

## FORTIKA ADVANCES



smart middleware  
security accelerator

unified marketplace



user-tailored  
cybersecurity

Behavioral analysis



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## CONSORTIUM



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## FORTIKA

Cyber Security Accelerator for  
trusted SMEs IT Ecosystems



**FORTIKA**  
Cyber Security Accelerator for trusted SMEs IT Ecosystems

## About FORTIKA

FORTIKA aims to minimize the exposure of small and medium sized businesses to cyber security risks and threats, and help them successfully respond to cyber security incidents, while relieving them from all unnecessary and costly efforts of identifying, acquiring and using the appropriate cyber security solutions.

Towards its vision, FORTIKA adopts a security by design hybrid approach that adequately integrates hardware and software with business needs and behavioral patterns at individual and organizational level to: introduce a hardware-enabled middleware security layer as add-on to existing network gateways; orientate small business users to trusted cyber security services packaged to tailored solutions for each enterprise and further extended to accommodate security intelligence and to encourage security-friendly behavioral and organizational changes.

Ultimately, FORTIKA proposes a resilient overall cyber security solution that can be easily tailored and adjusted to the versatile and dynamically changing needs of small businesses.

## Ambition

- Improve and optimize FPGA SoC accelerator node to meet FORTIKA requirements
- Develop a complete ABAC system powered by cloud and edge computing architectures
- Provide a holistic security assurance that foresees risks and enables a proactive security management
- Boost cybersecurity in detection of malware and vulnerabilities of systems
- Develop homomorphic building blocks that cover a sufficient number of mathematical operations and functions
- Develop a novel algorithm to break any application into a number of pieces where each and every piece can be mapped onto the homomorphic building block residing in the cloud
- Develop a key management framework which seamlessly interconnects the clients, service providers and the cloud service providers (with homomorphic building blocks).
- Design and implement a hierarchical data abstraction.

## High Level Architecture

