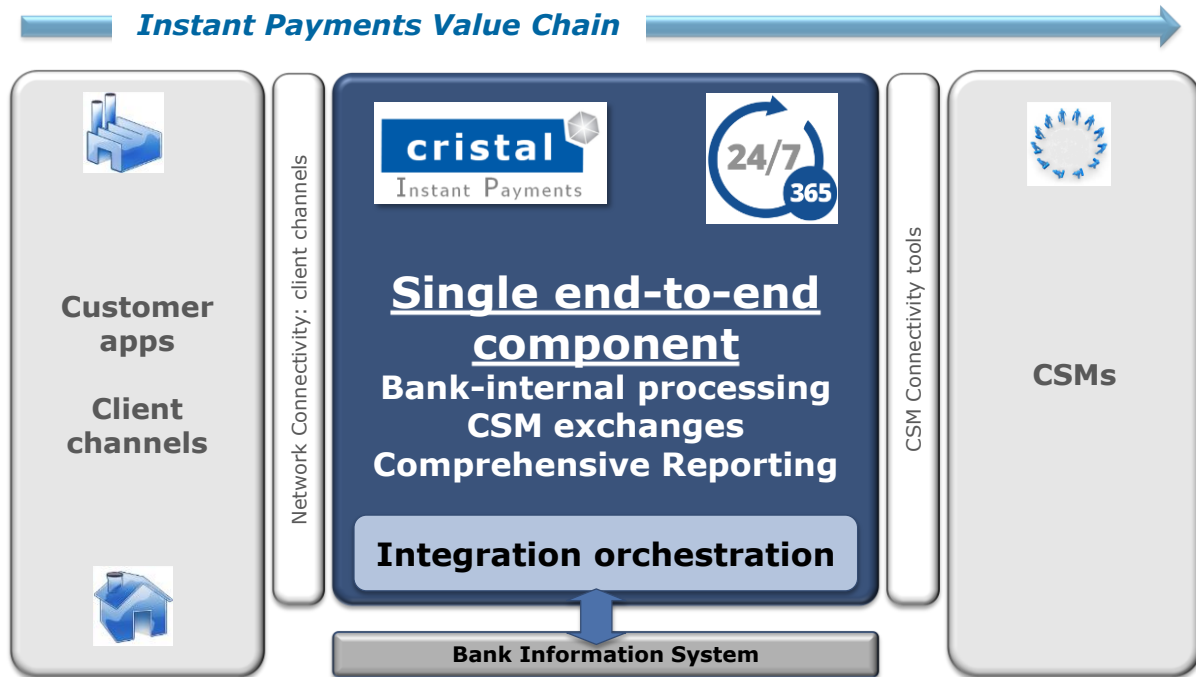


CRISTAL – Your Instant Payment Engine

CRISTAL Instant Payments provides comprehensive management of Instant Payment processing within the bank.



CRISTAL Instant Payments is a single software package enabling the bank to implement a single component and thus to shorten the end to end process between clients and CSMs in order to match the demanding timing requirement.

CRISTAL Instant Payments includes:

- Support to the capture of Instant Payments by the end customers,
- Management of the transactions through flexible integration within the legacy information system,
- Connection to Instant Payment CSMs for transaction exchanges.

CRISTAL Instant Payments' proven foundation ensures long-term guarantee of security and high performances.

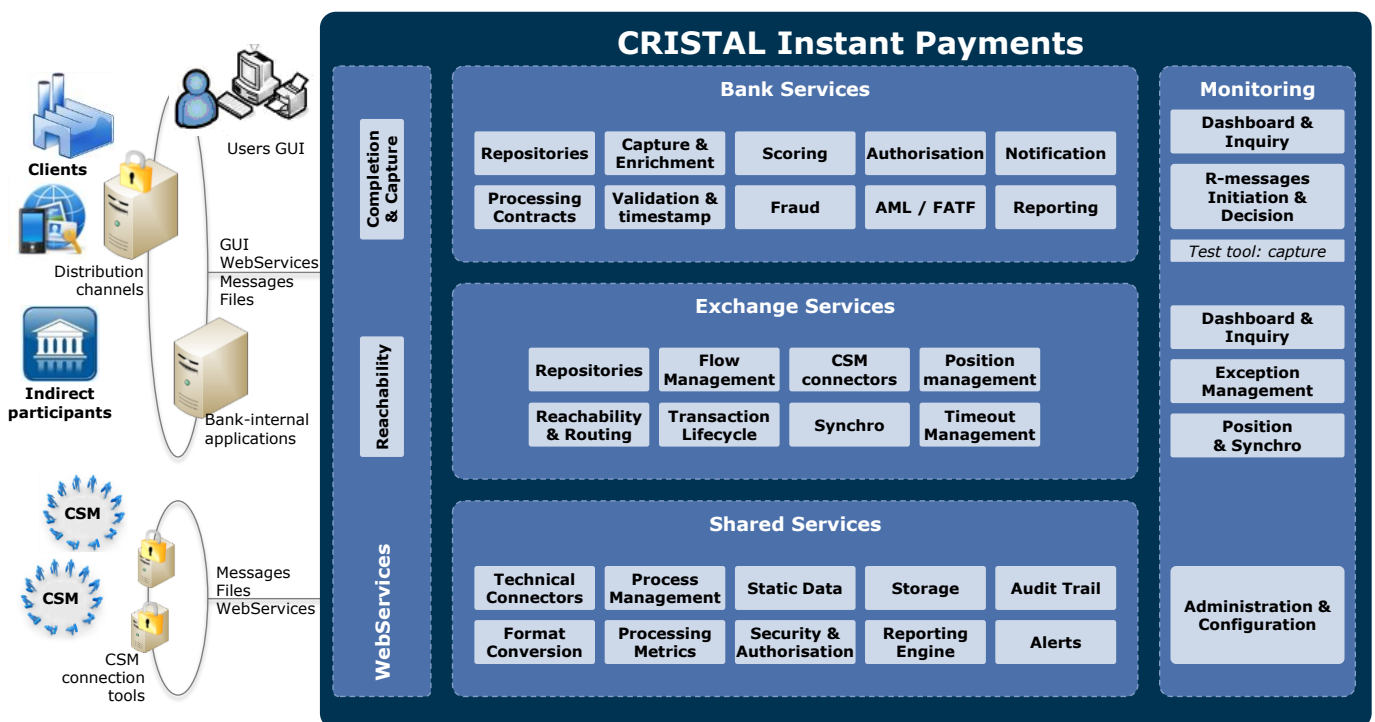
CRISTAL Instant Payments' built-in flexibility ensures compliance with requirements from the various types of Instant Payment use cases.

CRISTAL Instant Payments' business requirement specification has been designed by user banks through the CRISTAL Instant Payments Working Group organised by Diamis.

Comprehensive Features For End To End Instant Payment Processing

CRISTAL Instant Payments' features cover the whole scope of the bank's role in the Instant Payment value chain:

- Capture instructions from clients and Indirect Participants,
- Support end customer capture through webservices,
- Connect to proxy databases in order to complete SCT Inst instructions,
- Provide comprehensive and flexible reporting to end customers and Indirect Participants,
- Control, validate, timestamp, route Instant Payments transactions,
- Manage regulatory compliance, fraud scoring and detection, credit risk and authorisation through:
 - interaction with the legacy information system,
 - connection to external added value services provided by CSMs,
- Initiate posting and billing,
- Connect to Instant Payments CSMs in order to manage exchanges, liquidity and synchronisation,
- Manage timeouts and interbank inquiries,
- Manage R-message transactions (SCT Inst Recall),
- Manage single or bulk transaction on forward requested execution date and time,
- Manage on us payments and bilateral exchanges,
- Trigger funding of proprietary and Indirect Participants' operations,
- Provide comprehensive reporting to the bank information system.



High-level Functional Architecture

Proven Foundation To Meet The Instant Payment Challenge

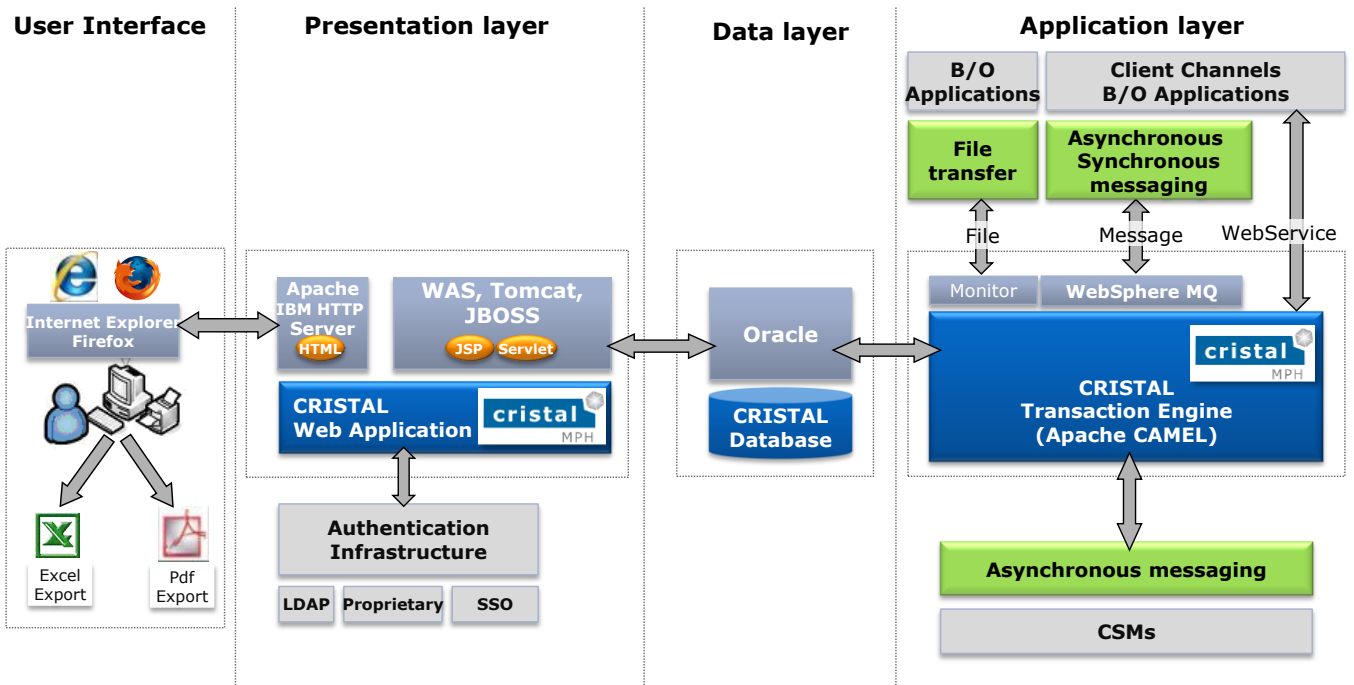
CRISTAL Instant Payments module is built on top of the proven CRISTAL Mass Payments Highway –Diamis’ modern and proven software for processing SEPA payments- and benefits from its innovative design.

CRISTAL Instant Payments guarantee on-time readiness for pilot banks.

Its foundation is natively real-time and XML based. It reaches high performances –such as completion of a transaction within 400 milliseconds- and has proven linear scalability in order to meet later high throughput requirements. It is designed in order to meet 99,999% availability on 24/7/365 basis with Unix / Linux and Oracle architecture.

CRISTAL Instant Payments provides the required flexibility to address multiple Instant Payment transaction types and the related stakes.

Its design implements flexible “service contracts” which define the steps processed for every transaction depending on its type, amount, customer scoring... It supports multi-scheme and AOS as well as multi-CSMs requirements specification. The bank may tailor the factory-built “service contracts” in order to customise the actual transaction processing and meet its detailed business requirements arising from its various payment products and customers.



Technical Architecture

CRISTAL – Your Global Payment And Liquidity Management Hub



- DIAMIS is a European leader in interbank and payment systems: market infrastructures and banks' deployment platforms.
- DIAMIS is a joint subsidiary of Atos and Sopra Steria. Parent companies may provide local resources for systems integration and support of DIAMIS' software.
- DIAMIS software packages currently manages 15% of High Value Payments exchanged in Euroland and 20% of Low Value Payments exchanged in France.
- CRISTAL Mass Payments Highway has demonstrated the highest performance of the market with 55 million SEPA payments processed within one hour on Intel Xeon E7-8880L v2 (10 logical cores).
- CRISTAL User Requirement Specifications are defined by peer professionals of liquidity management and payments processing through CRISTAL User Group.
- CRISTAL Global Maintenance contract provide long-term compliance with regulatory and business requirements at optimised costs
- CRISTAL development and deployment are managed under DIAMIS' Quality Assurance policy that is ISO9001 certified.