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Quick Start Guide

AMD StoreMI™ is a tiered storage acceleration solution designed to run on AMD Socket sTR4 X399 or Socket AM4 400-series motherboards and Windows 10 64-bit systems. It utilizes up to 256GB of any solid state drive (SSD) as a fast tier, and combines it with a large-capacity mechanical hard disk drive (or second SSD) into a single drive letter as seen by Windows 10 operating system.

AMD StoreMI is not caching solution; it utilizes advanced machine intelligence, virtualization and automated MicroTiering™ to analyze the data blocks that are most often accessed and actually moves those blocks to the fastest storage tier. StoreMI operates consistently at the same performance levels as SSDs, continuously adapting to changing storage usage patterns in real time.

As a result, the user experiences the performance of the fastest tier SSD drive, combined with the large capacity and low-price advantages of the mechanical hard disk in a single, large, and easy-to-manage drive.
Pre-Install Checklist

**IMPORTANT: Backup the boot drive and important data, and follow the instructions below carefully! When upgrading to a StoreMI, the system boot and/or data drives will be converted to a virtual disk to fully accelerate or expand the storage in the system. Backing up protects from potential hardware storage device errors or failures that may occur during the conversion process.**

If converting an SSD or NVMe boot drive that is larger than 256GB, additional steps are required. See the section *Expand the Capacity of an existing SSD Boot Drive* for additional information.

Check the following prior to upgrading your system to StoreMI:

- Your system meets the minimum configuration: AMD Ryzen, 4xx series motherboard with a minimum of 4G RAM (6G RAM to support RAM cache).
- Secure Boot is NOT enabled. Consult your system documentation for further details.
- There are no other SSD caching or AMD software RAID solutions installed.
- The BIOS SATA disk settings are set to AHCI, not RAID and there is no software RAID installed on the system.
- Microsoft’s *chkdisk* or other third-party disk scan tools run error free on the boot drive
- A new unused SSD or HDD is available
- If wishing to use bootable tiers > 2TB in size, the system must be configured to boot in UEFI mode with a UEFI bootable Windows OS installation as Windows 10 does not support > 2TB boot drives in legacy boot mode.

Software Installation

**Step 1:** Download the AMD StoreMI installer to a temporary directory and double click the installer application.

**Step 2:** Follow the installer instructions to accept the license and install the AMD StoreMI software, drivers and JAVA (if not already installed) using the Express option. Ensure the system is connected to the Internet for this step if JAVA is not already installed.

**NOTE:** Prior to starting the Express install, you may optionally view the current disk configuration using the AMD Drive Controller information option to verify the drive setup.

**Step 3:** Reboot the system to complete the installation.

**Entering License Key**

AMD StoreMI does not require a license key, as it checks for an AMD Socket AM4 motherboard with a 4xx-series chipset when the system boots.
Create Bootable StoreMI Tiered Drive

If starting with a fresh Windows install, it is recommended that the OS be installed on the HDD rather than the SSD. This will avoid any additional steps later if the SSD is larger than the license limit.

Adding SSD to Existing HDD Boot Drives

**Step 1:** Select “Create Bootable StoreMI”.

**Step 2:** Choose the drive to create a StoreMI with.

**Case A:** Only boot drive and a blank SSD in the system. The correct drives will be automatically selected. The example below shows an NVMe drive being added to an existing 1TB boot drive.

**Case B:** If multiple drive choices exist, a drive selection menu will pop up and prompt to select an available blank SSD for example to pair with the existing pre-selected boot drive.

Note, if a drive is grayed out, it is usually because it is in use as a data drive or has partitions on it. You will need to wipe the drive clean first using Windows Disk Manager or Diskpart command line tool.

**Step 3:** Transform the Bootdrive and Reboot. Once the appropriate drive has been selected, click **Transform** to start the conversion process.

Reboot the system when prompted.

**Step 4:** Once Windows boots, open Disk Manager to verify the system has correctly booted from the StoreMI and to access the volume expand capability of Windows.

**STEP 5:** If not automatically completed, manually expand the boot volume to use the new capacity added by the SSD by right clicking on the C: partition in Disk Manager and selecting **Extend Volume** ....

**IMPORTANT:** StoreMI may need to optimize the hibernate file to ensure it is stored on a SATA device attached to the primary SATA controller. Ensure these are complete BEFORE rebooting to ensure hibernate and shutdown operates properly. This process may take up to 30 minutes or more depending on system RAM size and the HDD speed. This typically occurs when converting NVMe SSD boot drives or non-primary SATA controller SSD boot drives e.g. M.2 SATA boot devices. Float the mouse pointer over the “e” icon in the system tray to verify if the process is complete.

Utilizing the Additional Capacity Over the SSD License Limit
The software supports up to 256GB fast tier capacity. Any SSD device with an operating system installed must have the operating system migrated to the conventional hard disk before the StoreMI drive can be created. An SSD without an operating system over 256GB will be carved into two sections. The first section is used for tiering in the StoreMI and will be the size of the licensed capacity, and the second piece is presented as an additional virtual SSD device made up of the remaining unused capacity.

This will result in a new device appearing in the Disk Manager that may be formatted and used as temporary storage.

**IMPORTANT:** A carve out SSD drive created using excess capacity over the license limit will be deleted whenever a Remove StoreMI operation is completed and the SSD removed. For this reason, ensure that any important data stored on this temporary drive is backed up before performing the transition.

**Expand the Capacity of an existing SSD Boot Drive**

If the boot drive is an SSD, the software provides the ability to expand the capacity of the boot drive by adding a large capacity HDD or SSD and increasing the overall size of the boot volume.

**Step 1:** Select “Create Bootable StoreMI”. If there is a HDD or SSD available in the system, it will automatically be used to expand the physical disk size, otherwise select an available blank SSD or HDD from the options presented.

**IMPORTANT:** For the case where you see the following message:

![Message]

If the SSD size is greater than 256GB, a third-party OS migration tool will be required to first migrate the OS to an SSD that is 256GB or smaller BEFORE following the steps below. Alternatively, the operating system may be migrated to a larger HDD, remove the OS from the SSD, then follow the steps outlined earlier for adding an SSD to a HDD boot drive. Any remaining capacity > 256GB will be available as a standalone virtual SSD.

**Step 2:** Choose the drive to create a StoreMI with.

**Case A:** Only boot drive and a blank HDD in the system. The correct drives will be automatically selected. The example below shows a SATA 1TB HDD drive being added to an
existing 120GB SSD boot drive.

**Case B:** If multiple drive choices exist, a drive selection menu will pop up and prompt to select an available blank HDD for example to pair with the existing pre-selected boot drive. Any available HDDs that already have data on them will have “Partition” appended their disk model number.

Note, if a drive is grayed out, it is usually because it is in use as a data drive or has partitions on it. You will need to wipe the drive clean first using Windows Disk Manager or Diskpart command line tool, making sure to back up any important data on the drives beforehand.

**Step 3:** Transform the Bootdriver and Reboot. Once the appropriate drive has been selected, click **Transform** to start the conversion process.

Reboot the system when prompted.

**Step 4:** If not automatically completed by the software, you may manually extend the size of your new StoreMI with additional capacity added by the SSD or HDD using Windows Disk Manager as described in the earlier section for accelerating a HDD in steps 4 and 5.

Accelerate or Expand a Data Drive (non-bootable, with existing data on one of the drives you’d like to keep)

To accelerate a data (non-boot) drive with an existing partition on it, use the “Create Non-Bootable StoreMI” option in the StoreMI utility.

**STEP 1:** Select the Create Non-Bootable StoreMI option

**STEP 2:** Choose the drives. Depending on the number of drives and their configuration, you will be presented either with an automatic selection or if multiple choices that require user input, a drive selection menu. In the multi-disk case, select the desired drive (marked with “Partition”).

**STEP 3:** Once the drives have been correctly selected or verified, click the Create button.

Create a New Data StoreMI Drive (non-bootable, two new drives with no existing data)

To create a new StoreMI from two new unused drives, use the “New Non-Bootable StoreMI” option in the StoreMI utility.

**STEP 1:** Select the New Non-Bootable StoreMI Option.

**STEP 2:** Select the drives to use for the StoreMI.

Pay special attention to which drives have an existing partition on them and which are available as unused/blank drives. If you select a drive marked with **Partition** (shown below underlined), the software will warn that all data will be deleted on the drive, are you sure? Only say YES if you
intend to delete the data and you have any important data backed up safely. If you select an option that has no partitions, a new StoreMI with no file partition will appear in your Disk Manager.

**STEP 3:** Use the standard Microsoft Disk Manager to format and use the new StoreMI virtual disk that is created.

Enable the RAM cache Feature

The **RAM cache** option may be used to add, remove or change the current RAM cache setting for the StoreMI. Use the StoreMI configuration utility and use the Change Settings option to add or remove the RAM cache.

Select the available RAM cache mode: 2GB. Click **Modify Tier** to confirm the change.

Checking StoreMI Status

A system tray utility is provided for quick access to the StoreMI software status. In the lower right-hand corner of the desktop, either float over the AMD icon to see basic information about the StoreMI or right click to gain access to several high level control functions to start and stop the StoreMI activity.

The systray application may also be used as a shortcut for several other configuration or status functions, as well as turning the promotion/tiering functions off while running backups for example.

Troubleshooting

*Software will not install - Not licensed for this hardware message*

Check your system meets the minimum requirements outlined in the Pre-Install Checklist. This version of the software will only run on AMD Socket AM4 motherboards with a 4xx series chipset.

*AMD RAID is installed on the system and StoreMI will not convert the boot drive*

Bootable RAID systems are not supported by the StoreMI software.

*My system no longer hibernates*

If your system supports multiple storage controllers (use Microsoft Device Manager or the AMD installer utility to determine how many there are), hibernate may not be possible in all combinations. When using all SATA devices, ensure that all StoreMI disk devices are attached to the same SATA controller on the motherboard whenever possible. For Windows 7, attach the devices to ports 0 and 1.

*Cannot transform my boot drive or remove due to recovery partition*

Open Microsoft Disk Manager and check if there is a reserved partition on the boot drive after the primary C: boot volume.
If a reserved partition exists, then use a third-party tool to reduce the size of the C: partition by 3 or 4GB, and move the Recovery Partition to fill the 3-4GB capacity gap created between the C: and the reserved partition, then repeat the StoreMI utility operation. You may also do the opposite when expanding the boot drive.

*My issue is not addressed here ...*

See [www.AMD.com/support](http://www.AMD.com/support) for additional information, an online FAQ and knowledge base which may contain more up to date information.
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User Guide

AMD StoreMI™ is a tiered storage acceleration solution designed to run on AMD Socket sTR4 X399 or Socket AM4 400-series motherboards and Windows 10 64-bit systems. It utilizes up to 256GB of any solid state drive (SSD) as a fast tier, and combines it with a large-capacity mechanical hard disk drive (or second SSD) into a single drive letter as seen by Windows 10 operating system.

AMD StoreMI is not caching solution; it utilizes advanced machine intelligence, virtualization and automated MicroTiering™ to analyze the data blocks that are most often accessed and actually moves those blocks to the fastest storage tier. StoreMI operates consistently at the same performance levels as SSDs, continuously adapting to changing storage usage patterns in real time.

As a result, the user experiences the performance of the fastest tier SSD drive, combined with the large capacity and low-price advantages of the mechanical hard disk in a single, large, and easy-to-manage drive.

Pre-Install Checklist

**IMPORTANT: Backup the boot drive and important data, and follow the instructions below carefully! When upgrading to a StoreMI, the system boot and/or data drives will be converted to a virtual disk to fully accelerate or expand the storage in the system. Backing up protects from potential hardware storage device errors or failures that may occur during the conversion process.**

If converting an SSD or NVMe boot drive that is larger than 256GB, additional steps are required. See the section **Expand the Capacity of an existing SSD Boot Drive** for additional information.

Check the following prior to upgrading your system to StoreMI:
- Your system meets the minimum configuration: AMD RyZen, 4xx series motherboard with a minimum of 4G RAM (6G RAM to support RAM cache).
- Secure Boot is NOT enabled. Consult your system documentation for further details.
- There are no other SSD caching or AMD software RAID solutions installed.
- The BIOS SATA disk settings are set to AHCI, not RAID and there is no software RAID installed on the system.
- Microsoft’s *chkdisk* or other third-party disk scan tools run error free on the boot drive
- A new unused SSD or HDD is available
- If wishing to use bootable tiers > 2TB in size, the system must be configured to boot in UEFI
Software Installation

**Step 1:** Download the AMD StoreMI installer to a temporary directory and double click the installer application.

**Step 2:** Follow the installer instructions to install the AMD StoreMI software, drivers and JAVA (if not already installed) using the Express option. Ensure the system is connected to the Internet for this step if JAVA is not already installed.

**NOTE:** Prior to starting the Express install, you may optionally view the current disk configuration using the AMD Drive Controller information option to verify the drive setup.

**Step 3:** Reboot the system to complete the installation.

Configuring StoreMI

Run the StoreMI wizard installed under the Windows Start, AMD program folder to setup the desired configuration. For Windows 10, click the Windows icon in the lower left corner or press the Windows key on the keyboard and type “StoreMI” to find and run the StoreMI configuration utility. The utility will first scan the system for all visible SSD and hard drives.

Entering License Key

AMD StoreMI does not require a license key, as it checks for an AMD Socket AM4 motherboard with a 4xx-series chipset when the system boots.

StoreMI Top Level Menu Options

The top-level menu offers three primary options depending on the current system configuration, summarized as follows:

<table>
<thead>
<tr>
<th>Action Button</th>
<th>Description</th>
<th>Requirements</th>
</tr>
</thead>
</table>
Create Bootable StoreMI Tiered Drive

If starting with a fresh Windows install, it is recommended that the OS be installed on the HDD rather than the SSD. This will avoid any additional steps later if the SSD is larger than the license limit.

If the existing boot drive is a HDD and a new blank SSD or NVMe drive is available, this option will enable the user to convert the existing boot drive to a StoreMI. Alternatively, if the boot drive is already an SSD or NVMe drive, it will allow an existing boot drive’s capacity to be expanded by adding a larger HDD or SSD with the caveat that the SSD has to be the same size or smaller than the licensed SSD capacity (256GB).

If this option is grayed out, then the minimum requirements to convert the boot drive have not been met. For example, there are no blank unused SSDs or HDDs available or the SSD boot drive size exceeds the licensed SSD capacity.

The software will support the following conversions:

<table>
<thead>
<tr>
<th>Boot Drive</th>
<th>Blank Drive</th>
<th>What is Created</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDD</td>
<td>SATA SSD or NVMe SSD</td>
<td>A StoreMI is created with a capacity approximately equal to the HDD plus the licensed SSD capacity limit(^1) or size of the SSD, whichever is less. The performance will increase to the native SSD rates for frequently accessed data and programs.</td>
</tr>
<tr>
<td>SATA SSD or NVMe SSD</td>
<td>HDD</td>
<td>If less than or equal to the 256GB SSD capacity limit, a StoreMI is created with a capacity approximately equal to the HDD plus the licensed SSD capacity limit or</td>
</tr>
</tbody>
</table>

\(^1\) Up to the licensed SSD Capacity size: 256GB

\(^2\) Licensed SSD Capacity is 256GB
size of the SSD, whichever is less. Performance will continue at SSD rates for frequently accessed data and programs.

<table>
<thead>
<tr>
<th>SATA SSD</th>
<th>NVMe SSD</th>
<th>A StoreMI is created with a capacity approximately equal to the SATA SSD plus the licensed SSD capacity limit or size of the NVMe SSD, whichever is less. The performance will increase to the native NVMe SSD rates for frequently accessed data and programs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NVMe SSD</td>
<td>SATA SSD</td>
<td>StoreMI that is the approximate sum of the NVMe SSD and SATA SSD capacity. The capacity of the boot volume will increase to the size of the NVMe and SSD combined. Performance will continue at NVMe rates for frequently accessed data and programs.</td>
</tr>
</tbody>
</table>

Appendix A illustrates both pre and post StoreMI conversion scenarios and what to expect to see in standard applications such as Windows Disk Manager.

In the remainder of the document, NVMe SSD and SATA SSDs are both referred to as simply an SSD.

**Adding SSD to Existing HDD Boot Drives**

**Step 1:** Select “Create Bootable StoreMI”.

**Step 2:** Choose the drive to create a StoreMI Tiered Drive with.

**Case A:** Only boot drive and a blank SSD in the system. The correct drives will be automatically selected. The example below shows an NVMe drive being added to an existing 1TB boot drive.
An option to enable a 2G RAM cache will also appear.

**Case B:** If multiple drive choices exist, a drive selection menu will pop up and prompt to select an available blank SSD for example to pair with the existing pre-selected boot drive.

Note, if a drive is grayed out, it is usually because it is in use as a data drive or has partitions on it. You will need to wipe the drive clean first using Windows Disk Manager or Diskpart command line tool, making sure to back up any important data on the drives beforehand.

For multi-disk options, to enable the RAM cache, use the **Change Settings** option after the system has converted to a StoreMI.

**Step 3:** Transform the Bootdrive and Reboot. Once the appropriate drive has been selected, click **Transform** to start the conversion process.
Reboot the system when prompted.

If the system is in UEFI mode, the following should display on reboot before the operating system boots indicating that the boot drive has been successfully transformed into a StoreMI drive.

NOTE: if this display is not visible, ensure that the BIOS is set to boot from the EFI partition on either of the two disks used as part of the StoreMI. Windows Boot Manager will not be visible in the BIOS boot order.

**Step 4:** Once Windows boots, open Disk Manager to verify the system has correctly booted from the StoreMI and to access the volume expand capability of Windows. The example shown below is for a 120GB SSD being added to an existing 1TB hard disk boot drive.
STEP 5: If not automatically completed, manually expand the boot volume to use the new capacity added by the SSD by right clicking on the C: partition in Disk Manager and selecting Extend Volume ....

In the extend dialog box, leave the defaults as-is if using all the capacity and click next.

The C: on the StoreMI is now expanded to use the SSD capacity and ready for use.
Utilizing the Additional Capacity Over the 256GB SSD Limit

The software supports up to 256GB fast tier capacity. Any devices that exceed this limit will be carved into two sections. The first section is used for tiering in the StoreMI and will be the size of the licensed capacity, and the second piece is presented as an additional virtual SSD device made up of the remaining unused capacity.

This will result in a new device appearing in the Disk Manager that may be formatted and used as temporary storage.

Example: a 512GB blank NVMe drive is added using the Basic software version to a 1TB HDD.

The result is a bootable 1.25TB StoreMI and a ~256GB virtual SSD device that may be formatted as a new data Disk 3 as illustrated in the following screen capture.
Expand the Capacity of an existing SSD Boot Drive

If the boot drive is an SSD, the software provides the ability to expand the capacity of the boot drive by adding a large capacity HDD or SSD and increasing the overall size of the boot volume.

**Step 1:** Select “Create Bootable StoreMI”. If there is a HDD or SSD available in the system, it will automatically be used to expand the physical disk size, otherwise select an available blank SSD or HDD from the options presented.
Step 2: Choose the drive to create a StoreMI with.

**Case A:** Only boot drive and a blank HDD in the system. The correct drives will be automatically selected. The example below shows a SATA 1TB HDD drive being added to an existing 120GB SSD boot drive.

An option to enable a 2G RAM cache will also appear.

**Case B:** If multiple drive choices exist, a drive selection menu will pop up and prompt to select an available blank HDD for example to pair with the existing pre-selected boot drive. Any available HDDs that already have data on them will have “Partition” appended their disk model number.
Note, if a drive is grayed out, it is usually because it is in use as a data drive or has partitions on it. You will need to wipe the drive clean first using Windows Disk Manager or Diskpart command line tool.

For multi-disk options, to enable the RAM cache, use the Change Settings option after the system has converted to a StoreMI.

**Step 3:** Transform the Bootdrive and Reboot. Once the appropriate drive has been selected, click Transform to start the conversion process.

Reboot the system when prompted.

**Step 4:** If not automatically completed by the software, you may manually extend the size of your new StoreMI with additional capacity added by the SSD or HDD using Windows Disk Manager as described in the earlier section for accelerating a HDD in steps 4 and 5.

**Example:** Adding a 3TB HDD to an existing 120GB SATA SSD boot drive.
Accelerate or Expand a Data Drive (non-bootable, existing data on one drive you’d like to retain)
To accelerate a data (non-boot) drive with an existing partition on it, use the “Create Non-Bootable StoreMI” option in the StoreMI utility.

**STEP 1:** Select the Create Non-Bootable StoreMI option

**STEP 2:** Choose the drives. Depending on the number of drives and their configuration, you will be presented either with an automatic selection or if multiple choices that require user input, a drive selection menu. In the multi-disk case, select the desired drive (marked with “Partition”).
**STEP 3:** Once the drives have been correctly selected or verified, click the Create button. The existing drive will temporarily go offline while it is converted to a StoreMI. Once complete, the data drive will reappear as a StoreMI. Appendix A, example A5, shows the Disk Manager configuration after converting a D: DATA drive to a StoreMI.

**Create a New Data StoreMI Tiered Drive (non-bootable, no existing data on drives)**
To create a new StoreMI from two new unused drives, use the “New Non-Bootable StoreMI” option in the StoreMI utility.

**STEP 1:** Select the New Non-Bootable StoreMI Option.

![Create Non-Bootable StoreMI Option](image)

**STEP 2:** Select the drives to use for the StoreMI.
Pay special attention to which drives have an existing partition on them and which are available as unused/blank drives. If you select a drive marked with **Partition** (shown below underlined), the software will warn that all data will be deleted on the drive, are you sure? Only say YES if you intend to delete the data and you have any important data backed up safely. If you select an option that has no partitions, a new StoreMI with no file partition will appear in your Disk Manager.

![Create Tier](image)

**STEP 3:** Use the standard Microsoft Disk Manager to format and use the new StoreMI virtual disk that is created.
Remove StoreMI Tiered Drive

The StoreMI utility may be used to remove all acceleration using the “Remove StoreMI” option and return the system to utilize just the single HDD (or slow tier device) as a single disk drive.

This will free up any existing SSD to be used for other purposes and also support replacing the SSD with a different one if necessary. This action will also remove the RAM cache.

Note: this does not uninstall the software. It simply detaches the fast tier so a new fast tier device may be attached.

---

**IMPORTANT:** The system will reboot, so save any important work. Also, any carve out SSD drive created using excess capacity over the license limit will be deleted whenever a StoreMI is removed. For this reason, ensure that any important data stored on the temporary drive is backed up before performing the above operation.

---

When the “Remove StoreMI Drive” operation is selected, all data on the StoreMI Drive is moved to the slower media. The Enmotus configuration utility will attempt the shrink the last partition on the StoreMI Drive. If the shrink operation is not successful, user interaction may be needed to migrate data to a different drive in the system. 2GB of Meta data for the StoreMI Drive is also retained during this operation. If manually shrinking or moving partitions before running “Remove StoreMI Drive”, please shrink partitions and move partitions so that the fast media capacity plus 2GB is unallocated. When the manual shrink is completed, Windows Disk Management Tool will show the right section of the StoreMI Drive as “unallocated”. The Remove operation works for configurations where there are multiple partitions on a StoreMI Drive. When the capacity of the fast media plus 2GB is free the “Remove StoreMI Drive” operation will proceed smoothly.
Configuration of StoreMI Tiered Drive when Starting Remove Operation

Some situations may require the use of a partition movement tool. Enmotus can recommend MiniTool’s Partition Wizard, a free Home-use tool for these types of operations.

Change Settings

Use the change settings option in the StoreMI utility to change the following modes:

- RAM cache on/off
- VirtualSSD or VirtualHDD setting
- Manually convert the StoreMI from single to tiered or visa versa

Then select the AMD StoreMI and click **Modify**.
Enable the RAM cache Feature

The **RAM cache** option may be used to add, remove or change the current RAM cache setting for the StoreMI. Use the StoreMI configuration utility and use the Change Settings option to add or remove the RAM cache.

Select the available RAM cache mode: 2GB. Click **Modify Tier** to confirm the change.
Change StoreMI Declared Disk Type

A StoreMI may be optionally declared to the operating system as either a virtual SSD or a virtual HDD.

In the case of the virtual SSD, this will support features such as TRIM commands when supported by the operating system. In this mode, StoreMI boot and data drives will be managed the same way as SSDs by Windows i.e. they will not be subject to defragmentation during the Windows background optimization processes. This is the default and preferred mode.

If the type is changed to VirtualHDD, then the StoreMI will be managed by the Windows OS as the same way hard drives are and will be subject to background defragmentation operations automatically performed by the OS.
Installing a New Operating System
When installing a new OS and reinstalling the StoreMI software, it will be necessary to properly clean the disk drives before they can be seen by the Windows setup procedure.

IMPORTANT: BEFORE destroying data on the existing drives to install a new OS, after backing up any important data, ensure that the license is deactivated so it can be reused. See Deactivating License for additional details on how to deactivate the license.

After deactivating the license, if installing Windows via the standard USB or DVD setup disk method, on reaching the point where Windows prompts to select the disk to install the OS to, the disks may not be visible or may show partitions showing the AMD “EnTier_ESP” partitions. It’s important to note that using the Windows setup Delete option is insufficient to clean the disks properly.

Follow the instructions in Appendix B or consult the AMD online knowledge base at AMD.com/support to ensure the disks are fully cleaned.

Checking StoreMI Status
A system tray utility is provided for quick access to the StoreMI software status. In the lower right-hand corner of the desktop, either float over the AMD icon to see basic information about the StoreMI or right click to gain access to several high level control functions to start and stop the StoreMI activity.

The systray application may also be used as a shortcut for several other configuration or status functions, as well as turning the promotion/tiering functions off while running backups for example.

Uninstalling StoreMI Software
A StoreMI system reformats the Windows raw disks in order to function properly. Once formatter, there is no supported way to revert back to the original boot drive as the data is spread across multiple drives.

Completely uninstalling the software is therefore not possible for bootable StoreMIs without utilizing a third party OS migration tool.
Intelligent Tiered Storage Acceleration Software

StoreMI may be uninstalled using standard Windows uninstall options via the setup or control panel. However, special steps are required if the StoreMI is a boot drive.

_IMPORTANT: Backup all important data or the entire operating system BEFORE attempting to uninstall StoreMI entirely from the system as the following operations will result in the data on the StoreMI being deleted._

**Step 1a:** Backup or migrate any important data currently stored on the StoreMI drive to a separate disk drive using a commercially available data migration tool. Another blank hard disk or SSD attached to the system SATA controller is highly recommended for this step NOT a USB drive as we will need to be able to boot from this drive in later steps (unless the USB drive is transferable to the motherboard SATA ports).

OR

**Step 1b:** If using a 2-drive StoreMI configuration, convert the system to a single disk using the StoreMI Remove StoreMI option. This will free up the SSD which may be used to clone the StoreMI contents to. Note, check there is enough room for the OS to fit on the SSD before performing this operation.

**Step 2:** Boot the system from the migrated disk created in step 1a or 1b. Check the boot drive is operating as expected and the StoreMI is no longer the boot drive.

**Step 3:** Click on the Windows icon, type “StoreMI” to search for the AMD StoreMI utility and run the utility

_IMPORTANT: The following step will erase all data from the StoreMI:_

**Step 4:** Select “Change Settings” then “Delete” to remove the StoreMI, free the original drive(s) and make them usable by Windows.

**Step 5:** Uninstall the AMD StoreMI software from the cloned boot drive.

The system will no longer contain any StoreMIs.

**Troubleshooting**

_Software will not install - Not licensed for this hardware message_

Check your system meets the minimum requirements outlined in the Pre-Install Checklist. This version of the software will only run on AMD Socket AM4 motherboards with a 4xx series chipset.

_AMD RAID is installed on the system and StoreMI will not convert the boot drive_

Bootable RAID systems are not supported by the StoreMI software.
My system no longer hibernates

If your system supports multiple storage controllers (use Microsoft Device Manager or the AMD installer utility to determine how many there are), hibernate may not be possible in all combinations. When using all SATA devices, ensure that all StoreMI disk devices are attached to the same SATA controller on the motherboard whenever possible. For Windows 7, attach the devices to ports 0 and 1.

StoreMI utility reports reserved partition and cannot transform my boot drive

Open Microsoft Disk Manager and check if there is a reserved partition on the boot drive after the primary C: boot volume.

![Disk Manager Screenshot]

If a reserved partition exists, then use a third-party tool to reduce the size of the C: partition by 3 or 4GB, and move the Recovery Partition to fill the 3-4GB capacity gap created between the C: and the reserved partition, then repeat the StoreMI utility operation.

See www.AMD.com/support knowledge base for additional information.

My issue is not addressed here ...

See www.AMD.com/support for additional information in the online FAQ and knowledge base which may contain more up to date information.
Appendix A: Example Drive Configurations and StoreMI Options

Pre-Convert Example Configurations

<table>
<thead>
<tr>
<th>AMD StoreMI</th>
<th>Disk Manager Drive Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A1.</strong></td>
<td></td>
</tr>
<tr>
<td>SSD Boot Drive (C:)</td>
<td></td>
</tr>
<tr>
<td>Blank SSD - available for slow tier for C:</td>
<td></td>
</tr>
<tr>
<td>2x Blank HDDs – both available for slow tier for boot drive or new non-bootable StoreMI</td>
<td></td>
</tr>
</tbody>
</table>

| **A2.**                |                                  |
| SSD Boot Drive (C:)    | Unallocated Primary partition     |
| HDD DATA Drive (D:)    |                                  |
| Blank HDD - available for slow tier |                                  |
| Blank SSD - available for fast tier for D: or slow tier for C: |                                  |
A3.

- SSD Boot Drive (C:)
- HDD DATA Drive (D:)
- SSD DATA2 Drive (E:)
- Blank HDD (available for slow tier)

A4.

- SSD Boot Drive (C:)
- HDD DATA Drive (D:)
- HDD DATA Drive (E:)
- Blank SSD (available for fast tier for D: or E: or slow tier for C:)

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Post Conversion Examples

A5.
- SSD Boot Drive (C:)
- HDD DATA Drive (E:)
- StoreMI DATA Drive (D:)

A6.
- StoreMI Boot Drive (C:)
- HDD DATA Drive (E:)
- Blank unused SSD
Appendix B: Cleaning Disks Previously Used as a StoreMI during Windows Setup

IMPORTANT: The following steps will completely erase all data from the drives. Ensure you have backed up all important data before using the following commands. Also ensure that you have selected the correct drive. Remove any drives that are not required for the installation if necessary to avoid confusion so that you only have the 1 or 2 drives used as a StoreMI connected, along with the USB or DVD Windows setup drive.

For EFI, the previously used disks will be labeled "EnTier_ESP" in the Windows disk select window. In the above example Drive 0 is one of the drives in question for example. Identify the other also (scroll down).

If you used your drives as data only StoreMIs, we will need to identify them using diskpart as they will not be visible in the Windows disk selection menu.

**STEP 1:** From the disk selection menu in the Windows setup process (where Windows asks where to install the OS to), press Shift and F10 keys at the same time to open a command line prompt.

**STEP 2:** Type `diskpart`, then type `list disks`.

![Diskpart Command Line](image)

For our example, we have three disks. Disk 0 and 2 were previously used as StoreMIs. Drive 1 is an extra data drive we are also going to clean while in diskpart.

**STEP 3:** Identify the Disks previously used as a StoreMI. Use the size of the disk if necessary and take special care NOT to accidentally select the Windows setup USB disk (for our example, Disk 3 above) or any other drives you may have left attached. It is highly recommended if you see multiple drives and you cannot clearly identify which were the StoreMI raw disks, shutdown your machine and disconnect any data drives or drives you do not want to touch, then reboot. They can be reattached later.
**STEP 4:** Select each of the disks and clean (i.e. delete all data and metadata off) them as follows (for the example above, disk 0 and 2 were the disks needed to be cleaned):

```plaintext
DISKPART> select disk 0
DISKPART> clean
DISKPART> select disk 2
DISKPART> clean
```

optionally for our example:

```plaintext
DISKPART> select disk 1
DISKPART> clean
```

then type

```plaintext
DISKPART> exit
```

**STEP 5:** Close the command prompt window and return to the setup disk select menu

**STEP 6:** Refresh the disk select window to show the clean drives. Any legacy BIOS mode or data StoreMIs should now correctly appear as empty drives and all StoreMI metadata will be safely removed.