IFS Cloud overview

December 2023

IFS Features

International Financial Services (IFS) System

IFS system overview

Operational system for international and domestic postal payments management

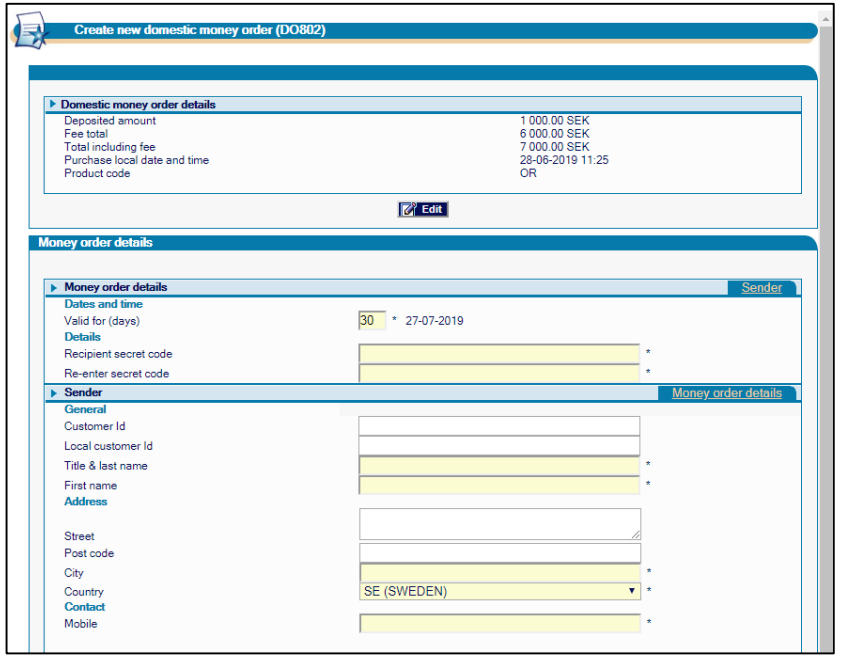
- **International** postal payments
  - Follow by default UPU **Postal Payment Services Agreement** (PPSA)
  - Exchange postal payments details with Designated Operators (DO) according to the established **UPU EDI standard (M38)**
  - Support of the different products for **remittances** (OR - cash to cash) and **other products** when the Designated Operator (DO) integrates with bank accounts (CT - cash to account, IN - account to cash and GT - account to account)
  - Corridor exchanges tailored according to DO process thanks to **bilateral agreement** definition
  - Cash on delivery (COD) compatible

- **Domestic** postal payments
  - Support same products than international, but fully **customizable** to propose various products to customer thanks to the definition of **multiple service agreements** according to national processes
  - **Integration with DO** system or local DO **systems** with API

IFS components

Multiple components (1/3)

— **Front office** features to perform **basic postal payment operations**
  - Emission, payment, reimbursement and tracking with automated customer fees calculations
  - Customer receipts (letter, customized print format or SMS)
  - Office and user **cash management** follow up
  - Web site or android mobile user interfaces



— **Back office** features
  - Postal payment **exceptions operations**: cancellation management, secret code unlocking, payment impossible declaration, expiration (individual or batch treatments)
  - **Notifications** management (notification letters or pre-filled postal payment forms according to PPSA)
  - **Domestic claims** management
  - **Customer database** management

IFS components

Multiple components (2/3)

- **Accounting office** features
  - **Accounting** reports for internal usage
  - Generation of **UPU official international accounting** documents
  - **Monitoring** reports for observing postal payment flows and amounts, globally or individually for each destination on the PPS network
  - **Cash management** reports: Credit / debit balance, etc
  - Automated report subscription

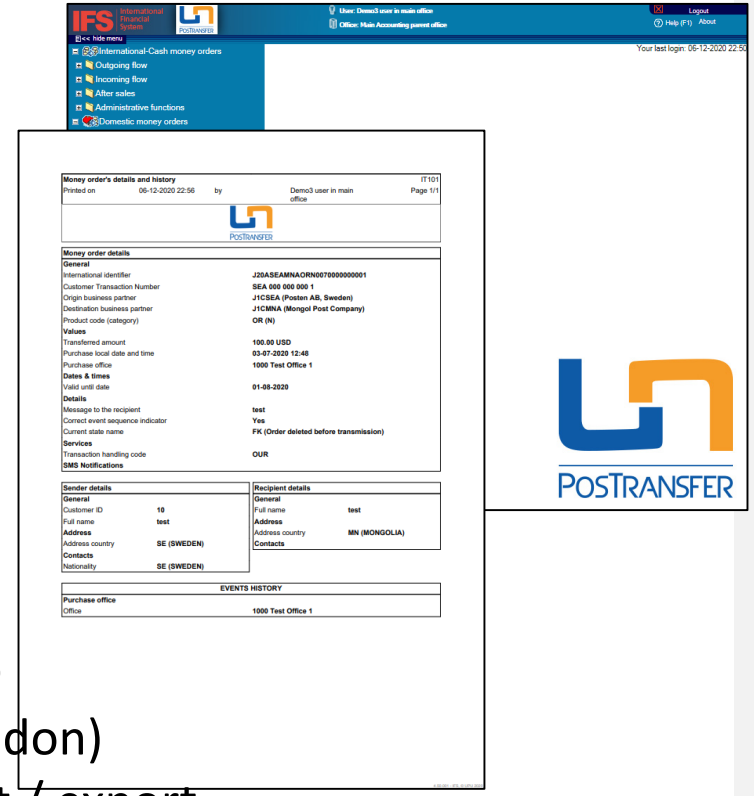
- **Business management** features
  - DO **local services settings** (point of sales, customer limits, working days)
  - International and Domestic **services definition** (bilateral and service agreements with associated customer fees and remuneration)
  - Currency **exchange rates** management or automatic download from PPS*Clearing

IFS components

Multiple components (3/3)

— **System management** features

- **Authorization** (user credentials and privileges) management
- User interface **customization** (incl. report & receipt content customization and appliance of brand header)
- **SMS** provider configuration
- **Archive** database administration tool



— **System interoperability**

- **Automated IFS service** to automate EDI files exchange with other DO and process automated postal payment operations (expiration, abandon)
- **XML** interface for international and domestic postal payments import / export
- **Web Services** for international and domestic postal payments, customers integration with DO systems
- Built-in **PPS*Clearing** compatibility (automatic exchange rates retrieval, amount conversion and remuneration calculation)

IFS and Exchange rates

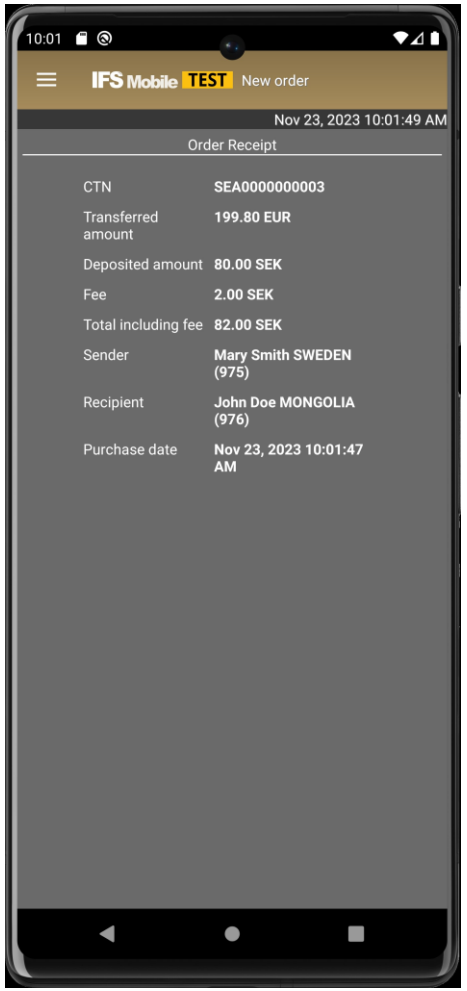
Exchange rates distribution

- **Configuration in PPS*Clearing**
  - List of currency pair exchange rates subscription configured for each DO
  - Possibility to define margin on published rates per currency pair and DO

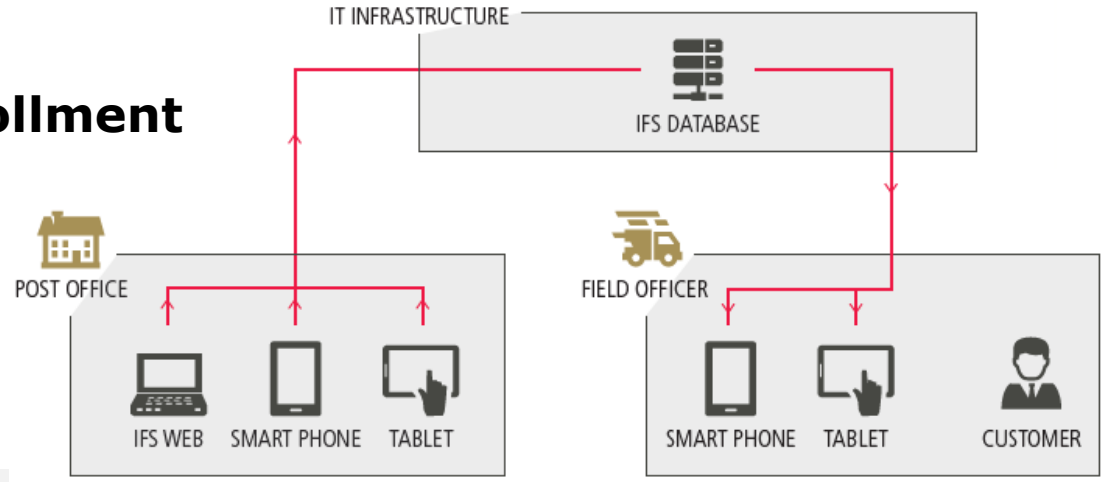
- **Publication by PPS*Clearing**
  - Daily integration of currency exchanges rates from a **reliable** and **common** source (Oanda)
  - **Daily distribution** to all DO of **Mid** rate (average between ask and bid rate) exchange rates at 18:30 (Bern time), valid from 00:00 to 23:59 UTC next day on IFS Network FTP, including margin if defined
  - Exchange rate file digitally signed for security

- **Integration in PTC systems**
  - Automatic upload of published exchange rates in IFS, IFS Cloud and STEFI, rates available for UPU-IP client
  - Common rate integrated and used for PPS*Clearing invoices creations

IFS Mobile in a nutshell



- **Android** application available on Google Play Store
- To be used in **Post offices**, by mobile postal staff, or to equip agents of the post
- Composed of IFS Operational **main features** : issue, pay, reimburse and track
- Mobile extension related **reports**, **SMS** notifications and **customers** database integration
- Secure with **devices enrollment** managed by the Post
- **Free of charges** with IFS

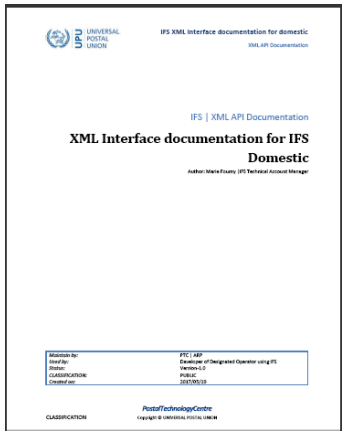


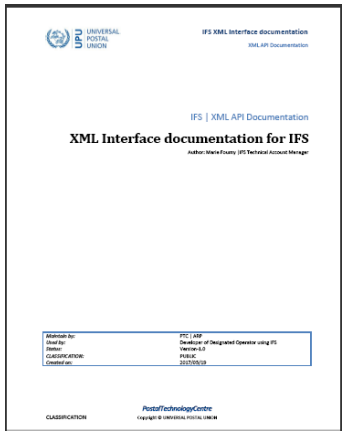
IFS API

IFS API

XML import/export interface

- **Asynchronous** interface
- Based on M38 standard and DMO.xsd
- **Old** file exchanges technology

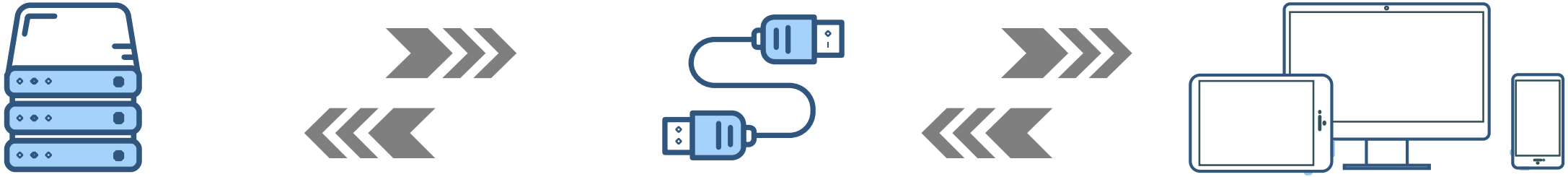




Web Services interface

- **Synchronous** interface providing online integration results to the calling system
- **Web services operations** (issue, pay, reimburse and track operations) for International and domestic
- **Recent** technology benefiting from **standard integration tools**: client proxy can be generated from wsdl, largely used software (e.g. SoapUi) can be used to test and validate during integration process

IFS API integration system



Local system

Local system at DO or third party

Local system feeding or collecting details on postal payments

Integration interface

IFS Web service API
or
XML File interface

Interface to exchange information between local and IFS systems

IFS

IFS system hosted at DO site or in IFS Cloud at PTC

Postal payments management system in charge of exchanges with DO

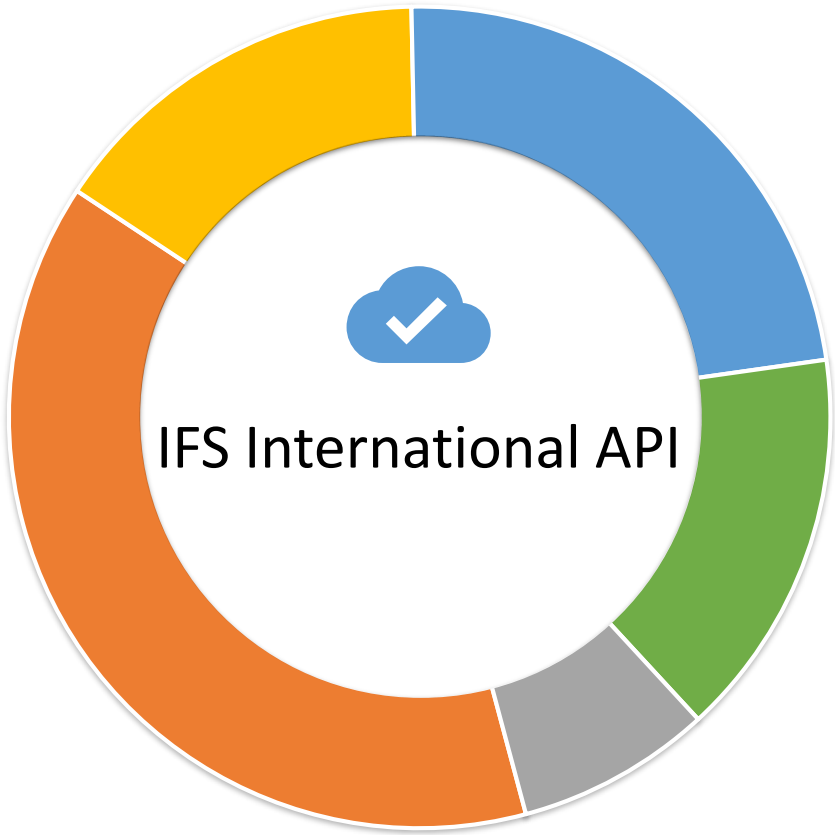
IFS International API

GetBilateralAgreements
Retrieve list of **valid international Bilateral Agreements**

GetMobileBilateralAgreements
Retrieve list of all the valid mobile international Bilateral Agreements

GetInternationalAmountToIssue
Calculate the **fee amount, convert amount** according to relevant rates and currencies based on the corresponding Bilateral Agreement

IssueInternationalOrder
Record **emission** of a new international postal payment checked against a valid bilateral agreement before being stored in the database



GetInternationalOrder
Retrieve **details about international** postal payment matching the provided information

GetMobileInternationalOrder
Retrieve **details about international** postal payment related to **mobile** agreement only

GetInternationalOrderToPay
Provides **details** about international postal payment in a current **state authorizing the payment**

PayInternationalOrder
Record **payment** of a international postal payment identified by its international identifier

CancelPaidInternationalOrder
Record a **payment cancellation** for a paid international postal payment identified by its international identifier

ReimburseInternationalOrder
Record a **reimbursement** for a international postal payment identified by its international identifier

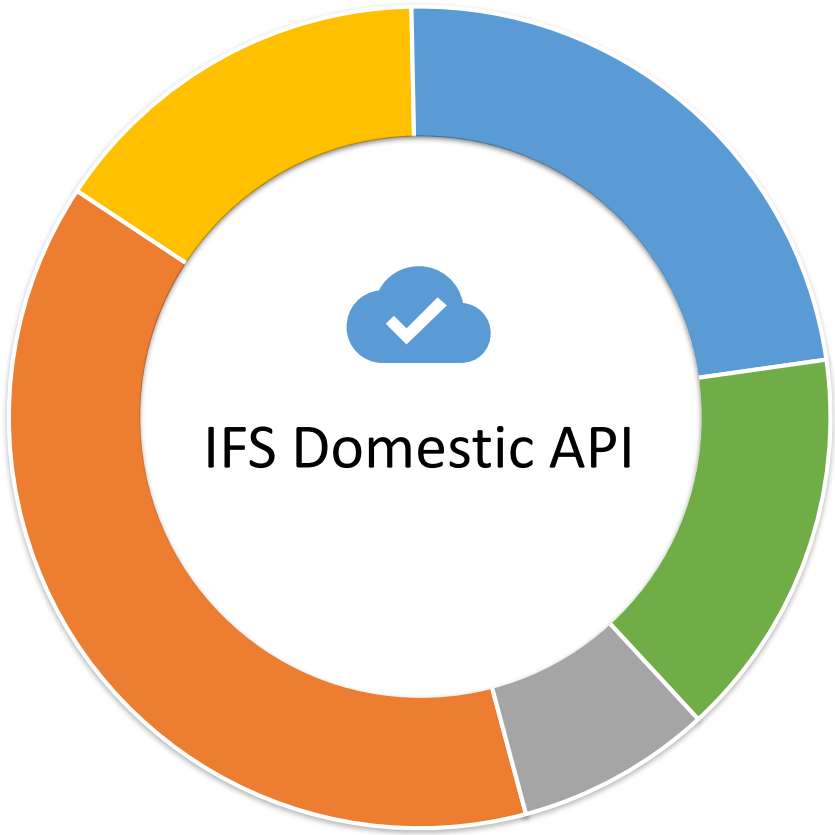
IFS Domestic API

GetServiceAgreements
Retrieve list of **valid Service Agreements**

GetMobileServiceAgreements
Retrieve list of all the valid mobile Service Agreements

GetDomesticAmountToIssue
Calculate the **fee amount** and set currencies based on the corresponding Service Agreement required for issuing a domestic postal payment (check license package)

IssueDomesticOrder
Record **emission** of a new domestic postal payment checked against a valid service agreement before being stored in the database (check license package)



GetDomesticOrder
Retrieve **details about domestic** postal payment matching the provided information

GetMobileDomesticOrder
Retrieve **details about domestic** postal payment related to **mobile** agreement only

PayDomesticOrder
Record **payment** of a domestic postal payment identified by its domestic identifier

ReimburseDomesticOrder
Record a **reimbursement** for a domestic postal payment identified by its domestic identifier

IFS AOB API

Registered customers operations

- **GetCustomers**: returns all the **customers from IFS database list of customers** matching the provided information

- **GetMobileCustomers**: same as GetCustomers with **returned details limited** to the customer details in use in IFS mobile application

- **SetCustomer**: add a new customer to the IFS database list of customers or **update** details for existing customer

AOB operations

- **GetDailyOrdersJournal**: Return list of orders (international and domestic) with **operations** (issue, pay or reimburse) during **a specified period for a certain device's certificate**

- **GetOrderByCriteria** (from IFS 4.51): Retrieve a **list** of international or domestic postal payments filtered based on the specified **criteria** (corridor, current state, past states over specified period, etc)

Cloud Services Overview

Introduction to IFS Cloud

Introduction

- New service to **host IFS** on behalf of operators
- Based on years of experience with IFS.Post and more than **15 current instances** of IFS Cloud
- Deployment of the application over the internet **as SaaS**

IFS on the PTC Cloud

- Dedicated IFS installation of the **latest IFS version** available
- IFS installed on PTC servers with:
  - **International** and **Domestic** modules
  - **Mobile** extension
  - IFS Web Services **API**
  - XML interface for EDI files import / export, on request
  - SMS provider integration, on request
- 2 environments: **production** and **pre-production** to conduct tests and trainings
- IFS Cloud replaces previous IFS.Post solution

IFS cloud hosting activities

- System availability
- System security
- IFS maintenance
- System scalability
- Support

These domains of hosting activities are included in IFS Cloud charges.
Responsibility and services between IFS Cloud and IFS Shared are equivalent.

IFS Cloud secure access

Web and Mobile access restricted to enrolled devices

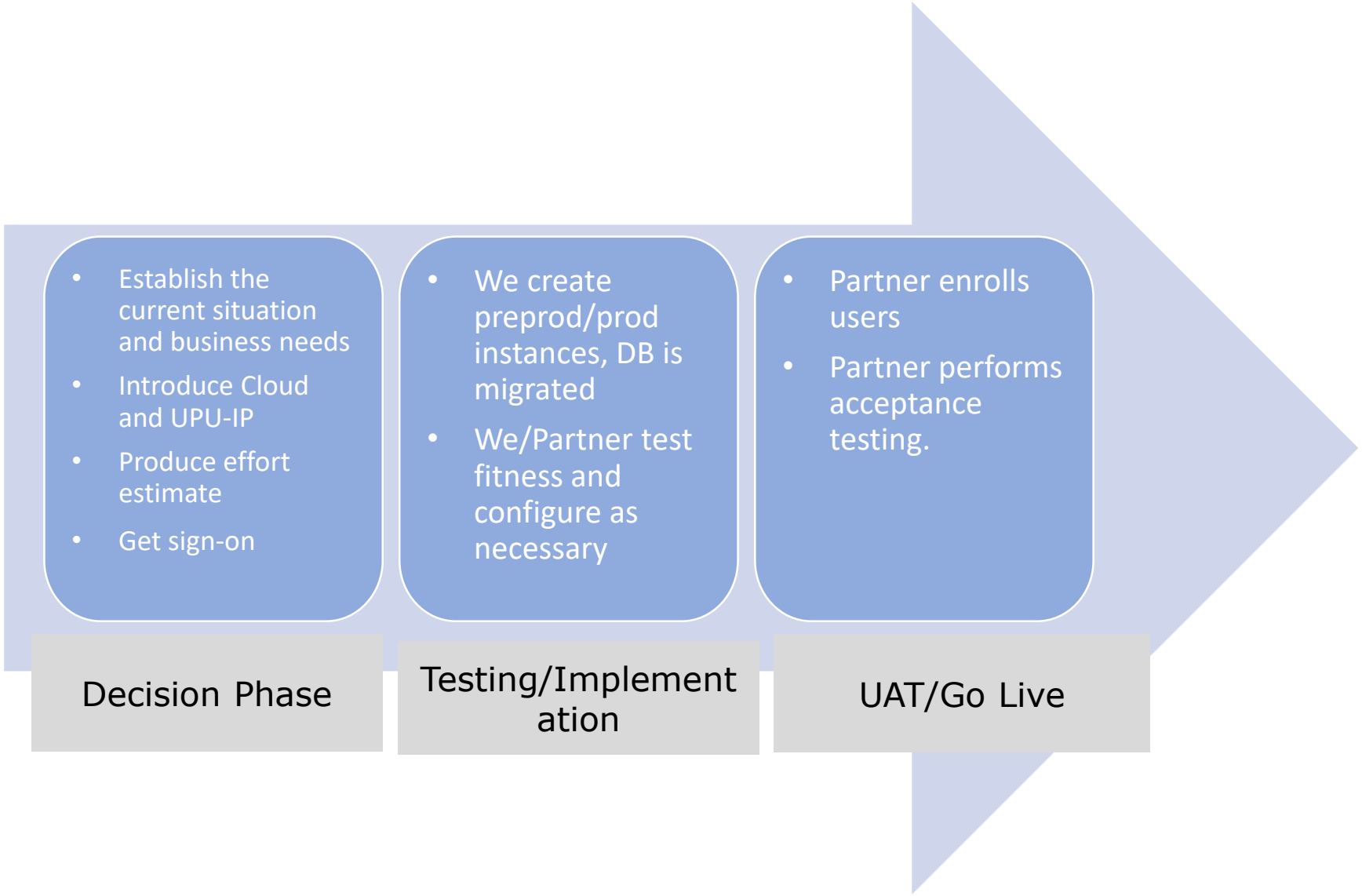
- **Authentication of devices**: every device (workstation or mobile) is enrolled in PTC Enrollment to operate in IFS Web and IFS Mobile
- **IFS Account** always in use in the different interfaces: **Web, Mobile, management console**

Management console access through VmWare Horizon Client

- **Active Directory Account** and VmWare Horizon Client to access the Cloud platform
- Individual IFS account to login in Management console

IFS Cloud implementation

IFS Cloud – Implementation project



Implementation/Migration Points

Implementation	Migration
• User/workstation enrollment is workload intensive for the partner. • Clearly defined responsibilities and communication lines are very important. • Training is key	• Is like-for-like, preserves old configuration, warts and all. • Is standardized. • Has a downtime of about 2-4 hours, highly dependent on database size. • Pre-4.18 partners need some training for admins and tellers.