this filepath should not be the same location as the lucene\indexLocation value set earlier.
	assertion.index.allowNonLocalResourceIds	If true, comments and ratings can be made about resources that do not exist in the local catalog.	true or false
	assertion.rating.enabled	Allow users to rate resources.	true or false
	assertion.comment.enabled	Allow users to leave comments for resources.	true or false
	assertion.comment.maxLength	maximum characters allowed for one comment	Integer. Default: 2048

The *search* settings contain general information needed by the Geoportals in order to search and retrieve published metadata documents. Set the following properties:

√	Property Name	Function	Accepted Values
	searchTimeoutMillisecs	The length of time allotted to a search attempt before a timeout error occurs	Any valid integer representing milliseconds. Default: 10000
	distributedSearchTimeoutMillisecs	length of time allotted to a federated search attempt before a timeout error occurs	Integer. Default: 5000
	distributedSearchMaxSelectedSites	maximum number of sites allowed to be searched in one federated search attempt	Integer. Default: 5
	searchResultsPerPage	The number of results to show on a page. If more results are returned than this value, page navigation will be visible	Any integer. Default: 10
	searchResultsReviewsShown	Determines circumstance for displaying the review icon for search results on the search page. Options are "none" (no review icons shown in search results), "only-reviewed" (icon present only for resources that have been reviewed) or "all" (review icon displays for all resources, even if they have not yet been reviewed).	"none", "only-reviewed", or "all". If "only-reviewed" is chosen but the user is logged in, then the page will behave like "all".
	maxSavedSearches	The maximum number of allowed searches in storage, per user.	Any integer. Default: 10
	allowExternalSiteSearch	Whether to enable federated search to remote catalogs.	true or false

You do not need to change settings in the <repositories> tag. A <repository> here refers to a single or type of catalog available in the federated search on the search page. If you leave these settings as default, the Geoportals will provide federated search to the local geoportals catalog, ArcGIS.com, and CS-W repositories flagged to appear on the search page when registered through the 'Register network resource' page.

The *metadataAccessPolicy* settings specify information about what method to use for restricting access to metadata documents. There are three possible methods to choose from:

1. Unrestricted: This means that all documents published to the Geoportals are public and discoverable by anyone.

2. **Public-Protected:** A single LDAP group is identified as a group that can own “private” documents. Any documents set as “restricted” will only be discoverable for users that are logged in and members of the specified group. Public users will not find the restricted documents.
3. **Restricted:** Metadata documents can be restricted to any number of LDAP groups. A document can belong to multiple groups. Any documents set as “restricted” will only be discoverable for users that are logged in and members of the same group or groups that a metadata document belongs to. Public users, or users that do not belong to the same group as the document will not find the restricted documents.

Once you have decided which policy configuration you want for your Geoportal instance, set the *metadataAccessPolicy* setting as below:

√	Property Name	Function	Accepted Values
	Type	The type of metadata access policy to employ in the Geoportal	One of three: <ol style="list-style-type: none"> 1. Unrestricted 2. Public-protected 3. Restricted
	protectedGroup DN	Specifies the single LDAP group that can have “restricted” documents assigned to it. This property is required if the type parameter as above is set to “public-protected”	A valid DN of an LDAP group. Example: “cn=gpt_administrators,ou=groups,ou=system”

The *Sitemap Parameters* settings specify how your site should be indexed for discovery by search engines such as Google™. The settings for each parameter can be left with its current default value. To modify the behavior of your site’s indexing, modify the appropriate parameters as per the descriptions in the gpt.xml file’s inline comments for the sitemap section.

The *Synchronizer parameters* settings are optional settings that define how synchronization is handled in the geoportal. Synchronization is the processes by which registered network resources are revisited by the geoportal to update the geoportal catalog with new resources, propagate updates to existing resources, and delete resources no longer found at the registered network source. For more information, see the webhelp section on synchronization (http://help.arcgis.com/en/geoportal_extension/10.0/help/index.html#/How to Publish Resources/00t00000000n000000/). Synchronization is configured to run automatically by default without further configuration required. The synchronization parameters in the gpt.xml are **optional** configurations. If you do not change these settings, synchronization will automatically

run when you deploy your geoportals, and no additional configuration is required. The synchronizer parameter settings are described in the table below.

v	Property Name	Function	Accepted Values
	webharvester.active	A value of 'false' will disable synchronization in the geoportals	false (if you do not set this parameter, synchronization is enabled by default)
	webharvester.queue Enabled	Allows users to queue a resource for synchronization even if the synchronization is not activated for the geoportals (webharvester.active = "false"). This allows for a segmented geoportals architecture where a separate geoportals instance manages all synchronization, and that geoportals synchronizes with the main geoportals instance.	true or false. Default: current webharvester.active value. IMPORTANT: it is not possible to set this flag to false if webharvester.active = "true"
	webharvester.poolsize	The number of working threads that can run for synchronization. Each thread will be a different synchronization process running concurrently. Example: if four threads are available and three registered resources are set to be synchronized at the same time, three threads will be used and one will be idle. If two more resources are registered for synchronizing while those three threads are running, one of the newly registered resources will begin to be synchronized while the other will be queued to synchronize as soon as a thread is available. There is not a known limit to the number of threads the geoportals can accept and no cost if threads are sitting unused, but there is a limit to how many java can sustain. The default number of threads is four.	Integer value. Default: 4
	webharvester.autoSelectFrequency	Autoselect is a background thread responsible for checking if there is anything eligible to synchronize, and tracks when the next time to synchronize should be. The check is also activated if there is activity on the geoportals's "Register resource on the network" interface.	Default: 1[hour]

webharvester.watchDogFrequency	Similar to autoselect, except used in a load balancing scenario. Checks if anything is cancelled while processing.	Default: 1[MINUTE]
webharvester.baseContextPath	The basecontextpath is most used in a load balanced scenario as an access URL so users can access the synchronization reports in a load balanced situation behind the firewall.	String representing an absolute path.

The *downloadData* settings specify information about the default map service and its corresponding geoprocessing service that is used by the Data Download functionality. Configuring Data Download is a customization and is not required for the functioning of the Geoportals. For information on how to configure the Data Download function, see the webhelp at http://help.arcgis.com/en/geoportals_extension/10.0/help/index.html#/DataDownload_Tab/00t000000040000000/. By default, the taskURL and mapServiceURL are left blank and the download tab will not appear in the Geoportals interface.

6.2.2. Authentication Settings

The *identity* section defines the settings for the Geoportals extension’s authentication.

The opening tag “identity” has an *encKey* attribute which is used to specify an encryption key. This key is used in conjunction with a two-way encryption algorithm to encode/decode user names and passwords that are stored in the database, for example, in the information for a metadata repository. The default value of the key is PtkEsri, which is case-sensitive. The identity element also has a *realm* attribute, which is referenced when a publisher user updates a metadata record by using an external XML editor, such as Altova XMLSpy®. The realm is sometimes - but not always, depending on the XML editor software or system setup - displayed by the client prompting for credentials. The realm value helps users better understand that they are about to log into an editing session for a record from the geoportals. **IMPORTANT:** If the value of encKey is changed at any point, any data already stored in the database that was encrypted with the “old” encKey will become invalid and will have to be re-generated and re-stored in the database to correspond to the new encKey value.

√	Property Name	Function	Accepted Values
	encKey	Encryption key for encrypted values stored in the database.	PtkEsri (default). Any string value is acceptable, but changing post-deployment can have serious repercussions.

realm	Displayed during publisher login for editing a metadata record in an external XML editor	Any String. Default: "Geoportal"
-------	--	----------------------------------

Simple Authentication Settings

The *simpleAdapter* settings specify the user account details for a single administrative user. If per Section 2, you chose to use simple authentication with your Geoportal instance:

- Uncomment this simpleAdapter section by deleting the <!-- and --> comment markings.
- Set the properties as per the following table:

√	Property Name	Function	Accepted Values
	username	The username for the single account.	Any valid string.
	password	The password for the single account.	Any valid string.
	encrypted	Specifies whether the password value set in the password parameter is encrypted or not. For instructions on encrypting your password, refer to the section "Encryption Concepts" in the Web Help document at http://help.arcgis.com/en/geoportals_extension/10.0/help/index.html#/Security_Concepts/00t000000011000000/	True or false

Since you have chosen to use simple authentication, you must comment out the ldapAdapter section:

- Insert the opening comment <!-- just before the <ldapAdapter> tag.
- Insert the ending comment --> just after the </ldapAdapter> tag.

LDAP Authentication Settings

The *ldapConnectionProperties* settings determine the connection to the Directory Server. If per Section 2 you chose to use LDAP authentication with your Geoportal instance, set the properties as per the table below. For properties not mentioned, leave the defaults already set in the file. **IMPORTANT:** Default values below are for an implementation using Apache Directory server. If you are using a different Directory Server provider, this section may need to

be adjusted with values corresponding to your Directory Server software. For guidance with Microsoft Windows Active Directory, Oracle Internet Directory, or IBM Tivoli Directory Server, see the webhelp documentation at

http://help.arcgis.com/en/geoportals_extension/10.0/help/index.html#/Connecting_to_a_User_Directory/00t0000000z000000/

√	Property Name	Function	Accepted Values
	providerUrl	URL to the server on which the directory server management resides, and will include the port used for the LDAP connection.	Any valid LDAP URL. i.e. ldap://machine:port. Common port numbers are 10389 or 19389 for Apache Directory Server, or 389 for Windows Active Directory.
	securityPrincipal	Username with which to connect to the Directory Server.	An LDAP distinguished name. Same value that was used to connect to the Directory Server in step 3.1.3 Example: "uid=admin,ou=system"
	securityCredentials	Password with which to connect to the Directory Server	String representing a password. Same value that was used to connect to the Directory Server in Step 3.1.3. Apache Directory Server default: "secret"
	Encrypted	Specifies whether the password value set in the securityCredentials parameter is encrypted or not. For instructions on encrypting your password, refer to the section "Encryption Concepts" in the Webhelp topic http://help.arcgis.com/en/geoportals_extension/10.0/help/index.html#/Security_Concepts/00t00000011000000/	True or false
	catalogAdminDN	The LDAP distinguished name of the geoportals administrator. Note: This user must be a member of the Geoportals Administrators group.	Any valid DN string. For Apache Directory server, could be the following: "cn=gptadmin,ou=users,ou=system"

The *singleSignOn* settings determine how the Geoportals is to function when configured with single sign-on with other applications. For more information about single sign-on for the Geoportals, see

http://help.arcgis.com/en/geoportals_extension/10.0/help/index.html#/Single_Sign_On/00t000000037000000/.

v	Property Name	Function	Accepted Values
	active	Whether single sign-on is enabled or not.	True or False. Default: false
	credentialLocation	The mechanism for providing credentials	Either "userPrincipal" which is a default Java mechanism. Or a vendor specific value that comes in the http header (header.variableName)
	anonymousValue	The value that represents an anonymous user	Any string. When the header variable is set to this value, the user coming in is "anonymous".
	logoutOutcome	URL specifying where to redirect to on logout.	Valid URL string.

The *selfCareSupport* settings contain information about the behaviors and functionalities of the Geoportals with respects to user account. Usually these settings are either all set to false, or all set to true. Set the following properties:

v	Property Name	Function	Accepted Values
	supportsLogin	Allows a user to login to the geoportals. If False, no login link will be displayed.	True or False. Default: true
	supportsLogout	Allows a user to logout of the geoportals. If supportsLogin is true, it is recommended leaving supportsLogout set to true as well.	True or False. Default: true
	supportsUserRegistration	Whether users can register for accounts in the Geoportals interface. If you don't want users to be able to create new entries in your directory structure through the geoportals interface, then set this to False. This will disable the "Register" link in the geoportals interface.	True or False. Default: true
	supportsUserProfileManagement	Whether users can modify their profile information in the Geoportals interface. If you don't want users to be able to change their user information as managed by the directory server (such as email, name, phone number, etc.) through the geoportals interface, set this to False.	True or False. Default: true
	supportsPasswordChange	Whether users can modify their password in the Geoportals interface.	True or False. Default: true
	supportsPasswordRecovery	Whether the "Forgot Password" functionality is active.	True or False. Default: true

The *roles* settings establish the mapping between Directory Server groups, and the default Geoportal user roles. Set the following properties:

√	Property Name	Function	Accepted Values
	authenticatedUser RequiresRole	Whether each user of the Geoportal has to be assigned to at least one role.	True or False. Default: true
For the <role key="gptRegisteredUser"> tag:			
	groupDN	Name of the Directory Server group that will map to the registered user's role	LDAP Distinguished Name Example: "cn=gpt_registeredUsers,ou=groups,ou=system"
For the <role key="gptPublisher"> tag:			
	Inherits	Name(s) of role(s) whose properties will be inherited by the publisher role. Default: gptRegisteredUser	Comma-delimited string representing (a) role name(s).
	groupDN	Name of the Directory Server group that will map to the publisher's role	LDAP Distinguished Name Example: "cn=gpt_publishers,ou=groups,ou=system"
For the <role key="gptAdministrator"> tag:			
	Inherits	Name(s) of role(s) whose properties will be inherited by the administrator role. Default: gptPublisher	Comma-delimited string representing (a) role name(s).
	groupDN	Name of the Directory Server group that will map to the administrator's role	LDAP Distinguished Name Example: "cn=gpt_administrators,ou=groups,ou=system"

The *users* settings determine properties of user accounts. Set the properties as per the table below. Set the following properties:

√	Property Name	Function	Accepted Values
	displayNameAttribute	The user entry attribute that is used for displaying the user's name in the Geoportal interface.	String representing a user entry attribute name. Default: cn

passwordEncryptionAlgorithm	The algorithm used for encrypting passwords sent from the Geoportals to the Directory Server	Accepted values are "MD5" or "SHA" Default: "SHA"
newUserDNPattern	The pattern of the distinguished name for new users.	String value representing a DN pattern, pointing to the users node. Example: cn={0},ou=users,ou=system
usernameSearchPattern	The search pattern for the Directory Server to use when looking for users.	String value representing a user entry pattern.
searchDIT	The path in the Directory Information Tree to search for users.	LDAP DN representing the "Users" organizational unit entry. Example: ou=users,ou=system
For the <requiredObjectClasses> tag: Each <objectClass> child tag represents a mandatory class that must be part of a new entry when creating new users in the Directory Server. You may add to, modify or delete from this list as needed.		
For the <userAttributeMap> tag: Each key value of an <attribute> child tag represents a property of a user's profile that is used in the Geoportals. Each key value has to be mapped to its Directory Server attribute name equivalent, as represented by the ldapName value. You may add to, modify or delete from this list as needed.		

The *groups* settings determine the properties of the Directory Server groups, set up to map to Geoportals user roles. Set the following properties:

√	Property Name	Function	Accepted Values
	displayNameAttribute	The group entry attribute to use for displaying the group's name. Currently not used in the Geoportals interface.	String representing a group entry attribute name. Default: cn
	dynamicMemberOfGroupsAttribute	A vendor specific attribute that can be used to determine all the groups to which a user belongs	String representing a group entry attribute name. Default: ""
	dynamicMembersAttribute	A vendor specific attribute that can be used to determine all the members of a group.	String representing a group entry attribute name. Default: ""
	memberAttribute	The group entry attribute that is used to determine which users belong to the group	String representing a group entry attribute name. Default: uniquemember
	memberSearchPattern	The search pattern for the Directory Server to use when looking for groups.	String value representing a group entry pattern.
	searchDIT	The Directory Information Tree path to search for groups.	LDAP DN representing the "Groups" organizational unit. Example: "ou=groups,ou=system"

Metadata management groups are special group entries within the Directory Server in which all member users share metadata document editor access. All users belonging to a metadata management group have access to each other’s metadata. Each <metadataManagementGroup> tag specifies the details about an existing metadata management group. You may add to, modify or delete from this list as needed. For each group definition, set the following properties:

√	Property Name	Function	Accepted Values
	Name	The name of the metadata management group, as it exists in the Directory Server	String value representing a group name.
	groupDN	Distinguished name of the metadata management group.	LDAP Distinguished Name

6.2.3. Scheduler Settings

The *scheduler* settings define the properties for Catalog synchronization and the Index optimization. It is important to consider your CatalogSynchronizer and LuceneIndexOptimizer thread time attributes. Make sure that these are not configured to start at the same time.

Catalog synchronization is a process that ensures that the Lucene indexing is synchronized with the resources’ metadata stored in the Geoportall database. The synchronizer will trigger the indexing of all approved or reviewed documents where indexes don’t exist. The <thread> element for the catalog synchronizer has a class value of "com.Esri.gpt.catalog.context.CatalogSynchronizer", which should not be changed. However, the *period* and *delay* values can be updated, as specified below.

√	Property Name	Function	Accepted Values
	period	Specifies the time intervals at which cleanup should occur. Time unit can be [millisecond] (Default), [second], [minute], [hour], [day], [week], [month].	Integer value + time unit. Default: 1[HOUR]
	delay	Specifies the initial delay before cleanup occurs after an application start. Time unit can be [millisecond] (Default), [second], [minute], [hour], [day], [week], [month].	Integer value + optional time unit. Default: 30 [SECOND]

The Index optimization is a process that rewrites the lucene index so searches can be performed faster. If the lucene index is never optimized, then performance will deteriorate over time. The amount of time required to synchronize the lucene index and the catalog is related to the size of your metadata database. For example, if the catalog contains 3,000

records, it will synchronize much faster than if it contains 300,000 records. The <thread> element of the index optimizer has a class value of "com.Esri.gpt.catalog.lucene.LuceneIndexOptimizer", which should not be changed. However, the *at* value can be updated, as specified below.

√	Property Name	Function	Accepted Values
	at	Specifies the start time for the optimizer to run.	Time specified in HH:MM format.

6.2.4. Optional Configurations within gpt.xml

Below are **optional** parameters that can be configured within gpt.xml. They are not included in the out-of-the-box gpt.xml file, and must be added to the correct place of the file if desired. They encompass forward proxy authentication, reverse proxy settings, schema caching, spatial relevance settings, class settings for lucene, identifying resource links, building REST URLs, rendering live data through the Previewer, settings for how ArcGIS Server service endpoints are processed on the Upload page, additional settings for the catalog synchronization thread, and an alternative setting for integrating a map viewer. The table below shows the location in the gpt.xml file where they should be copied, and the text that should be copied which includes descriptions for functionality in comments. These parameters will need to be updated with values that are applicable for your organization.

√	Tag path in gpt.xml	Text with functionality in comments
	gptConfig/forwardProxyAuth	<pre><!-- Forward proxy authentication The following element can be optionally configured if authentication is required by a forward (outbound) proxy. username: the username credential password: the password credential encrypted: "true" or "false" (indicates if this password is encrypted) For a forward proxy, the system properties "http.proxyHost" "http.proxyPort" and "http.nonProxyHosts" are configured at the Java web server level (e.g. Tomcat - catalina.properties) --> <forwardProxyAuth username="" password="" encrypted="false"/></pre>
	gptConfig/catalog/parameter	<pre><!-- Optional catalog parameters - reverseProxy.baseContextPath: useful for generated full callback URLs when the site is fronted by a reverse proxy, default = auto generated - http://host:port/application. - rssProviderUrl: the provider URL included within RSS responses, default = auto generated - http://host:port/application. - BaseServlet.autoAuthenticate: indicates if the</pre>

com.Esri.gpt.framework.context.BaseServlet class should auto-authenticate credentials found within an HTTP request header, valid values: "true" or "false", default = true.

- cacheSchemaDefinitions: indicates if metadata schema definition files should be cached. Caching improves production performance but can be overridden while developing definitions, valid values: "true" or "false", default = true.
- spatialRelevance.queryPower: spatial relevance weighting power associated with the query envelope (input as criteria), default = 2.0.
- spatialRelevance.targetPower: spatial relevance weighting power associated with the target envelope (stored within the database), default = 0.5.
- spatialRelevance.ranking.enabled: indicates whether or not spatial query results will be spatially scored/ranked, valid values: "true", "false", "auto"; true: always use spatial relevance ranking, false: never use spatial relevance ranking (filter results spatially but do not score), auto: turn on/off spatial relevance ranking based upon the number of indexed documents, default = auto.
- spatialRelevance.ranking.maxDoc: specifies the threshold associated with the invocation of spatial relevance ranking (maximum indexed document count), applies to: spatialRelevance.ranking.enabled="auto", default = 150000.
- discoveryQueryAdapter: class associated with the execution of an internal discovery query, must extend:
com.Esri.gpt.catalog.discovery.DiscoveryQueryAdapter, default = com.Esri.gpt.catalog.lucene.LuceneQueryAdapter
- lucene.useSingleSearcher: indicates that all Lucene searches should use a single instance of the Lucene IndexSearcher class. Using a single searcher can improve search performance for indexes that are essentially in read-only mode. This parameter should not be set to "true" if writing to the lucene index has not been explicitly disabled, valid values: "true" or "false", default = false.
- resourceLinkIdIdentifier: class associated with the identification of resource links, must extend: com.Esri.gpt.catalog.search.ResourceIdentifier, default = com.Esri.gpt.catalog.search.ResourceIdentifier.
- resourceLinkBuilder: class associated with the building of search result resource links, must extend: com.Esri.gpt.catalog.search.ResourceLinkBuilder, default = com.Esri.gpt.catalog.search.ResourceLinkBuilder.
- restUrlBuilder: class associated with the building of REST URLs associated with query criteria, must extend: com.Esri.gpt.catalog.search.RestUrlBuilder, default = com.Esri.gpt.catalog.search.RestUrlBuilder.
- liveDataRendererFactoryBuilder: class associated with the building factories supporting live data rendering (i.e. preview), must extend:
com.Esri.gpt.control.livedata.LiveDataRendererFactoryBuilder, default = com.Esri.gpt.control.livedata.LiveDataRendererFactoryBuilder.
- AGSProcessor.interrogation.enabled: indicates whether or not ArcGIS server/service endpoints will be considered from the Upload Metadata page, valid values: "true" or "false", default = true.
- AGSProcessor.GeoDataServer.recurse: indicates whether or not ArcGIS

	<p>GeoDataServer endpoints will be recursed, publishing all underlying datasets having metadata, valid values: "true" or "false", default = true.</p> <ul style="list-style-type: none"> - AGSProcessor.GeoDataServer.maxDataElements: specifies an upper threshold for data elements within an ArcGIS GeoDataServer. If the maxDataElements is exceeded, no data elements associated with the GeoDataServer will be published to the Geoportals. A value of -1 indicates no limit, default = 200. - AGSProcessor.GeoDataServer.expandDescendants: specifies whether or not descendants should be expanded when retrieving data elements from the GeoDataServer. If false, children are expanded (com.Esri.arcgisws.EsriDEExpandType.EsriDEExpandDescendants vs. com.Esri.arcgisws.EsriDEExpandType.EsriDEExpandChildren). <pre>--> <parameter key="reverseProxy.baseContextPath" value="http://host:port/application"/> <parameter key="rssProviderUrl" value="http://host:port/application"/> <parameter key="BaseServlet.autoAuthenticate" value="true"/> <parameter key="cacheSchemaDefinitions" value="true"/> <parameter key="spatialRelevance.queryPower" value="2.0"/> <parameter key="spatialRelevance.targetPower" value="0.5"/> <parameter key="spatialRelevance.ranking.enabled" value="auto"/> <parameter key="spatialRelevance.ranking.maxDoc" value="50000"/> <parameter key="discoveryQueryAdapter" value="com.Esri.gpt.catalog.lucene.LuceneQueryAdapter"/> <parameter key="lucene.useSingleSearcher" value="false"/> <parameter key="resourceLinkIdIdentifier" value="com.Esri.gpt.catalog.search.ResourceIdentifier"/> <parameter key="resourceLinkBuilder" value="com.Esri.gpt.catalog.search.ResourceLinkBuilder"/> <parameter key="restUrlBuilder" value="com.Esri.gpt.catalog.search.RestUrlBuilder"/> <parameter key="liveDataRendererFactoryBuilder" value="com.Esri.gpt.control.livedata.LiveDataRendererFactoryBuilder"/> <parameter key="AGSProcessor.interrogation.enabled" value="true"/> <parameter key="AGSProcessor.GeoDataServer.recurse" value="true"/> <parameter key="AGSProcessor.GeoDataServer.maxDataElements" value="200"/> <parameter key="AGSProcessor.GeoDataServer.expandDescendants" value="false"/></pre>
<pre>gptConfig/catalog/ scheduler/thread/@ class="com.Esri.gpt. catalog.context.Cata logSynchronizer"</pre>	<pre><!-- Optional parameter configuration for catalog synchronization thread element. - feedbackSeconds: an approximate number of seconds between FINER log messages, default = 120. - maxDeleteTokens: the maximum number of deletions to execute in a single transaction, default = 1000. -maxSqlTokens: for an SQL SELECT statement, the maximum number of OR operators to include in a single WHERE clause, default = 1000.</pre>

	<p>- maxUuidCache: the maximum number of UUIDs to store in memory. The memory is only used while the synchronizer is active. Having a maxUuidCache greater than or equal to the number of documents within the catalog will result in the best performance, default = 100000.</p> <pre>--> <!-- Catalog synchronization --> <thread class="com.Esri.gpt.catalog.context.CatalogSynchronizer" period='1[HOUR]' delay="30[SECOND]"> <parameter key="feedbackSeconds" value="120"/> <parameter key="maxDeleteTokens" value="1000"/> <parameter key="maxSqlTokens" value="1000"/> <parameter key="maxUuidCache" value="100000"/> </thread></pre>
<p>gptConfig/catalog/ search/@mapViewe rUrl</p>	<p><!-- Optional configuration to support a custom Map Viewer application. Example: mapViewerUrl = "http://machine_name/map_viewer_app". Will automatically generate a link to launch a specified Map Viewer in the geoportal interface. To integrate Flex or Silverlight based viewers, see webhelp documentation at http://help.arcgis.com/en/geoportal_extension/10.0/help/index.html#/Integrate a Map Viewer/00t00000000s000000/.</p>

- You are now finished configuring the Geoportal. Save the gpt.xml file and close it.

7. DEPLOY AND CONFIGURE THE SERVLET WEB APPLICATION

This step deploys the servlet web application. The servlet is responsible for communication between the Geoportal and ArcCatalog 9.3.x when users are publishing to the Geoportal using the Publish Client tool. Note that deploying the servlet.war file is only necessary if users with a 9.3.x version of ArcCatalog will be connecting to your Geoportal using the Publish Client. If users will be using ArcCatalog 10 to connect to your Geoportal, deploying the servlet.war is not necessary. For more information on the Geoportal Publish Client, see the webhelp at

http://links.esri.com/geoportal_publish_client. Follow the steps below to deploy the servlet.war file.

- Navigate to the <Geoportal extension 10 Distribution>\Web Applications\Servlet folder to find the servlet.war file.
- Deploy the servlet.war file in the same manner which you deloyed the geoportal.war file. By default, the servlet web application needs no further configuration unless you have modified the name of the geoportal web application.
- If you modified the name of your deployed application from "geoportal" to something else, you must let the servlet know the reference to your newly-named geoportal application.

- Navigate to: <Tomcat Installation Directory>\servlet\WEB-INF
- Open the web.xml file in a text editor.
- Modify the <param-value> setting (for the redirectURL parameter above) to point to your machine's Geoportal application deployment path starting from the web application name:
i.e. /applicationName/com.Esri.Esrimap.Esrimap

Save the file and close it.

8. JDBC CONFIGURATION

The Geoportal uses a Java Naming and Directory Interface (JNDI) key to connect to the database through a JDBC connection. This allows system components to find the database connection information using the JNDI key instead of having to store the JDBC connection information in many places. In this step, we will setup the JNDI configuration and JDBC connection for Tomcat. Please see the installation guides in the <Geoportal extension Installation Dir>\Documentation\Installation\ directory if you are using WebLogic, GlassFish, or ServletExec instead.

- Identify the jdbc .jar file that you will use for the database JDBC connection. Database .jar files are typically provided with your database software, but if you cannot find the .jar files that came with your database, you can use the ones provided in the \\<Geoportal extension Installation Dir>\Database Scripts\lib folder. The database .jar file you use is determined by the database vendor and Java version you have running. See the table below to identify the appropriate .jar file for your environment. Note that the PostgreSQL drivers both support both PostgreSQL 8.3 and 8.4.

	Oracle (10g, 11g)	SQL Server 2005	SQL Server 2008	Postgres (8.3, 8.4)
Java 5	ojdbc5.jar	sqljdbc.jar	Not recommended	postgresql-8.4-701.jdbc3.jar
Java 6	ojdbc6.jar	sqljdbc4.jar	sqljdbc4.jar	postgresql-8.4-701.jdbc4.jar

- Copy the database jdbc driver .jar to one of the following directories, depending on your Tomcat version:
- Tomcat 5.x: <Tomcat Installation Directory>\common\lib
 - Tomcat 6.x: <Tomcat Installation Directory>\lib

- ❑ Copy the “geoportal.xml” file from the <Geoportal extension Distribution>\Other\JNDI Configuration\ folder and paste it into your C:\<Tomcat Installation Directory>\conf\Catalina\localhost folder. If you are using Tomcat 6 and you don’t have a Catalina\localhost directory in your conf directory, then you need to create it.
- ❑ Open the geoportal.xml file in a text editor. Modify the properties specified in the table below, then save the file and close it. The values that you modify should not include placeholder brackets (“<” or “>”).

IMPORTANT: If you are using Oracle and Java 6 – and therefore, the ojdbc6.jar file – then you will need to add two extra attributes to this file. The two attributes and the values they should contain are highlighted below:

```
<Resource name="jdbc/gpt" auth="Container"
    type="oracle.jdbc.pool.OracleDataSource"
    factory="oracle.jdbc.pool.OracleDataSourceFactory"
    driverClassName="oracle.jdbc.driver.OracleDriver"
```

√	Property Name	Line	Expected Values	Example
	docBase	Line 3	The name of your Geoportal web application in Tomcat. Default: geoportal	docBase="geoportal"
	Path	Line 3	The name of the Geoportal application directory within Tomcat webapps.	path="/geoportal"
	driverClassName	Line 5	The JDBC Driver class name. Vendor specific.	Oracle: oracle.jdbc.driver.OracleDriver SQL Server: com.microsoft.sqlserver.jdbc.SQLServerDriver PostgreSQL: org.postgresql.Driver
	url	Line 6	The JDBC URL connection string	Oracle*: jdbc:oracle:thin:@serverName:1521:oracleSID SQL Server: jdbc:sqlserver://serverName:1433;databaseName=geoportal10 PostgreSQL: jdbc:postgresql://serverName:5432/postgres
	userName	Line 7	Geoportal database user	username="geoportal10"
	password	Line 8	Geoportal database user password	password="geoportal10pwd"

* The oracleSID (System Identifier) is typically the service_name attribute contained within the comment descriptor in the tnsnames.ora Oracle configuration file.

Note: Please verify the JDBC settings with official driver documentation found online your database vendor's website.

9. SMOKETEST THE GEOPORTAL

IMPORTANT: Before proceeding with the smoketest, save all configuration files, and restart your geoportal web application.

Now that your Geoportal web application has been installed, it is important to do a brief smoketest before continuing with installing the Desktop Tools. The following steps describe basic steps to check that your Geoportal is up and running. These are steps for an initial smoketest. Your organization should also do extensive testing and reference Post-Deployment Actions

(http://help.arcgis.com/en/geoportal_extension/10.0/help/index.html#/Post_Deployment_Actions/00t000000002000000/) before the Geoportal goes into production.

If you encounter errors during the smoketest, review your 'gpt' logfiles (Tomcat\logs) and see the help documentation for 'Common Problems and Solutions' in the Geoportal extension webhelp (http://help.arcgis.com/en/geoportal_extension/10.0/help/index.html).

- Launch the geoportal web application in a web browser. A sample URL: <http://serverName:port/geoportal>
- Click the Login link from upper right corner
- Login with your Administrator user login credentials
 - The Administration and Repositories tabs should now appear
- Click the Administration tab
- Click Add link. You will be presented with three options for adding a resource to the Geoportal
- From the list, choose the radio next to 'Use dedicated editor to create metadata manually'. A page presenting the supported metadata profiles will appear.
- In this exercise, you will create a simple Dublin Core metadata record for testing. Select the "Dublin Core" radial
- Fill out information for all required fields. Required fields have bold/italic headings

- Click Save at the bottom
 - You should receive a success message, or a message saying what is missing in the document to be valid
- Click the Manage link
- Check the box next to your newly created record, and then select “Set as Approved” from the dropdown box. Then click the “Execute Action” button
- The document should now have a Status of Approved
- Click the Search tab
- Type a word in the search field that was included in your newly approved record
- Click Search
 - Your document should be returned
- Click on the record to display its options. Select the “Metadata” link
 - The document’s metadata XML should load in a new browser window

10. DESKTOP TOOLS

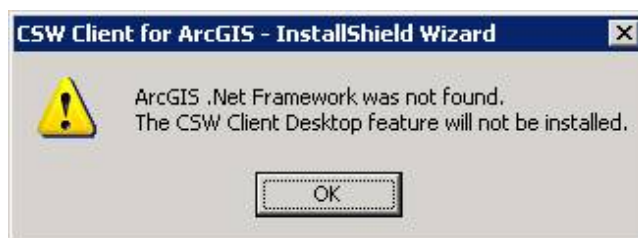
There are several Desktop tools that can be used in conjunction with your geoportal. Installation for each is described below. The machine hosting Desktop Tools does not need to be the same machine hosting the geoportal web application, ArcGIS Server services, or the database.

10.1. GEOPORTAL EXTENSION CSW CLIENTS

The Geoportal extension CSW Clients make possible the searching of CSW 2.0.x-enabled metadata repositories from ArcGIS Desktop or ArcGIS Explorer. Installation instructions are below:

- Open the <Geoportal extension Installation Dir>\Desktop Tools\CSWClients directory.
- Double-click on the setup.exe file. Click Next to proceed to the license screen.
- Accept the license and click Next.
- Enter in your Information into the Username and Organization text boxes. Click Next.

- You will be asked if you'd like the complete or custom install. The custom option allows you to install only the CSW Clients for ArcGIS Explorer, or only the CSW Clients for ArcGIS Desktop. The complete installation is for both. If ArcGIS Explorer is not installed and you'd like to install it, it can be downloaded from <http://www.Esri.com/software/arcgis/explorer/index.html>. If you do not want to download ArcGIS Explorer but do want to use the CSW Clients in ArcMap, then it does not matter which option is selected on this screen. Select an option and click Next.
- The installation proceeds. **IMPORTANT:** During installation, the installer checks for the presence of the ArcGIS .NET framework. If it is not found, the CSW Client for ArcGIS Desktop will not be installed. However, installation will continue for CSW Client for ArcGIS Explorer, and a dialog box will appear notifying of the status.



- After installation, refer to the Geoportal extension Web Help http://links.esri.com/geoportal_csw_clients for information to add the CSW Clients to ArcMap and ArcGIS Explorer. This online documentation also has instructions for how to use the CSW Clients.

10.2. GEOPORTAL EXTENSION PUBLISH CLIENT

The Geoportal extension Publish Client is a tool for ArcCatalog that allows publisher users to easily publish metadata from their local desktop to the Geoportal. The metadata can come from Shapefiles, personal Geodatabases or Enterprise Geodatabases, or any other local data formats for which you can create metadata in ArcCatalog. Installation instructions are below:

- Open the <Geoportal extension Installation Dir>\Desktop Tools\PublishClient folder.
- Double-click on the setup.exe file.
- Click Next on the Welcome screen.
- Accept the License Agreement. Click Next.

- Enter in your Information into the Username and Organization text boxes. Click Next.
- Choose the Destination Folder into which the Publish Client should install or accept the default. Click Next.
- Click Install to begin the installation.
- Once the installation wizard completes, click Finish.
- After installation, refer to the Geoportal extension Web Help http://links.esri.com/geoportal_publish_client for information to add the Geoportal extension Publish Client to ArcCatalog. This online documentation also has instructions for how to use the Geoportal extension Publish Client.

10.3. GEOPORTAL EXTENSION WMC CLIENT

The WMC Client allows for a Web Map Context (WMC) file to be opened directly in ArcMap. WMC files adhere to the Open Geospatial Consortium (OGC) specification and have the extension ".cml", ".wmc", or ".xml". WMC files provide pointers to remote accessible data, specifically Live Data and Map resources. Installation instructions are below:

- Open the <Geoportal extension Installation Dir>\Desktop Tools\WMCOpener folder.
- Double-click on the setup.exe file.
- Click Next on the Welcome screen.
- Accept the License Agreement. Click Next.
- Enter in your Information into the Username and Organization text boxes. Click Next.
- Choose the Destination Folder into which the WMC Client should install or accept the default. Click Next.
- Click Install to begin the installation.
- Once the installation wizard completes, click Finish.

- After installation, refer to the Geoportal extension Web Help http://links.esri.com/geoportal_wmc_client for information to add the WMC Client to ArcMap. This online documentation also has instructions for how to use the WMC Client.

Appendix A: Upgrade from Geoportal extension 9.3.x to 10

This section is for organizations that have already implemented the Geoportal extension 9.3.1 or 9.3.1 sp1, but want to apply 10.

Geoportal extension 10 is an entirely new version of the Geoportal extension software, although the basic user interface and file architecture remain. You cannot simply replace files from your earlier 9.3.x deployment with the updated version 10 files. To upgrade your existing 9.3.1 Geoportal implementation, carefully follow the steps below and refer to the installation instructions above if you need further information on one of the steps. Be aware that there are no provisions for automatically upgrading the geoportal web application, especially for highly-customized geoportals. Therefore, you will have to deploy the geoportal.war file from the Geoportal extension 10 distribution, make a backup copy of the newly deployed version 10 files, manually copy customizations and configuration settings from the former geoportal web application to the new geoportal web application, and then test your customizations for additional adjustments necessary for version 10.

UPGRADE STEPS

1. BACKUP FILES

Before proceeding with upgrading to version 10, it is recommended that copies are made of the following:

- JNDI settings. If using Tomcat, this is the JNDI connection file, found at <TOMCAT>\conf\Catalina\localhost\geoportal.xml . You will likely be able to use these same connection settings for your Geoportal10 implementation.
- The entire geoportal web application folder, found at <TOMCAT>\webapps\geoportal if using Tomcat. You will not be able to directly copy files from this backup to your new geoportal web application, but you can refer to these files to apply settings that have not changed or customizations your organization implemented.
- Your former Geoportal installation files that were installed when you ran the *Geoportal Extension 9.3.1.msi* file on your Geoportal 9.3.1 distribution DVD. You will have to uninstall the previous version of Geoportal 9.3.1 using Add/Remove

Programs, and the uninstall process will remove these files that you might want to keep for reference.

2. UNINSTALL THE GEOPORTAL EXTENSION 9.3.1

If using a Windows system, you can do this through Start → Control Panel → Add/Remove Programs.

3. INSTALL THE GEOPORTAL EXTENSION 10 INSTALLATION FILES

Insert the Geoportal Extension 10 DVD into a computer that is on the same network as your geoportal web application. Run the *Geoportal Extension 9.3.1.msi* to launch the installer. Navigate through the installer, accepting the license and specifying an install location for the installation files (C:\Esri\Geoportal Extension 9.3.1 by default).

4. MIGRATE TO THE GEOPORTAL 10 DATABASE SCHEMA

The Geoportal10_MigrationGuide.pdf document, found in the <Geoportal extension 10 Distribution>\Documentation\Installation folder, provides instructions that guide you through copying the data from your former Geoportal database into a new Geoportal 10 schema. Be sure to follow the instructions for your database software and your geoportal version carefully. Do not attempt to migrate using tools other than the utilities provided in the Migration Guide.

5. IF DESIRED, CHANGE THE NAME OF THE GEOPORTAL WEB APPLICATION

The Geoportal extension 10 provides a web application file titled “geoportal.war”, which is the same name as the Geoportal 9.3.1 web application. If the new geoportal web application will coexist in the same servlet container context as the former geoportal web application, consider changing the name of the new geoportal web application. Note that if you change the name of the geoportal 10 web application, you will need to update the name in the servlet web application’s WEB-INF\web.xml file (as per instructions in Section 7).

6. DEPLOY THE NEW GEOPORTAL.WAR FILE

The new geoportal.war file is found in the C:\Esri\Geoportal Extension 10\Web Applications\Geoportal directory if you accepted the default install location when running the Installation DVD.

7. CONFIGURE THE GPT.XML FILE

Navigate to the [\\geoportal\WEB-INF\classes\gpt\config](#) folder and open the gpt.xml file in a text editor. Open your previous gpt.xml file from the backup copy of your Geoportal 9.3.1 web application created earlier. Use the general gpt.xml configuration instructions found in Section

6 of this Installation Guide to configure the new gpt.xml, but you may find it useful to copy certain sections – your <identity> parameters, for example – from the former 9.3.1 gpt.xml.

8. MANAGE THE DATABASE DRIVER JAR FILE

Follow instructions from Section 8 above to copy the correct JDBC .jar files from your <Geoportals extension 10 Distribution>\Database Scripts\lib folder to the appropriate place in your servlet container application. Note that the destination for the database jar file may be different depending on if you use Tomcat 5, Tomcat 6, WebLogic, Glassfish, or ServletExec. Consult the corresponding servlet container Geoportals installation guides from the C:\Esri\Geoportals Extension 10\Documentation\Installation folder for specific details.

9. APPLY JNDI SETTINGS

Refer to instructions in Section 8 of this Installation Guide for configuring the JDBC database connection for your migrated Geoportals 10 database.

10. COPY OVER CUSTOMIZATIONS

It is highly likely that your organization customized your Geoportals 9.3.1. Use the backup copy of the geoportals 9.3.1 web application to investigate files that your organization may have customized, and copy important customizations into your new version 10 geoportals application. In particular, compare version 10 and 9.3.1 versions of the following files.

- Text in the geoportals interface, at \\geoportals\WEB-INF\classes\gpt\resources\gpt.properties
- Customized metadata schemas, at \\geoportals\WEB-INF\classes\gpt\metadata
- Color themes and images, at \\geoportals\catalog\skins\themes
- JSP page and Javascript changes, in subfolders at \\geoportals\catalog

11. DATA DOWNLOAD TAB IN VERSION 10

If you had a custom Data Download page (see webhelp topic http://helpdev.arcgis.com/en/geoportals_extension/10.0/help/index.html#/DataDownload_Tab/00t000000040000000/) in your previous Geoportals extension implementation, it will still work at version 10. However, because Geoportals 10 provides a new Data Download page, you will need to specify which Data Download page the Geoportals should use. To point the Geoportals to your 9.3.x Data Download page instead of the 10 version, do the following:

1. Navigate to the \\geoportals\catalog\download folder.
2. Open the download.jsp page in a text editor.

3. Update the <tiles:put> parameter's value attribute such that it reads *value="/catalog/download/downloadBody.jsp* instead of *value="/catalog/download/downloadBody10.jsp*.

4. Save the download.jsp file.

12. RESTART THE GEOPORTAL WEB APPLICATION AND TEST

13. UPDATE GEOPORTAL CLIENTS FOR ARCGIS

The Geoportals extension Clients have changed in version 10 to support ArcGIS Desktop version 10. Note, you can still use the 9.3.1 Geoportals extension Clients to connect to your Geoportals 10 CSW and Publish Client endpoints if your ArcGIS Desktop environment is still at 9.3.1.

To upgrade the Clients to version 10, you will need to uninstall them (in Windows, this can be done through the Add/Remove programs interface), and then reinstall the version 10 Clients versions from your <Geoportals extension 10 installation>\Desktop Tools folder. The following Desktop Tools have been updated:

- CSW Clients
- Publish Client
- WMC Client