



**PAYMENTS  
CANADA**

# INDUSTRY ROADMAP AND HIGH-LEVEL PLAN

ADVANCING THE VISION FOR  
CANADA'S PAYMENTS ECOSYSTEM

Companion Reader  
DECEMBER 2016

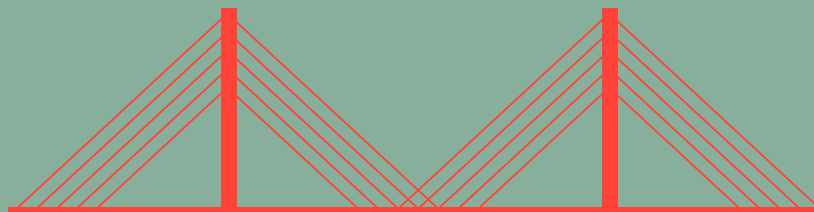
[payments.ca](http://payments.ca)

# OVERVIEW

The global payments ecosystem is changing dramatically and Canada must change with it to maintain a competitive position. Payments Canada is leading an industry-wide initiative to modernize Canadian payments. Guiding our journey are the needs of Canadians, including financial institutions, businesses, governments and consumers. Those needs were identified through a detailed and collaborative process to develop the Vision for the Canadian Payments Ecosystem.

The Industry Roadmap and High-Level Plan—referred to simply as The Roadmap—outlines, at the highest level, how Payments Canada and the industry can deliver on these needs and modernize the Canadian payments ecosystem to advance the Vision.

*This document provides a high-level overview of the Roadmap. For the detailed Roadmap, see the Payments Canada white paper: “Industry Roadmap and High-Level Plan”.*



## A Vision for the Canadian Payments Ecosystem

A modern payment system is fast, flexible and secure, promotes innovation, and strengthens Canada's competitive position

### About Payments Canada

Payments Canada ensures that financial transactions in Canada settle safely and securely each day. We underpin the Canadian financial system and economy by owning and operating Canada's payment clearing and settlement infrastructure, including associated systems, by-laws, rules and standards. The value of payments cleared and settled by Payments Canada in 2015 was nearly \$50 trillion, or \$197 billion every business day. These encompass a wide range of payments made by Canadians and businesses involving interbank transactions, including those made with debit cards, pre-authorized debits, direct deposits, bill payments, wire payments and cheques.



# CREATING THE ROADMAP

To create the Roadmap, Payments Canada considered the various factors that will be crucial for meeting the needs outlined in the [Vision](#).

1

## We gathered information, insight and knowledge

Since mid 2015 Payments Canada has been working closely with our system participants and stakeholders, and consulting with organizations across the payments ecosystem.

2

## We defined Canada's modern payment system

We identified the needs of users in the payments ecosystem and established a guiding vision for meeting those needs.

You can read the [Vision](#) at [payments.ca](http://payments.ca)

3

## We considered the international context

Around the world, countries are modernizing their payment systems with important implications for Canada, and for Canada's payment modernization initiative.

4

## We studied the requirements of our regulators

As the regulator and as a direct participant in Payments Canada's systems, the Bank of Canada's requirements are crucial for successful modernization and alignment with global standards. Also important are the requirements of the Department of Finance to consider public policy objectives and ensure payment safety, soundness and efficiency.

5

## We assessed the current state of the Large Value Transfer System and our operational requirements

As the LVTS is the ultimate platform for clearing and settlement in Canada, it is a critical consideration for modernization. Our assessment identified the need to replace the LVTS with more modern technology and functionality. This is foundational and must happen before meaningful changes can be undertaken to the retail system.

6

## We assessed potential core settlement solutions available in the marketplace

Through both formal and informal processes, we took inventory of the capabilities in the marketplace to deliver payment systems and services that meet the requirements and Vision for modernization.

7

## We evaluated Distributed Ledger Technology

Distributed Ledger Technology (DLT) likely has a future in Canada's modernized payment system but it is not yet ready for adoption. To keep pace with this and other new technologies, Canada's modernized payment system must be one that can continuously adapt to such innovations. We continue investigating DLT technology for relevant future use cases.



# WHAT'S GOING ON AROUND THE WORLD?

## INTERNATIONAL



Most jurisdictions have established near real-time availability of funds for higher value retail transactions.

Retail systems are clearing and settling more often to better address liquidity and credit risk. Most countries have batch systems with intraday settlement finality. These systems operate alongside newer 'expedited' payment systems and continue to see transaction volume growth.

Many jurisdictions have multiple retail systems that are interoperable with their large value system. The ISO 20022 message standard can facilitate interoperability between systems.

Integration with new 'expedited' payment systems often required changes to the existing core settlement systems.

Large value systems are adding stronger controls and new liquidity savings mechanisms to increase transaction speed, while decreasing risk and collateral costs.

Many jurisdictions operate under explicit public policy objectives to increase direct access to exchange, clearing and/or settlement.

New features and services are enabled largely through centralized architectures.

## CANADA



Existing market participants are able to provide real-time payments to clients in some instances, but not all.

The existing Automated Funds Transfer (AFT) stream in Canada's Retail System (ACSS) will operate for some time alongside any new offerings, with added exchanges and same-day settlement.

Multiple systems are expected to continue in Canada and ISO 20022 will be an integral element of payments modernization overall.

Similar changes will be required to facilitate interoperability between existing and new systems.

Such features could be used in Canada to improve efficiency, reduce risk and meet international standards.

Approaches to best meet user needs are being considered.

A centralized architecture supports efficiency, innovation, access, risk management and interoperability.





# THE ROADMAP INITIATIVES

The Industry Roadmap & High Level Plan focuses on how Payments Canada and the industry can start delivering on the Vision through five major pillars. Together, this package of change represents a bold first step towards a modernized Canadian payment system.

## 1. BUILD A NEW CORE CLEARING AND SETTLEMENT SYSTEM

Replacing the existing core settlement system must be our priority due to its critical importance to Canada's payments system. While the existing LVTS platform continues to perform well, its aging technology will not accommodate the significant changes that must be made to support the evolution of other payment systems—including Distributed Ledger Technology—and meet future regulatory requirements.

## 2. ESTABLISH A REAL-TIME CAPABILITY

An always available system that delivers funds in less than 60 seconds—providing a real-time capability—will satisfy the needs identified in the Vision, including real-time clearing, rich remittance information through ISO 20022, and enhanced functionality to better serve consumers, small and medium sized businesses.

## 3. ENHANCE AUTOMATED FUNDS TRANSFER

Automated Funds Transfer (AFT) batch payments should continue to operate along with any new real-time system. AFT batch payments should be transitioned to the ISO 20022 standard during the second phase of work by the end of 2019.

## 4. ALIGN WITH GLOBAL REGULATORY STANDARDS

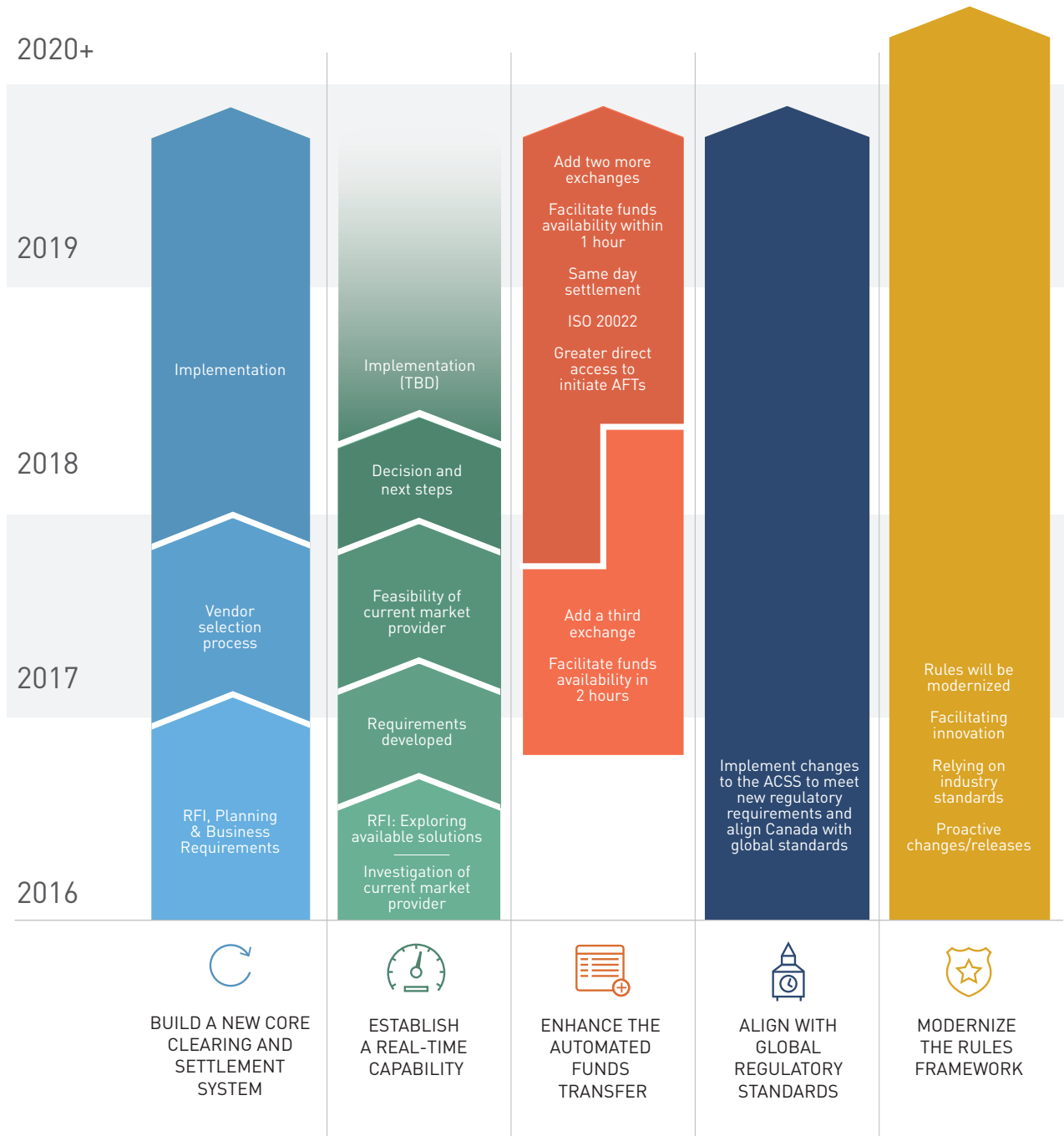
To meet the standards of a Prominent Payment System, changes must be made to the existing Retail System (ACSS) in the near-term including the introduction of a static collateral pool. Additional requirements will be met through the implementation of the other pillars, including the replacement of the new core clearing and settlement system.

## 5. MODERNIZE THE RULES FRAMEWORK

We need to develop a modern rule set for high-value and retail payments so that our rules remain relevant and reflect current market practices. The appropriate balance between flexibility and compliance will foster competition and innovation.



# THE ROADMAP TIMELINE



# HOW THE ROADMAP DELIVERS ON THE VISION



## Faster payment options

The introduction of the real-time capability will provide the platform to build overlay services and deliver faster payments. As in other jurisdictions, bulk payments (AFT) will remain in use—and it will be faster and have more exchange windows.



## Transaction transparency

The capability to notify payers and payees at different points of a payment transaction will be available—such as delivery of funds. This will be part of the real-time capability and, in the future, considered for the AFT and high value transactions as well.



## Cross-border convenience

In the longer-term, an essential component of modernization will be working with system providers in the US, and around the world, to manage both the technical and legal issues for lower friction payments across Canadian borders.



## Open & risk-based access

There will be equal opportunity for financial institutions to connect to the core settlement system as long as risk requirements are met. We are exploring access options for the wider payments ecosystem.



## Data-rich payments

ISO 20022 will be a key element of all new and enhanced systems. We will work with global counterparts to promote ISO 20022 harmonization. Payments will include relevant business information that helps to improve efficiency and reduce manual reconciliation.



## Easier payments

Proxy databases are an important part of making payments easier. Proxies may either be built into the core of the real-time capability, or an overlay service will be established for the industry to offer this functionality. Ultimately, proxies should be available across all payment products allowing users to use email addresses or other identifiers as an easier way to address payments.



## Activity-based oversight

Payments Canada is working with participant financial institutions, regulators and other government bodies to help ensure appropriate activity-based oversight in support of a safe and fair system.



## Platform for innovation

The core clearing and settlement system will be more flexible and have APIs. The real-time system will foster the creation of efficient new end-user products.





*“There are other modernization initiatives that we can’t lose sight of as we look to the future. In a later phase of modernization we will work to deliver more on cross-border payments and address the need for a proxy database across various payment products. This will certainly inform our design decisions for the current initiatives over the coming years.”*

— JAN PILBAUER

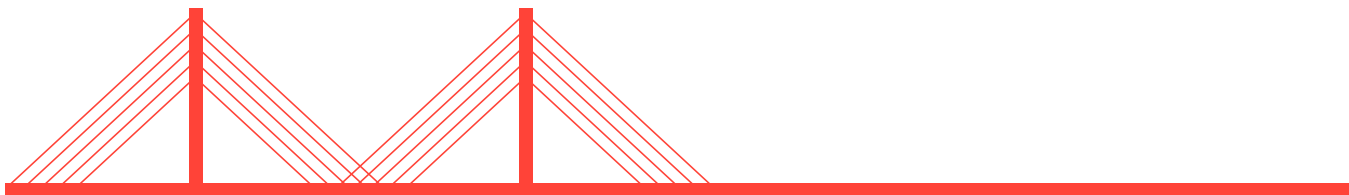
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