

## Introduction To Sailfish OS

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### I. Abstract

Sailfish OS (abbreviated to SFOS) is a mobile operating system combining the Linux kernel for a particular hardware platform use, the open source Mer core middleware, the proprietary UI contributed by Jolla, and other third party components. Sailfish is being developed by Jolla and the Sailfish community and Mer project communities, corporate members of the Sailfish Alliance and various open community members.

### II. Introduction

Sailfish OS is a mobile operating system for mobiles and tablet PCs. Sailfish OS is developed by Jolla. It is partly open source however the user interface is closed source. It adopts GPL (core and middleware). In 2011 MeeGo team from Nokia left Nokia and established Jolla as a company to use MeeGo and MER business opportunities, due to failure of MeeGo project. The Linux Sailfish OS based on MeeGo and using MER core distribution has been launched for public use in 2012. The first device, Jolla (mobile phone) was introduced on 20 May 2013.

### III. Architecture

Sailfish operating system is built like a classic Linux distribution. The core of the OS is based on the Mer Project, an open, mobile-optimised, core distribution. The signature Sailfish UI has been developed by Jolla using QML, a powerful user experience design language provided by Qt framework. The QML language and features give Sailfish OS the ability to provide a rich set of UI elements, to create animated, touch-enabled UIs and lightweight applications. Jolla has created the UI building blocks to build native applications with custom components called Sailfish Silica.

Sailfish OS also includes the capability to run Android applications. It is based on Android libraries, ensuring performance comparable to the native environment. With Sailfish using Qt5 and Wayland

technology, existing hardware adaptations made for Android can be leveraged, significantly easing the hardware adaptation work required to support the OS.

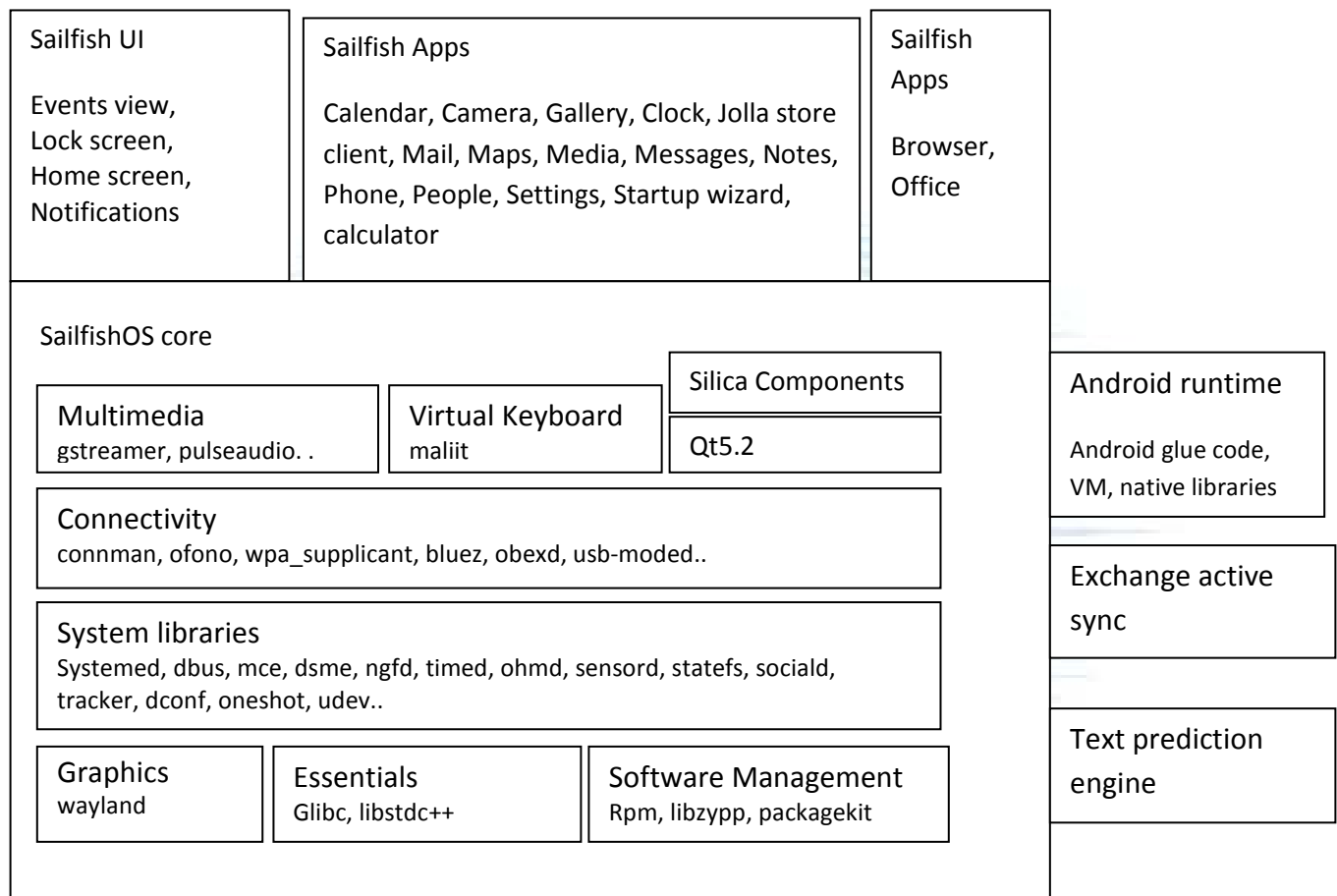


Figure: Sailfish OS Architecture

Mer is free and open source software; powered by QT/QML and HTML5. This project is openly developed. It is the middle layer of architecture. Mer is not an operating system; it is aimed to be one component of an operating system based on the Linux kernel.

#### **IV. Features**

##### **True multitasking**

There's traditional multitasking, then there's multitasking on Sailfish OS. Jolla is the only smart phone that shows all your running apps on one screen, without having to open and close them. From one app, you can trigger a multitasking shortcut. From there, you can change music, write a message or check your email – all without switching apps.

##### **Android capability**

Sailfish OS has the in-built capability to run Android™ apps. So you can continue using your favourite apps like Instagram, Facebook, WhatsApp and Twitter as well as downloading all the latest ones via the Yandex and Aptoide Stores and other Android™ marketplaces.

##### **Gesture based**

Truly smart and truly original, Sailfish OS works with your natural movements to give you the best in-hand experience. Via swipes and shortcuts using just one hand, you can easily interact with all your running apps and services at the same time. And you don't have to look far for the 'home' button, as it's always under your thumb.

#### **V. Devices running Sailfish OS**

- Acer Iconia Tab W500<sup>[52]</sup>
- Acer T231H notebook<sup>[53]</sup>
- ExoPC<sup>[54]</sup>
- Fairphone 2<sup>[55]</sup>
- Google Nexus One<sup>[56]</sup>
- Google Nexus 4<sup>[57][58]</sup>
- Google Nexus 5<sup>[59][60]</sup>
- Google Nexus 7<sup>[61][62]</sup>
- HP Mini<sup>[63]</sup>
- HP Touchpad<sup>[64]</sup>
- HTC Desire HD<sup>[65][66]</sup>

- HTC Desire Z<sup>[67]</sup>
- Nokia N950 and Nokia N9 - during several presentations given by Jolla
- Nokia N9 - unofficial, ported by community<sup>[68]</sup>
- O2 Joggler<sup>[69]</sup>
- OnePlus One<sup>[70]</sup>
- OnePlus X
- PackardBell Butterfly Touch<sup>[63]</sup>
- Raspberry Pi2 - because it uses the ARM Cortex-A7 CPU. (Raspberry Pi1's ARMv6 CPU has a different architecture, and Sailfish requires ARMv7 and above.)<sup>[71][72]</sup>
- PuzzlePhone<sup>[73]</sup>
- Samsung Galaxy S3<sup>[74][75]</sup>
- Samsung Galaxy Nexus<sup>[76][77][78]</sup>
- Sony Ericsson Xperia Pro codename Iyokan<sup>[79]</sup>
- Sony Xperia SP

## **VI. Conclusion**

More lightweight than Ubuntu on slower devices.

More lightweight than Android on slower devices.

More lightweight than other OS.

Has more apps due to the android compatibility layer

BB10 apps can be easily ported to Sailfish.

Fully open source.

## **VII. Reference**

[en.wikipedia.org/wiki/Sailfish\\_OS](http://en.wikipedia.org/wiki/Sailfish_OS)

[www.ermt.net](http://www.ermt.net)

[www.jolla.com/jolla/](http://www.jolla.com/jolla/)