

## Hal E-Bank/B2B

Hal E-Bank/B2B is the most advanced e-banking solution in store for E-Invoices, Domestic and Cross-Border payment area. The solution accounts for a Corporate E-Bank upgrade.

### HW-SW B2B requirements

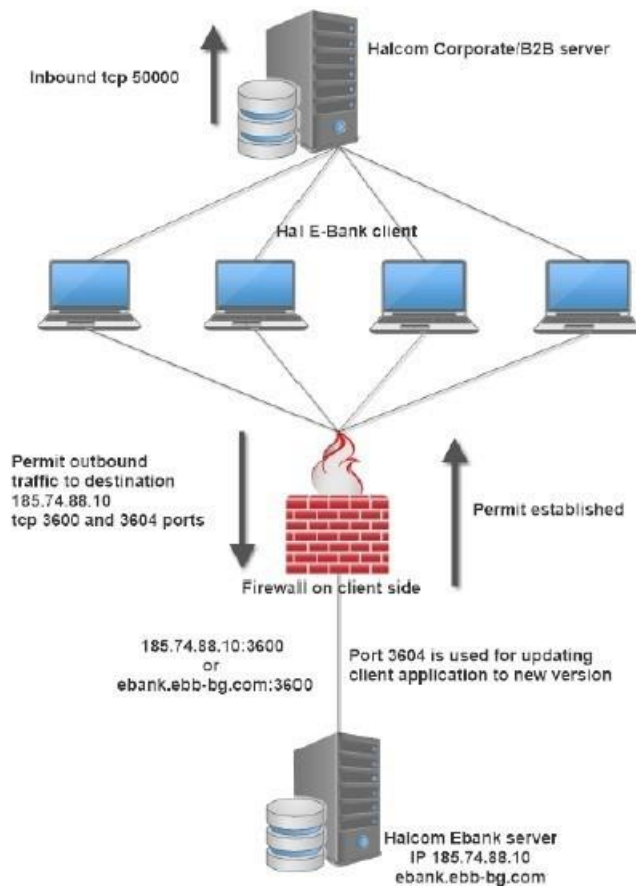
Hal E-Bank/B2B requires an ad hoc ("dedicated") server, which could either be a virtual or a physical machine. Two local or domain ad hoc accounts ought to be instituted, one of which should be included in the local Administrators group on the server. The aforementioned administrator (db2admin) should have the logon option and be logged in at all times during the B2B automation performance.

**IMPORTANT NOTICE:** The entire installation and implementation procedures are to be carried out by Halcom's Customer and Technical Support Units remotely, using a remote-support intended software (preferably TeamViewer – the QuickSupport version is available for download from the [following link](#)).

The server ought to meet the following prerequisites:

- OS Windows (10, 11, Server 2012/2012 R2, Server 2016, Server 2019),
- At least 20 GB of hard drive space available for the installation and latter performance (the required storage size grows, depending on the number of transactions),
- A minimum of 4 GB of RAM,
- The PC needs to be connected to the local network, the TCP/IP communication protocol must be installed, supported and properly configured, the PC should have a static IP address in the local network and/or a hostname without special characters,
- 1 USB port for a Smart Card Reader (unless a server certificate is used).

## Network Infrastructure



## IP addresses

The Hal E-Bank/B2B server communicates both ways with client apps within the local network through the port 50000.

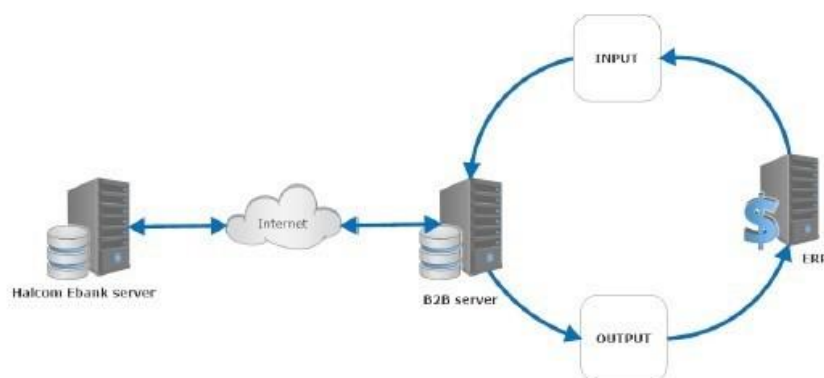
The Hal E-Bank/B2B server also connects inboundly and outboundly to the public E-Bank server through the port 3600, and so via the following IP addresses:

Serbia	Alphanumeric IP	Numeric IP	Port
EBB Beograd	ebank.ebb-bg.com	185.74.88.10	3600
Komercijalna banka Beograd	ebank.kombank.com	192.162.54.33	3600
Unicredit banka Srbija	eb.unicreditbank.rs	185.74.88.71	3600
Erste Bank Novi Sad	e-bank.erstebank.rs	185.74.88.62	3600

EBU (EBANK UPDATE) IP addresses:

Serbia	Alphanumeric IP	Numeric IP	Port
EBU EBB Beograd	ebank.ebb-bg.com	185.74.88.10	3604
EBU Komercijalna banka Beograd	ebank.kombank.com	192.162.54.33	3604
EBU Unicredit banka Srbija	eb.unicreditbank.rs	185.74.88.71	3604
EBU Erste Bank Novi Sad	e-bank.erstebank.rs	185.74.88.62	3604

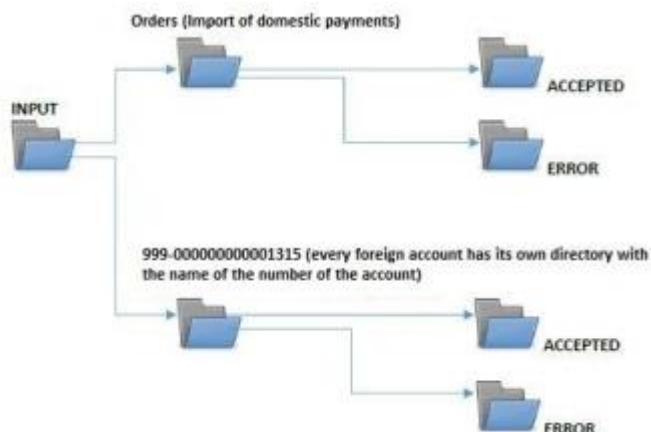
## Functioning of the Hal E-Bank/B2B system



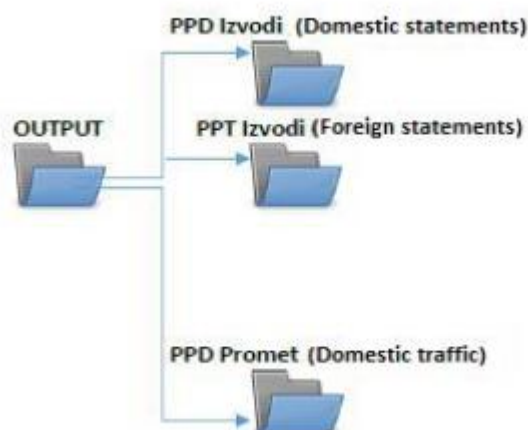
- The Halcom E-Bank server and B2B server communicate both ways, and so automatically, on a determined interval
- The content, like domestic and VP70 payment orders, is prepared in the ERP system and stored in the INPUT directory on the B2B server, after which the B2B system automatically dispatches the files to the E-Bank server
- The information on account balance, statements and transactions is synchronised automatically to an up-to-the-minute state, subsequently placed into the OUTPUT directory on the B2B server, upon which it gets integrated in the ERP manually or automatically (depending on the ERP system's functionalities and configuration).

## Directory structure

### INPUT directory



### OUTPUT directory



### OUTPUT files' name structure

- Domestic statements – two files get exported:  
 22\_999-000000000001315\_20160601152338.txt  
 22\_999-000000000001315\_20160601152338\_cov.txt  
 The file name structure upholds the following pattern: 22 (document type - domestic statement)\_ 999 (bank identifier) party\_timestamp.txt and 22(document type - domestic statement)\_ 999 (bank identifier) - party\_timestamp\_cov.txt
- Cross-border statements:  
 57\_999-000000000001315\_20161103060612.txt The file name structure upholds the following pattern:  
 57 (document type - cross-border statement)\_999 (bank identifier) party\_timestamp.txt
- Domestic transactions  
 21\_999-000000000001315\_20160601152338.txt The file name structure upholds the following pattern:  
 21 (document type - transaction)\_ 999 (bank identifier) - party\_timestamp.txt