The Gemalto Ezio Suite is designed to mitigate even the most advanced fraud attacks, but also to help the end-users avoid the most common mistakes. It is easier to deploy, and simpler to upgrade as your needs change.
The Ezio back-end solutions combined with our Ezio devices is what it all boils down to. Together they form a very powerful and flexible bond of trust between our clients and their customers. A bond of trust that we call the Ezio Suite. By conducting our entire R&D effort around one versatile back-end system we have been able to build the most comprehensive strong authentication offer available. It’s time to meet the Ezio Suite.
I was out on the town and needed to wire some cash to my daughter. I just fired up my authentication application on my smart phone, created a one-time password, switched to my bank’s application and logged on to my online bank to perform the transaction.

Easy as that.

BACK-END SOLUTIONS

The Ezio back-end solutions are based upon a unique server solution, Ezio Server, and a software library for strong authentication, Ezio Library. The server supports all varieties of authentication technologies; both standard two-factor authentication such as One Time Passwords (OTP), Double Authentication or Challenge/Response as well as more advanced transaction verification methods such as Dynamic Signatures and Secure Domain Separation.

The Ezio Server is a system that is completely configurable and allows you to combine different authentication schemes with different devices for authentication, and migrate to new technology over time. This means that by using Gemalto Ezio back-end solutions you can simultaneously use different types of end-user devices, standards and algorithms.

FLEXIBLE

Thanks to its unique ability to support several authentication solutions simultaneously, Ezio Suite allows you to easily differentiate customers to support different customer needs.

For example, it’s the only system that allows an end-user to use several different devices and/or login credentials, i.e. multiple credit/debit cards, in parallel. Plus, depending on how the end-user logged on, Ezio Suite enables access to different services. In the case of card readers, the customer can even have the same access via different cards. It’s future-proof – just configure the system to satisfy the changing needs of security, usability and business requirements whenever they are called for.

HAVE IT YOUR WAY

A key benefit of the Ezio System is how it allows banks to pick and mix from our selection of modules and channels. From eBanking, mobile banking, phone banking, and from eCommerce to eBroker or Multi Issuer set-ups. Once you’ve selected the areas you want your online bank to cover it’s time to choose devices to complete your bank’s own Ezio Suite. And remember, at the heart of every Ezio Suite you’ll find the Ezio Server.
Checking and paying my bills is something I usually do at home. On my PC. I just connect my card reader, go to the bank web site, and log on. The device allows me to review transactional details before signing them. Knowing the amount of virus attacks carried out each day, I appreciate being able to see what I sign and that in a secure environment.

**USERS HAVE ONE THING IN COMMON – INDIVIDUALITY**

The Ezio backend solutions allow banks to segment their customer base and give each user the perfect device(s) for their specific requirements.

For example, business customers and wealthy private clients need one device for use in the office and another, more portable one when they travel. Some customers may want a device with a large screen and many function buttons, others want more basic ones, some prefer to use their mobile phone. Some want all of the above at the same time, whereas people with disabilities may need special devices.

All of this is perfectly possible. The Ezio backend solutions allow you to mix and match devices from a wide range of products. It also lets you provide several devices to the same user. You can easily upgrade users over time too. Imagine the possibilities:

- Business users get a portable and compact token and a more advanced device for the office
- Elderly and partially sighted users should be offered a card reader that talks to them.
- You can seamlessly transfer groups of customers from one device to another
- Vary the level of intrusiveness in the authentication process depending on the level of risk.

**ENHANCING 3-D SECURE ECOMMERCE**

Gemalto offers a user-friendly, highly secure way to make eCommerce as secure as eBanking. With our solutions banks can use the same authentication environment they already use for eBanking to authorise eCommerce payments. Our Dynamic Signatures technology allows them to adjust the level of authentication to match the level of risk and the value of the purchase. The higher the risk, the more user interaction is required. This makes routine, low-risk purchases less disruptive for users, while increasing security when it matters most.

Our technology works smoothly with 3D Secure systems such as Verified by Visa and MasterCard SecureCode, enabling easy and instant deployment for merchants and banks, while customers naturally appreciate the fact that they can use the same card and device for both banking and shopping online.
The Gemalto Ezio back-end solutions are designed with banks in focus; hence its in-built security levels comply with a vast number of banking security requirements as well as key standards, to bring you the highest possible level of security and stability. Ezio Server comes with an unrivalled level of versatility when it comes to scaling, segmenting and migrating. A Hardware Secure Module (HSM), adapted by Gemalto to provide optimal performance to the system, is recommended for storage of the keys whereas all sensitive operations are performed securely within the HSM.
Mobile Banking For banking on the move, this module enables the highest level of authentication security wherever you are. Not only does this module provide OTP and Challenge/Response security, it also enables Dynamic Signatures and Secure Domain Separation in a completely new environment.

eCommerce Supply merchants with eBank levels of security while controlling eCommerce decisions and workflows internally. The fastest and best way to upgrade your 3D Secure eCommerce setup to security standards up to par with eCommerce.

eBanking Gemalto’s pride comes with everything needed to setup an eBank built around strong remote authentication. Covering all methods from OTPs and Challenge/Response to risk-based authentication with Dynamic Signatures, not to mention user-friendly cross-channel attack mitigation with Secure Domain Separation. This module is available for both Retail and Corporate eBanking and is designed to build and maintain trust amongst bank customers.

eBroker Trading and managing assets online calls for truly reliable authentication. This module allows brokers to sign sell and purchase orders using technology levels that increase both security and user-friendliness to unprecedented levels.

Multi-Issuer Setup With the multi-issuer setup module a service provider can share its Gemalto Ezio back-end with multiple entities, such as banks. Setups, data storages, keys and settings are, of course, kept completely separate.

I got really impressed when I was using my token to pay my bills online the other day. The usual ones, such as gas and electricity, were signed off on by simply entering my PIN. When I was to sign a larger invoice for some construction work on my summer house abroad, the device prompted me to enter the amount, currency and beneficiary! This little thing seemed to realize that this was an odd transaction and wanted me to pay attention. It’s magic – where are the wires?!

Check and pay bills using Ezio Edge with Dynamic Signatures on home PC
I was really impressed when my bank allowed me to sign a loan contract from my hotel room the other week. I was away on business when I found a flat online that I decided to buy. The real estate agent forced me to act quickly – so it was a good thing I could solve everything remotely with the bank. I was able to review the terms not only on my PC screen but also in the actual device – making me feel very secure. I moved in last week!

Our selection of unconnected Ezio smart card readers enables banks to authenticate their online customers and sign transactions using for instance their the debit or credit card. Products within this category offer a great balance between security, convenience and total cost of ownership for banks already deploying chip-enabled banking cards based on the EMV/CAP standard. You’ll find quite a few best-sellers within this group, heavily thanks to the popularity of EMV chip cards in Europe. Smart card readers have established themselves as a very secure and easy-to-understand solution for strong authentication and transaction verification. Gemalto’s ambition to always offer best-in-class usability clearly shines through in the proven designs of these devices, featuring tactile function buttons, replaceable batteries and clearly marked card slots, guidance in every transaction verification step with Dynamic Signatures, etc.

Meet the true hybrids of online banking security – connectable smart card readers that work perfectly in both connected and unconnected mode. These products have all the functionality round in our other smart card reader category and are also optimized for leading standards, such as EMV/CAP. It is however when you connect these devices – using a USB cable – that they really start to excel in terms of user-friendliness, linking the device to the bank system via a secure connection. Furthermore, the when connected the device facilitates additional services, e.g. non-reputable contract signing, by using the device for PKI with secure PIN entry and enhanced Sign-what-you-see functionality. Our connectable readers are equipped with large displays for users to easier verify transaction details and sign complete transactions. This cutting-edge transaction verification scheme is also available in unconnected mode, thanks to our patented technology Dynamic Signatures.
I was planning to go on vacation in France so I paid for the rental car, a convertible, using my device. Upon check-out from the rental’s website I was asked to insert my debit card into my bank device, click the ‘buy’ button and sign the transaction. The device even asked me if I was OK with this being an international payment – very cool!

**Tokens**

Our comprehensive range of personalized tokens feature everything from single-button event or time-based one-time password generators to high-end keypad protected devices with transaction verification and cross-channel attack mitigation. Leveraging the technology from our smart card readers, we are able to offer our patented state-of-the-art transaction verification technology Dynamic Signatures in our most advanced tokens. The Ezio token family is a proven selection of authentication devices for both online banking and eCommerce which has gained widespread adoption in both Europe and Asia. These ergonomically designed devices are a true testament of the Ezio Suite’s versatility when it comes to individually apt solutions developed based on end-user demands. We are also the only vendor to be able to offer authentication tokens rolled into a payment card and personalized in one of our many local secure personalization centers.

**Connected Devices**

Unsurprisingly, within this category you will find devices – be it multi-purpose card readers or USB tokens for strong authentication and digital signatures – that need to be connected to the PC in order to operate. Our connected solutions are always tailored for easy installation, with plug & play functionality. These devices are optimal for PKI usage and are ready to use out-of-the-box with cryptographic middleware, as well as digital signature software for web based applications.

Rent car abroad using Ezio Pico on a public PC
I met a friend last night who provided me with some good stock advice. As NASDAQ was still open on my way home I used my phone’s SMS authentication setup to receive a one-time code I could sign my purchase with – on the move. So far 30% up!

Mobile Solutions

With the use of smart phones for conducting personal and corporate business on the rise, the mobile user needs to ensure that business is taking place securely. Authentication is the key to verifying and protecting the intentions of the mobile user. Likewise, the mobile device can be used to generate OTPs to authenticate a user when eBanking or shopping remotely. The sheer amount of mobile users in the world makes it a natural choice for strong authentication solutions. This product category offers a variety of ways to leverage the mobile for eBanking and eCommerce authentication, including SMS technology, SIM cards and dedicated authentication applications on the phone. This results in a solution that has a significantly lower cost of ownership with improved user experience that can be used to authenticate multiple cards and online accounts.

Smart Card & Software

This category features products and solutions that provide the final steps of, for instance, a complete PKI solution deployment. Our smart cards are highly compatible with the software solutions, e.g. client software, enabling integration with any type of PKI application. These very popular solutions are currently used by over 50 large clients all over the world. Compliant with European Digital Signature legislation, these proven setups vouch for strong performance. The software solutions themselves are, for instance crypto-library products, that bring portability and a high level of security to eBanking networks, or applications that are installed on the end-users PCs to enable secure digital signatures triggered by the bank’s website and verified by using sign-what-you-see functionality.
I couldn’t get any WiFi before boarding my flight to NYC, and I had to transfer money between my accounts and check my balance. So I called up my phone bank, but was prompted to give them an authentication code. Good thing I could use the application in my mobile to create one!

Transfer money and check balance using Phone Bank service and Ezio Mobile SDK

AN UNRIVALLED VARIETY OF AUTHENTICATION METHODS

**DYNAMIC SIGNATURES** (DS)
Allows banks to use standard challenge-response for low-risk transactions while automatically detecting higher-risk transactions, in which it increases the user’s participation. Gives increased security when it matters most.

**SECURE DOMAIN SEPARATION** (SDS)
Cryptographically separated function keys means generated codes are not reusable across channels and increases user-friendliness.

**TWO-FACTOR AUTHENTICATION** (2FA)
“Something you have and something you know” to prove your intentions are good. A very basic form of authentication.

**ONE TIME PASSWORD** (OTP)
Passwords that, in sharp contrast to ordinary static passwords, only can be used once.

**CHALLENGE-RESPONSE** (C/R)
A process in which one party presents a question (challenge) and another party must provide a valid answer (response) to be authenticated.

**SIGN-WHAT-YOU-SEE** (SWYS)
Allows the user to review and verify all transaction data in a secure environment, i.e. device.

**DYNAMIC SIGNATURES** (DS)

**ONE TIME PASSWORD** (OTP)

**CHALLENGE-RESPONSE** (C/R)

**SIGN-WHAT-YOU-SEE** (SWYS)
GEMALTO E-BANKING provides thought-leading digital security for banks and their customers. By securing and enabling signatures, access and new services, our strong authentication solutions help improve customer relationships. We enable new revenue models and increased efficiency for retail and corporate banking. All this is accomplished through our product offering, the Gemalto Ezio Suite, and our extensive experience of implementation, roll-out and fulfillment projects.