Sailfish OS

The mobile OS with built-in privacy

May 2025

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True Contender in the Mobile OS Market

This paper gives an executive overview of Sailfish OS mobile operating system, and the company behind it, Jolla Mobile Ltd. The paper outlines how Sailfish OS can help Governments and Enterprises regain control of their data and mobile ecosystems, and how Sailfish OS can be adapted and extended to different needs.

Sailfish OS is a Linux-based mobile operating system developed by Jolla Mobile Ltd. The Sailfish OS commercial license includes full source code access, making it a safe choice for Governments and Enterprises. In market since 2013, Sailfish OS comes from Finland, a well-known neutral state in Europe.

Sailfish OS, independent from tech giants, is an evolution of the MeeGo project where Nokia and Intel cumulatively invested hundreds of millions of euros in the development of a Linux-based next generation mobile OS. Jolla was founded by a group of former Nokia MeeGo team members.

Jolla has received Millennium Distinction Award in 2013 for its open source work, and Best of Mobile World Congress award in 2015 for its Sailfish OS based tablet.

100+
Devices supported

113
Million Lines of Code

10000 +
International Media Articles

Versatile Operating System

Sailfish OS is an advanced and modern mobile OS that can be used for different embedded devices, such as smartphones, tablets, feature phones, smartwatches, automotive (IVI), smart TVs and set-top boxes. Sailfish OS provides tools to fully customize the user experience, and many extensions points to roll out your own apps, cloud accounts, location providers, VPN solutions, authentication methods, and so on.

Sailfish Watch Prototype

Jolla Tablet

R7 by INOI

Accione by Jala

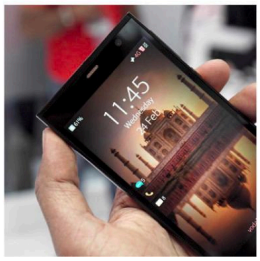
Jolla C

Sony Xperia X

Sony Xperia 10

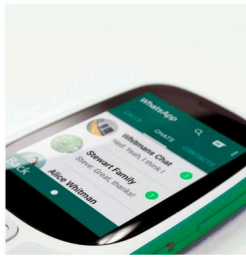
Turing Phone

Accione P by Jala



Intex Aquafish

Jolla Smartphone



Sailfish Feature Phone

Sailfish OS Key Facts

Highly customizable for customer needs. Sailfish OS can be adjusted to perfectly fit the environment and use.

Full source code access, making Sailfish OS a strategic interest for big companies and nations.

High security & privacy solutions. The full operating system is compiled locally by the vendor to provide maximum security and a chain-of-trust.

Support for native Sailfish apps as well as Android apps (Android app support is optional). Compatibility with Android ecosystem also enables a possibility for customers to select Android-based hardware.

Proven commercial capability with great reviews and industry awards. Commercial operator acceptance.

Effortless and logical user experience. The core interactions are based on simple gestures.

Reliable Solution for Enterprises & Governments

Sailfish OS is an optimal solution for countries and enterprises that want to build independent digital ecosystems with selected functionalities. It is an ideal platform for projects, which require handling of sensitive data, such as services for citizens or secure communication solutions.

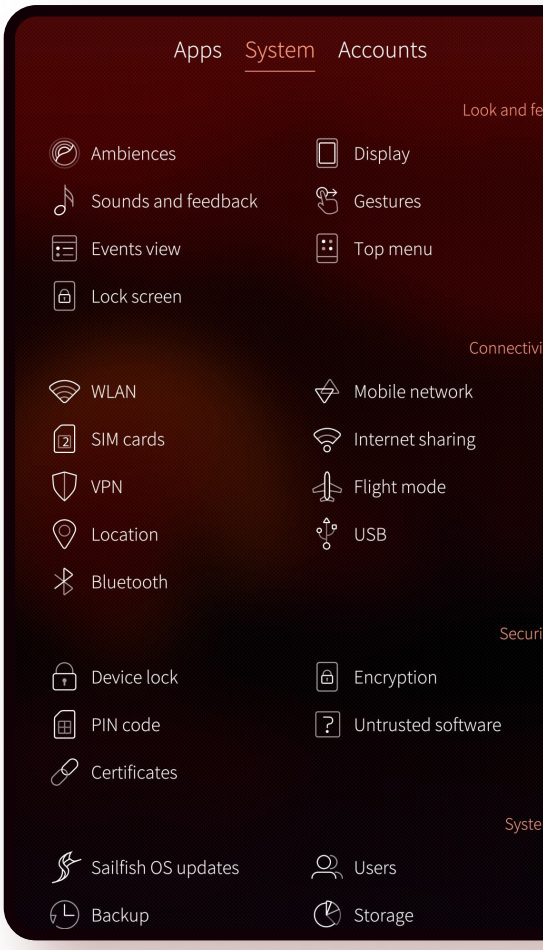
All data, access, and source code in your control

Jolla considers security as an integral part of Sailfish OS and every software development project. Cyber security planning is inherently built into the development processes.

With Sailfish OS, a government or an enterprise can create a secure environment with full control of data and access. In addition, the full operating system is managed locally by the vendor to provide maximum security and a chain-of-trust. The framework allows Licensees to integrate their own security solutions with their own encryption algorithms and services.

The Sailfish OS release practice follows a continuous software delivery paradigm, which means regular delivery of small system updates. The paradigm enables quick reaction to software vulnerabilities. Sailfish OS can be updated over the air in case a critical issue is identified.

Mobile Device Management



Mobile device management (MDM) support in Sailfish OS enjoys first-class citizen status, providing all you need to remotely set up devices, like provision settings and security policies, and manage the software installed on the device.

Multiple users

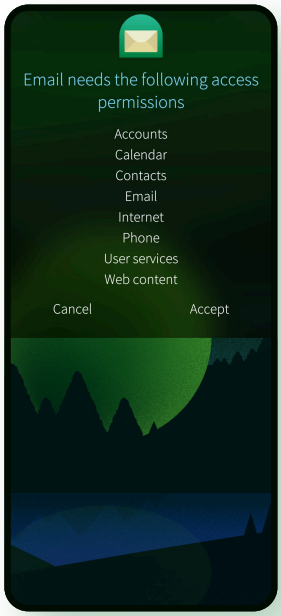
Multiple user support enables efficient device fleet utilization in corporate setup where the mobile device is considered to be more of a shared resource than a personal device.

Provision settings	Monitor devices	Security policies	Device lock policies
Apps	Device info	OS updates	Fingerprint
Users	SIM info	App installs	Encryption req.
Accounts	Location	Browser access	Remote wipe
Cellular APNs	Battery	Camera	Max/min length
Connectivity	Data statistics	Microphone	Failed attempts
Location	Connectivity state	Screenshots	Lock timeout
VPN	Call history	Call blacklist	Expiration
Auto-start list	SMS history	Connectivity	Code generation

MDM feature table. Not a complete list, overall solution contains altogether 22 APIs, 31 security and 26 device lock policies.

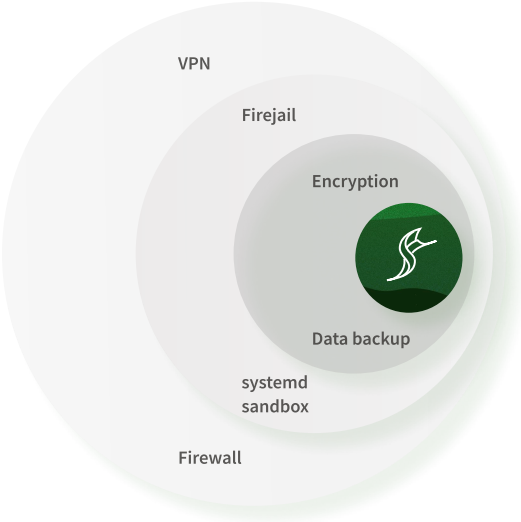
Security

Sailfish OS follows standard Linux architecture, founded on verified and mature security principles, trusted by many companies and security professionals. Linux has been used as the basis for wide variety of security-sensitive environments, developed by thousands of developers with security issues constantly being researched and addressed in the open-source code base.



Defense in depth

Sailfish OS is built on top of multiple layers of protection: user data is encrypted on the device, network communications are secured using VPN and firewall, apps have been sandboxed by Firejail and core system services by systemd sandboxing. If one part of the operating system becomes compromised, the threat will be isolated and the damage contained.



Circle of trust

All apps accepted to Store are reviewed for compatibility and to root out malicious behavior. Submissions are automatically scanned and verified to link only to selected libraries and frameworks deemed safe to use by the 3rd party. Further organizations deploying Sailfish OS devices can use MDM APIs to manage software or develop local stores that provide only locally audited apps considered safe to install.

Effortless User Experience

For the user, content is the king. In Sailfish OS, the UI Chrome, the static screen estate reserved by the OS, is reduced to an absolute minimum bringing your apps, documents and media to the foreground.

Effortless

The core interactions are based on simple gestures, supported by visual, tactile, and audio feedback.

Logical

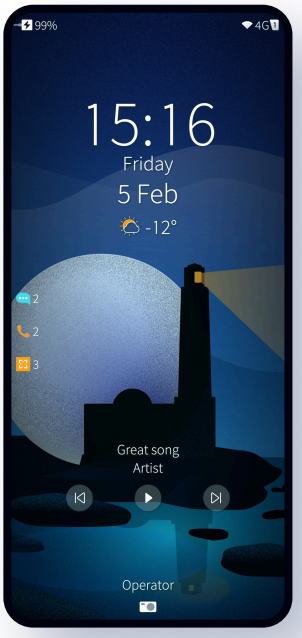
The designs are logical and consistent. Content is presented clearly, text is legible, animations, haptics and sounds follow a consistent overall theme and support user interactions.

Simply beautiful

In Sailfish OS, personal style and co-operation with brands are valued. Designs are simple, beautiful, and uncluttered.

Home

Home is the center of Sailfish OS. You always arrive here after closing or minimizing an app. From Home, you can quickly switch from one app to another or use the embedded Cover Actions to perform actions without leaving Home (only available in native Sailfish OS apps). Home shows all your open apps in minimized form as Covers. The Cover displays key information of the app with a nicer layout than just showing a minimized app view.

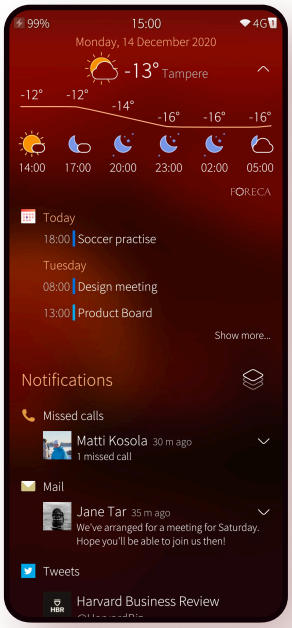


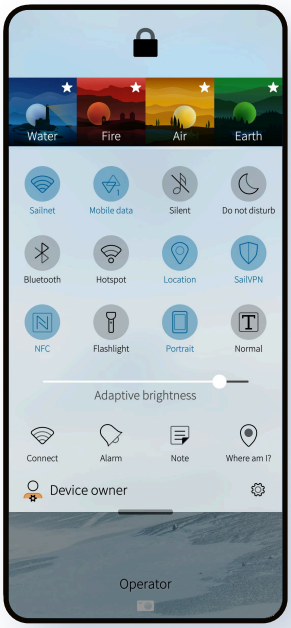
Lock Screen

The Lock Screen prevents accidental usage of the device. When the display is off, you can access the lock screen by double-tapping the display or by pressing the power key. On the Lock Screen you can glance important info like the date and time, current weather, notification indications and other status information. To unlock the device, perform a right or left Edge Swipe.

Events

Events is placed to the left of Home and thus can always be accessed from Home by swiping to right. From here you can check the notifications, calendar, weather and other relevant information. Apps can publish many different kinds of notifications, show progress, define secondary actions (call back, reply to email, etc.) and otherwise customize the layout to fit their needs.



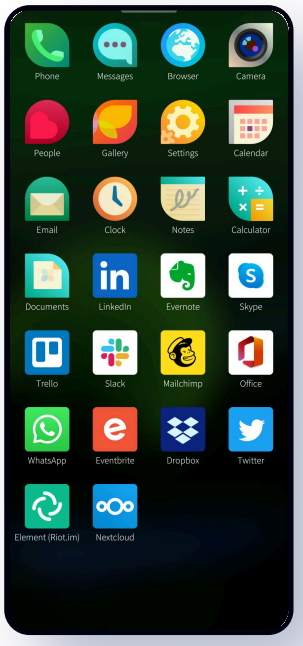


Top Menu

At the Top Menu you can lock the device, switch to another user, control various device settings, set the device to silent or switch to another Ambience. To access this menu, Swipe from the top from anywhere, regardless of whether you are in Home, or in an app. You can also switch off the device from here.

App Grid

The App Grid can be opened from anywhere in the UI with a bottom Edge Swipe. Apps can be rearranged, grouped into folders or uninstalled in housekeeping mode, which can be accessed by long-pressing the App Grid. When apps do not fit anymore to one page, more pages are added below.



Device Applications

Nokia / Meego

2004 - 2011	**Nokia N770 - Nokia N800, Nokia N810 - Nokia N900 - Nokia N9 - Nokia N950**	*From the first Linux-based tablet in N770 and smartphone N900 to the first gesture-based user experience in N9 smartphone*

Jolla / Sailfish OS

2013	**Jolla Mobile Phone**	*The First Smartphone with Sailfish OS*
2014	**Jolla Tablet**	*The First Tablet with Sailfish OS*
2016	**Jolla C**	*Community device program*
	Sailfish Watch	*Smartwatch PoC with Sailfish OS*
	Aqua Fish by Intex	*The First dual SIM device*
	Turing phone by TRI	*Security-focused smartphone*
2017	**Accione and Accione P**	*The First Latin American licensee*
	Sony Xperia X	*Downloadable Sailfish OS*
2018	**Feature Phone**	*Physical key navigation PoC*
	Sony Xperia XA2	*Downloadable Sailfish OS*
	Gemini	*PDA with Full keyboard*
2019	**Sony Xperia 10**	*Downloadable Sailfish OS*
	Android App Support	*For generic Linux platforms*
	Vsmart Joy 3	*Smartphone for Vinsmart (Vietnam)*
2021	**Android AppSupport**	*For Automotive*
	Sony Xperia 10 II	*First Sailfish OS smartphone with 4 cameras*
2022	**Sony Xperia 10 III**	
2024	**Jolla C2**	
2025	**Jolla Mind2**	
	Sony Xperia 10 IV	
	Sony Xperia 10 V	

Sailfish OS has been ported to over a hundred different devices with new devices added regularly using our Hardware Adaptation Development Kit.

Android Apps for Linux Platform

Sailfish OS supports Android™ apps

While the primary focus of Sailfish OS is to enable the development of native Linux applications, it has been deemed necessary to support also existing key apps (such as WhatsApp, WeChat, Slack and Office). The Android Apps for Linux Platforms software enables applications natively developed for Android OS to run on non-Android-based mobile devices, such as Sailfish OS.

The support for Android Apps has been available on most of the devices Jolla Ltd. or its partners have made available since 2013. The currently supported Android version is Android 10 (API level 29).

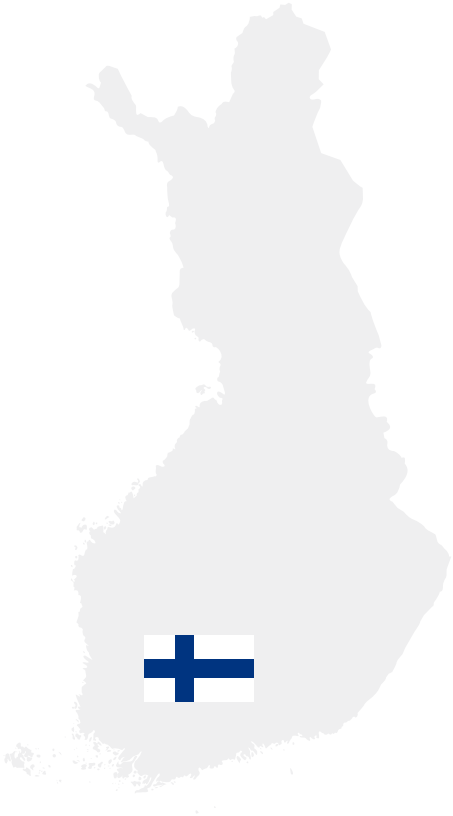
Android App Support memory consumption is 300MB (PSS) measured after starting few apps, using the apps and then force-stopping all the apps.

Any device that works with Linux or Android can also support Sailfish OS

Hardware adaptions enable the use of competitively priced hardware on Sailfish OS. Any device that works with Linux or Android can also support Sailfish OS.

Sailfish OS is the only mobile Linux platform to support Android apps with the state-of-the-art runtime technology. The Android ecosystem compatibility can be either included or left out based on partner preference.

Sailfish OS is an Independent Choice



Independent

Sailfish OS is independent from tech giants, and it is based on several open source projects. The commercial license is provided by Jolla Mobile Ltd. based in Finland, a well-known neutral state in Europe.

Make it yours

Licensees get full source code access to the OS, tooling, and infrastructure, enabling freedom in the true sense of the word. Power your own infrastructure, and develop Sailfish OS further to your own needs.

One size does not fit all

Sailfish OS provides a fresh alternative to the centralized mobile OS market, giving you more power to change the features and their design, and to differentiate and innovate. Create your own rules, take control of your own digital economy.

Privacy-respecting OS

Sailfish OS does not collect or monetize user data, protecting privacy both for individuals and on a national level. Connect devices to the services you trust or set up your own cloud.

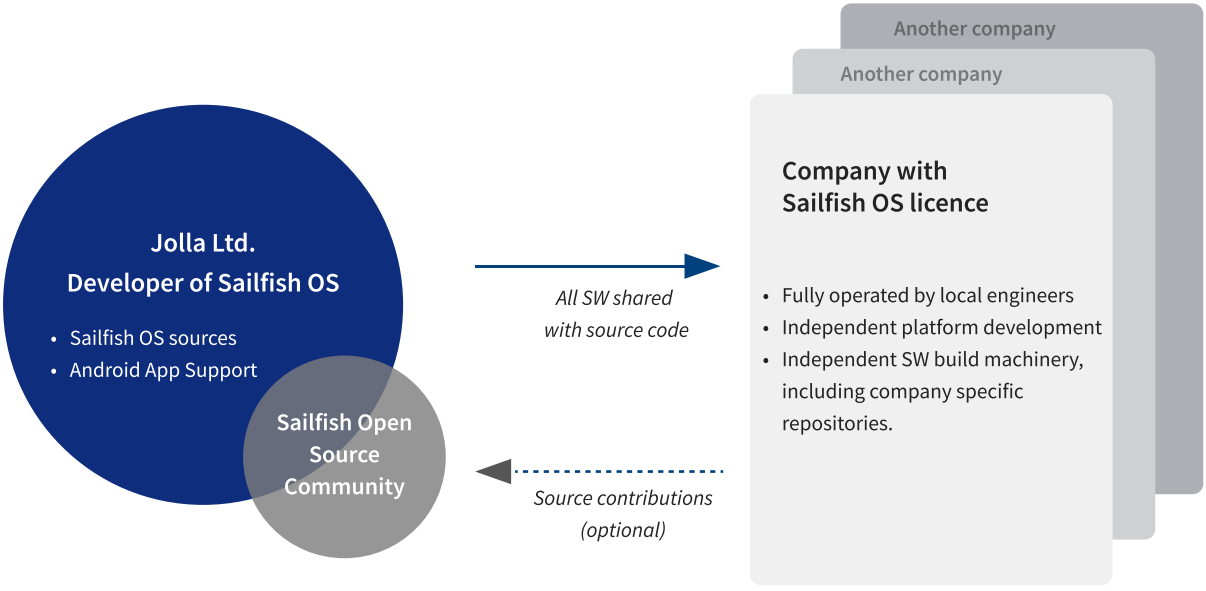
Sailfish OS License Model

The Sailfish OS license gives you the full Source Code for the OS, tooling and infrastructure, and opportunity to build a secure ecosystem based on Sailfish OS. Jolla Ltd. can assist on different phases of the project from the initial knowledge transfer to the final production ramp up.

The full source code access includes both the closed source parts of Sailfish OS and over 500 integrated open source projects. Sailfish OS also supports selected features developed by 3rd parties and technology licenses, such as Microsoft 365 support, XT9™ predictive text input, in-built media decoders etc. All features can be customized per licensee requirements.

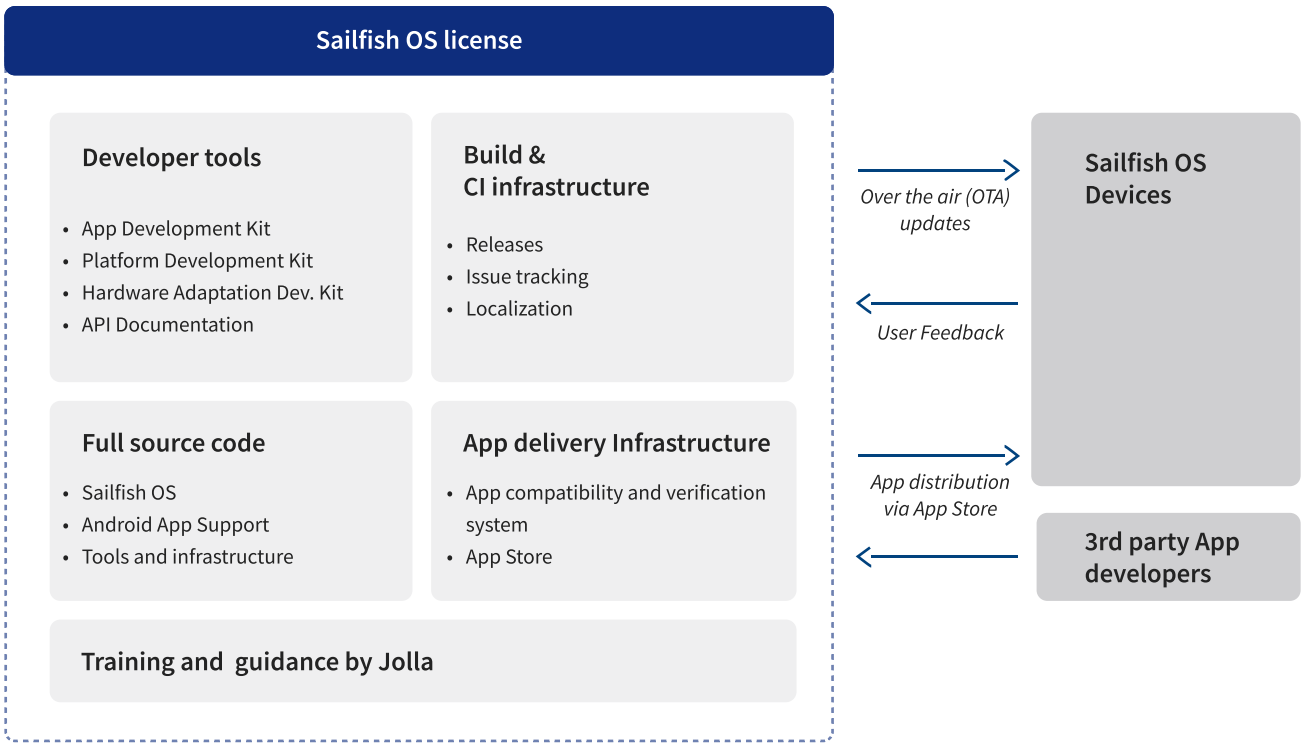
Proof of concept license

You can use an evaluation license to try out how Sailfish OS works for your needs. You can develop a hardware adaptation using selected hardware from any Android or Linux manufacturer.



Full Package

Licensees get access to the partner infrastructure with full toolchain, release machinery, continuous integration (CI) and build systems, as well as issue tracking and localization tools. The infrastructure provides the backbone for the OS development and 3rd party developer services, and manages over-the-air updates and apps available in the store. Projects can rely on the global Jolla infrastructure, or build their own regional infrastructure, either taking the reference infrastructure in use regionally or by hooking the Sailfish OS source projects to their existing infrastructure.



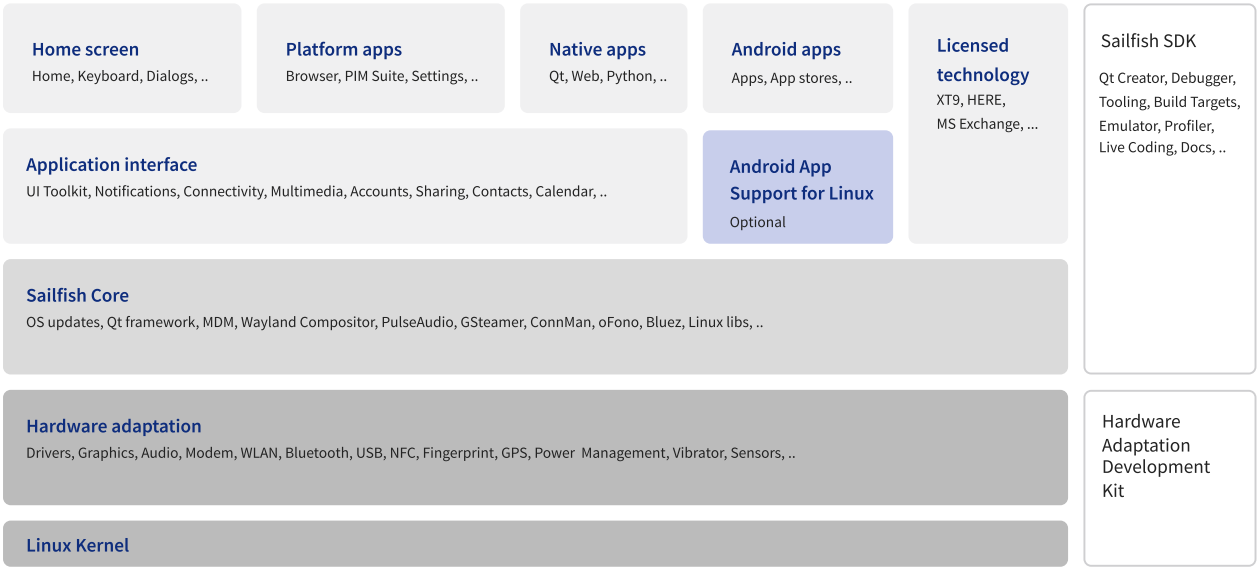
Architecture Overview

Sailfish OS is based on Linux kernel and many widely adopted Linux frameworks like systemd, Wayland, PulseAudio, and GStreamer. Sailfish OS is compatible with common industry standards, such as GSM/LTE, WLAN, Bluetooth, USB, etc. Jolla smartphones and Sailfish OS have passed several cellular operator certifications and go-to-market programs e.g. in Europe and Asia.

The operating system is divided into mutiple layers. Application interface (Sailfish API) can be used for developing apps and other content for the system. Native Sailfish apps are developed using the popular Qt framework.

The Sailfish Core has been built with a framework approach in mind to accommodate additional open or closed source features or functionalities, such as codecs, cryptographic algorithms, accounts, preinstalled apps, etc.

Hardware adaptation is abstracted so that Sailfish OS and installed apps work disregarding the specifics of the underlaying hardware. This makes it easy to port Sailfish OS for different hardware configurations without having to re-compile the entire OS for a specific device. It is also simple and easy to maintain support for existing hardware platforms with low maintenance costs.



About Jolla

We Empower the Mobile OS World with Freedom of Choice

Jolla Mobile Ltd. is the developer and a licensor of European mobile operating system Sailfish OS, an open Linux mobile operating system targeted for corporate and governmental solutions. As part of Sailfish OS, Jolla has developed a solution that enables running Android™ apps on any Linux-based platform.

Jolla was born in 2011 continuing the heritage of Nokia and MeeGo. The company is based in Tampere, Finland.

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