Intel® MEBx Settings

Intel® Desktop Boards
Intel® Management Engine BIOS Extension (Intel® MEBx)

The MEBx configuration program can be used to view and change the Intel® Management Engine settings for the computer.

NOTE: The MEBx is intended for use by advanced users. Making changes in the MEBx configuration program can cause system problems. The MEBx configuration should only be changed from default settings to address a specific need.

To access the MEBx:
1. Upon booting the system, after the initial boot screen, the following message is displayed: **'Press <Ctrl-P> to enter MEBx Setup'**
2. Press **Ctrl-P**.

The Main Menu in the MEBx contains the following options:

Setting/Option	Description / Purpose
Intel® ME Configuration	Opens the sub-menu for configuring the Intel® Management Engine.
Intel® AMT Configuration	Opens the sub-menu for configuring Intel® Active Management Technology. *This option appears only on Intel® Desktop Boards that support Intel® AMT, when configured with a vPro-compatible processor.* *For more information on Intel® AMT, see http://support.intel.com/technology/platform-technology/intel-amt/*
Intel® Standard Manageability Configuration	Opens the sub-menu for configuring Intel® Standard Manageability. *This option appears only on Intel® Desktop Boards that support Intel® AMT but that do not have a vPro-compatible processor installed.*
Intel® Remote Wake Technology Configuration	Opens the sub-menu for configuring Intel® Remote Wake Technology. *This option appears only on Intel® Desktop Boards that support Intel® Remote Wake Technology.* *For more information on Intel® Remote Wake Technology, see http://www.intel.com/technology/chipset/remotewake.htm*
Change Intel® ME Password	Intel® ME password must be changed from the default password prior to gaining access to certain ME options. Intel® ME passwords must be between 8 and 32 characters long, have at least one upper case character, one lower case character, one number, and a special character (for example: !, @, #, $, %, ^, &, *). *This option appears only on Intel® Desktop Boards that support Intel® AMT or Standard Manageability.* *The default password, which is the same on all newly deployed systems, is **admin**. When you first enter the Intel MEBx using the default password, you must change the password before you can use any Intel MEBx features.* *If you forget the MEBx password, you'll need to perform a BIOS Recovery and then re-configure Intel® AMT.*

The presence of menus and settings are dependent on your board model, hardware components installed, and the BIOS version.

Intel® MEBx Settings

Refer to the following charts for descriptions and options for the MEBx settings.

Intel® ME Configuration

MEBx Menu	Setting	Options	Description / Purpose
Intel® ME Configuration	Intel® ME State Control	• Disabled • Enabled	The Intel Management Engine State Control (enable/disable) option provides a detach capability during field malfunction debug. You can use this option to disable the Intel Management Engine in order to isolate the Intel Management Engine subsystem from the main platform until the debugging process is complete. Intel Management Engine is not actually disabled via the Disable option. It is paused at a very early stage of the Intel Management Engine boot process so that the system has no traffic originating from the Intel Management Engine on any bus. This ensures that you can debug a system problem without interference from the Intel Management Engine.
Intel® ME Configuration	Intel® ME Firmware Local Update Qualifier	• Always Open • Never Open • Restricted	**Always Open** - Intel® Management Engine FW local update channel is always enabled. Boot cycle will not change "enabled" to "disabled". Intel Management Engine FW Local Update option can be ignored. **Never** - Intel Management Engine FW local update is controlled by Intel ME FW Local Update Option (Enabled/Disabled). Boot cycle will change "enabled" to "disabled". **Restricted** - Intel Management Engine FW local update channel is always enabled only if Intel® AMT is in un-provision state. Boot cycle will not change "enabled" to "disabled".
Intel® ME Configuration > Intel® ME Feature Control	Manageability Feature Selection	• None • Intel® AMT • Intel® Standard Manageability • ASF	The options available for this setting depend on your system configuration.
Intel® ME Configuration > Intel® ME Feature Control	Intel® Quiet System Technology	• Disabled • Enabled	Enables or disables Intel® Quiet System Technology (IQST). IQST is intelligent system fan speed control algorithms that use operating temperature ranges more efficiently to reduce perceived system noise by minimizing fan speed changes.
Intel® ME Configuration > Intel® ME Power Control	Intel® ME ON in Host Sleep States	• Desktop: ON in S0 • Desktop: On in S0, S3 • Desktop: ON in S0, S3, S4-5 • Desktop: ON in S0, ME Wake in S3 • Desktop: ON in S0, ME Wake in S3, S4-5 • Desktop: ON in S0, S3, S4-5, OFF After Power Loss • Desktop: ON in S0, ME Wake in S3, S4-5, OFF After Power Loss	The power package selected will determine when the Intel® Management Engine is turned ON. The default power package turns off the Intel Management Engine in all Sx (S3/S4/S5) states when the system is on AC power.

Intel® AMT Configuration

MEBx Menu	Setting	Options	Description / Purpose
Intel® AMT Configuration	Host Name	User defined	A host name can be assigned to the Intel AMT machine. This will be the hostname of the Intel® AMT enabled system. If Intel® AMT is set to DHCP, the host name MUST be identical to the operating system machine name.
Intel® AMT Configuration	TCP/IP	• DHCP Enabled/Disabled	Shows the current status of DHCP and allows you to enable or disable it.
Intel® AMT Configuration > TCP/IP	IP Address	User defined	Enter the address in dot-decimal notation.
Intel® AMT Configuration > TCP/IP	Subnet Mask	User defined	Enter the address in dot-decimal notation.
Intel® AMT Configuration > TCP/IP	Default Gateway Address	User defined	Enter the address in dot-decimal notation.
Intel® AMT Configuration > TCP/IP	Preferred DNS Address	User defined	Enter the address in dot-decimal notation.
Intel® AMT Configuration > TCP/IP	Alternate DNS Address	User defined	Enter the address in dot-decimal notation.
Intel® AMT Configuration > TCP/IP	Domain Name	User defined	Enter the client system domain name.
Intel® AMT Configuration	Provision Model	• Enterprise • Small Business • Intel Remote PC Assist	Configures the provisioning mode. **Enterprise** mode supports both HTTP Digest and TLS security, however this mode requires a provisioning server to function. **Small-Medium Business** mode supports HTTP Digest only (no TLS support). **Intel® Remote PC Assist** enables you to make a fast call for help and request remote technical assistance from a service provider if you encounter a problem with your PC, even when the OS, network card, or software is not functioning. For more information on Intel® RPAT, see http://www.intel.com/support/services/rpat/.
Intel® AMT Configuration > Setup and Configuration	Current Provisioning Mode	No changeable options	Displays the current provisioning TLS Mode: None, PKI, or PSK. This configuration is only shown in Enterprise Provision Model.
Intel® AMT Configuration > Setup and Configuration	Provisioning Record	No changeable options	Displays the provision PSK/PKI record data of system. If the data has not been entered, the MEBX will display a message that states "Provision Record not present". If the data is entered, the Provision record will display details of the provisioning.
Intel® AMT Configuration > Setup and Configuration	Provisioning Server IP	User defined	Enter the address of the provisioning server in dot-decimal notation.

Intel® AMT Configuration > Setup and Configuration	Provisioning Server FQDN	User defined	Enter the Fully Qualified Domain Name (FQDN) of the provisioning server
Intel® AMT Configuration > Setup and Configuration > TLS PSK	Set PID and PPS	User defined	The PID is an 8 character alpha-numeric string in dash-separated format, e.g. ABCD-123K. The PPS is a 32 character alpha-numeric string in dash-separated format, e.g. EGET-GZFF-C6A6-ORRR-HQXP-C9JI-RJGB-KBS8.
Intel® AMT Configuration > Setup and Configuration > TLS PSK	Delete PID and PPS	Y / N	Deletes the PID and PPS. This will un-provision Standard Manageability
Intel® AMT Configuration > Setup and Configuration > TLS PKI	Remote Configuration Enable/Disable	• Disabled • Enabled	Disables or enables Remote Configuration.
Intel® AMT Configuration > Setup and Configuration > TLS PKI	Manage Certificate Hashes	User defined	Displays the list of hashes that are currently stored and the current status. You can add or delete cerificates or change the active status of the certificates.
Intel® AMT Configuration > Setup and Configuration > TLS PKI	Set PKI DNS Suffix	User defined	Sets the PKI DNS suffix of the provisioning server.
Intel® AMT Configuration	Un-Provision	• Full Unprovision • Partial Unprovision	The option allows the IT-admin to reset Intel® AMT configuration to factory defaults. There are three types of un-provision: **Full Un-provision**: This option resets all AMT settings to their default values. If a PID/PPS value is present, both values will be lost. The MEBX password will remain untouched. **Partial Un-provision**: This option resets all the Intel® AMT settings to their default values, but will not change the PID/PPS, the Intel MEBx password, or the customized hash certificates. **CMOS clear**: This un-provision option is NOT available in the MEBX. This option will clear all values to their default values. If a PID/PPS is present, both values will be lost. The MEBX password will be reset to the default value (admin). To invoke this option, the user needs to clear the CMOS (ex. remove the coin battery).
Intel® AMT Configuration > SOL/IDE-R	User Name and Password	User defined	This option provides the user authentication for SOL/IDER session. If Kerberos is used, this option should be set to DISALBED. The user authentication is through Kerberos. If Kerberos is not used, you can choose to enable or disable user authentication on SOL/IDE-R sessions.
Intel® AMT Configuration > SOL/IDE-R	Serial Over LAN	• Disabled • Enabled	SOL allows console input/output on the Intel® AMT managed client to be redirected to the management server console.

Intel® MEBx Settings

Intel® AMT Configuration > SOL/IDE-R	IDE Redirection	• Disabled • Enabled	IDE-R allows the managed client to be booted from remote disk images on the management console.
Intel® AMT Configuration	Password Policy	• Default Password Only • During Setup and Configuration • Anytime	There are two passwords for the firmware. The Intel MEBx password is the password that is entered when a user is physically at the system. The network password is the password that is entered when accessing an Intel ME enabled system through the network.
Intel® AMT Configuration	Secure Firmware Update	• Disabled • Enabled	This option will allow the user to enable and disable secure firmware updates. Secure firmware updates require an administrator user name and password. If the administrator user name and password are not supplied, the firmware cannot be updated. When the secure firmware update feature is enabled, you can update the firmware using the secure method. Secure firmware updates will pass through the LMS driver. If secure and local firmware updates are disabled, enable them to allow the firmware updates.
Intel® AMT Configuration	Set PRTC	User defined	Enter the Protected Real Time Clock (PRTC) value in GMT (UTC) format (YYYY:MM:DD:HH:MM:SS). Valid date range is 1/1/2004 – 1/4/2021. Setting the PRTC value is used for virtually maintaining the PRTC during a power off (G3) state. This configuration will only be shown for Standard and Advanced Provisioning Model.
Intel® AMT Configuration	Idle Timeout	User defined	This setting is used to enable and disable Intel Management Engine Wake on LAN feature and define Intel Management Engine idle timeout in M1 state as well. Enter the value in minutes.

Intel® Standard Manageability Configuration

MEBx Menu	Setting	Options	Description / Purpose
Intel® Standard Manageability Configuration	Host Name	User defined	A host name can be assigned to the Intel AMT machine. This will be the hostname of the Intel® AMT enabled system. If Intel® AMT is set to DHCP, the host name MUST be identical to the operating system machine name.
Intel® Standard Manageability Configuration	TCP/IP	• DHCP Enabled/Disabled	Shows the current status of DHCP and allows you to enable or disable it.
Intel® Standard Manageability Configuration > TCP/IP	Alternate DNS Address	User defined	Enter the address in dot-decimal notation.
Intel® Standard Manageability Configuration > TCP/IP	Default Gateway Address	User defined	Enter the address in dot-decimal notation.
Intel® Standard Manageability Configuration > TCP/IP	Domain Name	User defined	Enter the client system domain name.
Intel® Standard Manageability Configuration > TCP/IP	IP Address	User defined	Enter the address in dot-decimal notation.

Intel® Standard Manageability Configuration > TCP/IP	Preferred DNS Address	User defined	Enter the address in dot-decimal notation.
Intel® Standard Manageability Configuration > TCP/IP	Subnet Mask	User defined	Enter the address in dot-decimal notation.
Intel® Standard Manageability Configuration	Provision Model	• Enterprise • Small Business • Intel® Remote PC Assist	Configures the provisioning mode. **Enterprise** mode supports both HTTP Digest and TLS security, however this mode requires a provisioning server to function. **Small-Medium Business** mode supports HTTP Digest only (no TLS support). **Intel® Remote PC Assist** enables you to make a fast call for help and request remote technical assistance from a service provider if you encounter a problem with your PC, even when the OS, network card, or software is not functioning.
Intel® Standard Manageability Configuration > Setup and Configuration	Current Provisioning Mode	No changeable options	Displays the current provisioning TLS Mode: None, PKI, or PSK. This configuration is only shown in Enterprise Provision Model.
Intel® Standard Manageability Configuration > Setup and Configuration	Provisioning Record	No changeable options	Displays the provision PSK/PKI record data of system. If the data has not been entered, the MEBX will display a message that states "Provision Record not present". If the data is entered, the Provision record will display details of the provisioning.
Intel® Standard Manageability Configuration > Setup and Configuration	Provisioning Server IP	User defined	Enter the address of the provisioning server in dot-decimal notation.
Intel® Standard Manageability Configuration > Setup and Configuration	Provisioning Server FQDN	User defined	Enter the Fully Qualified Domain Name (FQDN) of the provisioning server
Intel® Standard Manageability Configuration > Setup and Configuration > TLS PSK	Set PID and PPS	User defined	The PID is an 8 character alpha-numeric string in dash-separated format, e.g. ABCD-123K. The PPS is a 32 character alpha-numeric string in dash-separated format, e.g. EGET-GZFF-C6A6-ORRR-HQXP-C9JI-RJGB-KBS8.
Intel® Standard Manageability Configuration > Setup and Configuration > TLS PSK	Delete PID and PPS	Y / N	Deletes the PID and PPS. This will un-provision Standard Manageability

Intel® Standard Manageability Configuration > Setup and Configuration > TLS PKI	Remote Configuration Enable/Disable	• Disabled • Enabled	Disables or enables Remote Configuration.
Intel® Standard Manageability Configuration > Setup and Configuration > TLS PKI	Manage Certificate Hashes	User defined	Displays the list of hashes that are currently stored and the current status. You can add or delete certificates or change the active status of the certificates.
Intel® Standard Manageability Configuration > Setup and Configuration > TLS PKI	Set PKI DNS Suffix	User defined	Sets the PKI DNS suffix of the provisioning server.
Intel® Standard Manageability Configuration	Un-Provision (reset Intel® Standard Manageability Provisioning)	• Full Unprovision • Partial Unprovision	The option allows the IT-admin to reset Intel® AMT configuration to factory defaults. There are three types of un-provision: **Full Un-provision**: This option resets all AMT settings to their default values. If a PID/PPS value is present, both values will be lost. The MEBX password will remain untouched. **Partial Un-provision**: This option resets all the Intel® AMT settings to their default values, but will not change the PID/PPS, the Intel MEBx password, or the customized hash certificates. **CMOS clear**: This un-provision option is NOT available in the MEBX. This option will clear all values to their default values. If a PID/PPS is present, both values will be lost. The MEBX password will be reset to the default value (admin). To invoke this option, the user needs to clear the CMOS (ex. remove the coin battery).
Intel® Standard Manageability Configuration > SOL/IDE-R	User Name and Password	User defined	This option provides the user authentication for SOL/IDER session. If Kerberos is used, this option should be set to DISALBED. The user authentication is through Kerberos. If Kerberos is not used, you can choose to enable or disable user authentication on SOL/IDE-R sessions.
Intel® Standard Manageability Configuration > SOL/IDE-R	Serial Over LAN	• Disabled • Enabled	SOL allows console input/output on the Intel® AMT managed client to be redirected to the management server console.
Intel® Standard Manageability Configuration > SOL/IDE-R	IDE Redirection	• Disabled • Enabled	IDE-R allows the managed client to be booted from remote disk images on the management console.
Intel® Standard Manageability Configuration	Password Policy	• Default Password Only • During Setup and Configuration • Anytime	There are two passwords for the firmware. The Intel MEBx password is the password that is entered when a user is physically at the system. The network password is the password that is entered when accessing an Intel ME enabled system through the network.

Intel® MEBx Settings

Intel® Standard Manageability Configuration	Secure Firmware Update	• Disabled • Enabled	This option will allow the user to enable and disable secure firmware updates. Secure firmware updates require an administrator user name and password. If the administrator user name and password are not supplied, the firmware cannot be updated. When the secure firmware update feature is enabled, you can update the firmware using the secure method. Secure firmware updates will pass through the LMS driver. If secure and local firmware updates are disabled, enable them to allow the firmware updates.
Intel® Standard Manageability Configuration	Set PRTC	User defined	Enter the Protected Real Time Clock (PRTC) value in GMT (UTC) format (YYYY:MM:DD:HH:MM:SS). Valid date range is 1/1/2004 – 1/4/2021. Setting the PRTC value is used for virtually maintaining the PRTC during a power off (G3) state. This configuration will only be shown for Standard and Advanced Provisioning Model.
Intel® Standard Manageability Configuration	Idle Timeout	User defined	This setting is used to enable and disable Intel Management Engine Wake on LAN feature and define Intel Management Engine idle timeout in M1 state as well. Enter the value in minutes.

Intel® Remote Wake Technology Configuration

MEBx Menu	Setting	Options	Description / Purpose
Intel® Remote Wake Technology Configuration	Intel® Remote Wake Technology Support	• Disabled • Enabled	Enables or disables Intel® Remote Wake Technology.
Intel® Remote Wake Technology Configuration	Reset Password	User defined	Resets the password for Intel® Remote Wake Technology.