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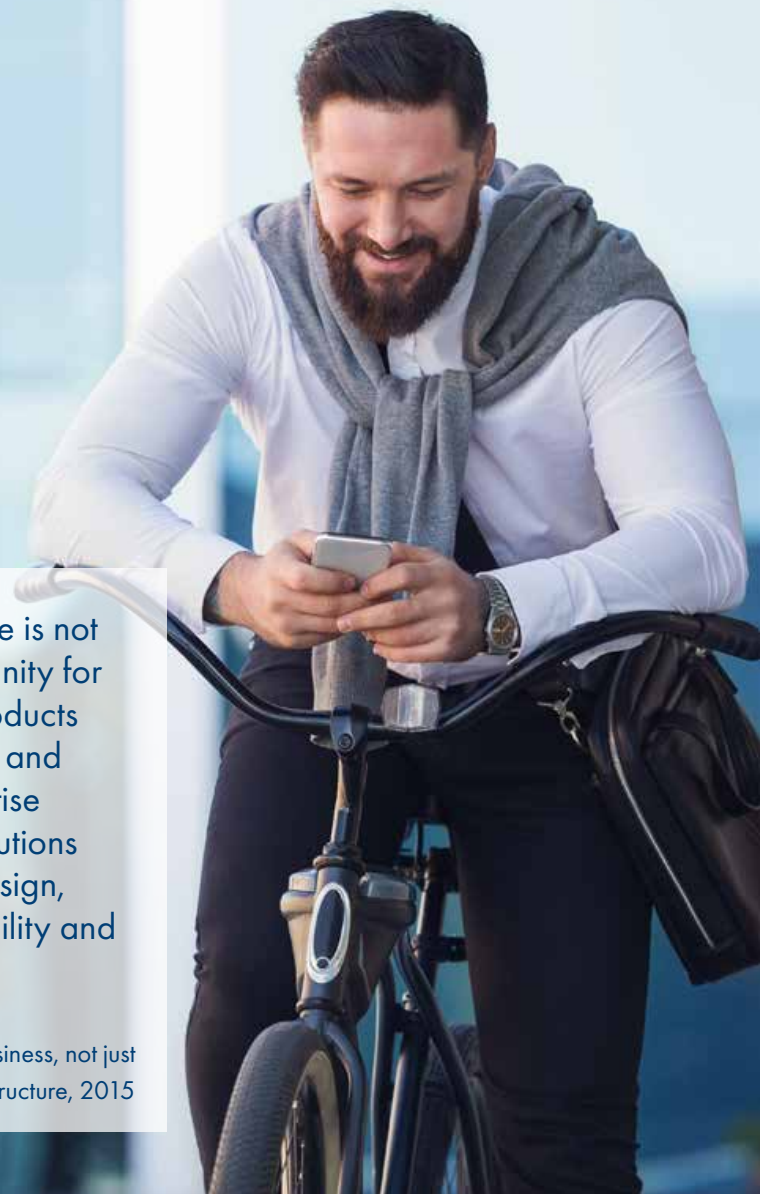
THE BANKING SOFTWARE COMPANY

Temenos Instant Payments



A faster payments infrastructure is not an end in itself, it is an opportunity for banks to deliver innovative products and services in both consumer and corporate payments. To monetise this opportunity, financial institutions should focus relentlessly on design, customer experience, accessibility and convenience..”

McKinsey, Faster Payments: Building a business, not just an infrastructure, 2015



Content

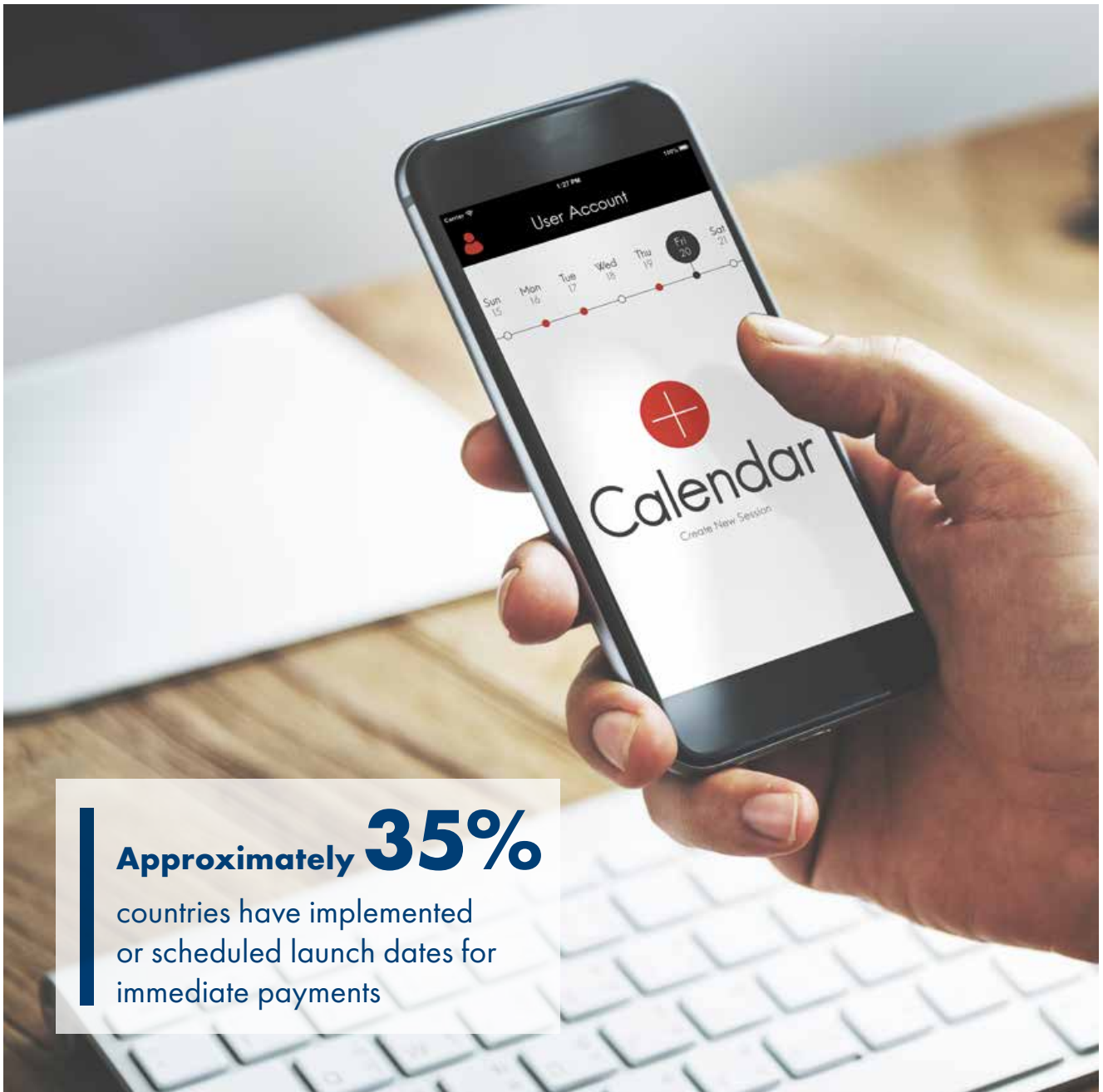
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Introduction

Real-time payments: the time is now

Real-time payments, or instant payments as they are often referred to, are now considered 'the new normal'. Across the world, real-time payments systems and infrastructures are being planned or rolled out, and with regulatory deadlines fast approaching (or anticipated) banks must not fail to plan for this new infrastructure. Following the initial success of schemes such as Faster Payments in the UK and FAST in Singapore, real-time is now moving on to true instant credit transfers within just a few seconds.

Temenos real-time payment solution will allow banks to easily implement and benefit from real-time payments now.

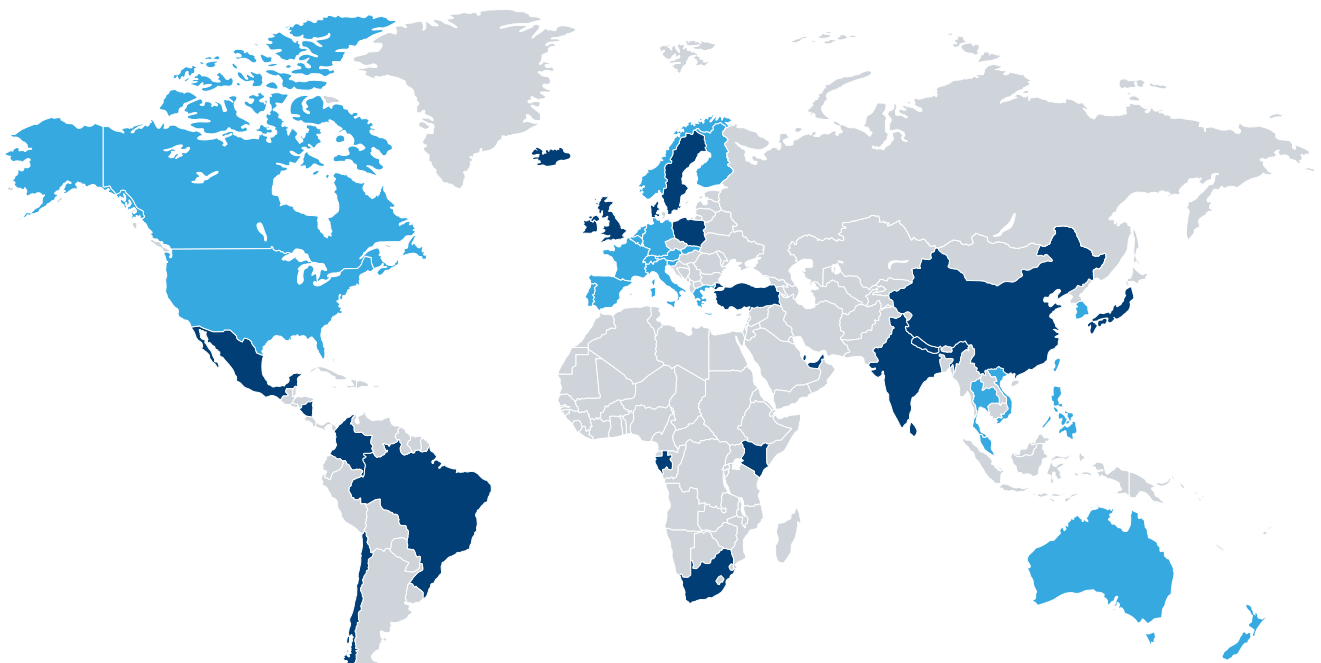


Approximately **35%**
countries have implemented
or scheduled launch dates for
immediate payments

Instant Payments – Some Examples of Real-time Payments Schemes

The ongoing introduction of payments legislation, ISO 20022 migration, the increased focus on emerging technologies, and the continuing growth in the number of channels and regulations means that financial institutions need to be well positioned and equipped to react quickly to on-going changes to support this role.

■ live
 ■ planned or unconfirmed



AMERICAS

Brazil
 Canada
 Chile
 Columbia
 Mexico
 Nicaragua
 USA

EUROPE

Pan-European
 Denmark
 Finland
 Hungary
 Iceland
 Italy
 Netherland
 Norway
 Poland
 Spain
 Sweden
 Suisse
 Turkey
 UK

MIDDLE EAST

Bahrain
 UAE

AFRICA

Kenya
 Nigeria
 South Africa

APAC

Australia
 Bangladesh
 China
 Hong Kong
 India
 Japan
 Malaysia
 New Zealand
 Phillipines
 Singapore
 South Korea
 Sri Lanka
 Taiwan
 Thailand
 Vietnam

What is a Real-time Payment System?

Real-time/instant/immediate/faster payments systems (the list of different names goes on) can be confused with Real-Time Gross Settlement Systems (RTGS), however, they usually refer to low value real-time payments systems, which enable an interbank account-to-account payment that is posted and confirmed to the originating bank within as little as a few seconds

For example, in the Dutch Instant Payments scheme will have a 5 second limit. This means that the payee receives and can use the value instantly. The payer has confirmation of the status of the transaction.

Major variations in real-time schemes occur with the frequency of settlement, which can be in real-time or periodically throughout the day. Market expectation is real-time payments should now be less than 10 seconds. And that it will not only eventually replace cash transactions, card payments but also direct debits and slower processing credit transfer.

Are real-time payments only available through real-time payments schemes?

In addition, there are other payments solutions and schemes which don't use 'normal rails' that also offer real-time payment solutions, known as 'cryptorails'. These allow currencies and payments to flow cheaply, rapidly and smoothly as information on the internet, helping provide relief from high exchange rate fees. The Ripple Protocol for example, is a distributed payment network that allows exchanges between any currency (including balance check or funds authorisation). Using this protocol, users can send currency, routing the transaction through the lowest-cost exchange path on the network, and have payments converted into local currency and delivered into the recipient's wallet immediately.



In essence true real-time payments must meet the following criteria:

Real-time within a few seconds *

24/7

Multi-Channel
(Omni-Channel)

Domestic or PAN-European
or International

Bank processing with
irrevocable payments

* no card transaction behind

Why is There a Growing Demand for Real-time Payments?

The growing consumer demand for real-time transactions is driven partly by the ubiquity of smartphones and other connected devices, which have catalyzed consumer expectation for immediacy.

It also reflects the digitization of the supply chain in which real-time payments enable corporates to collect and analyze financial transaction data in real-time, derive financial insights immediately, and drastically reduce the effort involved in reconciliation. As well as meeting consumers' rising expectations around payments, the banking industry is facing rising pressure from governments to create ubiquitous nationwide and regional immediate payments systems that can be used by all financial institutions.

“You cannot justify slow payments when consumers can order and get goods delivered in the same day. Merchant and Consumer expect real-time payments now and banks must be ready to offer it.”

Darryl Proctor,
Product Director, Payments, Temenos

However, there are also huge benefits to banks. The higher velocity of capital positions banks to support new services in mobile and emerging person-to-person payments. The unbanked and underbanked populations, most of whom who don't have bank accounts, but own cell phones, expedited payments have the potential to foster financial inclusion through mobile transactions, offering acquisition opportunities. Instant payments can also offer premium capabilities to banks such as last minute payroll services, disaster payments, cash concentration, tax payments and many others. In concert, rapid transactions initiatives can enhance the revenue lever, while reducing costs by mitigating fraud, collections, and charge-offs to achieve real profit improvement.

Given these drivers, immediate payments is expected to become the new standard for banks, acting as the banking world's answer to payment initiatives from new competitors. As these entrants make inroads into the payments market, supporting the progress towards immediate payments is becoming an imperative for banks. Payments services act as a key lifeline for a bank's customers, and failure to embrace and support real-time payments will put a bank at risk of losing market share, relevance, customer relationships and ultimately revenues.

WHY BANKS ARE IMPLEMENTING REAL-TIME PAYMENTS:

38%

to manage internal costs

25%

of banks meet real-time payment expectations

63%

to increase transparency for customer payment status



Real-time Payments for SEPA* (Instant Payments)

Offering real-time payments is the next step in the harmonisation of payments in the Single Euro Payments Area (SEPA), supporting Europe's competitiveness and economic growth. With the migration to SEPA credit transfers and direct debits near completion, and the digitalisation of the economy leading to new consumers' and retailers' expectations, offering SEPA instant payments was a natural progression. However to enable this banks must be prepared, in a webcast by KPMG focused on whether the SEPA region really needs Instant Payments after now that they have SEPA, it was highlighted that "SEPA kept us all very busy for years, especially the corporate market but also to bring Direct Debits over 34 countries*. At the same time when Europe worked on SEPA, other countries worked in parallel in speeding up payments to full fill customer expectations."

The SEPA instant payments scheme or SCT Inst as it is now often referred, will build upon the existing SEPA Credit Transfer Payment scheme. While the scheme is available to all payment service providers, SCT Inst is an optional scheme. Those who participate, will need to process the SEPA payment within 10 seconds and the payments will have an initial maximum value of €15,000 and should be compatible with the EBA CLEARINGS' RT infrastructure solution for the processing of instant SEPA credit transfers at a pan-European level. Instead of the batch process which SEPA credit transfers follow, the processing of SEPA instant payments will be at a transaction level. As soon as a Payment Service Provider (PSP) recognises (parameters to be confirmed) that the SEPA transaction is an instant payment that will process and clear the payment (and potentially settle) in real-time.

“The SCT Inst scheme is an excellent opportunity for PSPs to prove that payments can be ingenious and that they are firmly aboard the innovation train.”

Anthony Richter and Jean-Yves Jacquelin,
European Payments Council

* 1. Austria, 2. Belgium, 3. Bulgaria, 4. Croatia, 5. Cyprus, 6. Czech Republic, 7. Denmark, 8. Estonia, 9. Finland, 10. France, 11. Germany, 12. Greece, 13. Hungary, 14. Iceland, 15. Ireland, 16. Italy, 17. Latvia, 18. Liechtenstein, 19. Lithuania, 20. Luxembourg, 21. Malta, 22. Monaco, 23. The Netherlands, 24. Norway, 25. Poland, 26. Portugal, 27. Romania, 28. San Marino, 29. Slovakia, 30. Slovenia, 31. Spain, 32. Sweden, 33. Switzerland, 34. United Kingdom

REAL-TIME PAYMENT DRIVERS



2

New players and business models

- Start-ups delivering real-time
- Digital payments network
- New remittance players
- Social platforms

3

Merchant expectations

4

Reduce fraud

5

Better cash flow

6

Incremental value to customers

7

Regulatory pressures

- SEPA
- Domestic schemes (eg, Instant Payments –Netherlands, Faster Payments UK)
- NACHA

8

Person to person opportunities

- Non-commerce Payments
- Urgent Account-to-Account transfer
- Pay upon delivery

9

Person to business opportunities

- Immediate bill payments with acknowledgement
- In store POS payments
- m- and e-commerce purchases like Zalando

To support real-time payments, banks must have a sufficiently agile payments solutions. Real-time payments will play an enormous role in the evolution of the payments market, and as a provider with 15 years offering real-time processing, Temenos see this as the logical next step to truly realising the needs of modern day banking. The requirements of each real-time payments scheme vary and continually evolve until scheme launch (and sometimes beyond). Agility is essential. Temenos have especially designed stand-alone, fully compatible, instant payment modules with this in mind. Instant Payments is a truly flexible solution to adapt to changing scheme rules, ensuring you and your customers ultimately benefit.

10

Government opportunities

- Urgent pay out of social security payments
- Back-up in case of disruptions in the batch based pay-out
- Pay-out of security payments on fixed days of the months

11

Business to person opportunities

- Instant Pay-out of Insurance
- Emergency Payroll
- Urgent B2C payment (e.g. lending)

12

Business to business opportunities

- Just in time payments to supplier
- Cash pooling
- Immediate bill payments with acknowledgement

Temenos Instant Payments: a Summary

Financial institutions can now have a cost-effective and low risk transition to real-time payments, with our Instant Payments module.

This complete solution, available as a stand alone or as part of our Payment Hub solution, accommodates individual and bulk domestic payments schemes adapting easily to their changing requirements. It accelerates time to market, dramatically reducing your total cost of ownership, while driving the development of compelling new digital services. This is achieved by combining proven Open System Architecture and a range of pre-built services and integration options.

Highly robust, Instant Payments is available as part the Payments Hub solution or as an individual solution

The Payments Hub solution is a real-time payment processing platform built by banks for banks. It offers an advanced architecture providing product flexible, tailored services and increased processing capacity to your mass payments capabilities. Based on Open System Architecture, its user interface is fully on-line and entirely web-based, with the ability to process payments in real-time, batch or both, based on payment type.

The completely agnostic system consists of components which follow a structured process to allow seamless processing. The workflow components are orchestrating the process flow by calling components one after the other. The workflow components are the boundary of the transactions. The module can also approve dual payments ahead of processing, process high value and high volume and prioritize payments, which once prioritized, ensures that only those payments receive the necessary and relevant processing.

Payment Hub is sufficiently agile to work with any core banking solution, however, the additional value and uniqueness is that it allows banks with our core solution to have a complete, seamless banking system without the complex integration associated with separate systems. Banks can now offer their customers a harmonized payment experience with true straight through processing, not available anywhere else today.

Features:

- 24/7 instant payments processing
- Omni channel support
- Generic workflows and rules
- Real-time accounting, status information, dashboards etc.
- Exceptions handling
- Cloud or on premise solution
- Stand alone or embedded solution*
- Supports domestic and international systems (EBA RT1, The Dutch Instant Payments system, UK Faster Payments, US...) in parallel

*in the Temenos Core Banking system



Temenos Instant Payments: Benefiting From a Truly Real-time Solution

Instant Payments implementation can be rolled out in just weeks*

1. Instant

The Instant Payments module improves customer service. You can now give your customers the flexibility they need to make and receive payments quickly in real-time, 24/7. This allows you to offer new services easily to the market to support differentiation. It also provides you with the capability to offer new products and features such as real-time payments tracking (through an agile payments hub), automatic SMS/Email to provide status updates to customers etc. via exposed service-oriented-architecture services to mass-customized processing via business rules for each customer type.

But real-time isn't just about processing. Real-time payments are irrevocable, once sent to be cleared real-time accounting with the core back-office and real-time status tracking is available. In addition, the Instant Payments module supports the management of real-time enquiries, offering the ability to view unconfirmed real-time payments with timeout expiry, for monitoring and remedial action. Instant notification of payment status to payer (for outgoing payments) and payee (for incoming payments) is also available.

2. Agile

The pre-packaged Instant Payments module is also sufficiently agile to work with any core banking solution; offering excellent breadth and depth of functionality as well as flexibility through configuration, saving time, reducing risk and providing quick time to market.

Designed with growth and flexibility in mind, the Instant Payments module can accommodate the exponential growth volume often experienced with the introduction of real-time payments. Easily responding to new opportunities and customer requirements enabling you to capitalize quickly on new market opportunities in a competitive environment.

3. Broad

The Instant Payments module provides full omni-channel support; payment orders for real-time payments can be accepted from multiple channels for processing. Also, real-time payment orders can be accepted via channels in Standalone mode (when operating with an independent core banking system).

4. Visibility

Customers can have full visibility of the payment journey (subject to their channels capabilities) with real-time updates of funds availability and status confirmations. Real-time payment status updates with rich payment information allows customers to increase supply chain automation, through electronic reconciliation of payments against orders. In addition, Instant Payments supports investigations on real-time payment status and associated workflows providing clarity on transactions initiated automatically and manual investigation messages, and process answers received. Clarity on R-messages are also supported, including Recalls, Returns for Originator, Intermediary and Beneficiary bank.

The Instant Payments module also can push liquidity updates to an external Liquidity/Cash Position Management engine and offer reporting compatible with both Temenos and external data framework and analytical reporting solutions.



There are many different back-end solutions in the marketplace that have the potential to enable faster payments. In our experience with innovation in the financial services sector, effective organizations start with the customer's need, develop value propositions that are clearly differentiated against competitors, and then put in place the infrastructure needed to support those value propositions."

Real-time Payments Paper, Deloitte

*subject to client requirements and external system constraints

5. Easy

The payer can initiate the payment by providing a personal identification reference such as the payee's mobile Number, email address, account Number, etc. according to the defined criteria. This is then matched and return the Payee Account Number /IBAN and Name, for confirmation.

6. Seamless

The Instant Payments module can be uniquely embedded into the Temenos Core Banking solution and the Temenos Digital Engagement Platform. This combined, single solution gives greater efficiency and return on investment as well as the most practical solution within the market. This allows banks to have a complete, seamless banking system without the complex integration associated with separate systems. Banks can now offer their customers a harmonized payment experience with true straight through processing, not available anywhere else today.


7. Reduces Risk

The Instant Payments module provides flexibility by orchestrating the payment work flows needed to support the financial institutions business case, reducing risk. The module also supports warehousing and release of payments intra-day at scheduled timings where required.

8. Resilient

To succeed, real-time payments systems must meet their agreed service level agreements (SLAs), they must be resilient. With systems having to operate in real-time and be continuously available 24x7 every day of the year, any level of unavailability needs to be reduced to an absolute minimum. The Instant Payments module is built on the resilient framework and payments platform with high availability, guaranteeing continuous processing of payments 24x7, with minimal downtime.





Real-time payments will be a game changer

Summary

With accelerated payments, banks have huge opportunities but these cannot be leveraged without an agile solution offering a cost-effective and low risk transition to real-time payments. As a complete solution, Instant Payments offers this, adapting easily to your changing requirements. Accelerating time to market, it dramatically reduces your total cost of ownership, while driving the development of compelling new digital services.

Our Instant Payments solution brings you true, seamless real-time payments; not just from a transaction level but for the whole process. Now real-time payments can mean real benefit to you and your customers.

Next Steps

Find out more about how you can easily implement and benefit from real-time payments. Contact us at info@temenos.com

[temenos.com](https://www.temenos.com)

Temenos AG (SIX: TEMN), headquartered in Geneva, is the world's leader in banking software, partnering with banks and other financial institutions to transform their businesses and stay ahead of a changing marketplace. Over 3,000 firms across the globe, including 41 of the top 50 banks, rely on Temenos to process both the daily transactions and client interactions of more than 500 million banking customers. Temenos offers cloud-native, cloud-agnostic front office and core banking, payments, fund management and wealth management software products enabling banks to deliver consistent, frictionless customer journeys and gain operational excellence. Temenos customers are proven to be more profitable than their peers: over a seven-year period, they enjoyed on average a 31% higher return on assets, a 36% higher return on equity and an 8.6 percentage point lower cost/income ratio than banks running legacy applications. For more information please visit www.temenos.com.

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