Dell Latitude 3300

Setup and Specifications Guide

Regulatory Model: P95G
Regulatory Type: P95G001

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

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Welcome - Getting Started

Product overview

The new Dell Latiude 3300 is next in line to the generation of Latitude 3000 series. This series delivers the highest levels of performance, newest technologies, high levels of configurability, and premium industrial design to students that run specific applications as part of their daily activities. It provides a larger screen and more powerful processor (up to Intel Kaby Lake R Core i5) enabling students to create while also providing a low price point that education customers can afford.

Dell Latiude 3300 is a versatile solution that packs the power and performance of a workstation into a class leading portable form factor. The Dell Latitude 3300 is the successor of the Dell Latitude 3380.

The Dell Latitude 3300 is the most powerful and feature-rich rugged notebook, that gives users desktop replacement performance in a mobile form factor. The new Latitude 3300 for education delivers the most versatile solution, with best-in-class durability, empowering students to learn.

Features:

- Kaby Lake U and Kaby Lake R
- 100% SSD, no spinning Hard Drive
- 13.3" HD/FHD Non-touch/touch displays
- 3-cell 42Whr and 4-cell 56Whr batteries
- I/O: 2xUSB3.0, HDMI, micro SD 3.0, upsell 1xUSB-C
- Type-C port with Power Delivery (Optional with non-celeron base)

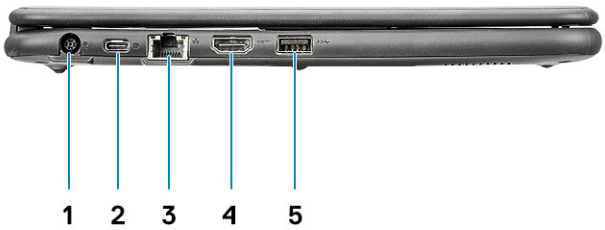
Chassis Overview

This chapter consists of the product view features along with technical specifications. The chassis overview features calls out the different ports, connectors, and components available in the computer.

Base view

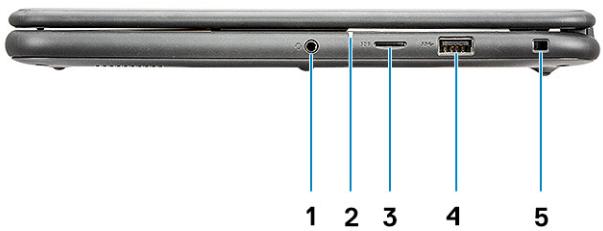
1	System fan vent	2	Heatsink vent
3	SSD vent	4	Service tag
5	Speakers		

Left view



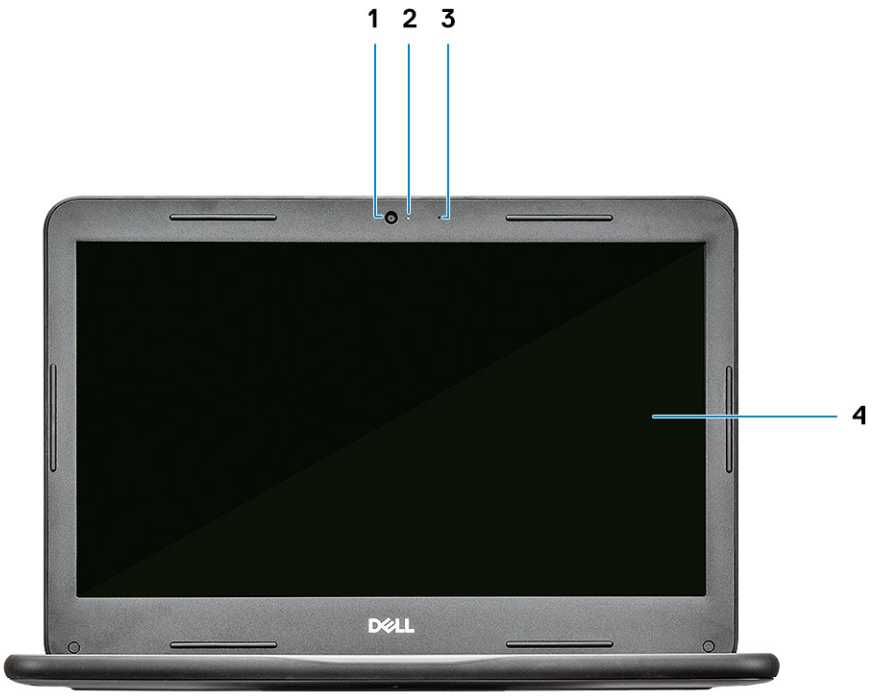
1 Power connector
2 USB Type-C port
3 Network port
4 HDMI port
5 USB 3.0 port

Right view



1 Audio port
2 Battery status light
3 microSD port
4 USB 3.0 port
5 Wedge-shaped lock slot

Front view



1	Camera	2	Camera status light
3	Microphone	4	LCD Panel

Product Comparison

Table 1. Product comparison with predecessor model

	Latitude 3380	Latiude 3300
Processor	**6th Generation (Skylake)** • Intel Core i3-6006U Processor **7th Generation (Kaby Lake)** • Intel Celeron Processor 3865U • Intel Pentium Processor 4415U • Intel Core i5-7200U Processor	**7th Generation (Kaby Lake U)** • Intel Pentium Processor 4415U • Intel Celeron Processor 3865U • Intel Core i3-7020U **8th Generation (Kaby Lake R)** • Intel Core i5-8250U
Chipset	Intel Sky lake and Kaby lake (integrated with processor)	Intel Kaby lake U and R(integrated with processor)

	Latitude 3380	Latiude 3300
Memory	DDR4 2133 MHz; one SoDIMM slots supporting up to 8 GB	One DDR4 SoDIMM slots supporting up to 16 GB • KBL-U: 2133 MHz • KBL-R: 2400 MHz
Storage	• 500 GB 2.5 HDD 7200 RPM • 128 GB/256 GB SSD 2.5” 7 mm SATA Class 20	• PCIe 2230 M.2 SSD • SATA M.2 2242 M.2 eMMC
Graphics	Integrated Intel HD Graphics	• Intel HD Graphics 610 • Intel HD Graphics 620 • Intel UHD Graphics 620
Audio	Realtek ALC3246 Controller	Realtek ALC3246 Controller
Communication	• Integrated Intel i219 10/100/1000 Mb/s Ethernet • Wi-Fi 802.11ac with Bluetooth 4.2 • WWAN 4G LTE Full Mini Card (optional)	• Integrated Realtek RTL8111HSD 10/100/1000 Mb/s Ethernet • WiFi Intel Dual Band Wireless-AC 8265 • WiFi Qualcomm® QCA61x4A Card
I/O connectors	• Three USB 3.0 ports(One with PowerShare) • HDMI 1.4 • One RJ-45 NIC port • One microphone/stereo headphone/ speakers connector • one micro-SIM slot	• Two USB 3.1 Gen 1 Type-A port • One USB 3.1 Gen 1 Type-C port (except Celeron sku) • One RJ-45 NIC connector • Universal audio jack • HDMI 1.4 a
Operating system	• Windows 10 Pro 64 bit • Windows 10 Home 64 bit	• Windows 10 Home (64 bit) • Windows 10 Professional (64 bit) • Windows 10 Professional S mode • Windows 10 Professional Embedded (OEM customers only) • Ubuntu 16.04 LTS (64bit)
BIOS	UEFI BIOS	UEFI BIOS
AC adapter	• 65 W adapter, 7.4 mm barrel	• 65 W Barrel Type, 7.4 mm barrel • USB Type-C with PD (Optional with non Celeron base)
Battery	• 56 Whr (4 cell) Prismatic with ExpressCharge • 56 Whr (4 cell) Long lifecycle Prismatic Battery	• 42 WHr "smart" lithium-ion 3 cell battery • 56 WHr "smart" lithium-ion 4 cell battery
Weight (Pounds/Kilogram)	Starting 3.59 lb (1.62 kg)	Starting 3.52 lb (1.59 kg)

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Technical Specifications

Processor

NOTE: **Processor numbers are not a measure of performance. Processor availability is subject to change and may vary by region/country.**

Table 2. Processor specifications

Type	Type	UMA Graphics
Intel Core i3 - 7020 U (15 W, 3 M cache, 2.3 GHz)	Kaby Lake	Intel HD Graphic 620
Intel Celeron Processor 3865 U (15 W, 2 M cache, 1.80 GHz)		Intel HD Graphic 610
Intel Pentium Processor 4415 U (15 W, 2 M cache, 2.3 GHz)		Intel HD Graphic 610
Intel Core i5-8250 U (15 W, 6 M cache, 1.6 GHz)	Kaby Lake R	Intel UHD Graphic 620

Memory

Table 3. Memory specifications

Memory specification	
Minimum memory configuration	4 GB
Maximum memory configuration	16 GB
Number of slots	1 SODIMM
Maximum memory supported per slot	16 GB
Memory options	• 4 GB - 1 x 4 GB • 8 GB- 1 x 8 GB • 16 GB - 1 x 16 GB
Type	DDR4
Speed	• KBL-U: 2133 MHz • KBL-R: 2400 MHz

Storage

Table 4. Storage specifications

Type	Form factor	Interface	Capacity
M.2 SSD	2230	PCIe	128 GB/256 GB
M.2 eMMC	2242	SATA	64 GB

System board connectors

Table 5. System board connectors

System board connectors	
M.2 Connectors	Two (2230/2242 Key-M, 2230 Key-A)

Media card-reader

Table 6. Media-card reader specifications

Media card-reader	
Type	microSD card slot
Supported cards	• SD • SDHC • SDXC

Audio

Table 7. Following are the audio specifications

Audio specifications	
Controller	Realtek ALC3246
Type	Four-channel high-definition audio
Speakers	Two (Directional speakers)
Interface	• Universal audio jack • High quality speakers • Single microphone • Stereo headset/mic combo
Internal speaker amplifier	2 W (RMS) per channel

Integrated graphics

Table 8. Integrated graphics specifications

Controller	Type	CPU Dependency	Graphics memory type	Capacity	External display support	Maximum resolution
Intel HD Graphics 620	UMA	Intel Core i3 - 7020 U	Integrated	Shared system memory	• HDMI 1.4 a DisplayPort via Type-C	4096 × 2304
Intel UHD Graphics 620	UMA	Intel Core i5 -8250 U	Integrated	Shared system memory	• HDMI 1.4 a DisplayPort via Type-C	4096 × 2304
Intel HD Graphics 610	UMA	Intel Celeron 3865 U/ Pentium 4415 U	Integrated	Shared system memory	• HDMI 1.4 a DisplayPort via Type-C	4096 × 2304

NOTE: Celeron CPU sku does not have the Type-C port

Camera

Table 9. Camera specifications

Specifications	
Resolution	Camera: • Still image: 0.92 megapixels • Video: 1280 x 720 at 30 fps
Diagonal viewing angle	• Camera - 78.6 degree (optical FOV) / 83.5 degree (ME FOV)

Communication

Table 10. Communication specifications

Communications specifications	
Network adapter	Integrated Realtek RTL8111HSD 10/100/1000 Mb/s Ethernet (RJ-45)

Wireless

Table 11. Wireless specifications

Wireless specifications
Intel Dual Band Wireless-AC 8265 802.11AC 2 x 2 Wi-Fi + BT 4.2 LE M.2 Wireless Card
Qualcomm® QCA61x4A 802.11ac MU-MIMO Dual Band (2 x 2) Wi-Fi + Bluetooth 4.2 LE M.2 Wireless Card

Ports and connectors

Table 12. Following are ports and connectors specifications

Ports and connectors specifications	
Memory card reader	microSD 3.0 memory card reader
USB	• Two USB 3.1 Gen 1 Type-A port • One USB 3.1 Gen 1 Type-C port (except Celeron sku)
Security	Wedge-lock slot
Audio	• Universal audio jack • Single microphone
Video	• HDMI 1.4 a • DisplayPort through Type-C port
Network adapter	One RJ-45 connector

Display

Table 13. Following are the display specifications

Display specifications	
Type	• 13.3-inch FHD WVA (1920 x 1080) True-life (16:9) WLED touch screen • 13.3 inch-HD (1366 x 768) Anti-glare (16:9) WLED non-touch screen
Height (Active area)	FHD: 165.24 mm HD: 164.97 mm
Width (Active area)	FHD: 293.76 mm HD: 293.42 mm
Diagonal	FHD: 337.044 mm (13.3 inch)

Display specifications	
	HD: 336.616 mm (13.3 inch)
Luminance/Brightness (typical)	220 nits
Refresh rate	60 Hz
Horizontal viewing angle (min)	FHD: +/- 80 HD: +/- 40
Vertical viewing angle (min)	FHD: +/- 80 HD: +10/- 40

Keyboard

Table 14. Keyboard specifications

Keyboard specifications	
Number of keys	• 82 Keys (U.S.A.) • 83 Keys (U.K.) • 86 Keys (Japan) • 84 Keys (Brazil)
Size	Compressed • X= 19.05 mm key pitch • Y= 18.05 mm key pitch
Backlit keyboard	None
Layout	U.S.A./U.K./Japan/Brazil

Touchpad

Table 15. Touchpad specifications

Specifications	
Resolution	• Horizontal: 3220 • Vertical: 1952
Dimensions	• Width: 4.13 inch (105 mm) • Height: 2.56 inch (65 mm)
Multi-touch	Supports up to 5 fingers **NOTE: Gesture support is dependent on operating system**

Operating system

Table 16. Operating system

Operating system	
Operating systems supported	• Windows 10 Home (64 bit) • Windows 10 Professional (64 bit) • Windows 10 Professional S mode • Windows 10 Professional Embedded (OEM customers only) • Ubuntu 16.04 LTS (64 bit)

Battery

Table 17. Battery specifications

Battery specifications	
Type	• 42 WHr "smart" lithium-ion 3 cell battery • 56 WHr "smart" lithium-ion 4 cell battery
Dimension	1 42 WHr "smart" lithium-ion • Height: 5.9 mm (0.23 inch) • Width: 97.15 mm (3.82 inch) • Depth: 184.15 mm (7.25 inch) • Weight: 0.2 Kg (0.44 lb) 2 56 WHr "smart" lithium-ion • Height: 5.9 mm (0.23 inch) • Width: 98.20 mm (3.87 inch) • Depth: 233.37 mm (9.19 inch) • Weight: 0.25 Kg (0.55 lb)
Voltage	• 42 WHr - 11.40 VDC • 56 WHr - 11.40 VDC
Life span	42 WHr-One year warranty for 300 cycles discharge/charge cycles 56 WHr- Three year warranty for 1000 cycles discharge/charge cycles
Charging time when the computer is off (approximate)	**Express Charge Mode** 0~15 °C : 4 hours 16~45 °C : 2 hours 46~60 °C : 2 hours **Standard Mode** 0~15 °C : 4 hours 16~60 °C : 3 hours

Battery specifications	
	46~60 °C : 3 hours
Operating time	Varies depending on operating conditions and can significantly reduce under certain power-intensive conditions
Temperature range: Operating	0 °C to 35 °C (32 °F to 95 °F) Charge: 0 °C to 50 °C (32 °F to 122 °F) Discharge: 0 °C to 70 °C (32 °F to 158 °F)
Temperature range: Storage	- 20 °C to 65 °C (- 4 °F to 149 °F)
Coin-cell battery	CR2032

Power adapter

Table 18. Power adapter specifications

The following table lists power adapter specifications	
Type	• 65 W Barrel Type • Upsell Type-C Adapter
Input Voltage	100 VAC to 240 VAC
Input current (maximum)	2.5 A
Input frequency	50 Hz to 60 Hz
Output current	3.34 A
Rated output voltage	19.5 VDC
Temperature range (Operating)	0 ºC to 40 ºC (32 ºF to 104 ºF)
Temperature range (Non-Operating)	40 ºC to 70 ºC (-40 ºF to 158 ºF)

Dimensions and weight

Table 19. Dimensions and weight

Dimensions and weight	
Height	Front height - 0.88 inch (22.3 mm) Back height - 0.88 inch (22.3 mm)
Width	12.98 inch (329.6 mm)
Depth	9.07 inch (230.45 mm)
Weight	Starting 3.52 lb (1.59 kg)

Computer environment

NOTE: Airborne contaminant level: G1 as defined by ISA-S71.04-1985.

For information on Dell Product Safety, EMC and Environmental Data Sheets, see https://www.dell.com/learn/us/en/uscorp1/product-info-datasheets-safety-emc-environmental.

Table 20. Computer environment

Physical conditions	Operating	Storage
Temperature range	0 °C to 35 °C (32 °F to 95 °F)	- 40 °C to 65 °C (- 40 °F to 149 °F)
Relative humidity (maximum)	10% to 90% (non-condensing) **NOTE: Maximum dew point temperature = 26 °C**	0% to 95% (non-condensing) **NOTE: Maximum dew point temperature = 33 °C**
Vibration (maximum)	2 Hz to 600 Hz at 0.66 Grms	2 Hz to 600 Hz at 1.33 Grms
Shock (maximum)	160 G†	160 G‡
Altitude (maximum)	3048 m (10,000 ft)	10,668 m (35,000 ft)

* Measured using a random vibration spectrum that simulates user environment.

† Measured using a 2 ms half-sine pulse when the hard drive is in use.

‡ Measured using a 2 ms half-sine pulse when the hard-drive head is in parked position.

Security

Table 21. Security

Security	
Firmware TPM	Yes
Windows Hello Support	Optional
Cable cover	No
Chassis lock slot and loop support	Optional

Security Software

Table 22. Security Software

Security Software	
Dell Endpoint Security Suite Enterprise	Optional
Dell Data Guardian	Optional

Security Software	
Dell Encryption (Enterprise or Personal)	Optional
Dell Threat Defense	Optional
RSA SecurID Access	Optional
RSA NetWitness Endpoint	Optional
MozyPro or MozyEnterprise	Optional
Absolute Data & Device Security	Optional

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System setup

CAUTION: Unless you are an expert computer user, do not change the settings in the BIOS Setup program. Certain changes can make your computer work incorrectly.

NOTE: Before you change BIOS Setup program, it is recommended that you write down the BIOS Setup program screen information for future reference.

Use the BIOS Setup program for the following purposes:

- Get information about the hardware installed in your computer, such as the amount of RAM and the size of the hard drive.
- Change the system configuration information.
- Set or change a user-selectable option, such as the user password, type of hard drive installed, and enabling or disabling base devices.

Topics:

- Boot menu
- Navigation keys
- System setup options
- Boot Sequence
- Updating the BIOS in Windows
- System and setup password

Boot menu

Press <F12> when the Dell logo appears to initiate a one-time boot menu with a list of the valid boot devices for the system. Diagnostics and BIOS Setup options are also included in this menu. The devices listed on the boot menu depend on the bootable devices in the system. This menu is useful when you are attempting to boot to a particular device or to bring up the diagnostics for the system. Using the boot menu does not make any changes to the boot order stored in the BIOS.

The options are:

- UEFI Boot:
  - Windows Boot Manager
-
- Other Options:
  - BIOS Setup
  - BIOS Flash Update
  - Diagnostics
  - Change Boot Mode Settings

Navigation keys

NOTE: For most of the System Setup options, changes that you make are recorded but do not take effect until you restart the system.

Keys	Navigation
Up arrow	Moves to the previous field.

Keys	Navigation
Down arrow	Moves to the next field.
Enter	Selects a value in the selected field (if applicable) or follow the link in the field.
Spacebar	Expands or collapses a drop-down list, if applicable.
Tab	Moves to the next focus area. **NOTE: For the standard graphics browser only.**
Esc	Moves to the previous page until you view the main screen. Pressing Esc in the main screen displays a message that prompts you to save any unsaved changes and restarts the system.

System setup options

NOTE: Depending on the laptop and its installed devices, the items listed in this section may or may not appear.

General options

Table 23. General

Option	Description
System Information	This section lists the primary hardware features of your computer. The options are: · **System Information** · **Memory Configuration** · **Processor Information** · **Device Information**
Battery Information	Displays the battery status and the type of AC adapter connected to the computer.
Boot Sequence	Allows you to change the order in which the computer attempts to find an operating system. The options are: · **Windows Boot Manager** · **Boot List Option:** Allows you to change the boot list options. Click one of the following options: – **Legacy External Devices** – **UEFI**—Default
Advanced Boot Options	Allows you to Enable Legacy Option ROMs. The options are: · **Enable Legacy Option ROMs**—Default · **Enable Attempt Legacy Boot**

Option	Description
UEFI Boot Path Security	Allows you to control whether the system prompts the user to enter the Admin password when booting to a UEFI boot path. Click one of the following options: · **Always, Except Internal HDD**—Default · **Always** · **Never**
Date/Time	Allows you to set the date and time. The change to the system date and time takes effect immediately.

System configuration

Table 24. System Configuration

Option	Description
Integrated NIC	Allows you to configure the integrated network controller. Click one of the following options: · **Disabled** · **Enabled** · **Enabled w/PXE**—Default
SATA Operation	Allows you to configure the operating mode of the integrated SATA hard-drive controller. Click one of the following options: · **Disabled** · **AHCI** · **RAID On**—Default **NOTE: SATA is configured to support RAID mode.**
SMART Reporting	This field controls whether hard drive errors for integrated drives are reported during system startup. This technology is part of the S.M.A.R.T (Self Monitoring Analysis and Reporting Technology) specification. This option is disabled by default. · **Enable SMART Reporting**
Drives	These fields let you enable or disable various drives on board. The options are: · **SATA-0** · **M.2 PCIe SSD-0**
SMART Reporting	This field controls whether hard drive errors for integrated drives are reported during startup. The option is disabled by default.

Option	Description
USB Configuration	Allows you to enable or disable the internal/integrated USB configuration. The options are: · **Enable USB Boot Support** · **Enable External USB Ports** All the options are set by default. **NOTE: USB keyboard and mouse always work in the BIOS setup irrespective of these settings.**
Dell Type-C Dock Configuration	Allows you to connect to Dell WD and TB family of docks(Type-C Docks) independent of USB and thunderbolt adapter configuration. This option is enabled by default.
Audio	Allows you to enable or disable the integrated audio controller. By default, the **Enable Audio** option is selected. The options are: · **Enable Microphone** · **Enable Internal Speaker** This option is set by default.
Touchscreen	This option controls whether the touchscreen is enabled or disabled This option is enabled by default.
Miscellaneous devices	Allows you to enable or disable various on board devices. · **Enable Camera**—Default · **Enable Secure Digital (SD) Card** · **Secure Digital (SD) Card Boot** - Disabled · **Secure Digital Card (SD) Read-Only Mode** - Disabled

Video screen options

Table 25. Video

Option	Description
LCD Brightness	Allows you to set the display brightness depending upon the power source. On Battery(50% is default) and On AC (100 % default).

Security

Table 26. Security

Option	Description
Admin Password	Allows you to set, change, or delete the administrator(admin) password.

Option	Description
	The entries to set password are: · **Enter the old password:** · **Enter the new password:** · **Confirm new password:** Click **OK** once you set the password. **NOTE: For the first time login, "Enter the old password:" field is marked to "Not set". Hence, password has to be set for the first time you login and then you can change or delete the password.**
System Password	Allows you to set, change, or delete the System password. The entries to set password are: · **Enter the old password:** · **Enter the new password:** · **Confirm new password:** Click **OK** once you set the password. **NOTE: For the first time login, "Enter the old password:" field is marked to "Not set". Hence, password has to be set for the first time you login and then you can change or delete the password.**
Strong Password	Allows you to enforce the option to always set strong password. · **Enable Strong Password** This option is not set by default.
Password Configuration	You can define the length of your password. Min = 4, Max = 32
Password Bypass	Allows you to bypass the System password and the Internal HDD password, when it is set, during a system restart. Click one of the options: · **Disabled**—Default · **Reboot bypass**
Password Change	Allows you to change the System password when the administrator password is set. · **Allow Non-Admin Password Changes** This option is set by default.
Non-Admin Setup Changes	Allows you to determine whether changes to the setup options are allowed when an Administrator Password is set. If disabled the setup options are locked by the admin password. · **Allow Wireless Switch Changes** This option is not set by default.
UEFI Capsule Firmware Updates	Allows you to update the system BIOS via UEFI capsule update packages. · **Enable UEFI Capsule Firmware Updates** This option is set by default.
PTT Security	This option lets you control whether the Platform Trust Technology feature(PTT) is visible to OS.

Option	Description
	The options are : · **PTT On (Enabled by Default)** · **Clear** · **PPI ByPass for Clear Command**
TPM 2.0 Security	Allows you to enable or disable the Trusted Platform Module (TPM) during POST. The options are: · **TPM On**—Default · **Clear** · **PPI Bypass for Enable Command**—Default · **PPI Bypass for Disbale Command** · **PPI Bypass for Clear Command** · **Attestation Enable**—Default · **Key Storage Enable**—Default · **SHA-256**—Default
Computrace (R)	Allows you to activate or disable the optional Computrace software. The options are: · **Deactivate** · **Disable** · **Activate**—Default
CPU XD Support	Allows you to enable or disable the Execute Disable mode of the Processor, OS uses this feature to hinder malicious programs that exploits buffer overflow. · **Enable CPU XD Support**—Default
Admin Setup Lockout	Allows you to prevent users from entering Setup when an administrator password is set. · **Enable Admin Setup Lockout** This option is not set by default.
Master Password Lockout	Allows you to disable master password support. · **Enable Master Password Lockout** This option is not set by default. **NOTE: Hard Disk password should be cleared before the settings can be changed.**
SMM Security Mitigation	Allows you to enable or disable additional UEFI SMM Security Mitigation protection. · **SMM Security Mitigation** This option is not set by default.

Secure boot

Table 27. Secure Boot

Option	Description
Secure Boot Enable	Allows you to enable or disable the Secure Boot Feature. • **Secure Boot Enable**—Default
Secure Boot Mode	Changes to the Secure Boot operation mode modifies the behaviour of Secure Boot to allow evaluation of UEFI driver signatures. Choose one of the option: • **Deployed Mode**—Default • **Audit Mode**
Expert Key Management	Allows you to enable or disable Expert Key Management. • **Enable Custom Mode** This option is not set by default. The Custom Mode Key Management options are: • **PK**—Default • **KEK** • **db** • **dbx**

Intel Software Guard Extensions options

Table 28. Intel Software Guard Extensions

Option	Description
Intel SGX Enable	This field specifies you to provide a secured environment for running code/storing sensitive information in the context of the main OS. Click one of the following options: • **Disabled** • **Enabled** • **Software controlled**—Default
Enclave Memory Size	This option sets **SGX Enclave Reserve Memory Size** Click one of the following options: • **32 MB** • **64 MB** • **128 MB**—Default

Performance

Table 29. Performance

Option	Description
Multi Core Support	This field specifies whether the process has one or all cores enabled. The performance of some applications improves with the additional cores. · **All**—Default · **1**
Intel SpeedStep	Allows you to enable or disable the Intel SpeedStep mode of processor. · **Enable Intel SpeedStep** This option is set by default.
C-States Control	Allows you to enable or disable the additional processor sleep states. · **C states** This option is set by default.
Hyper-Thread Control	Allows you to enable or disable the HyperThreading in the processor. · **Disabled** · **Enabled**—Default

Power management

Table 30. Power Management

Option	Description
AC Behavior	Allows you to enable or disable the computer from turning on automatically when an AC adapter is connected. · **Wake on AC** This option is not set by default.
Enable Intel Speed Shift technology	This option is used to enable/disable Intel Speed Shift Technology. This option is not set by default.
Auto On Time	Allows you to set the time at which the computer must turn on automatically. The options are: · **Disabled**—Default · **Every Day** · **Weekdays**

Option	Description
	• **Select Days** This option is not set by default.
USB Wake Support	Allows you to enable USB devices to wake the system from standby. • **Enable USB Wake Support** • **Wake on Dell USB-C Dock** This option is not set by default.
Wireless Radio Control	This option if enabled, will sense the connection of the system to a wired network and subsequently disable the selected wireless radios (WLAN and/or WWAN). Upon disconnection from the wired network the selected wireless radio will ne enabled. • **Control WLAN radio** This option is not set by default.
Wake on LAN /WLAN	This option allows the computer to power up from the off state when triggered by a special LAN signal. Wake-up from the Standby state is unaffected by this setting and must be enabled in the operating system. This feature only works when the computer is connected to AC power supply. • **Disabled**—Default - Does not allow the system to power on by special LAN signals when it receives a wake-up signal from the LAN or wireless LAN. • **LAN or WLAN** - Allows the system to be powered on by special LAN or WLAN signals. • **LAN Only** - Allows the system to be powered on by special LAN signals. • **WLAN Only** - Allows the system to be powered on by special WLAN signals. • **LAN with PXE Boot A wake up packet is sent to the system in either the S4 or S5**
Block Sleep	This option lets you to block entering to sleep in OS environment. This option is not set by default.
Peak Shift	Allows you enable of disable the Peak shift feature. This feature when enabled minimizes the AC power usage at times of peak demand. Battery doesnot charge between the Peak Shift start and end time Peak Shift Start and End Time can be configured for all weekdays This option set the battery threshold value (15 % to 100 %)
Advanced Battery Charge Configuration	This option enables you to maximize the battery health. By enabling this option, your system uses the standard charging algorithm and other techniques, during the non-work hours to improve the battery health. Advanced Battery Charge Mode can be configured for all weekdays
Primary Battery Charge Configuration	Allows you to select the charging mode for the battery. The options are: • **Adaptive**—Default • **Standard** - Fully charges your battery at a standard rate. • **ExpressCharge**- The battery charges over a shorter period of time using Dell's fast charging technology. • **Primarily AC use** • **Custom** If Custom Charge is selected, you can also configure Custom Charge Start and Custom Charge Stop. **NOTE: All charging mode may not be available for all the batteries.**

Option	Description
Sleep Mode	This field lets you select which sleep mode will be used by the OS. The options are: · **OS Automatic Selection**— Default. · **Forced S3**

Post behavior

Table 31. POST Behavior

Option	Description
Adapter Warnings	Allows you to enable or disable the system setup (BIOS) warning messages when you use certain power adapters. · **Enable Adapter Warnings**—Default
Numlock Enable	Allows you to enable or disable the Numlock function when the system boots. · **Enable Numlock**—Default
Fn Lock Options	Allows you to let hot key combinations Fn + Esc toggle the primary behavior of F1–F12, between their standard and secondary functions. If you disable this option, you cannot toggle dynamically the primary behavior of these keys. · **Fn Lock**—Default Click one of the following options: · **Lock Mode Disable/Standard** · **Lock Mode Enable/Secondary**—Default
Fastboot	Allows you to speed up the boot process by bypassing some of the compatibility steps. Click one of the following options: · **Minimal**—Default · **Thorough** · **Auto**
Extended BIOS POST Time	Allows you to create an additional preboot delay. Click one of the following options: · **0 seconds**—Default · **5 seconds** · **10 seconds**
Full Screen Logo	Allows you to display full screen logo, if your image matches screen resolution. · **Enable Full Screen Logo** This option is not set by default.
Warnings and Errors	Allows you to select different options to either stop, prompt and wait for user input, continue when warnings are detected but pause on errors, or continue when either warnings or errors are detected during the POST process.

Option	Description
	Click one of the following options: • **Prompt on Warnings and Errors**—Default • **Continue on Warnings** • **Continue on Warnings and Errors**
MAC Address Pass-Through	This feature replaces the external NIC MAC address (in a supported dock or dongle) with selected MAC address from the system. Click one of the following options: • **Passthrough MAC Address**—Default • **Integrated NIC 1 MAC Address** • **Disabled**

Virtualization support

Table 32. Virtualization Support

Option	Description
Virtualization	This option specifies whether a Virtual Machine Monitor (VMM) can utilize the additional hardware capabilities provided by the Intel Virtualization technology. • **Enable Intel Virtualization Technology** This option is set by default.
VT for Direct I/O	Enables or disables the Virtual Machine Monitor (VMM) from utilizing the additional hardware capabilities provided by the Intel Virtualization technology for direct I/O. • **Enable VT for Direct I/O** This option is set by default.

Wireless options

Table 33. Wireless

Option	Description
Wireless Switch	Allows to set the wireless devices that can be controlled by the wireless switch. The options are: • **WWAN** • **GPS (on WWAN Module)** • **WLAN** • **Bluetooth** All the options are enabled by default.
Wireless Device Enable	Allows you to enable or disable the internal wireless devices.

Option	Description
	The options are: · **WWAN/GPS** · **WLAN** · **Bluetooth** All the options are enabled by default.

Maintenance

Table 34. Maintenance

Option	Description
Service Tag	Displays the service tag of your computer.
Asset Tag	Allows you to create a system asset tag if an asset tag is not already set. This option is not set by default.
BIOS Downgrade	Allows you to flash previous revisions of the system firmware. · **Allow BIOS Downgrade** This option is set by default.
Data Wipe	Allows you to securely erase data from all internal storage devices. · **Wipe on Next Boot** This option is not set by default.
Bios Recovery	**BIOS Recovery from Hard Drive**—This option is set by default. Allows you to recover the corrupted BIOS from a recovery file on the HDD or an external USB key. **BIOS Auto-Recovery**— Allows you to recover the BIOS automatically. **NOTE: BIOS Recovery from Hard Drive field should be enabled.** **Always Perform Integrity Check**—Performs integrity check on every boot.

System logs

Table 35. System Logs

Option	Description
BIOS events	Allows you to view and clear the System Setup (BIOS) POST events.
Thermal Events	Allows you to view and clear the System Setup (Thermal) events.
Power Events	Allows you to view and clear the System Setup (Power) events.

SupportAssist System Resolution

Table 36. SupportAssist System Resolution

Option	Description
Auto OS Recovery Threshold	The Auto OS Recovery threshold setup options controls the automatic flow for SupportAssist System Resolution Console and for Dell OS Recovery Tool. The options are: · **0** · **1** · **2**—Default · **3**
SupportAssist OS Recovery	The SupportAssist OS Recovery option will enable or disable the boot flow for SupportAssist OS Recovery tool in the event of certain system errors. This option is not set by default.
Fn Lock Options	Allows you to let hot key combinations Fn + Esc toggle the primary behavior of F1–F12, between their standard and secondary functions. If you disable this option, you cannot toggle dynamically the primary behavior of these keys. · **Fn Lock**—Default Click one of the following options: · **Lock Mode Disable/Standard** · **Lock Mode Enable/Secondary**—Default
Fastboot	Allows you to speed up the boot process by bypassing some of the compatibility steps. Click one of the following options: · **Minimal**—Default · **Thorough** · **Auto**
Extended BIOS POST Time	Allows you to create an additional preboot delay. Click one of the following options: · **0 seconds**—Default · **5 seconds** · **10 seconds**
Full Screen Logo	Allows you to display full screen logo, if your image matches screen resolution. · **Enable Full Screen Logo** This option is not set by default.
Warnings and Errors	Allows you to select different options to either stop, prompt and wait for user input, continue when warnings are detected but pause on errors, or continue when either warnings or errors are detected during the POST process. Click one of the following options: · **Prompt on Warnings and Errors**—Default

Option	Description
	• **Continue on Warnings** • **Continue on Warnings and Errors**
MAC Address Pass-Through	This feature replaces the external NIC MAC address (in a supported dock or dongle) with selected MAC address from the system. Click one of the following options: • **Passthrough MAC Address**—Default • **Integrated NIC 1 MAC Address** • **Disabled**

Boot Sequence

Boot Sequence allows you to bypass the System Setup–defined boot device order and boot directly to a specific device (for example: optical drive or hard drive). During the Power-on Self Test (POST), when the Dell logo appears, you can:

- Access System Setup by pressing F2 key
- Bring up the one-time boot menu by pressing F12 key

The one-time boot menu displays the devices that you can boot from including the diagnostic option. The boot menu options are:

- Removable Drive (if available)
- STXXXX Drive

  NOTE: XXX denotes the SATA drive number.
- Optical Drive (if available)
- SATA Hard Drive (if available)
- Diagnostics

  NOTE: Choosing Diagnostics, will display the ePSA diagnostics screen.

The boot sequence screen also displays the option to access the System Setup screen.

Updating the BIOS in Windows

It is recommended to update your BIOS (System Setup), when you replace the system board or if an update is available. For laptops, ensure that your computer battery is fully charged and connected to a power outlet.

NOTE: If BitLocker is enabled, it must be suspended prior to updating the system BIOS, and then re-enabled after the BIOS update is completed.

1. Restart the computer.
2. Go to **Dell.com/support**.
   - Enter the **Service Tag** or **Express Service Code** and click **Submit**.
   - Click **Detect Product** and follow the instructions on screen.
3. If you are unable to detect or find the Service Tag, click **Choose from all products**.
4. Choose the **Products** category from the list.

   NOTE: Choose the appropriate category to reach the product page
5. Select your computer model and the **Product Support** page of your computer appears.
6. Click **Get drivers** and click **Drivers and Downloads**.

   The Drivers and Downloads section opens.
7. Click **Find it myself**.
8. Click **BIOS** to view the BIOS versions.

9 Identify the latest BIOS file and click **Download**.

10 Select your preferred download method in the **Please select your download method below** window, click **Download File**.

The **File Download** window appears.

11 Click **Save** to save the file on your computer.

12 Click **Run** to install the updated BIOS settings on your computer.

Follow the instructions on the screen.

Updating your system BIOS using a USB flash drive

If the system cannot load into Windows but there is still a need to update the BIOS, download the BIOS file using another system and save it to a bootable USB Flash Drive.

NOTE: You will need to use a bootable USB Flash drive. Please refer to the following article for further details: https://www.dell.com/support/article/us/en/19/sln143196/

1 Download the BIOS update .EXE file to another system.

2 Copy the file e.g. O9010A12.EXE onto the bootable USB Flash drive.

3 Insert the USB Flash drive into the system that requires the BIOS update.

4 Restart the system and press F12 when the Dell Splash logo appears to display the One Time Boot Menu.

5 Using arrow keys, select **USB Storage Device** and click Return.

6 The system will boot to a Diag C:\> prompt.

7 Run the file by typing the full filename e.g. O9010A12.exe and press Return.

8 The BIOS Update Utility will load, follow the instructions on screen.

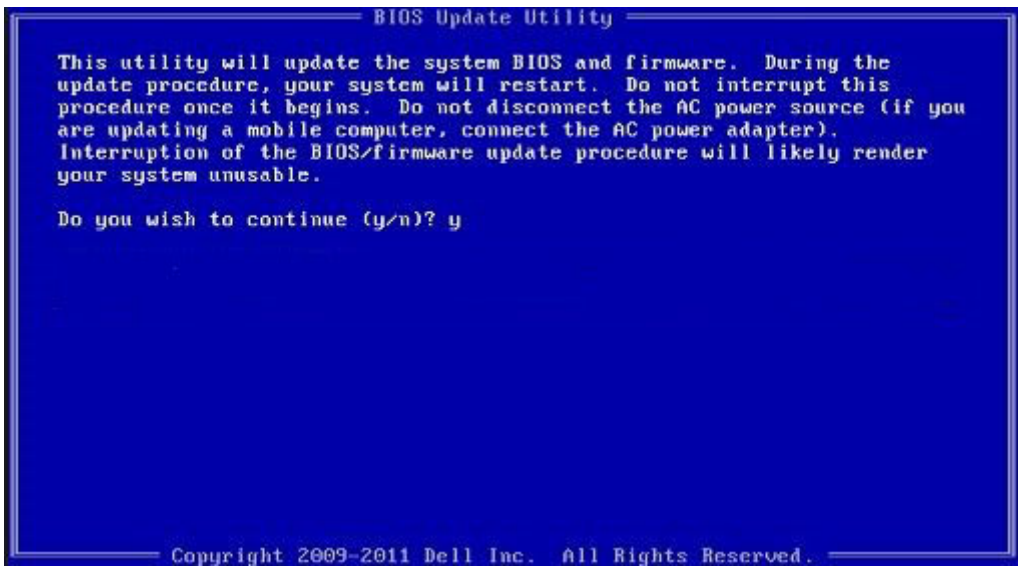

Figure 1. DOS BIOS Update Screen

Updating the Dell BIOS in Linux and Ubuntu environments

If you want to update the system BIOS in a Linux environment such as Ubuntu, see https://www.dell.com/support/article/us/en/19/sln171755/.

System and setup password

Table 37. System and setup password

Password type	Description
System password	Password that you must enter to log on to your system.
Setup password	Password that you must enter to access and make changes to the BIOS settings of your computer.

You can create a system password and a setup password to secure your computer.

CAUTION: The password features provide a basic level of security for the data on your computer.

CAUTION: Anyone can access the data stored on your computer if it is not locked and left unattended.

NOTE: System and setup password feature is disabled.

Assigning a system setup password

You can assign a new **System or Admin Password** only when the status is in **Not Set**.

To enter the system setup, press F2 immediately after a power-on or re-boot.

1. In the **System BIOS** or **System Setup** screen, select **Security** and press Enter.
   The **Security** screen is displayed.
2. Select **System/Admin Password** and create a password in the **Enter the new password** field.
   Use the following guidelines to assign the system password:
   - A password can have up to 32 characters.
   - The password can contain the numbers 0 through 9.
   - Only lower case letters are valid, upper case letters are not allowed.
   - Only the following special characters are allowed: space, (”), (+), (,), (-), (.), (/), (;), ([), (\), (]), (`).
3. Type the system password that you entered earlier in the **Confirm new password** field and click **OK**.
4. Press Esc and a message prompts you to save the changes.
5. Press Y to save the changes.
   The computer reboots.

Deleting or changing an existing system setup password

Ensure that the **Password Status** is Unlocked (in the System Setup) before attempting to delete or change the existing System and/or Setup password. You cannot delete or change an existing System or Setup password, if the **Password Status** is Locked.
To enter the System Setup, press F2 immediately after a power-on or reboot.

1. In the **System BIOS** or **System Setup** screen, select **System Security** and press Enter.
   The **System Security** screen is displayed.
2. In the **System Security** screen, verify that **Password Status** is **Unlocked**.
3. Select **System Password**, alter or delete the existing system password and press Enter or Tab.
4. Select **Setup Password**, alter or delete the existing setup password and press Enter or Tab.

   NOTE: If you change the System and/or Setup password, re-enter the new password when prompted. If you delete the System and/or Setup password, confirm the deletion when prompted.

5 Press Esc and a message prompts you to save the changes.

6 Press Y to save the changes and exit from System Setup.
The computer reboot.