**HAGELIN-CRYPTOS**

CRYPTO AG

**Messaging**
**The secure basis for your efficient workflow**

SYSTEM SOLUTIONS

# Messaging solutions from Crypto AG

With modern information and communications technology, almost everyone can contact virtually anyone he or she wishes to. Data are exchanged electronically and digitally. The networking of organisational entities makes information processing all the more efficient. At the same time, there is a growing need for fast synchronisation among the entities to ensure the effectiveness of their work performance and of the organisation's processes. Message handling systems fulfil this task today.

These systems are effective instruments for those in charge only if they ensure a reliable exchange of information with crucial parts of the organisation domestically and abroad under normal circumstances as well as in emergencies while also satisfying maximum information security standards. The confidentiality and integrity of messages must be guaranteed under all circumstances.

As in industry, the offices of government authorities, agencies and the military require advanced, mature and cost-effective means of communication. These systems should also support standard civilian and military standards and be simple to operate.

Ease of use is crucial when it comes to security requirements. Simple system operation prevents incorrect manipulation that could compromise security. A modern messaging system has to behave in ways that the user is accustomed to and practised in, not vice versa. That makes the system highly acceptable and allows it to meet maximum security requirements.

# The Messaging philosophy of Crypto AG

Crypto AG takes an approach to messaging geared to meeting all these needs. It views messaging as a process for exchanging binding messages. As with an e-mail system, you write your messages or instructions on your computer screen. Once they are written, they are sent to the recipient using any communication network desired.

Instead of applying the methods of a typical open commercial e-mail system, Crypto AG approaches messaging in a way that allows users to exchange messages in a more deeply structured and integrated manner within a closed system. This approach brings a num-

ber of improvements for users and makes their everyday work easier. At the same time, superb end-to-end information security is provided by encrypting all messages to protect them from being read by unauthorised parties. Crypto AG draws on its years of profound experience in handling customers' work and instruction processes in security-sensitive settings.

With its decades of specialisation in securing sensitive data, Crypto AG understands the needs connected with the secure handling of various types of information and classification levels. Messaging solutions from Crypto AG

are therefore a precise and protected replication of the end users' role-based workflows and the roles and authorizations you define.

Consequently, your established work methods remain intact and you avoid reorganisation and transaction costs. Crypto AG's proven expertise in producing the maximum possible level of information security frees you up to concentrate on the essentials so that you can ensure the success of your projects and the efficiency of your organisation.

# Confidentiality– availability– reliability

Crypto AG has been a leader in high security data encryption for over 55 years. Our Messaging solutions also bring you the benefits of our rich experience by encrypting messages in accordance with the highest cryptological standards. The Crypto AG Security Architecture is unique and flexible, guaranteeing you the confidentiality, integrity and authentication of your messages. As a result, it is an ideal tool for replicating your work methods as realistically as possible.

The Security Architecture is designed as a closed messaging systems accessible solely to a certain group of authorised users. Systems of this kind lend themselves perfectly to integration in what can be a heterogeneous infrastructure of a networked organisation and to networking with legacy communication and management support systems.

Each message can be prioritised and classified using certain attributes, for example. These features are also linked if need be to authentication functions differentiated according to the security hierarchy. In the Crypto AG Security Architecture, these functions, in turn, interact directly with the encryption process. Your messaging security remains intact regardless of the type of operating systems involved. With the extensive logging functions, the exclusivity and traceability of your information flows are also guaranteed. As the sender, you remain informed about the status of your messages and retain full control over them at all times.

Security management is the central element in the Crypto AG Messaging approach. It allows you to determine core algorithmic functions autonomously and to manage and distribute keys, passwords and other security settings easily and conveniently in accordance with your own security policy. You can change keys or other security parameters yourself or have these changes performed automatically by security management even while the Messaging system is in operation.

Civilian, diplomatic and military organisations can therefore rely at any time and in every respect on their Messaging system from Crypto AG.

# Your goals determine your our actions

Crypto AG takes a system approach to messaging. The advantage of this for you is that you can retain your established work methods and formal structures. That is essential for guaranteeing maximum security, because solutions for integrated and customised top security cannot simply be purchased as off-the-shelf items.

With Crypto AG, your Messaging system is created within a project structure, from initial definition to final realisation. You determine who belongs to your user group and who is allowed to exchange sensitive information with you. You also define how your individual needs for communication protection will be met. Crypto AG then takes care of security for you based on these premises.

In cooperation with the sales department and specialists of Crypto AG, the security required for your individual work steps is analysed and the functional specifications of your
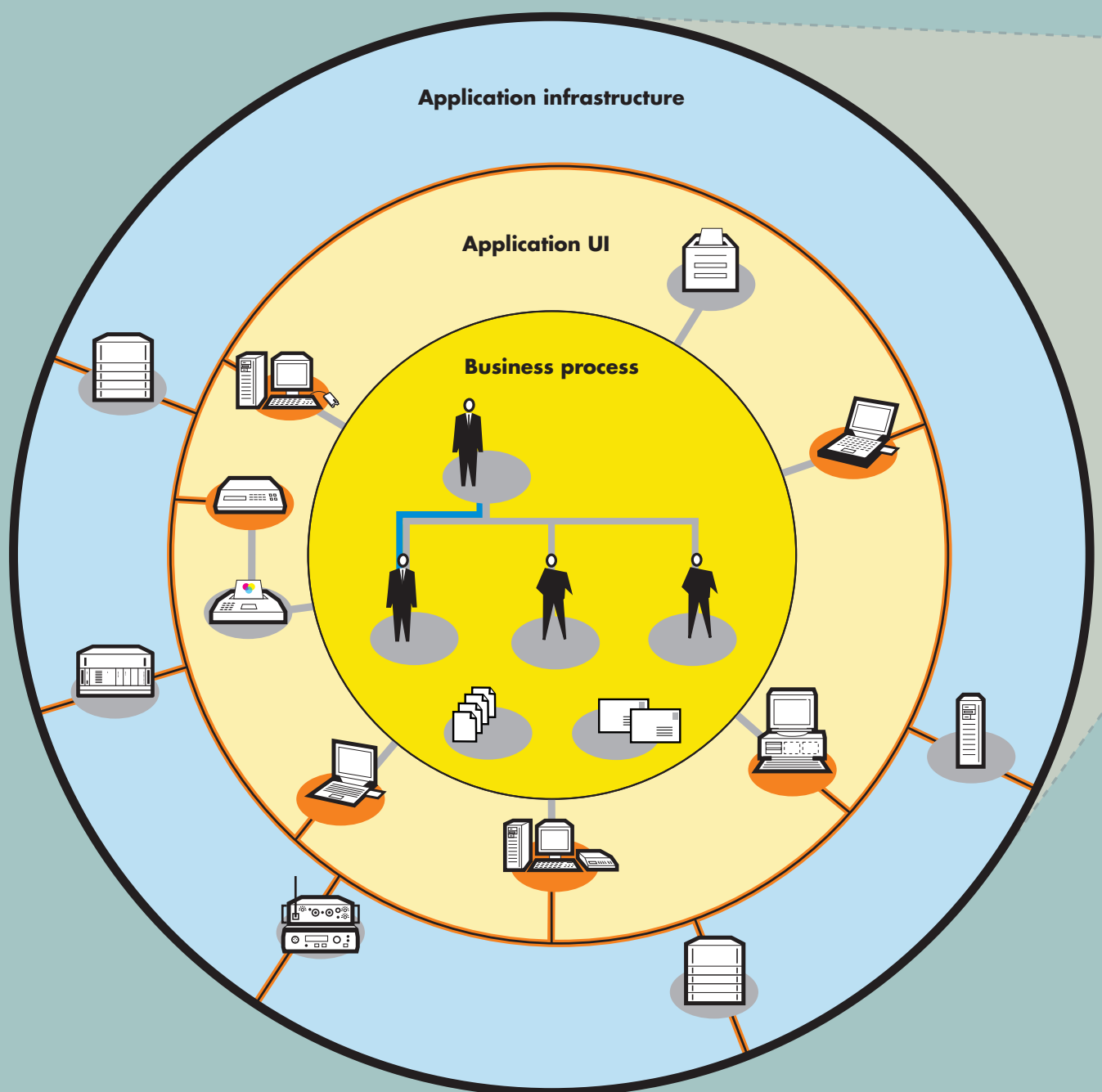
Messaging system is then determined. That allows you to plan efficiently, to implement your projects cost effectively and to achieve an expandable and interoperable system design. Specially designed security modules and server components are among the products used in this approach. Crypto AG also utilises emission-free (comprem) equipment where necessary.
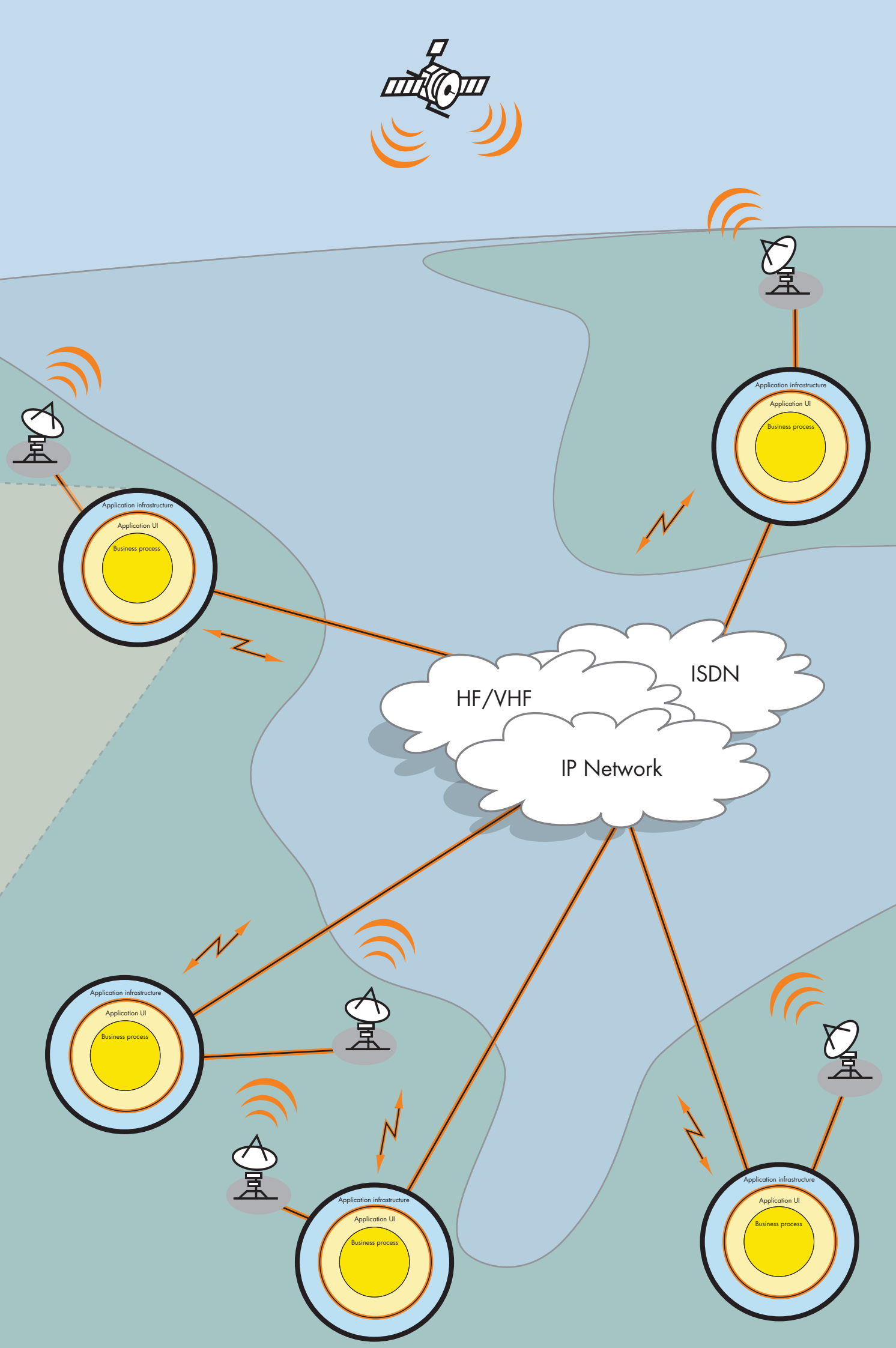
You can also take advantage of a full range of services from Crypto AG, ranging from the initial inquiry to consulting and engineering and on to system commissioning. Requirements to be met by a Messaging system can vary dramatically depending on the location, region and country involved. With its years of presence and project experience on the international market, Crypto AG is able, together with the customer, to find the solution appropriate to the complexity of a specific system.

You too can profit from the full range of our products, services and skills:
- Consulting and engineering support
- Security consulting and algorithm verification
- Planning
- Financing
- Project management
- Operational design
- Support
- Maintenance
- Instruction and training

Application infrastructure

Application UI

Business process

HF/VHF

ISDN

IP Network

Application infrastructure

Application UI

Business process

# What requirements do you want your Messaging system to satisfy?

- Creation of authenticated messages with the greatest of ease
- Encryption of messages in accordance with the highest cryptological standards
- Maximum security in the transmission of messages
- Fast, reliable and efficient message exchange
- Message exchange based on formal and customised procedures
- Reliable transmission and processing of classified messages
- Transmission of attachments (documents, images, scanned materials)
- Message tracking
- Selection of predefined messages (templates)
- Interoperability with national networks
- Support for ad hoc networks
- Compliance with military standards (STANAG 4406 Annex E, ACP-127, X-400 ...)

- Transportation networks (IP VPN, ISDN, SatCom, HF, VHF)
- Integration of commercial components (COTS – commercial off-the-shelf products)
- Extensive logging functions
- Emission-protected work stations, printers, and scanners (Comprem)
- Self healing
- No single point of failure
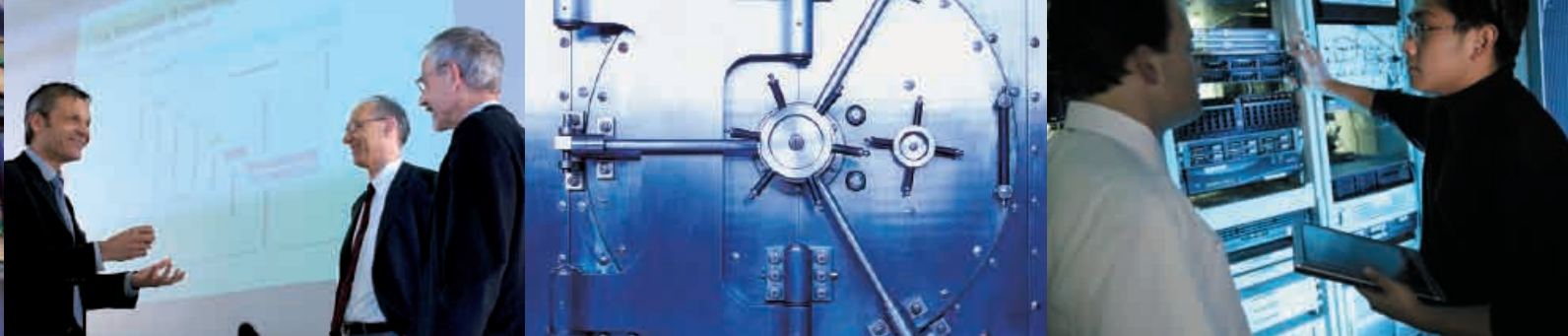
# The Security Architecture

High security encryption solutions from Crypto AG are always based on an end-to-end security architecture. The protection of your information is not confined to single elements like a key or an algorithm. Instead, several core functions in the architecture act together interdependently to form an ultra-resistant and stable cryptographic core.
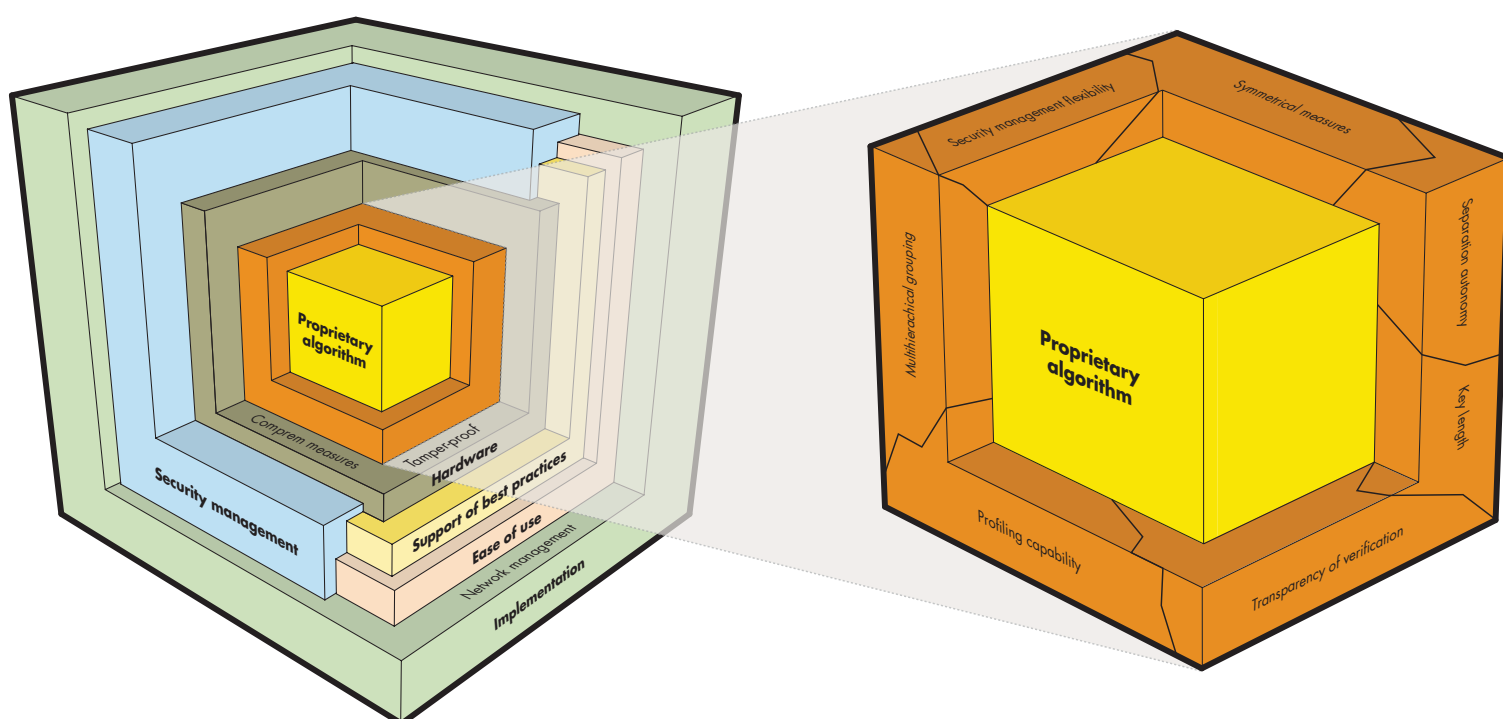
**www.crypto.ch**

## Crypto AG – To Remain Sovereign

Crypto AG is your expert partner for the efficient and secure handling of information. As a legally and economically independent Swiss company, we are not subject to any export restrictions. We have been concentrating on developing, manufacturing and implementing custom security solutions for over 50 years.

Our range comprises the latest technology and comprehensive services. After-sales service and product training that guarantee autonomous operation and high availability are assured over the system's entire lifetime, whatever the user environment.

You too can rely on the expertise and capability of Crypto AG.

Customers from over 130 countries are already doing just that.