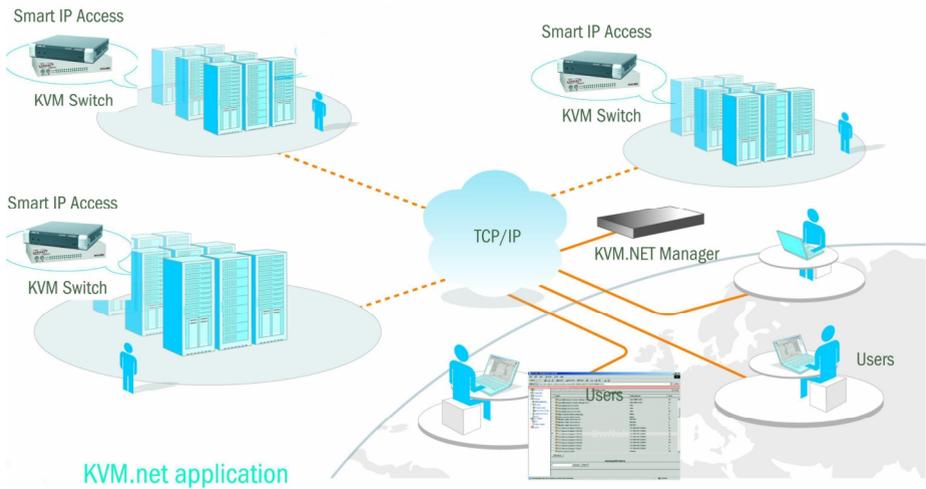


# KVM.net

## User Guide



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## About this Document

This document provides installation and operation instructions for the KVM.net Manager system produced by Minicom Advanced Systems. It is intended for system administrators and network managers, and assumes that readers have general understanding of networks, hardware and software.

All information in this document is subject to change without prior notice.

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# 1. Introduction

KVM.net Manager is a robust central management appliance that provides reliable and secure management of business-critical servers.

KVM.net Manager integrates with IP Access, Serial console server and Power management devices to facilitate an intuitively manageable, centralized out-of-band access portal - designed to maintain all IT assets. LDAP-base, KVM.net Manager centralizes all user account information relevant for IP Access administration without interfering in the stand-alone survivability of each device.

KVM.net Manager is a Web based, allowing easy cross-platform client operation. KVM.net Manager is managed using XML over HTTPS, which allows for secure, yet highly adaptable administration.

Designed to work across LAN or WAN, even via Web-proxy servers, KVM.net Manager monitors and auto configures IP Access devices whether residing on the local enterprise network or in remote branches.

KVM.net Manager delivers the most advanced solution for enterprise IT management and remote control. Support up to thousands of servers in an environment that is completely configurable by the network administrator.

## 1.1 Key features

**IT Management** - Single point of access using one global IP address. KVM.net Manager system centralizes all devices, authentication and global operation to be managed from a friendly Web browser (over HTTP/HTTPS). The local administrator can monitor, control and manage the various devices, user accounts and authorization from one Web interface.

**Automatic Discovery** - IP Access is discovered automatically by the KVM.net Manager.

**Security** - KVM.net Manager provides an extra security layer in addition to the existing authentication and encryption policy – ensuring that only authorized users can access servers.

**KVM Conditional Access** - KVM.net Manager ensures that only authorized individuals can monitor and access resources.

**Availability** - Maximizes uptime by centralizing management and allowing immediate and effective maintenance.

## 1.2 Terminology

**Targets** - The computers/servers that are accessed remotely via the KVM.net Manager.

**Client Computer** - The PC running the KVM.net Manager Web interface.

**Remote Session** - The process of accessing and controlling Target Servers connected to KVM.net Manager IP Access from a Remote PC.

**Permitted Target** - A remote Target that a User has authorization to view or access

## 1.3 System components

The KVM.net system comes with the following:

- KVM.net Manager
- Rack mounting kit
- Power cord

## 1.4 Pre-installation guidelines

Prepare a list of all KVM.net system components. You will need this information to input into the system.

Appendix A on page 46 contains a list of all the details you need to prepare. Photocopy or print out Appendix A.

The list should include each IP Access unit, the KVM switch connected to it and the Target servers connected to the IP Access / KVM switch.

For each Target server list:

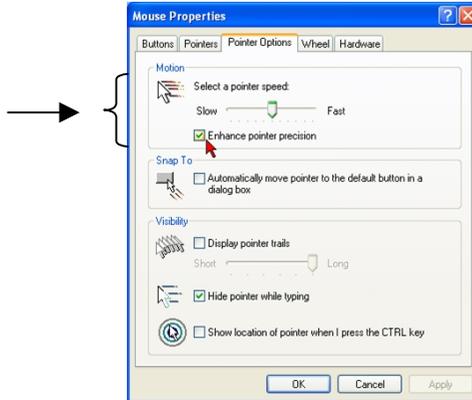
- A unique and clearly identifiable name
- The operating system\*
- Non-default mouse settings. Default mouse settings do not need to be listed

\*Windows NT, 2000 and 98 do not need to be listed. For all other operating systems you must list them manually.

## Note! For Windows XP

For Windows XP deactivate **Enhanced pointer precision**. To do so:

From the **Control Panel** select **Printers and Other Hardware**. Click the **Mouse** icon. The Mouse Properties box appears. See Figure 1. Select the **Pointer Options** tab.



**Figure 1 Pointer tab**

The **Motion** section slider bar must be in the center, and the **Enhanced pointer precision** box must be unchecked. Click OK to save changes.

## 2. Connecting and setting up the system

Once the IP Access systems are set up in their locations, you can connect the KVM.net Manager and begin to set up the KVM.net system.

### 2.1 Connecting the hardware

1. Connect the KVM.net Manager to the network as follows: On the rear panel where the two LAN ports are next to each other connect an Ethernet cable to LAN 1. Where the two LAN ports are one on top of the other connect an Ethernet cable to LAN 2.
2. Connect a local keyboard and monitor to the KVM.net Manager rear panel.
3. Connect the KVM.net Manager to a power supply outlet.

### 2.2 Initial Settings

Power up the KVM.net Manager. When the login prompt appears, login with the default administrator credentials: **root / access**.

There are 2 possible ways of obtaining an IP address for the system:

#### (A) Obtaining an IP address via DHCP

If a DHCP (Dynamic Host Configuration Protocol) server exists on the network where KVM.net Manager is installed, the unit boots with an automatically assigned IP address.

To view the IP address obtained from a DHCP server:

Type **ifconfig eth0** and press **Enter**. The IP address appears.

#### (B) Configuring a static IP address

To configure a static IP address:

1. Type “**netconfig**” and press **Enter**. A confirmation dialog appears.
2. Click **Yes**. A network configuration screen appears. See Figure 2



Figure 2 Configure Network IP

3. Enter the IP address, Default Gateway, and Netmask, obtained from your System Administrator.
4. Press **OK**. The command prompt appears.
5. Type **Service network restart** for the IP changes to take affect. Or, type **reboot** for the unit to restart with its new IP parameters.

### 2.2.1 Changing the Root user's password

To change the Root use's default password on the KVM.net Manager system:

At the `/root/>` command line prompt, type **passwd** and press **Enter**.

Follow the prompts to change the password.

### 2.2.2 Setting the system's date and time

At the `/root/>` command line:

1. Type **date MMDDhhmmYYYY.ss**, where:

<b>MM</b> = month	<b>hh</b> = hour	<b>YYYY</b> = year
<b>DD</b> = day	<b>mm</b> = minutes	<b>ss</b> = seconds

2. Press **Enter**. The new time appears.

### 2.2.3 Accessing the KVM.net Manager from outside a Firewall

To make the KVM.net Manager accessible from outside a network firewall, open the following ports towards the KVM.net Manager direction:

- Port 80 HTTP
- Port 443 HTTPS

### 2.2.4 Accessing the KVM.net Manager from a remote location

KVM.net supports secure Telnet connections (SSH) and secure FTP connections (SSH).

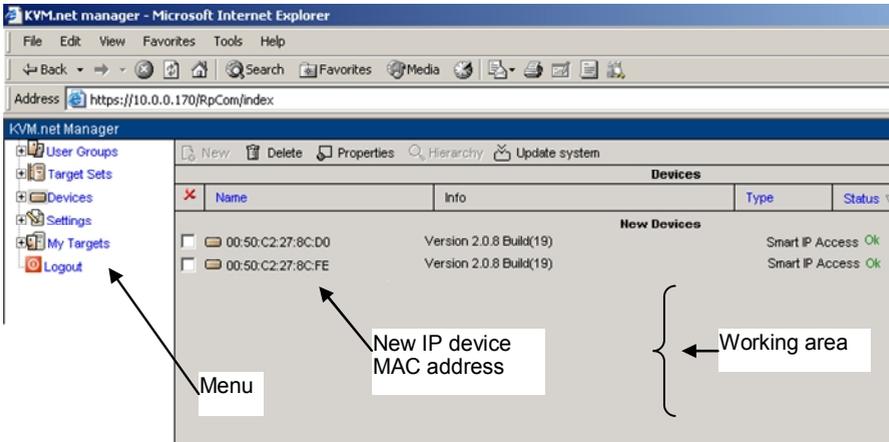
Examples of secured Telnet and FTP applications are:

- `putty.exe` for a Telnet session
- `wincps2.exe` for an FTP application

## 3. Displaying the Web interface

To display the Web interface:

1. Open your Web browser (Internet Explorer version 6.0 or higher).
2. Type in the IP address of the KVM.net Manager and press **Enter**. The Login box appears. Bookmark it for easy reference.
3. Type the login name and password. Default Username is **admin** and Password is **access**.
4. Press **Enter**. The Web interface appears, see Figure 3.



**Figure 3 Devices page**

The Web interface opens at the IP Devices page. All IP Access units connected to the KVM.net system which are KVM.net enabled - as explained in the Quick Guide - automatically appear in the list see Figure 3. Each IP Access appears with its MAC address.

### 3.1 IP Access status

Under the Status column see Figure 3, there are the following possibilities:

**OK** –The IP Access device is up and running and is ready to be configured or is available for a remote session.

**Alarm** – IP Access is down and is unavailable for a remote session.

**Rebooting** - IP Access reboots upon any Network parameter change, or firmware upgrade.

## 4. Configuring the system components

You must configure the system by inputting details of the:

- KVM switches connected to IP Access units
- Target servers connected to the KVM switches / IP Access units
- IP Access units

As explained in the pre-installation guidelines, Appendix A on page 46 contains a list of all the details you need to prepare.

### 4.1 Defining the KVM switches

You must define all the KVM switch types that are physically connected to the systems IP Access units.

To define the KVM switch types:

From the menu, expand **Settings** see Figure 4.

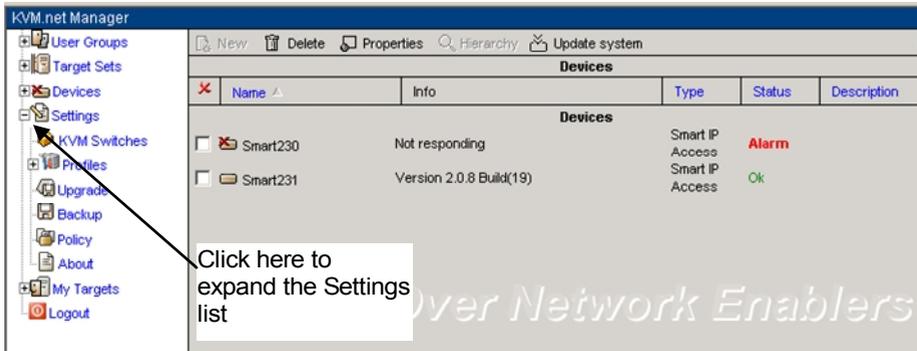


Figure 4 Settings

1. Select **KVM Switches**. A list of KVM switches appears see Figure 5.

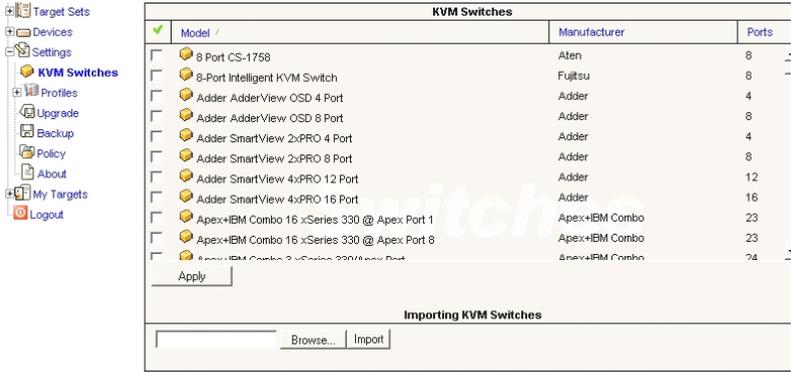


Figure 5 KVM switch model list

- From the list, select the KVM switch brands and models physically connected to your IP Access devices.
- Press . The switch names are saved.

### 4.1.1 Importing a new KVM Switch

If a KVM switch is not listed, contact Minicom’s support team to obtain a new KVM switch file.

When you receive the file do the following:

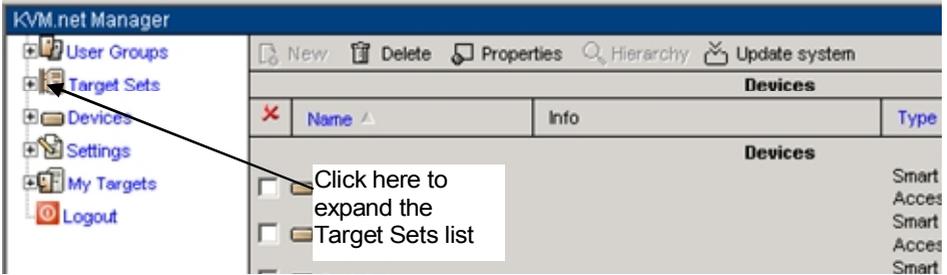
- Save the KVM switch file on the remote PC on which the KVM.net Manager application is running.
- Press  to locate the KVM switch file. See Figure 5.
- Press . The file uploads with the new switch type added to the list.
- Select the KVM switch type and press .

## 4.2 Creating Target servers

You must define all the Target servers physically connected to the systems IP Access units / KVM switches. See Figure 2 above.

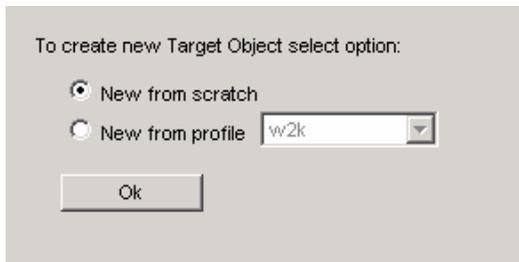
To define a Target server:

- From the menu, expand **Target Sets** see Figure 6.



**Figure 6 Target Sets menu**

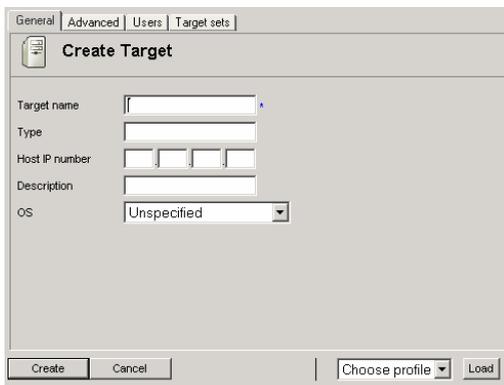
2. Right-click **All Targets**. **New Target** appears.
3. Click **New Target**. The following appears.



**Figure 7 New Target**

4. Select **New from scratch** to create an entirely new profile. (**New from profile** – refers to an already existing profile. Making profiles is explained later in section 5.7 on page 33).
5. Press **OK**. Figure 8 appears:

**Note!** All fields with a blue asterisk are mandatory. The rest are optional.



**Figure 8 New from scratch- General tab**

## The General tab elements

**Target Name** - Type a unique name for each server in the system. (Once created you assign the servers to the IP Access / KVM switch port using the Target servers name – explained below.)

**Type** – Type of computer/server. E.g. Dell 360

**Host IP number** – IP address of computer/server, for reference.

**Description** – Type a description. E.g. Backup server

**OS** – Select the operating system of the Target server from the Drop-down list. The mouse parameters under the Advanced tab adjust to match the operating system.

### 4.2.1 Mouse parameters

Click the Advanced tab. The following appears.

The screenshot shows a window titled 'Create Target' with four tabs: 'General', 'Advanced', 'Users', and 'Target sets'. The 'Advanced' tab is selected. Under the heading 'Mouse Parameters', there are four settings: 'Acceleration' with a dropdown menu set to 'Default', 'Threshold' with a dropdown menu set to 'Default', 'Type' with a dropdown menu set to 'Standard', and 'Microsoft' with an unchecked checkbox.

Figure 9 Advanced tab

## The Advanced tab elements

When the Target's mouse settings are not default select the appropriate values.

**Acceleration / Threshold** – Match the values to that of the server's mouse.

**Type** - Select the mouse type you would like IP Access to emulate. When setting the mouse emulation type, set it to match the mouse connected to the Local Console port on the IP Access, e.g. if the local mouse is a 2 button mouse, but not from Microsoft set the Mouse Emulation type to **Standard Mouse** and uncheck the **Microsoft** checkbox.

**Tip!** The mouse on most KVM drawers in a standard rack is a **Standard Mouse**

**Microsoft** - Check the box only if you are using a Microsoft brand Wheel mouse.

**Important!!** We recommend not changing the advanced settings unless there is erratic mouse behavior. E.g. the mouse makes random clicks and jumps arbitrarily around the screen.

The system now has enough information about the Target server. The **Users** and **Targets Sets** tabs are explained later in section 5.4.

Click . The Target server details are now in the system.

Repeat this process to input all connected servers.

To see a list of all Target servers:

From the menu click **All Targets**.

### 4.2.2 Deleting Targets

You can delete Target servers. To do so:

Expand **Targets Sets** and click **All Targets**. All the Targets appear.

Check the boxes of the Targets to be deleted.

Press the **Delete** button on the menu bar. Press  to **select** or **deselect** all checkboxes with one click.

**Note:**

Deleting a Target removes its association with the KVM port number.

## 4.3 Configuring the IP Access units

Once an IP Access unit is part of the KVM.net system, all IP Access settings and network configurations are exclusively managed from the KVM.net. Settings cannot be changed from the IP Access configuration Web pages.

**Important!** To enable an IP Access unit to be centrally managed via KVM.net, follow the procedure described in the Quick Guide.

Once an IP Access unit is KVM.net enabled, its name appears in the device list as the IP Access MAC address, as in Figure 3 above

**Note!** When there are a number of IP Access units in the system, it may not be clear which MAC address refers to which IP Access.

**Tip!** Every IP Access comes with sticker on the underside showing its MAC address. An IP Access will only appear in the list once it is KVM.net enabled. Have each IP Access enable KVM.net in a certain order with a suitable time gap, so that you can identify the unit's location.

### 4.3.1 Assigning a name to an IP Access unit

You must assign a name to an IP Access unit before associating the KVM switch and Target servers connected to it.

To assign an IP Access name:

1. From the menu, click **Devices**, the Devices page appears, see Figure 3 page 9.
2. Click a MAC address. The Device properties box appears see Figure 10.

The screenshot shows the 'Device properties' dialog box with the 'General' tab selected. The 'Name' field contains 'SQL-SRV'. The 'Description' field is empty. The 'Model' field is empty. The 'Idle Timeout (min)' dropdown is set to '10'. The 'Status' dropdown is set to 'Ok'. There is an unchecked checkbox for 'On line'. Below the fields is a 'Device\_Info' section with 'More\_info' (no description available) and 'Mode' (Local). At the bottom are buttons for 'Ok', 'Apply', 'Cancel', and 'Save Profile'.

**Figure 10 General tab**

In the **Name** box, type a name for the device and click **Apply**. The device can now be configured.

**Note!** Without first assigning a name you cannot make any configuration changes.

#### 4.3.1.1 The General tab elements

**Description/Model** – these are optional fields.

**Idle timeout** - From the Drop-down list select a value for the period of inactivity after which the IP Access will disconnect the session

**Status** – this is the connection status.

**On line** – Only when checked can users access the device.

### 4.3.1.2 The KVM Switches tab elements

Click the KVM Switch tab. The following appears.

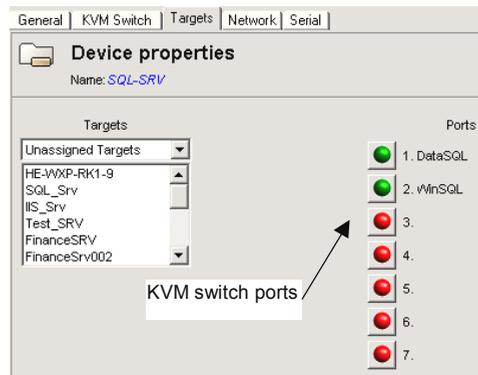


**Figure 11 KVM Switch tab**

The drop-down list consists of pre-defined switch files that you defined in section 4.1 on page 10. Select the KVM switch model (if any) physically connected to this IP Access unit.

### 4.3.1.3 The Target tab elements

Click the Target tab. The following appears.



**Figure 12 Targets tab**

All the Target servers you created appear in the Targets list. You must associate the Target servers with the IP Access (where there is no KVM switch) or with the port numbers on the KVM switch to which they are physically connected.

To associate Target servers with the ports:

1. From the Targets list, select the desired Target server.
2. Click the port number to which the Target server is physically connected. The Target name appears alongside the port number, which changes from red to green.

To remove a Target name from a port:

Click the green port number. The Target name disappears and the port number changes from green to red.

#### 4.3.1.4 The Network tab elements

Click the Network tab. The following appears.

	Interface I				Interface II			
IP address	212	199	134	174	192	168	0	155
First TCP Port	900				900			
Subnet mask	255	255	255	224	255	255	255	0
Gateway	212	199	134	161	0	0	0	0
MAC	00:50:C2:27:8D:1A				00:50:C2:27:8D:1B			
	<input checked="" type="checkbox"/> Enable Encryption				<input type="checkbox"/> Use DHCP			
	<input type="checkbox"/> Use DHCP				<input type="checkbox"/> Use DHCP			
	<input checked="" type="checkbox"/> Active				<input type="checkbox"/> Active			

**Figure 13 Network tab**

Configure and modify Network parameters and security levels of the IP Access device.

**Interface I** and **Interface II** represent the 2 LAN interfaces on the current IP Access.

Interface I displays the IP address of the IP Access as discovered by the KVM.net Manager system. You can change this address here.

Enter **IP address**, **Subnet Mask** and **Default Gateway** for each of the two adapters on the IP Access, as given by your Network Administrator.

In **First TCP Port** type a TCP port number (above 800) – choose three consecutive ports, and enter the first port number of the series. By default the first port number is 900. (The next two are 901 and 902).

Click to clear or select the following according to your requirements:

**Enable Encryption** – Check this box for secure connection, otherwise disable it. If enabled, the Internet Explorer at the Remote PC must support 128bit Encryption. If the IP Access is in secure mode you must check the **Enable Encryption** box.

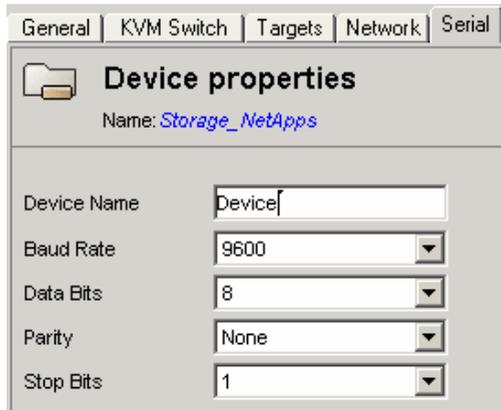
**Enable DHCP** – Enable DHCP to provide you with dynamic IP addressing for IP Access, if a DHCP server exist.

**Active** – Enable/disable Network activity of the IP Access via KVM.net.

**Note:** Any change in the Network configuration forces IP Access to restart.

#### 4.3.1.5 The Serial tab elements

Click the Serial tab. The following appears.



**Figure 14 The Serial tab**

You can access a Serial Network device during an IP Access remote session by emulating its Serial connection via RS232 (VT100 & TTY). Only users with administrative privileges can operate a Serial managed Network Devices (such as a Power management device)

Define the console parameters for controlling Network devices over RS232 via the IP Access Serial connector.

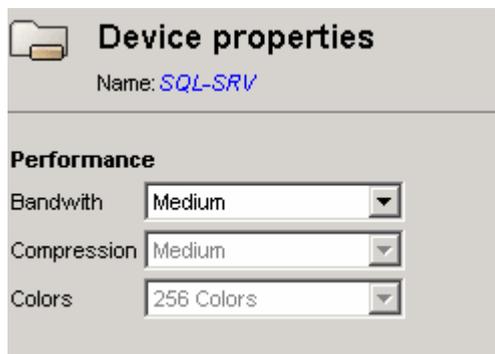
**Device Name** - type the name of the device (i.e. Power Management; CISCO router; etc)

**Baud Rate, Data Bits, Parity, Stop bits** - type the appropriate values according to the network device specifications, attached to the IP Access.

To open the Serial emulation window via remote session refer to the IP Access User Guide – Configuring Serial devices.

### 4.3.1.6 The Advanced button

Press **Advanced**. The following appears:



**Figure 15 Advanced parameters**

You can modify the performance settings - bandwidth, compression and colors of the IP Access.

#### **Adaptive**

The Adaptive setting auto-detects the best settings for the IP Access connection.

#### **Low-Bandwidth**

For optimal performance when using a Dialup connection, select Low bandwidth. This will adjust the performance to high compression and 16 colors. For improved performance, verify that the Colors selection is a 16 colors palette.

#### **Medium**

When working on DSL, cable or ISDN connections, select Medium

#### **High-Bandwidth**

For optimal performance while working in-band (LAN connection), select High-bandwidth. This will adjust the performance to low compression and high color (16bit).

#### **Custom**

Custom gives you the option to manually choose both the compression and colors.

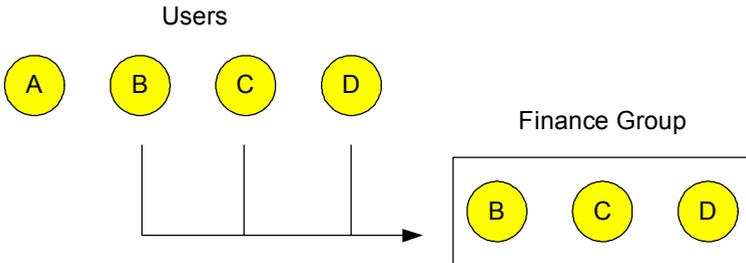
## 4.4 Deleting an IP Access unit

To delete an IP Access from the KVM.net system:

1. From the menu, click **Devices** a list of all IP Access units appears.
2. Check the boxes of the units to be deleted. Press  to **select** or **deselect** all checkboxes.
3. On the menu bar, press **Delete**.
4. Uncheck **Enable KVM.net** on IP Access Configuration Web page. This will prevent the deleted IP Access from being rediscovered.

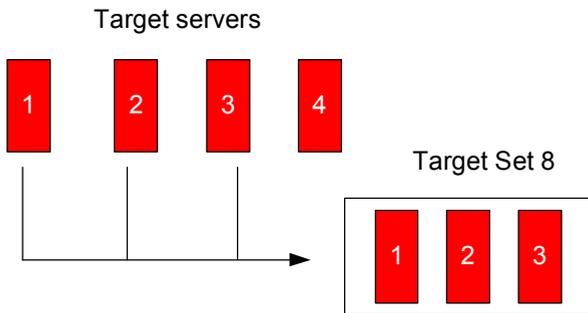
## 5. Using the system – an overview

You can create users with different access permissions and you can form users into groups. In the example below 3 users are formed into the Finance group.



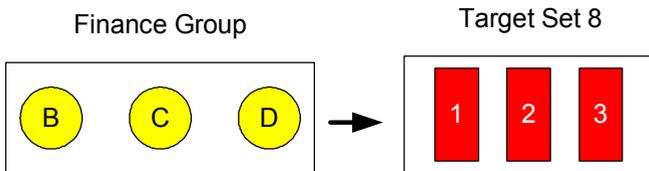
**Figure 16 Forming users into groups**

Target servers can also be formed into sets. In the example below 3 Target servers are formed into Target Set 8.



**Figure 17 Forming Targets into sets**

You can then associate the User Group with the Target Set.



**Figure 18 User Group - Target Set association**

This means that:

- The Finance Group has access rights to Target Set 8.
- Any user added to the Finance Group will automatically have access rights to Target Set 8.

**Note!** Although users are members of the same Group, they can have different access permissions to Targets. E.g. some could be Users allowing them to control the Target servers, and some could be View Only, letting them see the server screens but without being able to take control. Also, users can be members of many different groups.

## 5.1 Creating a user

To create a new user:

1. From the menu, expand **User Groups**. The **User Groups** sub-menu appears.

2. Right-click **All Users**. **New User** appears.



Figure 19 New User

3. Click **New User**. The following appears.

Figure 20 Create user

### 5.1.1 The General tab elements

**User name** - type a User name. A User name cannot be identical to any other existing User or Group name. It can contain up to 20 uppercase or lowercase characters except for the following:

" / \ [ ] : ; | = , + \* ? < >

A User name cannot consist solely of periods (.) or spaces.

**Full Name** - type the User’s real name

**Password / Confirm Password** - type a password, up to 14 characters.

**E-mail address, Phone number, Description** – you can fill in these optional fields.

**Account privileges** – select the Account type. Administrator or User or view only.

**User** - When a User logs in only the components that the user has permission to execute appear. The window displays only the user’s permitted targets. He cannot change, modify and manage any of the KVM.net Manager components.

**Administrator** - When an Administrator logs in the window displays all KVM.net Manager System components to view, modify, manage and control.

**View Only** – the user can only view permitted Target server screens without keyboard and mouse control. A “view only” indicator appears on the viewer’s local mouse pointer.

**Disable Account** – Check the box to prevent the user from entering the system. Uncheck the box to enable the account.

The Users Group tab will be explained after section 5.2.

### 5.1.2 The Targets tab elements

Press the Targets tab. The following appears.

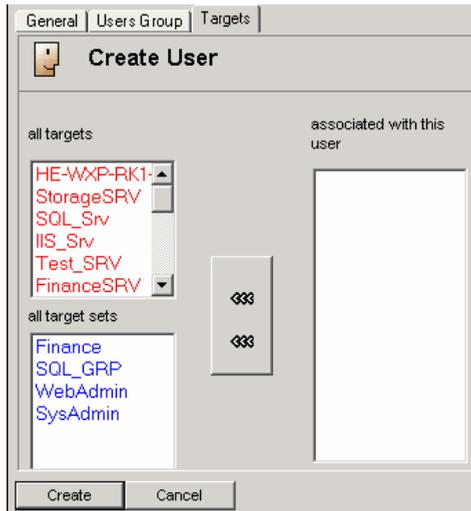


Figure 21 Targets tab

Choose the Targets/Sets that the User can access. Only the permitted Targets appear when the User logs into the KVM.net interface. The **All Targets** list contains the individual Targets created. The **All Target sets** list contains the Target sets. Section 5.5 will explain how to create a Target set.

1. Select the desired Targets/Target Sets and press the arrow. The Targets move to the **Associated** box.

You can press and hold **Shift** or **Ctrl** to select more than one at a time. This function applies to all instances of selecting from similar type boxes.

To remove Targets from the association, select them and press the arrow.

2. Click . The new User appears in the list of Users.

To see a list of all Users:

From the menu expand **User Groups** and click **All Users**. A list of all Users appears, see Figure 22.

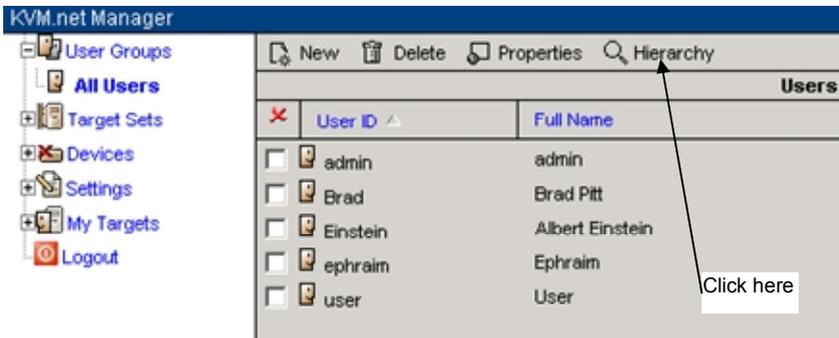


Figure 22 All Users list

Note:

- A User can have access to a Target as an individual User or as a Group member.
- A User or Group of users can be associated with several Target Sets.

### 5.1.3 User summary

From the **All Users** list you can see a summary of the any User's Groups and Targets.

To do so:

1. From the list, select a User.

2. From the Toolbar, press . The User summary appears, see Figure 23.



Figure 23 User summary

You can expand the folders in the summary. You can also view and edit the Groups and Targets from here. Click the desired Group or Target / Set and it appears.

### 5.1.4 Deleting a User

Deleting a User immediately removes the User’s authorization from the KVM.net Manager System and all IP Access devices.

To delete a User:

1. Select **User Groups / All Users**. All the Users appear.
2. Select the desired User(s) to be deleted. See Figure 24.
3. From the Toolbar, press **Delete**.

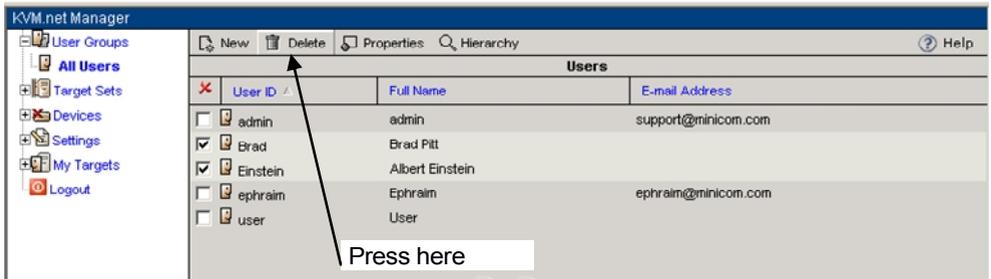


Figure 24 Deleting a User

**Note!** Press  to **select** or **deselect** all checkboxes with one click.

### 5.2 Creating a User Group

Once you have created Users you can form them into Groups.

To create a User group:

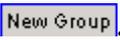
1. From the menu, right-click **User Groups**.  appears.
2. Click . The following appears.



Figure 25 General tab

3. Type a unique Group name.

### 5.2.1 The Members tab elements

Click the Members tab. The following appears.

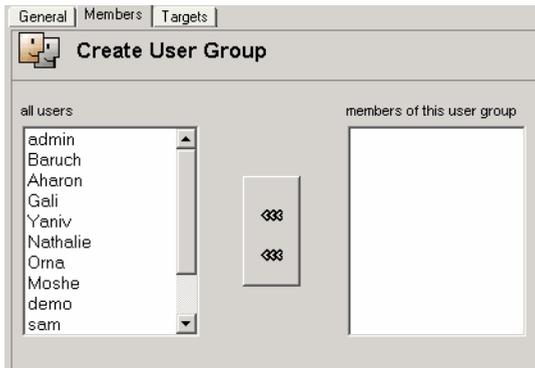


Figure 26 Members tab

Select from the **All Users** list those you wish to be part of the User Group and press the arrow. The selected members move to the **Group Members** box.

To remove members, select them and press the arrow.

## 5.2.2 The Targets tab elements

Press the Targets tab. The following appears.



Figure 27 Targets tab

Here you select Targets or Target Sets that this User group has access to. Creating Target Sets is explained in section 5.5 on page 30.

Select the desired Targets or Target Sets and press the arrow.

Click . The new User group appears in the list of User Groups.

To see a list of all User Groups:

From the menu, expand or click **User Groups**.

## 5.3 Adding Users to a Group

Once you have created User Groups, you can add User's to these Groups. You can do this in one of 2 ways.

(1) **When creating a User** (see above Creating a user on page 22):

Right-click **All Users**. Click . Press the Users Group tab. The following appears.

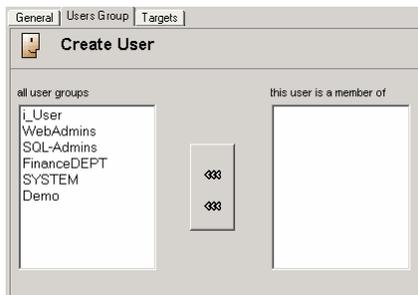


Figure 28 Users Group tab

1. Select the Groups that the new User will be a member of.
2. Press the arrow. The groups move to the **Member** box.
3. Click . The new User is created.

## (2) When editing a User.

1. Select **User Groups / All Users**.
2. Double-click the desired User. The User Properties appear.
3. Click the Users Group tab and follow the procedure as outlined above.
4. Click **Ok** or **Apply**.

### 5.3.1 Deleting Users from a Group

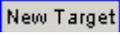
To remove Users:

From the Users Group tab – see Figure 28 - select the User from the **Member** box and press the arrow.

## 5.4 Associating User/Groups with Targets

Once you have created Users and User Groups, you can choose which Target servers they can have access to. You can do this in one of 2 ways.

(1) **When creating a Target** (see above Creating Target servers on page 11):

Right-click **All Targets**. Click  / **New from scratch**. Press the Users tab. The following appears.

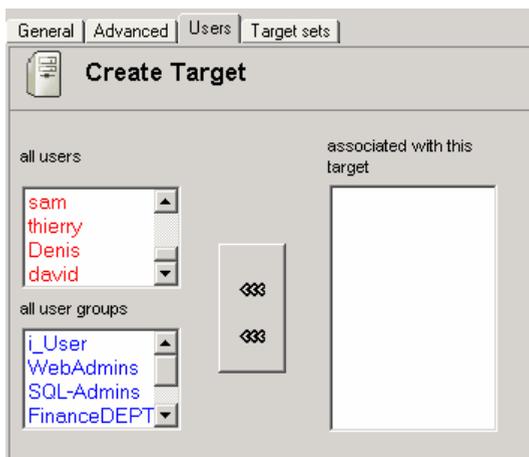


Figure 29 Users tab

You can associate Users (red characters) or User Groups (blue characters) with this Target.

To do so:

1. Select the Users or Groups.
2. Press the arrow. The User or Group appears in the **associated with this target** box.

## (2) When editing a Target.

1. Select **Target Sets / All Targets**.
2. Click the desired Target. The Target Properties appear.
3. Click the Users tab and follow the procedure as outlined above.
4. Click **Ok** or **Apply**.

### 5.4.1 Disassociating a User/Group from a Target

To disassociate a User/Group from a Target:

Select the User from the **associated with this target** box – see Figure 29 - and press the arrow.

### 5.4.2 Deleting a User Group

You can delete User Groups from the menu or from the working area.

#### Deleting from the menu:

1. Expand **User Groups**.
2. Right-click the desired Group. **Delete Group** appears.
3. Click **Delete Group**. The Group is deleted.

#### Deleting from the working area:

1. From the menu, click **User Groups**. The Groups appear in the working area.
2. Check the Group boxes to be deleted. You can press  to **select** or **deselect** all checkboxes with one click.
3. From the Toolbar, press **Delete**.

**Note:** Deleting a Group will not delete the individual users.

## 5.5 Creating a Target Set

You can group Targets into sets. E.g. make a set of all financial servers in the system.

To create a new Target Set:

1. From the menu, right-click **Target Sets**. **New Set** appears.
2. Click **New Set**. The following screen appears.

Figure 30 Create Target Set – General tab

### 5.5.1 The General tab elements

**Target Set Name** - type a unique name for the Target set.

**Description** – type a description.

### 5.5.2 The Targets tab elements

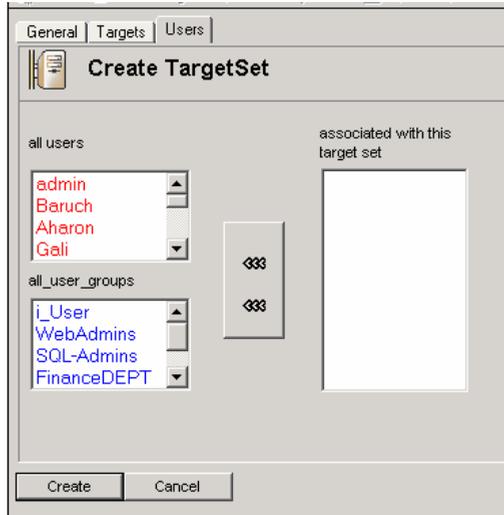
Click the **Targets** tab. The following appears.

Figure 31 Targets tab

Select the desired Targets to add to the Group and press the arrow. The chosen Targets appear in the **associated with this target set** box.

### 5.5.3 The Users tab elements

Click the **Users** tab. The following appears.



**Figure 32 The Users tab**

To associate Users or User Groups with the new Target set:

1. Select the desired Users/Groups and press the arrow.
2. Click **Create**. The new Target set appears in the list of Target sets.

To see a list of all Target sets:

From the menu, click **Target Sets**.

### 5.5.4 Deleting a Target Set

You can delete a Target Set from the menu or from the working area.

**Deleting from the menu:**

1. Expand **Target Sets**.
2. Right-click the desired Set. **Delete Set** appears.
3. Click **Delete Set**. The Set is deleted.

## Deleting from the working area:

1. From the menu, click **Target Sets**. The Sets appear in the working area.
2. Check the Set boxes to be deleted. You can press  to **select** or **deselect** all checkboxes with one click.
3. From the Toolbar, press **Delete**.

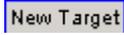
**Note:** Deleting a Set will not delete the individual Targets.

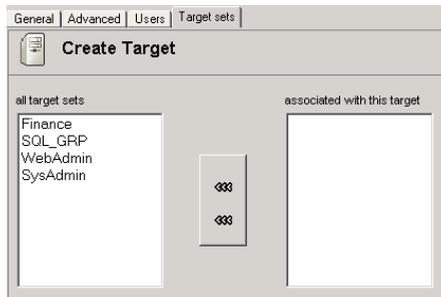
## 5.6 Associating Target servers with Target Sets

Once you have created Target Sets you can associate Target servers with Target Sets at any time.

You can do this in one of 2 ways.

**(1) When creating a Target** (see above Creating Target servers on page 11):

Expand **Target Sets** and right-click **All Targets**. Click  / **New from scratch**. Press the **Target Sets** tab. The following appears.



**Figure 33 Target Sets**

1. Select the Target Sets you want the Target server to be associated with.
2. Press the arrow.
3. Click . The new Target server appears in the list of Targets.

**(2) When editing a Target.**

1. Select **Target Sets / All Targets**.
2. Click the desired Target. The Target Properties appear.
3. Click the **Target Sets** tab and follow the procedure as outlined above.
4. Click **Ok** or **Apply**.

## 5.7 Creating Profiles

You can create Target Profiles and IP Access Profiles, with particular configuration settings such as Description and Mouse setup. Once a Profile exists, you can give a new Target this Profile and it will inherit the Profile's properties.

To create a Profile:

Expand the **Settings** menu, and then expand the **Profiles** menu.

### 5.7.1 Creating a Target Profile

To create a Target Profile:

1. Right-click **Target Profile**. The words New Profile appear.
2. Click New Profile, Figure 34 appears.

The screenshot shows a dialog box titled "Create Target Profile" with two tabs: "General" and "Advanced". The "General" tab is selected. The dialog contains the following fields:

- Target name: A text input field.
- Type: A text input field.
- Host IP number: A field with three sub-inputs for octets.
- Description: A text input field.
- OS: A dropdown menu currently set to "Unspecified".

**Figure 34 Create Target Profile**

3. In **Target Name** type the target name
4. Type the appropriate information in the dialog box: Refer to Target server to complete the target profile configuration.

#### 5.7.1.1 Advanced tab elements

Click the Advanced tab, the following appears.

The screenshot shows the same "Create Target Profile" dialog box, but with the "Advanced" tab selected. The "General" tab is now disabled. The "Advanced" tab contains the following settings under the heading "Mouse Parameters":

- Acceleration: A dropdown menu set to "Default".
- Threshold: A dropdown menu set to "Default".
- Type: A dropdown menu set to "Standard".
- Microsoft: A checkbox that is currently unchecked.

**Figure 35 Mouse Parameters**

Select the desired settings and click . The profile appears in the list of Target Profiles.

When creating Targets – see section 4.2 you can create the target from an existing Profile where suitable.

## 5.7.2 Creating an IP Access Profile

1. Right-click **Device Profiles**. **New Profile** appears.
2. Click New Profile, Figure 36 appears.

The screenshot shows a dialog box titled "Create Device Profile" with a folder icon. At the top, there are four tabs: "General", "KVM Switch", "Network", and "Serial". The "General" tab is selected. Below the tabs, there are four input fields: "Name" (with a blue asterisk), "Description", "Model", and "Idle Timeout (min)". The "Idle Timeout (min)" field is a dropdown menu currently showing the value "2".

**Figure 36 Create Device Profile**

Type the appropriate information in the dialog box:

**Name** - type a unique profile name.

**Description / Model** – optional fields

**Idle timeout** - select a value, after which the IP Access will disconnect the session.

### 5.7.2.1 The KVM Switches tab elements

Click the KVM Switches tab. The following appears.

The screenshot shows the same "Create Device Profile" dialog box, but now the "KVM Switch" tab is selected. The "General" tab is still visible but not active. Below the tabs, there is a dropdown menu labeled "KVM Switches" with the text "Choose one" inside it.

**Figure 37 KVM Switch tab**

Select the KVM switch model that will be physically connected to the IP Access unit.

### 5.7.2.2 The Network tab elements

Click the Network tab. The following appears.

The screenshot shows a window titled "Create Device Profile" with four tabs: "General", "KVM Switch", "Network", and "Serial". The "Network" tab is selected. The window is divided into two columns, "Interface I" and "Interface II". Under "Interface I", there is a "First TCP Port" field containing "800" and three checkboxes: "Enable Encryption", "Use DHCP", and "Active", all of which are unchecked. The same layout is repeated for "Interface II".

**Figure 38 Network tab**

Here you configure and modify Network parameters and security levels of the IP Access device.

Interface I and II represent the 2 LAN interfaces on the IP Access.

In **First TCP Port** type a TCP port number (above 800) – choose three consecutive ports, and enter the first port number of the series.

Click to clear or select the following according to your requirements:

**Enable Encryption** – Check this box for secure connection, otherwise disable it. If enabled, the Internet Explorer at the Remote PC must support 128bit Encryption. If IP Access is already in secure mode you must check the **Enable Encryption** box.

**Use DHCP** – Enable DHCP to provide you with dynamic IP addressing for IP Access, if a DHCP server exist.

**Active** – Enable/disable Network activity of the IP Access via KVM.net.

### 5.7.2.3 The Serial tab elements

Click the Serial tab. The following appears.

The screenshot shows a software interface with four tabs: 'General', 'KVM Switch', 'Network', and 'Serial'. The 'Serial' tab is selected. Below the tabs is a section titled 'Create Device Profile' with a folder icon. Underneath, there are five labeled input fields: 'Device Name' (text input with 'Serial1'), 'Baud Rate' (dropdown menu with '1200'), 'Data Bits' (dropdown menu with '4'), 'Parity' (dropdown menu with 'None'), and 'Stop Bits' (dropdown menu with '1').

**Figure 39 The Serial tab**

Here you define the console parameters for controlling Network devices over RS232, that are physically connected to the IP Access' Serial connector.

**Device Name** - type the name of the device (i.e. Power Management; CISCO router; etc)

**Baud Rate, Data Bits, Parity, Stop bits** - type the appropriate values according to the network device specifications, attached to IP Access.

Click . The device profile appears in the list of Device Profiles.

## 6. Maintenance features

You can upgrade the firmware of the KVM.net and all connected IP Access units. You can also backup the KVM.net Manager database.

### 6.1 Upgrading the KVM.net/IP Access firmware

You can upgrade the firmware version of all connected IP Access units from the KVM.net system.

To do so:

1. Obtain the latest firmware version from Minicom.
2. Save the file on the client computer running the KVM.net Manager application.
3. From the **Settings** menu, click **Upgrade**. Figure 40 appears.



Figure 40 Firmware upgrade

4. Locate the upgrade file.
5. Press . The firmware upgrades.

The firmware uploads to 10 IP Access units at a time – IP Access status changes to Rebooting as the firmware finishes upgrading (see page 9).

For the KVM.net Manager the following appears during the upgrade.

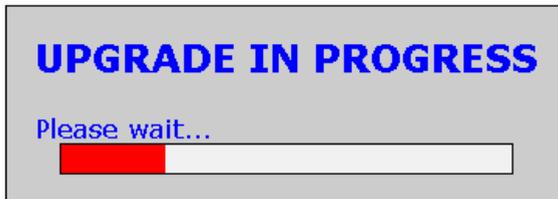


Figure 41

### 6.2 Backup

You can set up an automatic backup schedule for the KVM.net Manager database.

To do so:

From the **Settings** menu click **Backup**. Figure 42 appears.

**Backup**

Activate backup schedule

**Credentials for backup share:**

User name:

Password:

Domain:

Destination path:

**Schedule:**

Backup time: 00 : 00

Backup days:

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

**Figure 42 Backup**

## 6.2.1 The backup elements

**Activate backup schedule** - Check the box to activate the backup schedule.

**Credentials for backup share** - Enter the user credentials (name, password, and domain) of the network share path to which the backup file will be saved.

**Destination path** - enter the remote machine name or IP address i.e. `://Server/Share`.

### Schedule

**Backup time** - Select the time (hour and minute) that the backup should initiate.

**Backup days** - Select which days the backup should be performed.

Click  to save the settings.

For further information contact Minicom Technical support.

## 7. Account policy

You have a number of different policy options:

- Password
- Account blocking
- Idle timeout

To set these options:

From the **Settings** menu click **Policy**. The Account policy window appears, see Figure 43.



Figure 43 Account policy

### 7.1 Password policy

Choose the desired password policy. The different password policy options are explained below.

**Strict Policy password:**

- 8 characters or more
- Must include at least
  - 1 digit and
  - 1 upper case letter and
  - 1 “special” character as follows: !@#\$%^&\*( )\_ - + = { [ ] ” ’ ; : ? / > <
- Must not include the user name

**Standard Policy password:**

- Any 6 characters
- Must not include the user name

**None:**

You can write any character and any number of characters for the password.

## 7.2 Account blocking

You can block entry into the system after a number of unsuccessful attempts by a User inputting the wrong password.

To do so:

1. Check the Account blocking box. The following appears.

Account blocking  
 Block after  attempts within  H:  M  
 Block account for  H:  M  forever

**Figure 44 Account blocking**

Choose the number of attempts within a time period, and for how long to block the account for.

## 7.3 Idle timeout

Select the number of minutes of non-activity, after which the KVM.net will terminate the session. The User will then have to re-login.

Click  to save changes.

## 8. General Administration of the system

The following sections explain how to update and exit, reboot, shutdown the system. You can also view an event log of all system activity.

### 8.1 Updating the system

To initiate an immediate system update of any changes in configuration:

From the Toolbar, press **Update system**. See Figure 45. (Pressing **Save** or **OK** also updates the system).



Figure 45 Update system button

Note:

- Clicking **Update system** will not close any open user sessions
- Logging out of KVM.net Manager System will also update the system

### 8.2 Exiting the KVM.net Manager system

To exit the system:

From the menu click **Logout**. The login screen appears and you are logged out.

Notes:

- Exiting the KVM.net Manager has no effect on a user open session
- When logging out of KVM.net an **update system** request for new modifications is sent.

## 8.3 Rebooting KVM.net Manager system

There is no option to reboot the KVM.net Manager system from the navigation area since no update requires this.

If you need to reboot the system, do so as follows:

From the local console, type **reboot** at the Command prompt.

Or

1. Open a secure Telnet application (such as CRT, or Putty) and enter the IP address of the KVM.net Manager unit.
2. When prompted type the appropriate administrator login information.
3. Type **reboot** at the Command prompt.

Note: The system is now rebooting. It will take up to 2 minutes for the system to boot up.

## 8.4 Shutting down the KVM.net Manager system

When shutting down the KVM.net Manager system, e.g. for maintenance, you must follow the procedure as outlined below.

To shut down the system:

From the local console, type **shutdown now** at the Command prompt

Or

1. Open a secure Telnet application (such as CRT, or Putty) and enter the IP address of the KVM.net Manager unit – choose port 22.
2. When prompted type the appropriate administrator login information.
3. Type **shutdown now** at the command prompt.
4. Run the ping command to an IP Access unit. When it stops replying, you can safely power off the IP Access.

## 8.5 Activity Log

Each IP Access device logs all its own system events and activities. The Activity log can be viewed from the IP Access client application, in HTML format.

## 9. Accessing the system as a User

Once the Administrator has set up and configured the KVM.net system, Users can access the system.

For a User to access the system:

Type the system's IP address (obtained in section 2.2) into a Web browser and press **Enter**. The Login box appears.

Type the Username and Password and press **Enter**. The window only displays Targets and Target Sets that the User has permission to access. See Figure 46.

KVM.net system supports multi-user login. There is no specified limit as to the amount of concurrent users.

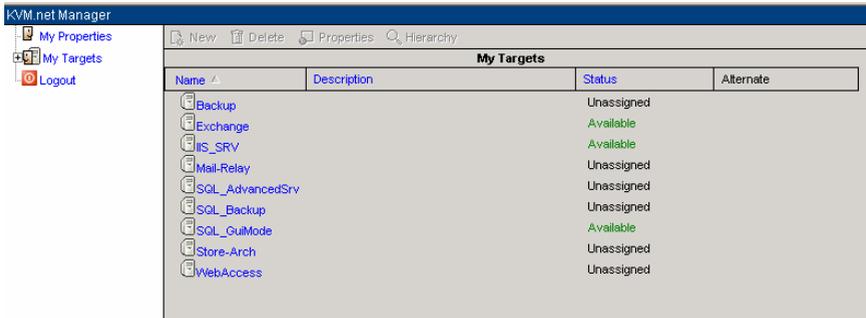


Figure 46 User window

### 9.1 Status column

The Status column gives the User the current status of the Target as follows:

**Available** – The user can press the Target name link and establish the remote session to that target.

**Remote active session** – A user is currently connected. (He can be disconnected by an administrator. The disconnected user will be notified of this).

**Unassigned** – The target server is not assigned to a KVM switch's port.

**Unavailable** – IP Access is not available (IP Access is itself in **Alarm** status).

**Busy** – This refers to a server connected to an IP Access via a KVM switch. A user or users are currently accessing other servers connected to that KVM switch and no more servers can be accessed.

**Local active session** - A local user is currently connected.

## 9.2 Connecting to a Target server

To connect to a Target server:

From the Name list click the Target. The Target's screen appears.

### 9.2.1 Navigating the Web display

Click **My Targets** for a list of all permitted Targets and Target Sets

Click a Target Set to reveal a list of Target servers in that set. From this list you can click a Target to access it.

**Note:** The Target list consists of Targets that reside on different KVM switches and IP Accesses (depending on the infrastructure).

#### My Properties

Click My Properties to see the Users properties. The User can change his password. Change the password and retype it, then press OK or Apply. The new password is saved.

## 10. Accessing an IP Access unit directly

If the KVM.net Manager System is down e.g. for maintenance, the availability of each IP Access device remains. You can access an IP Access unit directly by entering its IP address into your Web browser.

To change any hardware elements and user authorization from the IP Access, you must first uncheck Enable KVM.net. See page 2 of the Quick guide.

## 11. Technical Specifications

<b>Form factor</b>	Rack
<b>Rack height</b>	1U
<b>Network connectors</b>	2 x RJ45
<b>Protocols:</b>	HTTP, HTTPS, XML, Telnet, SSH
<b>Serial port</b>	DB9, Console Redirection for Out of Band Management
<b>Platform</b>	Red Hat Linux 8.0
<b>Power supply</b>	115-230 VAC, 50-60Hz 1A, Auto Sensing
<b>Operating temperature</b>	0° -40°C
<b>Storage temperature</b>	-20° -80°C
<b>Relative Humidity</b>	5-95%, non-condensing
<b>Client console</b>	Any browser with ActiveX
<b>Certifications</b>	FCC, CE, UL

## Appendix A

<div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">IP Access</div> <p>Identifying Name - e.g. by location</p> <p>_____</p> <p>MAC address</p> <p>_____</p>	<div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">KVM switch</div> <p>Switch type</p> <p>_____</p> <p>Number of ports</p> <p>_____</p>	<div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Target server</div> <p>Identifying Name</p> <p>_____</p> <p>Port number _____</p> <p>OS _____</p> <p><b>Mouse settings *:</b> Acceleration _____</p> <p>Threshold _____</p> <p>Type - Standard/Wheel Microsoft - Yes/No</p>	<div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Target server</div> <p>Identifying Name</p> <p>_____</p> <p>Port number _____</p> <p>OS _____</p> <p><b>Mouse settings *:</b> Acceleration _____</p> <p>Threshold _____</p> <p>Type - Standard/Wheel Microsoft - Yes/No</p>
<div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Target server</div> <p>Identifying Name</p> <p>_____</p> <p>Port number _____</p> <p>OS _____</p> <p><b>Mouse settings *:</b> Acceleration _____</p> <p>Threshold _____</p> <p>Type - Standard/Wheel Microsoft - Yes/No</p>	<div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Target server</div> <p>Identifying Name</p> <p>_____</p> <p>Port number _____</p> <p>OS _____</p> <p><b>Mouse settings *:</b> Acceleration _____</p> <p>Threshold _____</p> <p>Type - Standard/Wheel Microsoft - Yes/No</p>	<div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Target server</div> <p>Identifying Name</p> <p>_____</p> <p>Port number _____</p> <p>OS _____</p> <p><b>Mouse settings *:</b> Acceleration _____</p> <p>Threshold _____</p> <p>Type - Standard/Wheel Microsoft - Yes/No</p>	<div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Target server</div> <p>Identifying Name</p> <p>_____</p> <p>Port number _____</p> <p>OS _____</p> <p><b>Mouse settings *:</b> Acceleration _____</p> <p>Threshold _____</p> <p>Type - Standard/Wheel Microsoft - Yes/No</p>
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\*(only needed when not default)

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