



The mobile OS with built-in privacy

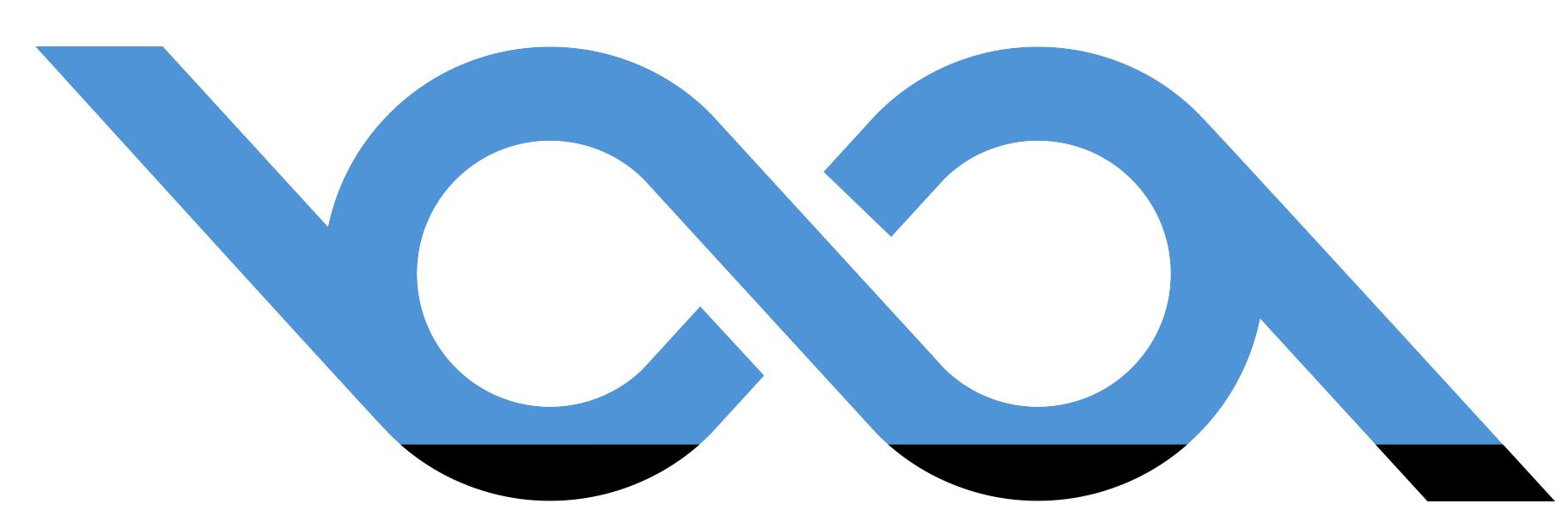




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True contender in the Mobile OS Market

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

Voola OS is a Linux-based mobile operating system developed by Labaratory of seven possibilities UAB. The Voola OS commercial license includes full source code access, making it a safe choice for Governments and Enterprises. In market since 2021, Voola OS comes from Lithuania, a well-known neutral state in Europe.

100+

Devices
supported

113

Million
Lines of Code

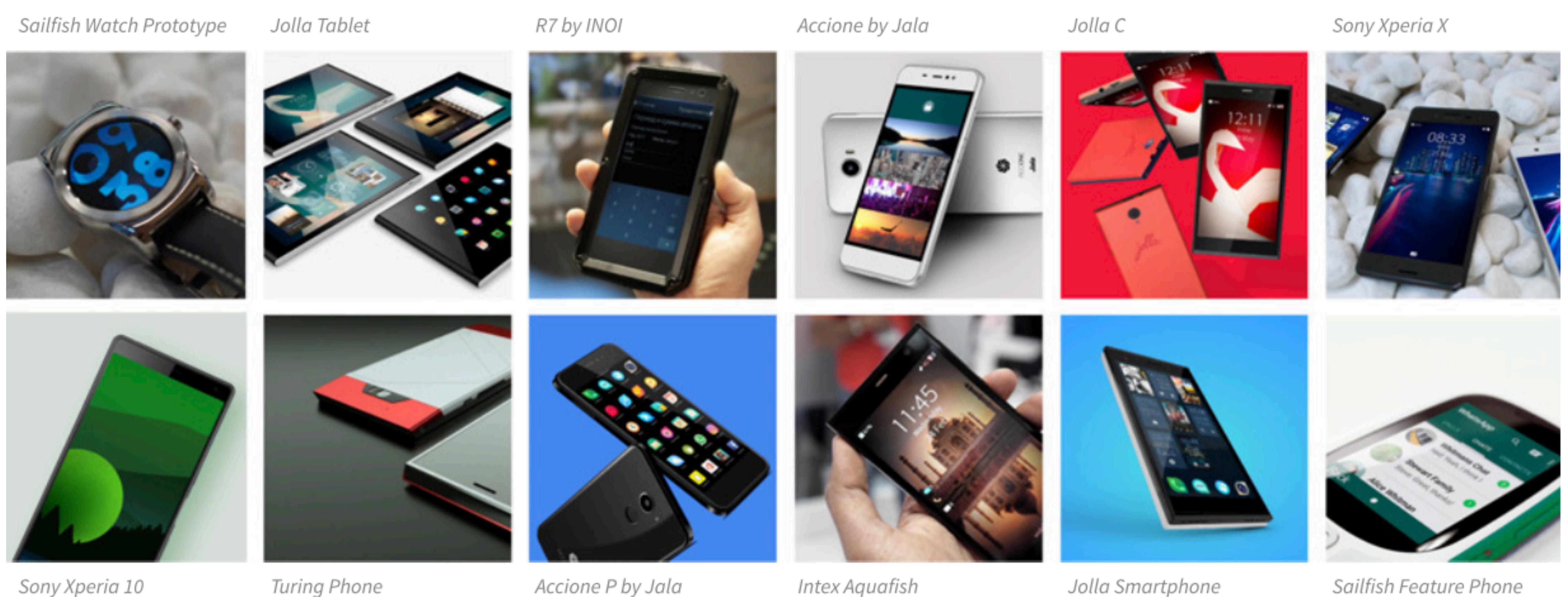
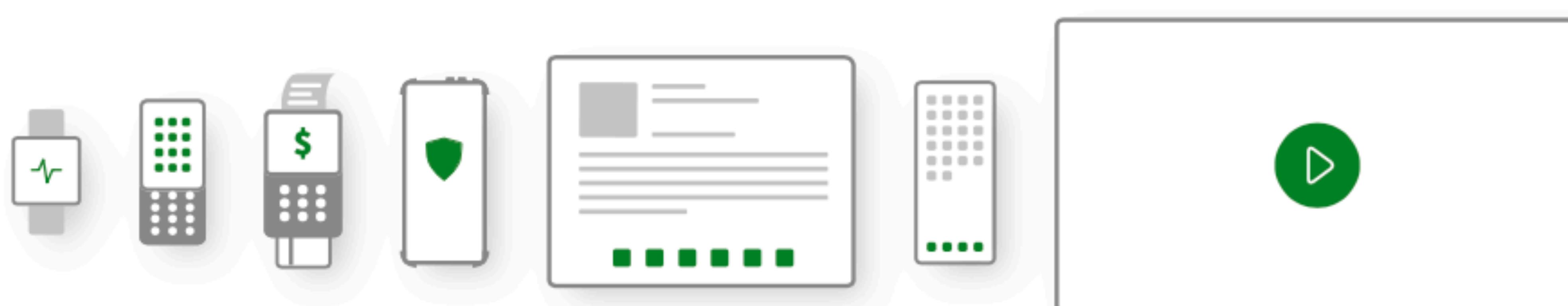
10000 +

International
Media Articles



Versatile Operating System

Voola OS is an advanced and modern mobile OS that can be used for different embedded devices, such as smartphones, tablets, feature phones, smartwatches, automotive, smart TVs and set-top boxes. Voola 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.





Voola OS Key Facts

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

Full source code access, making Voola 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 Voola 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

Voola 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

Labaratory of seven possibilities UAB considers security as an integral part of Voola OS and every software development project. Cyber security planning is inherently built into the development processes.

With Voola 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 Voola 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. Voola OS can be updated over the air in case a critical issue is identified.

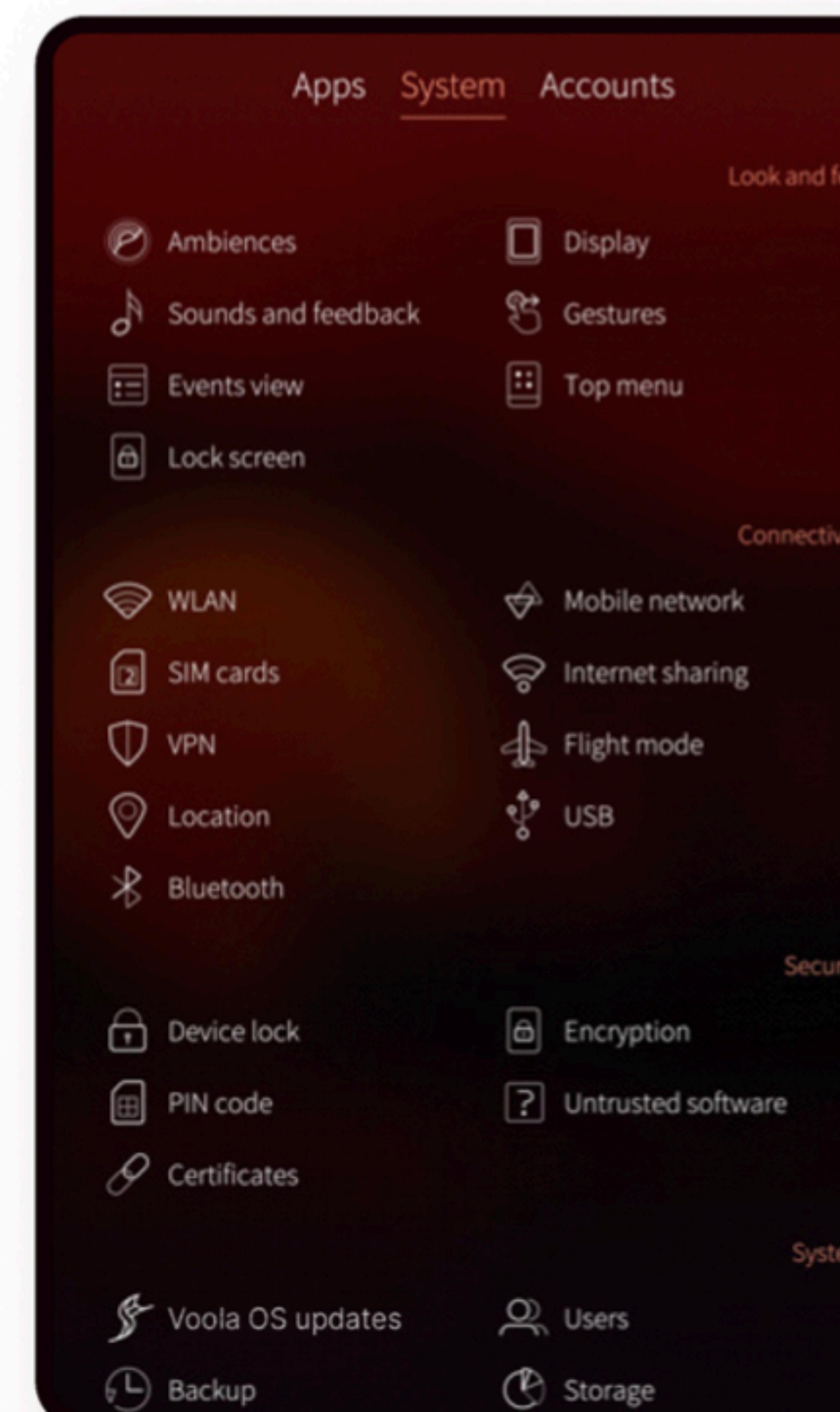


Mobile Device Management

Mobile device management (MDM) support in Voola 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.

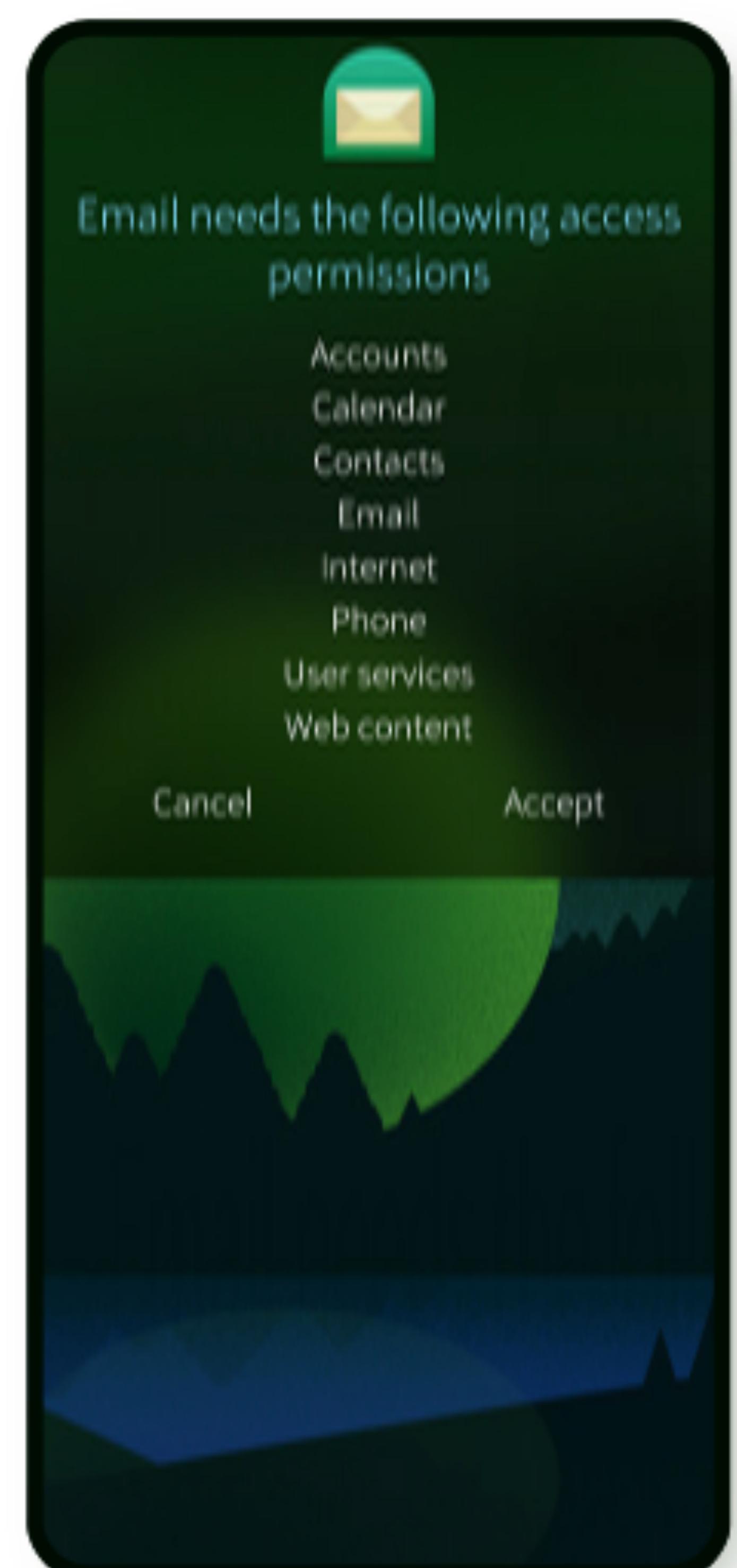


Security

Voola 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

Voola 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 Voola 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 Voola 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.

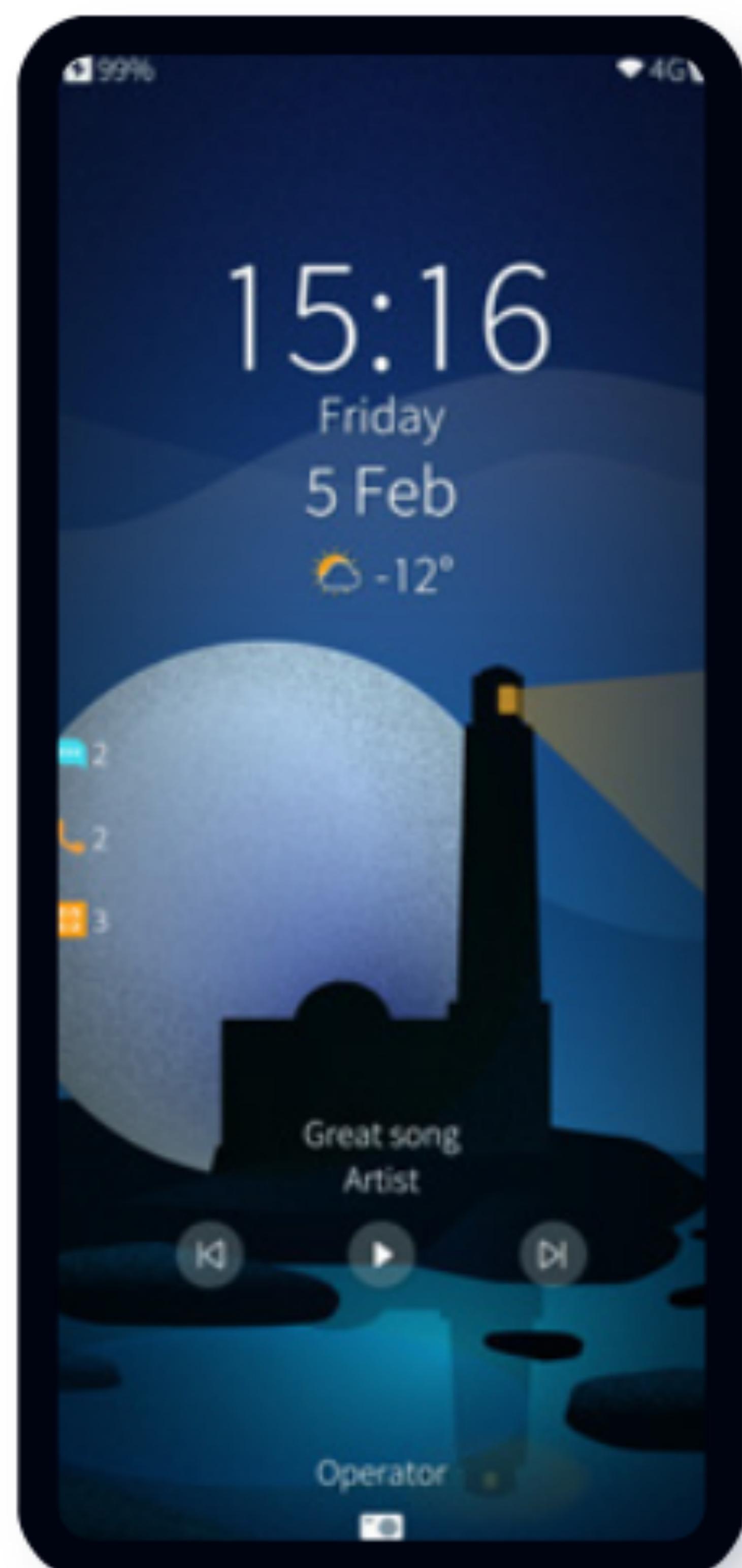
Simply beautiful

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



Home

Home is the center of Voola 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 Voola 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.



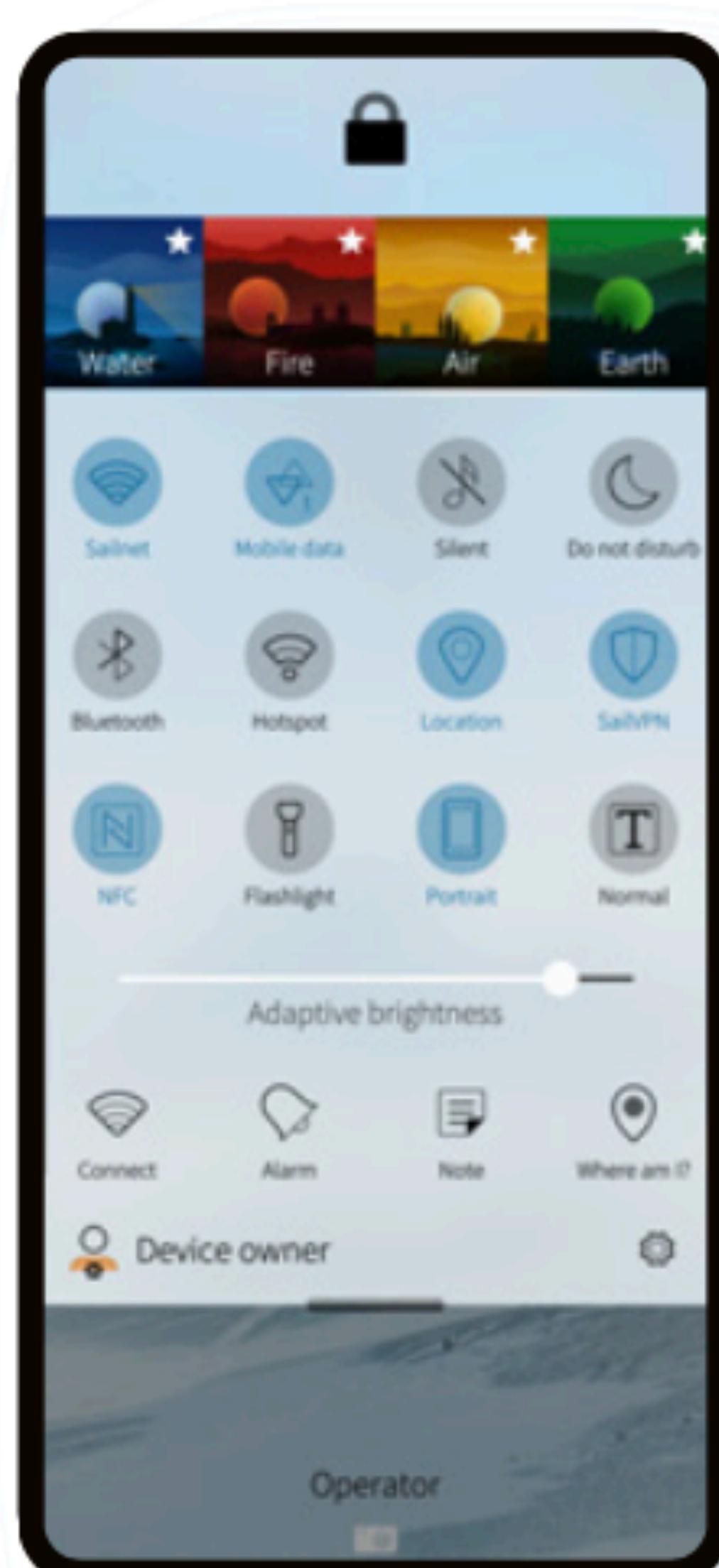
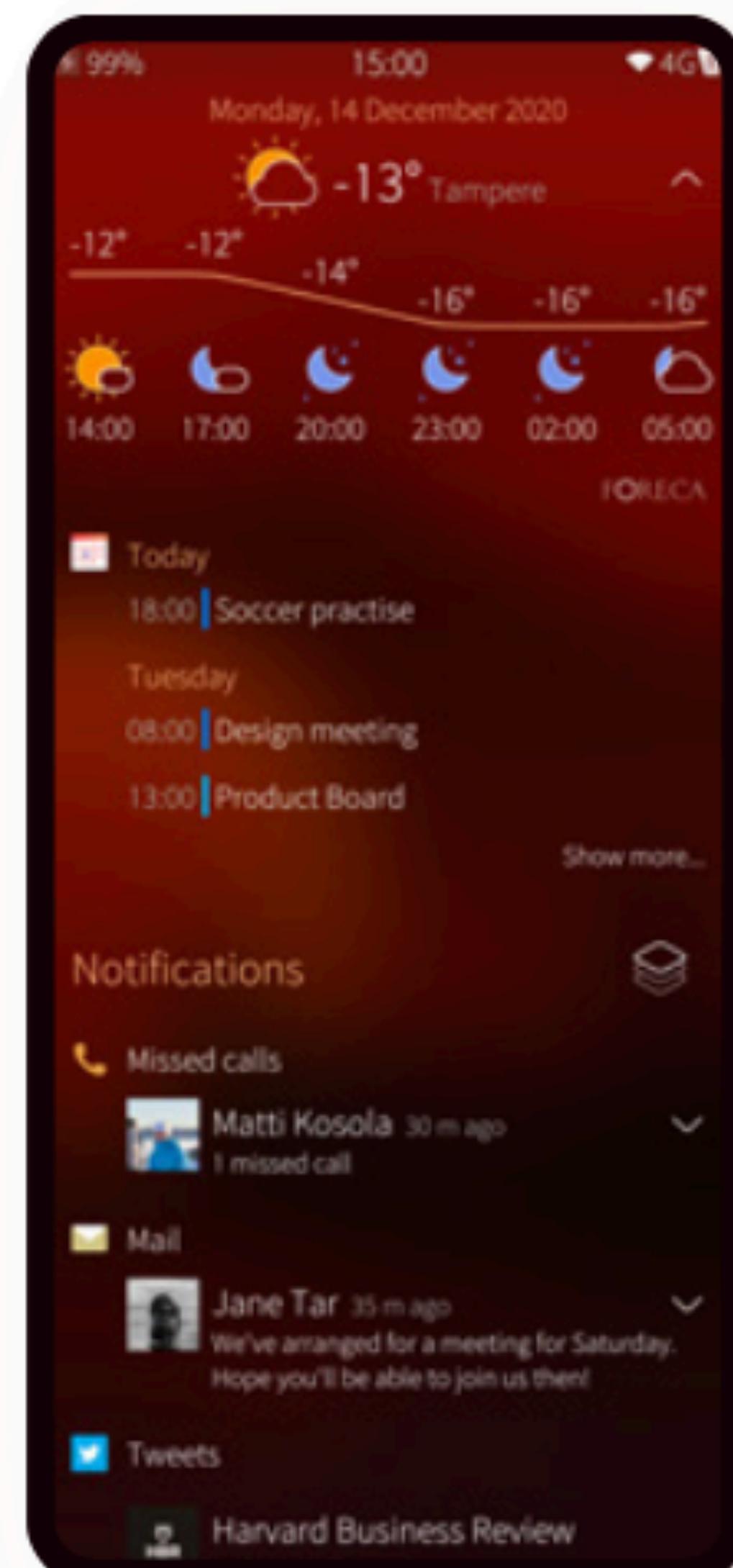
Lock screen

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.



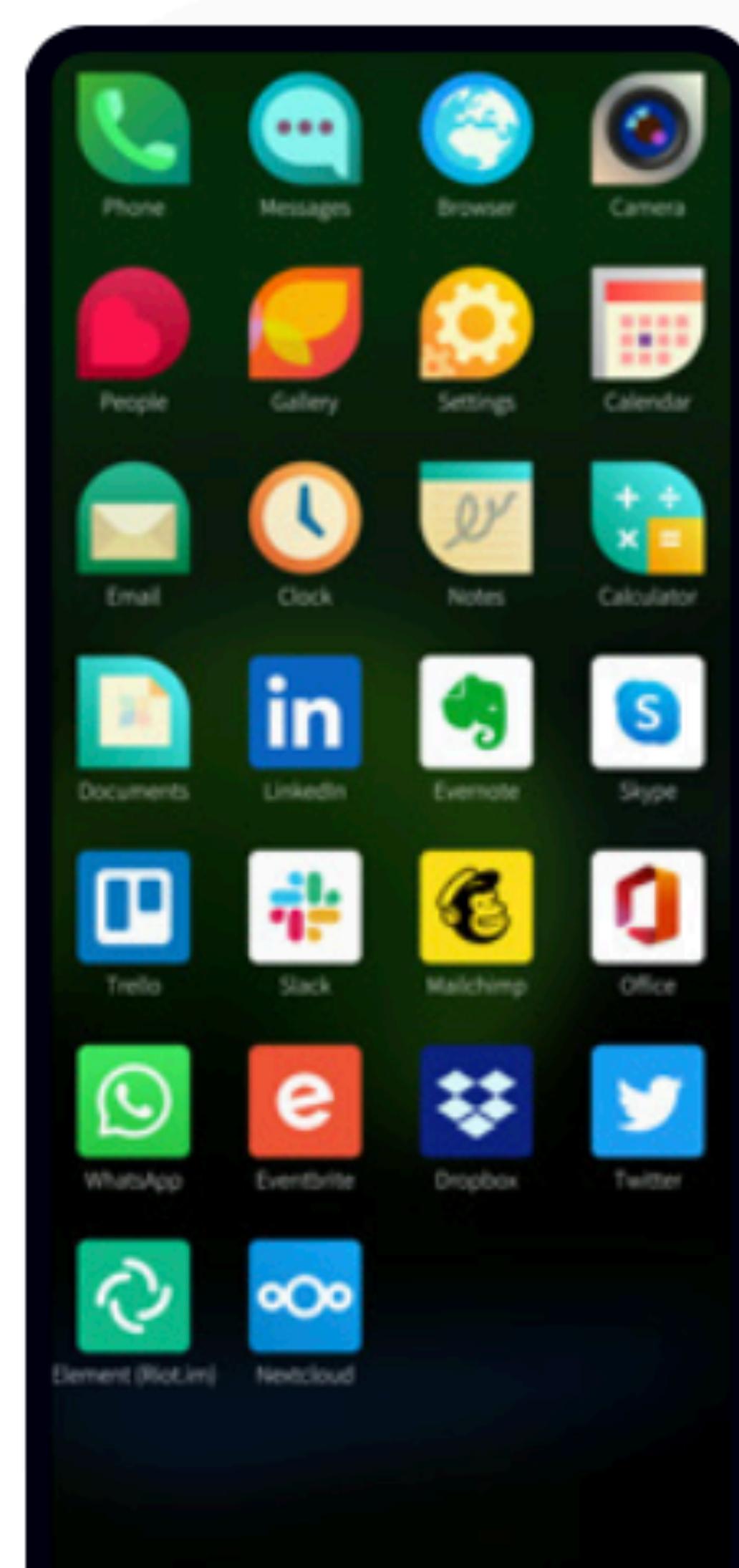
Events

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.





Android Apps for Linux Platform

Voola OS supports Android apps

While the primary focus of Voola 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 Voola OS.

The support for Android Apps has been available on most of the devices Laboratory of seven possibilities UAB or its partners have made available since 2021.

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.

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

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

Voola 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.



Voola OS is independent Choice



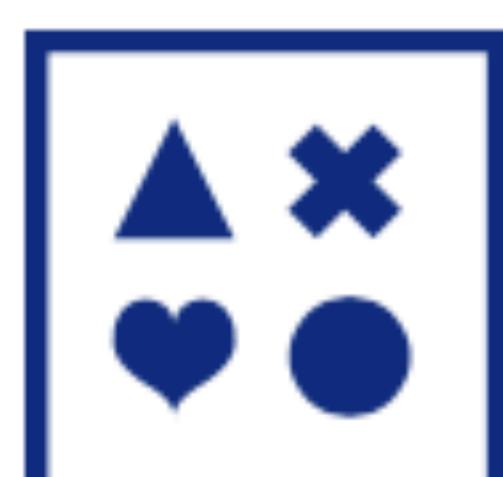
Independent

Voola OS is independent from tech giants, and it is based on several open source projects. The commercial license is provided by Labaratory of seven possibilities UAB 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 Voola OS further to your own needs.



One size does not fit all

Voola 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

Voola 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.





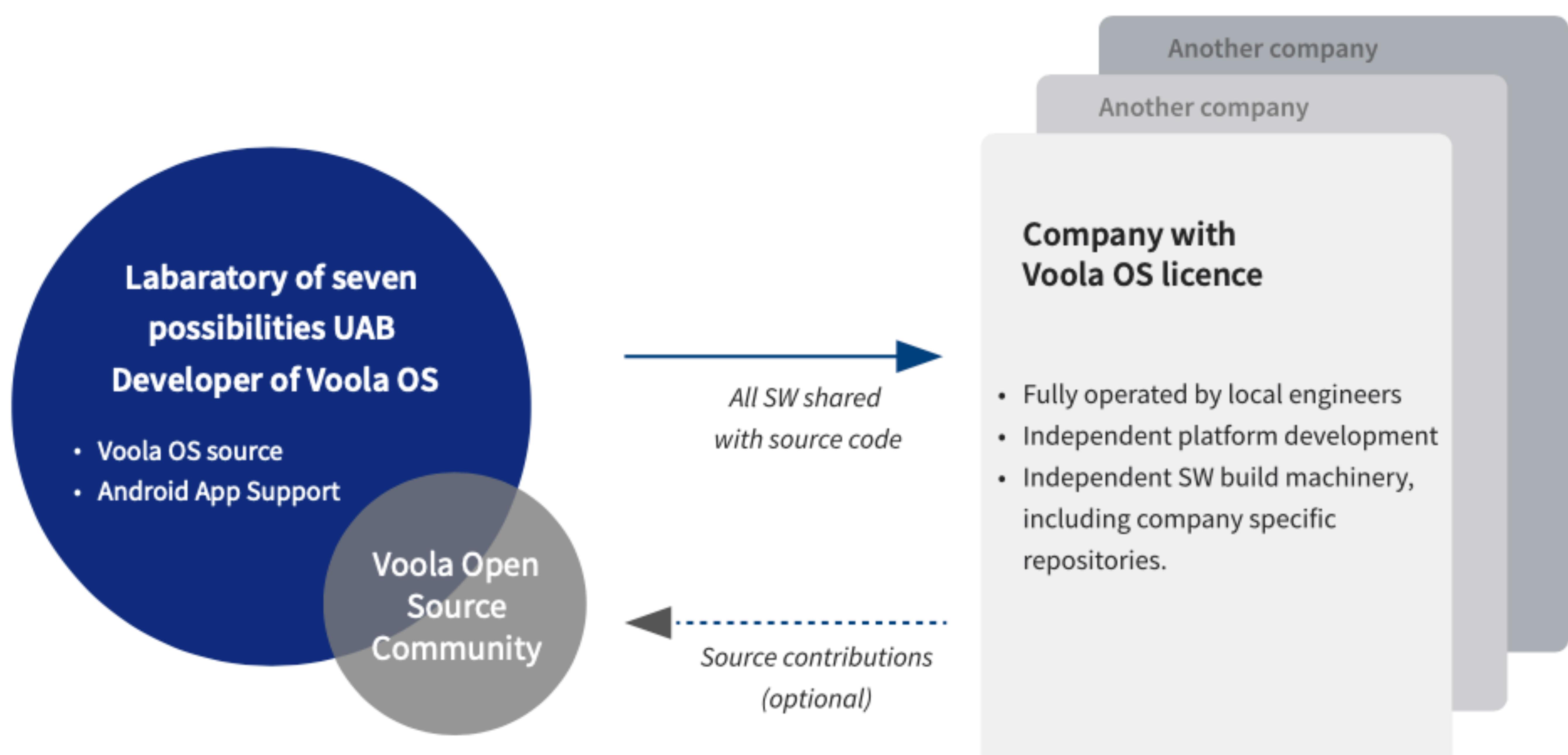
Voola OS License Model

The Voola OS license gives you the full Source Code for the OS, tooling and infrastructure, and opportunity to build a secure ecosystem based on Voola OS. Laboratory of seven possibilities UAB 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 Voola OS and over 500 integrated open source projects. Voola OS also supports selected features developed by 3rd parties (e.g. XT9TM predictive text, HERE positioning) and technology licenses (e.g. Microsoft Exchange, video decoders). All features can be customized per licensee requirements.

Proof of concept license

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





Architecture Overview

Voola OS is based on Linux kernel and many widely adopted Linux frameworks like systemd, Wayland, PulseAudio, and GStreamer. Voola OS is compatible with common industry standards, such as GSM/LTE, WLAN, Bluetooth, USB, etc.

Labaratory of seven possibilities smartphones and Voola 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 (Voola API) can be used for developing apps and other content for the system. Native Voola apps are developed using the popular Qt framework.

The Voola 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 Voola OS and installed apps work disregarding the specifics of the underlaying hardware. This makes it easy to port Voola 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 Labaratory of Seven Possibilities UAB

We empower the Mobile OS World with Freedom Choice

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

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

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