

BL Real-Time Server

The server system for pan-European EBICS in real-time

*The single platform for Instant Payment and
SEPA Request-To-Pay with EBA CLEARING*

Europe-wide instant payment

*Mastering tomorrow's challenges today:
pan-European SEPA transfers in
real-time per SCT Inst scheme.*

The SCT Inst scheme

The European Payments Council, short EPC, has set the rules for pan-European transfers in real-time with the *SEPA Instant Credit Transfer rulebook (SCT Inst)*. The open standard of the *SCT Inst* scheme for SEPA real-time transactions considers all requirements for modern electronic payments.

SCT Inst at a glance

The cornerstones of the schema rulebook are:

Participation

- The possibilities for participation are deliberately open to ensure a high market penetration.

Formats

- All exchanged messages originate from the ISO 20022 standard for real-time payments.

Availability

- Participating systems must be available 24 hours a day on all days of the year.

Transactions

- Payments must be credited to the receiver's account within 10 seconds, including a feedback for the payer.

Amounts

- Exactly one payment with a maximum amount of EUR 15,000 is transferred per transaction.

Countries

- The SEPA transfers in real-time are available in all 34 SEPA countries.

Start

- *SCT Inst* has been operational since 21 November 2017.

Participation of EBA's RT1 as reliable CSM provider

The *SCT Inst* scheme allows all subscribers to participate in the process through any clearing and settlement mechanism (CSM). Thus, in addition to direct connections to other credit institutions – analogous to interbank clearing – clearing houses compatible to *SCT Inst* can also be used. However, the majority of the payments will be processed via RT1, the platform provided by the European Banking Authority EBA. RT1 is a system specially designed for continuous operation and highest performance, and it is part of EBA CLEARING.

Full support for SEPA RTP

Enabling the full capacity of real-time transfers with the standard for SEPA Request-To-Pay.

The EPC's *SEPA Request-To-Pay* scheme (*SEPA RTP* or *SRTP*) represents another important component for Europe's modern payment infrastructure. The rules laid down in the *SRTP Scheme Rulebook* also define a real-time procedure. However, the messages exchanged are not payments, but special payment requests. In addition to the data required for the payment itself, these contain additional information allowing a high degree of automation for many use cases.

SEPA Request-To-Pay is characterised by the following features:

- Banks and payment service providers can freely use the scheme to offer own real-time services to their customers.
- The message format complies with the ISO 20022 standard for financial services.
- For *SRTP*, the connected systems must also be available 24 hours a day, every day of the year.
- All 34 SEPA countries may participate in the real-time messaging scheme
- *SEPA Request-To-Pay* has been in effect since 15 June 2021.

The combination of real-time credit transfers with *SEPA RTP* as a preceding step in payment processes results in enormous synergy effects. The application possibilities range from mass payment systems with automatic payment settlement to simple to use payment systems for retail or online shops.

The additional support of *SEPA RTP* by the proven platforms of EBA CLEARING enables banks and payment service providers to offer modern and customer-oriented solutions from a single source.

SEPA RTP scheme

SEPA RTP in a nutshell

Participation

Formats

Availability

Countries

Start

The chances of *SEPA RTP*

The fail-save architecture

*The BL Real-Time Server:
Instant Payment and SEPA Request-To-Pay
via EBICS for simple and secure operation.*

Fail-safe from the
start of production

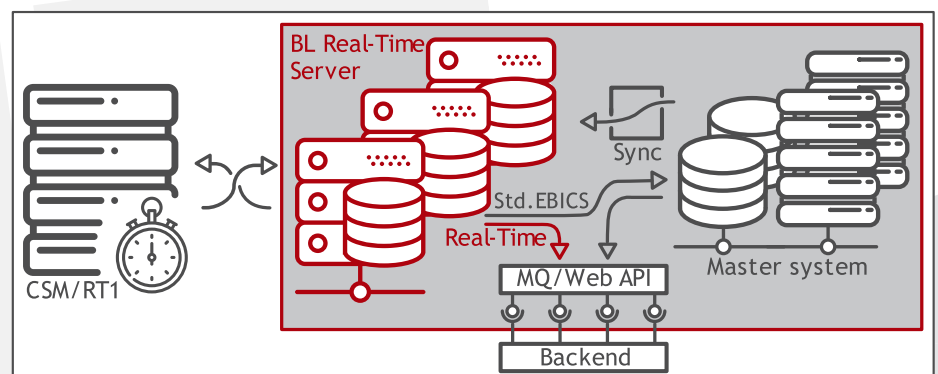
The standard keeps a key requirement for the exchange of real-time messages at hand: permanent availability. Moreover, if the load is high, requests must be distributed to several nodes in order to meet the tight constraints for the processing time. Systems for real-time processing must therefore be fail-safe from day one.

Consistent data basis
for all nodes

In contrast to traditional file-based transmission, real-time messages are transmitted as a data stream for performance reasons. Ideally, separate nodes are used for the fastest possible processing of instant payment messages, which are specially optimized for their task. On the one hand, these must be completely self-sufficient, but on the other hand they require the same master data as the master nodes for file-based processing.

Independent nodes and
easy operation

The *BL Real-Time Server* supports the requirement for redundancy while keeping the master data up to date by continuously aligning the data basis with the master system. The alignment is fully automatic and independent of the number of nodes used. The advantage for operators: new nodes can be added as needed without affecting the complexity of the overall system.



The complete EBICS solution

The all-in-one system for SCT Inst, SEPA RTP corporate banking and clearing inclusive universal processing engine.

The *BL Real-Time Server* is a fully featured clearing system. It supports all procedures and formats for linking to the *EBA CLEARING* (PE-ACH STEP2: SCT, SDD, CC), the *SEPA-Clearer* of the *Deutsche Bundesbank* (SCT, SDD, SCC), as well as direct interbank clearing via EBICS. For this part, in analogy to SCT Inst, the client functionality for active sending and retrieving, as well as key management, is required in addition to the EBICS server. This task is covered by the EBICS client plug-in, which is also available as a processing step in all rule-based components.

Moreover, the *BL Banking Server* for connecting corporate customers via EBICS is an integral part of the system. The server supports the EBICS standard of the *Deutsche Kreditwirtschaft*, the *CFONB*, as well as the *Recommendations to the Swiss financial center on implementing the EBICS Standard*, each in its current version.

Payment formats and messages, are available, amongst others, for the countries Austria, the Czech Republic, France, Germany, Hungary, Slovenia and Switzerland. Also included are international ISO 20022 messages for cross-border payments. Due to the system's format interface, any other payment format can be added.

All business transactions are represented by the integrated processing engine. Firmly built-in solutions for standard tasks can be executed by means of rule sets with customer-specific requirements. The standard tasks encompass all aspects of processing and system connection, from separation of container files up to sending of emails. The task control takes place via events, such as the receipt of a specific file, a regular task, but also via third-party systems. Likewise, the *BL Real-Time Server* supports the control of external systems.

Clearing

Corporate banking

National and international payment formats

Processing without compromise

Designed for the future

The decision for the right system needs to be well considered. Being future-proof is the most important criterion.

Connection of the backend systems via standard interfaces

The backend systems used in the target environment are connected via standard interfaces. Regarding the databases, the well-established JDBC standard is used. For other backend systems used in the context of real-time processing, both high-performance *Message Queues* and *Web Services* are directly supported and set up as part of the installation. The architecture of the system also allows the use of customer specific backend solutions.

Industry standards as the basis

By using the *Java Enterprise Edition* – JEE – as a platform, both standardization and progress of the application base are guaranteed. The middleware standard for enterprise applications, existing since 1999, is continually being developed. Implementations are available for all common operating systems as commercial and open source servers.

Ongoing development

The JEE standard inherently comes with a series of services, to which applications have access via defined interfaces. Besides the transaction management, also the connection of *Enterprise Information Systems* (EIS) or email servers benefit from this. The services are continually expanded with regard to functionality and up-to-dateness and guarantee permanent compatibility in IT environments.

Interfaces for application control

The versatile possibilities for modularization are available to the modern middleware application. All components allow a simple adjustment of the functions. In particular, own implementations can be integrated via standardized interfaces.

New versions of standards free of charge via upgrade

As for all our products, also for the *BL Real-Time Server* applies: the implemented standards, including *EBICS*, *SCT Inst* and *SEPA Request-To-Pay* are constantly updated and provided free of charge as part of the software maintenance.



Start today

Good design is the basis for straightforward systems. This makes for both: a fast start and easy ongoing operation.

The fact that a cluster setup does not have to be complicated, becomes clear already during the installation. Both the master system and the real-time nodes can be configured easily by setup or standard procedure of the JEE server. The connection to the backend is accomplished via standardized interfaces. The synchronization of the data basis happens completely independent with the start of the real-time nodes. Moreover, standard JEE servers without the need for specific extensions are deployed.

Easy installation despite cluster setup

The system's operating master data are transferred either per administration interface or, for mass data, via the master data interface. In order to link to the CSM system and other participants, the initialization is performed both on the client and the server side. After the exchange and match of the keys, the EBICS connections are activated and are ready for use with immediate effect.

Intuitive setup and connection of the CSM system

Especially in cluster environments, virtual machines (VMs) play an increasingly important role. They often not only offer cost advantages, but can also be managed more effectively. As a matter of course, both the real-time nodes and the entire system are fully VM-compatible.

Operation in VM environments

An expansion of the system by additional real-time nodes can be carried out at any time during operation. All it takes is another version of the real-time server. Due to the automatic adjustment with the current data inventory, the effort is limited to a minimum.

Easy setup for expansion

The simple license model of the *BL Real-Time Server* gives operators also in the future all possibilities to expand the services at no additional cost: the server license includes the installation on any number of servers.

Simple license model

System requirements

Operating system	Microsoft Windows or Unix systems (Linux, AIX, Solaris, ...)
Datenbase	DB2, DB2/AS400, HSQLDB, MS-SQL Server, MySQL, Oracle Database, PostgreSQL
Application server	Apache TomEE, IBM WebSphere, JBoss EAP, Oracle WebLogic

We are pleased to offer all interested parties the opportunity to be convinced of the performance of the *BL Real-Time Server* using a fully functional test installation in their system environment.

Get in touch with us – our EBICS experts are available for questions and further information at any time.



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