proxicast UIS-722b MSN Switch UIS Auto Reset Algorithm User Manual

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Contents

Document Revision History

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Jan. 11, 2024	Added model UIS722b
Aug. 1, 2023	First release

This Tech Note Applies Only to MSN Switch Models:

UIS-722b, UIS-622b

Introduction

The MSN Switch from Mega System Technologies, Inc ("Mega Tec") is designed to automatically power-cycle any AC powered device when Internet connectivity is lost. Either of its AC power outlets can also be reset manually or via scheduled actions.

The MSN Switch's Uninterrupted Internet Service (UIS) feature uses several system parameters to monitor Internet connectivity and power cycle one or both power outlets based on these settings.

The following describes how the MSN Switch determines when a reset is required.

IMPORTANT NOTE

The UIS function is DISABLED by default and must be enabled either by pressing the UIS ON/OFF button on the MSN Switch or via the UIS function in the MSN Switch's internal web server, or through the ezDevice smartphone app or the Cloud4UIS.com web service.

How quickly will the MSN Switch detect Internet loss?

The MSN Switch uses the following algorithm for each outlet to determine when and how often to perform a reset of the power outlet when the MSN Switch is in UIS mode:

STEP 1: The MSN Switch checks for Internet service by sending a ping to all of the sites assigned to this outlet.

- The MSN Switch waits for up to the Timeout for Each Website / IP Address number of seconds (default=5) for a response from each of the sites.
- If no response is received from any site, then go to Step 2

- If a response if received from at least one site, then begin the Internet monitoring function (step 3)

STEP 2: Wait Ping Frequency time (default=10 sec) then send another set of pings and check for response to the pings.

- If response received, go to Step 3
- If no response received, increment ping loss counter, wait Ping Frequency time, then send another ping.

STEP 3: Check for response to the ping.

- If response received, clear ping loss counter and go to Step 2
- If no response received, increment ping loss counter, wait Ping Frequency time then send another ping.
- Repeat this until either a response is received or the ping loss counter reaches Number of Continuous Timeout Cycles (default=3).

STEP 4: If ping loss counter = (Number of Continuous Timeout Cycles), then power cycle the oulet, increment reset counter Number of UIS Resets (default=3), clear the ping loss counter. Wait the Ping Delay After Outlet Reset time (default=4 min) before restarting Internet monitoring in Step 2.

STEP 5: If the reset counter < (Number of UIS Resets), then go to Step 2, else stop all Internet monitoring and clear the reset counter.

Note that the MSN Switch detects the "loss of Internet connectivity" not the absence of it. The Internet must be connected no later than the Ping Delay After Outlet Reset time mark for the monitoring function to begin. The default is 4 minutes.

The default settings work well for most situations. With these settings, the MN Switch will detect the loss of Internet in about 50 seconds, power off both outlets, then power on outlet#1 after the Power On Delay for Outlet1 (default=3 sec) and power on outlet#2 after Power On Delay for Outlet2 (default=13 sec).

Please note that the default is for the MSN Switch to perform only 3 power cycles upon the loss of Internet connectivity. If the Internet connection is not restored by the third power cycle, no further power cycles will occur unless you increase the Number of UIS Resets value (maximum=unlimited).

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Documents / Resources

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References

- **Cloud4UIS**
- **Proxicast: Pro-Grade Wireless Solutions**
- **Proxicast: Pro-Grade Wireless Solutions**
- **User Manual**