

CyberFT

Universal system for financial data exchange
and electronic documents workflow

2018

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About the company and CyberPlat® system

- CyberPlat company was founded in **1997**. The company is a developer of the first and the largest electronic payment system in Russia called CyberPlat®.
- The company has a wide presence in Russia and Kazakhstan, with branches in India, Austria and Germany.
- CyberPlat® payment acceptance network consists of more than **1 480 000 outlets** at present.
- Payments in favor of more than 8 600 service providers are processed via CyberPlat®:



About the company and CyberPlat® system

- More than **300 banks-participants** of the system including:



- CyberPlat® system has a great capacity to process up to **40 Bn** transactions per annum.
- During **20 years** of stable work **no cases of hack** have taken place!

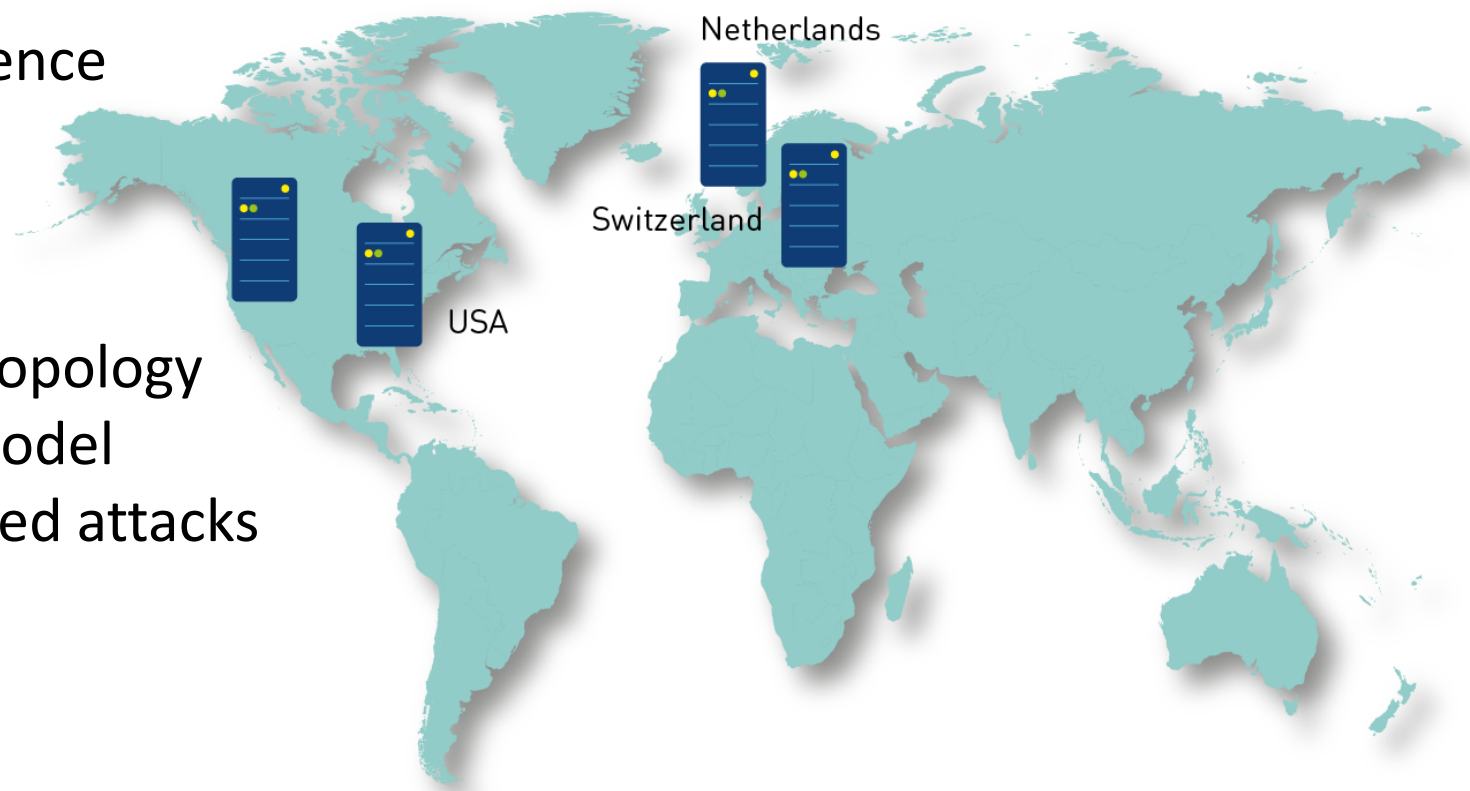
SWIFT – current situation

- Single system monopoly – SWIFT market share is about 90%

- High political dependence

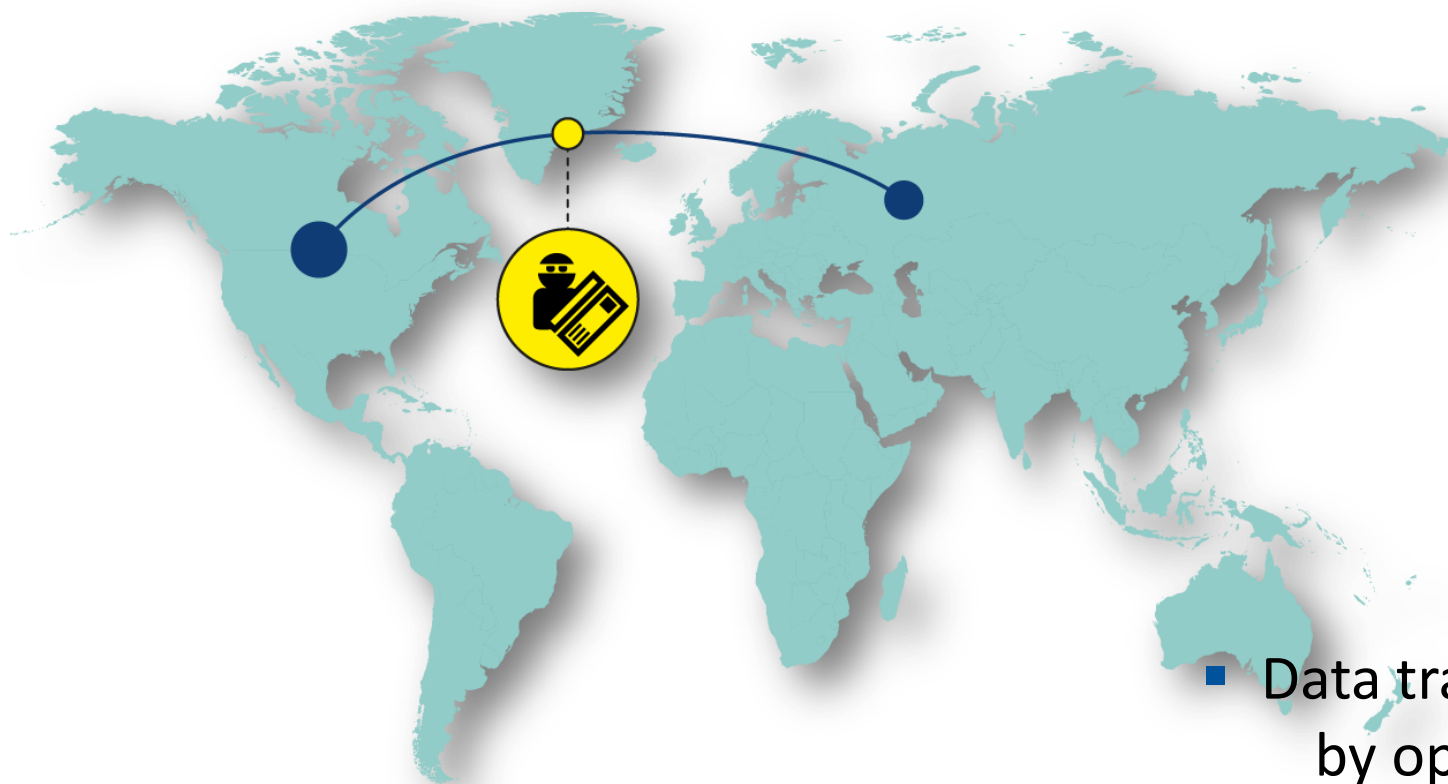
- Out of date network topology based on the “star” model is vulnerable to targeted attacks

- A total of 4 datacenters located in the USA, the Netherlands and Switzerland



SWIFT – current situation

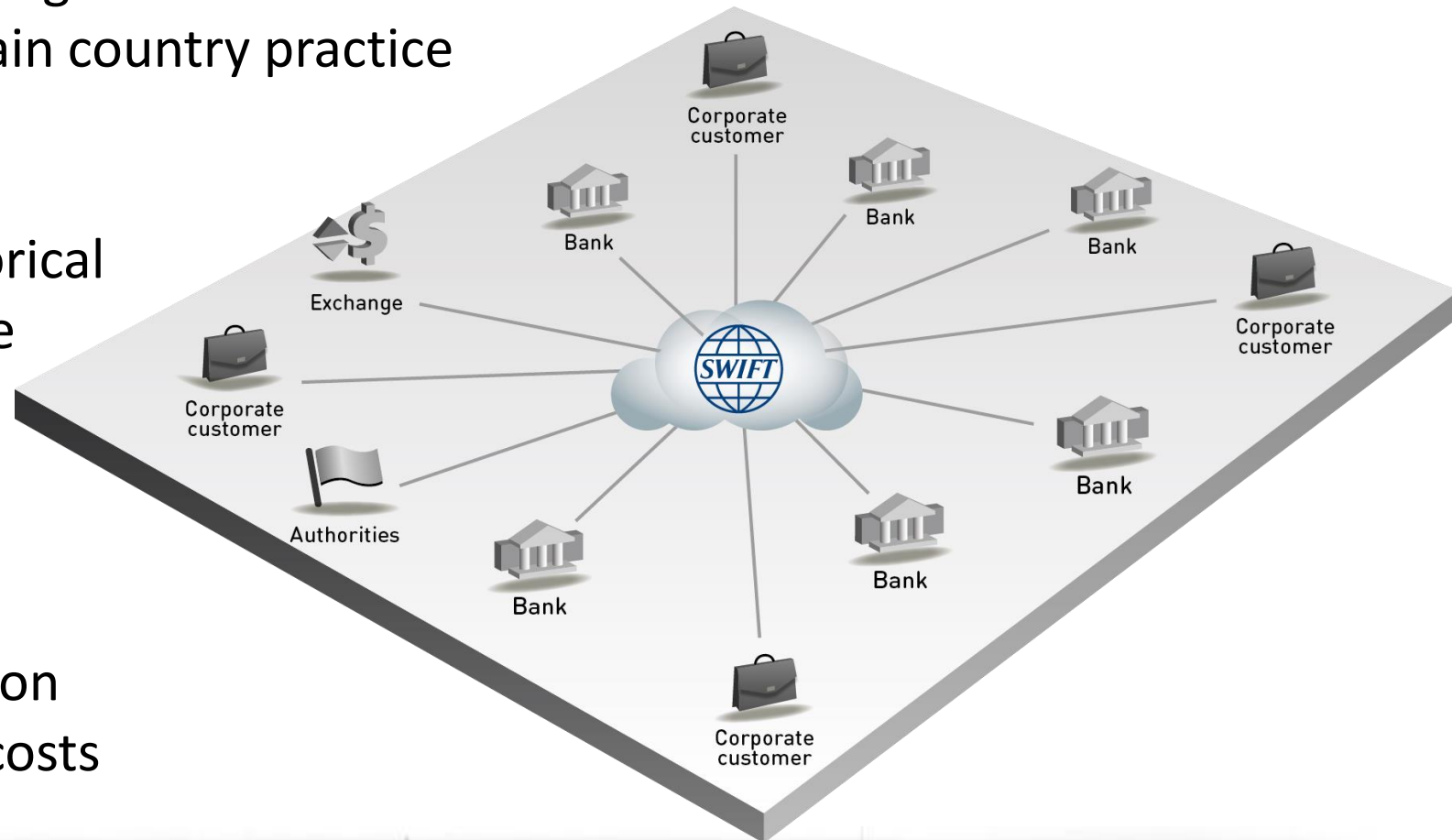
- SWIFT doesn't comply with requirements of local legislation of the most countries where domestic transactions shouldn't be processed outside country's borders



- Encryption method cannot be changed by participant's choice
- Data transmitted can be revealed by operator that causes risks of large-scale information leakage

SWIFT – current situation

- Difficulties in recognizing the legal value of the transmitted messages (in the event of conflict)
- Inflexibility of message formats and certain difficulties with their adaptation to certain country practice
- Short term of historical data storage on the processing side – **6 months only**
- High implementation and maintenance costs



CyberFT – new approach to financial data exchange



CyberFT allows **different legal entities** to securely interact with each other (e.g. banks, other financial institutions, corporations, state owned companies, authorities, entrepreneurs, individuals, etc.) both on **domestic** and **international** level



CyberFT – main definitions

- A hardware and software solution for organization of a secure information highway for interchange of any types of financial messages and electronic documents workflow.

CyberFT Platform



- A legal entity that has bought and has become an owner of CyberFT Platform and uses it for offering financial messaging services to its counterparties.

CyberFT Provider



- Hardware and software solution that implements legally valid electronic documents interchange at CyberFT Network.

CyberFT Processing



- A legal entity or individual using CyberFT for data exchange.

CyberFT Participant



- A software installed at CyberFT Participant site aimed at interaction with CyberFT Network.

Customer Software

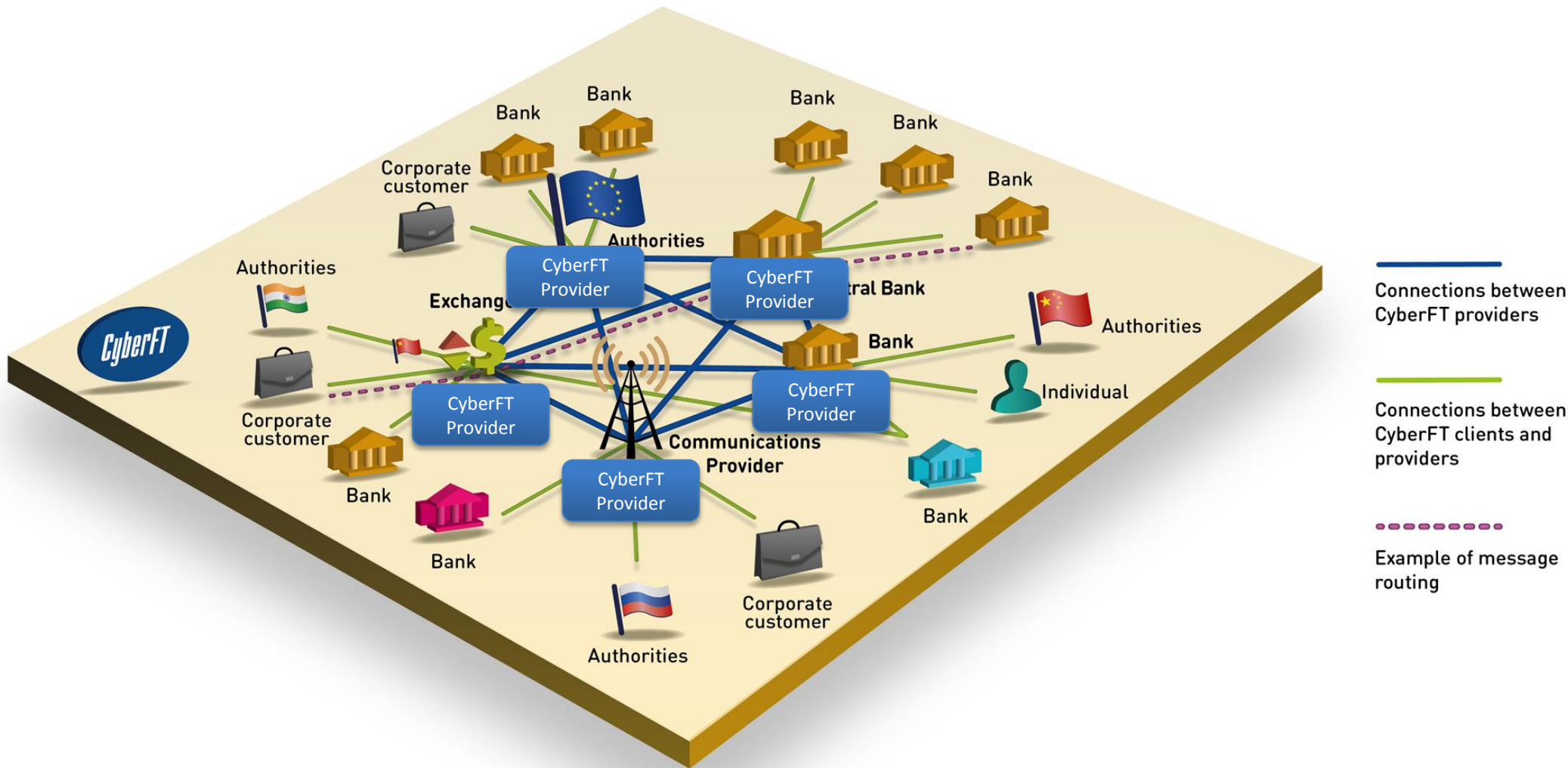


- A group of CyberFT Providers and Participants connected to these Providers.

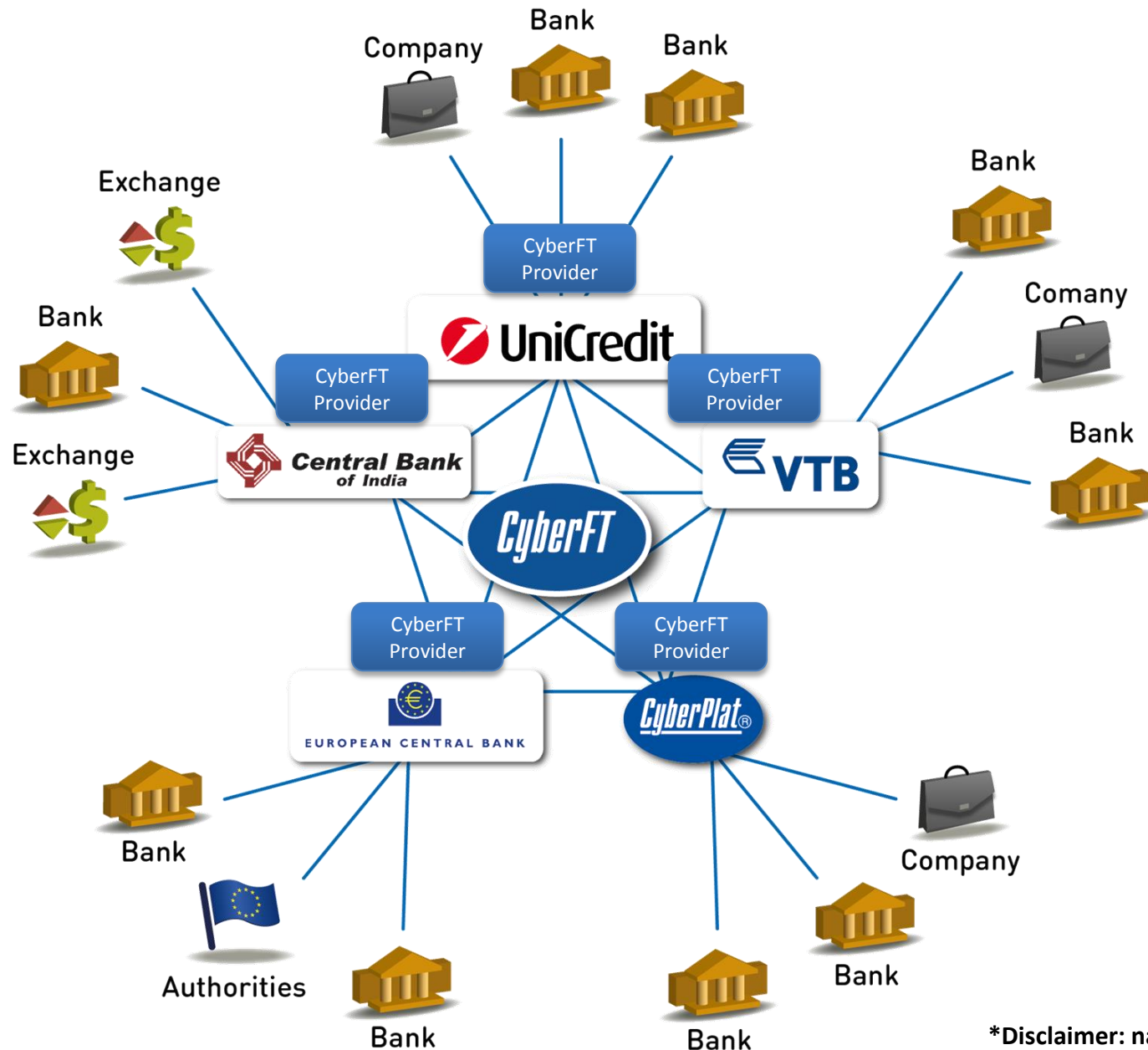
CyberFT Network



CyberFT – new approach to financial data exchange



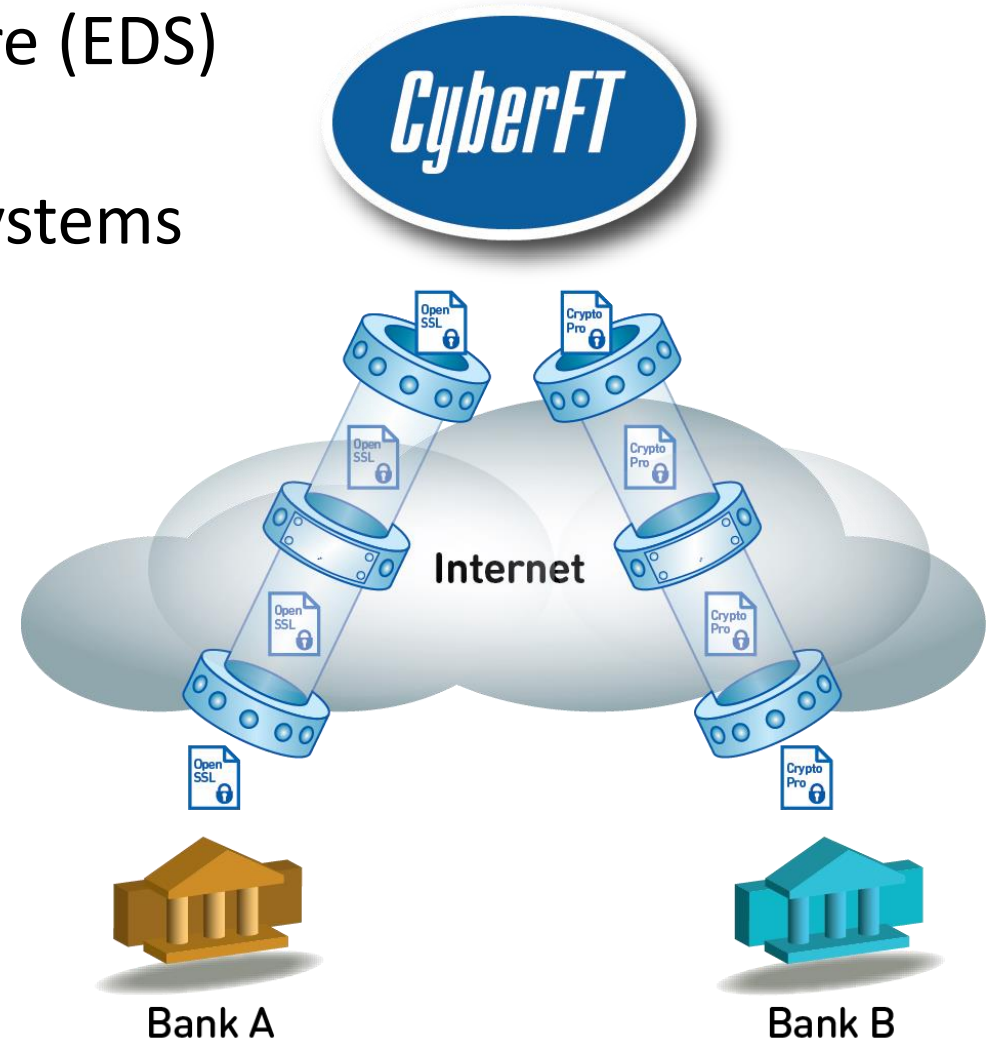
CyberFT – support of multiple providers



*Disclaimer: name of organizations presented in this presentation are for example purposes only

CyberFT – high security standards

- All transmitted messages are encrypted and signed by electronic digital signature (EDS)
- Support of various cryptographic systems incl. OpenSSL, PGP, CryptoPro, etc.
- HTTPS (TLS tunnel) protocol is used
- Data **is not accessible** to network provider
- Support of VPN and dedicated channels



CyberFT already supports various types of message formats:

- SWIFT Fin (MTXXX) – all categories
- ISO 20022 (payments and account statements)
- Free format messages with attachments
- E-invoices and contracts
- Money transfers and payments acceptance



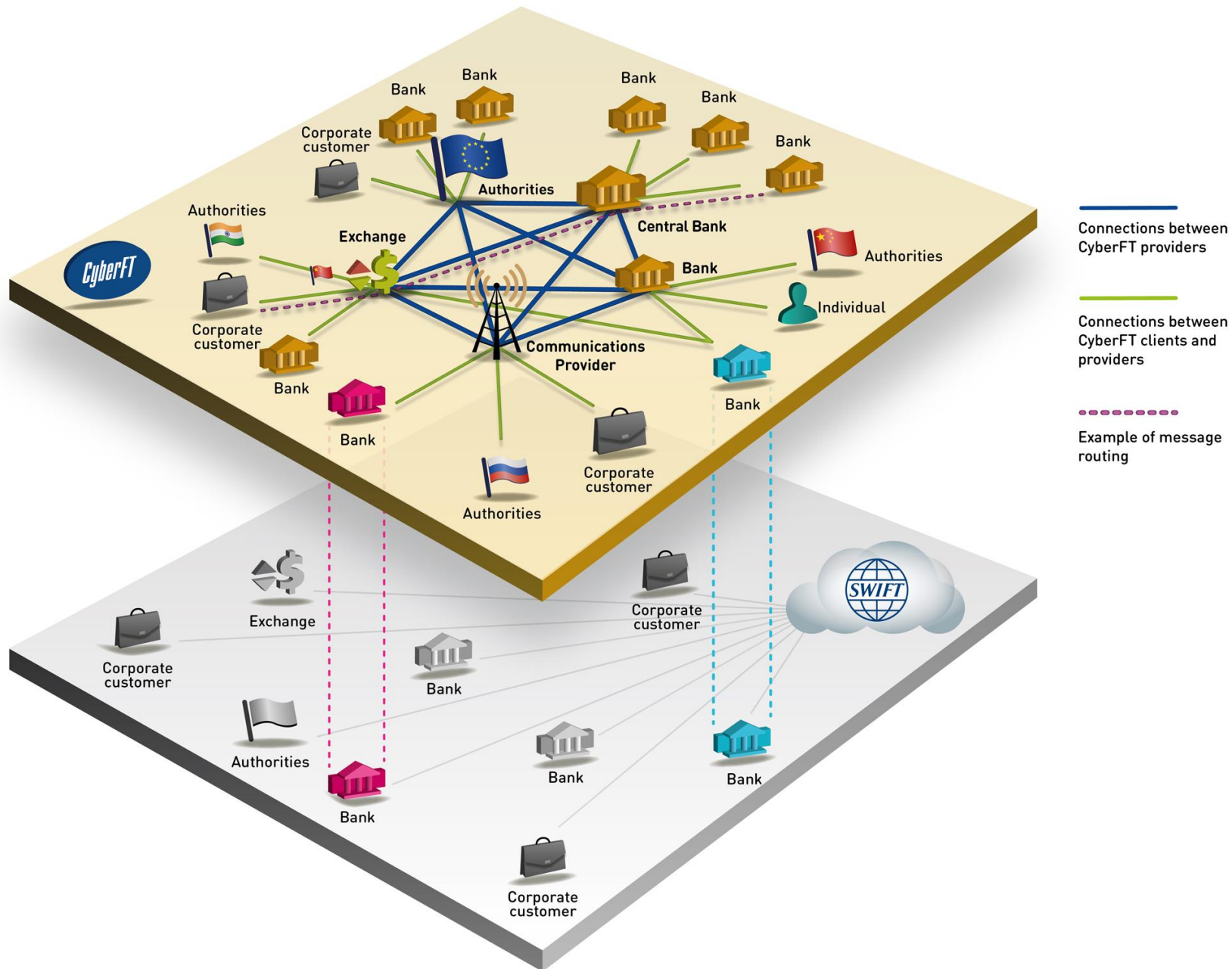
We permanently works on the system functionality enhancement and ready to develop any new format to meet customers or certain country specific needs!

CyberFT – current projects and future plans

- Support of typical integration with different core banking and ERP systems
- Further development of ISO 20022 formats in line with their adaptation for certain countries by customer requests
- Currency control documents
- Electronic documents workflow (e-invoicing, bills, etc.)
- Direct debit
- Tax reporting

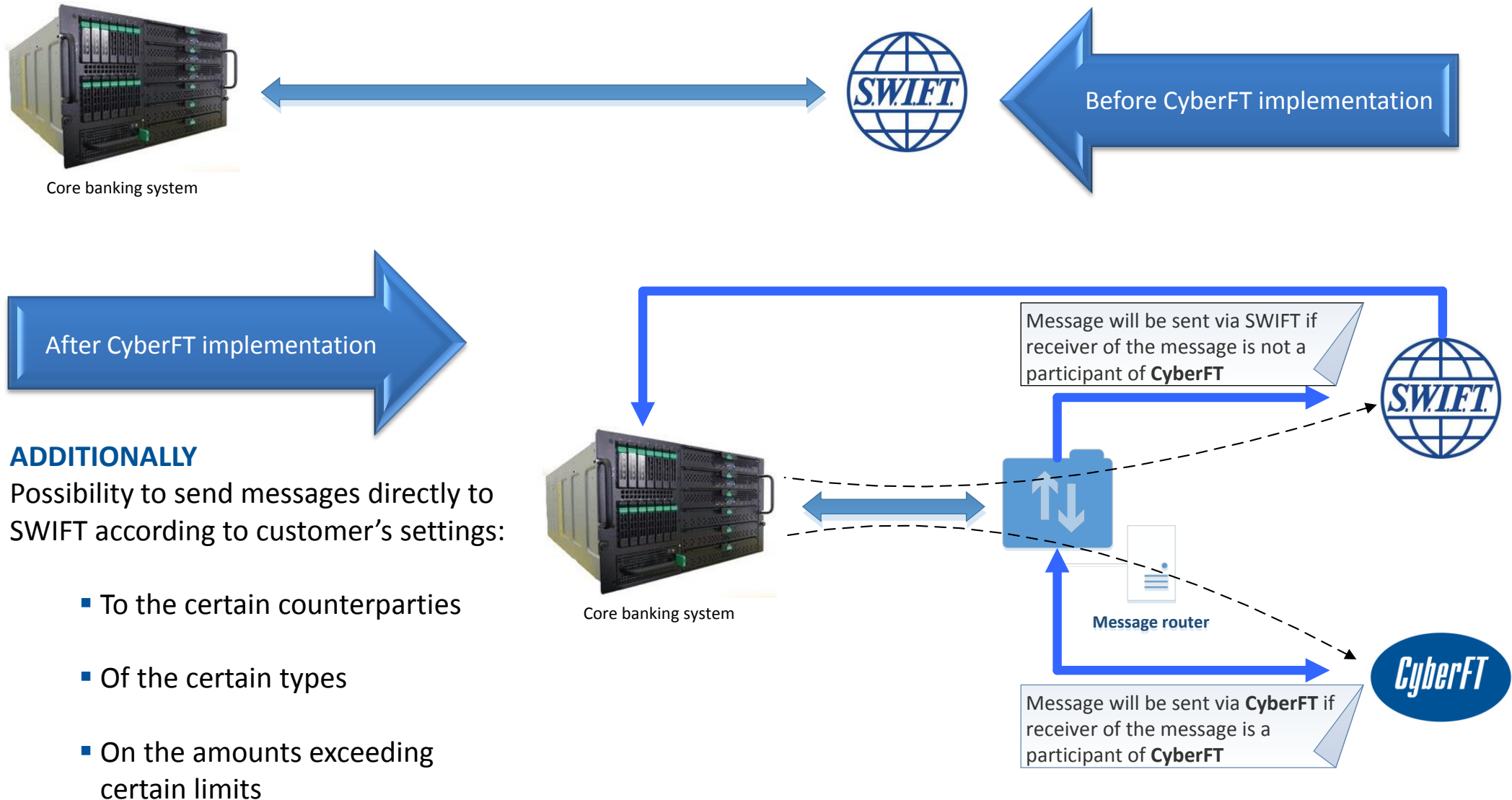


CyberFT – cooperation with SWIFT

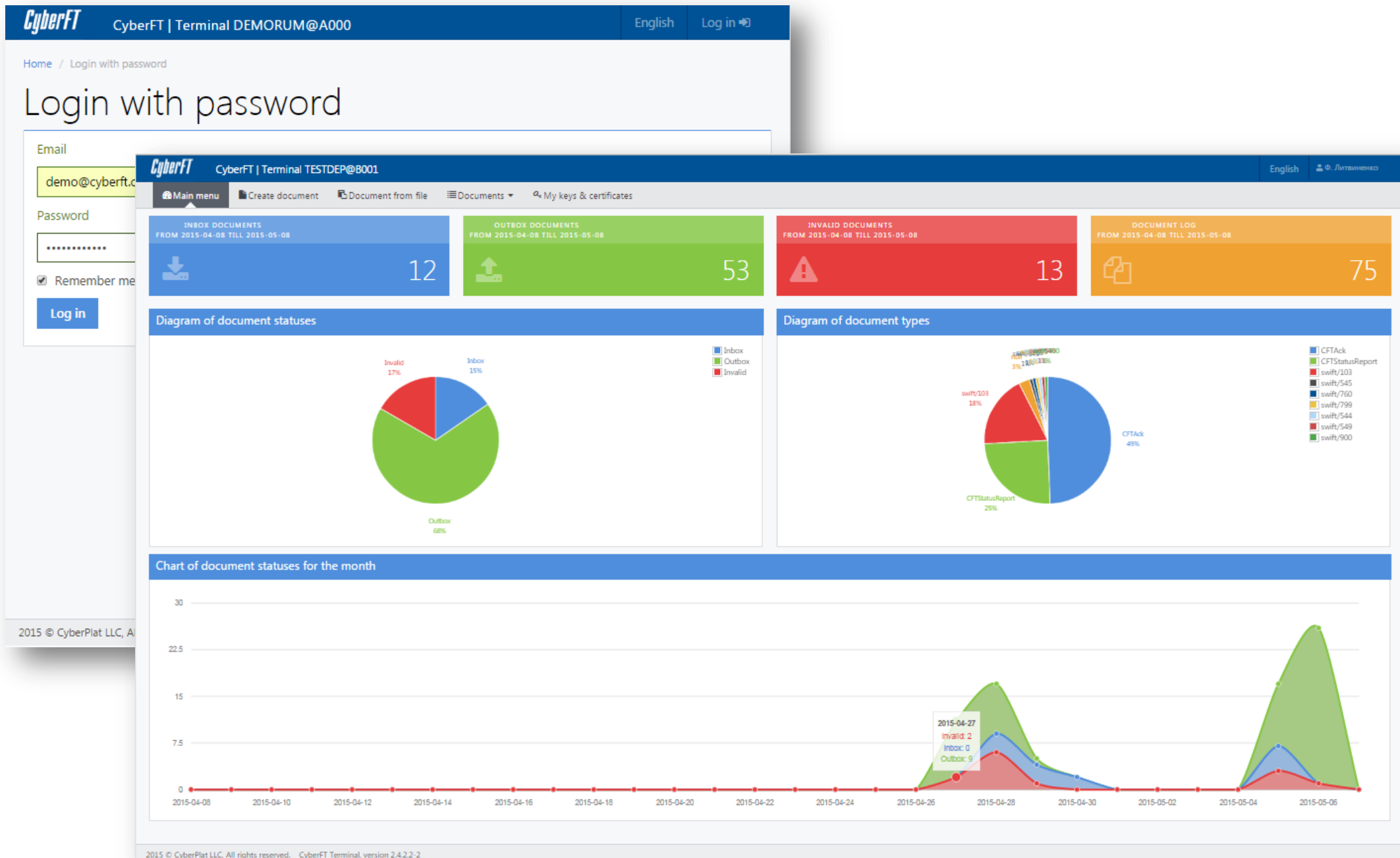


CyberFT – easy integration for banks

Possibility of simultaneous working in both systems: **not instead of SWIFT, but jointly with SWIFT!**



CyberFT terminal – main menu



CyberFT terminal – documents log

CyberFT

CyberFT | Terminal DEMORUM@A000

English demo@cyberft.com

Main menu

Create document

Document from file

Documents

Home / Document log

Document log

Document registration date

-- to --

Search

Display documents

☒ Outbox, not delivered to the addressee

☒ Inbox, with valid signatures

☒ Outbox, delivered to the addressee

☒ Inbox, with invalid signatures

☒ Display system messages

Shown from 1 to 9 out of 9 found

ID	Type	Format	Sender	Recipient	UUID	ABS ID	Document status	Registered	
9	swift/999		DEMORUM@A001	DEMORUM@A000	98C54AF4-AB80-11E4-818D-000C29DD78C		Message removed from the inbox queue	2015.02.03 11:45:58	
8	cyberplat/ack		CYBERPLATXXX	DEMORUM@A000	6F41929C-AB7F-11E4-BA71-5FF7A55C63B2		Message removed from the inbox queue	2015.02.03 11:34:18	
7	swift/103	swift	DEMORUM@A000	DEMORUM@A001	1B034C52-AB7F-11E4-B604-7650A2DE59B5	+000000000000	Document received by recipient	2015.02.03 11:31:53	
6	swift/103	swift	DEMORUM@A000	DEMORUM@A001	B765C94A-AB7E-11E4-950E-7650A2DE59B5	+000000000000	Document rejected by processing	2015.02.03 11:29:05	
5	cyberplat/ack		CYBERPLATXXX	DEMORUM@A000	4F74CFEC-AAF3-11E4-9C8E-AD2DA65C63B2		Message removed from the inbox queue	2015.02.02 18:51:13	
4	swift/999	swift	DEMORUM@A000	BONDRUM@A008	3D552EF6-AAF3-11E4-A753-7650A2DE59B5	+000000000000	Document received by recipient	2015.02.02 18:50:41	
3					584F7392-AAEE-11E4-9ADA-7A			15:42	
2					F0718A08-AAED-11E4-B3A5-25			15:28	
1					47FA4E3C-AAED-11E4-8F3C-76			08:01	

CyberFT

CyberFT | Terminal DEMORUM@A000

English demo@cyberft.com

Main menu

Create document

Document from file

Documents

Home / Documents / Outbox documents

Outbox documents

Document registration date

-- to --

Search

Shown from 1 to 3 out of 3 found

ID	Type	Format	Sender	Recipient	UUID	ABS ID
7	swift/103	swift	DEMORUM@A000	DEMORUM@A001	1B034C52-AB7F-11E4-B604-7650A2DE59B5	+000000000000
4	swift/999	swift	DEMORUM@A000	BONDRUM@A008	3D552EF6-AAF3-11E4-A753-7650A2DE59B5	+000000000000
1	swift/103	swift	DEMORUM@A000	BONDRUM@A008	47FA4E3C-AAED-11E4-8F3C-7650A2DE59B5	+000000000000

CyberFT

CyberFT | Terminal DEMORUM@A000

English demo@cyberft.com

Main menu

Create document

Document from file

Documents

Home / Documents / Inbox documents

Inbox documents

Document registration date

-- to --

Search

Shown from 1 to 2 out of 2 found

ID	Type	Format	Sender	Recipient	UUID	ABS ID
9	swift/999		DEMORUM@A001	DEMORUM@A000	98C54AF4-AB80-11E4-818D-000C29DD78C	
2	swift/103		BONDRUM@A008	DEMORUM@A000	F0718A08-AAED-11E4-B3A5-23405D37267C	

CyberFT

CyberFT | Terminal DEMORUM@A000

English demo@cyberft.com

Main menu

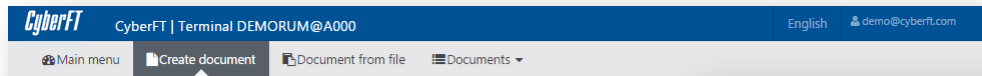
Create document

Document from file

Documents

2015 © CyberPat LLC. All rights reserved. CyberFT Terminal, version 2.2.1-4

CyberFT terminal – working with documents



Home / Documents / Create document (Step 1)

Create document

Step 1
Type and addressee selection

Step 2
Document form

Sender: DEMORUM@A000

Recipient: DEMORUM@A001

Document body: MT103

CyberFT | Terminal DEMORUM@A000

Home / Documents / Create document (Step 2)

Create document

Step 1
Type and addressee selection

Step 2
Document form

Switch editing modes by pressing F5

Form mode Raw text mode

Document data

:20:+000000000000
:23B:CRED
:32A:141216RUB24,47
:50A:/40702810500001000317
INN7710377540.KPP000000000ZAO mKIBERPLATm
:57D://RU044525986.30101810600000000986
OAO AKB mPROBIZNESBANKm G. MOSKVA
:59A:/40802810002520040641
INN352101725014.KPP0IP PONOMAROVA OLXGA SERGEEVNA
:71A:OUR
:72:/RPP/14711.141216.5.ELEK..01
/NZP/PERECISLENIE VOZNAGRAJDENIa ZA PERIOD S 01.08.2014 PO 31.08.2014 PO DOGOVORU 2347/4008335 OT 24.12.2010, BEZ NDS
-

Back Next

CyberFT | Terminal DEMORUM@A000

Home / Documents / View document #7

View document #7

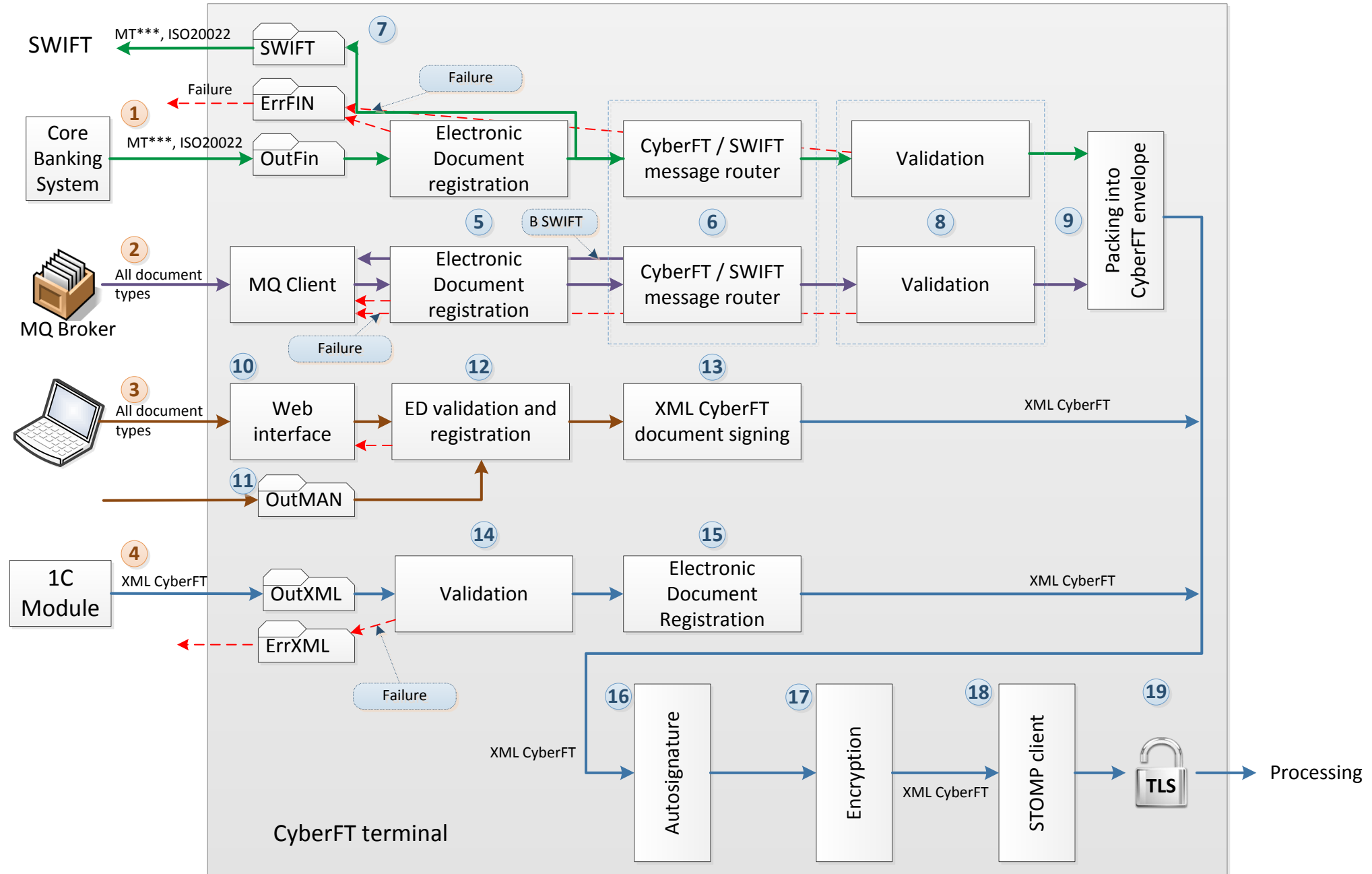
Back

Route MT-document view Readable view Printable view

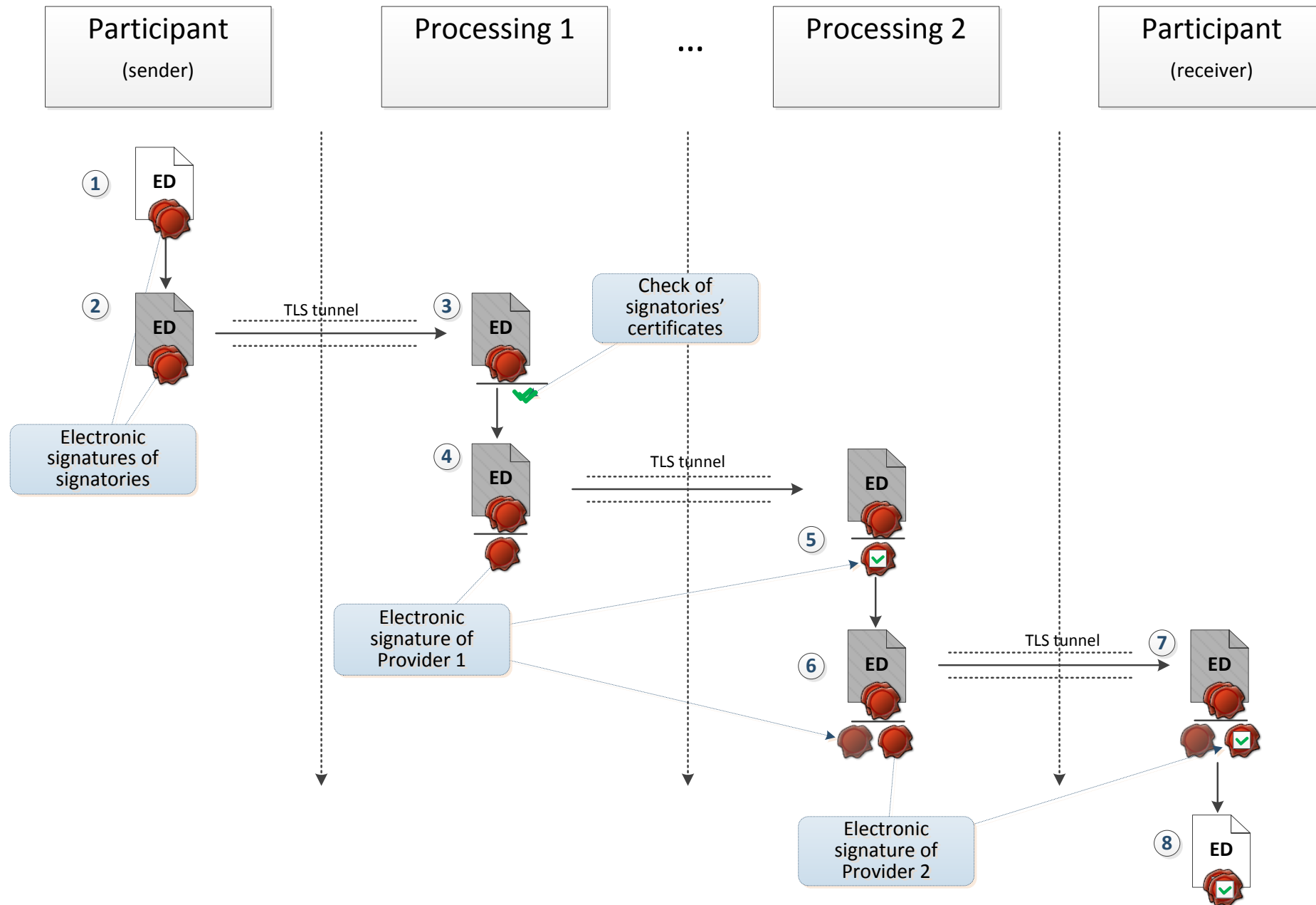
:20: Sender's reference
+000000000000
:23B: Bank operation code
CRED
:32A: Value Date / Currency / Interbank Settled Amount
141216RUB24,47
:50A: Ordering Customer
Account / BIC/BEI
/40702810500001000317
INN7710377540.KPP000000000
ZAO mKIBERPLATm
:57D: Account With Institution
Party Identifier / Name & Address
//RU044525986.30101810600000000986
OAO AKB mPROBIZNESBANKm G. MOSKVA
:59A: Beneficiary Customer
Account / BIC/BEI
/40802810002520040641
INN352101725014.KPP0
IP PONOMAROVA OLXGA SERGEEVNA
:71A: Details of Charges
OUR
:72: Sender to Receiver Information
/RPP/14711.141216.5.ELEK..01
/NZP/PERECISLENIE VOZNAGRAJDENIa ZA PERIOD S 01.08.2014 PO 31.08.2014 PO DOGOVORU 2347/4008335 OT 24.12.2010, BEZ NDS
-

Print

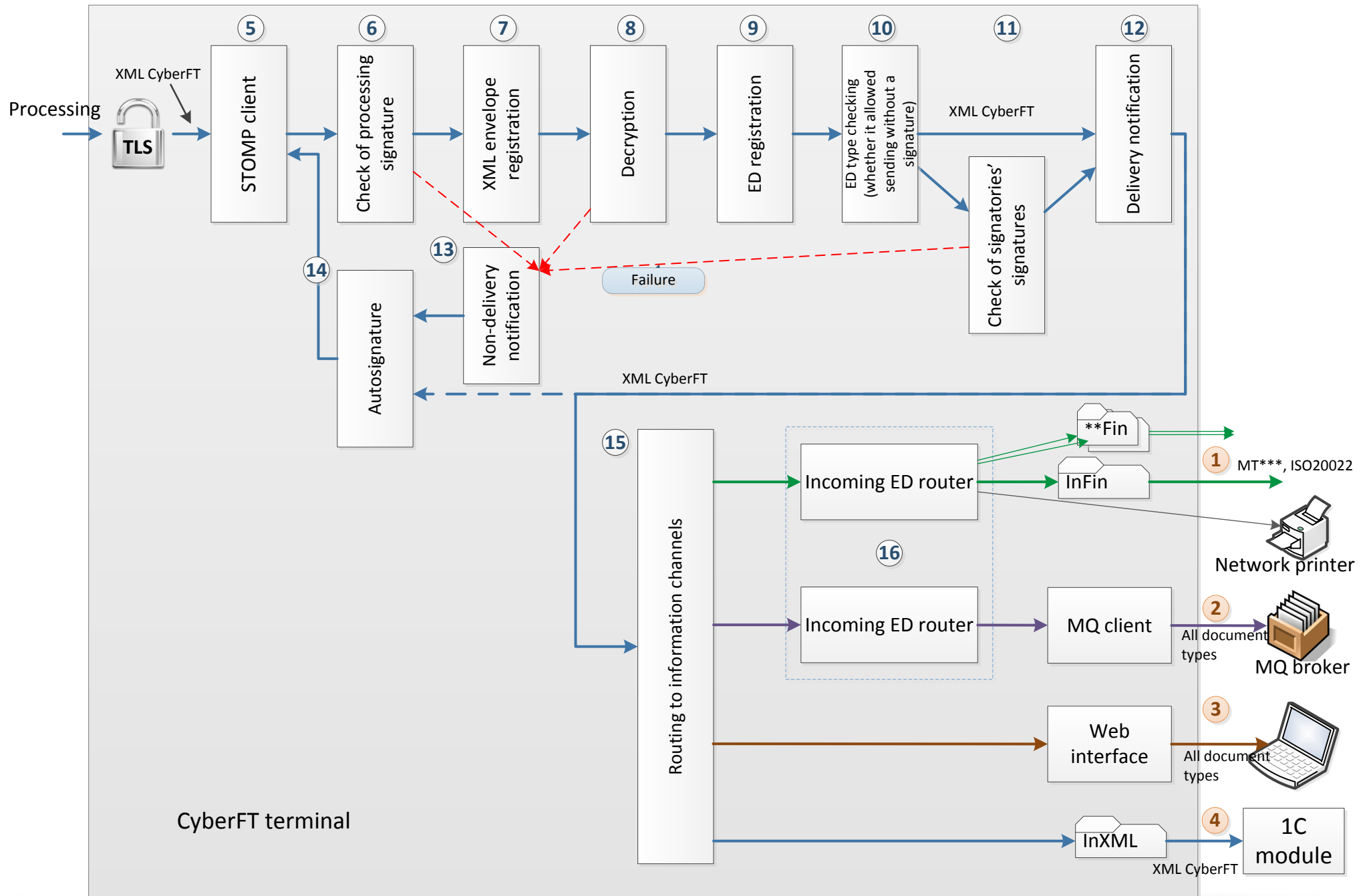
CyberFT terminal – documents sending



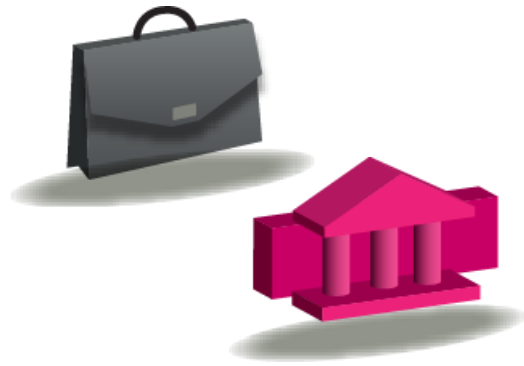
CyberFT terminal – documents processing



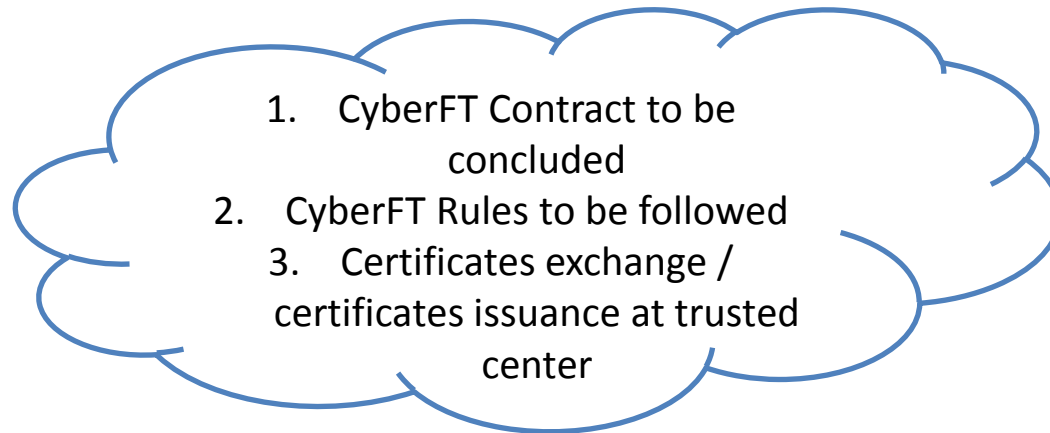
CyberFT terminal – documents receiving



CyberFT – legal and organization questions



Participant



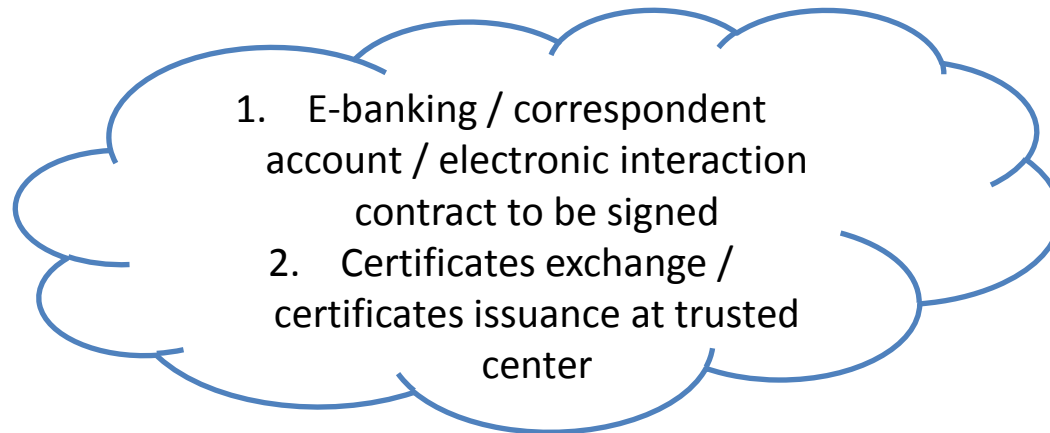
Step 1



CyberFT Provider



Participant



Step 2



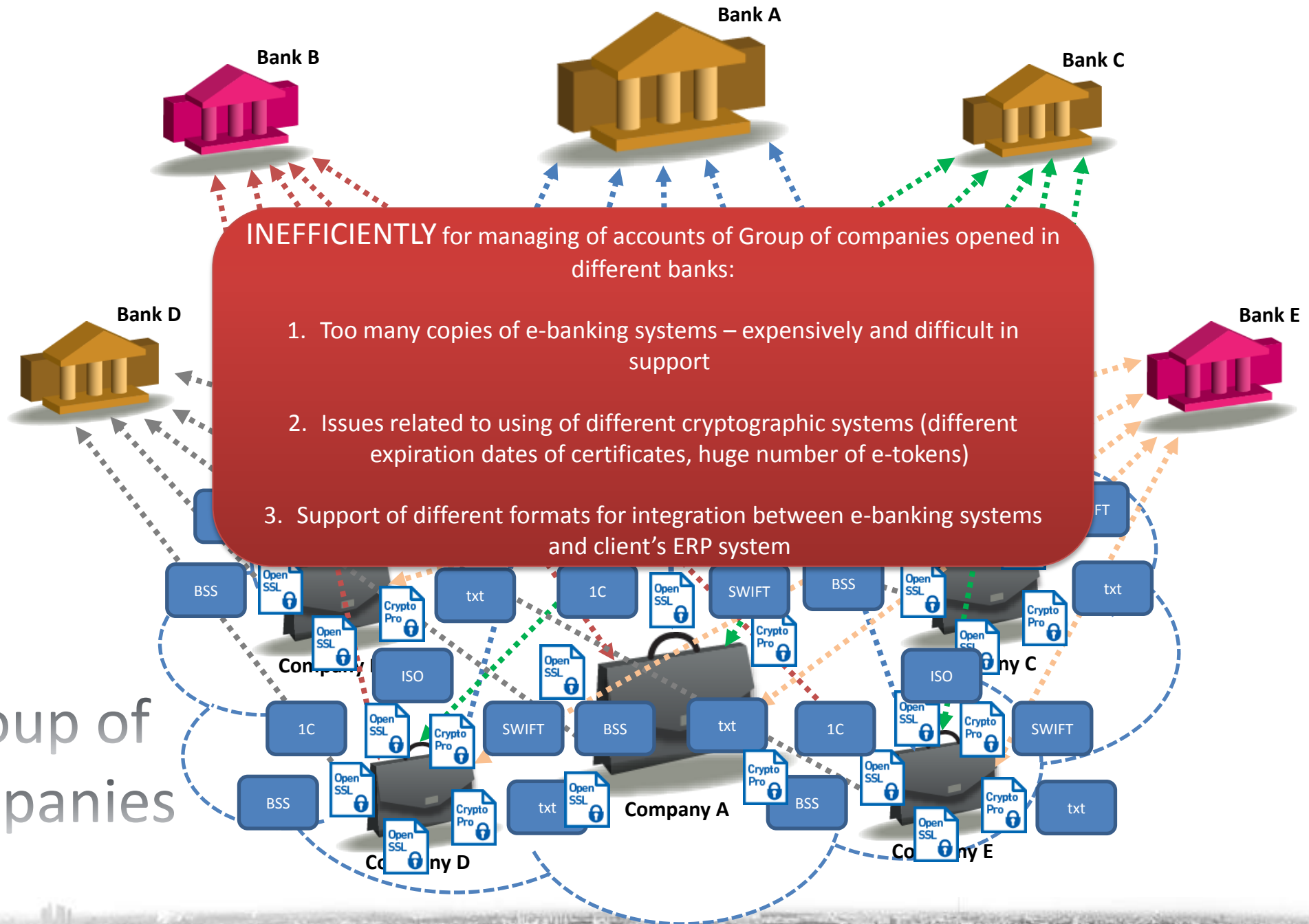
Participant

CyberFT – one system for multiple tasks

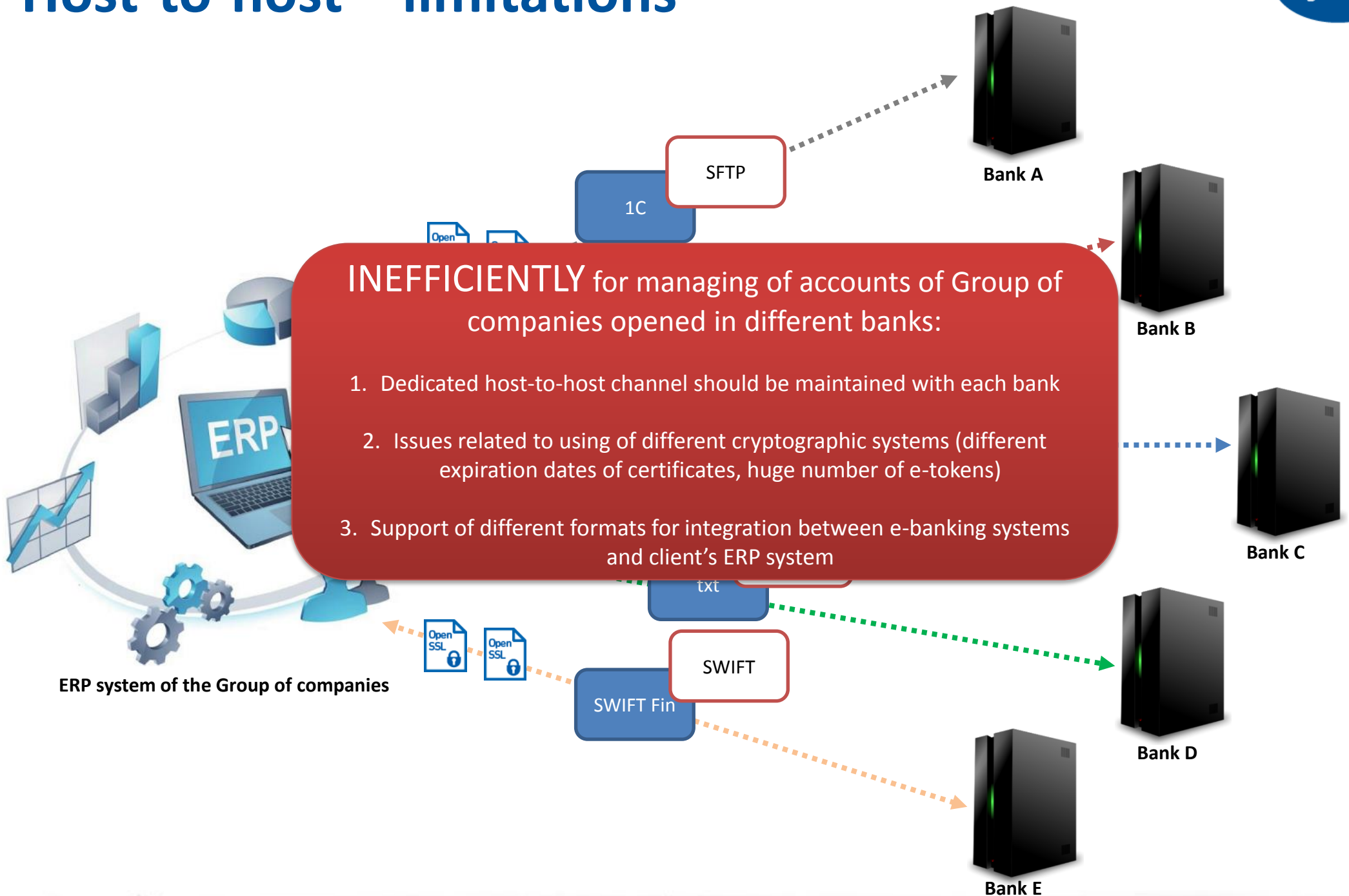


Universal solution for interaction between corporates customers and banks

E-banking systems - limitations

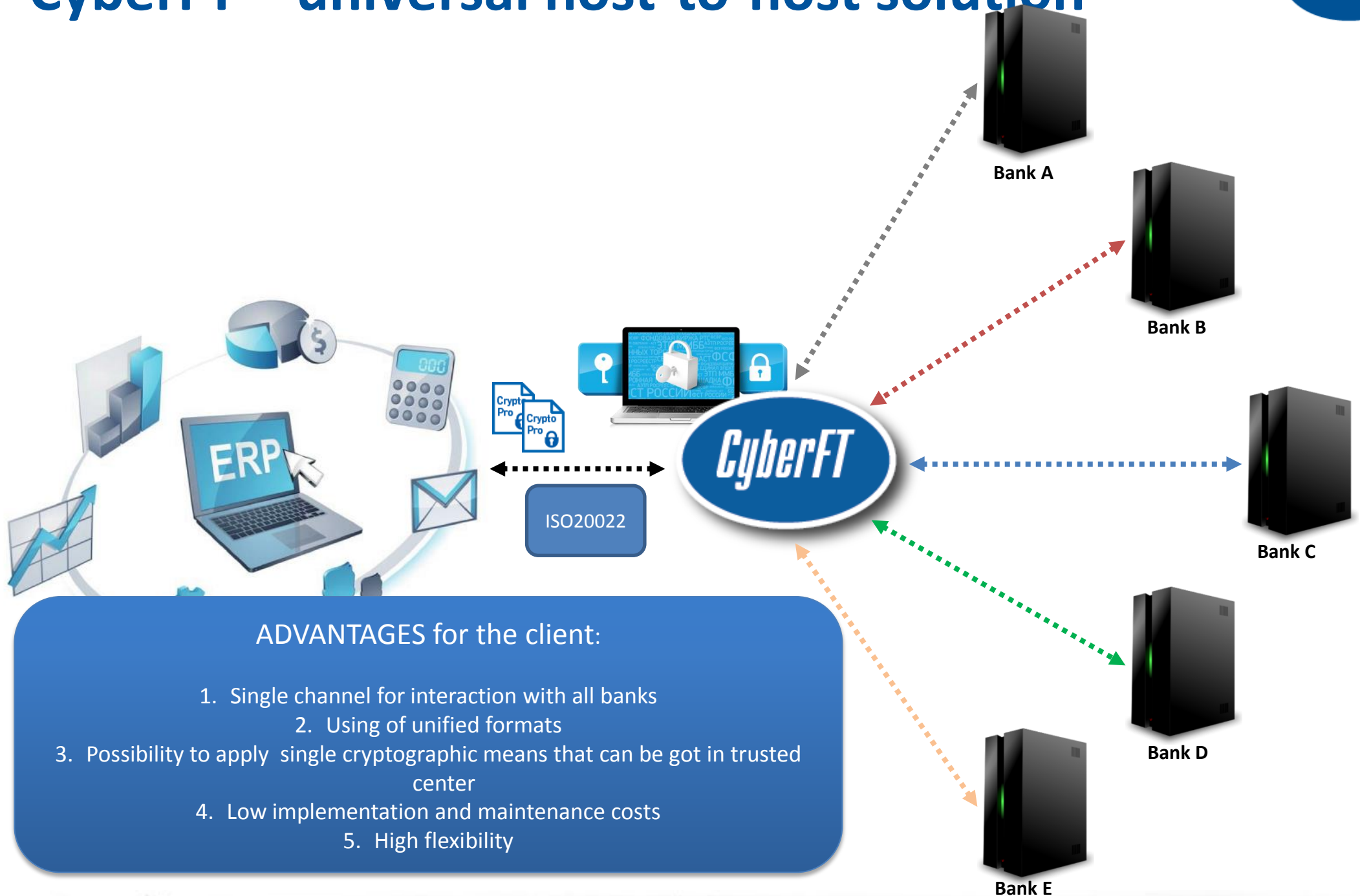


Host-to-host – limitations

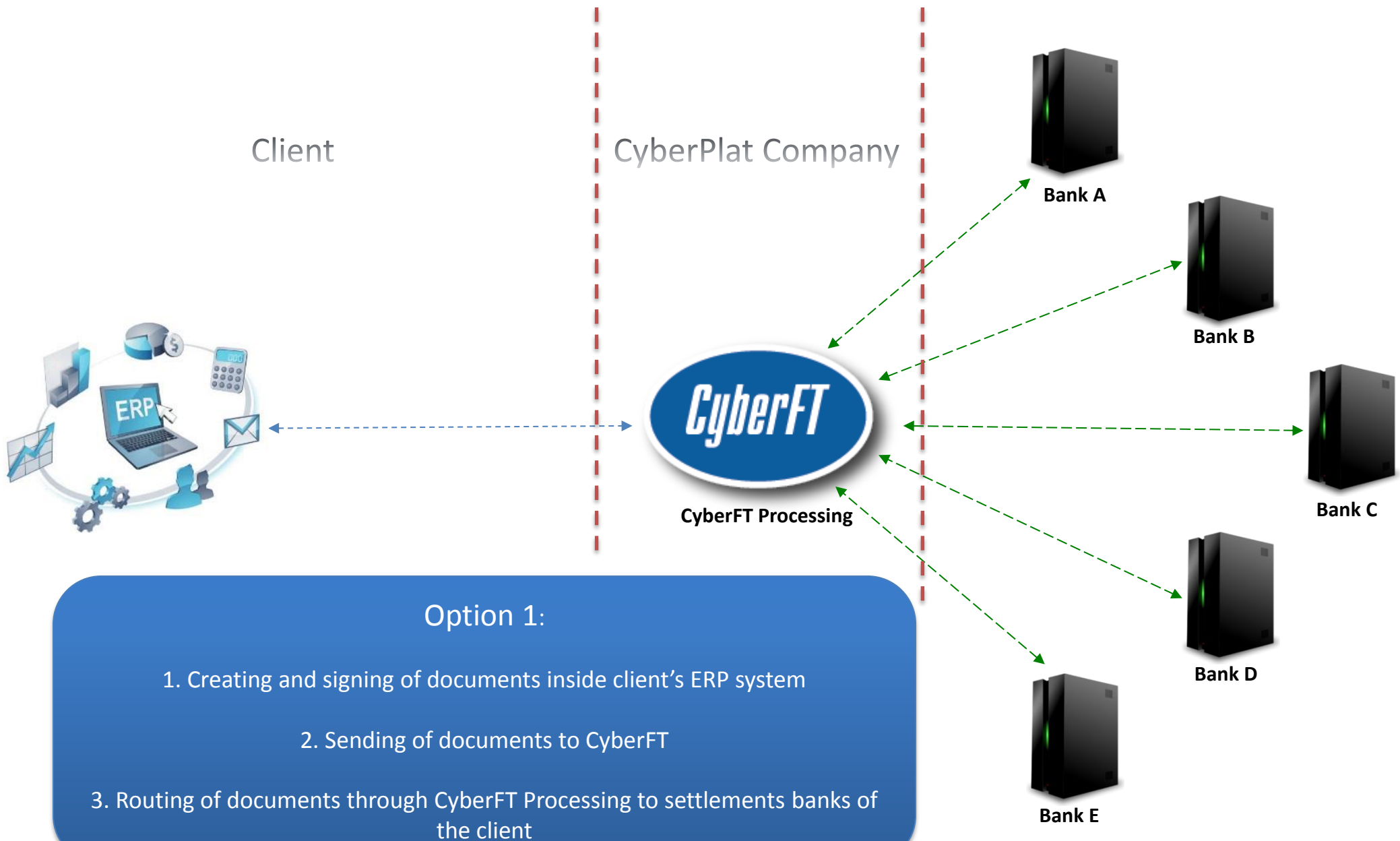


CyberFT – universal host-to-host solution

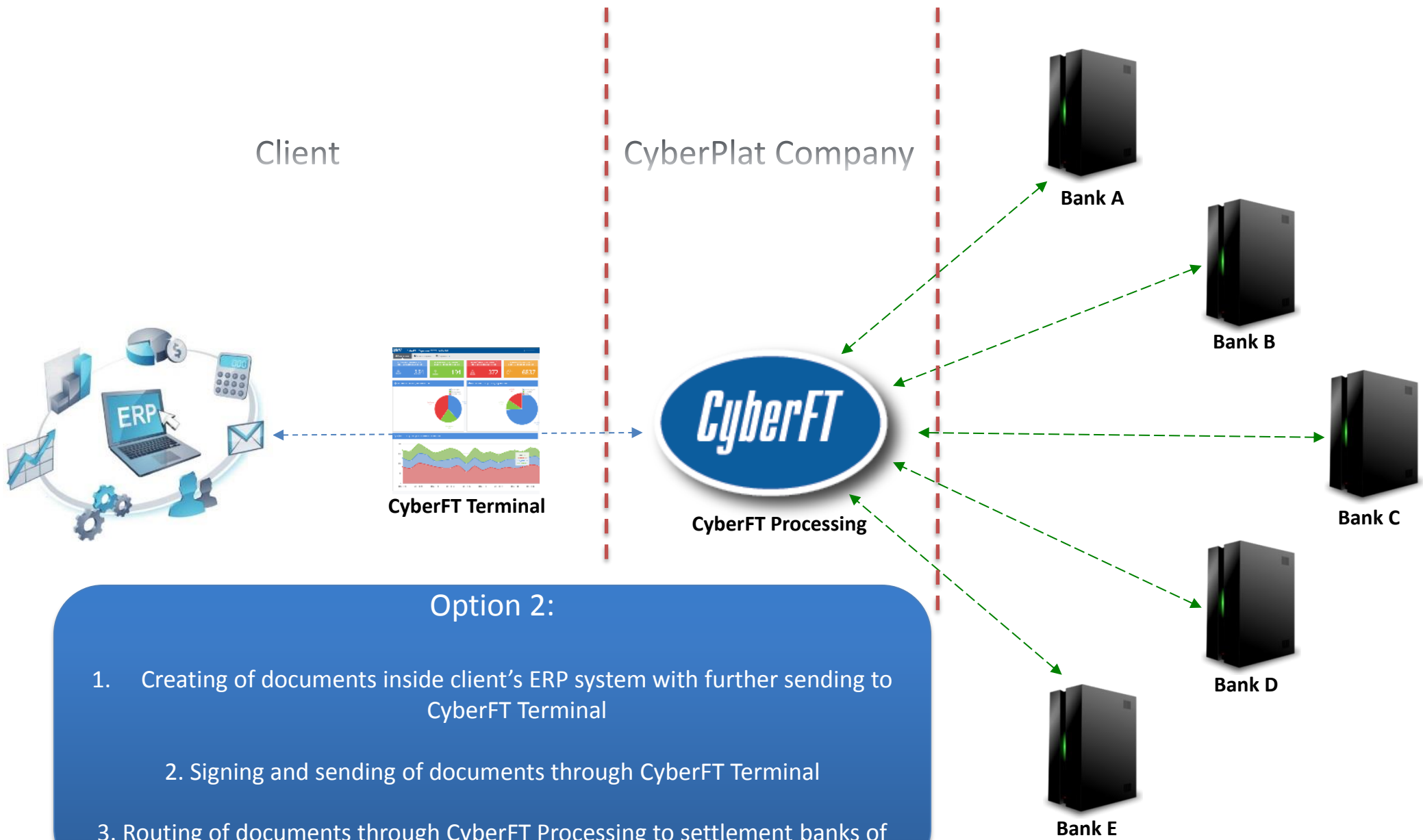
CyberFT



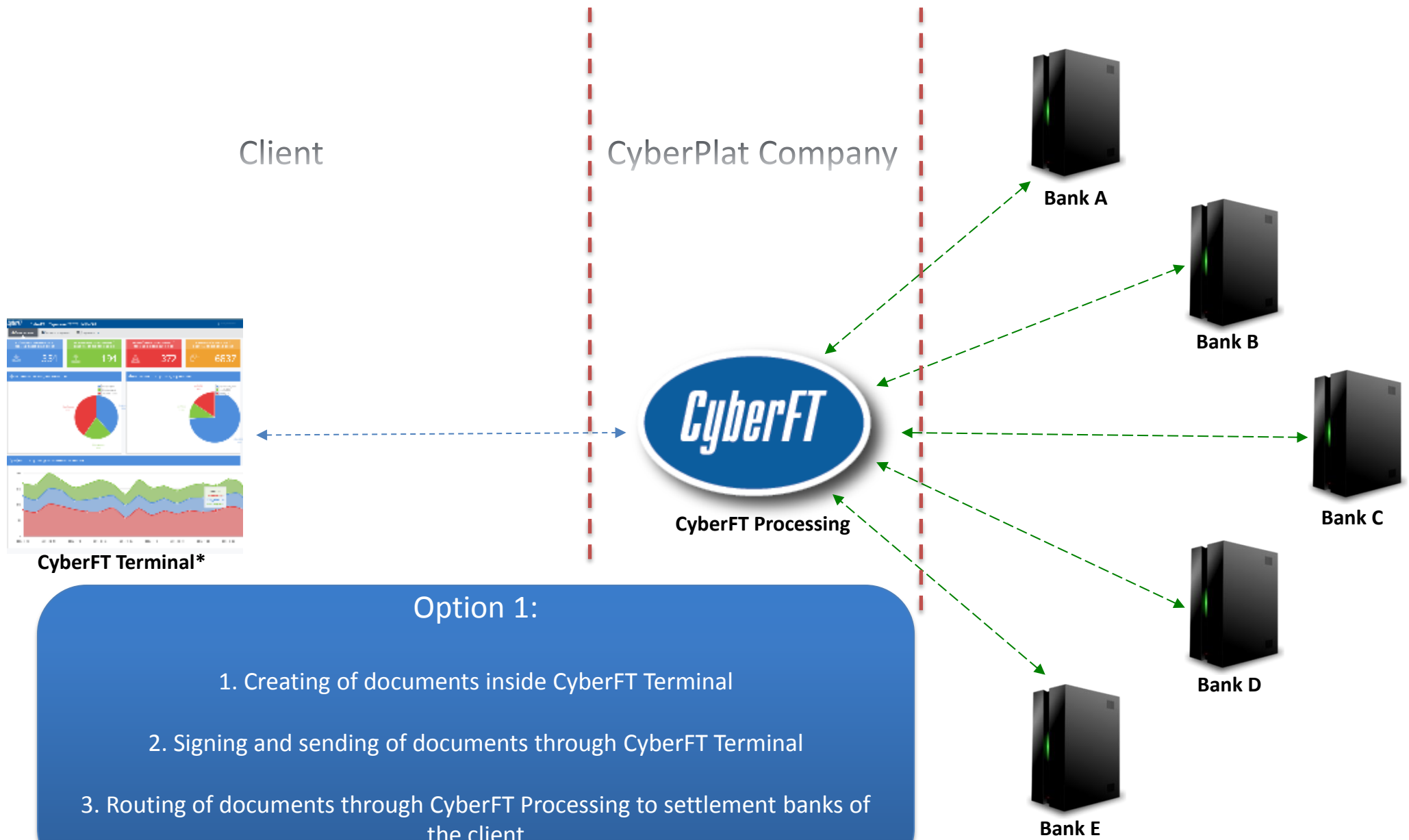
CyberFT – working through ERP



CyberFT – working through ERP

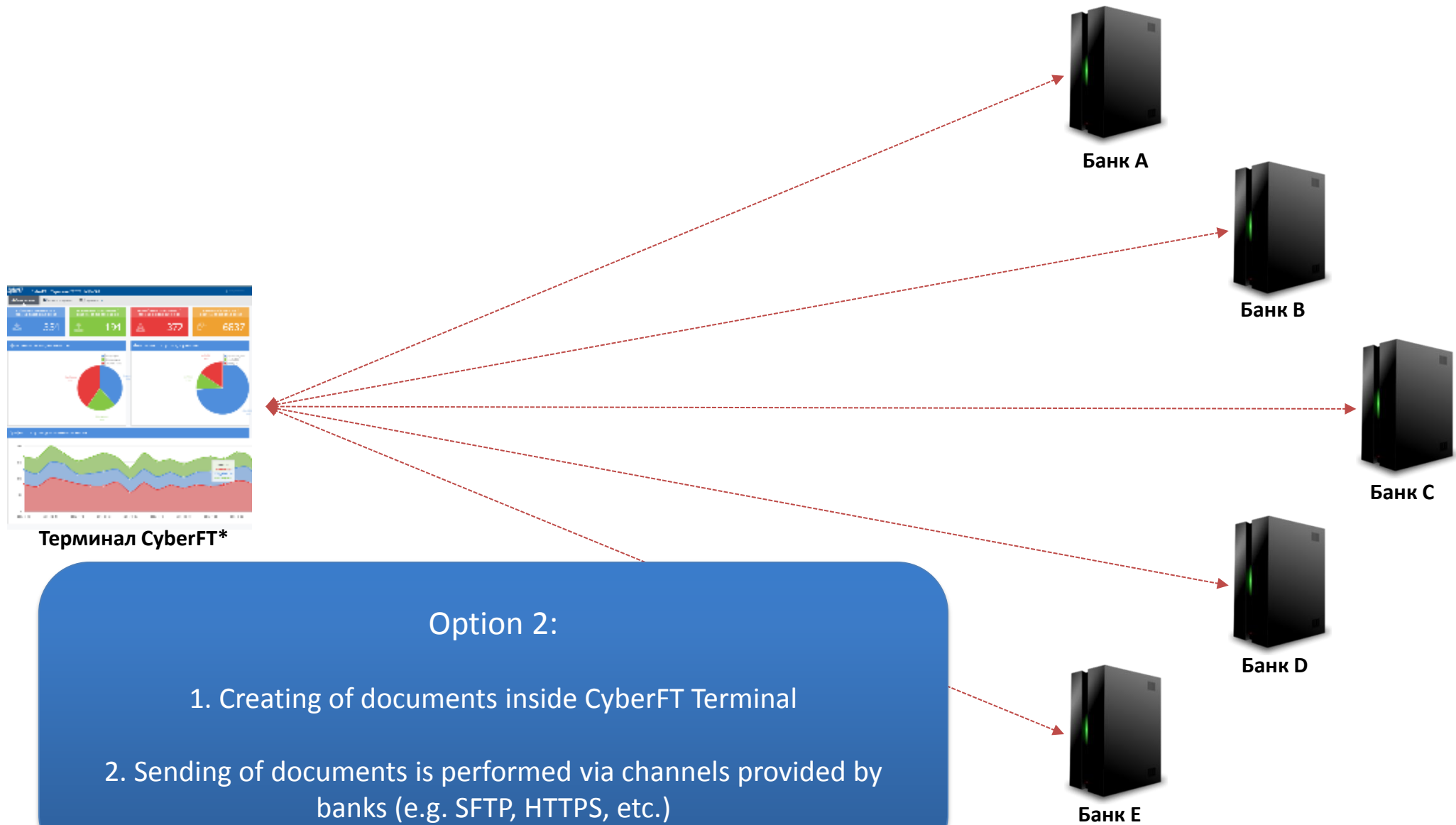


CyberFT – working through Terminal



*CyberFT Terminal can be installed as application on the client's side or can be used as full-fledged 'thin' web-client

CyberFT – working through Terminal



*CyberFT Terminal can be installed as application on the client's side or can be used as full-fledged 'thin' web-client

Legally valid electronic documents interchange

Why EDI?

Only in Russia number of business transactions (paper-based invoices) is more than **15 Bn** deals per year

(According to Federal Tax Service of Russia)

Market correspondence in Russia is valued in **USD 1 Bn** per year (where **USD 500 Mio** are costs of corporates)

(According to BCG)

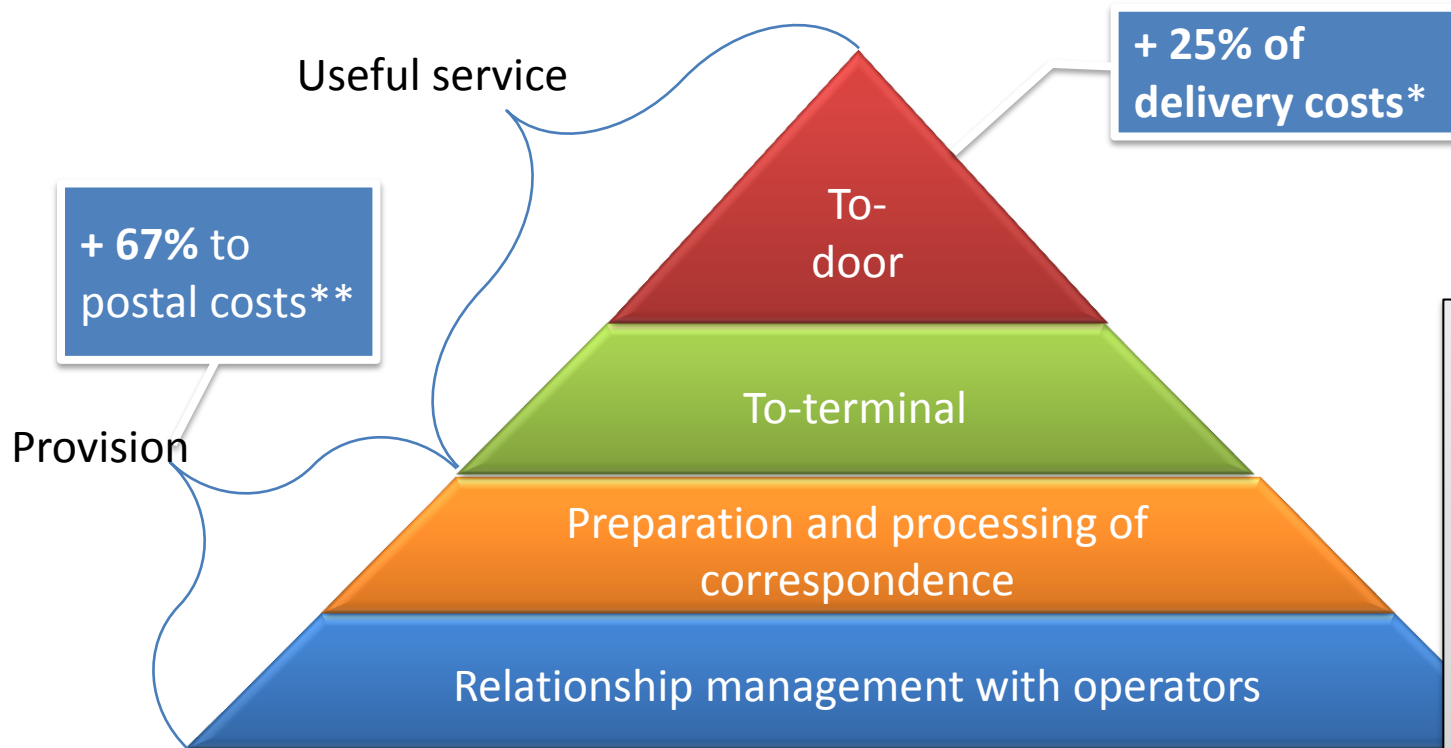
Costs for processing correspondence for corporate customer exceed postal costs in **3 times**, thus overall correspondence costs for corporate customers exceed **USD 1.5 Bn** per year

(According to BCG)

Company (**TOP 400**)
can save
about **USD 400K** if only optimizes printing of documents

(According to GreenPrint, USA)

Why EDI?



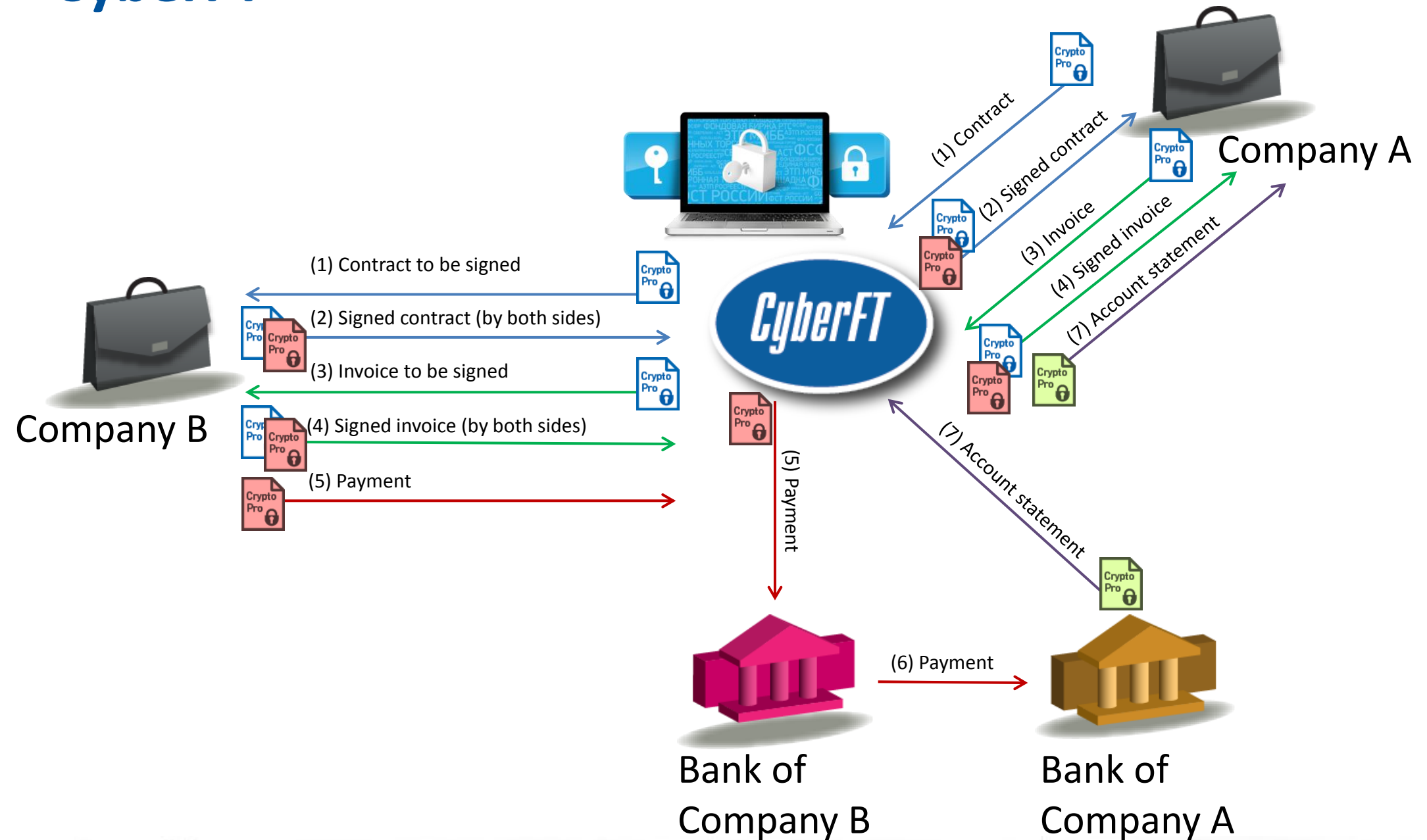
Processing of typical letter (3-5 sheets, A4 format) is about **USD 2** in average. If express mail service is used this cost will be in **10 times** more starting from **USD 35**.

(According to standard tariff of postal providers)

* According to standard tariffs of postal providers

** According to BCG

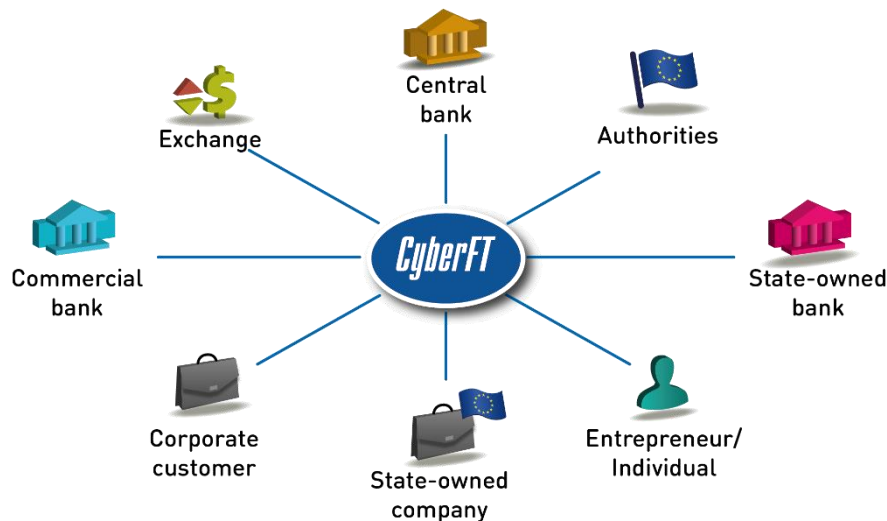
Legally valued EDI – example of interaction in CyberFT



CyberFT – participation examples

Basic participation

- Each party connects to CyberFT provider as a participant
- To start interaction both counterparties (sender and receiver) should exchange keys
- All transactions are stored on sender, receiver and provider ends
- Provider doesn't have access to transaction details
- 24/7 working hours (some limitations may take place according to the rules defined by provider)
- All transactions are processed online

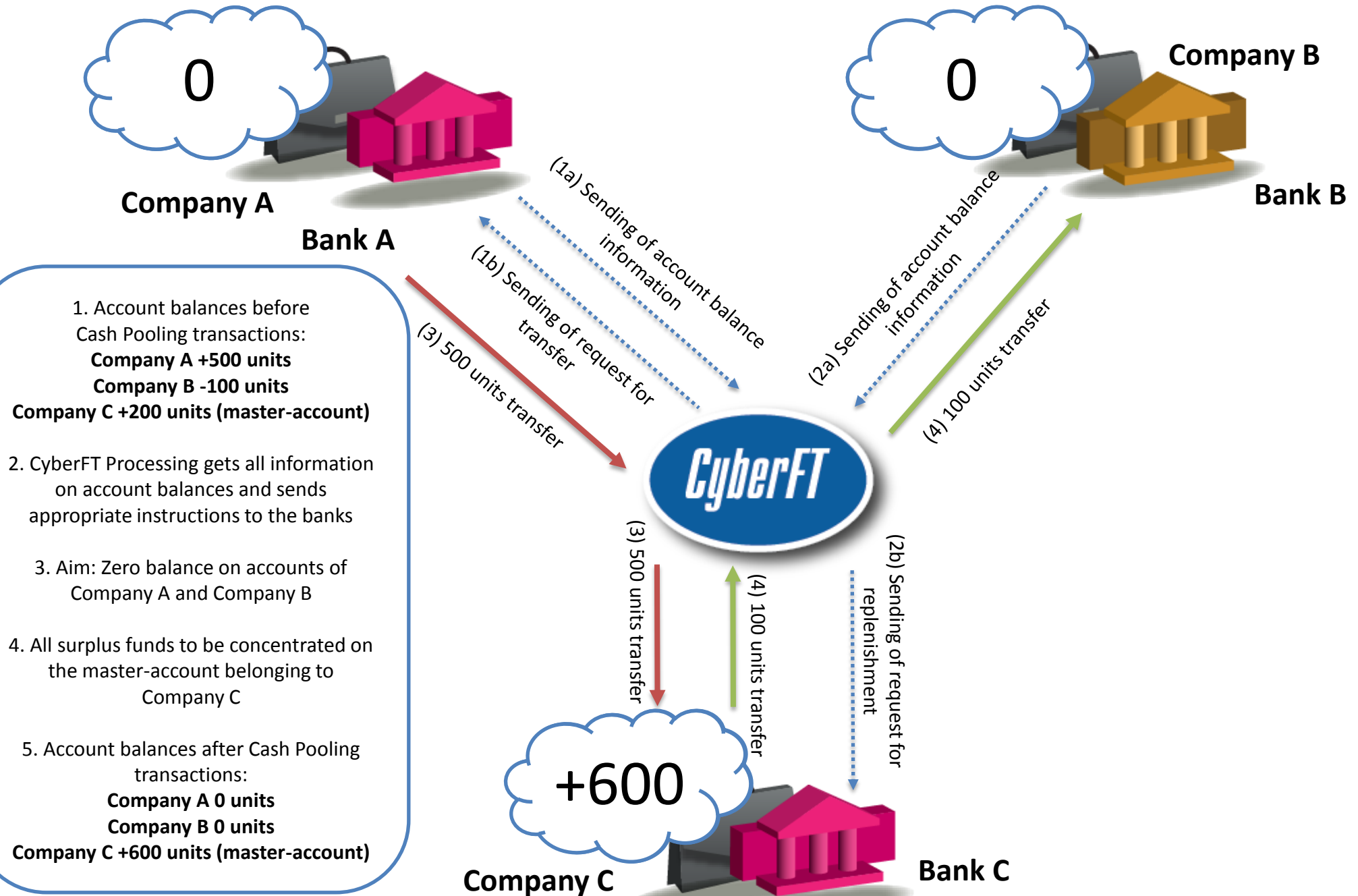


Recommended for:

- ✓ Small banks
- ✓ Corporates
- ✓ Entrepreneurs
- ✓ Individuals

Interbank Cash Pooling?

Cash Pooling – example of interaction



CyberFT – software and hardware requirements

CyberFT Terminal software requirements

- Debian GNU / Linux 7.6 (wheezy) Release: 7.6
- File system ext3 and ext4
- Possibility to use virtual machine!



Users should have typical workstation/notebook and web-browser to work in CyberFT!

CyberFT Terminal hardware requirements

- Processor x86-64
- RAM not less 4Gb
- Multicore processor Intel Core 2 Duo 3.0 Ghz or higher
- HDD not less 40Gb

CyberFT vs. SWIFT

CyberFT



Clients

☐ About 10 000 banks and small number of corporate customers

☒ Possibility to cover all banks and corporate customers without any limitations

Coverage

☒ Whole world

☒ Whole world

Conformity with legislation

☐ Doesn't conform with local legislation of many counties (domestic transaction should be process inside country and don't leave country borders)

☒ If full conformity with local legislation of the most countries

Operating hours

☒ 24*7

☒ 24*7

Implementation costs

☐ No less than USD 53 000 including mandatory cabling from a specific communication service provider up to USD 200 000 for each new client.

☒ Free of charge

Transaction costs

☐ SWIFT FIN: Domestic transaction EUR 0.02 – 0.05, cross-border transaction EUR 0.03 – 0.18

☒ No more than 50% from the SWIFT fee for the same transaction.

Maintenance costs

☐ No less than EUR 10 000 per year

☒ Free of charge

CyberFT vs SWIFT

CyberFT



Implementation time

☐ No less than 8 weeks in case of shared connection and at least 16 weeks in case of direct connection

☒ Connection to CyberFT processing including integration with automated banking system takes from 1 to 3 weeks, and no more than 2 weeks in case of customer's own CyberFT platform implementation.

Data transfer speed

☒ A few seconds

☒ 1.5 seconds

Data exchange formats

☒ SWIFT Fin (MTXXX messages), InterAct (MX messages), FileAct (unstructured messages)

☒ SWIFT Fin (MTXXX messages), InterAct (MX messages in accordance with ISO 20022), FileAct (unstructured messages with attachments), EDI documents (contracts, invoices) and more.

Maximum message size

☐ No more than 10Mb

☒ Standard maximum message size limit is 100 Mb. It can be easily increased according to customers' needs

User interface

☒ Several versions of SWIFT Alliance software for full-fledged working

☒ User friendly web-interface for full-fledged working

Additional services for corporate customers

☒ Special conditions for corporate customers comparing to conditions for banks.

☒ Special conditions for corporate customers, specialized 1C payment module, EDI service of legally valid documents.

CyberFT vs SWIFT

CyberFT



Archive availability

☐ Data is normally stored for only 4 months on the processing's side

☒ All data is stored on participants' and processing's side without any limitations

Types of interaction

☐ Processing only

☒ Processing and clearing

Cryptography

☐ SWIFT cryptographic means. No capability to change cryptographic means

☒ Various cryptographic means (including OpenSSL, PGP and GOST algorithms based on CryproPro, Signal-COM, etc.) Support of any means of cryptographic protection. E-signature for electronic messages

Transactions security

☐ Data is available to SWIFT

☒ Data is not available to the CyberFT Provider

Servers location

☐ USA, Switzerland and Netherlands

☒ Russia and any part of the world by the CyberFT Provider choice

Reliability

☐ Specialized data exchange protocol and 'hot backup' of each network element. A total of 4 datacenters. total of 4 datacenters

☒ Advanced and effective software and hardware measures (both technical and organizational) to provide high system reliability. Number of service providers is unlimited

Network topology

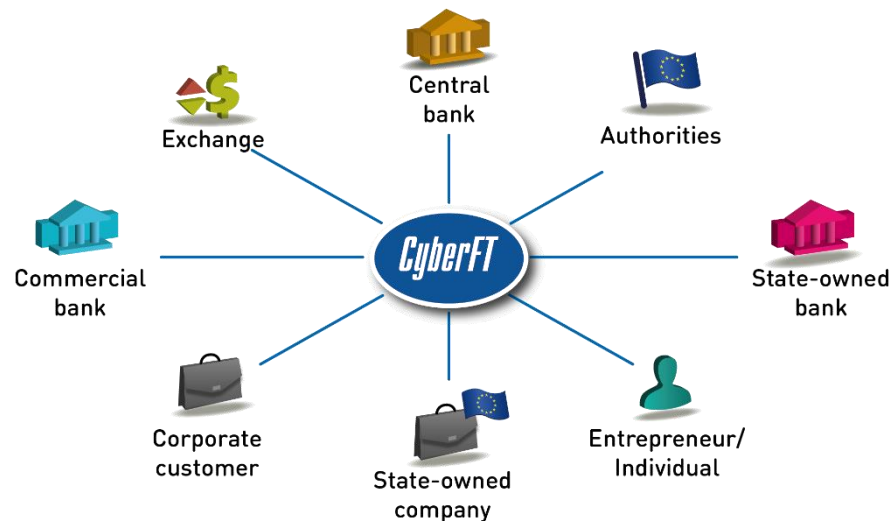
☐ Star (all participants are connected to the single center)

☒ Fully connected (there can be unlimited number of centers connected between each other where network participants are connected to these centers)

CyberFT – commercial proposal

Basic participation (when customer is connected to CyberPlat company as CyberFT Provider)

- CyberPlat Company owns CyberFT and is responsible for processing of the messages
- Connection to CyberFT via customer's own software or CyberFT Termonal
- Customer will be able to communicate with all parties connected to CyberFT Network



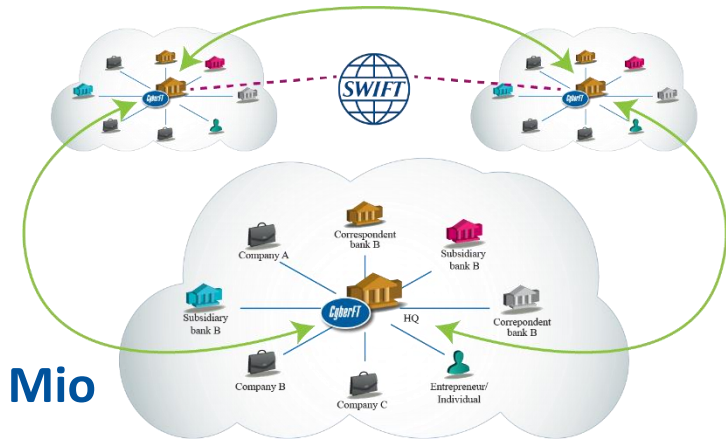
- ✓ Connection: **free of charge**
- ✓ Software price: **free of charge**
- ✓ Support: **free of charge**
- ✓ Transaction costs: 50% of the price of the similar SWIFT message (e.g. MTXXX **EUR 0.021** (local transactions) and **EUR 0.063** (cross-border transactions))

CyberFT – commercial proposal

Stand-alone implementation – full edition

- Customer integrates CyberFT Platform into its own datacenter and becomes full-fledged CyberFT Provider for its customers and counterparties
- CyberPlat Company doesn't have access to this platform
- Information on transactions **is not sent** to CyberPlat

- ✓ Hardware and CyberFT software for 2 server groups operating under GRID technology: one off fee **USD 10 Mio**
- ✓ Processing of up to 500K transactions per day. For higher number of transaction the price is subject to negotiations
- ✓ Client's software – **free of charge**
- ✓ Maintenance: **USD 200K annually**. In case of a special one-off fee, maintenance annual fee is subjects to negotiations
- ✓ Transfer costs: **free of charge**

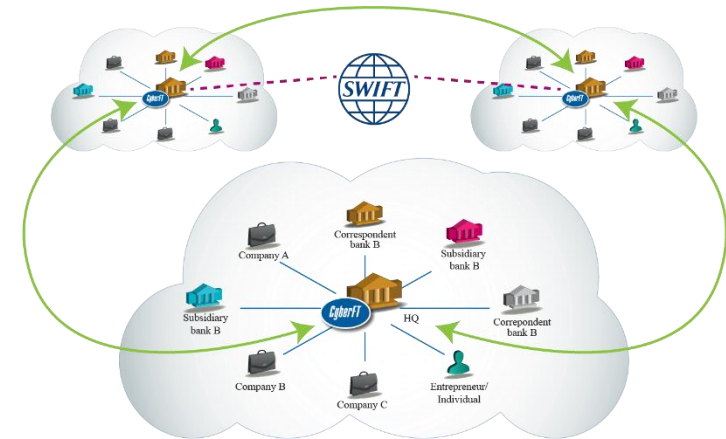


CyberFT – commercial proposal

Stand-alone implementation – light edition

- Customer integrates CyberFT platform into its own datacenter and becomes full-fledged CyberFT Provider for its customers and counterparties
- Reserve datacenter is located at CyberPlat Company premises
- Information on transactions **is sent** to CyberPlat

- ✓ Hardware and CyberFT software for one processing: one off fee **USD 1 Mio**
- ✓ Processing of up to 500K transactions per day. For higher number of transaction the price is subject to negotiations
- ✓ Client's software – **free of charge**
- ✓ Maintenance: **USD 200K annually**. In case of a special one-off fee, maintenance annual fee is subjects to negotiations
- ✓ Transfer costs: **50% from SWIFT price** for the same message type



CyberFT – main advantages



Significant costs reduction



High security standards and full guarantee of information safety



Fully compliant with requirements of local legislation of the most countries



Fast and effective system implementation



Various connection types



24x7 availability



Full independence from political situation



High fault-tolerance



All transactions are processed online



Up-to-date advanced platform with full support of SWIFT message types, ISO 20022 formats and many others



Flexibility and scalability of the system (message formats, cryptographic means, channels, etc.)



One system for different tasks (from closed banking group up to interaction on international level)



Great possibility for banks to offer new services for their customers

- ✓ Online processing of transactions
- ✓ Extended cut-off time
- ✓ Electronic documents workflow with legal significance
- ✓ Host-to-host service
- ✓ Other services like e-invoicing



- ✓ Possibility for corporate customers to build Centralized Treasury and to use uniform channels, formats and cryptography to communicate with different banks
- ✓ Possibility to organize direct debit, e-invoicing, interbank cash pooling and other solutions

Conclusion

CyberPlat is willing to be your partner in providing up-to-date transactional and financial services through CyberFT Platform to optimize costs, increase efficiency and your level of competitiveness on the market.

The wide range of solutions and capabilities of CyberPlat Company exceeds the bounds of this presentation and we rely on the further collaboration for a better understanding and meeting all your requirements.

Feel free to submit your requests and questions!



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