

Are you still suffering system crashes after software updates?

DFI offers Ubuntu-certified hardware you can trust



The Linux desktop operating system, Ubuntu, has gained worldwide recognition as one of the best. With the growing integration of Ubuntu and IoT devices, it is being increasingly utilized to power various applications, including robotics gateways, self-driving cars, drones, and consumer electronics. As a result, many IPC manufacturers are now offering new services to support the use of Ubuntu, and DFI is no exception.

DFI and Canonical signed the Ubuntu IoT Hardware Certification Partner Program. DFI is the world's first industrial computer manufacturer to join the program aimed at offering Ubuntu-certified IoT hardware ready for the over-the-air software update. The certification will guarantee that Ubuntu and Ubuntu Core can run optimally on the platform and the update will be provided for up to 10 years.

The best Ubuntu experience is with certified DFI hardware

Certified devices are tested for reliability and performance, ensuring you have the best out-of-the-box Ubuntu experiences. Canonical's QA team performs hundreds of OS compatibility-focused hardware tests to ensure the best Ubuntu experience. Every aspect of the system is checked and verified. Roughly every 3 weeks, Ubuntu releases Stable Release Updates(SRU), ensuring a secure and reliable experience.

The Hardware Certification team carefully tests these updates to make sure that systems work well with Ubuntu. Canonical conducts tests in dedicated laboratories, located around the world. The “Ubuntu Certified” label is applied to systems that have been verified and are continuously tested by Canonical throughout the Ubuntu release life cycle. Regular testing is performed directly on the hardware throughout the lifecycle of the Ubuntu release for which it has been certified. This approach allows Canonical to control the quality of the released updates on a point-by-point basis and ensures that users of certified hardware get the best experience.

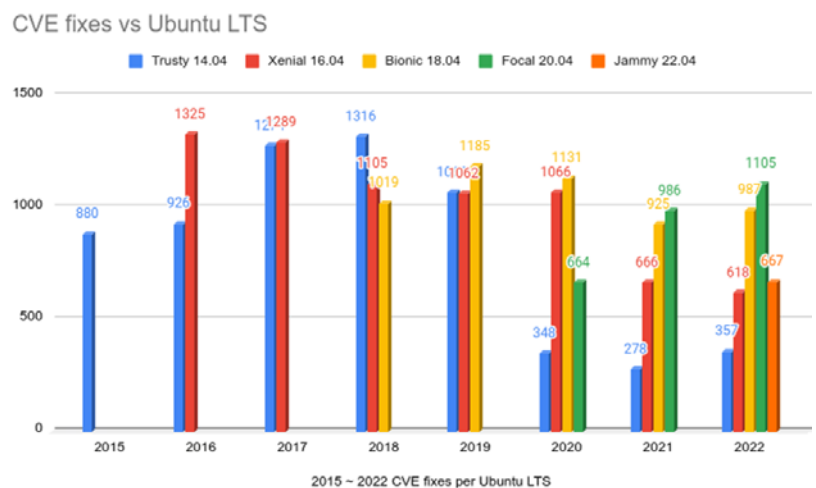
The main purpose of the certification is to ensure that Ubuntu can run stably and smoothly on the device and that there will be no problems such as performance or failure of I/O on the device due to subsequent Kernel updates or Security updates. It is especially common that after the system is updated, the network card or wireless connection fails. In this case, since certified devices are continuously tested in Canonical's Lab, these kind of problems are found and fixed before the patch is delivered to our customers.

On the other hand, certified devices can legally install and execute the Ubuntu operating system, and customers can use the Ubuntu trademark with peace of mind, which is especially important in bidding projects.

The Internet of Things operating system is not as secure as you think it is

Artificial intelligence has changed the ecology of the Internet of Things. In the past, edge computing devices rarely needed to update software, but when edge devices start to perform artificial intelligence inference work and exchange data with the cloud responsible for deep learning, how to update the operating system stably is a severe challenge.

Last but not least, 96% of applications in the enterprise market use open-source software. As the open-source landscape becomes more and more fragmented, the task to assess the impact of potential security vulnerabilities for an organization can become overwhelming. Ubuntu is a leader in security because, every day, the Ubuntu Security team is fixing and releasing updated software packages for known vulnerabilities. It is a continuous 24/7 effort. In fact, on average, the team is providing more than 3 updates each day, and the most vital updates are prepared, tested, and released within 24 hours. To achieve that result, Canonical designed a robust process to review, prioritize and fix the most crucial software vulnerabilities first. Software vulnerabilities are tracked as part of the Common Vulnerabilities and Exposures (CVE) system, and almost security updates published by the Ubuntu Security team (via Ubuntu Security Notices – USNs) are in response to a given public CVE. The Ubuntu Security team manages its own CVE database to track various CVEs against the software packages within the Ubuntu archive.







Introduction to Core

Ubuntu Core, a compact version of Ubuntu, is a modern, safe, and reliable IoT operating system designed for IoT devices deployed in a production environment. It provides over-the-air, atomic software updates through a cloud-based CI/CD (Continuous Integration, Continuous Deployment) service which ensures customers' operations remain safe and uninterrupted. Ubuntu Core is maintained by Canonical to provide security updates to meet IoT requirements for high security, high reliability, and high availability.

	Ubuntu Desktop	Ubuntu Core
Characteristics	<p>Ubuntu Desktop is a freely available, open-source GUI environment</p> <ul style="list-style-type: none"> • GUI Desktop Environment • LibreOffice suite • Firefox web browser • GNOME Terminal • Thunderbird email client • Point & Click text editor • Games • GStreamer multimedia • Accessibility tools (screen reader) • PulseAudio stack • Bluetooth stack • Splash screen while booting 	<p>Ultra-Secure, Fully containerized Ubuntu optimized for IoT & Embedded Devices</p> <ul style="list-style-type: none"> • All system components added as Snaps • Image updated through Snap updates • Ubuntu Frame Snap as Kiosk GUI Application runtime • Components added in System Snap for Audio, Bluetooth, WIFI, LTE, etc. • Command line and REST API
OS Image Size	1.5GB	< 400MB
How To Update	Manual	Automatic
How To Update Behind Firewall	HTTP Proxy	HTTP Proxy Snap Store Proxy
How To Update Without Networking	Landscape (Ubuntu Pro)	AirGap
How to Update for Private Cloud / Server	HTTP Proxy Landscape (Ubuntu Pro)	Snap Store Proxy AirGap
Update Frequency	Manual	Automatic and configurable
Differential Update For Each Version	No	Brand Store
Update Time	Manual	Choose Time Slot
Certification Expense	<ul style="list-style-type: none"> • ODM Program • Annual Fee • Update After 5 Years: Ubuntu Pro • Label 	<ul style="list-style-type: none"> • ODM Program • Annual Fee • Update After 5 Years: Brand Store • Label • Connection Fee

Discover DFI hardware that's been rigorously tested to ensure you get the best Ubuntu experience

Canonical and DFI announce that the EC70A-KU, EC90A-GH, GHF51, and ALF51, have been certified, based on the latest x86-based platform. Both offer improved performance, a smaller footprint, and full access to open-source software with Ubuntu and Ubuntu Core. These are part of the first wave of products that are the Ubuntu certified.

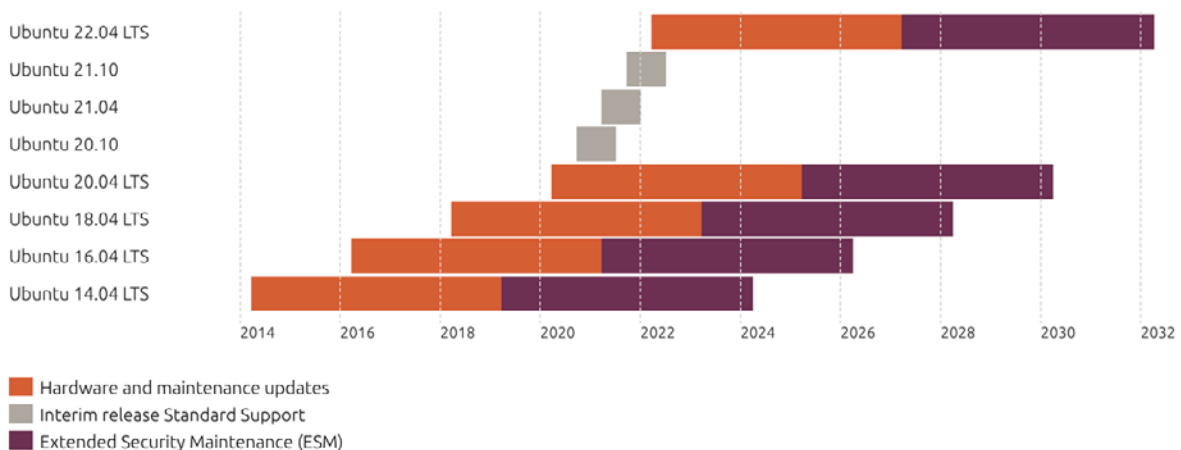
EC70A-KU	GHF51	EC90A-GH	ALF51
			
Fanless embedded system with a very wide range of applications based on Intel Core™ i7/i5/i3	The world's first "industrial-Pi" miniature motherboard equipped with AMD Ryzen™ R1000	The fanless miniature embedded fanless system is based on the GHF51 motherboard	The world's first "industrial-Pi" miniature motherboard equipped with Intel Atom™ E3900

Ubuntu preloaded Service by DFI:

DFI offers the Ubuntu OS preloaded service on the shipping units. To ensure compatibility and stability, the OS-preloaded hardware will be certified by Ubuntu.

The certification includes:

1. Running Canonical's checkbox program for over 100 test cases.
2. Tested every single security update and required fixes on the certified hardware every 3 weeks.



Frequently Asked Question

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<p>Can DFI preload Ubuntu images on shipping devices?</p> <p>Yes, DFI offers the paid Ubuntu OS preloaded service on the shipping units. To ensure compatibility and stability, the OS-preloaded hardware is recommended to be certified by Ubuntu.</p>	<p>Why should I pay for Ubuntu image preinstalled service?</p> <p>According to Ubuntu IP policy, the retribution of modified Ubuntu needs a license agreement from Canonical that is charged. The unmodified Ubuntu provided by Canonical can be redistributed without a license agreement. DFI will certify the target hardware along with the Ubuntu image to ensure the seamless updates of each patch.</p>	<p>Should I pay for a license if we install the image ourselves?</p> <p>Anyone can use modified or unmodified Ubuntu for personal or internal use in an organization for free; however, it is not free and needs to have Canonical's license agreement once the image is modified and redistributed to an external organization. See Ubuntu IP policy here https://ubuntu.com/legal/intellectual-property-policy</p>
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<p>Want to make an informed choice?</p> <p>Visit our webinars before you take the next step. "Why Does Ubuntu Certification Matter for AIoT?"</p>	<p>What DFI devices get Ubuntu Certification?</p> <p>What DFI devices get Ubuntu Certification?</p> <ul style="list-style-type: none"> • EC70A-SU • ALF51 • EC90A-GH • GHF51 • and more to come 	

DFI

Founded in 1981, DFI is a global leading provider of high-performance computing technology across multiple embedded industries. With its innovative design and premium quality management system, DFI's industrial-grade solutions enable customers to optimize their equipment and ensure high reliability, long-term life cycle, and 24/7 durability in a breadth of markets including factory automation, medical, gaming, transportation, smart energy, defense, and intelligent retail.

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