



What does it take to install and implement Freeance View for GIS on BlackBerry smartphones.

Freeance Mobile consists of two separate software applications. One is a server-side application that installs on a web-enabled server. The other is a device side app that installs on your BlackBerry smartphones. This document outlines the steps and effort needed to implement these two Freeance Mobile applications.

The server-side Freeance Mobile application installs on a Windows web server running IIS web services. The server you decide to place Freeance Mobile server-side application needs to be on the same network, and needs to be able to ping (see) the ArcGIS Server, any database servers you would like to query and display in Freeance Mobile, and the BlackBerry Enterprise Server (BES) server, if you have one. You may need to have a network administrator open network connections between these servers.

If your organization does have a BES server you may need to adjust some settings in the BES administration software. There is no software or programming required on the BES server, merely some toggles to adjust so that the BlackBerry devices can communicate with the Freeance Mobile server application. These BES settings are documented in typically take five to 10 minutes to complete if required.

If you plan on connecting to enterprise databases such as Oracle or SQL Server you'll need to have these client libraries installed on the server you place Freeance Mobile on. These database client libraries are available on the manufacturer's web site and will have installation instructions. Installing client libraries is typically a 15 minute to 30 minute job. You may need to know database parameters such as username, login and permissions. Your database administrator will have these. If you plan on connecting to flat databases such as Microsoft Access, DBFs or FoxPro you'll need to set up an ODBC resource on the server, typically a five to 10 minute task. You'll need to connect to databases for record searching, GPS data collection and record editing in Freeance Mobile. If you plan on searching on GIS data layers in personal geodatabases, SDE or shape files you will need to connect to these databases.

Once you have selected the server to place Freeance server-side software onto, you will copy the Freeance server executable install file onto that machine and double-click on it. This will start an install wizard that will lead you through the process of installing Freeance Mobile server software. This is typically a 10 to 15 minute job and will require you to have administrative privileges when login to the server.

After installing the server-side software we are ready to open the Freeance Mobile configuration software and create map resources to push out to the BlackBerry smartphones. This is similar to publishing web GIS templates in ArcGIS Server. For each map we would like to display on the BlackBerry, we will need a map project (MXD) published in ArcGIS Server. You can use existing map services or create new ones specifically for the BlackBerry. Plan on spending an hour or two if you are constructing new map projects in ArcGIS Server, and plan on spending one or two hours in Freeance Mobile to construct the BlackBerry map resource.

The next step will be constructing Freeance Mobile GPS Collector applications on the server-side that will allow the BlackBerry to have custom GPS data collection forms. In the Freeance server-side application we will connect to enterprise databases, build database forms and publish them for the Freeance Mobile BlackBerry device. Plan on taking one hour for each BlackBerry GPS form need.



Now that we have created the server-side Freeance Mobile maps and GPS forms we need to load the BlackBerry smartphones with the Freeance Mobile device application software. This can be accomplished with an over the air (OTA) install executed by each BlackBerry device separately. This is similar to installing a game or application from the BlackBerry app store. If you have a BES you can push an AXL/COD that will automatically load the Freeance Mobile BlackBerry application on the devices you require. Consult your BES administrator for help on pushing out an application using the BES. This is not a difficult task and plan on spending an hour for completion.

Now that we have all the software installed we are ready to use our BlackBerrys for GIS and GPSing. Becoming familiar with the Freeance Mobile device application will take no more than five minutes. The application has self-help files on the BlackBerry and is a simple application to learn and use for non-GIS users.



The following requirements is needed in order to have a successful deployment of Freeance software.

Server Hardware:
(base minimum)
1 GB RAM
500 MB HD
2.0 GHZ Processor

Can be installed on your ArcGIS Server.

Freeance is not to be installed on the BlackBerry Enterprise Server.

Before Freeance is installed, IIS must be installed on the computer that will be used as the Freeance server. See the following lists for the supported operating systems and IIS versions.

Supported Operating Systems:

- * Windows 2000 with .NET Framework 2.0
- * Windows Server 2003 32-bit and 64-bit with .NET Framework 3.5
- * Windows Server 2008 32-bit and 64-bit with .NET Framework 3.5

Supported Best Efforts Operating Systems:

- * Windows XP with .NET Framework 3.5

Freeance requires Microsoft .NET 3.5 and all of the current Windows critical updates (except Internet Explorer 8). These updates should be applied to the Freeance server prior to running the Freeance upgrade or full install.

Supported IIS Versions:

- * IIS 5.0
- * IIS 5.1
- * IIS 6.0
- * IIS 7.0 (Must install support for CGI)

Prior to installing Freeance Mobile or Web Server, it is recommended that all service packs and security updates be installed on the web server.

The CGI Module for IIS7 must be installed prior to installing Freeance Mobile or Web on Windows Server 2008.

Freeance will run on a virtual machine and has been tested to run with VMware Workstation 6 and VMware ESX 3.5. Freeance should run on any virtual machine that meets the other requirements outlined in this document.

Freeance does not run in the Linux environment.



The Freeance installer will need to run with a user account that has administrative privileges on the server.

During the Freeance installation, PHP is installed and configured. PHP is a software program that Freeance uses to do core database and GIS functionality. The Freeance installation wizard does the complete PHP installation and setup for PHP to run on the Server. This includes setting up a Web service for PHP.

If the server Freeance will be installed on currently has an installation of PHP, there could be the possibility of some conflict between the two PHP installations. We highly recommend not having two versions of PHP running on the same server.

Because Freeance connects to map services and enterprise databases, the Freeance server must have network access to these two different resources. The Freeance server must be able to directly access these over the network using a domain name, IP address, or external URL. See the following lists for the supported map services and enterprise databases.

Supported Mapping Servers:

- * ESRI ArcGIS Server 9.2 +
- * ESRI ArcIMS 4.0 +

Supported Databases:

- * Oracle 8.x+
- * Microsoft SQL Server 2000, 2005, 2008
- * PostgreSQL
- * MySQL
- * ODBC

If you are connecting to an Oracle database, the Oracle client library must be installed on the Freeance server.

If you are connecting to a Microsoft SQL Server database, these client libraries must be loaded on the Freeance server.

www.freeance.com/mobile - Windows
www.GISonBlackBerry.com - BlackBerry Smartphones



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