

## Software Name: MGate MB3280 Firmware

Version No.	Build Date No./ Release Date	Supported OS	Apply to Models	New Features/Enhancements	Bugs Fixed/Changes	Note
3.0	Build 17030713	N/A	MGate MB3280	<b>New Features:</b> 1. Support Auto Device Routing function.  <b>Enhancements:</b> 1. Support Multi-master in port routing by IP/TCP port modes. 2. Enable the protection of default password.	<b>Bugs Fixed:</b> 1. The user's password and SNMP community name may be exposed by buffer overflow issue.	N/A
2.8	Build 16101917	N/A	MGate MB3280	N/A	<b>Bugs Fixed:</b> 1. The MGate might boot up fail when setting with HW flow control.	N/A
2.7	Build 16053118	N/A	MGate MB3280	<b>Enhancements:</b> 1. Enhance strength of parameter used in web console to avoid unauthorized access.	N/A	N/A
2.6	Build 16012810	N/A	MGate MB3280	<b>Enhancements:</b> 1. Allowed to modify Modbus TCP port.	<b>Bugs Fixed:</b> 1. Fix serial communication problem under low baudrate. 2. If Modbus TCP slave divide the TCP response to two packet, MGate can not support it. 3. Slave id mapping info of serial port will be clear to zero when change the modbus mode.	N/A

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2.5	Build 15101910	N/A	MGate MB3280	N/A	<b>Bugs Fixed:</b> 1. MGate might not show correct serial number. 2. When configured by SNMP, the system name, location and contact information can't be saved.	N/A
2.4	Build 15032513	N/A	MGate MB3280	N/A	<b>Bugs Fixed:</b> 1. Fix MB3280 can't show full serial number issue.	N/A
2.3	Build 14121610	N/A	MGate MB3280	<b>New Features:</b> 1. Support Modbus routing by TCP port, IP address and multi-range slave ID.	N/A	N/A
2.2	Build 14060915	N/A	MGate MB3280	<b>Enhancements:</b> 1. MGate supports the function, Auto Detection, on web console.	<b>Bugs Fixed:</b> 1. MGate might not boot up when serial port 1 connects to RS-485 or RS-422 device. 2. Web page does not display correctly when text input field contains any of the four characters "\>". 3. MGate stops forwarding requests after receiving broadcast requests. 4. Sometimes TCP PUSH packet will immediately be retransmitted due to imperfection of retransmission timeout algorithm.	N/A

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2.1	Build 13042214	N/A	MGate MB3280	<p><b>New Features:</b></p> <ol style="list-style-type: none"> <li>1. Add RTS toggle flow control.</li> <li>2. Modbus supports adjustable inter-character timeout and inter-frame delay.</li> <li>3. Add SNMP.</li> </ol> <p><b>Enhancements:</b></p> <ol style="list-style-type: none"> <li>1. If MGate receives an ARP request from some other host for which an ARP entry already exists, the hardware address in the ARP entry is updated accordingly.</li> <li>2. For Modbus function code 01 to 04, if the receiving bytes of RTU frame exceeds the bytes count of Modbus, drop the unnecessary bytes.</li> </ol>	<p><b>Bugs Fixed:</b></p> <ol style="list-style-type: none"> <li>1. MGate can not drop the unnecessary RTU bytes when MB3000 retry to receive multiple times situation.</li> <li>2. When RTU slave replies an exception with Modbus function code from 01 to 04, MGate will treat this response as an illegal packet(CRC).</li> <li>3. If user executes auto detection and cancels before it finishes, and repeat many times, the result will show wrong information.</li> <li>4. When running in Modbus ASCII master mode, and the serial of Tx and Rx short-circuit, it may restart the system.</li> </ol>	N/A
2.0	Build 09101913	N/A	MGate MB3280	<p><b>New Features:</b></p> <ol style="list-style-type: none"> <li>1. Add Web console.</li> <li>2. Add IP filter of 24 accessible IPs.</li> <li>3. Send gratuitous ARP as link is down and then up to check if there is IP conflict.</li> <li>4. Available to change remote slave TCP port.</li> </ol> <p><b>Enhancements:</b></p> <ol style="list-style-type: none"> <li>1. When there is an un-existed TCP slave, MB3000 would only try to connect to this slave as there is a request for it. (In the previous version, MB3000 does this as it received a request/response from any master/slave)</li> <li>2. Set ON as default states of DTR &amp; RTS, since some devices would be blocked as DTR or RTS is OFF even when they don't use flow control.</li> <li>3. In ASCII mode, ignore data attended after LF, since some devices may issue these illegal packets.</li> <li>4. In ASCII mode, check CR instead of LF to verify the correction of packet format.</li> <li>5. Send FIN instead of RST as a remote device sends FIN to close the connection.</li> </ol>	<p><b>Bugs Fixed:</b></p> <ol style="list-style-type: none"> <li>1. When traffic is very crowded, MGate may loss some of packets.</li> <li>2. According to RFC 2132, the DHCP option field must end with an "End Option",but MB3000 does not follow this policy. Therefore MB3000 can't get IP address from some particular DHCP servers.</li> <li>3. According to RFC 1542, minimal BOOTP (the UDP data field) should be 300 octets, so we pad it to 300 bytes.</li> <li>4. MGate's BOOTP packet has no magic cookie in vendor information field. According to RFC 1542, if a special vendor-specific magic cookie is not being used, a BOOTP client SHOULD use the dotted decimal value 99.130.83.99 as specified in RFC 1497. In this case, if the client has no vendor information to communicate to the server, the octet immediately following the magic cookie SHOULD be set to the "End" tag (255) and the remaining octets of the 'vend' field SHOULD be set to zero.</li> <li>5. Firmware version is inconsistent on telnet console and utility.</li> <li>6. Slave TCP port would be set as 0 after first time of firmware upgrading(above v1.0.5).</li> <li>7. In RTU mode, MB3000 sometimes divide a frame into two partial frames. The error happens since the CRC is right when MB3000 receives first partial frame.</li> <li>8. In RTU mode, MB3000 sometimes drops last byte of packets when last 3 bytes are 00XX00. The error happens since the CRC is right even MB3000 drops last byte.</li> <li>9. As there is an un-existed slave, the current Modbus transmission would be delayed.</li> <li>10. When MB3000 got a request before it establishes the connection of the target slave, the following requests would be blocked even after MB3000 finishes establishing the connection.</li> <li>11. Set minimum data length of Modbus request/response as zero instead of 1 byte.</li> <li>12. Continuously send more than one reply to the serial master due to queue a request of the disconnected connection and send it after re-established the connection.</li> <li>13. As there are two TCP client/slaves, connection status of the second one would be affected by disconnection of the first one.</li> </ol>	N/A
1.0	Build 07062209	N/A	MGate MB3280	First Release	N/A	N/A