About this report
This document presents the City of Vancouver’s Digital Strategy. It provides background on the current state, the results of the consultation process, the goals and objectives, the strategy’s digital initiatives, and a road map for action plans.

Acknowledgements
The Digital Strategy team would like to express its gratitude to all of the passionate citizens, external and internal advisory groups, and subject matter experts for their candid and creative input to the process of developing the Digital Strategy.
Defining “digital”

A broad range of technology that enables new methods of engagement and service delivery supported by a robust and accessible digital infrastructure and open government ecosystem.
The Vision

Enhance multidirectional digital connections amongst citizens, employees, business, and government.
The pillars of the Digital Strategy

In defining the focus areas of the Digital Strategy, the City looked first to its goals and then to other digital strategies by leading cities including New York and Chicago. Using this lens, 3 pillars were formed that are primarily outward facing – to citizens and businesses – supported by the 4th pillar – focused on the City as a digital organization.

### Engagement + Access
How the City and its constituents engage with each other, through transactional service delivery, collaboration and communication. The digital divide is the other aspect of this focus area – access to technology and education to increase digital literacy.

### Infrastructure & Assets
Focuses on digital infrastructure and assets.
This includes below and above ground physical assets such as conduit, fibre, and poles.
Digital assets include software, hardware, and data.

### Economy
Focuses on the digital economy with respect to supporting growth in the digital sector and enabling all businesses to benefit from digital infrastructure and digital services offered by the City.

### Organizational Digital Maturity
This encompasses digital governance, enabling City employees with tools that foster both a digital culture and encourages innovation.
During October 2012, PwC assessed the City’s current state with regards to digital readiness. Based on five digital capability areas (online, mobile, social, infrastructure & assets and organization) measured across four levels of maturity (absent, exploring, enabled and connected), the City of Vancouver’s digital maturity was evaluated as moderate, between exploring or enabled.

1 The City as an organization not including the Vancouver Public Library and the Vancouver Police Department
1. The analysis was focused on the cities as organizations.
2. Data was not normalized to conduct assessment.
3. Vancouver Public Library or Vancouver Police Department digital readiness was not included in the assessment.
4. Boston, Portland, San Francisco, San Jose, and Seattle were assessed using the PwC capability metrics by the VSR.
5. The assessment was completed in the fall of 2012.
The City’s current digital maturity (2012)

- **Social Exploring**
  - Limited or no capabilities in this area.

- **Online Exploring**
  - You have the basics and can somewhat integrate with other stakeholders.
  - You can get the job done but you realize the right technology can enable you to perform better.

- **Mobile Exploring**
  - You have the right systems and processes in place to integrate the majority of stakeholders internally and externally when applicable.
  - Your constituents consider you a digital city.

- **Infrastructure & Data Enabled**
  - You are ahead of the curve and act as an example for other cities.
  - Citizens, employees, business and government are all connected and serviced through their desired channel.
Key themes throughout the City’s current state

Three key themes emerged from the current state assessment.

**Design strategically.**
Deploy tactically.

- Strong resistance exists within the City to move services to a digital channel without addressing the end-to-end people, process and technology concerns.
- The benefits of digital self-serve are perceived as self-evident. Uncertainty exists, however, regarding self-serve translating into significant benefit. Any new online service must be supported by a channel migration plan to ensure benefits can be achieved.

**Empowered employees support empowered citizens.**

- Lack of policy is seen as a barrier to participation and innovation.
- Employees want to embrace digital channels more significantly, however, they feel constrained with the lack of resources in people, process and technology.
- Mobile pilots in Parks & Engineering are seen as very successful. It is important to translate these successes to support wider deployment and relevant KPIs.

**Digital governance = strategic impact + reduced risk.**

- Need to drive expected benefits and impacts.
- Lack of formalized governance translates into a less cohesive experience across digital channels for all stakeholders.
- Lack of resources and a well-defined strategy prevents further progress.
- Strategies are developed, however, more tactical work and integration is needed.
To shape the strategy and Vancouver's digital future, the City spoke with industry insiders, digital thought leaders, start-up founders, students, business executives, citizens and staff and asked them to test, explore, and challenge the ideas behind the Digital Strategy.

They were taken through collaborative design sessions, interviews, focus groups, round tables, and even an online crowd-sourcing exercise, all with the goal of truly evaluating the strategy's principles, priorities, interdependencies, and opportunities. We were also able to leverage a survey of businesses conducted by the VEC in late 2012.
Consultation at a glance

**Objectives**

1. To test the working definition of the "digital strategy" and principles that underpin it.
2. Explore the types of initiatives that would be important to the various stakeholders.
3. Gain insight into priorities, interdependencies, and opportunities for co-design & co-delivery of digital initiatives.
4. Identify the challenges and opportunities to access.

**Stakeholders**

1. External Advisory Group
2. Internal Leaders & Ambassadors
3. Vancouver Economic Commission
4. Infrastructure Providers
5. Business Improvement Associations
6. External Technologists
7. External Service Groups
8. Other Experts

**Methods**

- **730 unique votes**
- **45 participants**
- **32 participants**
- **15 members**
- **35 interviews**
- **External Advisory Group**
- **Focus Groups**
- **PwC Collaborative Design Session**
- **Mayor’s Digital Leaders Meeting**
- **Interviews**
### What we heard during consultation

<table>
<thead>
<tr>
<th>Key Themes</th>
<th>Core Themes</th>
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</thead>
</table>
| **External Advisory Group** | 1. Get moving  
2. Safe place to fail  
3. A catalyst for change |
| **Leaders & Ambassadors** | 4. Mobile, mobile, mobile  
5. Seamless interaction with citizens  
6. Commitment to see the strategy executed |
| **Vancouver Public Library** | 7. The library has the mandate to address education related to the digital divide  
8. Extend library services into the community  
9. The library must keep up with the latest in technology |
| **VEC** | 10. Use data strategically  
11. Look beyond the focus on digital media to a broader digital industry and encompass clean tech  
12. Strategic introductions  
13. More City support  
14. Going digital  
15. Keeping it local |
| **Infrastructure Providers** | 16. Free Wi-Fi is not Free Wi-Fi  
17. What is the Win/Win partnership model for digital infrastructure?  
18. Coordinated planning for core network infrastructure |
| **BIA** | 19. The City as an innovator  
20. Make it easier to do business with the City  
21. Bylaws, zoning and infrastructure |
| **Mayor’s Digital Leaders’ Meeting** | 22. A digital neighbourhood  
23. Success stories  
24. The first customer |
| **External Focus Group** | 25. Accessible access to the internet  
26. More online interaction with the City  
27. The importance of open data |
| **Ideascale Crowdsourcing** | 28. Mobile-enabled City services  
29. The importance of open data  
30. City involvement in infrastructure |
Considerations for prioritizing the initiatives

- Aligns with citizens needs and priorities
- Aligns with City priorities
- Optimize opportunities for partnerships
- Bases solutions on leading practices in other cities
- Considers investment required to execute
- Has a positive impact on the City’s service delivery goals
- Support Open Government initiatives
- Targets the digital divide and advances social inclusion
How did we refine ideas into initiatives?

120 ideas

50 concepts

15 initiatives

9 priorities

On site interviews

Leading Practices

Validation Sessions

Collaborative Design Session

Digital Initiative Assessment Model

Consultation Process

Corporate Management Team

How we got from 120 to 9.
The challenge for Vancouver, and perhaps all cities, is to be more agile under the diametrically opposed pressure of consumer-driven technology adoption and expectations and the increasing need to minimize risk and maximize value.

The Digital Strategy sets out a 4 year roadmap that moves Vancouver’s approach to digital from adhoc and sometimes siloed to an integrated and strategic approach that prioritizes key actions which will have the most value for citizens, business and the organization.

“The fast pace of digital – the slow pace of government”.

A member of the Digital Strategy External Advisory Group coined this phrase as the group was imagining Vancouver’s digital future.
The Digital Strategy goals and objectives

**Engagement + Access**

Citizens and businesses can easily interact with the City through digital channels.
1. Improve delivery of high demand services through the use of digital tools.
2. Increase citizen involvement through digital engagement.
3. Provide access to technology and increase digital literacy for all.

**Infrastructure & Assets**

Vancouver has a robust digital infrastructure built through strategic investments and partnerships.
1. Implement an agile infrastructure plan that anticipates and promotes digital growth.
2. Optimize digital infrastructure and physical assets.
3. Enhance digital infrastructure through creative partnerships.

**Economy**

Vancouver is a global leader in supporting innovation and growth in the digital economy.
1. Develop, attract and retain talent and business in the digital sector.
2. Create a favourable regulatory environment that supports digital business opportunities.
3. Encourage innovation through expanded support for the digital community and open government.

**Organizational Digital Maturity**

The City of Vancouver has a mature, citizen-centric digital culture.
1. Establish digital governance to define services and accountabilities.
2. Optimize the use of technology to enhance productivity and metrics based decision-making.
3. Develop a culture that empowers City staff to innovate with digital technologies.
The City sets the pace for digital

When the City first envisioned the digital strategy, a 5-7 year plan was imagined. As the team considered the question of organizational agility and the “fast pace of digital”, a shorter view of the strategy took shape. The initiatives and timelines presented here represent a 4-year plan to move the dial on digital maturity.
# Digital initiatives at a glance

<table>
<thead>
<tr>
<th>Digital Initiative</th>
<th>Actions in progress</th>
<th>Funding</th>
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</thead>
<tbody>
<tr>
<td><strong>Engagement + Access</strong></td>
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<tr>
<td>1. Enable City services across digital platforms</td>
<td>✓</td>
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<tr>
<td>2. Expand the open data program</td>
<td>✓</td>
<td>○</td>
</tr>
<tr>
<td>3. Promote digital activity through communications and engagement tools</td>
<td>✓</td>
<td>○</td>
</tr>
<tr>
<td><strong>Infrastructure &amp; Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Expand digital access throughout the city</td>
<td>✓</td>
<td>○</td>
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<tr>
<td><strong>Economy</strong></td>
<td></td>
<td></td>
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<tr>
<td>5. Establish a digital incubation program</td>
<td>✓</td>
<td>○</td>
</tr>
<tr>
<td>6. Create a favourable regulatory environment that supports digital industry</td>
<td>✓</td>
<td>○</td>
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<tr>
<td>7. With community &amp; industry partners, support an agile proof of concept program</td>
<td>✓</td>
<td>○</td>
</tr>
<tr>
<td><strong>Organizational Digital Maturity</strong></td>
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</tr>
<tr>
<td>8. Establish digital services governance</td>
<td>✓</td>
<td>○</td>
</tr>
<tr>
<td>9. Implement mobile workforce strategy</td>
<td>✓</td>
<td>○</td>
</tr>
</tbody>
</table>

- Funded
- Funding strategy to be developed
- Further funding required
- External funding required

## Moving the dial on digital maturity

The digital initiatives identified here represent outcomes that advance the City’s goals, and reflect the priorities from the consultation process including input from key advisory groups.

The Digital Strategy revealed that 15 initiatives are necessary in order for Vancouver to reach the desired state of a more digitally ‘connected’ city.

From those 15 initiatives, 9 were identified as the highest priority based on their ability to accelerate the vision. On the following pages you will find an overview of each of these 9 initiatives.

The remaining initiatives will be executed as opportunities arise or partners emerge.
Enable City services across digital platforms

A core foundation of any digital city is the delivery of City services through digital channels. In order for the City to continue to engage Vancouver citizens and businesses in the digital age they must develop a larger ecosystem of easily accessible digital content and services. The initial priorities are:

1. Transform permits and licences business model
2. Optimize content on the City’s website for mobile devices
3. Replace Park Board’s program and event registration software (Safari)
4. Expand to a digital recruitment system integrated with social media
Enhance the open data program

A cornerstone element of open government is open data. Leading global public sector digital strategies see open data as critical. Vancouver’s Open Data Program was initiated in 2009. Since then, over 140 open data sets have been published. However, the initiative hasn’t necessarily translated into real benefit to the City. Priority next steps are:

1. Identify key City problems that could be resolved by open data and/or open API solutions
2. Embrace open APIs into open data
3. Support the open data community through an online forum where new data sets, ideas, visualizations and proof of concepts can be discussed
4. Establish priority for ongoing release
Communications and engagement activities will be designed to promote and encourage residents, businesses and employees to use digital technologies in order to communicate with the City. Beyond this, these activities will also help the City to more accurately track civic engagement in order to deliver better customer service.

1. Launch a social media strategy which includes an enterprise monitoring tool
2. Finalize standards for online community engagement
3. Establish Digital Citizen’s Advisory Committee
4. Establish an online community engagement panel
Expand digital access throughout the city

Wi-Fi, a fundamental aspect of any digital city, is expected by citizens. The Vancouver Public Library has provided free public Wi-Fi in all locations since 2007. More recently, public Wi-Fi has been provided at City Hall. Priorities are:

1. Implement Wi-Fi across Vancouver in designated areas (e.g. Granville Mall Wi-Fi pilot) and expand public Wi-Fi in select City facilities
2. Extend Wi-Fi access to staff across priority City facilities
Establish an incubation program for digital companies

Strengthened by a strong digital infrastructure and the proposed digital district, a digital incubator will encourage digital talent to stay and/or locate in Vancouver and support digital-based social innovation.

1. Find a partner to operate the incubator
2. Promote incubator to digital start-ups
3. Launch program
Create a favourable regulatory environment that supports digital industry

Vancouver has always been a leader when it comes to innovative policies designed to support both the City and the economy, such as the agreement with Urban Networks. However, the City's current regulatory environment does not encourage the digital industry to establish their businesses in the city. This initiative will focus on removing the impediments in choosing Vancouver as the place to do business in digital.

1. Enable supporting infrastructure and review zoning bylaws to remove or minimize impediments to digital clusters districts

2. Support external community demand for access to City infrastructure, such as poles and light fixtures
The goal is to develop a proof of concept (PoC) program to allow digital entrepreneurs to utilize municipal asset(s) or infrastructure to demonstrate innovation in our local digital economy. The program will represent a partnership between the community (including higher educational institutions), industry partners and the City.

1. Establish a framework for PoCs to demonstrate innovation within the community
2. Identify partners that can assist with implementation and evaluation of the program
3. Conduct a pilot PoC to test the framework and monitoring process
Establish digital services governance

The digital strategy has a broad mandate that will impact citizens, businesses, employees and government. We need coherent leadership and operational oversight and alignment. A recent Gartner report predicted that 25% of all companies would have a digital executive within the next two years. Priorities for the City are:

1. Identify a dedicated cross-department digital services team
2. Assign accountabilities and responsibilities for key digital initiatives
3. Identify digital skills training needed for staff
Implement mobile workforce strategy

The City must be able to provide the foundation for its employees to become empowered through use of consumer-driven mobile technologies in combination with secure enterprise technologies. By enabling the mobile workforce, the City will realize increased efficiencies while simultaneously encouraging innovation by employees.

1. Trial a secure mobile device management platform
2. Align employee role and work requirements with mobile device provisioning.
Closing the gap on the digital divide

- Only 54% of households with incomes of $30,000 or less have home Internet access compared to 97% of households with incomes of more than $87,000\(^1\)
- The City of Vancouver has already made a significant investment in addressing the digital divide though the Vancouver Public Library (VPL)
- VPL has 22 locations across the city, providing more than 400 computers with Internet connectivity and office software and more than 100 additional that computers connect to subscription e-resources and government information
- Engaging, learning and working in today's digital world calls for new skills and new competencies – all supported through free computer and technology classes at VPL

Statistics Canada describes the digital divide as “the gap between Information and Communications Technology (ICT) ‘haves’ and ‘have-nots’, [using it] as an umbrella term for many issues, including infrastructure and access to ICTs, use and impediments to use, and the crucial role of ICT literacy and skills to function in an information society.” (Sciadas, G. *Digital Divide in Canada*. Statistics Canada, 2001).

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\(^1\) Statistics Canada in their 2010 Canadian Internet Use Survey
While the priority for the City over the next 4 years is focused on the preceding 9 initiatives, there are additional key projects and actions that will need to be pursued as funding becomes available and partners emerge in order to more substantially move the dial on digital maturity.
Additional actions to be pursued

**Engagement + Access**
- Expand the Vancouver Public Library digital literacy program
- Continue to prepare for and create opportunity for online voting

**Infrastructure & Assets**
- Continue to evolve the City’s digital infrastructure strategy

**Economy**
- Through VEC, continue to foster digital talent strategy

**Organizational Digital Maturity**
- Work towards an enterprise portal
- Develop the City’s digital workforce
The 4-year plan calls for outcomes that will increase the City’s digital maturity across all capability areas – online, social, mobile, infrastructure & data, organization and digital economy.
The road to digital maturity

The digital city takes shape
The City makes great strides in moving the digital maturity bar through extension of services online and on mobile, with single sign-on in the works and public Wi-Fi being deployed through creative partnerships. Digital literacy programs are expanded at the library and through community-based programs. The digital city is taking shape.

Set the pace for digital
Get moving. That’s what we heard during consultation. The build stage is focused on mobile quick wins and governance. Getting ready for the “fast pace of digital”.

The digital district is open for business
A place where the digital sector can call home is established. Vancouver’s small business can tap into to expanded resources at the library for going digital and the City’s Proof of Concept program has a waiting list. The City begins to gain the benefits of a more mobile workforce.

The visibility of digital
Digital kiosks are piloted in Vancouver. The City’s digital maturity reaches a “connected” state with online, mobile, social, infrastructure and organization performing at the speed of digital. The City’s mobile workforce expands.
The digital maturity outlook for the City as an organization

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<th>Maturity Level</th>
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2013

2016
Throughout the consultation and visioning process, the digital strategy team used “A day in the life …” approach to envision what a digital Vancouver could be. With the initiatives outlined in the strategy, what does a day in the life of a digital citizen in Vancouver look like in 2016?
The new day in the life of a Vancouver citizen

Meet Stephanie, a working professional. She is well educated, works long hours, and has little free time. While she frequently uses digital media, she is actually looking for the easiest, most efficient means of communication. Her touch points with the City are via social media, mobile apps, the website, and email.

Stephanie gets up early and heads to work at a small company in the Digital District.

On her lunch break, she signs up to participate in a Hack-a-thon for Park Board pools this weekend.

Right before she leaves the office, Stephanie goes online to quickly and easily renew her dog license.

Later in the evening, she notices graffiti on a nearby fence. Using her mobile 3-1-1 app, she reports it to the City.

While sitting on the Skytrain, she checks the status of her home renovation permit.

Later on in the afternoon, she submits a business idea to the Vancouver Digital Incubation Program.

After work, she attends a VPL small business session, learning about how to leverage social media.
Forrester, a well-regarded technology research company, has called 2013 “The Year of Digital Business”. The digital strategy and its initiatives comprise a significant commitment by the City to execute. In choosing priorities the City has balanced the desire to move quickly with what is truly achievable, while remembering what was echoed during consultation – “We can’t not be ambitious”.

In closing