



SecuritiesTransferHub
by guidance

Introducing the STH service

01

Introduction



SecuritiesTransferHub

by guidance

Who are we?

Monori Antal – organizer, consultant

25+ years of experience in financial systems design, SWIFT implementation and integration in numerous banking environments

Varga Zsombor – architect, development manager

22 years of experience in custom software development and design in banking and corporate environments

Guidance Zrt

- Operating in financial and enterprise IT since 2002
- Development and operation of custom solutions and services
- Stable team of 65 IT experts
- Raiffeisen, Erste, Magnet, MBH, VIG, Groupama, Netrisk
- InternetBank, treasury systems, bank card management, portals, ...



02

Project status and goal



SecuritiesTransferHub
by guidance



Project purpose and justification



- ESMA = European Securities and Markets Authority
 - Securities settlement cycle: T+1 day is the time of trade and receipt and payment
 - The US and Asia already operate on T+1 settlement, ESMA aims to harmonize the market
- Requirement:
 - Standardized and open communication between actors
 - December 7, 2026 as start date of T+1 settlement in the EU
- Current operations are inefficient and non-standard
- Continuously increasing data traffic and complexity
- Regulatory compliance required
- Automated and auditable operations



Main expectations

- Use a standard message format
- Ensure fast and reliable data exchange
- Full auditability and traceability
- Define responsibilities
- Develop a scalable architecture



Actors of the system

- Clients
- Investment service providers: customer relations and trading *
 - Several market actors
 - Wide range of services
 - No active SWIFT connection
- Fund managers: managing investment decisions *
 - Fragmented market
 - Special operation
 - No SWIFT connection
- Custodians: clearing and registration, domestic service provider: KELER as central infrastructure
 - Domestic and foreign actors
 - SWIFT connection required
 - Use of MT5xx SWIFT FIN messages

* the focus of this discussion is the design of the interface between the investment service provider and the fund manager



Current status (*As-Is*)

- Non-uniform communication, mainly based on bilateral agreements
- Email-based data exchange (PDF)
- Processing often requires manual intervention
- T+1 processing time cannot be guaranteed, pre-COT period is critical
- Processes difficult to audit

03

Proposed solutions



SecuritiesTransferHub
by guidance



Target state (*To-Be*)

Communication between investment service provider and fund manager

- Unified data flow
- Structured data format
- Automated processes
- Traceable, confidential, distortion-free, retrievable, verifiable data transmission
- It is necessary to develop automated systems on the actors' side too!
- STH Client (optional) for efficient connection



SWIFT solution

- Used by custodians with MT5xx messages
- Brokerage firms and fund managers are not currently connected to SWIFT
- High installation and maintenance costs, high complexity
- Would not be an optimal solution for all actors
- Pros:
 - Standard message format
 - Reliable, closed, confidential, retrievable
 - Standard service for banks, financial institutions and major clients
- Cons:
 - It has features that are not used in this task
 - Expensive for its value
 - Long implementation time (registration, assessment, product installation, learning, tests, possibility of going live in a monthly period)



Custom solutions

For example, FTP, SFTP tool

- Pros:
 - Simple technological implementation
- Cons:
 - Many unique connections required
 - No single mandatory data model
 - Message traffic is difficult to track and reproduce
 - Auditing is more difficult
 - Security and integrity issues
 - IT operations play a disproportionate role in daily use



Central hub solution

- Unified communication platform
- Use of standard data structure
- Transparent architecture
- Scalable and expandable
- Full audit and monitoring capabilities



Recommended architecture

- Use of star topology
- Introduction of a central service provider
- Uniform data model and interface for all actors
- Clear definition of responsibilities

04

The solution: STH service



SecuritiesTransferHub
by guidance



Goals

- Unified data flow
- Structured data format
- Automated processes
- Protected, traceable, confidential, distortion-free, retrievable, auditable data transmission
- Modern, high-capacity and high-availability architecture
- Use of industry standards
- Easy integration



SecuritiesTransferHub

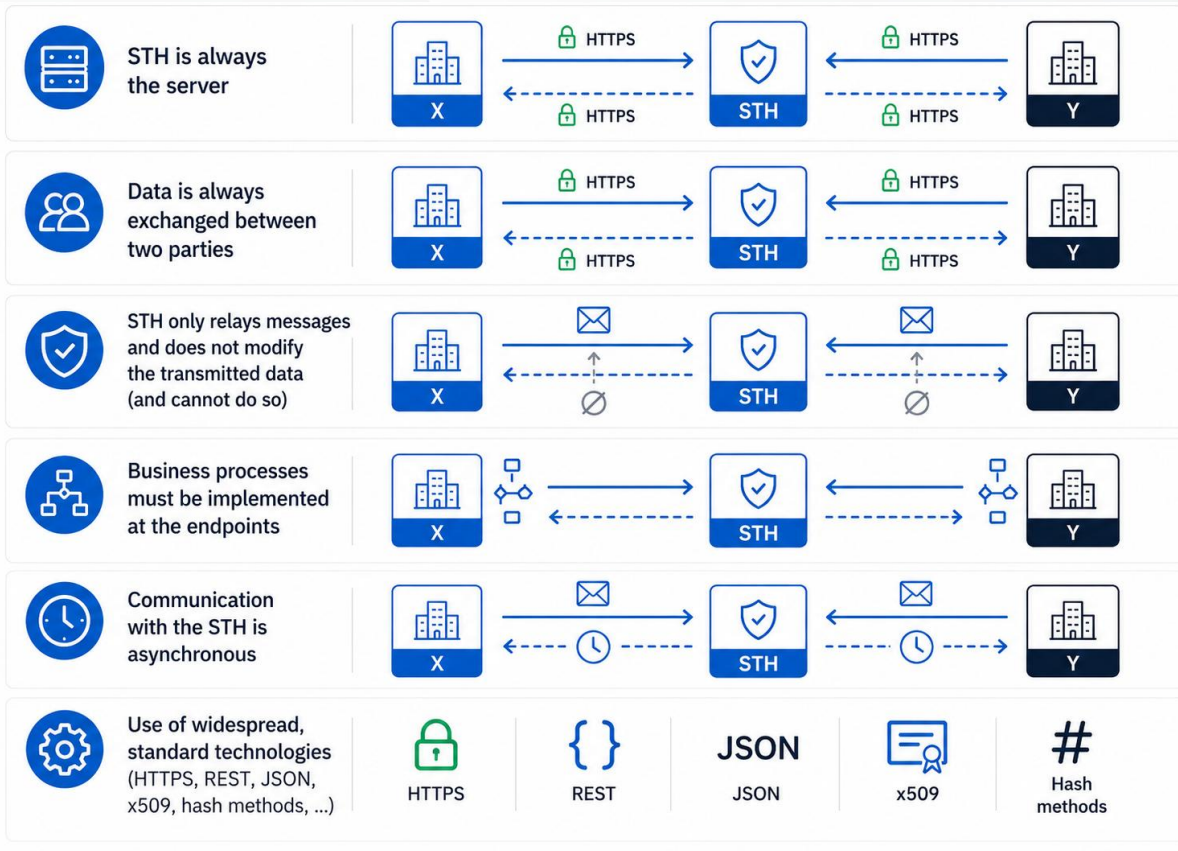
by guidance

Expectations

- Confidentiality
 - Only the authorized person (the recipient) has access to the data
- Integrity
 - Unauthorized persons cannot modify the data
- Availability
 - The sent message is guaranteed to arrive at the recipient
- Well-defined responsibilities
- Logged operation
- Auditability

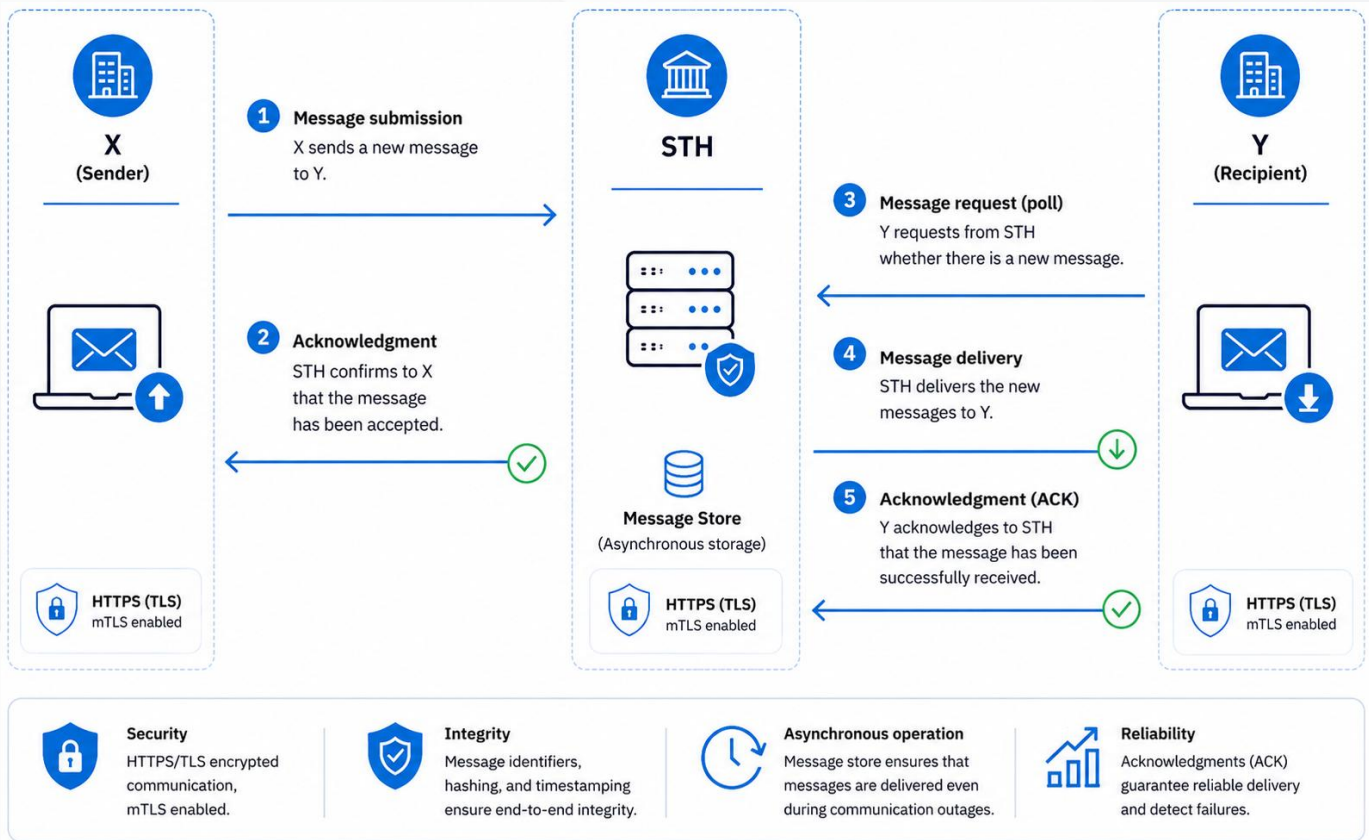


Operating model





Operating model



Unified and structured message format



BUSINESS MESSAGE

The message contains all necessary metadata and business content.



1 METADATA (BUSINESS ENVELOPE)



IDENTIFIERS

Sender identifier, correlation identifier, recipient identifiers



TIMESTAMPS

Creation time, sending time, processing deadline



SENDER AND RECIPIENT INFORMATION

Sender identifier, recipient identifier, intermediary identifier



SECURITY AND HASH DATA

Encryption algorithm, key identifier, hash algorithm, hash value

2 BUSINESS CONTENT



SWIFT MT5xx BUSINESS MESSAGE ENCRYPTED

The business content (e.g., SWIFT MT5xx message) is encrypted in this format.



BUSINESS CONTENT ENCRYPTED WITH TRUSTED CERTIFICATE



Original business content
(SWIFT MT5xx)



Encrypted content



Signed certificate

The business content is encrypted with the trusted certificate, so only the authorized recipient can decrypt it.



CONTENT INTEGRITY ENSURED WITH HASH VALIDATION



Encrypted content



Hash value
(e.g., SHA-256)



Integrity verification

The hash value ensures that the business content has not been altered during transmission. Any modification is detectable.



STANDARDIZED

A unified structure for all business messages



SECURE

Encryption and hash ensure confidentiality and integrity



COMPLIANT

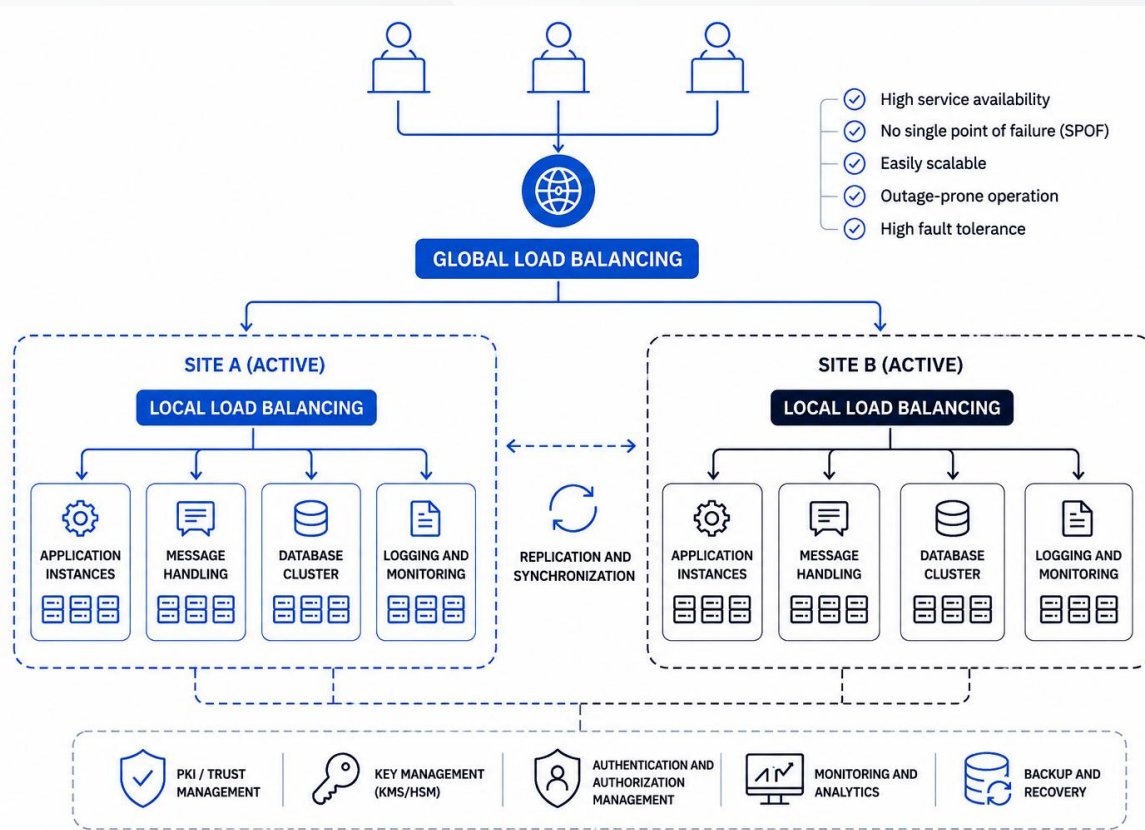
Identifiers and timestamps enable full auditability



FLEXIBLE

Easily extensible metadata and new content types

Architecture





STH – Other features

- Query delivery results via API
- Daily reports via API
- Send alerts via email
- Online interface for participants
 - Reports, statements, statistics
 - Message lifecycle tracking
 - User registration and authorization management
 - Administrator interfaces

Standards

DOMAIN		STANDARD / FRAMEWORK
	Cybersecurity	NIS2
	Data Protection	GDPR
	Communication	NIST SP 800-52
	Asynchronous Messaging Model	AsyncAPI 3.0
	API Documentation	OpenAPI 3
	Certificates	RFC 5280

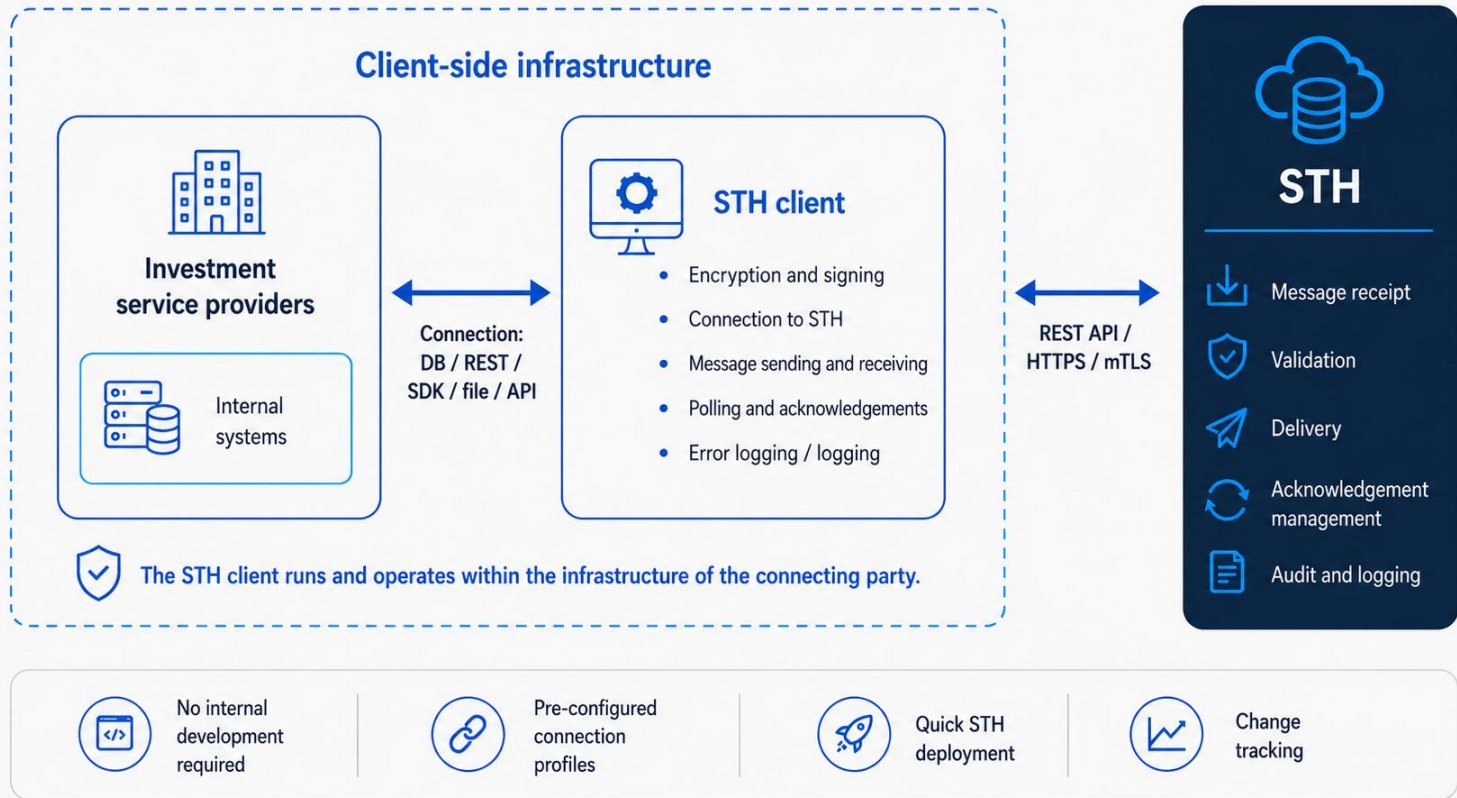


Technological advantages

- Modern, secure architecture
- Providing the technical background for the now expected T+1 settlement and later T+0 settlement
- Use of industry standards, easy integration
- Flexibly expandable
- Fast onboarding process
- Developer support



STH client (optional)



05

Project aspects



SecuritiesTransferHub
by guidance

Timeline

2026.05.08

- we are here now
 - planning, task specification, operating model
 - declaration of intent from members
 - technical specification for members for their own development
 - contract between service provider and members
 - test environment for participants
 - integration, UAT and load tests; training
 - parameterization of the production environment
 - release

2026.12.08.

- production release
 - baby-sitting
 - release management

Business benefits after joining STH

- Faster settlement process
- Transparent operation
- Increased customer satisfaction
- Long-term cost reduction
- Legal compliance
- Minimal client investment



SecuritiesTransferHub
by guidance

For questions and contact



Next consultation:
2026.05.15 10:00

<https://sth.guidance.hu>

Monori Antal – antal.monori@guidance.hu
Varga Zsombor – zsombor.varga@guidance.hu



SecuritiesTransferHub

by guidance