UPU Interconnection Platform (UPU-IP)

The **UPU Interconnection Platform (UPU-IP)** is a new platform that enables near real-time exchange of postal payment and payment related messages between business partners.

Designed to address the limitations of transmitting EDI payment messages via the File Transfer Protocol (FTP), the UPU-IP exposes Web Services for business partners to interface with their national system. The UPU-IP presents the following advantages:

- **Urgent service** - The paying organization can retrieve the payment as soon as it is issued to the UPU-IP. On demand payout is now possible.

- **Payment anywhere** - The beneficiary can choose where the payout will take place: at the Post, a sub-agent of the Post, or a permitted external party.

- **Centralization** - Activities are consolidated in one place.
    - All payments are stored in the UPU-IP database.

    - The UPU-IP acts as a central switch for real time message routing between business partners.

    - Business organizations can use the Bilateral Agreement Management System (BAMS), an application connected to the UPU-IP, to centrally manage bilateral agreements.

Confidentiality and security of messages are ensured at the transport level using Secure Sockets Layer (SSL) for encrypting and signing the contents sent over a secure HTTPS channel. Transport security with certificate authentication allows the server to verify the identity of the client.

A certificate, trusted by the UPU-IP, is issued to each Web Service (WS) client. To preserve the integrity of information being passed and to ensure non-repudiation, when the WS client connects to the UPU-IP and sends a message, the UPU-IP verifies the client's certificate. No connection to the UPU-IP Web Service is possible without a certificate.

Integration

Integration with other PTC products

- **BAMS** - The UPU-IP interfaces with BAMS for bilateral agreements. International bilateral agreements between business partners are defined and managed in BAMS.

- **PPS*Clearing** - Postal payments that are eligible for clearing are sent via feeds to the PPS*Clearing application for invoice generation. The UPU-IP also retrieves FX rate feeds from PPS*Clearing.

- **hQCS Finance** - Postal payment information is made available to hQCS Finance to allow the application to track and trace postal payments and generate activity and volume reports.

Integration with IFS v4 organizations

To maintain exchanges with IFS v4 business partners who have not developed their WS client application to connect to the UPU-IP, a bridge to IFS v4 EDI network is available.
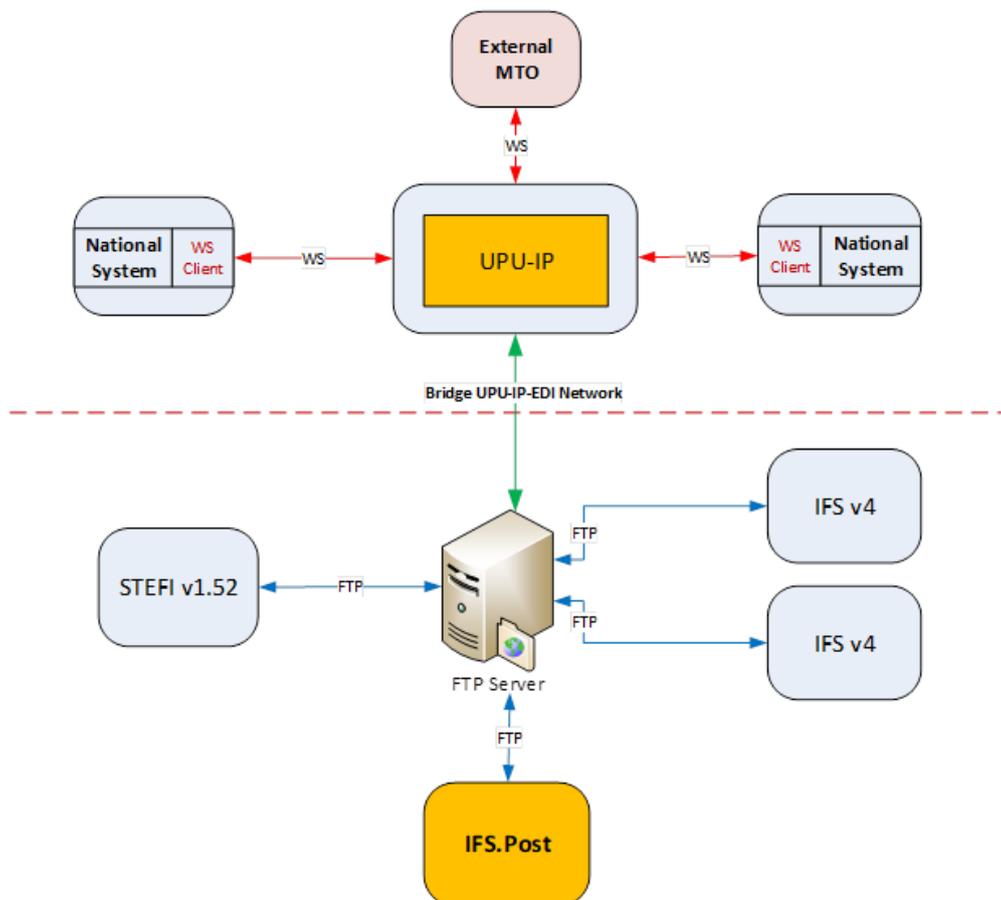
Integration with external business partners

The UPU-IP allows for the integration of remittance partners external to the IFS network. External partners may connect directly to the UPU-IP Web Service or be integrated according to their own specific requirements.

Supported client applications

The UPU-IP enables exchange of postal payments from various client applications. These client applications could be national systems that connect to the UPU-IP via a WS client, IFS v4 clients (including STEFI) or external partner systems.
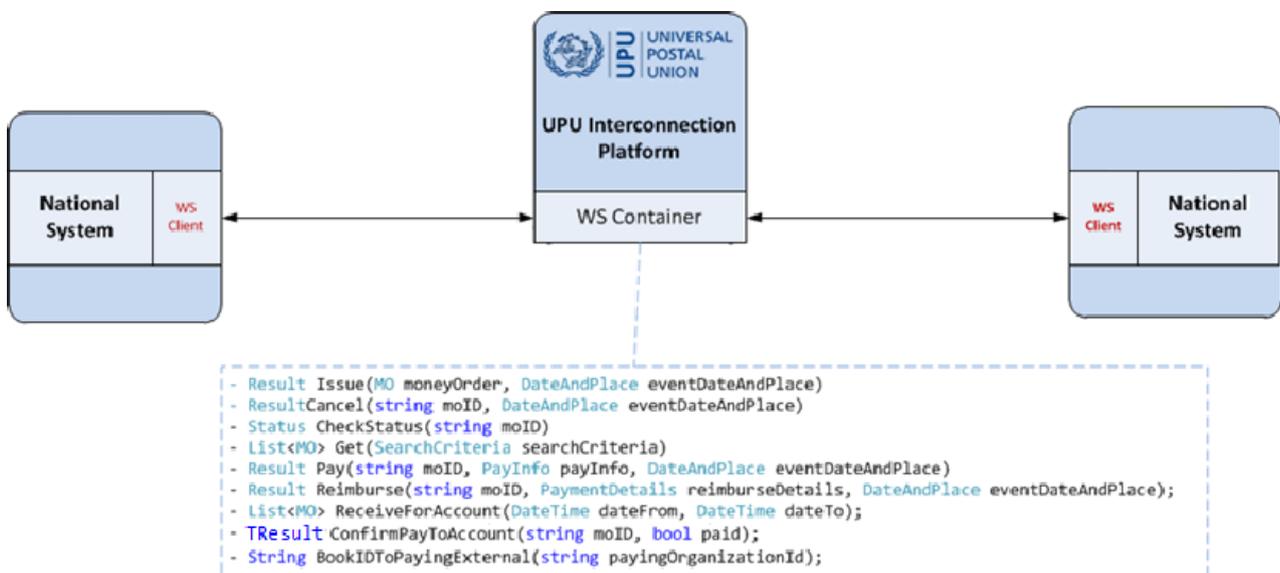
Issuing organization	Paying organization
National system + WS Client	National system + WS Client
National system + WS Client	IFS v4
IFS v4	National system + WS Client
External partner	National system + WS Client
National system + WS Client	External partner

How is a connection to the UPU-IP established?

Develop a WS Client

Business partners or Posts can connect their national system to the UPU-IP by developing a WS client application. This is a multistep process which first requires a UPU signed certificate for business partners to establish a trusted and secured connection to the UPU-IP's Web Service Interface.

As soon as a connection to the UPU-IP's Web Service end point has been established, business partners can generate a proxy client for calling the UPU-IP's Web Service. The procedure for creating a proxy client varies from one business partner to another as this depends on the platform that they are using. Business partners can then start writing the code to connect the business logic of their national system to the WS client previously created.



```
- Result Issue(MO moneyOrder, DateAndPlace eventDateAndPlace)
- ResultCancel(string moID, DateAndPlace eventDateAndPlace)
- Status CheckStatus(string moID)
- List<MO> Get(SearchCriteria searchCriteria)
- Result Pay(string moID, PayInfo payInfo, DateAndPlace eventDateAndPlace)
- Result Reimburse(string moID, PaymentDetails reimburseDetails, DateAndPlace eventDateAndPlace);
- List<MO> ReceiveForAccount(DateTime dateFrom, DateTime dateTo);
- TResult ConfirmPayToAccount(string moID, bool paid);
- String BookIDToPayingExternal(string payingOrganizationId);
```

Method	Description
Issue()	Issues a new postal payment to the UPU-IP for the paying partner to retrieve
Get()	Retrieves money orders payable by the calling party. If the payment is not found and the postal payment ID matches a known external partner, the WS call is relayed to this external partner
Pay()	Pays a postal payment found in the UPU-IP
ReceiveForAccount()	Retrieves all transfers payable to account between the specified GMT dates
ConfirmPayToAccount()	Confirms payment to account
CheckStatus()	Checks current status of the postal payment in the UPU-IP. If the paying party is an external partner using 'push mode', the call is relayed to the external partner returning the current status from that system (not the UPU-IP)
Cancel()	Cancels a postal payment issued to the UPU-IP
Reimburse()	Reimburses the customer at the issuing partner organization
Book IDToPayingExternal()	Reserves a postal payment ID in an external, non-DO partner system. The transfer is issued with the retrieved external payment ID and sent to the partner system with the Issue() method. This is used in the scenario where the UPU-IP forwards messages directly to an external partner organization

The **Bilateral Agreements Management System (BAMS)** is a web based application to centrally manage bilateral agreements. BAMS is hosted on the UPU-IP and provides a web interface where business partners can create, edit and delete bilateral agreements. All incoming/outgoing postal payment messages are validated against this central repository of bilateral agreements. The concept of a bilateral agreement as two separate descriptions - one outgoing and one incoming, no longer applies: a corridor is now described by one single bilateral agreement description.

BAMS Workflow

The sending partner creates the bilateral agreement and sends it to the receiving partner for validation. The receiving partner views the agreement's terms, proposes changes and sends it back to the sending partner which then makes the necessary modifications to the draft agreement. This part of the process is both iterative and collaborative until both parties agree to the terms of the agreement. When the receiving partner validates the agreement, the sending party then moves the agreement to Production where it is no longer editable.
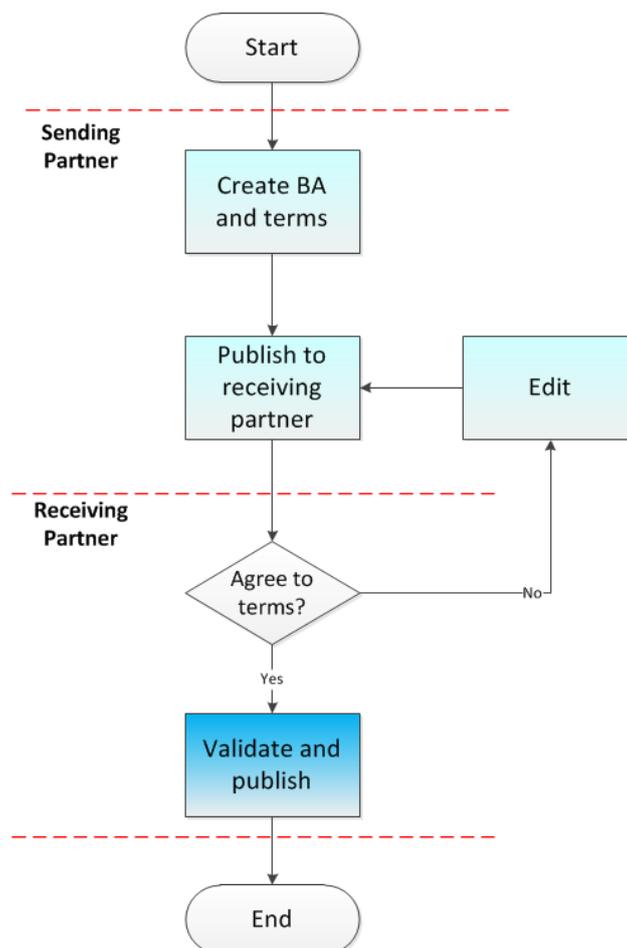
IFS v4 network

All bilateral agreements created and managed in BAMS can be exported to IFS v4 organizations on the EDI network.

In a postal payment's life cycle, various operations are carried out via calls to the WS methods. The illustration shows the WS methods that are passed from one business partner to another to issue and pay a postal payment.