

1. Introduction

The Spica platform is the hardware and software platform for next-generation Wordline terminals. It introduces Android as a powerful development environment.

This document is intended for people who want to assess the security of the Spica platform. It contains information that is particularly interesting to experts of certification authorities, to security officers or to people otherwise involved in terminal security.

Spica is not only one of the brightest stars in the night sky – it is also the name of the new platform for next-generation terminals. The Spica platform includes numerous advanced technologies, runs Android applications, confirms Wordline's capacity for innovation and is designed to meet the most demanding PCI requirements.

The Spica platform is composed of reference hardware, software architecture and an intuitive software development kit (SDK). Security by design is the foundation of the project and this can be found in many components of the platform. Spica is also the successor of the successful SAMOA family of platforms that has been one of the success factors of Wordline terminal business for many years.

This document describes the design of the SoC from a security perspective and it mainly discusses the following topics:

- the secure boot
- the tamper detection mechanism
- the memory usage
- the cryptographic algorithms
- the application security
- the life cycle
- the manufacturing process