



## **Mobile Gateway™ User's Guide**

## Table of Contents

Mobile Gateway™ User's Guide .....	1
Table of Contents .....	2
Introduction.....	3
System Contents.....	3
System Requirements.....	3
Mobile Gateway™ System Default Settings.....	3
Hardware installation.....	4
Using The Mobile Gateway™ Finder Utility .....	4
Mobile Gateway™ Administration .....	5
Source Status .....	6
Active Viewers .....	8
Access Control.....	9
Source Access .....	11
System Settings .....	13
About Mobile Gateway™ .....	14
Updating the Mobile Gateway™ Video Server .....	16
Troubleshooting.....	17

## **Introduction**

The Inetcam® Mobile Gateway™ video server is designed to take video feeds and make them available to cell phones running the iMViewer™ application. The unit can receive analog camera feeds directly into the unit, or can receive loop through from a DVR or time-lapse VCR unit: virtually any analog feed may be used as a video source on the Mobile Gateway™ video server.

Because the Mobile Gateway™ video server is designed for Internet viewing through a cell phone, it requires that the Mobile Gateway™ video server be available on the Internet. This may require firewall or router configuration. The router or firewall manual/manufacture will have instructions on how to view a web server or network camera that is behind such a device.

At no time should the Mobile Gateway™ video server interfere with normal security system operation. If an issue occurs, physical connections to both units should be checked to make sure they are engaged snugly. If the issue persists, disconnect the Mobile Gateway™ video server and contact Inetcam® Technical Support.

Feedback, comments and questions are always welcome on this unit. Please contact your Inetcam® sales representative, or email [channelsupport@inetcam.com](mailto:channelsupport@inetcam.com).

## **System Contents**

1 CD Containing: Mobile Gateway™ Finder utility

1 Mobile Gateway™ video server

4 RCA cables (optional)

Mobile Gateway™ User's Guide

iMViewer™ User's Guide

## **System Requirements**

Mobile Gateway™ is a self-contained unit that should be administered remotely from a browser. The administration screens require:

- An Internet and network connection able to access the Mobile Gateway™ video server
- A PC with a network connection and a CD-ROM (used to configure the Mobile Gateway™ video server)
- A web browser such as Internet Explorer 5.x and 6.x, and Netscape 6.x and 7.x. (For best results, JavaScript must be activated in the browser)
- iMViewer™ installed and registered on a cellular phone (a list of compatible phones is available at [www.inetcam.com](http://www.inetcam.com))

## **Mobile Gateway™ System Default Settings**

Mobile Gateway™ video servers default to the following state:

- All cameras configured and “live” – cameras are scheduled “always on”
- A single administrative account: username -- “Admin”, password -- “password”
- *Require authentication to access video* is turned off, allowing all viewers to see all cameras
- The Mobile Gateway™ video server default port is 80
- Each Mobile Gateway™ unit supports up to 15 concurrent viewers (\*not a configurable setting)
- Each Mobile Gateway™ video server has a unique and random host name

All of these items may be changed by opening a browser on a PC and going to the IP address of the Mobile Gateway™ video server by entering that address in the browser address bar (e.g. <http://192.168.0.2>.)

## Hardware installation

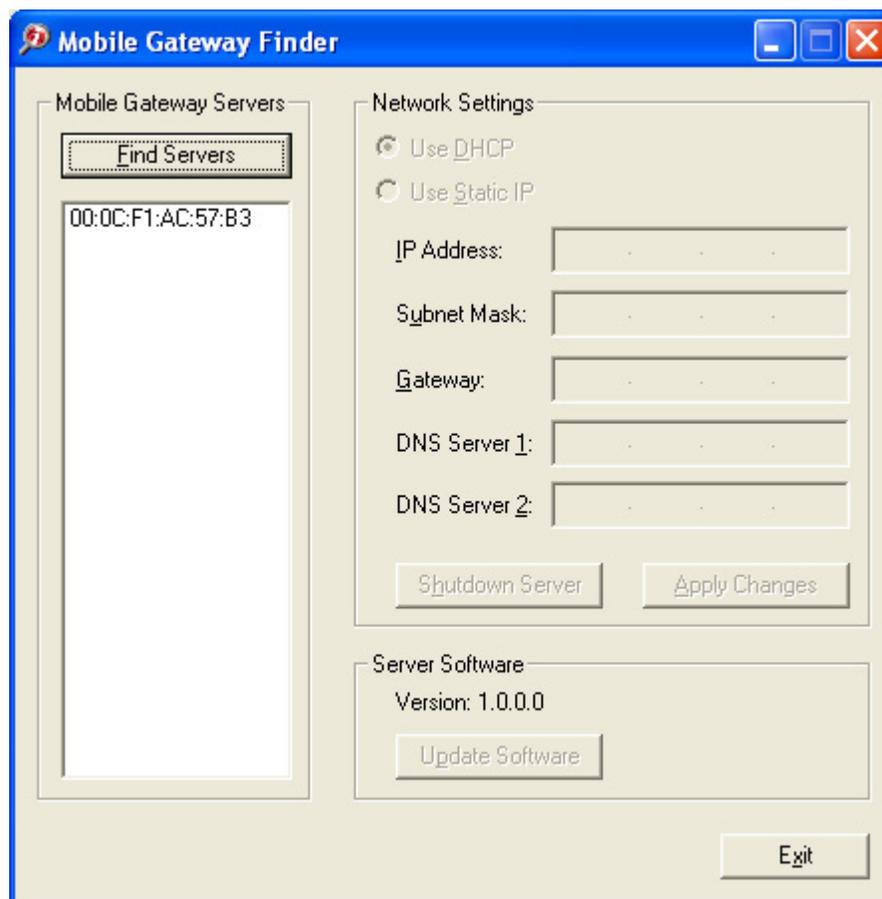
For best results, hardware connections should be initiated in the following order:

1. Connect the network cable to the Mobile Gateway™ video server NIC.
2. Plug the cameras into the Mobile Gateway™ video server.
3. Connect the power cord to the Mobile Gateway™ video server.
4. Power on the Mobile Gateway™ video server.
5. Run the Mobile Gateway™ video server Finder utility to configure the Mobile Gateway™ video server.

## Using The Mobile Gateway™ Finder Utility

Mobile Gateway™ configures in much the same way as a “standard” analog to IP video server: use the Mobile Gateway™ Finder utility to locate servers and configure them remotely on the network.

To use the Mobile Gateway™ Finder utility, insert the CD into a CD-ROM. Browse to the CD Drive on the PC and launch *Finder.exe*. The utility will launch:



**Mobile Gateway™ Servers:** The white space on the left side of the Mobile Gateway™ Finder utility will represent all of the Mobile Gateway™ video servers on the network by their MAC addresses. The fields on the right on the Mobile Gateway™ Finder utility should appear gray and have no entries.

If nothing is displayed in the white space on the left side of the screen, click the *Find Servers* button. (If nothing is still displayed, make sure that the Mobile Gateway™ video server is connected to the network with cables plugged in properly.)

**Network Settings:** Select the Mobile Gateway™ video server to configure by clicking the MAC address of the unit (listed on the left side). Use *Network Settings* to set the IP address settings of the Mobile Gateway™ video server. Select *DHCP* if the local network assigns IP addresses using a DHCP server. (Note: the DHCP address may be required for later configuration.) Select *Static* to enter a fixed IP address that will not change. When using Static IP settings, the IP Address, Subnet Mask, Gateway, and DNS Server 1 fields must be filled in. DNS Server 2 is optional.

**Apply Changes:** Apply changes to the network settings by clicking the *Apply Changes* button.

**Shutdown Server:** Click this button to remotely power down the unit.

**Update Software:** The current software version on the selected server is displayed here. Click the button under the software version to apply updates to the Mobile Gateway™ video server. More about this capability is listed under the “Updating the Mobile Gateway™ video server” section of this manual. (Note: administrator login privileges are required to perform updates to the Mobile Gateway™.)

**Exit:** Select *Exit* to shut down the Mobile Gateway™ Finder utility.

## ***Mobile Gateway™ Administration***

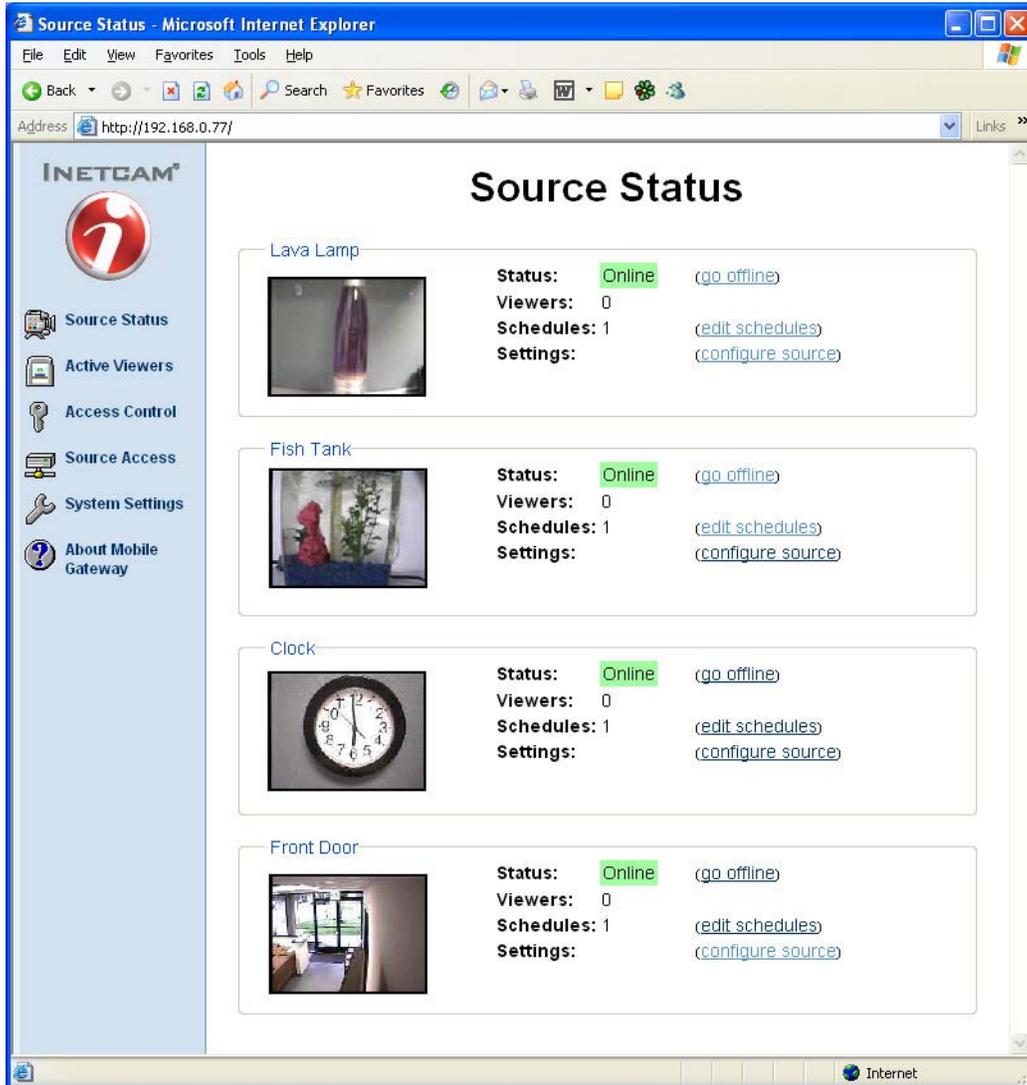
Mobile Gateway™ administration is completed through a web browser interface. To access Mobile Gateway™, enter the IP address of the Mobile Gateway™ video server in a browser’s address bar.

Mobile Gateway™ will prompt you for a password. The default administration username for Mobile Gateway™ is: Admin. The default password is: password. Please note that Mobile Gateway™ video server usernames and passwords are case sensitive.

Mobile Gateway™ opens to a default screen with further options along the left side of the screen. Items that are used less often are toward the bottom of the option list. Items that are used more frequently, such as camera status, are toward the top. Items on the left side of the screen are links to other administration screens.

## Source Status

The top page of the Mobile Gateway™ video server is a camera status screen, called *Source Status*. This screen displays still images from the cameras to the administrator\* so that the administrator can easily monitor if the camera is connected properly. If a camera is not connected properly, the still image will show a blue screen. (\*Note: If the administrator does not have access to specific cameras, the image will display as a camera with a slash through it.)

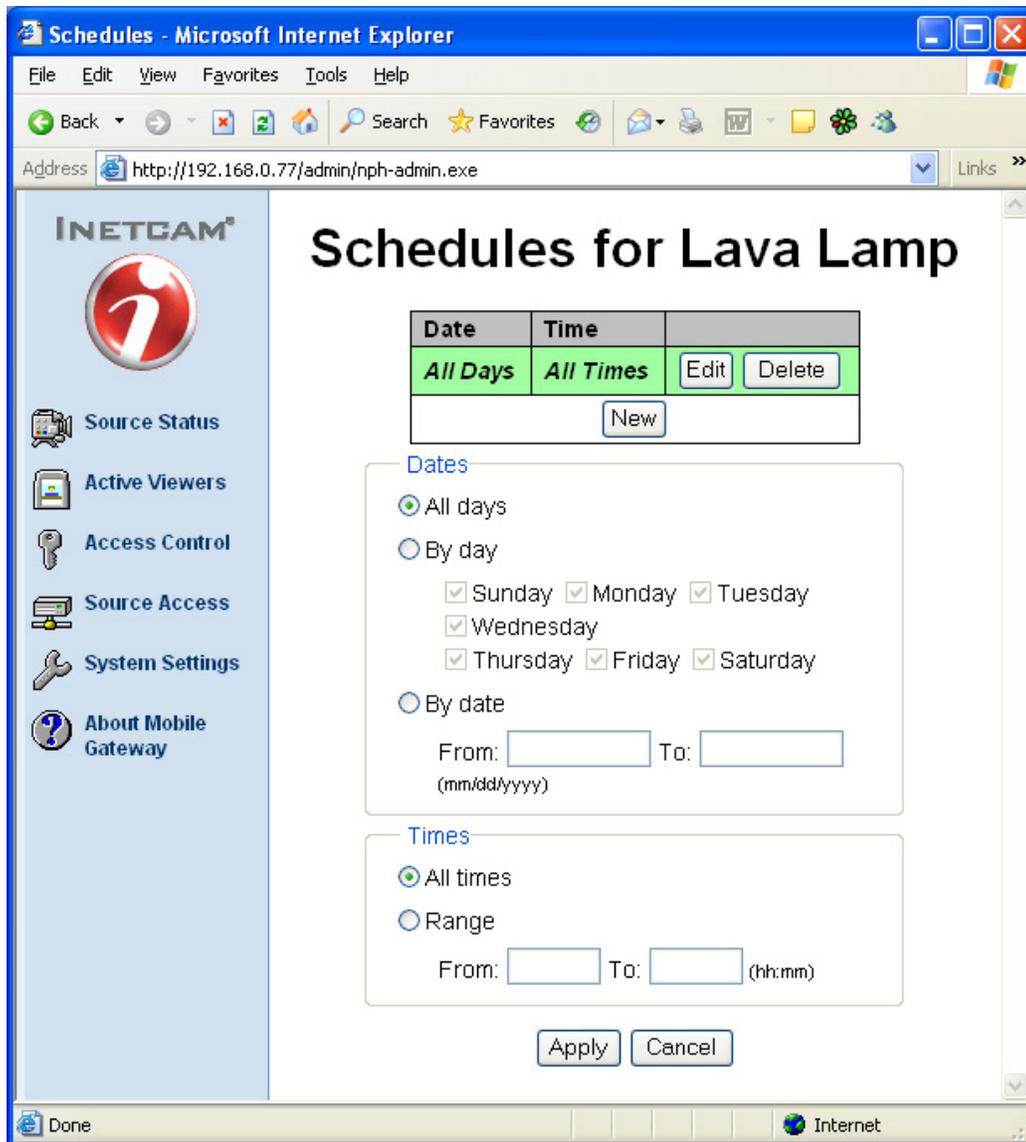


**Status:** Green *Online* denotes an online state. The camera can be seen through the iMViewer™ application to viewers with appropriate access. Use the *go Offline* option to stop all viewers from accessing this camera. The green *Online* will disappear and be replaced with *Offline*.

**Viewers:** The total number of viewers accessing each specific camera is represented here. The total number of viewers supported by each Mobile Gateway™ video server is fifteen.

**Schedules:** By default, the Mobile Gateway™ video server comes with one “always on” schedule for each camera. Changes to schedules may be made by using the *edit schedules* link. Clicking this link will allow you to edit existing schedules or add new schedules. New schedules

may be added by day, by specific date, or always (every day) and then also by time. For example, if cameras should be available every day from 4 pm. to 6 pm., all days would be selected and then a range specified from 16:00 to 18:00 hours.



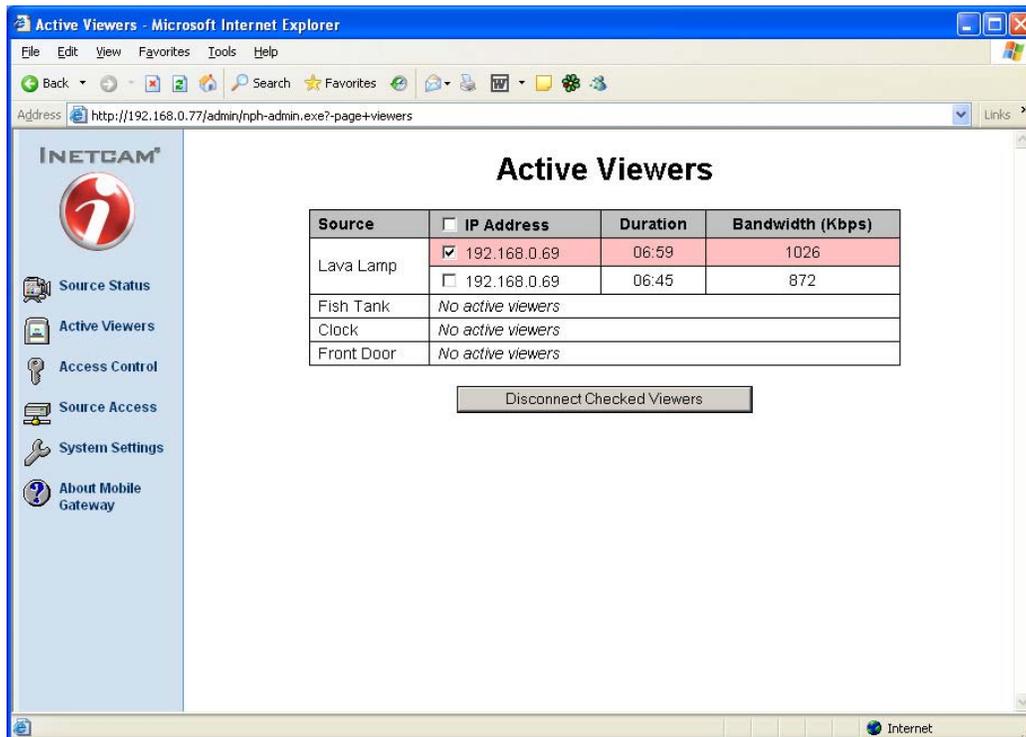
**Settings:** Camera settings on the Mobile Gateway™ video server default to NTSC and a default name. To make changes to this settings, click the *configure source* link. Once this link is selected, the following options appear:

- **Name:** Enter the name of the video source that will be displayed in the iMViewer™ camera list. This name may be up to 40 characters.
- **Disconnect Viewer After:** Enter the maximum amount of time in minutes that a viewer is allowed to receive video before being required to reconnect to the camera source. Enter a zero to allow unlimited viewing. This field may be used to prevent viewers from inadvertently remaining connected to a video source indefinitely.
- **Source Type:** Select whether the analog video input uses NTSC or PAL format.

- Click *Apply* to save the changes or *Cancel* to go back to the *Source Status* administration screen.

## Active Viewers

The *Active Viewers* administration screen is used to display the list of viewers who are receiving video from the Mobile Gateway™ video server at the time that the screen is loaded. This information is displayed as a multi-column table.



- **Source:** This column shows the name of each configured source on the Mobile Gateway™ video server. Information about active viewers is grouped using these sources.
- **IP Address:** This column shows the viewer's IP Address. It also contains a checkbox that is used to disconnect this viewer.
- **Duration:** This column shows the time in minutes and seconds that the viewer has been receiving video. The duration is calculated when the *Active Viewers* administration screen is loaded and is not automatically updated.
- **Bandwidth (Kbps):** This column shows the bandwidth that is being consumed by the viewer for video streaming. The duration is calculated when the *Active Viewers* administration screen is loaded and is not automatically updated.
- **Disconnect Checked Viewers:** Click this button to disconnected all checked viewers from the Mobile Gateway™ video server. Multiple viewers may be checked and disconnected with a single click of this button. If JavaScript is enabled on the browser, a checkbox will appear next to the *IP Address* column heading; checking/un-checking this box will select/deselect all active viewers.

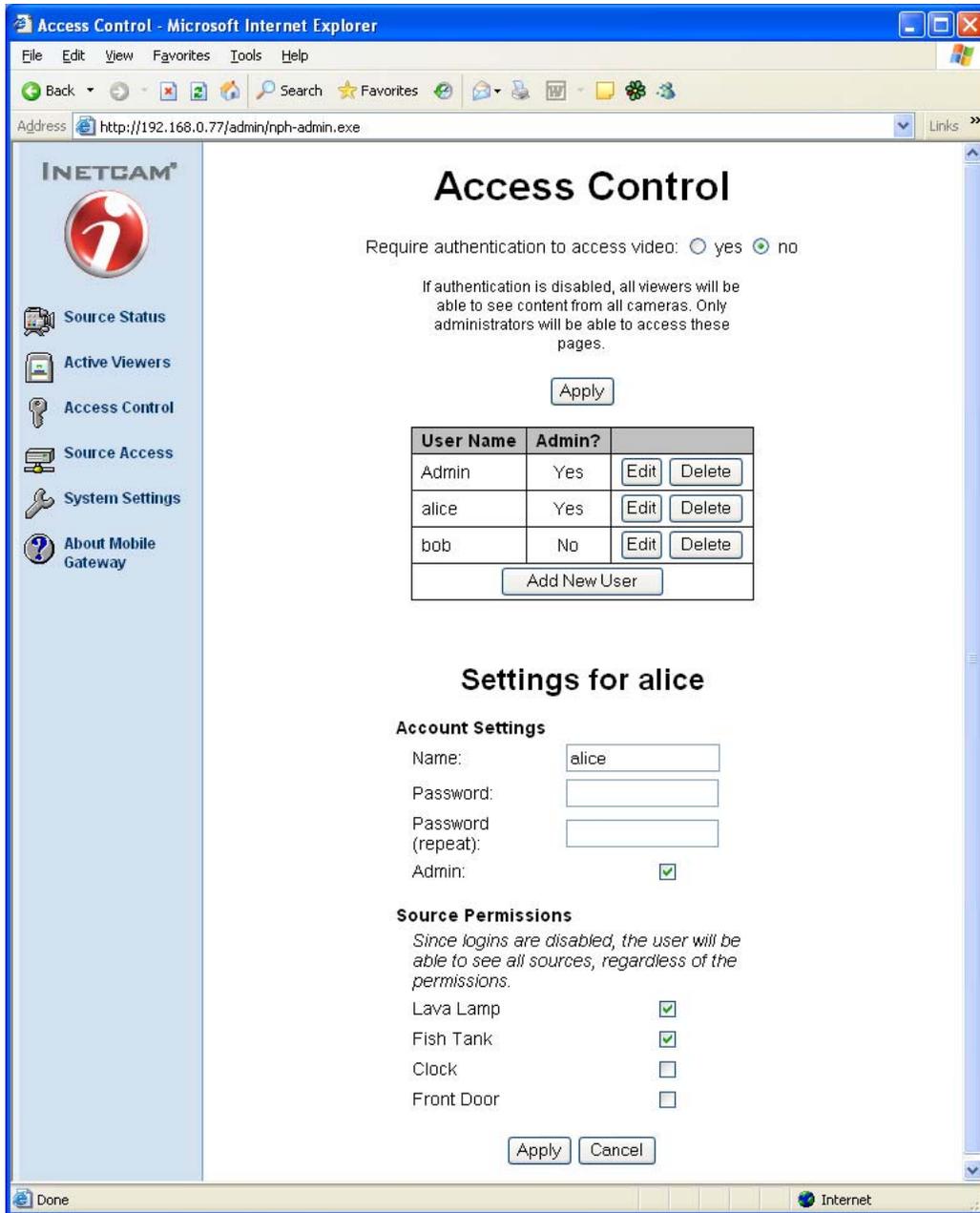
## Access Control

The *Access Control* administration screen is used to edit access control settings for both viewing and system administration. While administration access is always required in order to change system settings, user authentication can be disabled for access to the video.

In order to enable/disable viewer authentication, select *yes/no* next to *Require authentication to access video* and click *Apply*. This change does not require a restart of the web browser in order to continue changing system settings.

The first column in the table shows the Username for all users that have been configured for some level of access in the system. The second column indicates whether or not each user has administrator privileges. The third column has buttons for changing the settings of a given user or deleting the user's account. At the bottom of the table is an *Add New User* button for creating additional accounts.

The Mobile Gateway™ video server must always contain at least one user with administrator privileges. Thus, while users with administrator privileges can be deleted from the system, the last administrator account cannot. The "Admin" user is the default system account, but is otherwise no different than other accounts with administrator privileges. If another administrator account is created, the default "Admin" may be safely deleted. (This may provide additional system security as it removes a default setting from the Mobile Gateway™ video server.)



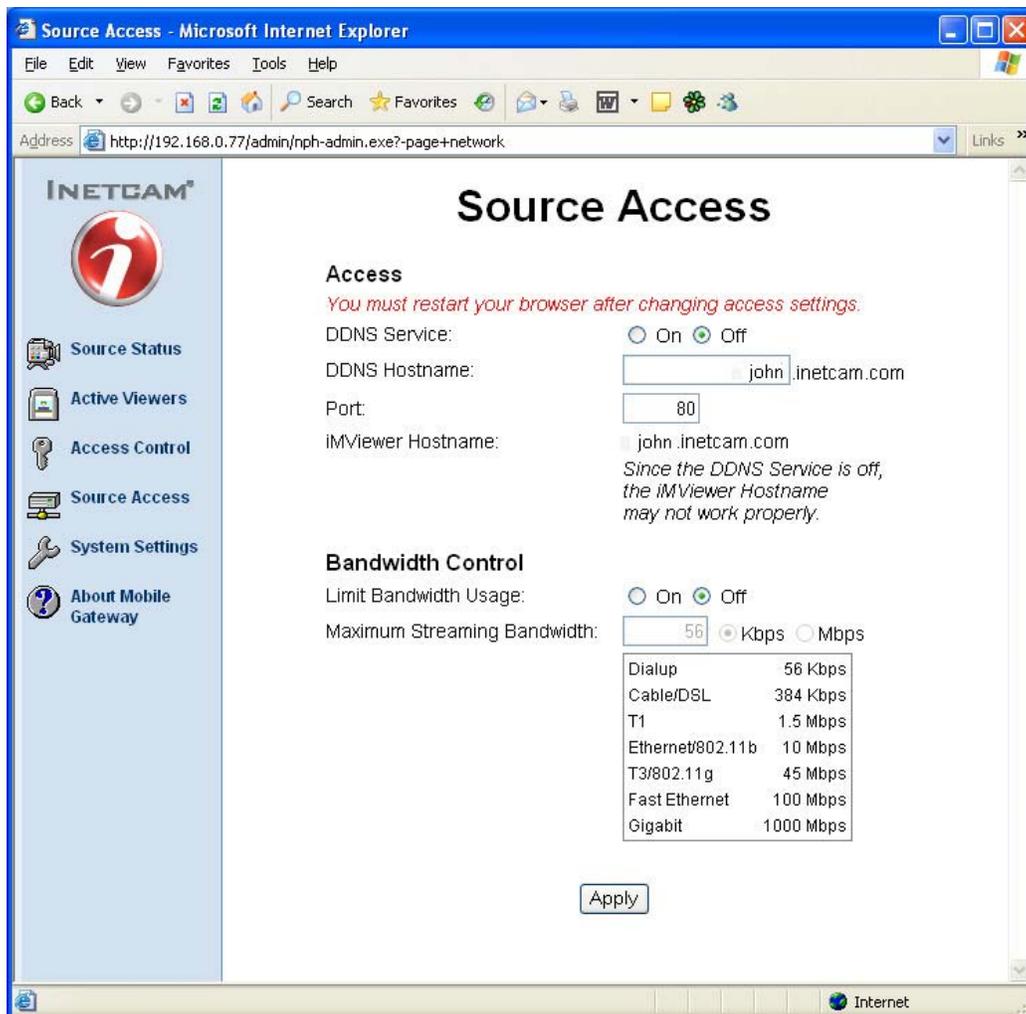
The *Settings for...* section is used to set the settings for the selected (or new) user.

- **Name:** Enter/edit the login name that will be used to access video or the administration screens. The login name cannot be more than 16 characters.
- **Password:** Enter the user's password. When editing the settings for an existing user, leaving this field empty will leave the user's password unchanged. The field cannot be empty for new users. The password may be up to 16 characters.
- **Password (repeat):** Enter the user's password a second time. The two password entries must match. Again, when editing the settings for an existing user, leaving this field empty will leave the user's password unchanged.

- **Admin:** Check the box if this user should be given administrator privileges. Un-checking this box will remove administrator privileges from this user. As the system must have at least one administrator, the box cannot be unchecked for the last administrator.
- **Source Permissions:** Check the boxes for all cameras that this user has permission to see. From iMViewer™, the list of cameras available to the user will only include the checked cameras which are *Online*. If the user is an administrator, the *Source Status* administration screen will list details about all cameras, but will only show sample images from the checked sources. If authentication is disabled, the source permissions checkboxes are not used.

## Source Access

The *Source Access* administration screen controls how both viewers and administrators access the server. It is also used to limit the network impact of the Mobile Gateway™ video server.



The *Access* section controls the address that is used to access the Mobile Gateway™ video server.

- **DDNS Service:** Select *On* to use the Inetcam® DDNS Service or *Off* to disable this service.

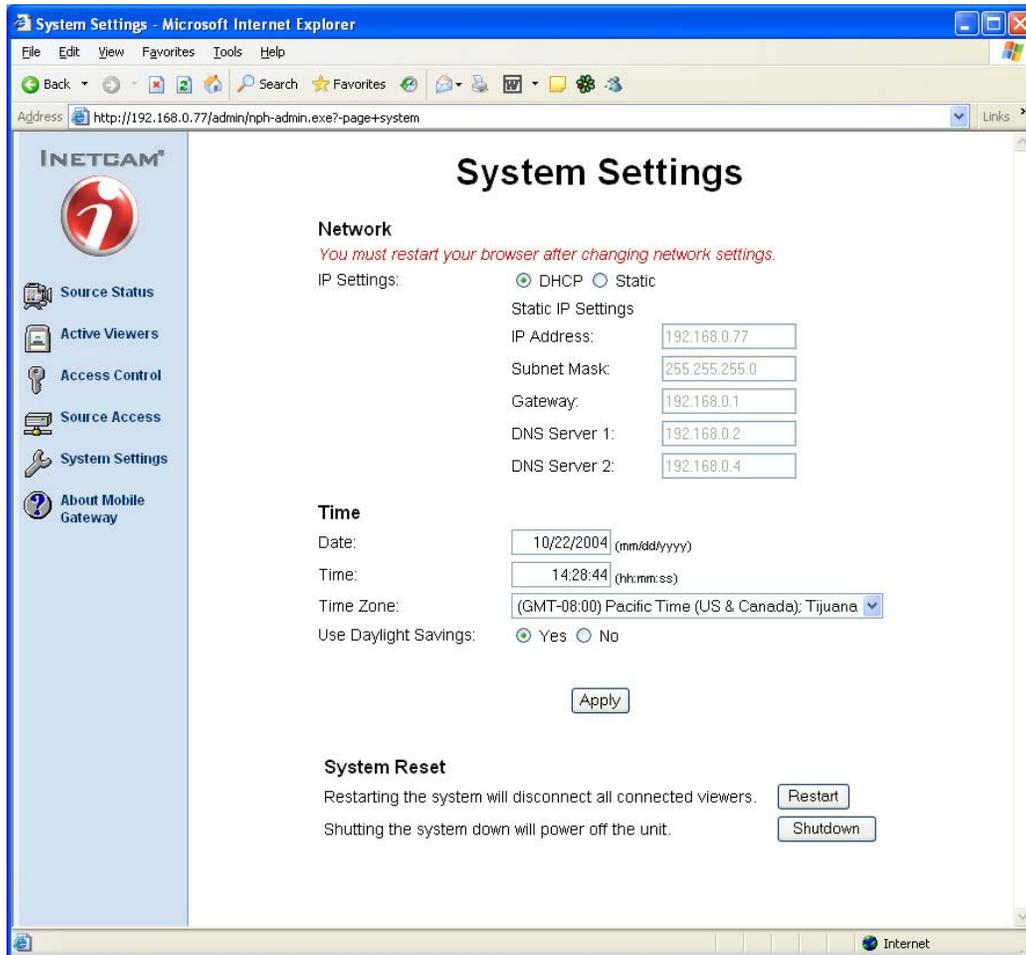
- **DDNS Hostname:** Enter the hostname for the Mobile Gateway™ video server; the default is a random value. The full name for accessing the Mobile Gateway™ video server will be the entered value followed by ".inetcam.com" (for example: john.inetcam.com).
- **Port:** Enter the port number through which the server is accessed; the default is 80, the standard web server port. (This will impact your router or firewall settings.)
- **iMViewer™ Hostname:** This shows the full text that must be entered in the iMViewer™ software in order to access this Mobile Gateway™ video server.

The *Bandwidth Control* section controls bandwidth usage limitations.

- **Limit Bandwidth Usage:** Select *On/Off* to enable/disable bandwidth usage limitations. When activated, the Mobile Gateway™ video server will not consume more than a user-selected bandwidth, independent of the total number of connected viewers.
- **Maximum Streaming Bandwidth:** Enter the maximum bandwidth to be used making sure to select between kilobits (Kbps) and megabits (Mbps). A table below these fields shows the available bandwidth for typical networks.
- Click *Apply* to update the server settings. If entries in the *Access* section have been changed, the web browser must be restarted in order to access the Mobile Gateway™ video server once again.

## System Settings

The *System Settings* administration screen is used to change system-level settings.



The *Network* section is used to set the IP address settings of the Mobile Gateway™ video server.

- **IP Settings:** Select DHCP if the local network assigns IP addresses using a DHCP server. Select Static to enter a fixed IP address that will not change. When using Static IP settings, the IP Address, Subnet Mask, Gateway, and DNS Server 1 fields must be filled in. DNS Server 2 is optional. These options may also be set using the Mobile Gateway™ Finder utility.

The *Time* section is used to set the time on the Mobile Gateway™ video server. Accurate time settings are important as this information is transmitted to viewing clients.

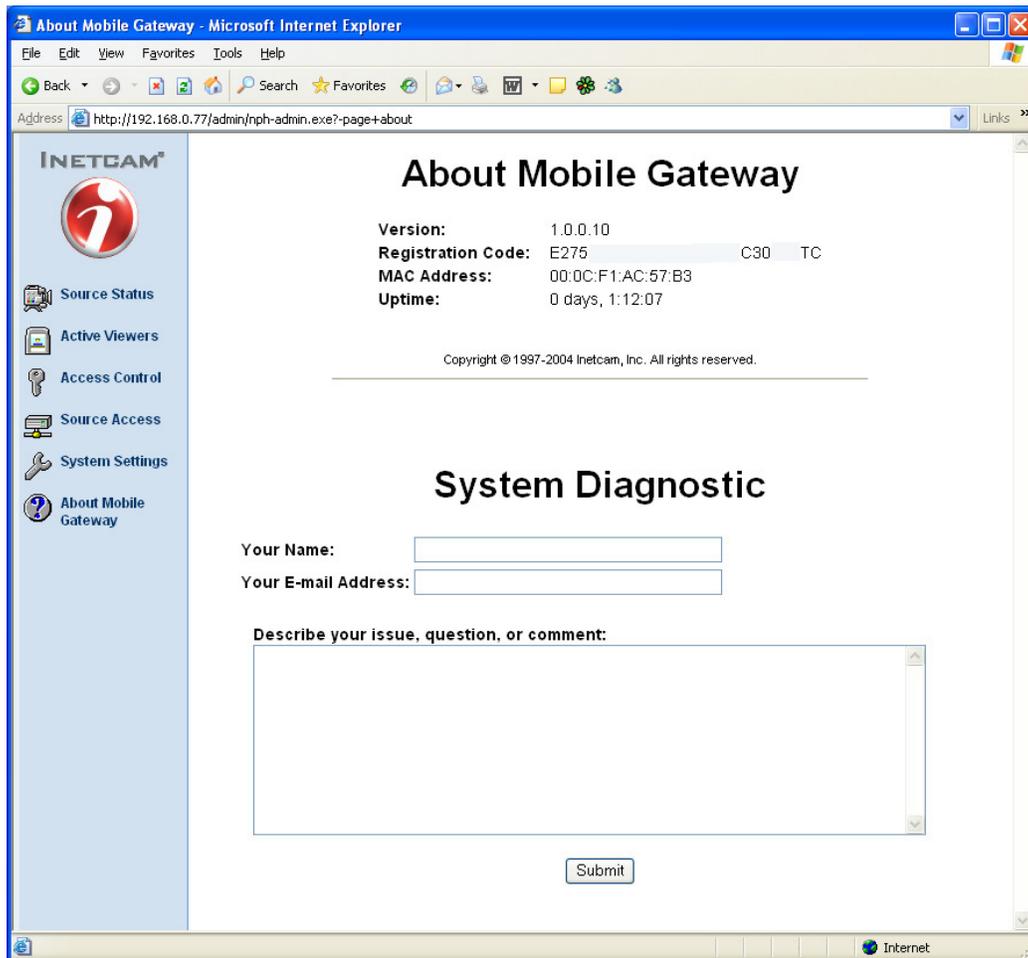
- **Date:** Enter the local date as "month/day/year" using numbers separated by slashes.
- **Time:** Enter the local time as "hour:minute:second" using numbers separated by colons.
- **Time Zone:** Select the local time zone from the dropdown list of time zones available to the Mobile Gateway™ video server.
- **Use Daylight Savings:** Select Yes or No to indicate whether or not Daylight Savings Time should be followed. (Note: If the selected time zone does not use Daylight Savings, such as Arizona time, the "Use Daylight Savings" setting is ignored.)

After changing Network or Time settings, click *Apply*. If the Network settings have been changed, the web browser must be restarted in order to access the Mobile Gateway™ video server once again.

The *System Reset* section is used to restart or shutdown the Mobile Gateway™ video server. As restarting the server power-cycles the unit, clicking *Restart* will disconnect any connected viewers. Clicking *Shutdown* will disconnect viewers then power off the unit.

## About Mobile Gateway™

The *About Mobile Gateway™* administration screen shows information about the Mobile Gateway™ video server and provides a convenient mechanism for reporting issues or sending feedback to Inetcam®.



In the *About Mobile Gateway™* section, four useful pieces of information are displayed.

- **Version:** This is the version of the software that runs the Mobile Gateway™ video server. This can be used to ensure that the latest version of the software is running.
- **Registration Code:** The Registration Code is unique for each Mobile Gateway™ video server. It is used to identify the server when providing DDNS service. (Note: Portions of the Registration Code have been blanked out in the screen shot.)

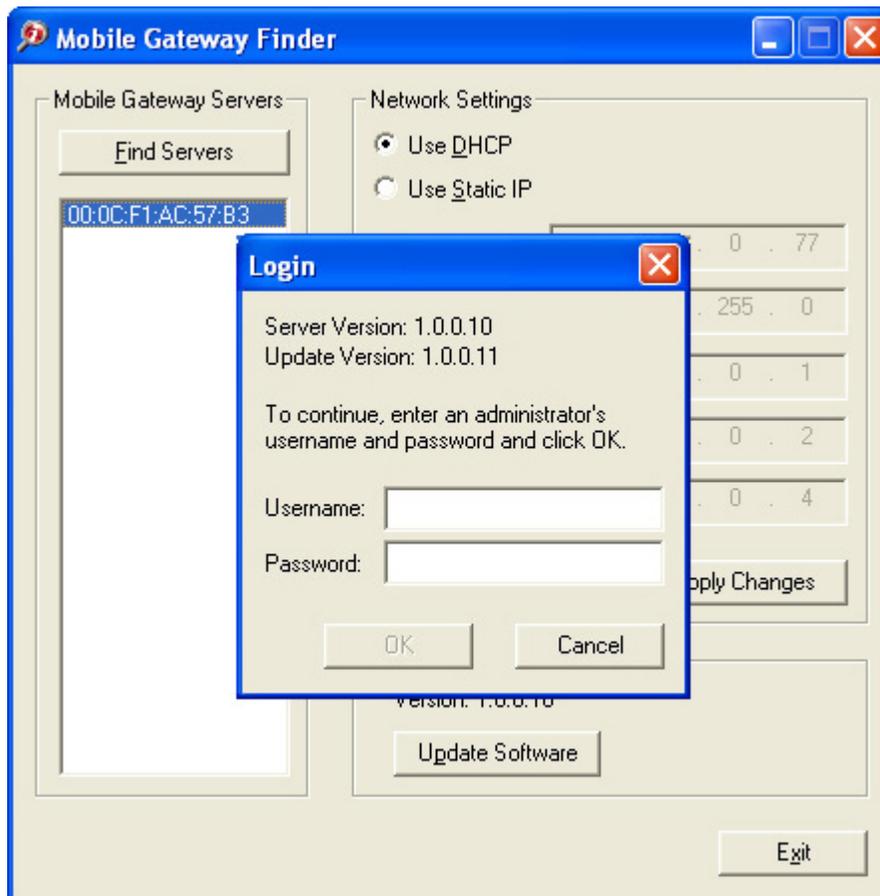
- **MAC Address:** The MAC Address is the hardware address of the network card in the Mobile Gateway™ video server. Since the Mobile Gateway™ Finder displays the MAC Address of Mobile Gateway™ video servers on the network, this can be used to discriminate between multiple servers.
- **Uptime:** This is the length of time that the Mobile Gateway™ video server has been running. The display shows the number of days, hours, minutes, and seconds that the Mobile Gateway™ video server has been running. After the Mobile Gateway™ video server is reset, this value resets.

In the *System Diagnostic* section, enter a name and email address in "Your Name" and "Your E-mail Address" fields respectively. In the large area, describe any issues with the Mobile Gateway™ video server, ask questions about the unit, or provide any feedback about the unit. Finally, click *Submit* to send this information, as well as configuration information to Inetcam® Technical Support. Note: This information will only be used to diagnose issues with the Mobile Gateway™ video server.

## Updating the Mobile Gateway™ Video Server

As previously mentioned, the Mobile Gateway™ Finder utility may be used to update the software on your video server. Follow all of the steps below to apply an update using the Finder utility.

1. Download the update for the Mobile Gateway™ video server by visiting [www.inetcam.com](http://www.inetcam.com). Updates are available from the Support Section of the web site. Save the update to the desktop of a PC on the same network as the Mobile Gateway™.
2. Open the Mobile Gateway™ Finder utility by inserting the CD into the CD-ROM drive of that PC. Browse to the CD, and double click *Finder.exe*. The Mobile Gateway™ Finder utility will launch.
3. Finder will locate all of the Mobile Gateway™ video servers on the network. If it does not list any servers, click the *Find Servers* button.
4. Once the servers are located, select the server that will be updated. The network settings and software version for that server will display. Click the *Update Software* button. Use the resulting window to browse to the downloaded file saved on the desktop. Click *Open*.
5. Another window will open and ask for a username and password. Enter a username or password that has administrator privileges for the Mobile Gateway™ video server. Once this username and password are authenticated, a status screen for the update will display.
6. All status screens should list “Success”. If any status lists “FAILURE”, check the download and try again.



## ***Troubleshooting***

### **The Finder utility can't find my Mobile Gateway™ video server?**

Check the physical connections between the network card of the Mobile Gateway™ video server and the network/router. If the connections are secure, make sure the PC with the Finder utility loaded is on the same network subnet as the Mobile Gateway™. Once the machines are located on the same subnet, the Finder should locate the Mobile Gateway™.

### **I'm having trouble logging in to configure my Mobile Gateway™ video server for the first time?**

The username and password for this unit are case sensitive. The default username for the Mobile Gateway™ is: Admin. The default password is: password.

### **I'm configuring my Mobile Gateway™ video server and one of my camera preview screens is blue?**

Check that the camera or DVR is connected correctly to the server with a BNC or RCA connection. All adaptors should fit snugly together. If a DVR connection is being used, confirm that the camera may be seen/previewed on the DVR as well.

### **I'm configuring my Mobile Gateway™ video server and one of my cameras has a slash through it?**

The account you are logged into does not have administrator access to that camera. To add access to that camera, click the *Access Control* screen and then click *edit* next to your account information. Make sure the camera you wish to see has a check box for access next to it and click *Apply*.

### **Can my Mobile Gateway™ video server be configured to see IP cameras?**

The Mobile Gateway™ does not support IP camera inputs at the current time. However, we are considering this for a future release. Please contact your Inetcam® sales associate for more information or to request this as a feature.

### **What if the software update process from the Mobile Gateway™ Finder utility doesn't work?**

The Mobile Gateway™ Finder utility is designed to update the Mobile Gateway™ video server software while providing feedback for you on the process as it updates. If a problem occurs with the update, make a note of the item indicating a "FAILURE": you will need this information when contacting Technical Support. Try logging into the unit's administrative screens. If you are able to do this, go to the *About Mobile Gateway™* screen and submit a diagnostic by following the instructions there. This will allow Technical Support to assess what the next steps are for you to apply the desired update.

### **What is the default address of the Mobile Gateway™ server?**

We recommend that you use the Mobile Gateway™ Finder utility to locate the Mobile Gateway™ video server. However, the unit is also defaulted to the IP: 192.168.93.93. To use this IP, the PC from which you are attempting to configure the unit will need to be on the same subnet.

### **Can I/How do I change the IP address of the Mobile Gateway™?**

We recommend that you use the Finder utility to configure the Mobile Gateway™ video server. Once the Finder utility is run, you will be able to set network settings directly from the Finder utility.

### **Can I/How do I change the password to connect to the Mobile Gateway™?**

To change the username or password on your Mobile Gateway™, login to the unit and click the *Access Control* screen. Click *edit* next to the account that you wish to modify (or click *Add New User*). Select your username and password and click *Apply*.

### **How do I change the cameras that Mobile Gateway™ makes available?**

The easiest way to change cameras is to physically change the connectors from the camera or DVR. Unplug the camera or connection you no longer wish to use and replace it with the camera or connection you wish to stream.

### **How do I limit which cameras a user can see when connected to Mobile Gateway™?**

Login to the Mobile Gateway™ from a PC using an account with administrator privileges. Click the *Access Control* screen and then click *Edit* next to the account that you wish to edit, or click *Add New User* to create a new account. Follow the instructions on the screen, making sure the camera you wish the viewer to see is selected via the check box next to it and click *Apply*. (Note: *Require authentication to access video* must have a *yes* next to it.)

### **Why can't I see any video when connected to Mobile Gateway™ from a computer?**

Mobile Gateway™ video servers are not designed to stream video to browsers. The interface for Mobile Gateway™ will provide a test image to confirm that the camera is sending video to the unit, but the image will not change unless the web browser is refreshed.

### **How do I shut Mobile Gateway™ down without a keyboard/mouse and monitor?**

The Finder utility or Mobile Gateway™ administration screens will allow you to shut down the server with the click of a button.

### **How do I buy/get iMViewer™ to view my video?**

iMViewer™ information, including compatible handset information and compatibility tests are available from your Mobile Gateway™ dealer or distributor.

### **Why can't my wireless handset view video from my Mobile Gateway™ video server?**

To determine if your handset is compatible, please visit <http://j2me.inetcam.com>. This will allow you to download a compatibility test application to your handset (J2ME only) and test whether your handset can run iMViewer™. Once this test is passed, you may register and run iMViewer™. If you do not have a registration code for iMViewer™, please contact your dealer or distributor for more information.

If iMViewer™ is successfully loaded and able to see video from the server that comes preloaded with the application, your Mobile Gateway™ may be behind a router or firewall. This router or firewall will need to be configured so that the unit is available on the Internet. This generally involves setting up port forwarding or a virtual server on the router or firewall to allow access from the Internet to the server. For more information regarding this process, consult your router or firewall manual.

Additionally, if you are unable to use DDNS name that is configured within Mobile Gateway™, you may want to try using the IP address of your firewall or router (or of the Mobile Gateway™ if it is connected directly to the internet). In cases where Internet propagation of DDNS names is slow, the IP address will also connect you to your server.

### **From my handset, some cameras are listed but others aren't?**

The Mobile Gateway™ video server allows administrators to restrict the cameras that different viewers may see. The list of cameras displayed on your handset is comprised of cameras configured for access by your username and password. If you believe the list is restricted, contact your Mobile Gateway™ administrator.

### **Who do I contact for help?**

To run a system diagnostic, log into Mobile Gateway™ administration from a PC on the same network as the Mobile Gateway™. Go to the *About Mobile Gateway™* screen and submit a diagnostic by following the instructions there. In the event that you are unable to access your unit, please contact Inetcam® Technical Support at [channelsupport@inetcam.com](mailto:channelsupport@inetcam.com), or your Inetcam® sales associate for more information.

**What handsets do you recommend?**

Inetcam<sup>®</sup> recommends the Samsung A700 or the Nokia 6600 handsets for use with the Mobile Gateway<sup>™</sup>. These handsets, and iMViewer<sup>™</sup> require a data plan with the cellular carrier. We recommend an unlimited data plan for best results.