# SEcube™

# The Most Advanced Open Security Platform in a Single Chip



# **Open Security Platform**

### What is SEcube™

SE*cube*<sup>™</sup> (Secure Environment cube) is a powerful chip which integrates three key security elements in a single package. A fast floating-point Cortex-M4 CPU, a highperformance FPGA and an EAL5+ certified Smart Card.



### **Open Secure and Verified Environment**

A Development Kit and Open Source SDKs are available for an easy start. Programmers are invited to download documentation, libraries, samples and free development tools to create secure applications and services.

### State-of-the-Art Technology in your hands

SE*cube*<sup>™</sup> provides the most advanced security hardware technologies in one chip. Being open, both the hardware and the software parts are completely disclosed and documented.

### **Holistic Security**

All the digital and organisational security processes are integrated in a comprehensive, flexible and seamless way. No need for developers to look at the single building parts. Mathematical and cryptographic elements, like keys and algorithms, are replaced by simpler concepts, like groups and policies.

### **Multi-Flavour and Multi-Level Libraries**

Leveraging on three embedded technologies, the same API can be executed on different cores (STM32, FPGA, Smart Card). The APIs are organised in modular libraries and abstraction layers. Developers are open to create their solution starting from the most suitable entry point according to their expertise.

### **Ready for Market**

SE*cube*<sup>™</sup> is ready to transform your security ideas to security products. Starting from the Development Kit, programmers can easily create, verify and deploy their security solutions on SE*cube*<sup>™</sup> based professional devices and appliances provided by Blu5.



**SEcube™ DevKit** SEcube™ Development Kit SE

**USEcube™** at Kit SEcube™ USB Stick SEcube™ PCIe

### **Work Compartmentation for Limited Liabilities**

The SE*cube*<sup>™</sup> security architecture allows role separation (Developer, Security Administrator, Users) for work optimisation by competence. The same architecture allows to protect all the production and deployment chain players (Factory, OEMs, Final Customers) isolating their respective roles and liabilities

SEcube™ Phone

SEcube™ Mobile Phone

### **Extreme Model Driven Approach**

The high level security functions are available for graphical modelling tools to offer easy, safe, intuitive and assisted programming.

www.secube.eu

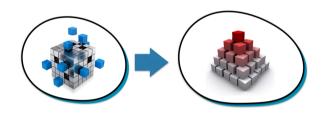
# Your Security Flavour

### **Pre-Built Functionalities**

Basic and standard security modules are ready for use to save up time and resources. In addition, security experts can verify, improve and extend the SE*cube*<sup>™</sup> functionalities working on the open source code.

### Full Customisation

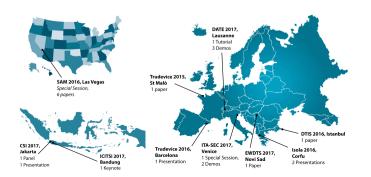
Starting from the modular and reusable functions, developers are able to reinvent the basic security blocks for new fully customised and controlled security systems.



# **Dissemination and Publishing**

### **Conferences and Events**

The SE*cube*<sup>™</sup> Open Source development team generates several papers. It has been actively present (demos, speeches, special sessions) at some of the most important security events in the world.



## How did the project start?

### The SEcube<sup>™</sup> Project

SE*cube*<sup>™</sup> is a security SoC (System-On-Chip) designed and produced by Blu5 Group (www.blu5group.com).

The company decided to make the SE*cube*<sup>™</sup> technology available for Academic Institutions and Research Centres to start an open source project and achieve the following targets:

- Creating an Open Source Security Platform
- Involving Academic Institutions, National R&D Centres Industry and Developers to create an extensive pool of security application libraries and examples
- Delivering simple and effective security services based on holistic security implementations and architectures
- Integrating security in existing infrastructures with a very low impact strategy through SE*cube*<sup>™</sup> based devices
- Disseminating all the results through Conferences, Events and a dedicated Academy Program
- Creating an Open Source Development
  Community



# SEcube<sup>™</sup> Academia Program

### Who is entitled to join

Academic Institutions and Research Centres interested in using the SE*cube*<sup>™</sup> Open Source Security Platform and Devices in

- Courses and Thesis
- Summer Schools
- Funded Projects
- Consulting Activities
- Hackathons and Competitions

can apply for a dedicated Program offered by Blu5 Group and receive the following benefits:

- Discounts on SE*cube*<sup>™</sup> DevKit and Devices
- Free Basic Technological Trainings for Academics
- Potential involvement in Industrial and Market-Driven projects and activities

SE*cube*<sup>™</sup> Academia Program is completely FREE.



How to apply

Academic Institutions and Research Centres are kindly requested to contact Blu5 to join the Academia Program.