

Webcam Viewer – Installation & Maintenance Guide

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1. INTRODUCTION

This document is the Installation and Maintenance Guide for the Webcam Viewer AGP XML application for the OptiPoint 410/420 and OpenStage 60/80 IP Phone models.

The application has been tested and is available as a prototype for demonstration purposes.

Until recent times viewing webcam feeds has been limited to PC and desktops only. By utilising the capabilities of the AGP and Webcam Viewer application we can now provide a significant amount of functionality on the IP phone's display.

1.1 Necessary Software & Files

- Webcam_Setup.exe – Installation package
- AGP & Build version V0 R7.9.8 SIP DEV onwards – Platform on the phone
- Java Media Framework environment
- JRE 1.5 or later is installed.
- Apache Tomcat Web server version 5.5 or later.

Webcam_Setup.exe can be found in the IP phone applications folder under

\\vobs\IP_Apps_Pool\Server\Webcam\CeBit\Installation\Webcam_Setup.exe

2. SCOPE

This document is intended for an administrator installing and setting up the Webcam Viewer application.

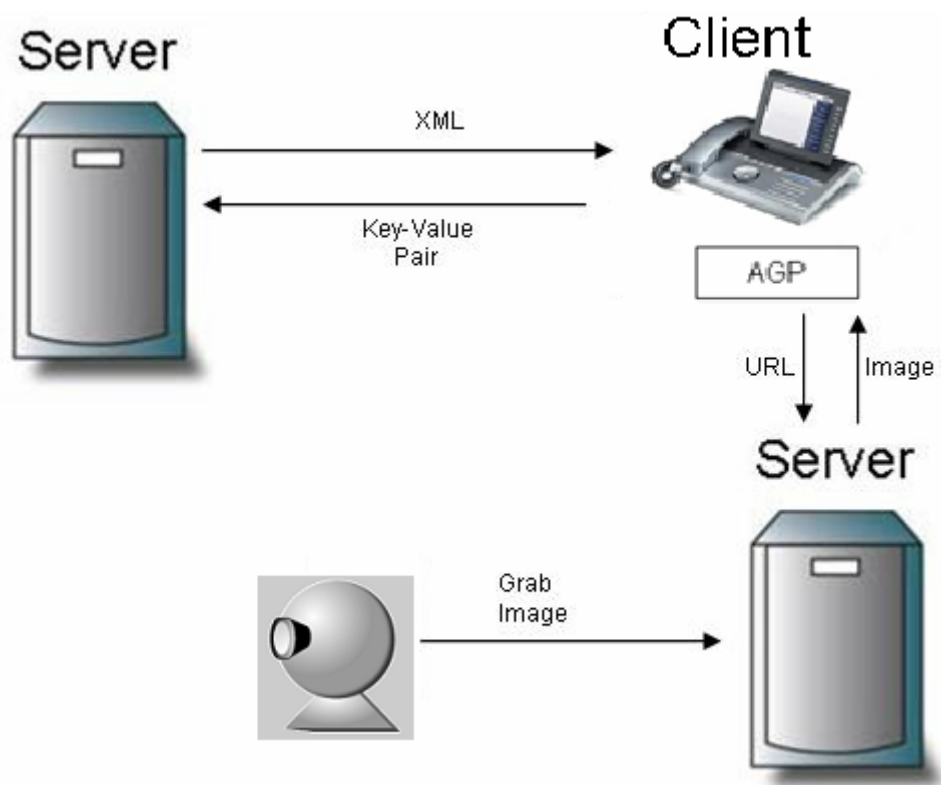
It is assumed the reader has sufficient knowledge about the internet access policy for the network this application is going to be used on, as this application accesses an external source.

This document also provides instructions on configuring the different IP Phone devices to run the Webcam Viewer application.

The Java Runtime Environment 1.5 or later and Apache Tomcat 5.5 or later should be installed prior to this installation.

3. SYSTEM OVERVIEW

3.1 Application Architecture



3.2 Application Server

Webcam Viewer has been tested on the following machine.

- Windows XP with Service Pack 2
- P4 3.2GHz Processor with 504Mb RAM.
- 10Mbps Ethernet Connection.
- The Java Runtime Environment 1.5 or later is required.
- The Java Media Framework environment.

3.3 Phone Handsets

3.3.1 OptiPoint 410/420

To use the Webcam Viewer application on an OptiPoint 410/420 it must also have a DSM/APM. It is highly recommended an APM is used due to the much clearer display.

The phone software must be 5.0.25.0032 or later, with a version of the AGP. However the Webcam Viewer application has been developed and tested on V5R1.34.000 and later with the 2.4 version of the AGP. So a build later than V5R1.34.000 is highly recommended.

Please refer to the OptiPoint documentation on how to install the correct phone firmware.

3.3.2 OpenStage 60/80

The phone software on an OpenStage 60/80 must be V0 R7.9.8 SIP DEV or later in order to run Webcam Viewer.

Please refer to the OpenStage documentation on how to install the correct phone firmware.

4. INSTALLATION

It has been assumed that required version of build and AGP has been installed on the phone.

The installation can be broken down into the following steps:

4.1 Installing the Java Media Framework

The Java Media Framework API (JMF) enables audio, video and other time-based media to be added to applications and applets built on Java technology. In the Webcam Viewer application JMF is used to capture webcam images.

Navigate to the VOB "IP_Apps_Pool\Server\IWebCam\Java Media Framework Install" to install JMF. Please ensure that Webcam is working and Webcam drivers are properly installed before installing JMF. You can even install the latest version of JMF from the link

<http://java.sun.com/products/java-media/jmf/2.1.1/download.html>

Note: Installation of JMF modifies your environment variable CLASSPATH which stops servlets from building. Ensure that environment variable CLASSPATH includes these additional paths

1. C:\WINNT\java\classes;
2. Your server's servlet api jar file for e.g. if you are using Tomcat as your web server than following path should be included

C:\Program Files\Apache Software Foundation\Tomcat 5.5\common\lib\servlet-api.jar;

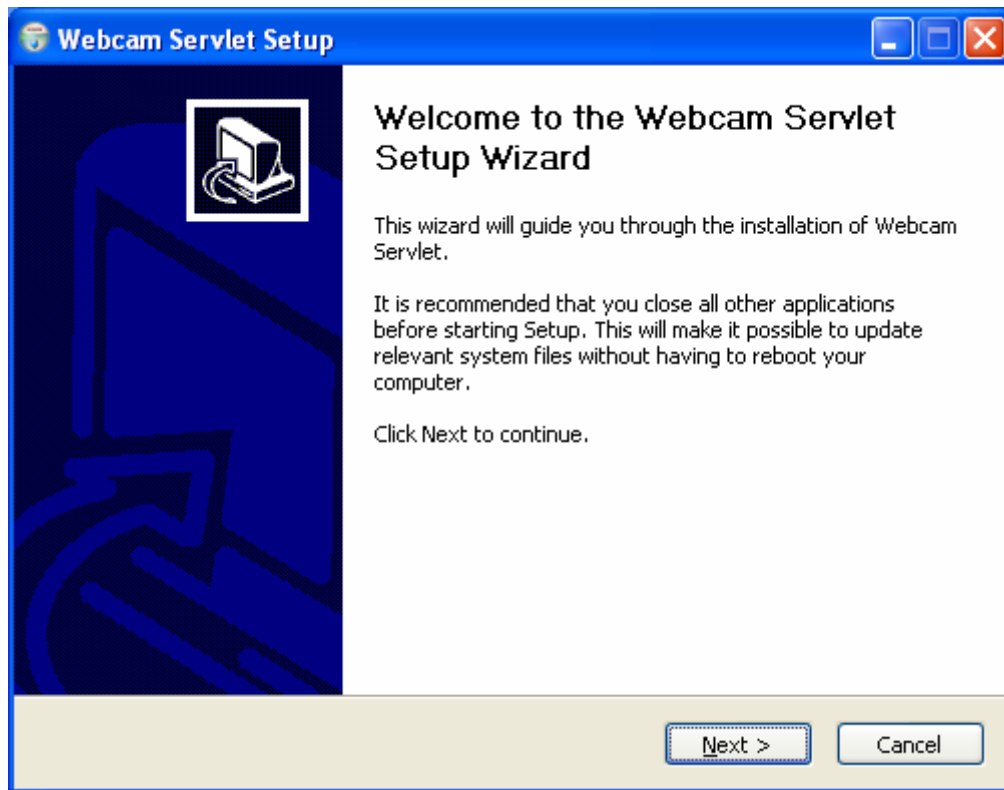
4.2 Application executable location

\\vobs\IP_Apps_Pool\Server\Webcam\CeBit\Installation\Webcam_Setup.exe

4.3 Installing the application

The Webcam Viewer application comes as one complete package. The program works as a servlet inside Tomcat web server which accepts incoming requests from the phone and returns appropriate responses. To install the servlet, follow these steps:

1. Locate the executable file "Webcam_Setup.exe" in the directory given above.
2. Copy the file to a local directory on your PC.
3. Double click Webcam_Setup.exe.
4. You will now be taken through the installation wizard.



5. Follow the instructions to install the Webcam application.
6. The Webcam application is now successfully installed.

Note: If during installation, you receive the following error:

Installation Cannot Continue.

This means the required JRE 1.5 or later and Tomcat 5.5 or later versions are not found.

The JRE 1.5 can be downloaded from: <http://www.java.com/en/download/manual.jsp>

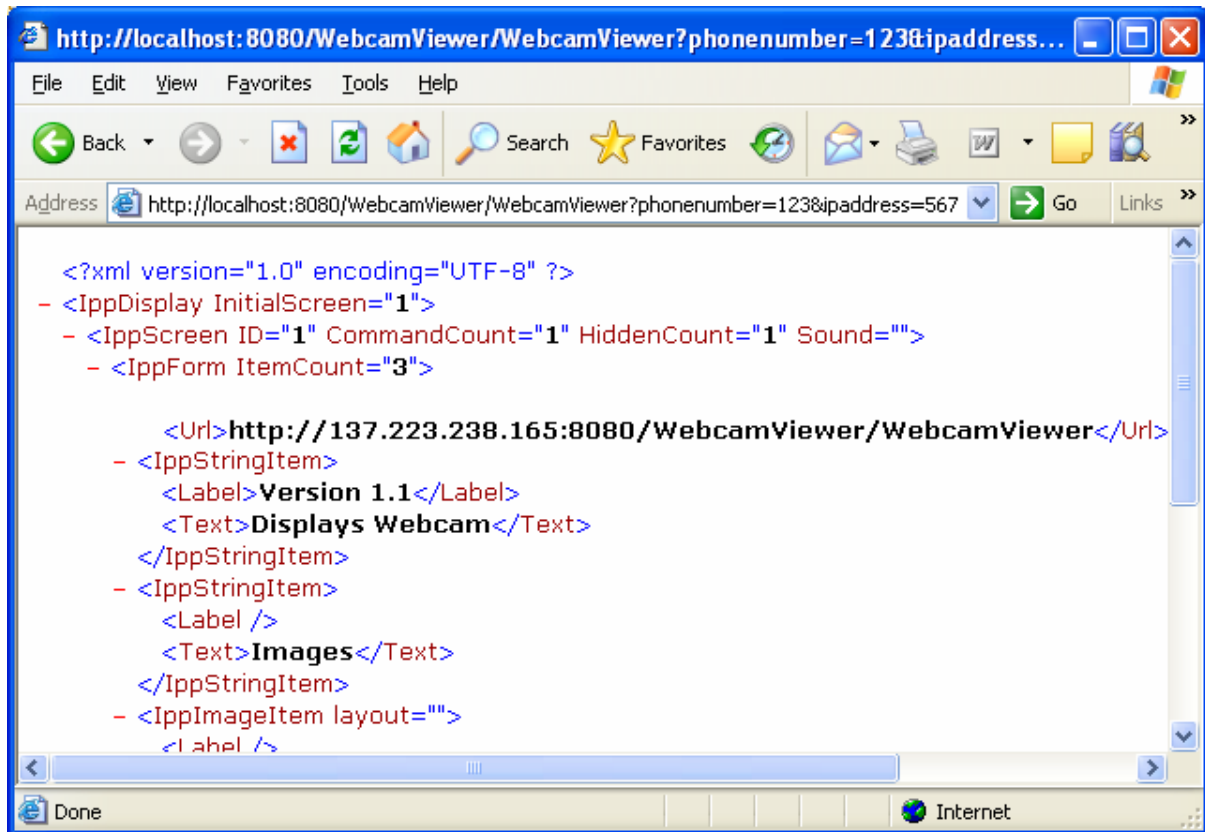
The Apache Tomcat version 5.5 can be downloaded from: <http://tomcat.apache.org/download-55.cgi#5.5.20>

4.4 Hosting the WebcamViewer Servlet

The installation process will place the relevant files in the correct directory. To confirm that the WebcamViewer servlet is being hosted type the following URL into a browser:

<http://localhost:8080/WebcamViewer/WebcamViewer?phonenumber=123&ipaddress=567>

where "ipaddress" and "phonenumber" could have any value.



Note:

Tomcat Web server should be configured to run on port 8080

4.4.1 Configuring the WebcamViewer Servlet

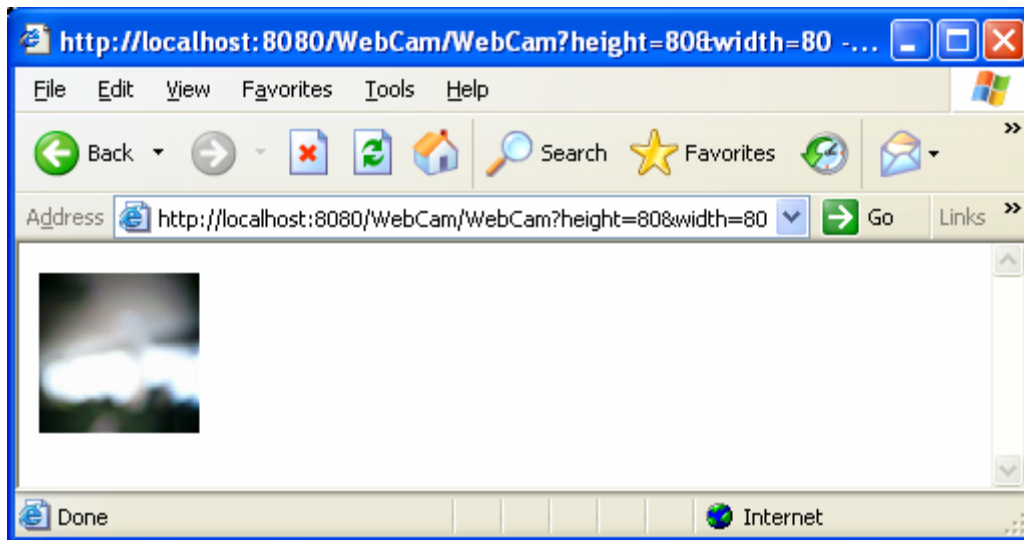
Servlet is not configurable. Please ensure that web server is working correctly and if necessary test URL in web browser.

4.5 Hosting the WebcamCapture Servlet

To confirm that the WebcamCapture servlet is being hosted type the following URL into a browser:

<http://localhost:8080/WebCam/WebCam?height=80&width=80>

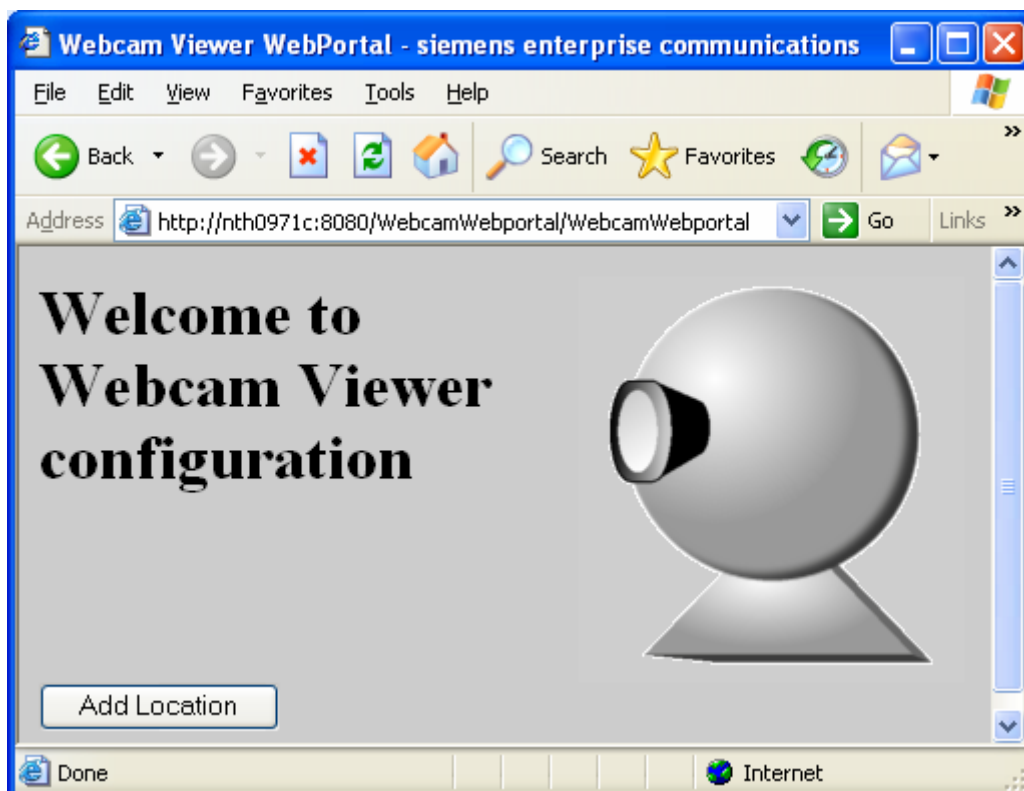
Here also, "width" and "height" could have any value.



4.6 Hosting the WebcamWebPortal

To confirm that the WebcamWebPortal is being hosted type the following URL into a browser:

<http://nth0971c:8080/WebcamWebportal/WebcamWebportal>



4.7 Running the application

As long as the required version of Tomcat web server is running you should be able to access your application.

4.8 Configuring the AGP to run Webcam Viewer

4.8.1 OptiPoint 410/420

The AGP allows to user to create multiple programs within the programs menu to different applications. This configuration utility is also available on the web portal. From the admin page see Applications, XML Applications and select new program. You should see the configuration utility as shown.

Enter the details as follows:

Display Name: WebcamViewer

Application Name: WebcamViewer

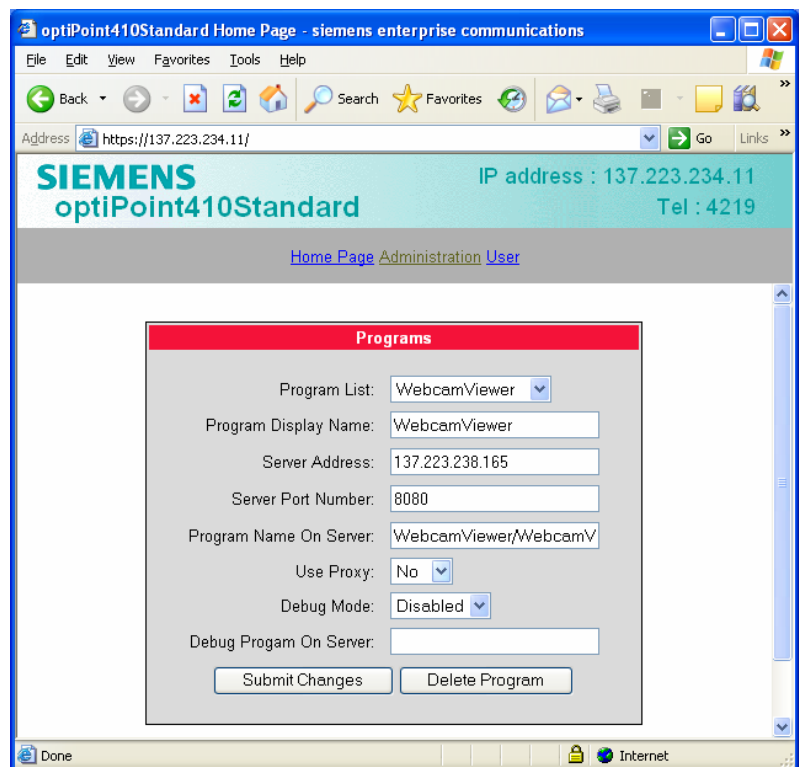
Server Address: {The IP Address of the server}

Server Port Number: 8080

Program Name on Server:
WebcamViewer/WebcamViewer

Use Proxy: No

All other fields are optional.



Note:

For OptiPoint version Server Address could be IP Address or the machine name. But for OpenStage version it must be IP Address and not machine name as machine name is not recognised by OpenStage phone.

4.8.2 OpenStage 60/80

Configuring applications on OpenStage 60/80 is not supported from web portal.



Pressing the “Display Application/Service Menu” mode key starts application Menu mode.

If the “Menu” tab is not selected, pressing the same mode key again allows user to switch to Menu tab.

Select the “Admin” option; then you will be prompted to enter the admin password.

From the list go into “Application” option and further select “XML” option in order to configure XML application.

Selecting XML options will bring options pop and select “Add application”.

Enter the details as follows:

Display Name: WebcamViewer

Application Name: WebcamViewer

Server Address: *{The IP Address of the server}*

Server Port Number: 8080

Protocol: http

Program Name on Server: WebcamViewer/ WebcamViewer

Use Proxy: No

All other fields are optional.

After entering the required details press “Save & exit”. This will add Webcam Viewer application to list of Applications. Refer user guide to start the application.

5. TROUBLESHOOTING

Q: Why do I receive an error when I start the application from the phone, saying that it cannot read from the server?

A: This is usually one of two things – either the configuration of the phone has not been set up correctly (See Section 4.5 Configuring the AGP to run Webcam Viewer) or the server application is not running (See Section 4.3 Hosting the Servlet).

Q: Sometimes I am unable to see images from “Webcam”.

A: This occurs when the when the webcam is not properly connected or if the Web server is not running.

5.1 Webcam Viewer Checklist

Please check you have the following set up:

- Webcam_Setup.exe has been copied to local drive and run.
- If you are using Tomcat web server please ensure you restart web server after installation of servlet.
- The machine running the applications is connected to the internet, and the correct proxy settings are configured.
- The phone has been configured via it’s configuration pages to have all the correct server and program information for the Webcam Viewer application

You should now be able to use the Webcam Viewer Application.

6. APPROVALS

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7. GLOSSARY

AGP	Application Generic Platform
GenericMidlet	AGP Midlet for use on the phone
APM	Applications Module
DSM	Display Screen Module
Build	The base software for the phone.
JRE	Java Runtime Environment
XML	Extensible Mark-up Language
HTML	Hypertext Mark-up Language
JMF	Java Media Framework
Apache Tomcat	Web Server capable of hosting java servlets

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