

# Mobile Applications

Toronto's Gateway to Global  
Markets

# Business Case

In association with:



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The Toronto Financial Services Alliance is a public/private initiative whose mandate is to enhance and promote the long-term competitiveness of Toronto as a premier North American financial services centre. Its membership encompasses core financial services companies – banks, brokerages, investment fund managers, insurance companies – as well as partner sectors – accounting, law and education. The TFSA was created in 2001 by the financial services industry, in partnership with the City of Toronto and with the support of the federal and provincial governments. For more information, please check our Website at [www.tfsa.ca](http://www.tfsa.ca).



As part of the Toronto Financial Services Alliance, the Centre of Excellence in Financial Services Education ([www.tfsa.ca/coe](http://www.tfsa.ca/coe)) acts as a catalyst to strengthen and expand Toronto's talent pool and elevate the region's global stature as a financial services capital. The Centre of Excellence aggregates research and information on Toronto's talent and educational strengths for the benefit of educators, employers and students/graduates; works with employers and educators to improve the focus and quality of education programs; encourages cross-sector dialogue on talent and education-related issues, and showcases the region's strengths and the career opportunities that await in the Toronto region. The Centre of Excellence is supported by the Ministry of Training, Colleges and Universities and the City of Toronto.

## 1.0 Overview

In a matter of a few short years mobile technology has moved from a tool of communication to a full suite of mobile banking, shopping, payment, remote diagnostics, social networking, and open source development, which has added billions of dollars to the Canadian economy and created new opportunities for professionals in both ICT and non-ICT occupations. Mobile technology is increasingly providing us with greater mobility and connectivity, resulting in profound changes in the way we operate and do business. In financial transaction, debit and credit cards have been the preferred method of payment for decades, and even those are in the process of being substituted by electronic wallet cards linked to mobile devices.

Mobile technology has created new opportunities for financial institutions to reach new markets. The growth of mobile *applications* has given financial providers new ways of reaching their customers and in turn customers have more access to their financial information than ever before. On the strength of its world class financial services sector, headquartered in the Toronto region, Canada has become a leader in mobile banking and financial applications. Canadians from across the country have embraced mobile banking, with more than 35% of all smartphone users adopting financial apps.<sup>1</sup>

As mobile-commerce continues to grow, consumers are demanding that financial transactions performed in-branch or online also be available over their mobile devices. As mobile subscriptions continue to outpace bank accounts, there is strong reason to believe that mobile banking usage will overrun online banking over the next five years.

## 2.0 Opportunity

Global mobile subscriptions reached six billion in 2011.<sup>2</sup> Of these, approximately 1.2 billion (20%) users subscribe to mobile broadband/web services. Asia is the largest market, and saw a 45% annual growth rate over the last four years. During this

period there were twice as many mobile-broadband users as fixed-broadband subscriptions.

By 2020, financial institutions will have a market of 50 billion mobile devices worldwide, which will be empowered by Wi-Fi, cloud applications, and LTE. The smartphone revolution has set a new pace for communications, information sharing, and personal banking.

### Online to mobile

The introduction of online banking 17 years ago paved the way for mobile banking. Today, half of all Canadians do their banking online.<sup>3</sup> According to ICTC, 64% of Canadians aged 18-34 and 43% of Canadians aged 35-54 already have a smartphone. More than three-quarters of smartphone owners download apps, a clear indication that more and more Canadians are taking advantage of the app economy.

The combination of increasing mobile broadband and progressively more powerful smartphones has created a growing appetite for the development, consumption, and use of financial applications.

### Mobile payments

Telecom companies, financial institutions, and payment networks have all recognized the potential markets that smartphones now offer. As consumers continue to flock toward the smartphone market, there is a growing demand for mobile payments, which enable consumers to pay for goods and services through their mobile devices. Mobile payments replace traditional and existing forms of payments, including cash, debit or credit cards.

Financial institutions looking to take advantage of the growing mobile payments market can do so through the following technologies:

- Premium SMS: text-based payment requests
- Direct Mobile Billing: based on customer identity (e.g. Zong/Paypal, BilltoMobile)
- Interactive Voice Response (IVR): automated touch-screen payment processing

<sup>1</sup> Shelly White (30 April 2012). "Canadians embracing mobile banking," *Globe and Mail*.

<sup>2</sup> ITU (2011).

<sup>3</sup> Canadian Bankers Association (9 November 2012). "Use of mobile banking continues to grow: Canadian Bankers Association."

- Mobile Web Payments (WAP): app-based payment
- Contactless (Near Field Communication): point-of-sale, peer-to-peer

Currently, direct billing and contactless are experiencing the fastest adoption. It is estimated that 1 in 6 mobile subscribers will have NFC capability in 2014.<sup>4</sup>

### North American and global markets

Approximately 15% of the 80 million smartphone users in the United States and 19% of Canada's 13 million smartphone users have mobile banking applications.<sup>5</sup> These figures are expected to rise as more people find ways to cope with time poverty. Between 2010 and 2011, the number of Americans making electronic payments increased by 80% to over 23.4 million.<sup>6</sup>

It is estimated that Canada's small payments (>\$20) market is worth more than \$90 billion a year. While Canadians have grown accustomed to using credit/debit cards for small payments, they are relying more and more on smartphones to save time and reduce clutter.<sup>7</sup> This means the mobile payments market has the potential to replace conventional plastic that is currently in-use.

Globally, mobile payment transactions are valued at over \$171.5 billion, with some 210 million mobile payment users. The market is expanding rapidly, with mobile payment users growing by more than 50 million between 2011 and 2012.

Over the next five years, mobile banking will create pathways to untapped global markets for Toronto's financial hub. The OECD estimates that 75% of the world's population has a mobile phone, yet only 30% have a bank account. Now more than ever, Toronto's financial services industry will be able to provide financial tools to unbanked populations worldwide.<sup>8</sup>

<sup>4</sup> Juniper Research (2009). "1 in 6 mobile subscribers to have NFC Mobile Phones by 2014, according to Juniper Research." *Juniper Research*.

<sup>5</sup> comScore (2011). *MobiLens*.

<sup>6</sup> comScore (2012). *2012 Mobile Future in Focus*.

<sup>7</sup> Rita Trichur (27 March 2013). "The next gold rush? Mobile payments." *The Globe and Mail*.

<sup>8</sup> OECD (2008). *Information Technology Outlook 2008*. OECD.

## 3.0 Advantage of Increasing Adoption

Toronto financial service providers are already involved in the app economy; strengthening their presence in this space will pay dividends over the next three years as the mobile ecosystem continues to diversify, expand, and reach new markets.

### Capitalize on a growing market

In a few short years the global app economy has become a multi-billion dollar industry. Globally, 1.2 billion mobile broadband subscribers spend \$26 billion annually on apps and related expenditures, of which Canadian smartphone users contribute \$675 million and Canadian app developers \$775 million. App expenditure among Canadian users is expected to grow 170% by 2016 to reach \$1.82 billion.

### Enhance service delivery

Financial providers looking to offer best-in-class solutions are embracing the transition to mobile. In 2011, finance applications represented only a fraction of total Android applications.<sup>9</sup> As demand for mobile banking, investment services, and real-time stock quotes continue to grow, financial institutions must enable new and existing customers to stay in touch with their financial needs while on the go. Over 15% of mobile users in the US already access financial news and stock quotes, compared to 11.3% in Canada and 11.4% in the European Union.<sup>10</sup>

### Toronto's innovation potential

Toronto has championed a series of innovations that have set the standard for financial transactions globally, including a national ATM system, Interact debit, processing facilities, and payments clearing. New and updated mobile banking applications are growing, but investment and insurance services continue to lag behind. The growth of mobile payments is merging the finance, telecom, and

<sup>9</sup> AndroidTapp (2011).

<sup>10</sup> comScore (2012). *2012 Mobile Future in Focus*.

technology spaces, which are working together to deliver seamless payment services.

For Toronto's financial service providers, the time is now to leverage the region's world class ICT industry and workforce, which employs 180,000 ICT professionals. Enhancing the service delivery of mobile payment platforms, among others, will increase Toronto's competitive advantage in new and emerging mobile markets.

## 4.0 Case Studies

CIBC and RBC, two of Canada's top-five banks, are leading the mobile payments charge in Canada.

### Canadian Imperial Bank of Commerce spearheads mobile credit payments

As the first bank to launch mobile payment platforms in Canada, CIBC offers customers a new, innovative way to pay. Customers can now pay with their CIBC credit card using their smartphone. CIBC is the first financial institution in Canada to capitalize on the mobile market for small transactions. CIBC's mobile credit payments allow up to \$50 in purchases at thousands of locations. Mobile credit transactions are recorded on a monthly credit statement, which provides a convenient way for customers to manage their finances.

### Royal Bank of Canada enters the mobile debit payment market

In March 2013 RBC initiated the country's first ever mobile-based debit transaction. By partnering with Interac Association and Moneris Solutions, RBC successfully brought debit payment services to the mobile arena. Debit payment is by far the most popular and frequently used payment system available to Canadians. Building off CIBC's mobile credit payment services, RBC is offering Canadians a more convenient way to transact with their preferred method of payment.

## 5.0 Why Toronto

Toronto's globally-ranked financial services ecosystem and strong ICT industry give the region a digital advantage when it comes to emerging tech adoption.

### Hotbed for app development

Toronto is North America's third largest ICT hub, behind only New York and San Francisco. The Toronto region is home to over 13,000 ICT companies providing software, hardware, and communications services to the region's financial industry.

Toronto is a hotbed for app development, representing approximately 40% of Ontario's total app economy.

Canadian app developers are producing over 2,300 new apps each day and over 70,000 each month, all of which are exchanged on the global market. A segment of this activity is taking place in the Toronto region. More people are employed directly and indirectly in the app economy in Toronto than in any other city across Canada. The presence of major handset manufacturers and network infrastructure providers allow the Toronto region to have a legacy and ongoing track record of developing hardware and software for cellular networks.



*Canada is one of the world's leaders in mobile-software development. Venture capitalists have started taking note.*

*- Chris O'Neil,  
Managing Dir., Google*

large and growing activity is taking place in the Toronto region. More people are employed directly and indirectly in the app economy in Toronto than in any other city across Canada. The presence of major handset manufacturers and network infrastructure providers allow the Toronto region to have a legacy and ongoing track record of developing hardware and software for cellular networks.

Toronto's app economy ranks highly against other North American cities. As a comparison, the top three US cities by app economy size are New York (9%), San Francisco (8.5%), and San Jose (6%).<sup>11</sup>

By offering new and innovative mobile application services that enhance end-user experience, Toronto can meet global demand for:

<sup>11</sup> Dr. Michael Mandel (7 February 2012). Where the Jobs Are: The App Economy. *Tech Net*.

- Mobile banking, bill payments and electronic transfers
- Mobile payments
- Mobile trading

### Globally ranked startup ecosystem

Toronto is ranked 8<sup>th</sup> among the world's top startup ecosystems, ahead of Chicago, Paris, and Melbourne. On the performance index, however, Toronto's startup ecosystem ranks 3<sup>rd</sup>—ahead of New York and London.<sup>12</sup> Because so much of the mobile app economy is situated in startups and small enterprises, this indicator is a strong reflection of Toronto's position as an emerging-tech incubator.

Canada is also one of four OECD countries – Germany, New Zealand, and the UK being the other three – leading in start-up creation. Toronto is at the centre of Canada's start-up economy, providing fertile grounds for mobile app development and related ventures.<sup>13</sup>

## 6.0 The Way Forward

### The rise of m-commerce

Financial service providers are all turning to mobile to drive business opportunity. Technological advancement is reaching a point where improved services can be delivered using mobile technologies and the apps and services that power them. Mobile applications for the financial service industry have yet to reach full value. Today, consumers in Canada and around the world can access their bank accounts using mobile applications and devices. Tomorrow, m-commerce will become the new paradigm steering the financial service industry.

### Smartphone cheque cashing

In 2013 smartphone cheque cashing finally arrived in Canada, allowing customers to deposit cheques remotely. This market is currently very small, but the pathway for full adoption has been laid. Over the next two years mobile ATM will enable the financial services industry to reach unbanked populations. The rise of mobile purchases will

provide customers alternative methods of payment, and mobile vouchers will represent the next wave of loyalty programs. These innovations represent only a small fragment of what's in store for Toronto's digital finance revolution.

## 7.0 Four Reasons to Invest in Toronto's Financial Services Sector

1. World class electronic payment and clearing systems, enabling the smooth integration of mobile payments.
2. A hotbed of mobile app and emerging tech companies ready to step up and offer best-in-class solutions.
3. Expertise and innovation to capitalize on the small payments market.
4. A truly global sector that has the tools, resources, and international experience to reach unbanked populations.

<sup>12</sup> Startup Genome (2012). Startup Ecosystem Report 2012.

<sup>13</sup> ICTC (2012). Employment, Investment, and Revenue in the Canadian App Economy.



The Toronto Financial Services Alliance (TFSA) is a unique public-private partnership dedicated to building Toronto as a global financial services centre.

For more information on the TFSA and Toronto's financial services sector, please visit **[tfsa.ca](http://tfsa.ca)** or call 416-933-6780.