

# Remote Management Agent Technical Specifications

HARDWARE REQUIREMENTS	
<b>These requirements include in-store systems running the Master Agent (MA) or General Agent (GA)</b>	
The Master Agent (MA) operates on a nominated in store device that runs one of the following operating systems and provides a consolidated interface to REMS	<ul style="list-style-type: none"> <li>- TCx Sky Enhanced</li> <li>- Microsoft Windows</li> <li>- Linux</li> </ul>
The in-store processor requirements	<ul style="list-style-type: none"> <li>- Processor: minimum 1 GHz processor</li> <li>- Memory: 2 GB</li> </ul>
The Master Agent memory requirements	<ul style="list-style-type: none"> <li>- Memory: 80 MB w/o any extensions or connected General Agents</li> </ul> <p><i>Note: Memory usage will increase, depending on the number of general agents connected to the Master Agent.</i></p>
The General Agent (GA) runs as a system service on:	<ul style="list-style-type: none"> <li>- TCx Sky Controller</li> <li>- Microsoft Windows system</li> <li>- Linux system</li> <li>- Java virtual machine (JVM) embedded agent</li> </ul>
The General Agent service requirements	<ul style="list-style-type: none"> <li>- Memory: 40 MB virtual memory running in a TCx Sky or Linux environment</li> <li>- Memory: 70 MB virtual memory running in a Windows environment</li> </ul> <p><i>Note: The MA and GA services cannot be installed on the same computer.</i></p>
The RMA agent (Master or General) running on the TCx Sky Master Controller is used to manage each terminal in the store.	This will require additional memory for each terminal.

*Note: RMA 4.1 supports communication with previous levels of the GA.*

SOFTWARE REQUIREMENTS	
Java	Install the appropriate Java Runtime Environment (JRE) for your platform on the system, to run Master and General Agents. <p><i>Note: The JRE will not be shipped/bundled along with RMA version 3.2.2 and later. You will need to provide the JRE. For TCx Sky Remote Management Agents, you will not need to provide the JRE as the OS will facilitate the same.</i></p>
The JRE required to run RMA should meet the following criteria:	<ul style="list-style-type: none"> <li>- JRE Version 8</li> <li>- JRE should be of 32 bit/64 bit based on system type</li> <li>- JRE should at least be compliant with the Java SE standards for Java 8</li> <li>- JRE should be present on the system before installation process is initiated</li> </ul>
.NET needs to be installed for RMA to work on the Windows platform	- NET version should be equal and above 3.5
Android Agent Operating Systems	<ul style="list-style-type: none"> <li>- Need to install Mosquito MQTT broker</li> <li>- Client requirements: Requires CA Certificate</li> <li>- Broker requirements: Requires CA Certificate</li> </ul>

SUPPORTED OPERATING SYSTEM	
Toshiba TCx Sky Agent Operating Systems	<ul style="list-style-type: none"> <li>- TCx Sky 1.1</li> <li>- TCx Sky 1.1 SP2</li> <li>- TCx Sky 1.2</li> </ul>
Windows Agent Operating Systems	<ul style="list-style-type: none"> <li>- Microsoft Windows Server 2012 R2 (64 bit) Standard</li> <li>- Microsoft Windows Server 2016 Standard (64 bit)</li> <li>- Microsoft Windows 8.1</li> <li>- Microsoft Windows 10 (Enterprise LTSB 2015 (64 bit), IoT Enterprise LTSB 2016 (64 bit), IoT Enterprise LTSC 2019, 2019 SAC)</li> <li>- Microsoft Windows Embedded POSReady 7</li> </ul>
Linux Agent Operating Systems	<ul style="list-style-type: none"> <li>- SUSE Linux Enterprise Desktop (SLED) 11 SP3</li> <li>- SUSE Linux Enterprise Server (SLES) 11 SP3, 12 SP5</li> <li>- SUSE Linux Enterprise Point Of Service (SLEPOS) 11 SP3, 12 SP5</li> </ul>
Android Agent Operating Systems	- Version 6 and above

**NETWORK REQUIREMENTS RMA**

Network Ports used by the RMA GA	<ul style="list-style-type: none"> <li>- 10151 (TCP) - Incoming - RMA MA to RMA GA (RMI)</li> <li>- 10152 (TCP) - Incoming - RMA MA to RMA GA (SOXS)</li> <li>- 10190 (TCP) - Incoming - RMA file transfer port</li> <li>- 31200 (UDP) - Outgoing - Discovery messages for MA and GA</li> </ul>
Network Ports used by the RMA MA	<ul style="list-style-type: none"> <li>- 10149 (TCP) - Incoming - REMS to RMA MA (SOXS)</li> <li>- 10151 (TCP) - Outgoing - RMA MA to RMA GA (RMI)</li> <li>- 10152 (TCP) - Outgoing - RMA MA to RMA GA (SOXS)</li> <li>- 10190 (TCP) - Incoming/Outgoing - RMA file transfer port</li> <li>- 10521 (TCP) - Outgoing - RMA MA to Application/REMS</li> <li>- 31200 (UDP) - Incoming - Discovery messages for MA and GA</li> </ul>

**DRIVER PREREQUISITES**

Toshiba	<ul style="list-style-type: none"> <li>- POS SSD Life Monitor Drivers</li> <li>- POS Sensor Driver</li> <li>- Display Inventory Driver</li> <li>- UPOS</li> </ul> <p>Note: To get the full diagnostic value of RMA you need to download these additional system and peripheral drivers that can be found on the <a href="#">Toshiba website here</a></p>
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