MasterConsole Z

Questions	Answers
General Questions	
What is the MasterConsole Z?	MasterConsole Z, the next generation in the Z-Series of KVM solutions, replaces the traditional KVM switch box with an innovative, server-to-server daisy-chain arrangement, significantly reducing cable clutter. Small Computer Interface Modules (MZCIMs), connected to the keyboard, video and mouse ports of each server, are linked with standard Category 5e UTP cable and transmit keyboard, video and mouse signals to a User Station. A keyboard, video and mouse plug into the User Station, enabling the user to select and control up to 64 servers via simple on-screen menus. The daisy-chain can be up to 210 meters end to end.
How is the MasterConsole Z unique?	Raritan's innovative MasterConsole Z offers a switchless solution that enables access and control of multiple-platform servers from a single user console (keyboard, video and mouse), without consuming precious rack space. MasterConsole Z controls up to 64 servers and eliminates the traditional KVM switch box, as well as all of the hard-to-manage, server-to-switch cables. It is designed to support management of the most challenging server environments, where space is at a premium or where systems to be accessed are up to 210 meters away.
What are the components of a MasterConsole Z system?	A MasterConsole Z system consists of three components: a User Station (MZUST), Computer Interface Modules (MZCIMs) and a Terminator (TER-ZCIM). Computer Interface Modules connect to the keyboard, video and mouse ports of each computer (PS/2, USB or SUN) and provide failsafe computer access with Raritan's dedicated keyboard/mouse emulation. MZCIMs are linked one to the next with a single Category 5e UTP cable; the last MZCIM in the chain is linked to the User Station. The User Station allows a person at one user console (keyboard, mouse and monitor) to select and control up to 64 servers via a simple, on-screen user interface.
How do MZCIMs work?	MZCIMs connect up to 64 servers in a "daisy-chain", each MZCIM plugging into one server's keyboard, video and mouse ports, as well as the MZCIMs preceding it and following it in the chain. The MZCIMS securely receive and transmit KVM signalling between the servers and the MasterConsole Z User Station over a UTP Cat5 cable. With the User Station, an administrator can select between target servers to access and control, and can grow the chain to add more servers as needed.
How is the MasterConsole Z designed to grow with a business?	MZCIMs can be purchased in groups as starter kits or individually. A system administrator can purchase only the number of modules he or she needs, and then add additional MZCIMs as they add servers.
How easy is it to add servers with MZCIMs?	It's simply a matter of connecting additional MZCIMs to the additional server's keyboard, video and mouse ports and connecting it into the cable daisy chain.

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What interfaces does the MZCIMs support?	MZCIMs provide access to multiple platforms, including Sun, USB and PS/2.
How can I find out the firmware version of my MZCIM?	Inside the MZUST OSD, select the MZCIM in question. Open a text editor window such as WordPad. Hold the Left Ctrl key and press the Number pad Delete key. The current firmware version will be printed out. The MZCIM-USB will also print out the current USB keyboard settings. Press the ESC key to exit this mode.
I connected a powered-on MZCIM to another chain and now the chain size is wrong. What happened?	The MZCIM you added was a Master MZCIM. When it was added to the new chain, it became the Master of that chain as well. The added MZCIM resets the chain to use its last known chain size. To prevent this problem, the user should momentarily power off a MZCIM before adding it to a new chain. The user can then resize the chain to correct this issue.
Keyboard and mouse operation is sometimes erratic when powering up a computer. Why?	We suggest you do not communicate with the MZCIMs when powering up computers. This is because the powered-up MZCIM(s) are trying to obtain communication addresses from the Master MZCIM. This could increase the chance of data collision. The potential for missed keystrokes and erratic mouse behavior increases as the rate of data collision increases. Generally, you will see slow keyboard/mouse performance instead of dropped keyboard and mouse packets. If the Master MZCIM loses power, the user may be switched off from the MZCIMs.
How do I configure the MZCIM USB to work with either my Sun USB or PC USB machines?	A toggle switch on the MZCIM-USB can be changed to support either SUN USB or PC USB machines.
Can Z4200U CIMs work with MZCIMs?	No. MZCIMs use a different protocol, which is not compatible with Z4200U.
Can MZCIMs be used with Z4200U USTS?	No. MZCIMs use a different protocol, which is not compatible with Z4200U user stations.
I don't want to use the Scroll Lock key as my hot key. What are my options?	The hot key can be easily changed to the Num Lock or Caps Lock, or other keys. When in hot-key mode, touch the desired new hot-key activator followed by the enter key.
How do you find the Master MZCIM in a chain?	If the MZCIM LED is blinking at a regulated, moderate speed (i.e., every half second), the MZCIM is acting as Master of the chain. Please read the LED Status section of the user manual for more information.
My MZCIM chain disappeared when I turned off a computer and it reappeared 20 seconds later. What happened?	The Master MZCIM may have been turned off. If this happens, a new MZCIM becomes the Master and the database has to be rebuilt. This is normal operation.
I only see some of my MZCIMs. What is going on?	This can happen for a variety of reasons. Below are some common fixes: Wait a couple of minutes. The Master MZCIM may need some time to react due to resizing, communication address conflicts, multiple masters or other factors. Make sure that all the MZCIMs in the chain have power. Check all the cables. Make sure the terminator is in place. Are there any MZCIMs in the chain that do not have Communication Addresses? MZCIMs without Communication Addresses will beep once every minute. The LED will flash on and off rapidly. If this is the case, check the Chain Size. Resize if necessary.

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I can't see all of the MZCIM names, but the status seems correct. How can I fix this?	If you wait a few minutes, usually the chain will fix itself.
It took a while for the MZCIM to be reported as OFF. Why?	Due to the chance of a data collision occurring, an MZCIM's status must be checked three times to determine whether it is on or off. The detection speed is roughly proportional to the number of MZCIMs in the chain. Resize the chain to optimize performance.
I disconnected a complete MZCIM chain from the MZUST and added it to the tail of another MZCIM chain. I was finally able to see all the MZCIMs but it took almost a minute. What happened?	Before connecting the chains, you had one Master per chain. When you connected the chain, there were suddenly two. There can be only one Master per chain. It took a while for this condition to clear. This is normal operation.
I have an MZCIM that is beeping every 30-40 seconds. Also, I noticed that the LED is blinking very rapidly. Why is this happening?	An MZCIM will beep once every minute to notify the user that it did not get a Communication Address. The user should check to make sure that the number of MZCIMs has not exceeded the chain size. If the size is correct, the problem should disappear after a couple of minutes. If not, check again to make sure the chain size is correct. The beeping MZCIM will increase the Communication Address Request delay to 40-55 seconds. The data collision introduced by continued Communication Address requests should not affect keyboard and mouse performance, unless many MZCIMs are requesting simultaneously. MZCIMs may also beep if the two chains are connected together to make one chain.
The MZCIM beeps when it first receives power. Why?	This is normal operation. The beep notifies the user that the MZCIM has powered up correctly.
My cursor seems to be erratic and jumps around the screen. What's happening?	The proper mouse driver may not be loaded or the mouse may not be recognized. Check to make sure the mouse driver is correct for the mouse type you are using.