



# **Intel<sup>®</sup> Management and Security Status Application**

**User Guide**

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***Supporting Intel<sup>®</sup> CSME Firmware Version: 10 and above***

***April 2023***

***Revision 1.9***



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Intel® Active Management Technology requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating or powered off. Results are dependent upon hardware, setup and configuration. For more information, visit <http://www.intel.com/technology/platform-technology/intel-amt>.

Client Initiated Remote Access may not be available in public hot spots or "click to accept" locations. For more information on CIRA, visit <http://software.intel.com/en-us/articles/fast-call-for-help-overview>

KVM Remote Control (Keyboard, Video, Mouse) is only available with Intel® Core™ i5 vPro and Core™ i7 vPro processors with Intel® Active Management technology activated and configured and with integrated graphics active. Discrete graphics are not supported.

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## Revision History

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| Revision# | Description   | Revision Date  |
|-----------|---|----------------|
| 0.7       | • Initial Release   | June 2020      |
| 0.8       | • Update revision to 0.8  | August 2020    |
| 0.9       | • Update copyright year to 2021<br>• Update supported OS in section 2   | January 2021   |
| 1.0       | • Updated revision to 1.0 for Beta  | January 2021   |
| 1.1       | • Add Fast Call for Help in Intel® Standard Manageability tab   | June 2021      |
| 1.2       | • Remove Anti-Theft Technology  | July 2021      |
| 1.3       | • Add note for MEBx description in section 3.4.4  | September 2021 |
| 1.4       | • Update copyright year to 2022<br>• Add Windows* 11 in system requirements   | February 2022  |
| 1.5       | • Add disclaimer for Windows* 11 support in system requirement  | February 2022  |
| 1.6       | • Update .NET framework requirement to 4.8  | June 2022      |
| 1.7       | • Update description about the option "Intel® Management and Security Status application will be available next time I log on to Windows*" in General Tab | November 2022  |
| 1.8       | • Update copyright year to 2023<br>• Update the description about the startup option  | January 2023   |
| 1.9       | • Update description of Intel® UPID tab   | April 2023     |





# 1 *Introduction*

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This *User Guide* describes how to use the Intel® Management and Security Status application. The application's component tabs—detailed in this document—display information about a platform's support for the following technologies: Intel® Active Management Technology (Intel® AMT), Intel® Standard Manageability. All of these technologies are built upon the Intel® Management Engine (Intel® ME), a feature provided within the platform hardware.

The Intel® Management and Security Status icon indicates whether Intel® Active Management Technology, Intel® Standard Manageability are running on the platform. The icon is located in the notification area. By default, each time Windows\* starts, Intel® Management and Security Status application starts and the notification icon is displayed.

If the Intel® Management and Security Status application starts automatically as a result of the user logging on to Windows\*, the icon will be loaded to the notification area only if a supported combination of the following technologies is present on the platform: Intel® Active Management Technology and Intel® Standard Manageability. If the Intel® Management and Security Status application is started manually (via the Start menu), the icon is loaded even if none of these technologies are enabled.

**Note:** The information displayed in the Intel® Management and Security Status application is not shown in real time. The data is refreshed at predefined intervals.





## 2 *System Requirements*

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The Intel® Management and Security Status application has the following requirements:

- Supported Operating Systems:
  - Windows 10\*
  - Windows 11\* (Note\*\*)
  - Windows Server 2019\*
- Platform running Intel® Management Engine firmware.
- Intel® Management Engine software installed.
- Microsoft\* .NET Framework: version 4.8 or above

**Note:** Some Intel® systems (including but not limited to: Raptor Lake, Alder Lake, Rocket Lake, Tiger Lake, Comet Lake, Whiskey Lake, Coffee Lake, Kaby Lake, Sky Lake, Purley, Purley Refresh, Basin Falls, Glacier Falls and older) can be upgraded to Windows 11\* but Windows 11\* is not POR for these systems.






### 3 *Using Intel® Management and Security Status Application and Icon*

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Whenever either Intel® Active Management Technology or Intel® Standard Manageability is enabled, Intel® Management and Security Status icon is loaded into the notification area when Windows\* starts. It can also be started by clicking **Start> All Programs>Intel>Intel® Management and Security Status> Intel® Management and Security Status**.


While the Intel® Management and Security Status application is running, the Intel® Management and Security Status icon is visible in the notification area.  This icon will appear blue if any one of the aforementioned technologies is enabled on the computer. In any other case, the icon will appear gray.

**Note:** The icon will also be gray if the Intel® Management and Security Application User Notification Service is not running or the Intel® Management Engine Interface (Intel® MEI) driver is disabled or unavailable.

**To view the Intel® Management and Security Status application:**

- Double-click the Intel® Management and Security Status icon, or
- Right-click or left-click the icon and choose **Open**, or
- **Click** Start>All Programs>Intel>Intel® Management and Security Status> Intel® Management and Security Status.

**Note:** If your computer is set to Classic Start Menu, the path will start with 'Programs' instead of 'All Programs'.

The following sections describe the information available in the application's tabs. Information about the application is available also by clicking either the "Learn more" button  or link.

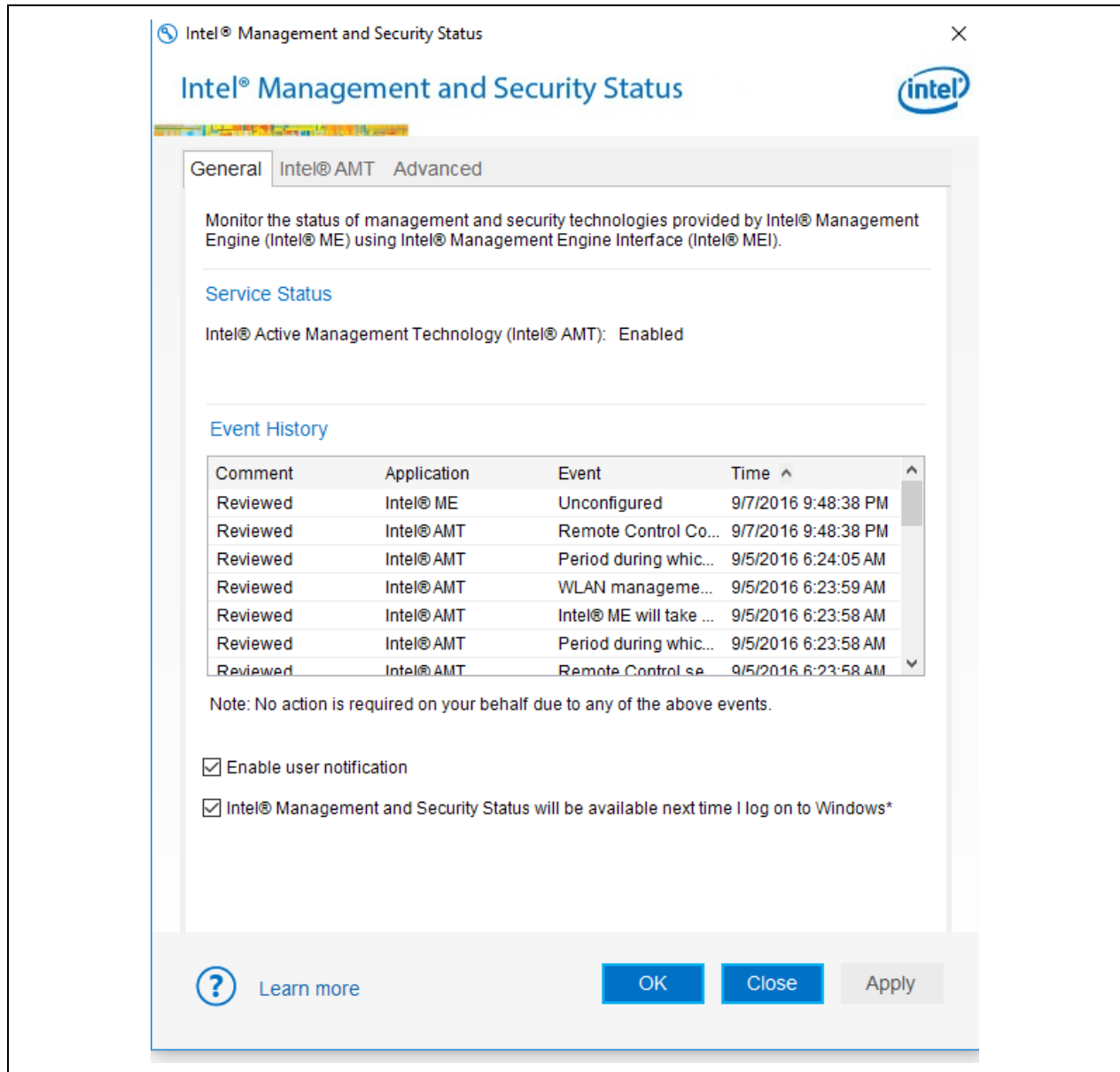
**Note:** The application dynamically hides tabs that are not relevant. For example, on Broadwell/Skylake/Kaby Lake platforms that do not support Intel® AT, the Intel® AT tab is hidden.





### 3.1 General Tab

The **General** tab provides status information about the Intel AMT, Intel® Standard Manageability, and events related to these technologies.





Events and some of their details are displayed in the **Event History** section. These can be sorted by clicking on the relevant column header.

The Anti status of Intel® Active Management Technology, Intel® Standard Manageability or Intel® -Theft Technology is displayed in the **Service Status** section depending on which technology is operational on the system. The tab displays information for Intel® Active Management Technology or Intel® Standard Manageability. The status can be one of the following:

- **Intel® AMT:** Enabled / Disabled / Information unavailable
  - When Intel® AMT status presents Enabled it means that the Intel® AMT is supported on the system. Intel® ME status (in the Advanced Tab) will give the user information on whether the Intel® ME is configured (hence Intel® AMT is functional and operating).
  - When Intel® AMT status presents Disabled it means that the Intel® AMT is either not enabled on the system or has been disabled by the IT administrator.
  - Information unavailable: It is not known whether Intel® AMT is supported on the system. No Intel® AMT information is available. This can be for one of the following reasons: LMS service has stopped, or the Intel® Management Engine Interface (Intel® MEI) driver is disabled.
- **Intel® Standard Manageability:** Enabled / Disabled / Information unavailable
  - When Intel® Standard Manageability status presents Enabled it means that the Intel® Standard Manageability technology is supported on the system. Intel® ME status (in the Advanced Tab) will give the user information on whether the Intel® ME is configured (hence Intel® Standard Manageability is functional and operating).
  - When Intel® Standard Manageability status presents Disabled it means that the Intel® Standard Manageability technology is either not enabled on the system or has been disabled by the IT administrator.
  - Information unavailable: It is not known whether Intel® Standard Manageability technology is supported on the system. No Intel® Standard Manageability information is available. This can be for one of the following reasons: LMS service has stopped, or the Intel® MEI driver is disabled.

**Note:** The information in this field shows the state of the platform at the last platform boot.

**Enable User Notification:** Checking this box allows the user to enable or disable the Intel® Management and Security Status icon from displaying important notifications in the notification area (for instance, notification will be sent when one of the technologies is enabled or disabled). Checking or unchecking the checkbox affects the Intel® Management and Security Status application setting for the current user account only.

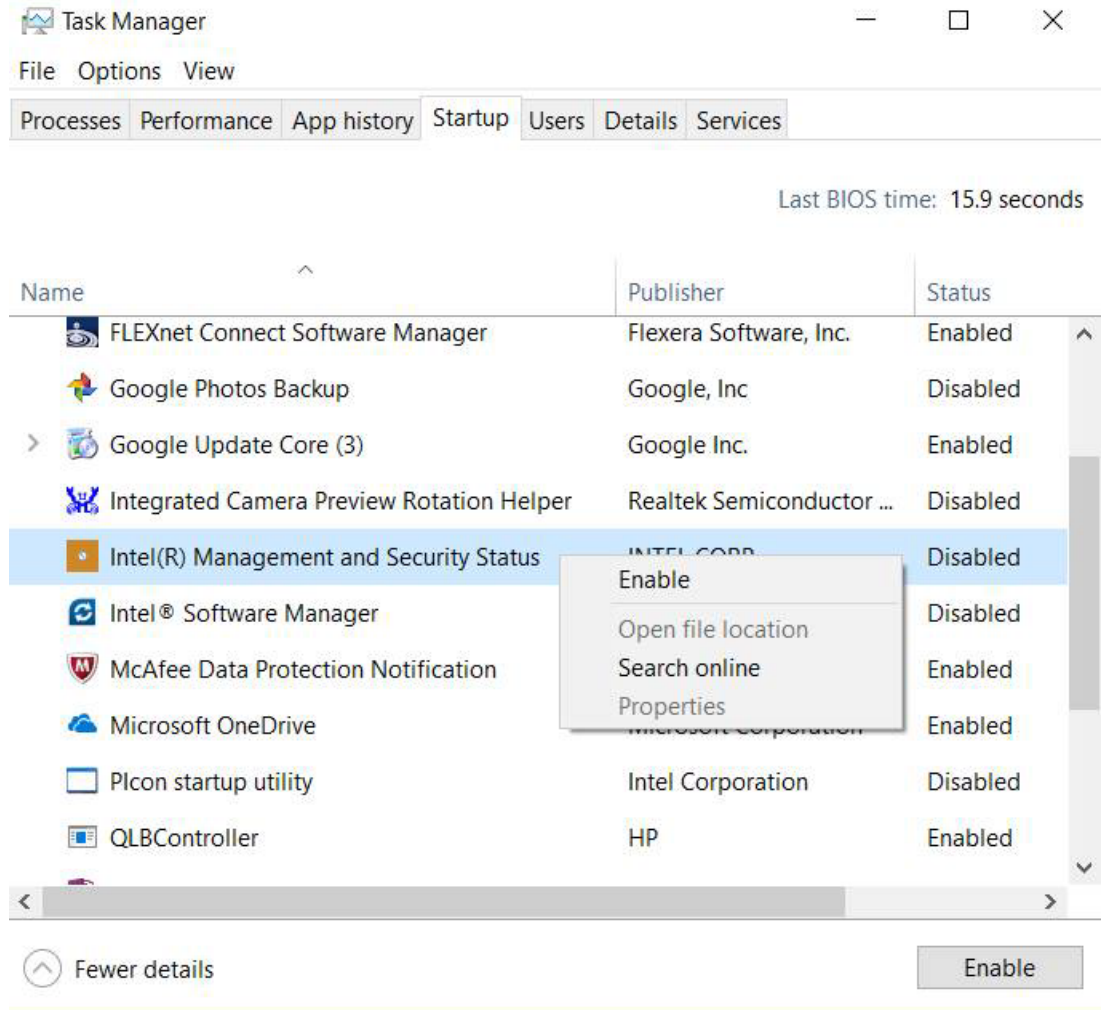
On Windows\* 8 platforms, Intel® Management and Security Status user notifications are also displayed as Windows\* 8 UI 'Toast' notifications, visible to users working with the Windows\* 8 UI. These notifications will only be displayed if a Windows\* 8 UI Start Menu shortcut (Windows\* 8 UI 'tile') is present.

**Intel® Management and Security Status application will be available next time I log on to Windows\*:** This option is only available in Intel® Management and Security Status application legacy version (Non-APPx). Checking this box causes the Intel® Management and Security Status application to be invoked, and the icon to be displayed, whenever you log on to Windows\*. Checking or unchecking the checkbox affects Intel® Management and Security Status application's behavior for the current



user account only.

For Intel® Management and Security Status application APPX, this option is removed. If users want Intel® Management and Security Status application load automatically with Windows\* log-on, users need to enable this feature from Startup tab in task manager and the checkbox in general tab at the same time to enable Intel® Management and Security Status application load automatically with Windows\* log-on next time. If the status of IMSS from Startup tab in task manager is disabled or the checkbox is unchecked, the feature will not be enabled.

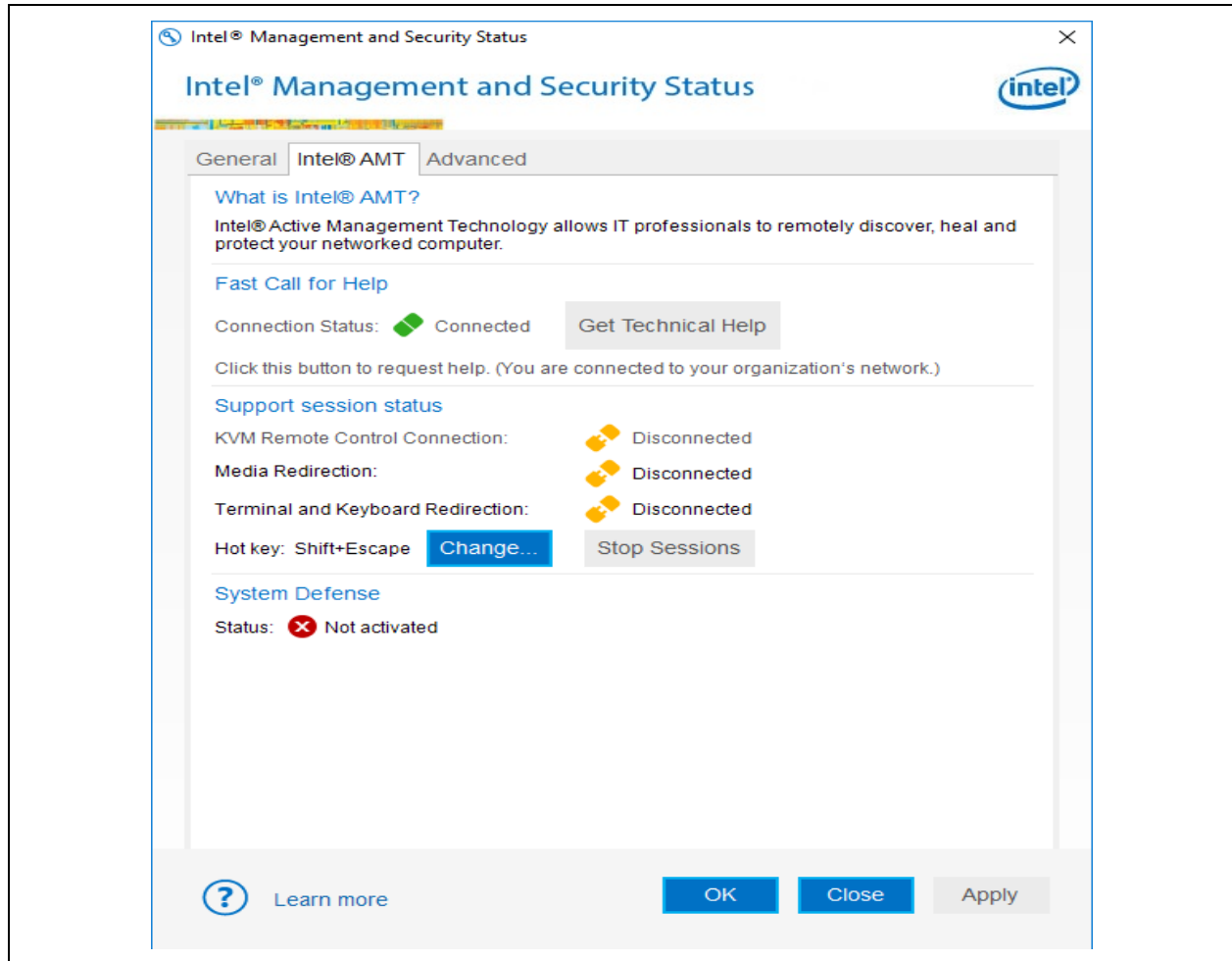


The application does not load automatically with Windows\* log-on if none of the technologies it displays (Intel® Active Management Technology or Intel® Standard Manageability) are supported on the platform. Intel® Management and Security Status application will load automatically even if all the technologies are disabled, so long as they are supported. Intel® Management and Security Status application will not load if these technologies are not supported in the platform.



## 3.2 Intel® Active Management Technology Tab

**Note:** This tab is displayed only if the platform supports Intel® AMT. Click the **Intel® AMT** tab to display Intel® AMT information.





### 3.2.1 Fast Call for Help

The Fast Call for Help section provides Client Initiated Local Access (CILA) or Client Initiated Remote Access (CIRA) capabilities depending on whether the system is connected to the corporate network or not, respectively. The Fast Call for Help section will be available for the CIRA/CILA use-cases, providing the proper configuration for CIRA/CILA has been done, as well as for a case in which the user's system did not receive an IP address while the wireless network is available for a support session to take place. Otherwise, the Fast Call for Help section will be grayed out.

CIRA allows a user to connect the Intel® AMT system to the company's Information Technology network from an external internet connection. Click the "Get Technical Help" button to connect to your Information Technology network for system diagnostics and maintenance. The current connection status is displayed in this section as well. CILA (Client Initiated Local Access) feature allows a user connected to the internal corporate network to send a support request to the IT administrator.

**Note:** For CIRA/CILA to work, the machine needs to be configured correctly, and support this technology. Such settings are typically done by management software. (Configuration details appear in the Intel® AMT SDK Implementation and Reference Guide).

**Note:** The information displayed in the Intel® Management and Security Status application, including the Fast Call for Help section, is not shown in real time. The data is refreshed every time an event has arrived.

**Note:** When the user is connected as Guest account (in Windows\*) the "Fast Call For Help" section will be grayed out. This was designed to prevent users outside of the organization to influence the organization network.

### 3.2.2 Support Session Status

The following information is provided:

- **KVM Remote Control Connection**

Indicates whether KVM (Keyboard, Video & Mouse) Remote Control session is open. Possible values: Connected/ Disconnected/ Information unavailable. The "KVM Remote Control Connection" section will be grayed out if the KVM Remote Control feature is disabled on the system.

- **Media Redirection**

Indicates whether there are any open IDE redirection sessions. Possible values: Connected/ Disconnected/ Information unavailable.

- **Terminal and Keyboard Redirection**

Indicates whether there are any open terminal/keyboard redirection sessions. Possible values: Connected/ Disconnected/ Information unavailable.

- **Stop Sessions**

Click the "Stop Sessions" button to close any open KVM Remote Control, media redirection, or terminal/keyboard redirection sessions. In cases when user consent is required for such a session, re-establishing the session will require renewal of user consent after clicking this button.



- **Hot Key**

Indicates the hot key which could be used to close any open KVM Remote Control, media redirection, or terminal/keyboard redirection sessions (same effect as "Stop Sessions" button).

Click on the "Change" button to choose a different hot key for terminating an open session.

- **Prevent Access**

This button will appear in cases where user consent is required for a remote support session to occur. In such cases, after the user will provide the required approval to the remote administrator and if the healing session hasn't begun, the user will see the "Prevent Access" button. This button enables the user to change his/her mind, as clicking on it will cancel user consent and disable the ability of the IT administrator to begin the remote session. During this time, the Hot Key will also serve to cancel user consent. Once a remote support session has begun, the "Prevent Access" button will no longer be visible, and the "Stop Sessions" button will appear instead.

**Note:** User Consent, when required, will be granted to the administrator per session, by the user giving the administrator a one-time pass code which will appear on the Secure Output Window presented on the user's screen. See more about Secure Output Window and User Consent Policy under **Advanced** Tab – Secure Output Window Settings.

**Note:** During a Support Session conducted over the wireless interface, a notice will be displayed with a warning triangle. The message will say: "Do not change your wireless connection until the remote support session completes".

**Intel® Management and Security Status Application Icon during support session**

- The notification area tray icon appears animated if user consent or support session is active.
- Stop Sessions/ Prevent Access are available also thru clicking on the tray icon.

### 3.2.3 System Defense

- **System Defense Status**

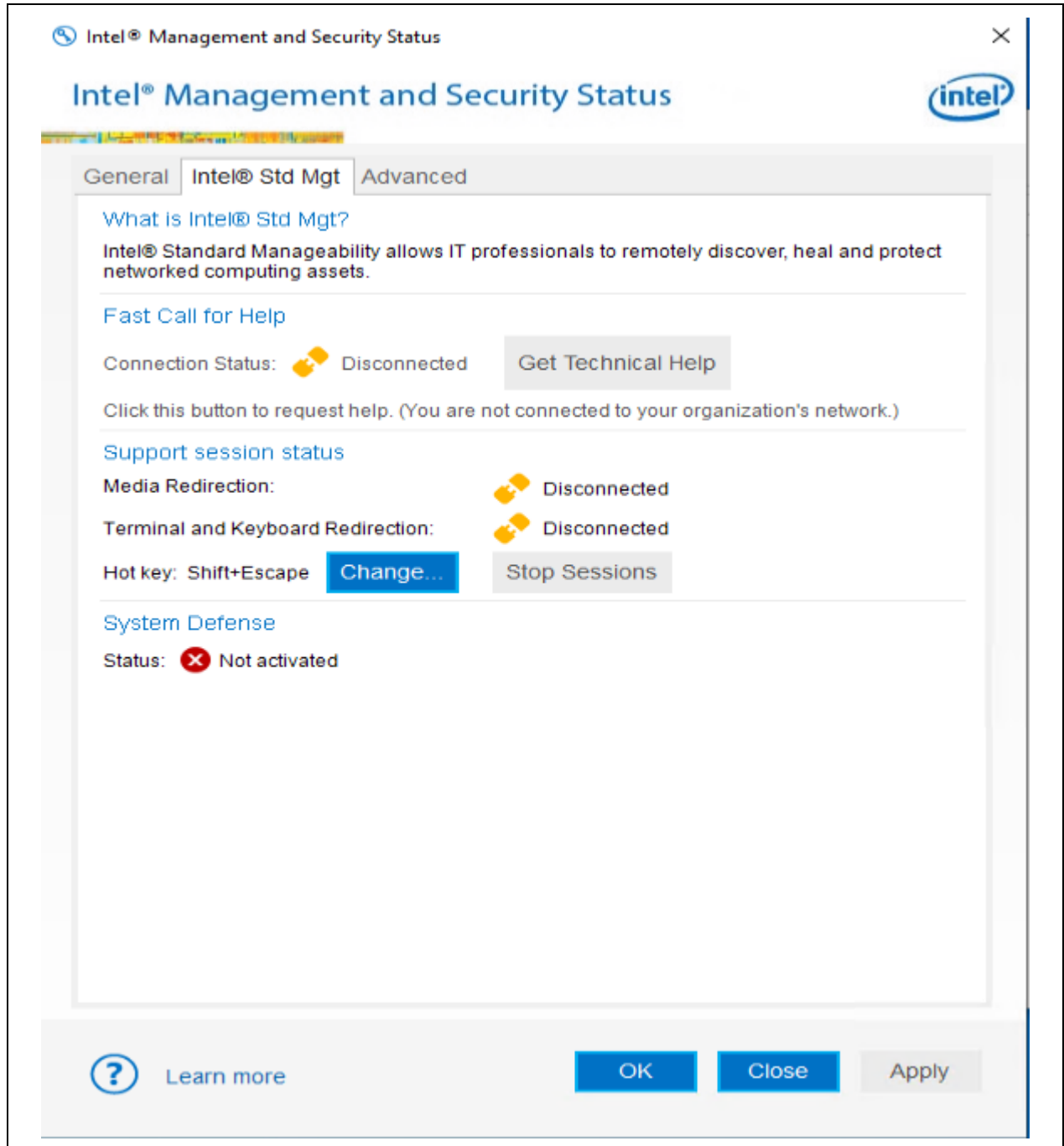
Indicates whether System Defense policies are currently active.  
Possible values: Activated/Not activated/ Information unavailable.



### 3.3 Intel® Standard Manageability Tab

**Note:** This tab is displayed only if the platform supports Intel® Standard Manageability.

Click the **Intel® Std Mgt** tab to display Intel® Standard Manageability information.





### 3.3.1 Fast Call for Help

This feature is same as the one in Intel® AMT tab. Refer to section 3.2.1 for more detail.

**Note:** This feature is displayed only on platform Alder Lake (running ME16 FW) or later.

### 3.3.2 Support Session Status

The following information is provided:

- Media Redirection

Indicates whether there are any open IDE redirection sessions. Possible values: Connected/ Disconnected/ Information unavailable

- Terminal and Keyboard Redirection

Indicates whether there are any open terminal/keyboard redirection sessions. Possible values: Connected/ Disconnected/ Information unavailable.

### 3.3.3 System Defense

- **System Defense Status**

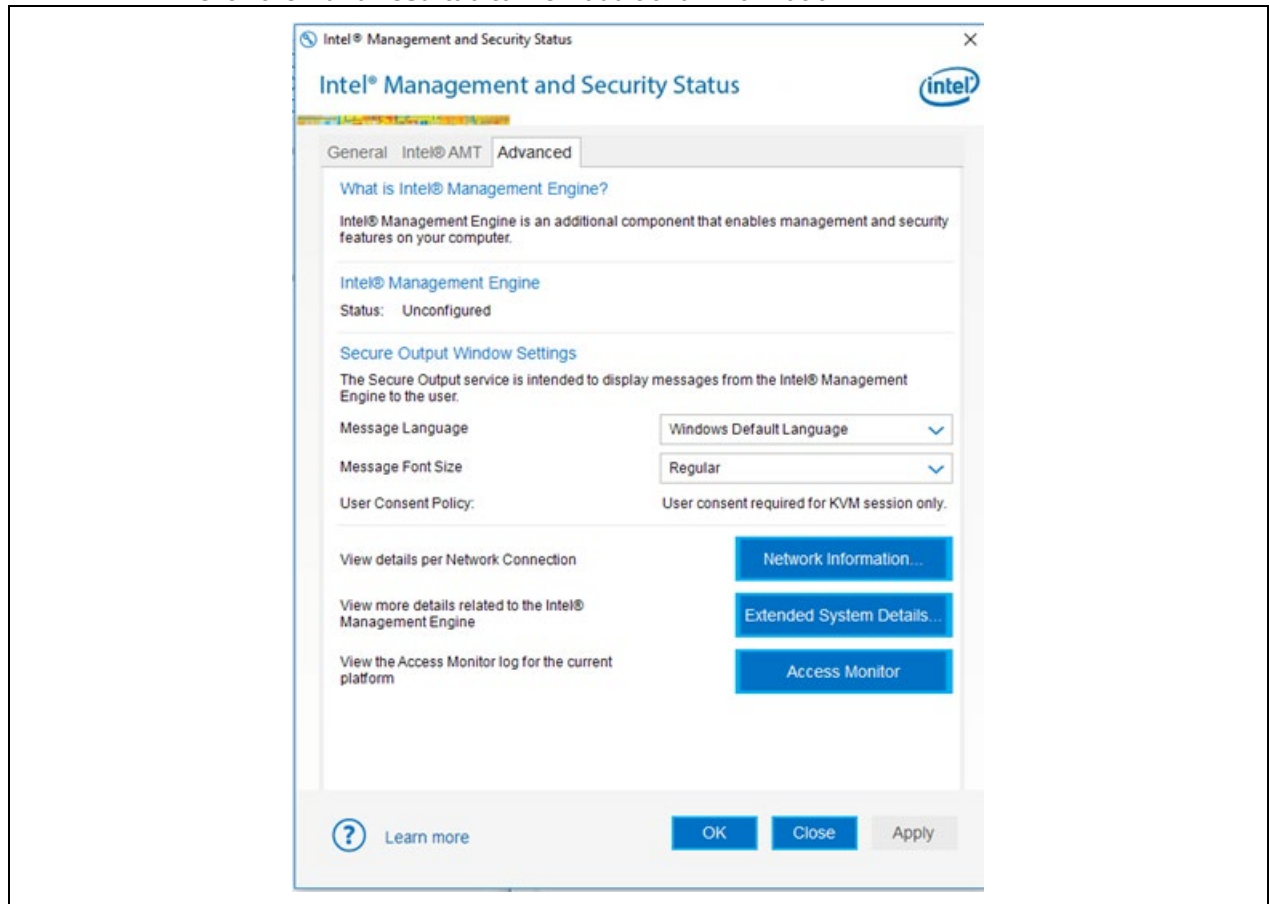
Indicates whether System Defense policies are currently active. Possible values: Activated/Not activated/ Information unavailable.





## 3.4 Advanced Tab

Click the **Advanced** tab to view additional information.



**Note:** The image below includes all buttons and information that may be displayed by Advanced Tab. However, not everything will be displayed at all times, as this depends on the specific technologies which are enabled and active on the platform (Intel® Active Management Technology (Intel® AMT) or Intel® Standard Manageability).

### 3.4.1 Intel® Management Engine

The following information is provided:

- **Status**

The operational status of Intel® ME

Possible values: Configured / Unconfigured / Information unavailable.

In case status is Configured, the configuration date and time will be displayed.

- **Control Mode**

There are two configuration modes for Intel® ME – Client Control Mode and Admin Control Mode. If status is Configured, the relevant Control Mode will be shown.



### 3.4.2 Secure Output Window Settings

The following information is provided for the Secure Output feature, implemented in KVM (keyboard/video/mouse) redirection. If the machine was configured in Client Control Mode this is provided in IDE redirection and remote power operations as well.

- **Message Language**

Specifies the language used by the Secure Output feature for user consent. Choose one of the listed languages.

Upon installation of the Intel® Management and Security Status application, the consent language will be set according to the Windows\* System Locale language (note that this may be different than the Windows\* Display language). Selecting a different Message Language on the Advanced Tab will override this initial setting. Selecting "Windows Default Language" will revert to the Windows\* System Locale language.

- **Message Font Size**

Specifies the window font size of messages displayed by the Secure Output Feature. Choose one of the following: **Regular**, **Large** or **Auto**.

- **User Consent Policy**

Specifies the policy for when the user's approval will be required in order to establish a remote support session by an IT administrator. User Consent will be granted to the administrator per session, by the user giving the administrator a one-time pass code which will appear on the Secure Output Window presented on the user's screen.

Possible Policies are:

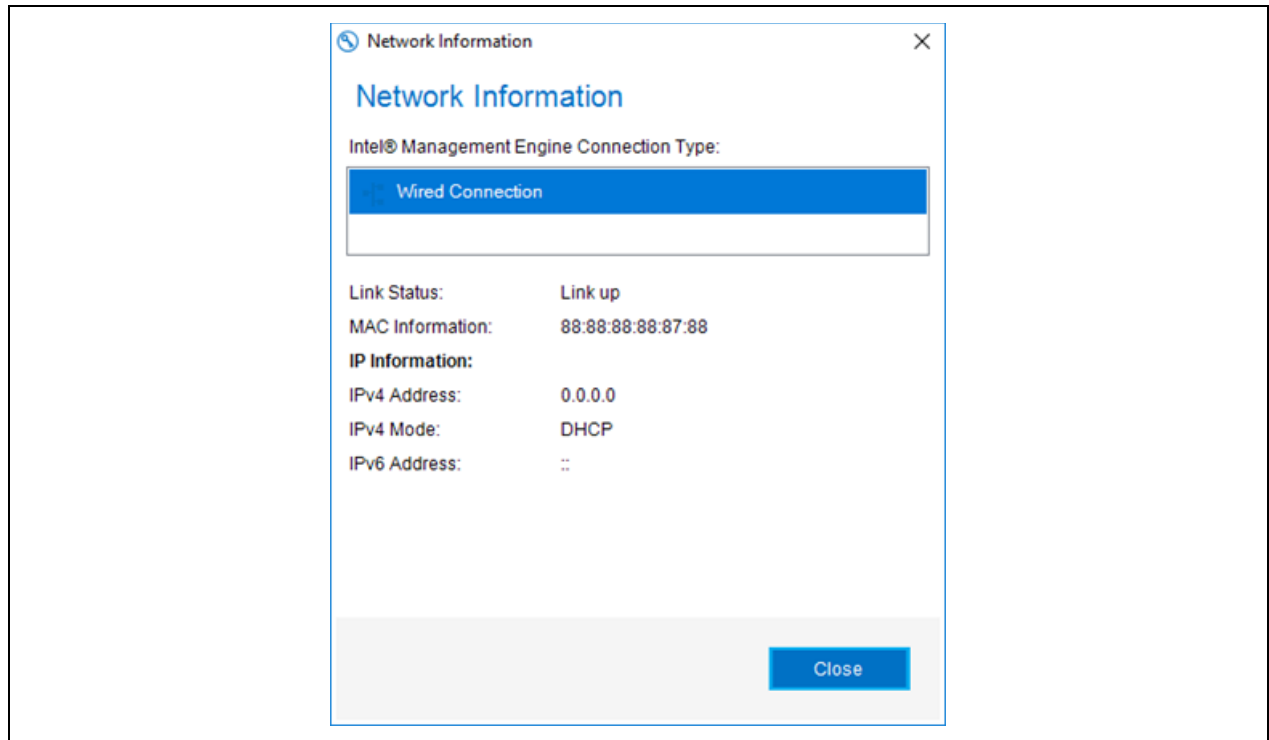
**User consent not required for any remote session**

**User consent required for KVM session only**

**User consent required for all remote sessions** (i.e., KVM, IDE redirection, and remote power operation)

### 3.4.3 Network Information

Click the "Network Information" button to display network details regarding Intel® ME wireless and wired connectivity.



In the **Connection Type** section, click either **Wireless Connection** or **Wired Connection** to display information on the following items for the selected interface:

- **Link Status**

Whether the link is currently active.

Possible values are: Link up/Link down/Information unavailable

- **MAC Information**

XX:XX:XX:XX:XX:XX – e.g. 88:88:88:0A:88:87

- **IPv4 Address**

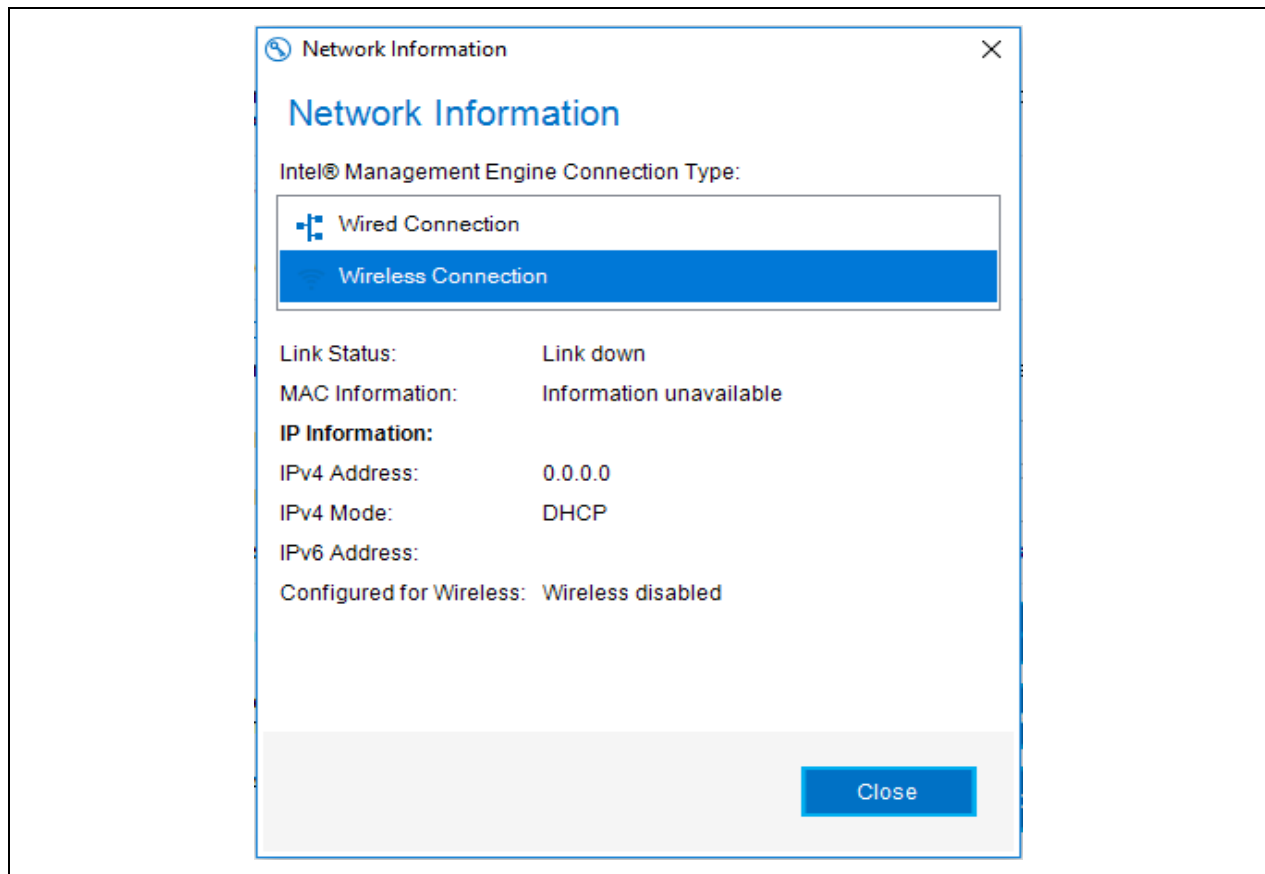
XXX.XXX.XXX.XXX – e.g. 208.77.188.166

- **IPv4 Mode**

Possible values: Static/ DHCP/ Information unavailable.

- **IPv6 address**

If IPv6 addressing is enabled for the Intel® ME, the Intel® Management and Security Status application displays up to 6 IPv6 IP addresses configured for an Intel® ME network interface for wired connection, and up to 5 IPv6 IP addresses for wireless connection.



### **Data which appears only for Wireless Connection**

- **Configured for Wireless**

Possible values are: Wireless enabled/ Wireless disabled/ Information unavailable.

- **WLAN control**

On Intel® ME 8.0 systems only, the WLAN control indicates whether the wireless network is available to the user's computer operating system (i.e. regular usage) or whether it is in control of the Intel® Management Engine for the purpose of remote support by an IT administrator. Possible values are: HOST / Intel® ME. This control is not shown on platforms from Intel® ME 8.1 onwards.

- **WLAN preference**

On Intel® ME 8.0 systems only, WLAN preference indicates whether the wireless network should preferably be in control of the operating system or the Intel® Management Engine (Intel® ME). Expected behavior is for WLAN control to be the same as WLAN preference. However, if for some reason the operating system fails to take control over the wireless network (e.g. the wireless driver is dysfunctional), the user will witness WLAN preference given to the operating system while WLAN control is with Intel® ME (even if the Return Control button was clicked). Possible values are: Operating System/ Intel® ME. This control is not shown on platforms from Intel® ME 8.1 onwards.



### 3.4.4 Extended System Details

When clicking Extended System Details, a Windows\* System Information window will open, providing an extensive report about system components and configuration.

The report includes both general information regarding the system ("Host Information") and specific Intel® Management Engine Information ("Intel® ME Information").

It is possible to save the system report to a file by clicking File->Export on the System Information Window.

Below are explanations for some of the details displayed under Intel® ME Information:

#### **Host information:**

- Operating System Name – The Windows\* operating system that the application is running on.
- Operating System Version – The version of the operating system.
- System Manufacturer – The hardware manufacturer.
- System Name – The computer name as recognized by the operating system.
- System Model – The hardware platform name.
- Processor – The processor full brand name.
- BIOS Version – The BIOS manufacturer name and BIOS version number.
- LAN Driver – The version number of the LAN device driver.
- LAN DeviceID – The PCI Device ID for the LAN device.
- WLAN Driver – The version number of the Wireless LAN device driver.
- WLAN DeviceID – The PCI Device ID for the Wireless LAN device.

#### **Intel® ME Information:**

- Intel® ME Control Mode – The configuration mode (Client Control or Admin Control).
- Provisioning Mode – State of Intel® ME configuration (Pre/In/Post).
- BIOS boot – The BIOS boot state (expected to be Post Boot).
- Last Intel® ME reset reason – The reason that the Intel® ME was last reset (Global System/ FW reset / Power Up/ Unknown cause/ Information unavailable).
- System UUID – The Universal Unique Identifier of the computer. Standard System UUID presentation, such as: 03000200-0400-0500-0006-000700080009.
- Local FWUpdate – The local firmware update policy (Enabled/Disabled).
- Power Policy – The power modes in which Intel® ME is available (ON in S0 or Intel® ME ON in S0/S4/S5/DC). Note: S0 = Power is on, S4 = Hibernate, S5 = System is shut down though power cable is connected, DC = Battery Power.
- Cryptography Support – The Intel® ME capability to work in TLS/SSL mode (Enabled/Disabled).



### **FW Capabilities:**

- Indicates whether the following technologies are present on the platform and enabled:
- Intel® Active Management Technology / Intel® Standard Manageability
- Intel® ME Dynamic Application Loader
- Protect Audio Video Path

### **Intel® Active Management Technology / Intel® Standard Manageability**

- Intel(R) AMT State (Enabled or Disabled).
- Intel(R) AMT Status (Configured/Not Configured).
- CIRA Connection Status – Client Initiated Remote Access Connected/Not connected (not available for Intel® Standard Manageability).

### **Intel® AT**

- Intel® AT State (Enabled or Disabled). Intel® AT Status (Enrolled or Not Enrolled).

### **Components Information**

Present versions for the following components:

- MEBx Version - Intel® ME BIOS Extension version.  
**Note:** the MEBx version will display 0.0.0.0000 if MEBx is integrated in BIOS.
- FW Version – Firmware version.
- LMS Version – Local Management Service software version.
- MEI Driver Version – Intel® Management Engine Interface driver version.
- MEI DeviceID – Intel® Management Engine Interface PCI Device identification.
- SOL Driver Version – Serial Over LAN driver version.
- SOL DeviceID - Serial Over LAN PCI Device identification.
- PMC Version – Power Management Controller version

### **Network Information:**

- LAN MAC Address – The Media Access Control address for the LAN device.
- LAN Configuration state – DHCP or static mode for LAN.
- LAN Link Status – LAN link up or down.
- LAN IPv4 Address – The IPv4 address assigned to LAN.
- LAN IPv6 Enablement – IPv6 enabled or disabled for LAN.
- WLAN MAC Address – The Media Access Control address for the Wireless LAN device.
- WLAN Configuration state – only DHCP mode supported for Wireless LAN.
- WLAN Link Status – Wireless LAN link up or down.



- WLAN IPv4 Address – The IPv4 address assigned to Wireless LAN.
- WLAN IPv6 Enablement – IPv6 enabled or disabled for Wireless LAN.

**Note:** When the user is connected as Guest account (in Windows\*), some of the system information will not be available. In such a case, all Host Information and some of the Intel® ME Information (such as Software Versions) will appear as "NA".

### 3.4.5 Access Monitor

If the Access Monitor feature is enabled on the platform, then by clicking the "Access Monitor" button, the relevant content will be presented through a Windows\* System Information window which will then open. Access Monitor content includes description of events which occurred on the system and may be of interest to the user from a privacy and security perspective, such as Network Administration, Storage Administration, Remote control Operations and more.

**Note:** Events that occurred before first provisioning of Intel® AMT will appear with irrelevant time/date.

## 3.5 Intel® Unique Platform ID Tab

**Note:** This tab is displayed only if the platform supports Intel® UPID.

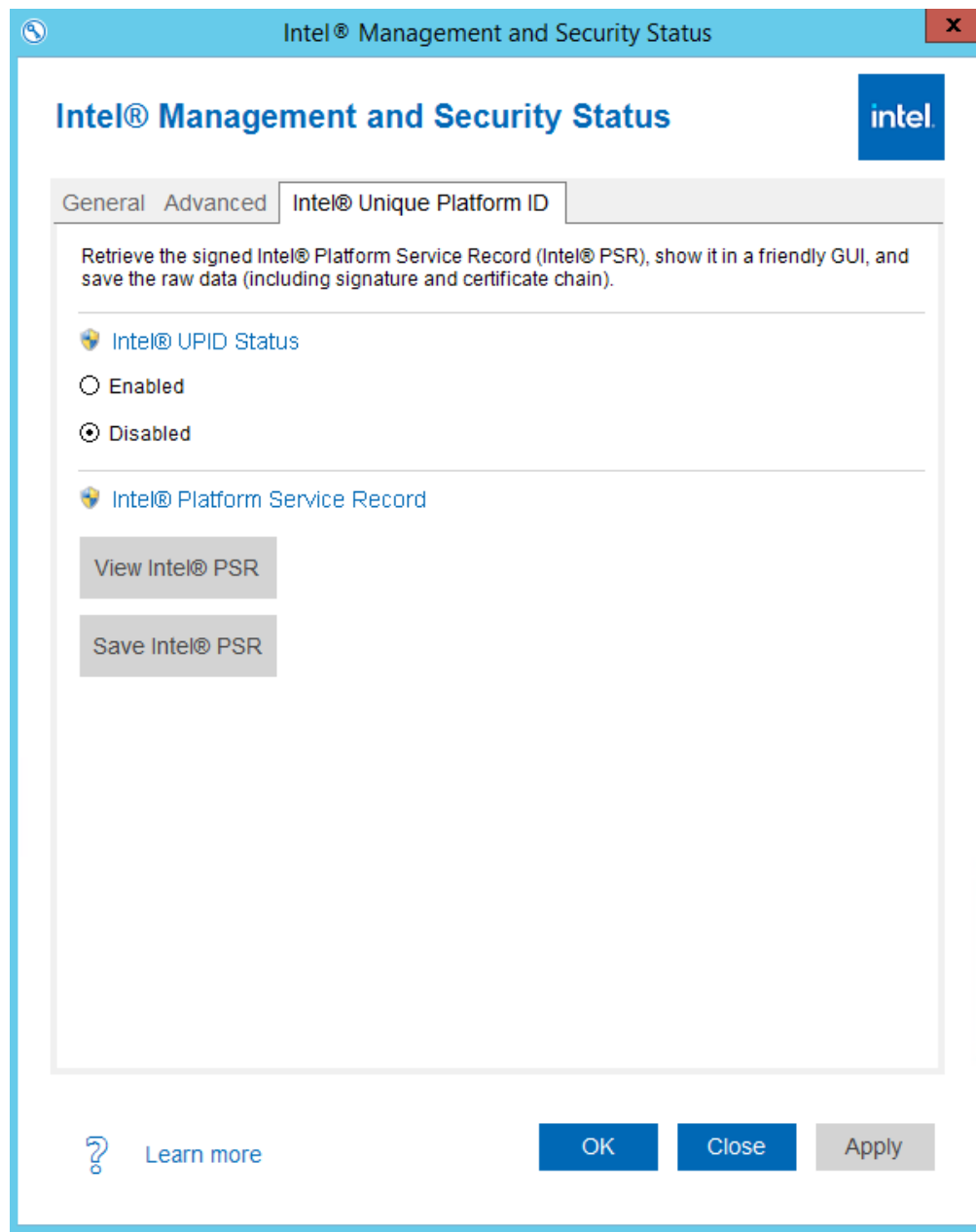
### 3.5.1 Intel® UPID Status

Intel® UPID can be enabled/disabled by clicking the button.

If Intel® UPID is disabled, Platform Service Record will continue to log (collect events, count power transitions, etc...) as usual, but retrieving the log from the OS/BIOS will not be possible.

### 3.5.2 Intel® Platform Service Record

User can view or save Platform Service Record as a file by clicking the accordingly buttons.



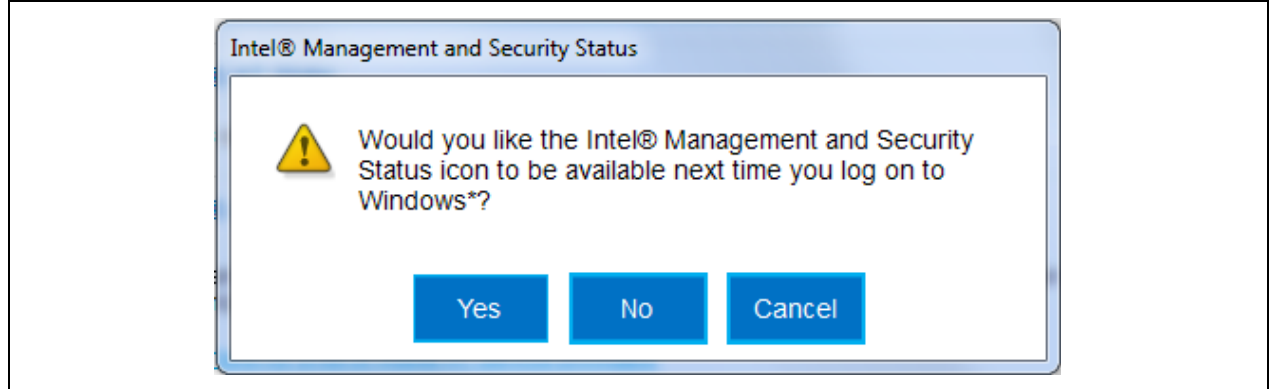
## 3.6 Exiting Application

To exit the application, right click or left click on the Intel® Management and Security Status application icon in the notification area and select **Exit**.





The following window is displayed.



- Click **Yes** to automatically start the Intel® Management and Security Status application when you next log on. (**Note:** this change affects Intel® Management and Security Status application behavior for the current user account only).
- Click **No** to not start the Intel® Management and Security Status application when you next log on. (**Note:** this change affects Intel® Management and Security Status application behavior for the current user account only).

**Note:** This user selection will affect the "Intel® Management and Security Status application will be available next time I log on to Windows\*" checkbox on General Tab.

## 3.7 Windows\* 8.1 and 10

When the application is installed on a Windows\* 8.1 or 10 operating system, a tile is placed on the start screen. This allows the application to send Toast\* notifications to the Windows UI. If the tile is deleted, no Toast\* notifications can be posted.

The application will re-create the tile (if missing) if Intel® Active Management Technology is provisioned on the system.

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## 4 ***Troubleshooting Intel® Management and Security Status Application***

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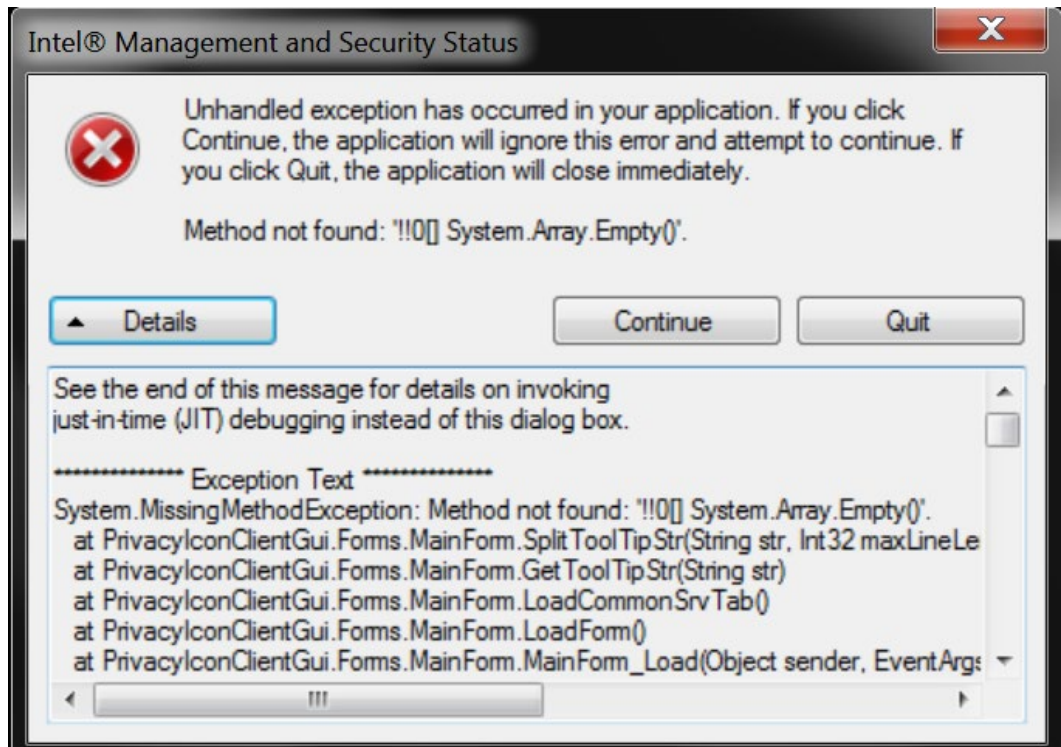
### 4.1 **Error Message Appears upon Application Load**

.NET applications fail when executed in an environment that has no Microsoft\* .NET Framework installed. Microsoft\* does not provide a safeguard mechanism in such conditions.

The Intel® Management and Security Status application will display the following error message if no Microsoft\* .NET Framework is present in the system:



Install Microsoft\* .NET Framework version 4.8 or above and then re-open the application.



If these happen, install Microsoft\* .NET Framework version 4.8 or above and then re-open the application.

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## 5 *Intel® Management and Security Status Application Error Codes*

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### 5.1 Partial Firmware Update Failures

Intel® ME Wireless LAN updates, and User Consent language updates both utilize the 'Partial Firmware Update' feature of Intel® Management and Security Status. In the event that Partial Firmware Update failed, the user will be notified via a balloon that the update failed. The Windows\* Event Log will include an error code, signifying the cause of the failure. The possible causes are listed below:

| Code | Meaning  |
|------|--|
| 8193 | Intel® ME Interface : Cannot locate Intel® ME device driver                              |
| 8703 | PLEASE REBOOT YOUR SYSTEM. Firmware update cannot be initiated without a reboot          |
| 8704 | Firmware update operation not initiated due to a SKU mismatch                            |
| 8705 | Firmware update not initiated due to version mismatch                                    |
| 8706 | Firmware update not initiated due to integrity failure or invalid FW image               |
| 8707 | Firmware update failed due to an internal error  |
| 8708 | Firmware Update operation not initiated because a firmware update is already in progress |
| 8710 | Firmware update tool failed due to insufficient memory                                   |
| 8713 | Firmware update not initiated due to an invalid FW image or header                       |
| 8714 | Firmware update not initiated due to file open or read failure                           |
| 8716 | Invalid usage  |
| 8718 | Update operation timed-out; cannot determine if the operation succeeded                  |



| Code | Meaning  |
|------|--|
| 8719 | Firmware update cannot be initiated because Local Firmware update is disabled          |
| 8722 | Intel® ME Interface : Unsupported message type   |
| 8723 | No Firmware update is happening.   |
| 8724 | Platform did not respond to update request.  |
| 8725 | Failed to receive last update status from the firmware.                                |
| 8727 | Firmware update tool failed to get the firmware parameters.                            |
| 8728 | This version of the Intel® FW Update Tool is not compatible with the current platform. |
| 8741 | FW Update Failed.  |
| 8744 | OEM ID verification failed.  |
| 8745 | Firmware update cannot be initiated because the OEM ID provided is incorrect.          |
| 8746 | Firmware update not initiated due to invalid image length.                             |
| 8747 | Firmware update not initiated due to an unavailable global buffer.                     |
| 8748 | Firmware update not initiated due to invalid firmware parameters.                      |
| 8754 | Encountered error writing to file.   |
| 8757 | Display FW Version failed.   |
| 8758 | The image provided is not supported by the platform.                                   |
| 8759 | Internal Error.  |
| 8760 | Update downgrade vetoed.   |
| 8761 | Firmware write file failure.   |
| 8762 | Firmware read file failure.  |
| 8763 | Firmware delete file failure.  |



| Code | Meaning   |
|------|---|
| 8764 | Partition layout NOT compatible.  |
| 8765 | Downgrade NOT allowed, data mismatched.                                       |
| 8766 | Password did not match.   |
| 8768 | Password Not provided when required.  |
| 8769 | Polling for FW Update Failed.   |
| 8771 | Invalid File.   |
| 8772 | Invalid usage, -allows v switch required to update the same version firmware. |
| 8776 | Get Partition Attribute Failure.  |
| 8777 | Update Info Status Failure.   |
| 8778 | Unable to read FW version from file. Please verify the update image used.     |
| 8780 | Buffer Copy Failure.  |
| 8787 | Password exceeded maximum number of retries.                                  |
| 8793 | FW Update/Downgrade is not allowed to the supplied FW image.                  |
| 8794 | FW downgrade is not allowed due to SVN restriction.                           |

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