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DICTAO
evidence drives confidence

SEGURIDAD DIGITAL
AUTENTICACIÓN ROBUSTA

Bertrand Moussel

17 de Junio 2014, Quito

AGENDA

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Dictao profile

Experience in the Banking & Insurance sector

- 1st wave: Cash Management & Reporting
- 2nd wave: Strong Authentication
- 3rd wave: E-Contractualization

Q&A's

SOME FIGURES

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2 000	20 M$	+ 700	100	Several billion
Company founded	Sales	Clients trust us	Employees in France	Signatures / year

MARKET NEEDS

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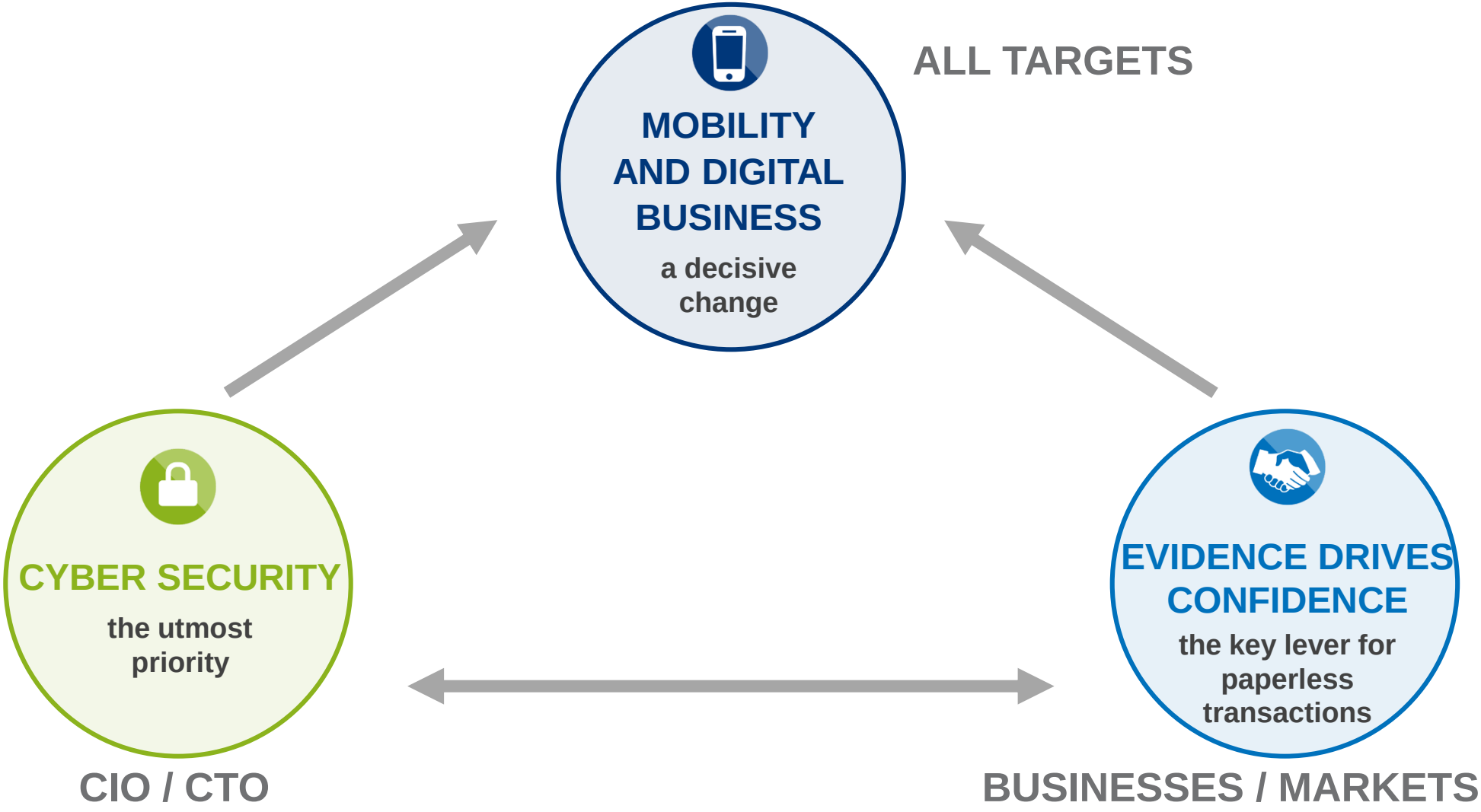

VALUE PROPOSITION

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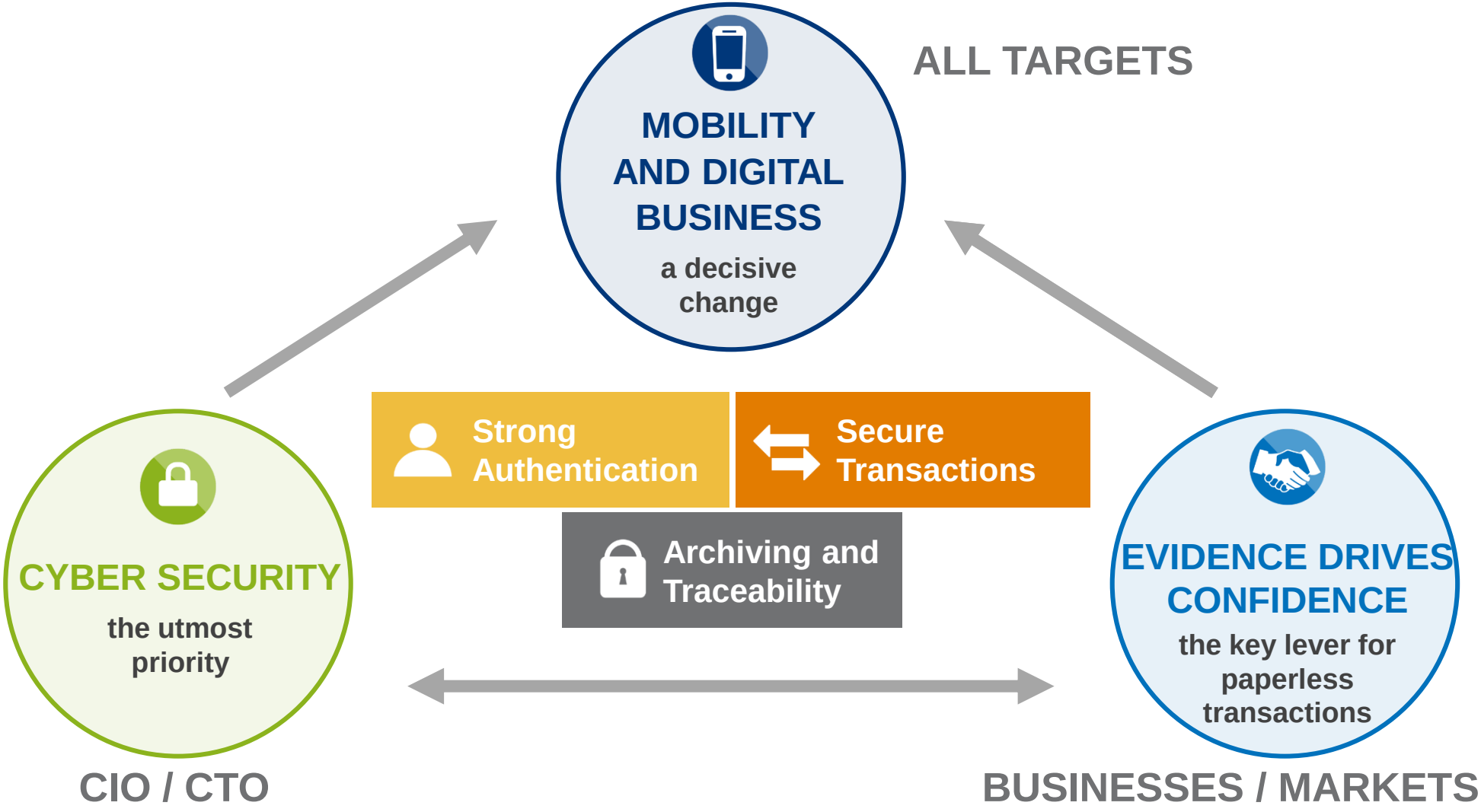

DICTAO OFFERING

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Products & Services

Strong authentication

Secure identities

Secure transactions

Secure transactions

Archiving & Traceability

Secure data

Factors

Certifications

MasterCard Worldwide · VERIFIED by VISA · SÉCURITÉ CERTIFICATION CSPN · Bundesnetzagentur · ETSI World Class Standards · Approved Trust List MEMBER · fntc

A SINGLE TRUST PLATFORM

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To meet diverse needs

Multi-device

Multi-population

Multichannel

Multi-factor authentication

Web site

Application ERP

BPM

Intranet Extranet

EDM

CRM

ERMS

Trust Platform

DICTAO
Dictao Trust Platform

Strong authentication

Secure transactions

Archiving & Traceability

INTERNATIONAL CERTIFICATIONS

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To reinforce the non-repudiation of the digital signature and proof

Dictao digital signatures are considered legally binding and recognized by
43 countries through out the world

- Our products are
  - Certified at the EAL3+ level of the international security standard, the Common Criteria (ISO 15 408), which is recognized by the Ecuadorian government (Ley 67 de comercio electronico, 2002)
  - Compliant with eIDAS – Electronic Identification and Signature (Electronic Trust Services) in Europe
  - Qualified in France and Germany
- CSPN (First Level of Security Certification) certification for Dictao Trust Platform (DTP) & Dictao Secure Storage Server (D3S)

KEY REFERENCES

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Multi-sector expertise

Financial Institutions

BNP PARIBAS · BPCE · SOCIETE GENERALE · LCL LE CRÉDIT LYONNAIS · LA BANQUE POSTALE · BANQUE CENTRALE EUROPÉENNE EUROSYSTÈME · BANQUE DE FRANCE

CRÉDIT AGRICOLE · SONASID · AVIVA · april santé · Alptis ASSURANCES · CIMR

Government & Social Services

RÉPUBLIQUE FRANÇAISE AGENCE NATIONALE DES TITRES SÉCURISÉS · RÉPUBLIQUE FRANÇAISE MINISTÈRE DE LA DÉFENSE · Gendarmerie nationale · RÉPUBLIQUE FRANÇAISE MINISTÈRE DE L'ÉCONOMIE DES FINANCES ET DE L'INDUSTRIE · GIP MODERNISATION DES DÉCLARATIONS SOCIALES

Industry & Services

SITA · TEGAS Votre gaz à la source · AIRBUS AN EADS COMPANY · TOTAL · PSA PEUGEOT CITROËN · Alcatel·Lucent

iGaming

bwin · William HILL · betfair sports casino poker · sportingbet · bet365 · Ladbrokes

A closer look at Dictao & Financial Institutions

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	BNP PARIBAS / CARDIF	LCL / Crédit Agricole / BFC	Caisse d'Épargne / Banque Populaire / BPCE	La Banque Postale	Crédit du Nord / Société Générale	Franfinance / CGI	Groupama	MAAF	April	Alptis	Aviva
Corporate Banking Clients	✓	✓	✓	✓	✓						✓
Private Banking Clients	✓	✓	✓			✓	✓	✓	✓	✓	

BANQUE CENTRALE EUROPÉENNE
EUROSYSTÈME

BANQUE DE FRANCE

A benchmark position in the financial sector, that is highlighted by the fact that the European Central Banks rely on our products

AGENDA

Dictao profile

Experience in the Banking & Insurance sector:

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- **3rd wave: E-Contractualization**

Q&A's

MULTICHANNEL CASH-MANAGEMENT

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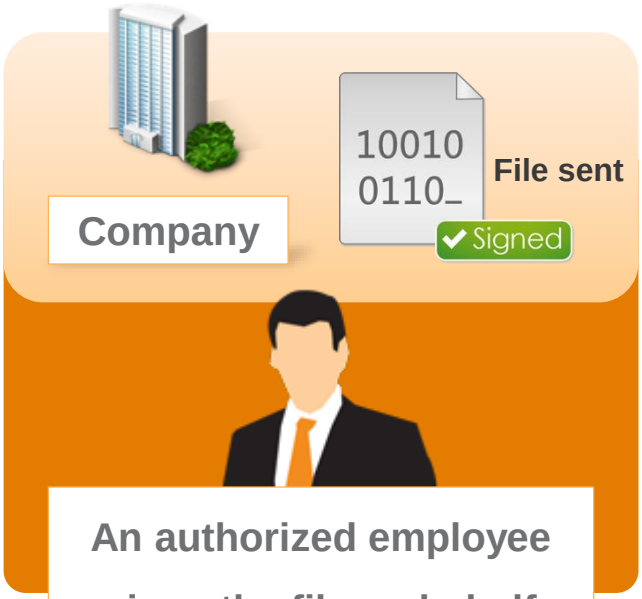
The crucial trust functions

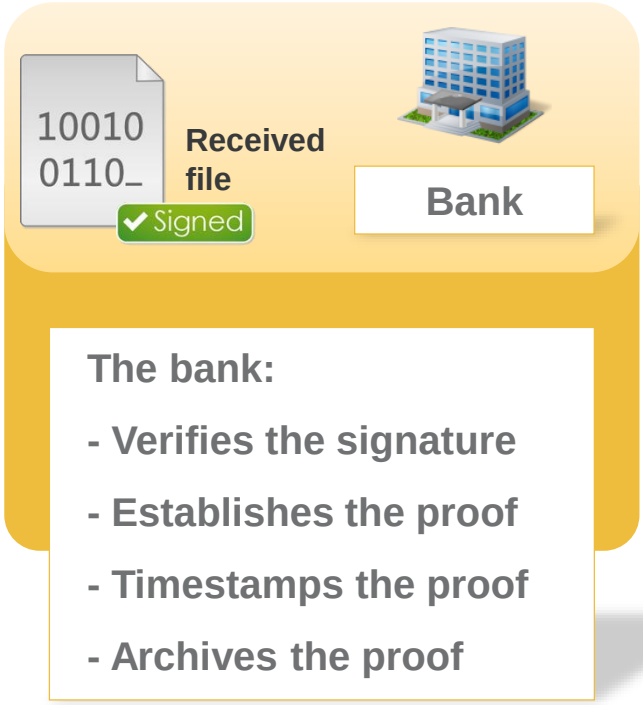


SwiftNet/FileAct

EBICS

Online banking

FTPS



SECURE MULTICHANNEL TRANSACTIONS

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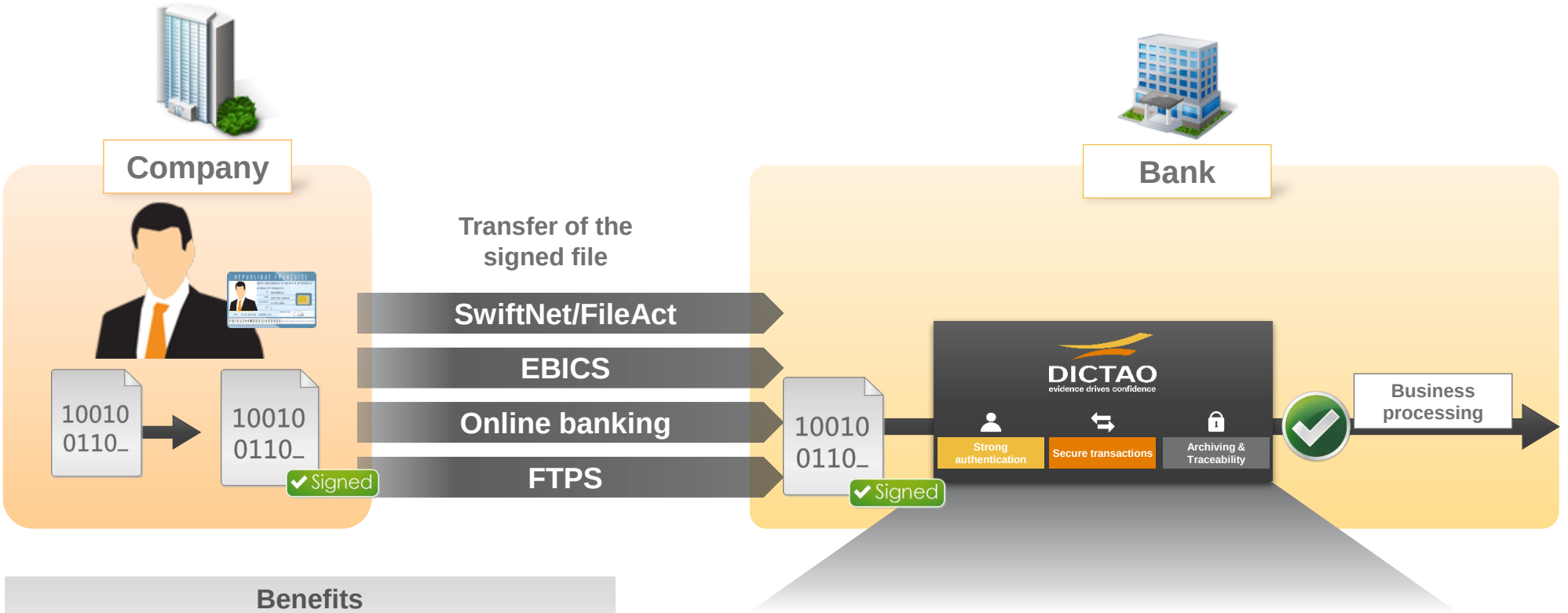

Benefits

- Highly secure, legally binding
- Trust platform certified EAL3+
- Streamlined and simple user experience
- 'What You See Is What You Sign' guarantee

- **Client strong authentication**
- **Signature tool available for the client to commit to a document or data**
- **Signature and certificate validation**
- **Creation of legally binding proof to use in the event of litigation**

THE DICTAO OFFER:
ON-PREMISES OR SAAS PLATFORMS

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Company

Bank

Platform in the Bank IS

- Bank is 100% in control
- Optimized cost for large volumes
- Ideal for managing multiple applications

Platform available in SaaS*

- Accelerated project launch
- Cost proportionate to use
- Easy integration
- Security managed by specialists
- Scalable
- ISO 27001 Certification

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colt

(*) SaaS : Software as a Service

REGULATORY REPORTING SENT BY FINANCIAL ESTABLISHMENTS TO THE BANKING COMMISSION

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Financial establishment

Banque de France
and the Banking Commission

BANQUE DE FRANCE
EUROSYSTÈME

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1. Declaration of signing rights
2. Signature of regulatory reports using Dictao software

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1. Check signing rights, and establish proof
2. Validate signatures and proof
3. Archive proof

700+ international financial establishments sign their regulatory reports with Dictao

REGULATORY REPORTING SENT BY FINANCIAL ESTABLISHMENTS TO THE BANKING COMMISSION

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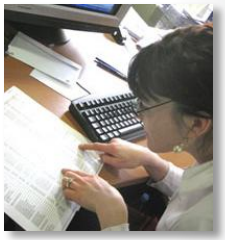
THEN *Financial Institute*

Pen & Ink signature

Paper trail



Handwritten signatures are verified, then reconciled with the digital records

BANQUE DE FRANCE

Digital signature

BANQUE DE FRANCE

NOW

Digital signature for COREP, FINREP regulatory reports, and BAFI declarations

Validation of the signature and the signer's right to sign, constitution and archiving of proof

BENEFITS

- Simplified process (no more signing and sending by mail)
- Increased efficiency

Management of a single information flow
No more data reentry
Improved reliability of controls
Long term archiving of digital proof

AGENDA

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Q&A's

CONTEXT AND DICTAO APPROACH

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Different populations:
Individual & Corporate clients, internal users;
Clients active/inactive on the internet;
Differing profiles

Daily life:
Loss, freezing, or forgetting of the primary authentication method

Different risk levels

An expansive and varied multichannel service offer

Constantly evolving authentication technologies and techniques for combatting fraud

A **global** approach to security and authentication in a multichannel context

A progressively **evolving** solution that supports all authentication standards

A **differentiated response** depending on the population profile and the type of transaction / risk level

DICTAO

AUTHENTICATION : THE DICTAO APPROACH AND SOLUTION

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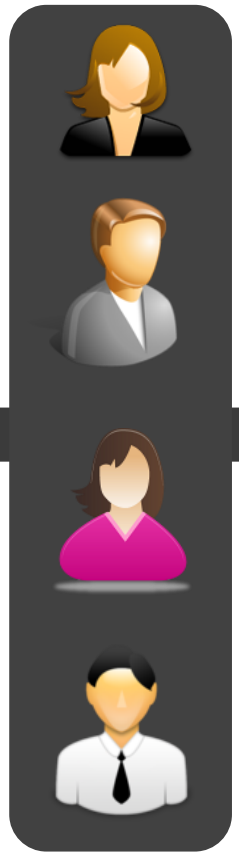
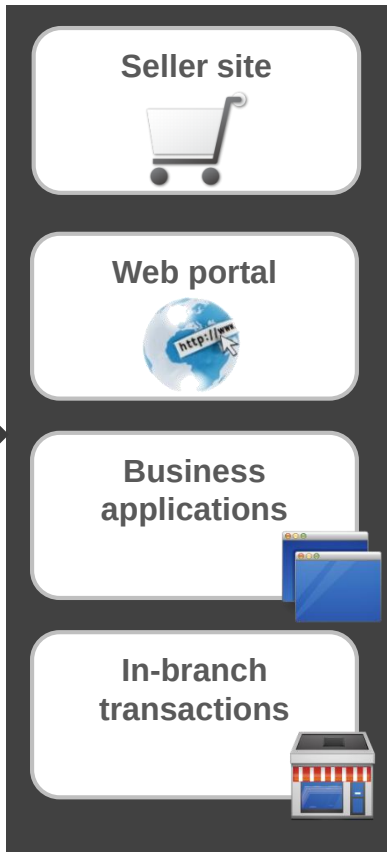


DICTAO

Dictao Access Control Server

- **Separation** of 'authentication process' from business applications
- **Centralization of the authentication management**, at an organization-wide scale (multi-application, multi-population)
- **Support of all authentication methods**, and guarantee of upgradeability
- **User experience** is at the heart of authentication management (deployment; loss, freezing or forgetting…)
- Authentication method chosen based on **several criteria** (purchase amount, currency type, transaction risk, fraud alerts, etc.)
- **Management of fallback** and help mechanisms



Multi - population

Multi-method authentication

Multichannel, multi-context application

SECURITY LEVEL RELATIVE TO THE VARIOUS AUTHENTICATION MEANS

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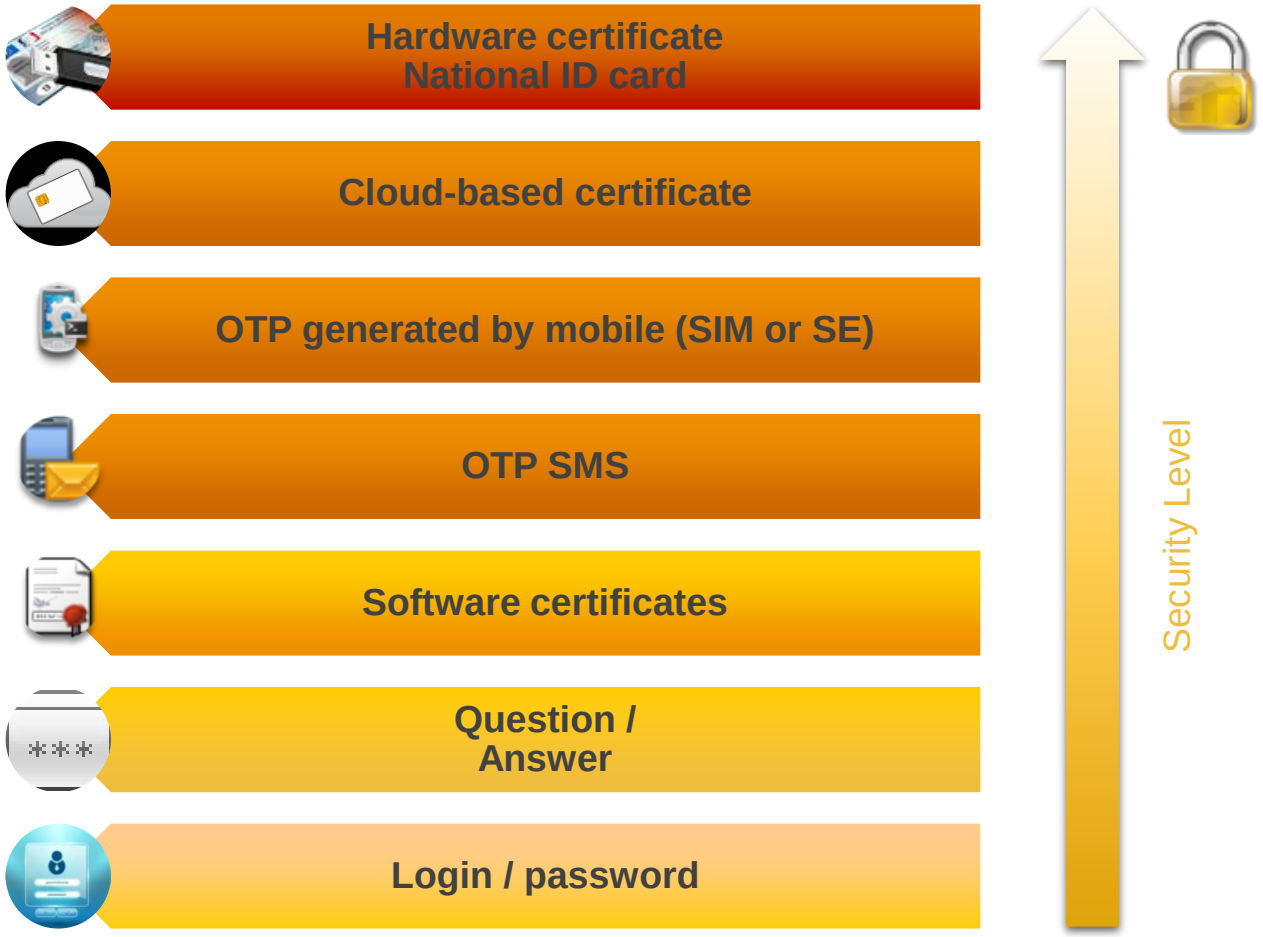


THE BIG PICTURE

eGovernment | eCommerce | eBanking | Backend Systems

Transactions | Single Sign On | Web Service

DICTAO

Dictao Access Control Server

Multifactor – multi technology validation

EMV CAP	OTP SMS	Certificate	OATH	Knowledge base
Password	OTP SIM	eID	Third party IDPs	

Multi-factor authentication

Multi-population

Multi-protocol
Multi-application

Channel management
- Connectors

User management
- Groups and users
- Synchronization with external directories

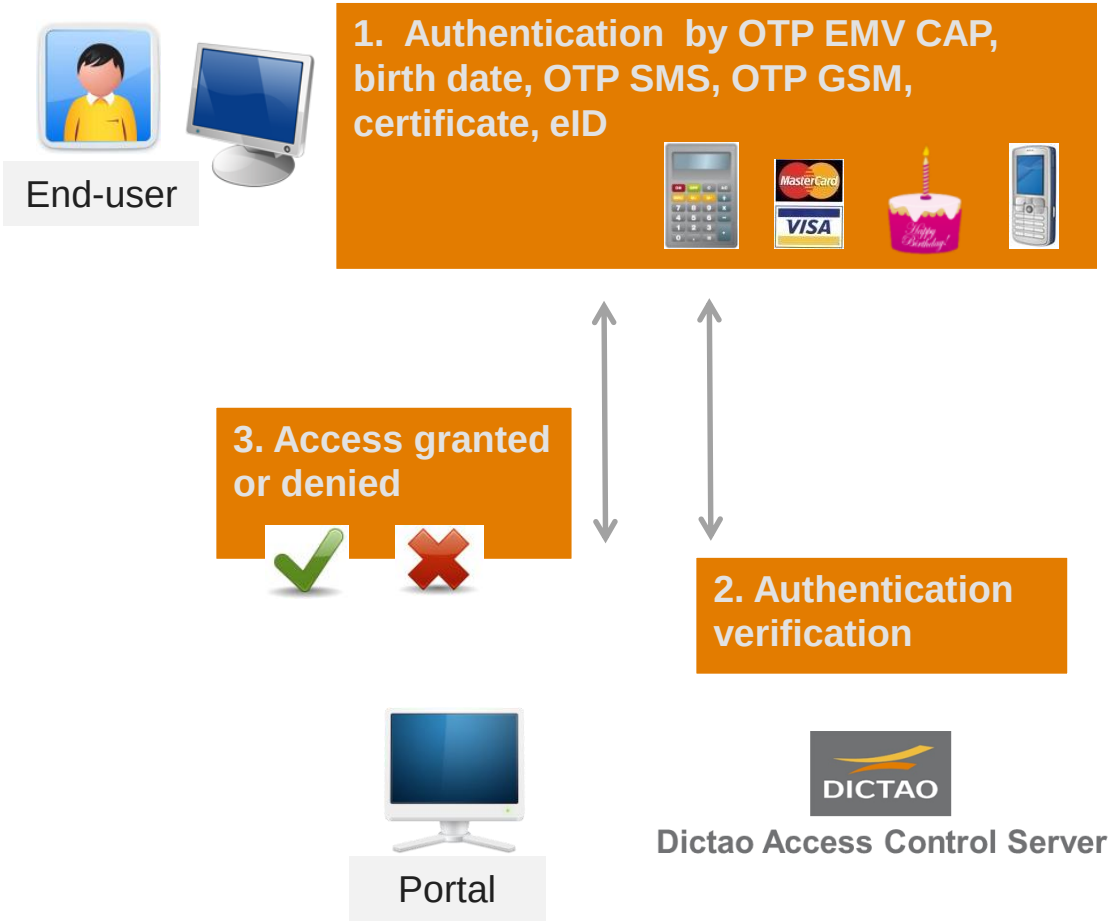
Authentication
- Selection of authentication method

Audit
- Secured activity logs
- Log analysis and reports

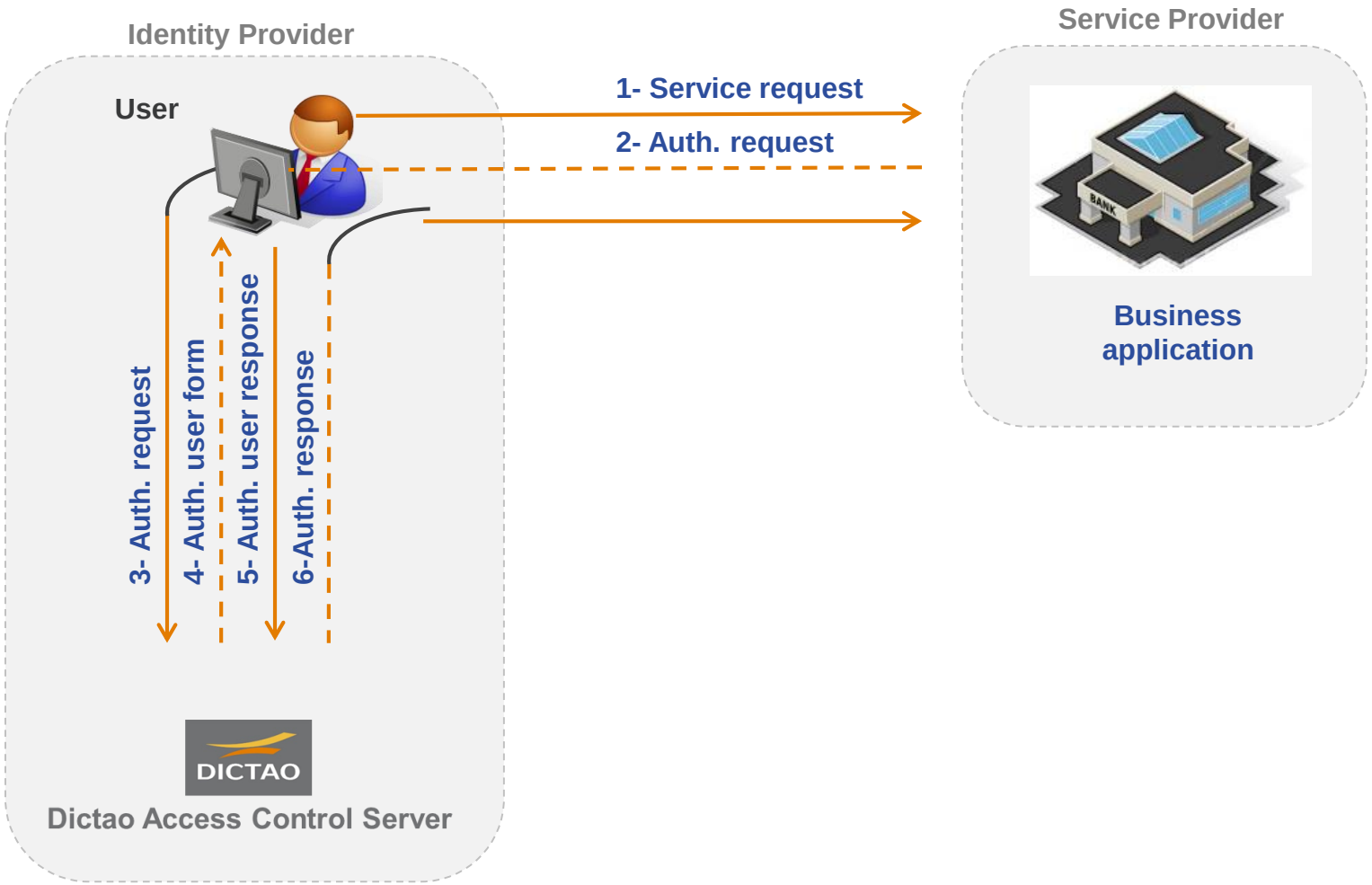
Authentication

- Authentication verification
- Management of authentication policies

DACS SECURING WEB PORTALS



WEB SSO PROCESS DIAGRAM



DACS SECURING ONLINE SALES

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Customer

1. After filling in the form, the client enters bank card number and expiration date

Seller website

4. Authentication by OTP EMV CAP, birth date, OTP SMS

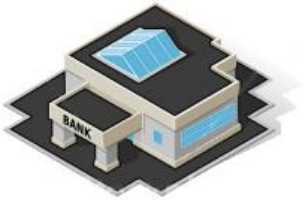
6. Access granted or denied

3. Authentication request (part II)

5. Authentication verification

2. Authentication request

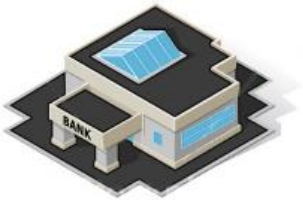
Customer bank



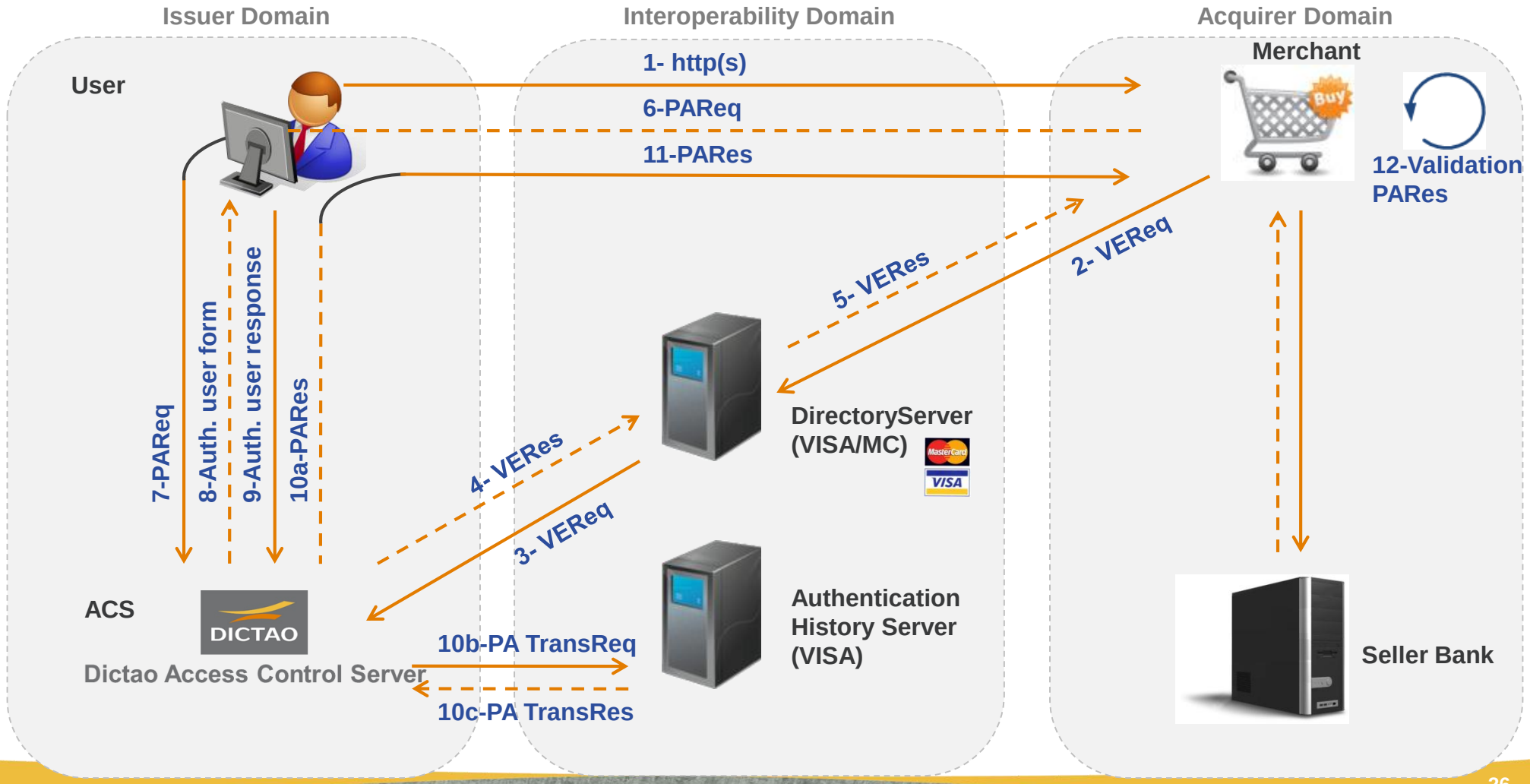
DICTAO

Dictao Access Control Server

Seller bank



3D SECURE PROCESS DIAGRAM



FALLBACK TO BIRTH DATE SHOULD THE CLIENT NOT HAVE A MOBILE PHONE

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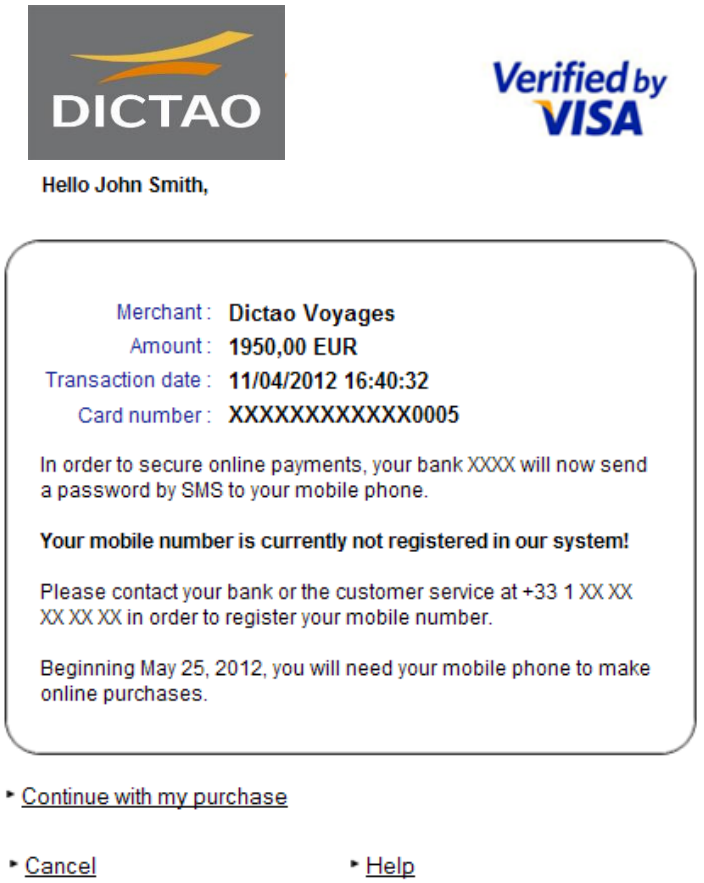

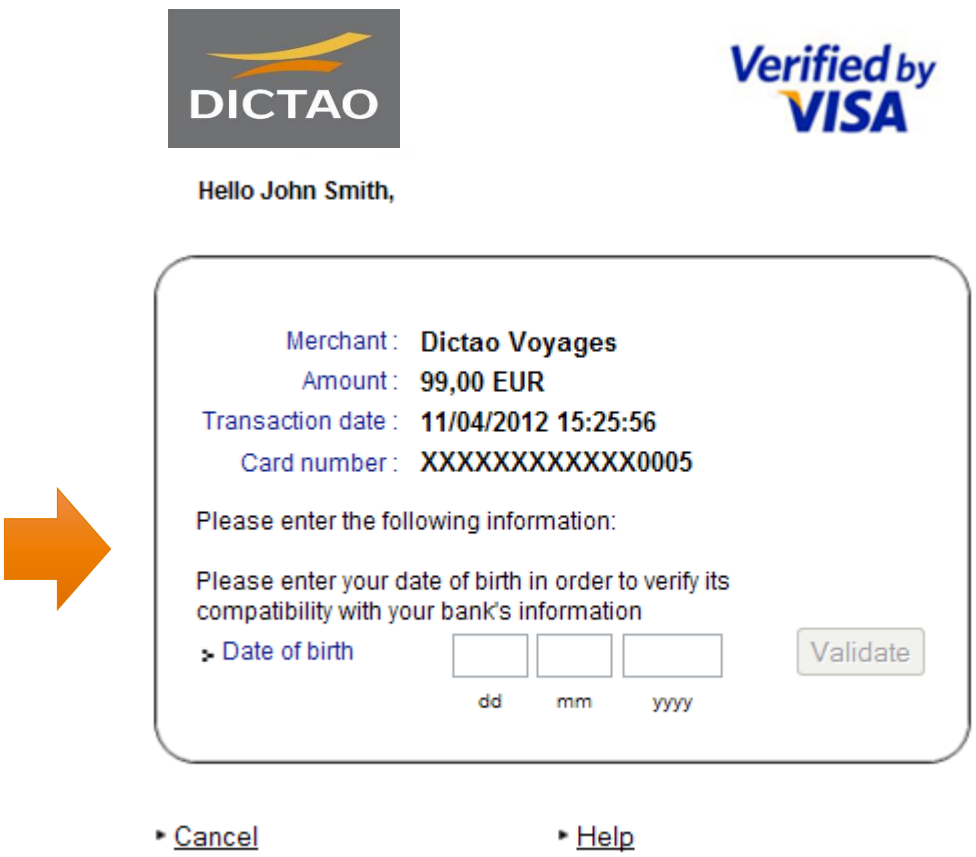

FALLBACK TO OTP SMS SHOULD THE CLIENT NOT HAVE AN EMV CAP READER

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DICTAO

Verified by VISA

Hello John Smith,

Merchant : **Dictao Voyages**
Amount : **1950,00 EUR**
Transaction date : **11/04/2012 15:43:51**
Card number : **XXXXXXXXXXXX0005**

Please enter the following information:

Please register the following code in your reader, and enter the 8 digits presented in the control code

- Challenge: 2107466
- Control code given by your reader: [ ] Validate

- I do not have my CAP reader

- Cancel
- Help

DICTAO

Verified by VISA

Hello John Smith,

Merchant : **Dictao Voyages**
Amount : **1950,00 EUR**
Transaction date : **11/02/2012 15:22:24**
Card number : **XXXXXXXXXXXX0005**

Please enter the following information:

Please enter the password sent to you by text in the control code

- Password sent by text: [ ] Validate

- Cancel
- Help

DICTAO AUTHENTICATION REFERENCES

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DICTAO AUTHENTICATION KEY NUMBERS

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- 11 Million registered customers on Dictao Access Control Server
- 15 000 strong authentications per day
- SaaS platform: managed by Dictao – hosted by Colt
- 99,99% measured uptime
- ISO 27001 certified
- Certified by Visa MasterCard
- Fully redundant architecture running on two data centers
- Active-Active configuration for DR capability
- Sized to handle twice current load

THE BANQUE POPULAIRE CAISSE D'EPARGNE EXAMPLE

	Key challenges	Dictao answers
Multifactor	▪ Manage multiple populations ▪ Offer different authentication methods to meet various usage contexts	▪ 2006 : Banque Populaire and Natixis – Enterprise Web Portal- Authentication by certificate ▪ 2007 : Banque Populaire – Web portals for Corporate and Individual clients - EMV CAP ▪ 2008 : Natixis - Enterprise Web Portal- EMV CAP and OTP SMS ▪ 2008 : Crédit Coopératif – Private client Web portal – EMV CAP ▪ 2009 : BPCE Group - 3D-Secure Online sales- EMV CAP, OTP SMS, birth date ▪ 2011 : BPCE – Private agency – EMV CAP and OTP SMS (pilot project) ▪ 2012 : Crédit Coopératif – Private client Web portal – mobile device OATH ▪ 2014 : SIM based OTP with Orange MNO, multi-factor eContracting / digital signature
Multichannel	▪ Operate different sales channels ▪ Depend on certifications adapted to usage contexts	▪ 2006 : Online banking ▪ 2009 : Online sales (Visa and MasterCard certifications for 3D-Secure) ▪ 2011 : Branch
Revenue development	▪ Link authentication and transaction ▪ Rely on an industrial solution	Online Sales: ▪ 6.7 million bank cards ▪ 58 establishments Online Banking: ▪ + 6 million users ▪ + 20 establishments

NEED TO CONCILIATE SECURITY, COST AND MOBILITY

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Vulnerability of common authentication factors

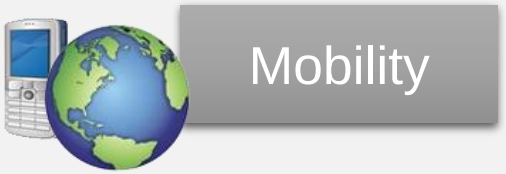
- **OTP SMS is attacked**
- **Pure software key storage is not strong enough**
- **Authorities are requiring non-replayable alternatives (e.g. Banque de France)**

Deployment should be done **without additional hardware equipment** (smartcard, USB token...)

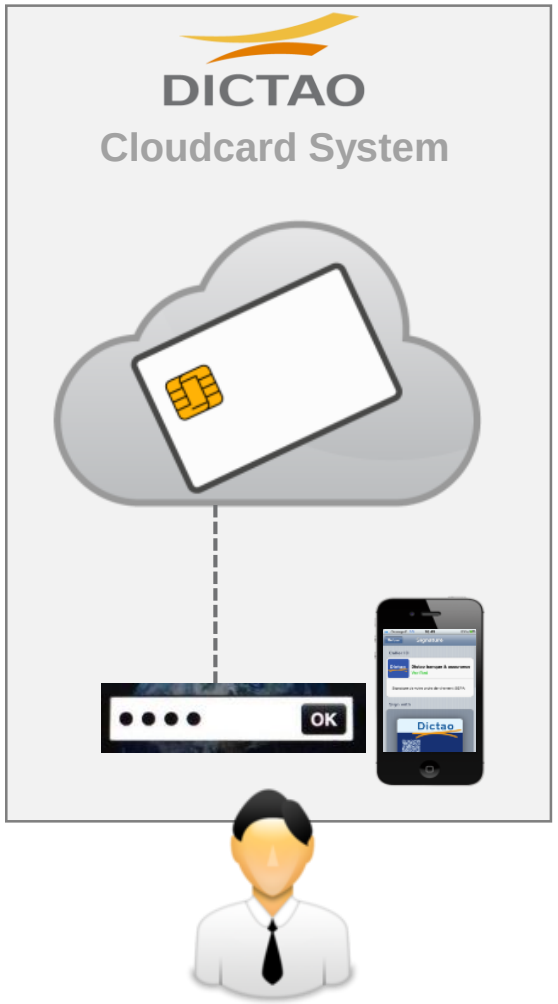
- **Smartphone is ubiquitous**
- **Deep trend of BYOD and TEE**

Solution should be **compatible with all types of devices** (smartphones, tablets, PC...)

- **Multiple form factors**
- **Multiple hardware and software environments**
- **Java no longer an option**



DICTAO CLOUDCARD



Enabling

- Strong Authentication
- Digital Signature

Using

- A white label Mobile App (Apple Store, Google Play)
- A centralized Server
- A sole control protocol

SOLE CONTROL PROTOCOL

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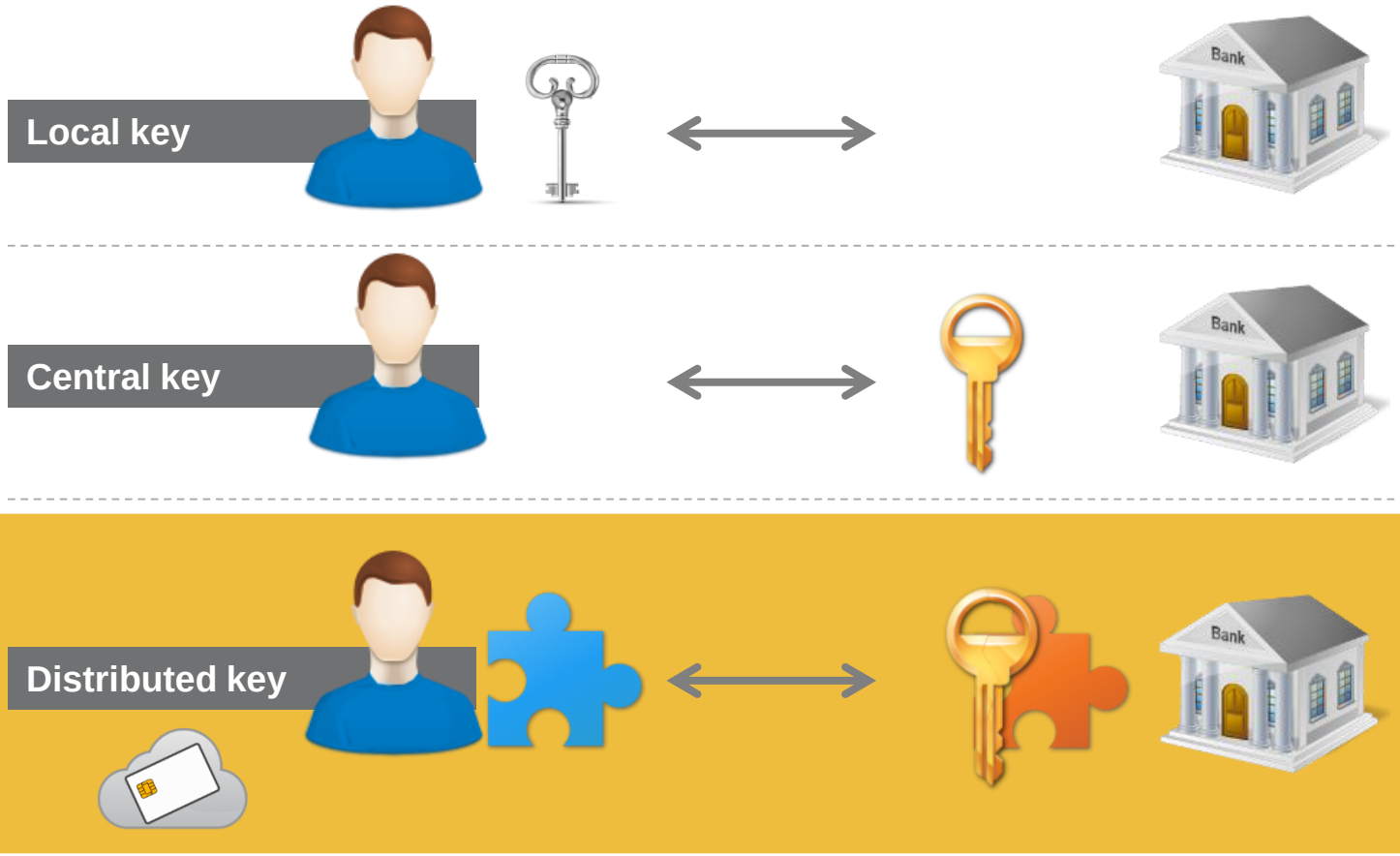

SECURITY PROTOCOL PATENTED

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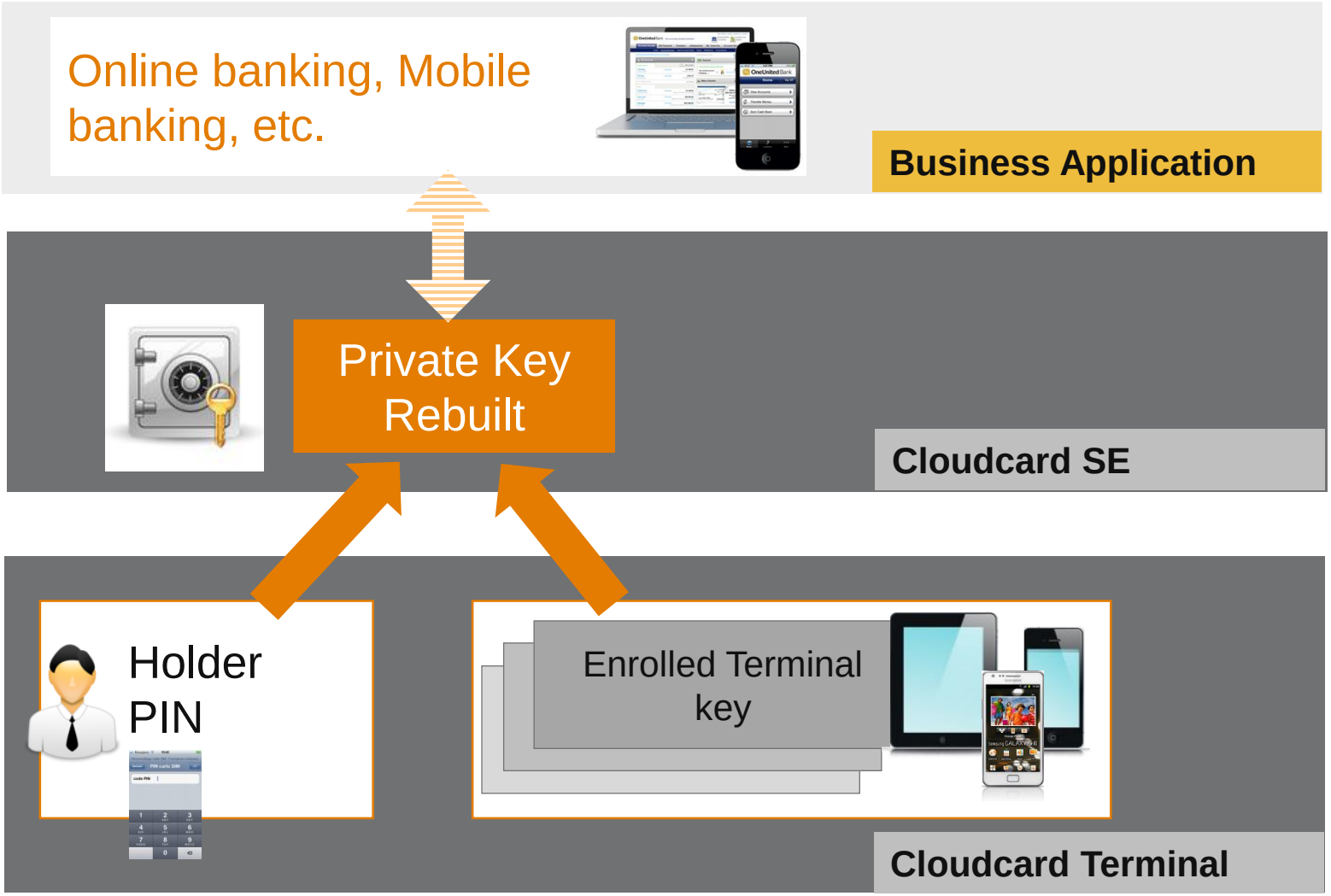
3 Private key used under sole control of the holder

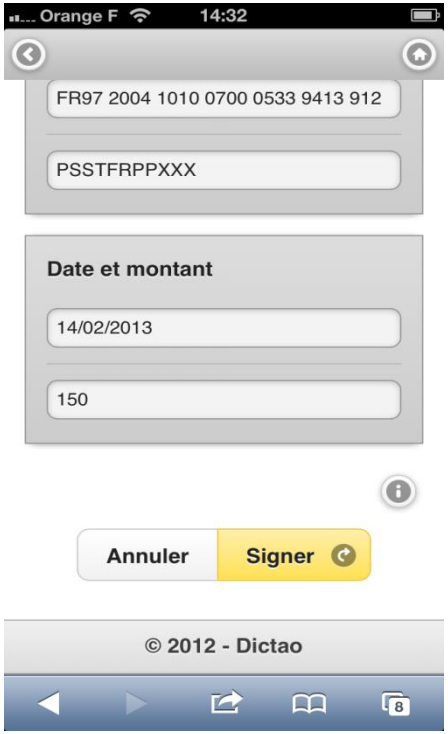
2 Holder private key rebuilt in a tamper-resistant hardware security module (HSM)

1 Holder consent and PIN entry

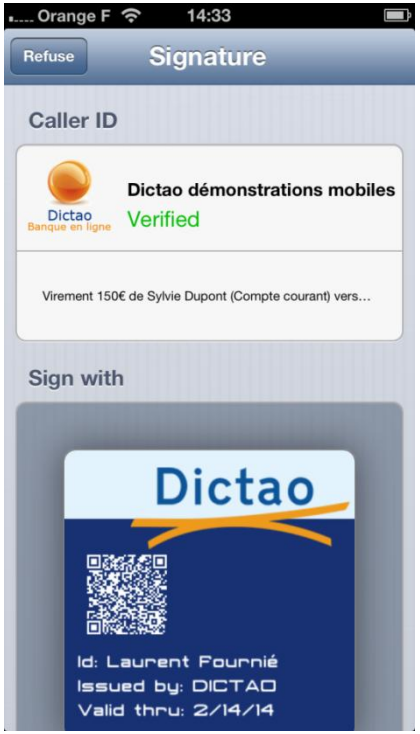


CLOUDCARD

Digital signature use (with standard PKI)



The transfer order is entered on the mobile phone, or comes from another channel



The Client verifies the request, and triggers the signature process

Switch from the business app to the Dictao Cloudcard app

The Client enters his PIN

The signature is returned to the application

Switch from the business app to the Cloudcard app

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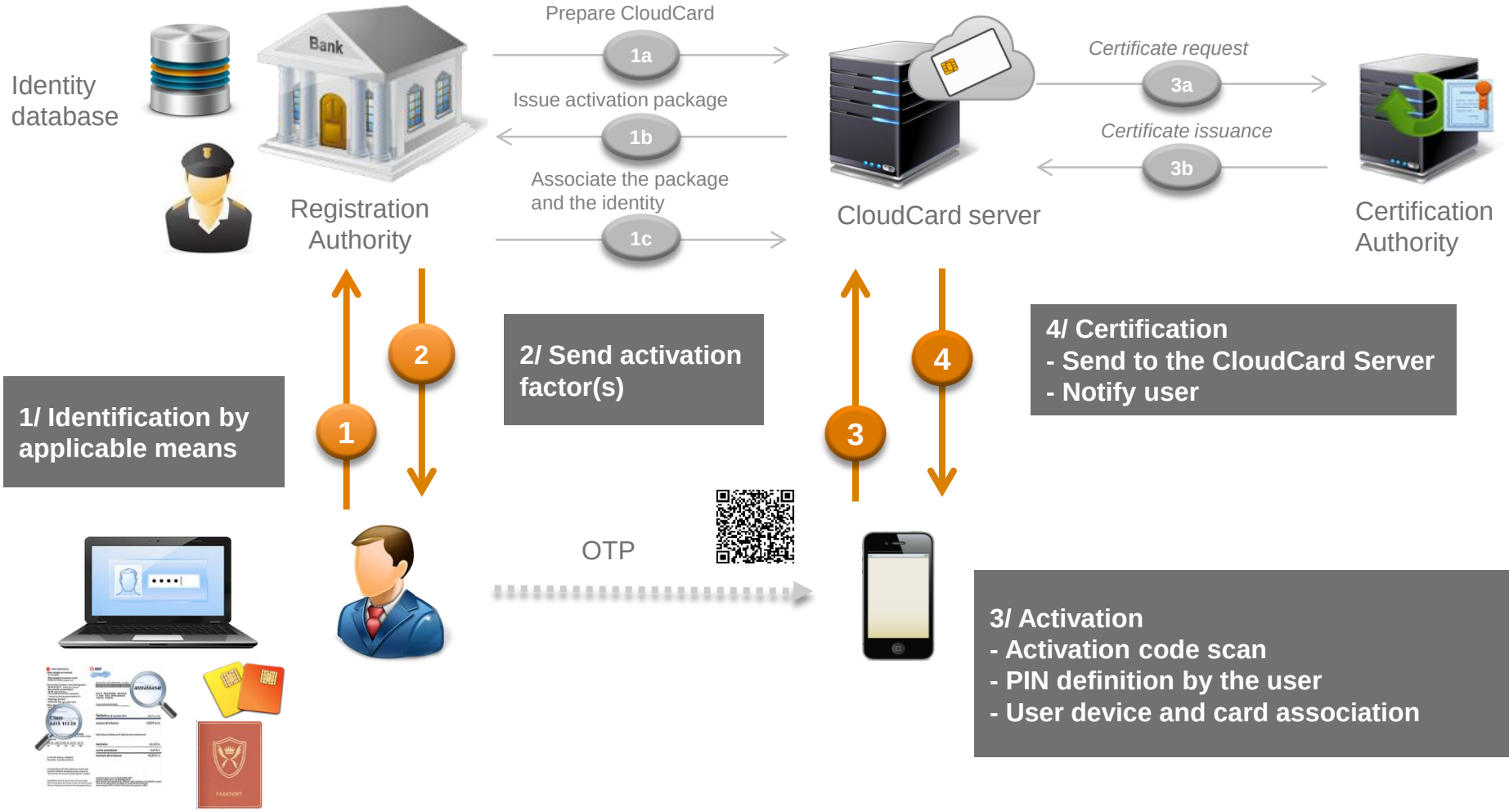
DEMO

CloudCard

CLOUDCARD

Registration process



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Experience in the Banking & Insurance sector:

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Q&A's

EXAMPLE OF A SECURE TRANSACTION PROCESS

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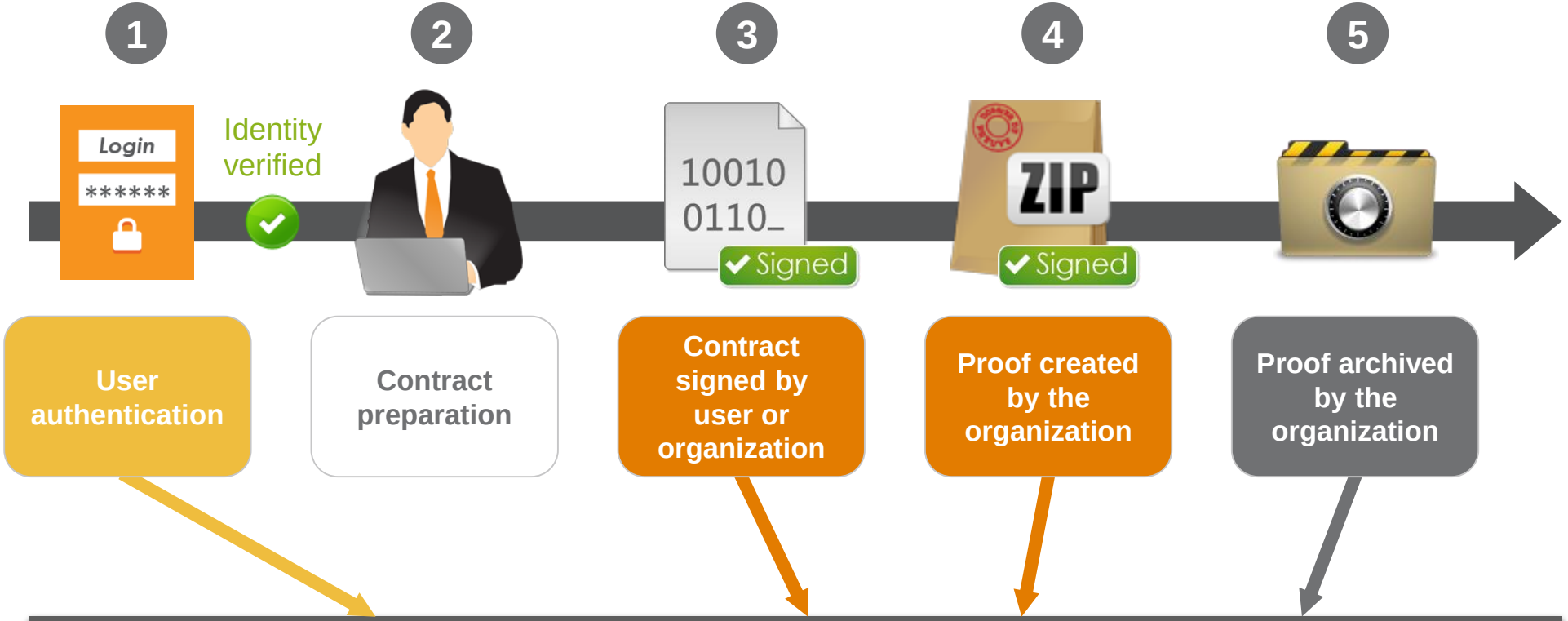

A SECURE TRANSACTION

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- Online 
- In-branch / point of sale 
- Call center 
- Field-based 

DICTAO

Digital signature and proof

- **E-contracting** for all sales channels
- Support all **contracting party profiles**
- Manage **the specific requirements** of each contract
- **Secure sensitive operations**
- Comply with the **legal framework**
- Adjust the level of **assurance and security** to the **risk level of the contract**

ARCHIVING AND TRACEABILITY

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Business applications ERMS, DMS, ERP …

DICTAO

Archiving and Traceability

Secure data over time

Guarantee the integrity of archived data

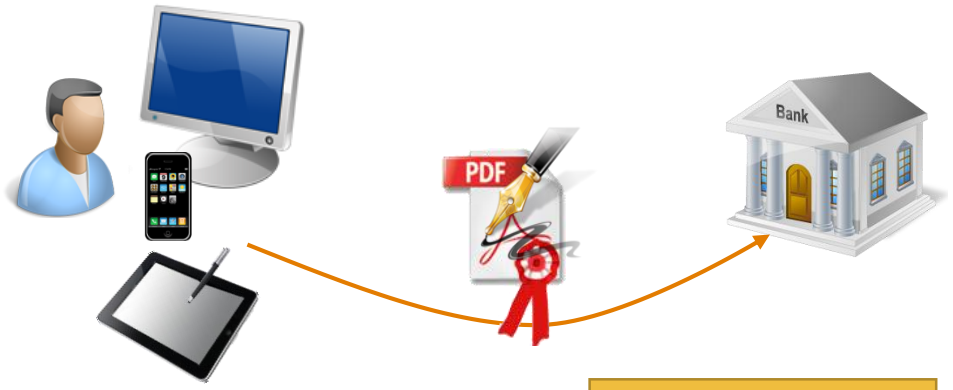
Guarantee **legally-binding value** of archived data

Collect and trace all data from a paperless process

Comply with the **regulatory framework** for archives

USE CASE 1/2

e- banking services



Desktop, mobile and tablets

Single or several signers

Synchronous / Asynchronous

Addition of supporting documentation

- **Banking services**
- **Insurances**
- **Daily banking (Transfers, etc.)**

AGENCY

iPad, tablets, wacom

Single or several signers

Cross canal

Addition of supporting documentation

- **Personnel Loan with witness signature**
- **Check Recovery**
- **Daily banking (Transfers, cash deposit, etc.)**

USE CASE 2/2

ROAMING CONTRACTUALISATION

Desktop, mobile and tablets

Single or several signers

Synchronous / Asynchronous

Addition of supporting documentation (snapshot)

- **Account Creation**
- **Health insurance**

Phone selling

iPad, tablets, wacom

Single or several signers

Cross canal

Addition of supporting documentation

- **Account creation**
- **Savings products**
- **Credit card contract**

DEMO

DTP

Flexibility depending on the business context

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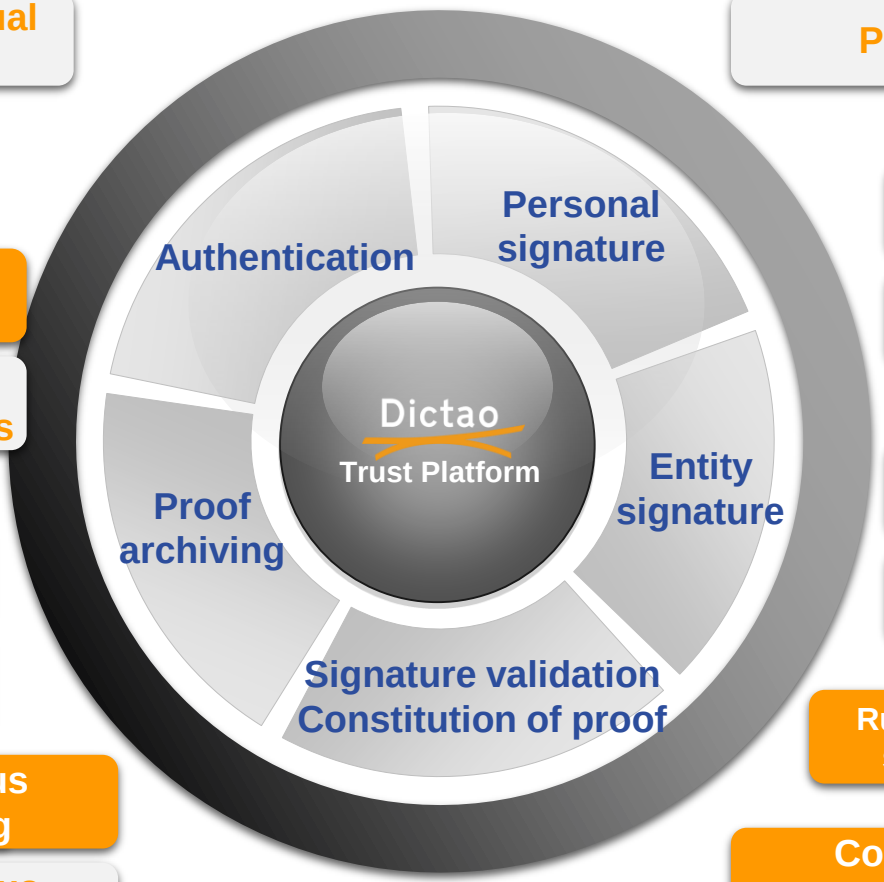
- One contractual document
- Several contractual documents
- Client
- Prospect
- Single signer
- Multi-signers
- Multi-method authentication
- Running of authentication terminals
- User with a certificate
- User without a certificate
- Monochannel
- Multichannel
- Runnning of external signature devices
- Synchronous contracting
- Asynchronous contracting
- Contracting processes on tablets



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- 2nd wave: Strong Authentication
- 3rd wave: E-Contractualization

Q&A's

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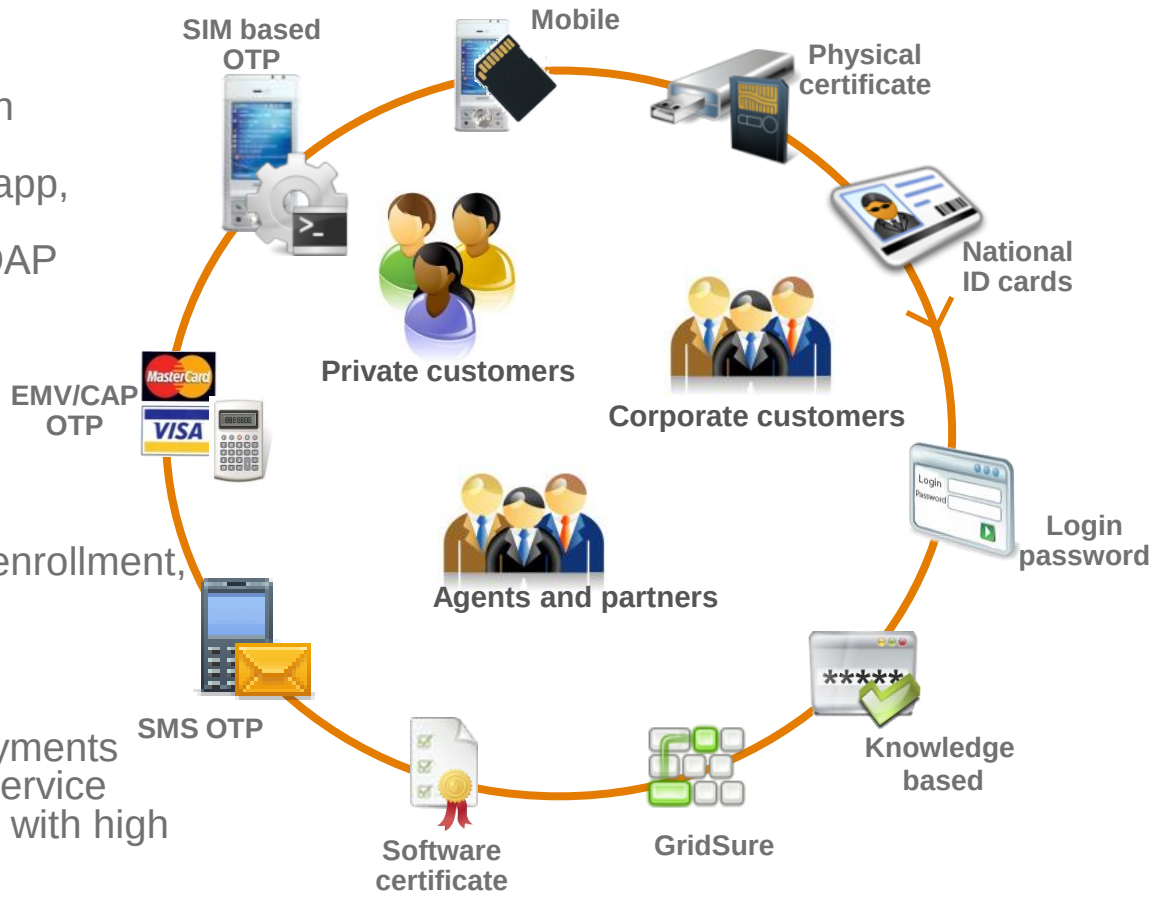
PRODUCT PORTFOLIO
(BACK-UP)

June 2014

DACS

Multi-factor authentication solution

- Centralized authentication
  - Wide applicability: access and transaction authentication, SSO, identity federation
  - Multiple applications: web portal, mobile app, VPN/network access
  - Users' repository: embedded, existing LDAP directory or relational databases
  - Protocols: SAML2, 3DS, SOAP APIs
- Advanced authentication system
  - Context based authentication workflow
  - Identity evidence for authentication
  - Consent evidence for transactions
  - Secure management of factor life cycle (enrollment, renewal)
  - Traceability of system administrators
- Mature product
  - Multi-tenant design for on-premise deployments
  - Ready to use, scalable and guaranteed service available through our SaaS infrastructure with high SLA



DTP

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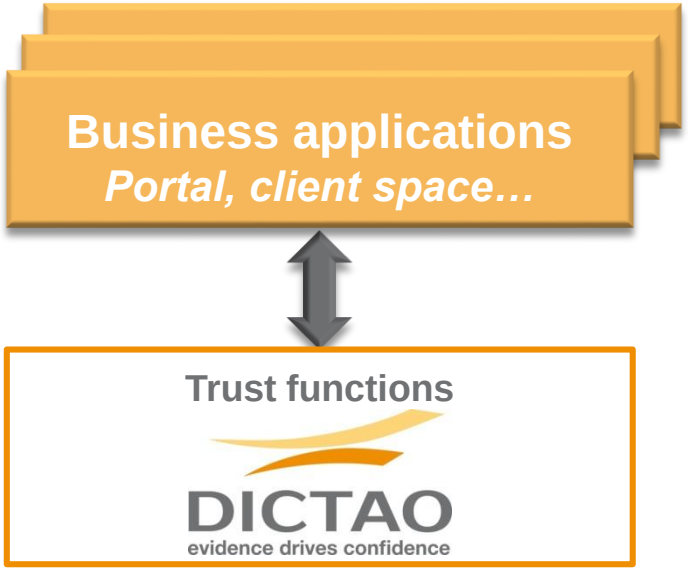
Multichannel e-Contracting solution

- Contract solution
  - Management and traceability of the transaction
  - Authentication, sealing and personal signature
  - Constitution of a legally binding proof file
- Modular
  - Customizable, adapted to the client / business context
  - Multichannel, multi-population, multi-business
  - Providing UI or fully integrated within third-party UI
- Compliant
  - Conforms to the legal framework
- Industrial
  - Multi-functional solution: can be shared between organization departments
  - Available as SaaS on platforms with high SLA



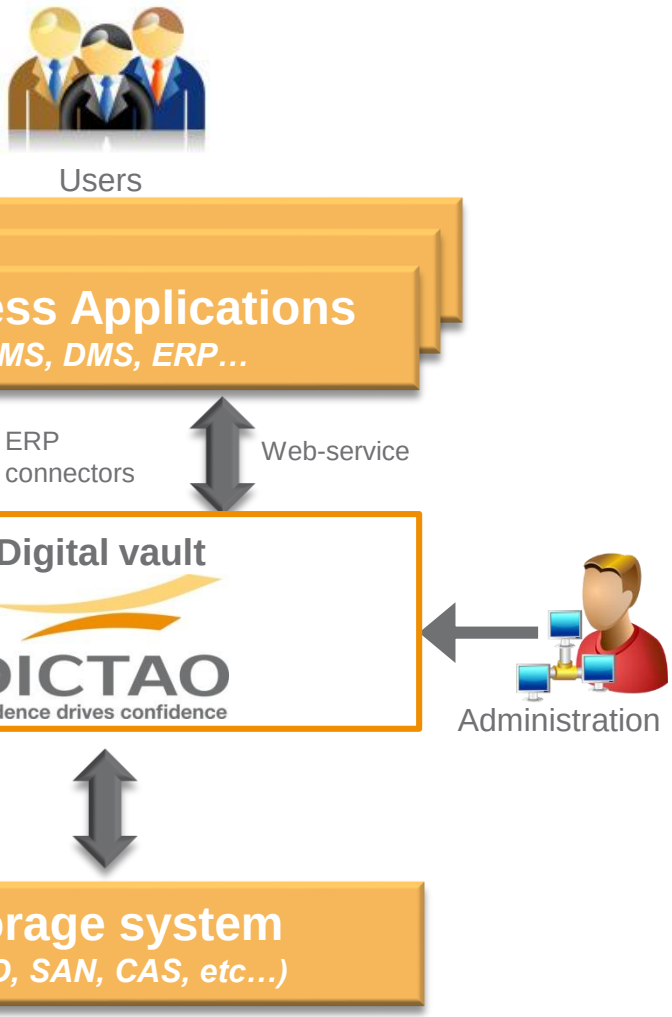
Certified CSPN by the French ANSSI*, built around CC EAL3+ certified and qualified components

*French Networks and Information Security Agency

D3S

Secure Archiving and Traceability

- Back-office digital vault
  - Authenticity
  - Integrity
  - Non-repudiation
  - Confidentiality
  - Auditability
- Compliant
  - NF Z42-020 compliant
  - Certified FNTC-CFE
  - NF Z42-013 (ISO 14641-1) and SIAF compatible
- Multi-application
  - Confidentiality between vaults
  - Off-the-shelf and custom descriptive file models
  - Pre-integrated with DTP and DxS



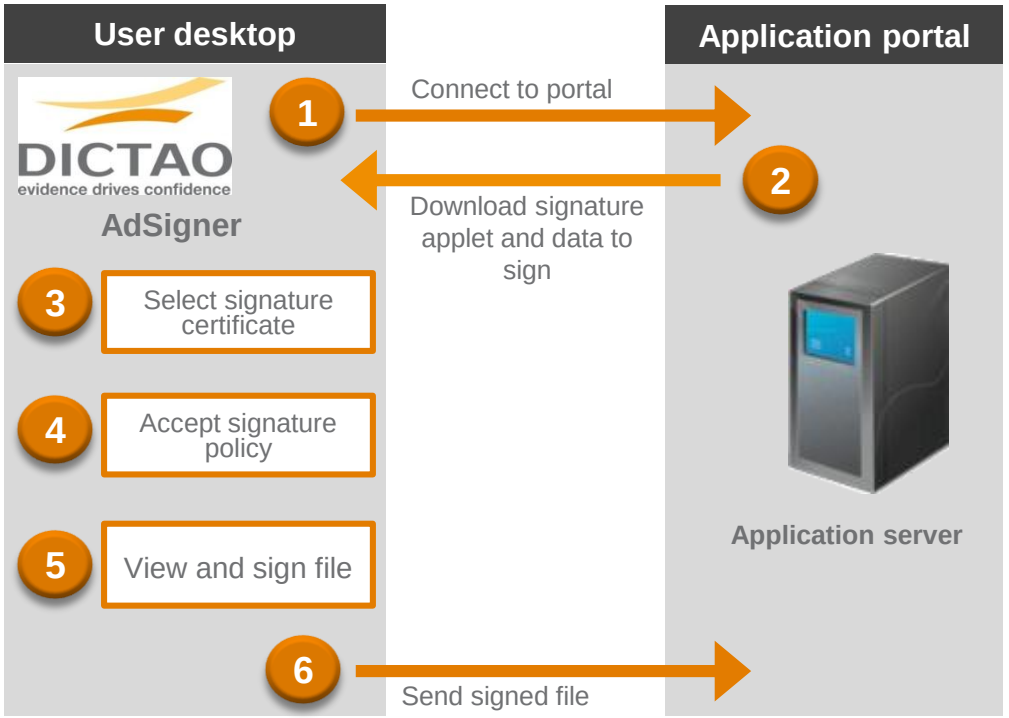
CSPN certified by the French ANSSI, built around Common Criteria EAL3+ certified components Certified FNTC-CFE

SIAF : Interdepartmental Service Archives of France
CSPN : First Level of Security Certification
ANSSI: French Network & Information Security Agency

ADSIGNER

Signature on user desktop

- Document signature
  - All document types (PDF, HTML, XML, binary)
  - In a range of formats (ex. XAdES, PAdES, CMS)
  - Personal signature
- Secure
  - Signature key protected by hardware token
- Multi-environment
  - Many OS and browsers
  - Localisation
- Configurable
  - Certificate filtering
  - Signature and consent policies



Certified Common Criteria EAL3+ and qualified by the French ANSSI*

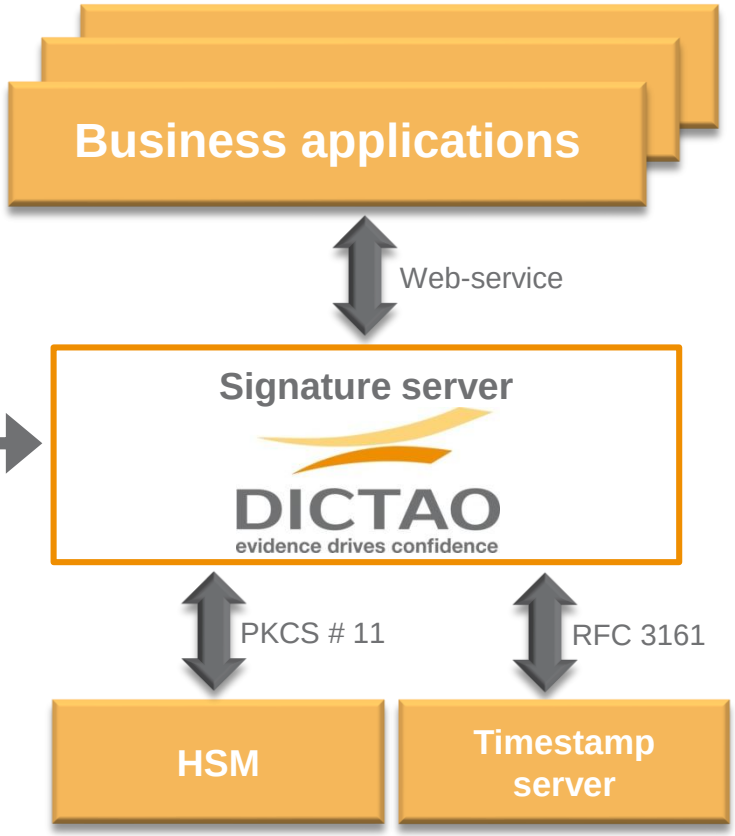
*French Networks and Information Security Agency

D2S

Signature Server

- Signatures on behalf of an organization or an individual
  - Any type of document (or hash)
  - Numerous signature formats (XAdES, CMS, PAdES…)
  - Signature proof
- Secure
  - Signature key protected by HSM
  - Auditable
- Multi-applications
  - Easy integration
  - High-performance, application groups

Users



Certified Common Criteria EAL3+ and RGS qualification in progress; Qualified by the Bundesnetzagentur; FIPS 140-2 compatible

Bundesnetzagentur

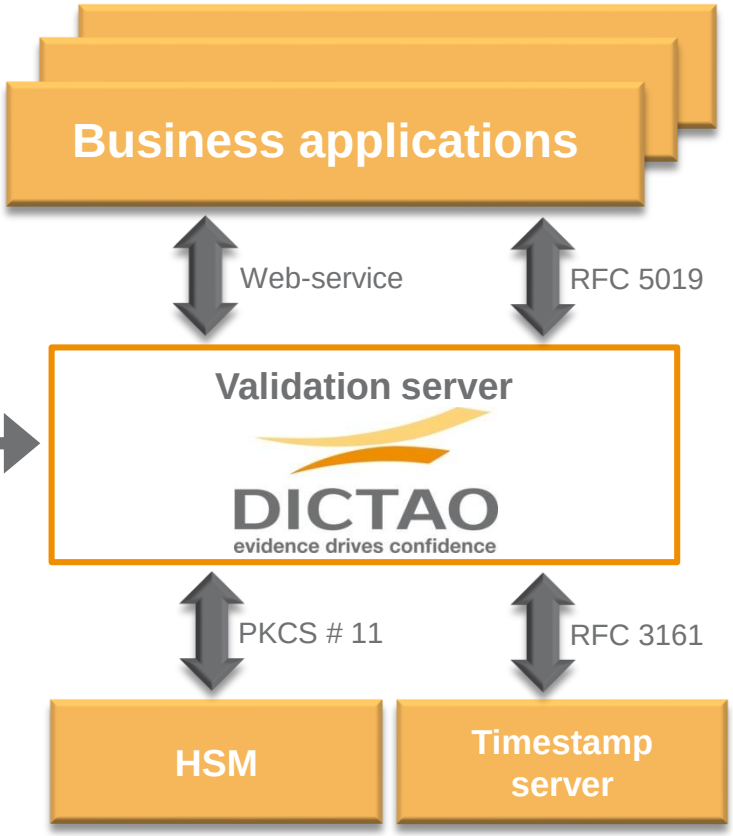
DVS

Validation Server

- Validation
  - Of certificates, signatures, and authentication factors
  - Validation of the certification chain
  - Many formats and signature types
  - Validation of data or hash
  - Numerous configurations, legal controls
  - Signature completion
  - Validation proof
- Multi-applications
  - Easy integration
  - High performance, application groups

Users

Administration



*French Networks and Information Security Agency

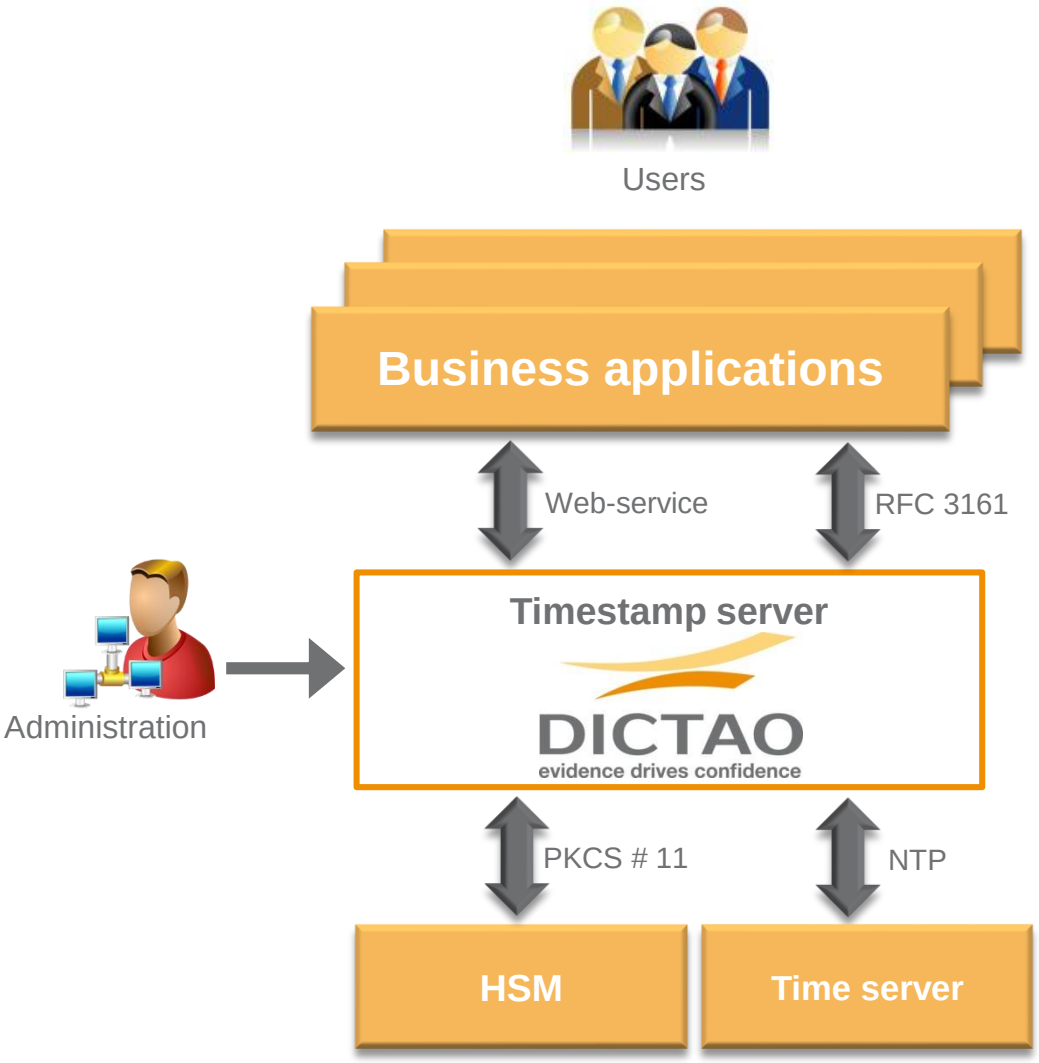
Certified Common Criteria EAL3+ and qualified by the French ANSSI*; Qualified by the Bundesnetzagentur; FIPS 140-2 compatible

Bundesnetzagentur

DTSS

Timestamp Server

- Generation of the timestamp token
  - RFC 3161
  - Timestamping of documents
  - Timestamp proof
- Control of the time drift
  - Via NTP
  - Definition of reference servers and rules
- Secure
  - Keys protected by HSM
- Multi-application
  - Easy integration
  - High performance, application groups



FIPS 140-2 compatible

CLOUDCARD

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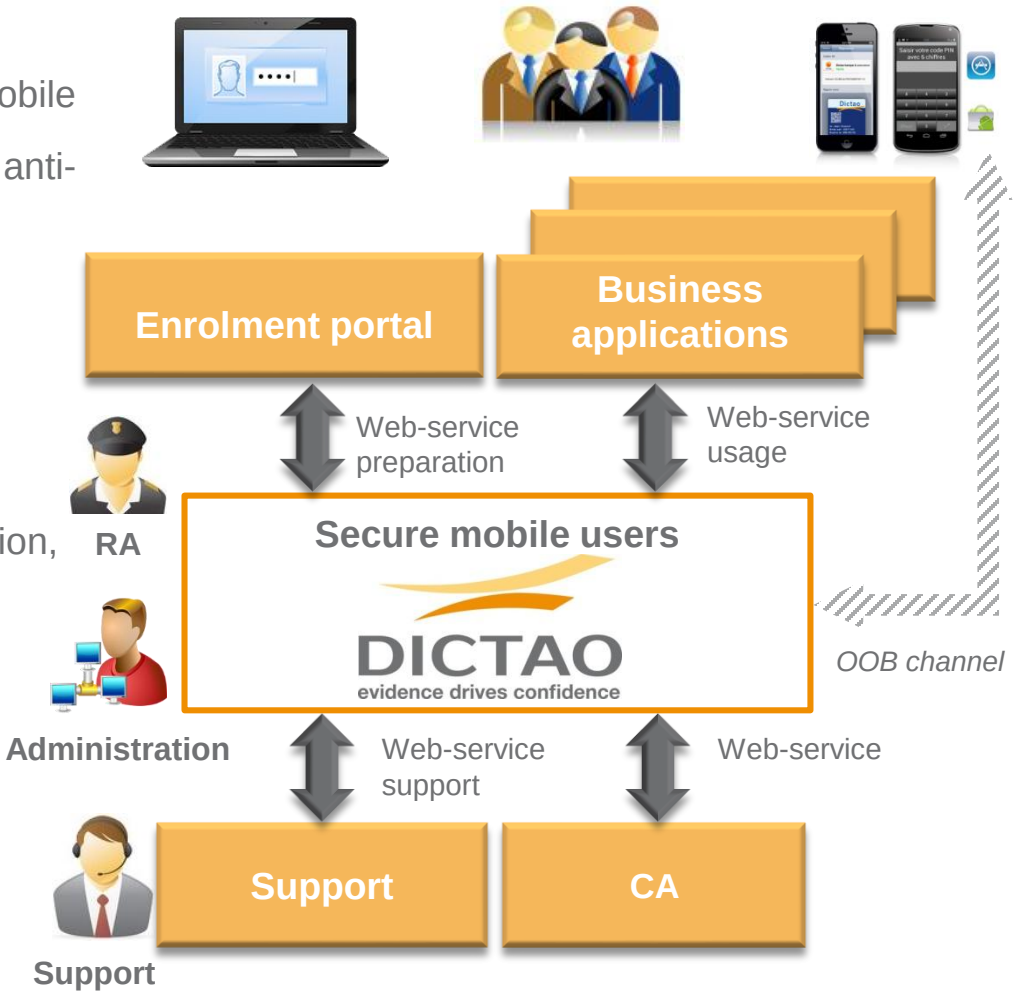
Securing identities and transactions with a smartphone

- A comprehensive system for securing mobile users
  - Strong authentication and digital signature using a mobile app and a tamper resistant server
  - Comprehensive protection: anti-phishing, anti-MiTM, anti-MTIB, anti brute force attack, etc.
  - Out-of-band channel option to secure any terminal
- A flexible system
  - Strong authentication (no PKI required)
  - Digital Signature (with any standard PKI)
- Extended usage and lifecycle capabilities
  - End-user activation, customization and self-care integrated in the CloudCard App
  - Life cycle and Usage API for administration, registration, business app, support centers and more
- Using smartphones as authentication factor
  - Already in the user's pocket!
  - Intuitive and seamless user experience
  - Available on Apple's AppStore and Google Play



Common Criteria EAL3+ certification and qualification under study with ANSSI* FIPS 140-2

*French Networks and Information Security Agency

OFERTA PARA BIESS

BERTRAND MOUSSEL

DICIEMBRE 2013

REQUERIMIENTOS

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Solucion para contratacion de prestamos quirografarios en linea

- Para el proceso de otorgamiento de los prestamos quirografarios del BIES, se requeriran una sobre-autenticacion o una firma electronica para asegurar las solicitudes, por la pagina Web del BIESS.
- Los objetivos son la busqueda de :
  - El sellado de tiempo de la solicitud
  - La no-repudiaccion (por autenticacion adicional por OTP-SMS)
  - La integridad del contrato de prestamo quirografario (como opcion adicional)
- El segundo factor para una autenticacion adicional, no debera afectar el método de autenticacion inicial, si no que debera ser usado después que el cliente ingresa a la pagina del banco.
- La solucion preferida es un « OTP » (One Time Password) enviado por SMS al teléfono del cliente con un numero que debera ser ingresado en la pagina Web para solicitar el préstamo.

DOS ETAPAS

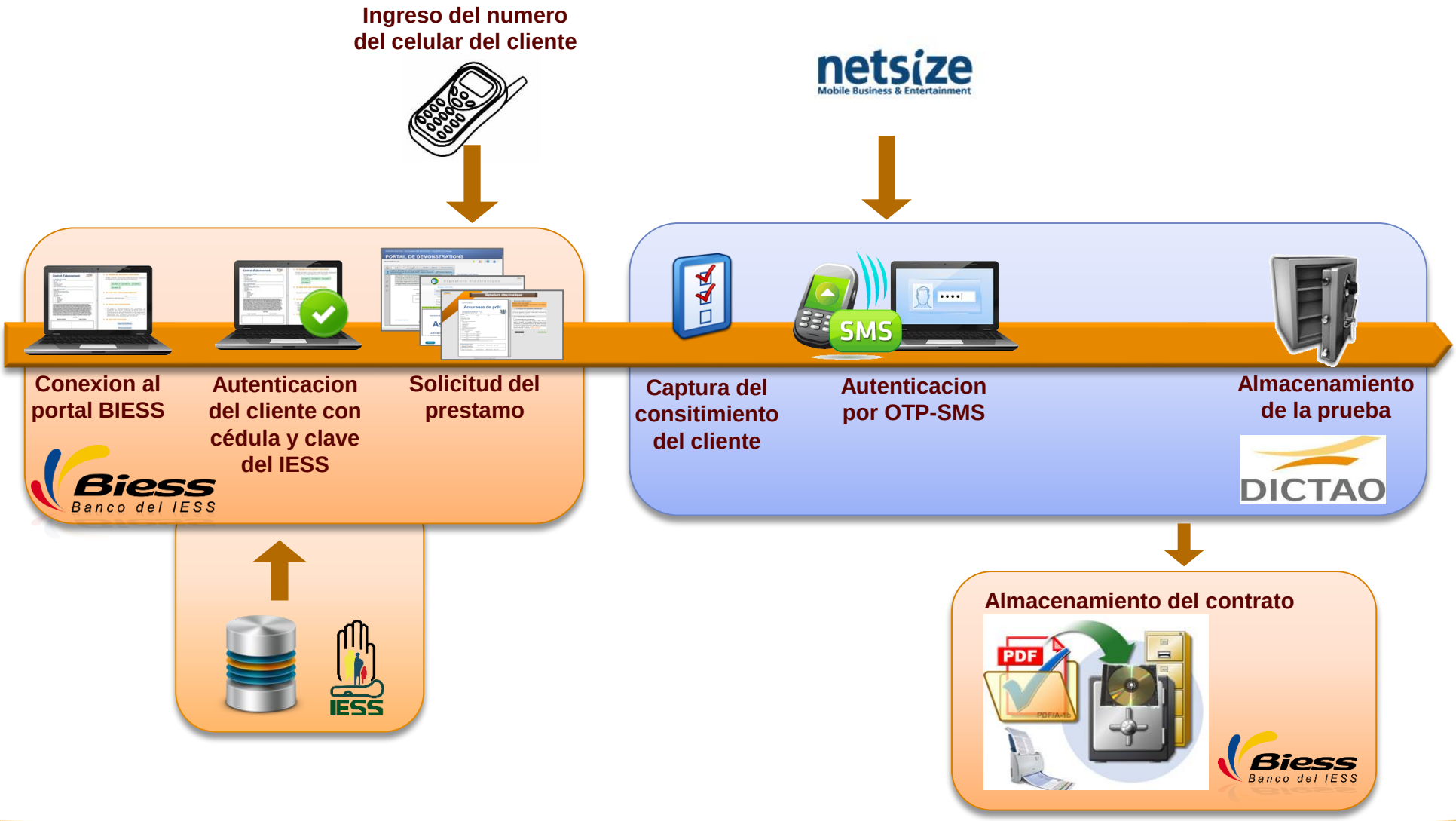
Solucion para contratacion de prestamos quirografarios en linea

1. ***La primera etapa*** sera realizada con una sobre-autenticacion por OTP-SMS que garantizara:
   - La captura del consitimiento del cliente de la BIESS
   - La no-repudiaccion (por autenticacion adicional por OTP-SMS)
   - El sellado de tiempo de la solicitud

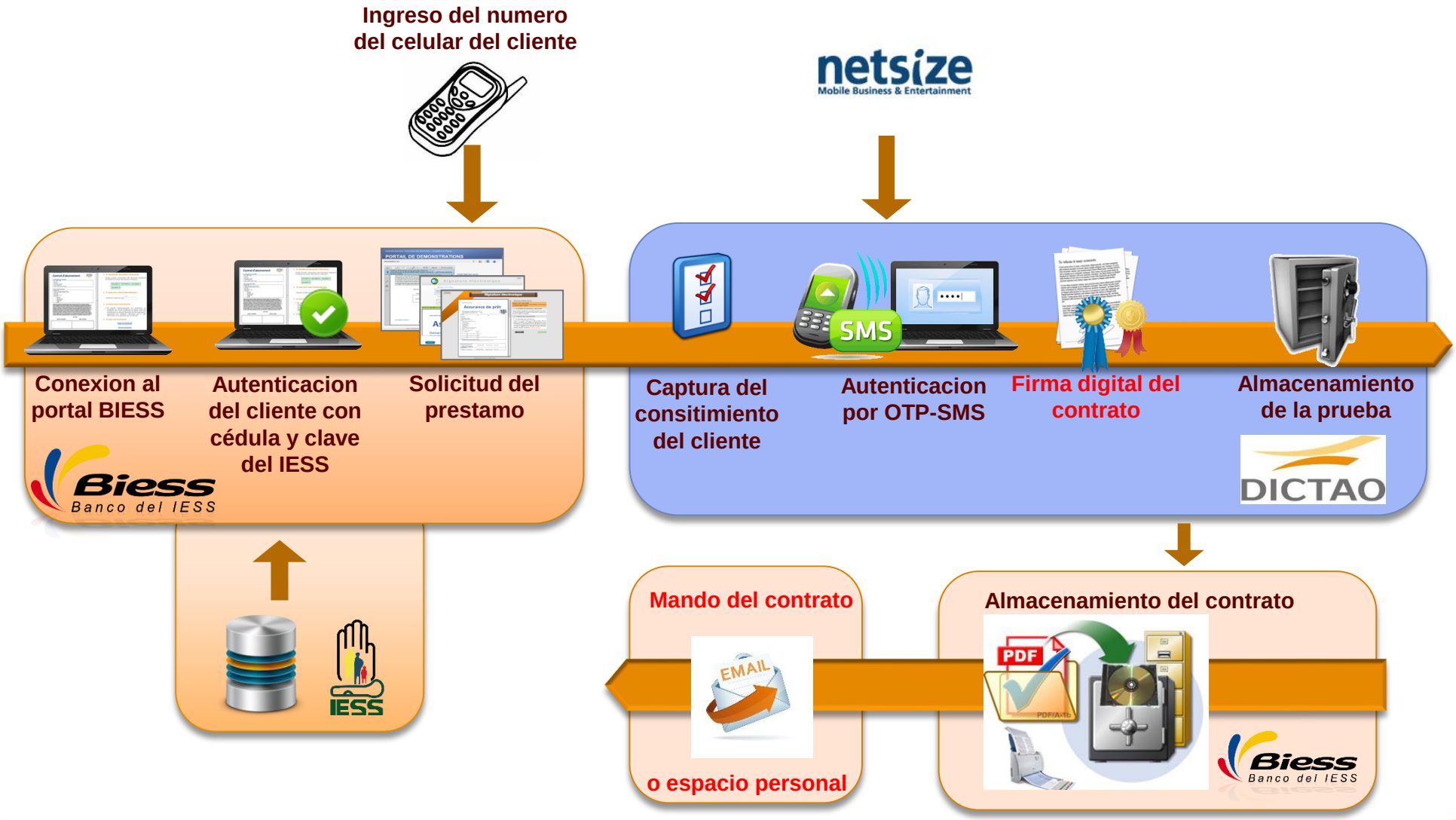
   El « OTP » (One Time Password) enviado por SMS al teléfono del cliente con un numero que debera ser ingresado en la pagina Web para solicitar el préstamo

2. ***La segunda etapa (opcional***) sera completada por una firma del la BIESS que garantizara:
   - La integridad del contrato de prestamo quirografario
   - En particular si el contrato es enviado al cliente (e-mail o espacio personal en la pagina web de la BIESS – opcional)

FLUJO FUNCCIONAL DE LA SOLUCION ETAPA #1



FLUJO FUNCCIONAL DE LA SOLUCION ETAPA #2



DESCRIPCION DE LA SOLUCION

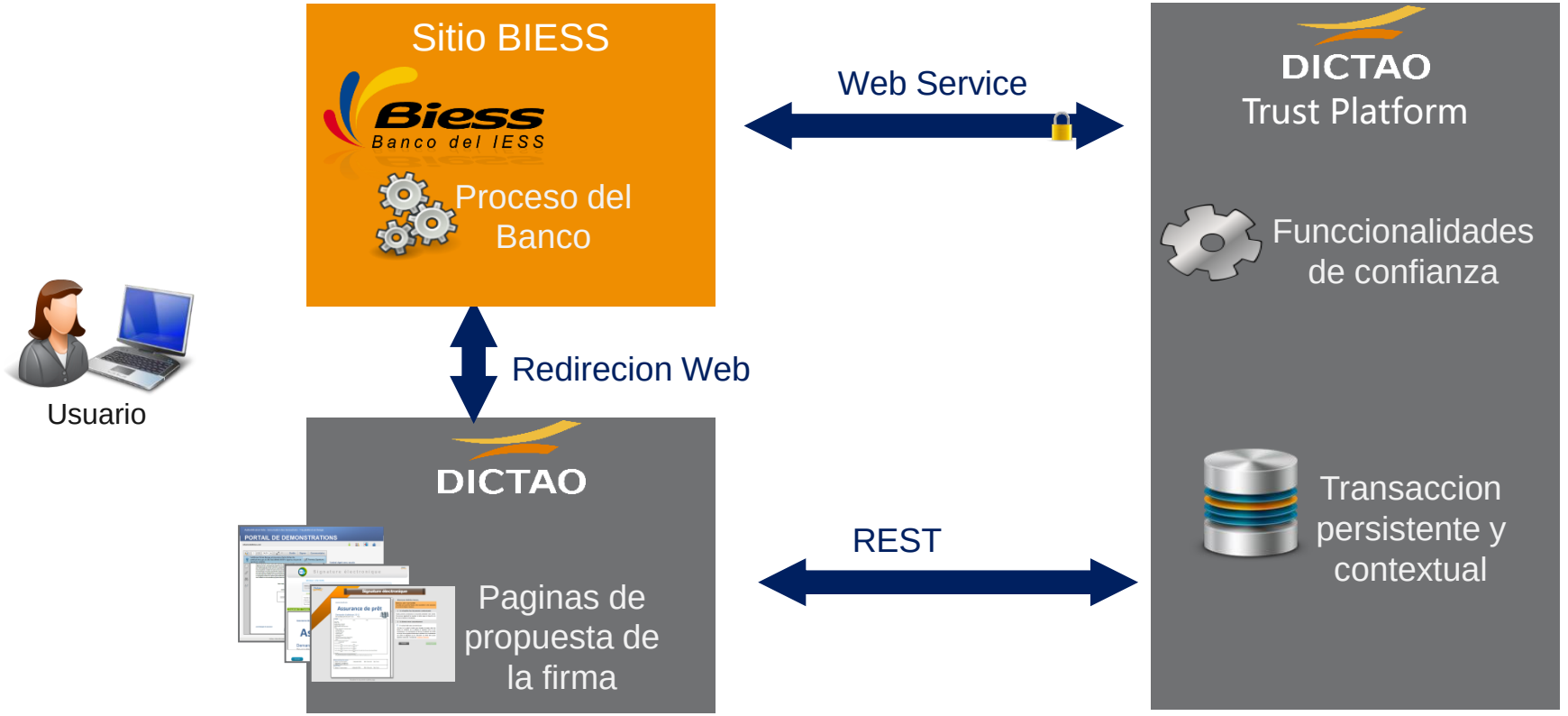
Solucion de doble factor por medio de OTP - SMS

- El producto propuesto por DICTAO es una plataforma que tendra las caracteristicas siguientes:
  - ***Primera etapa*** : plataforma llamada DVS (Dictao Validation Server) para validar la segunda autenticacion.
  - ***Segunda etapa :*** plataforma DTP (Dictao Trust Platform) para firmar los contratos

- Cualquiera etapa :
  - Puede ser demonstrada en modo SaaS (Software as a Service)
  - Puede ser transferida en Ecuador (LOGIKARD), o internalizada
- Las pruebas tienen valor legal con certificaciones intrenacionales (CSPN, EAL3+, etc.)
- El servicio propuesto de envio de SMS para los OTP's, puede ser operado por NETSIZE que tiene vinculacion con todos los operadores Ecuatorianos (acesos directos a todos los centros SMSC)

INTEGRACION WEB CON LA PAGINA DE BIESS

Architectura funccional



PRESUPUESTO

- **Modo SaaS, desde Francia, etapa #1 (doble autenticacion)**
  - Costos « one-shot » :
    - 9000 € para el setup & manejo del proyecto
    - Registracion de cada nuevo usuario: 0.2 € HT / nuevo usuario
  - Costos mensuales segun el rango de usuarios registrados :
    - 600 € /mes para menos de 20 000 usuarios
    - 750 € /mes para menos de 100 000
    - 900 € /mes para menos de 200 000
  - Costos a la transaccion :
    - Authenticacion : 0.11 € por authenticacion
    - Costo del SMS : 0.35 € (eso es una estimacion para un SMS internacional mandado desde Francia).

- **Modo SaaS, desde Francia, etapa #2 (firma digital)**
  - Mismo modelo de costos, con las modificaciones siguientes:
    - Set-up y manejo de proyecto : 10,000 € (vs 9000 €)
    - Costo a la transaccion de firma: 1 € (vs 0.11 €)

- Modo SaaS, desde Quito
  - A definir con LOGIKARD
- Modo internalizado
  - A definir como proyecto con BIESS

PROXIMOS PASOS

1. Videos de demonstracion
2. Espacio de demonstracion desconectado
3. Integracion con la infraestructura T.I. de BIESS
4. Migracion de la solucion a Ecuador (LOGIKARD o internalizacion a BIESS)

EL NIVEL DE SEGURIDAD DEPIENDE DE LOS FACTORES DE AUTENTICACION ELEJIDOS

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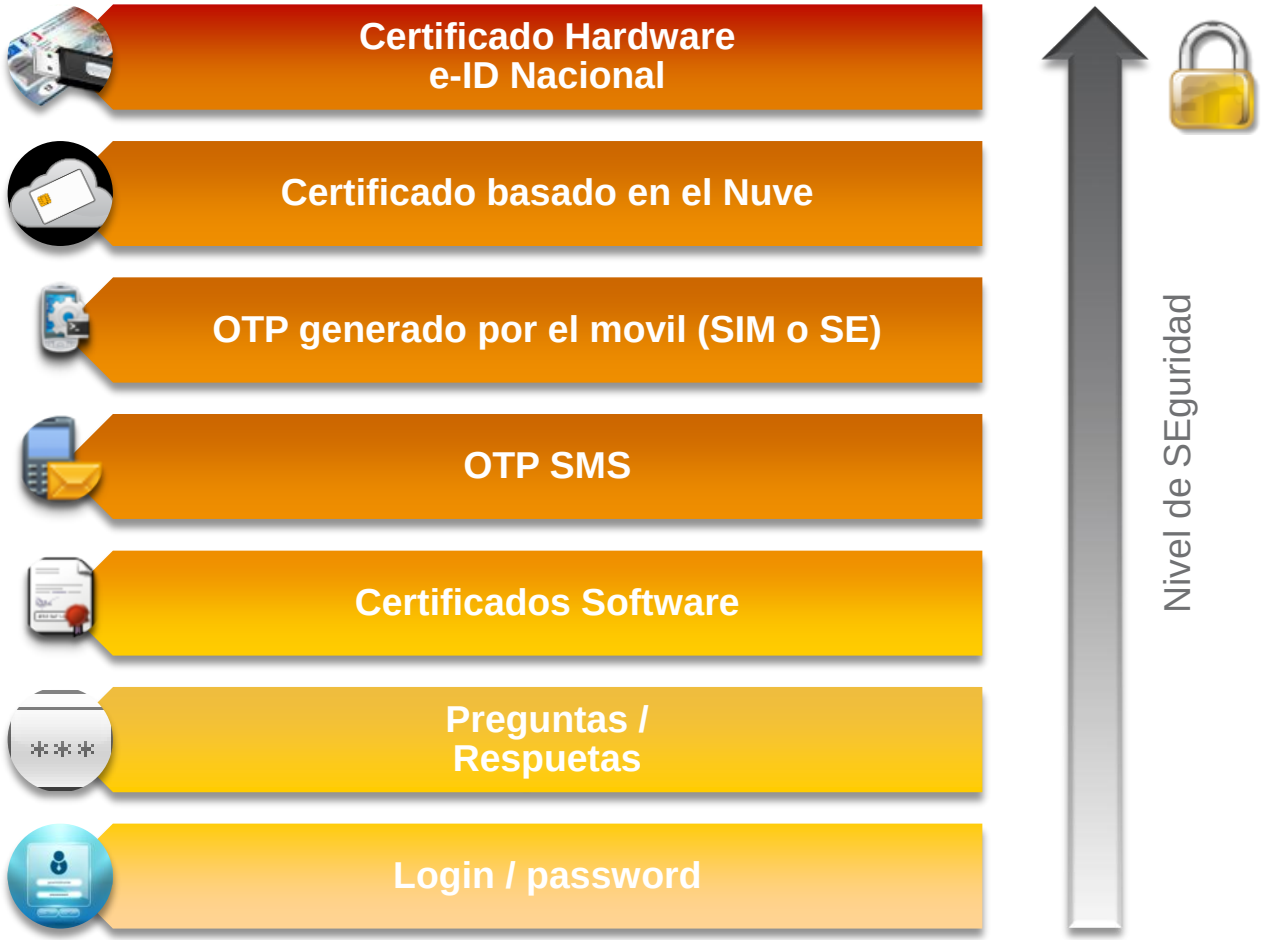

OPCION DE INTEGRACION MULTI-FACTOR

- Para proteger la inversion de la BIESS, podria ser interesante de implementar una solucion con multi-factores de autenticacion. Eso permitira de hacer convivir varios factores de autenticacion y de integrar nuevos factores en el futuro

  - El producto que propone DICTAO es su DACS (Dictao Authentication Server)
  - El DACS se integrara en la solucion « SaaS » o internalizada en la infrastructura I.T. de la BIESS, en una segunda etapa
  - El DACS maneja la reglas de negocio elejidas para cada situacion

FLUJO FUNCCIONAL DE LA SOLUCION CON DACS