



iMapBC goes mobile...



in a disconnected world...

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The Conversation

- ▶ DataBC program overview
- ▶ The story of iMapBC and platform technology
- ▶ An evolution to mobile and disconnected use
- ▶ Technology roadmap
- ▶ In situ demonstration



About the DataBC Program

- ▶ DataBC provides leadership for the BC Government's **Open Data and Spatial Data Infrastructure**
- ▶ DataBC promotes and enables the **sharing of data** with citizens, businesses and across the government enterprise
- ▶ DataBC provides technology that help the BC Government manage and use its **data as a strategic asset**



DataBC Service Focus


- **Open & Enterprise Data**
 - license, policy, catalogue, website
- **Provincial Spatial Data Infrastructure**
 - shared data infrastructure
 - application platforms
 - external services
- **Governance and Information Management**
 - data custodianship principles



Data.gov.bc.ca

Services & Forms | News | Contact Government

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 BRITISH COLUMBIA | DataBC

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Geographic Services

Discover, view, analyze and locate data using DataBC's geographic tools and services.

-  [Learn more about geographic services](#)
-  [Learn about iMapBC](#)

What is DataBC?

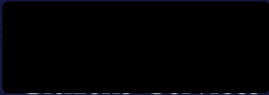
Open Data Initiative

Geographic Services

Datasets

Applications & Web Services





Data.gov.bc.ca

- ▶ DataBC is the place to find BC Government data, services, applications and tools



DISCOVER

Explore DataBC's extensive geographic holdings. The service includes data that is not publically accessible. Find out more in the DataBC catalogue or have a look at our [\[Learn more\]](#)

Geographic Data Discover Service

This service enables you to explore geographic data available from the Government of B.C. [\[Learn More\]](#)




DOWNLOAD

Select and request datasets in a specific file format. You can also request a customized service as part of the download process. Different file formats can be specified, trimmed, translated, etc. [\[Learn more\]](#)

Download Service

This service allows you to request a customized service as part of the download process. Different file formats can be specified, trimmed, translated, etc. [\[Learn more\]](#)



CONNECT

Make a direct connection to our data holdings using various spatial software. This service provides you instructions and links to our data holdings using various protocols. [\[Learn more\]](#)

Connect Service


This service provides you instructions and links to our data holdings using various protocols. [\[Learn more\]](#)



VIEW & ANALYZE

Interact and question data directly using browser based tools that we provide. The viewable content is supplied directly from source agencies responsible for data accuracy. [\[Learn more\]](#)

- iMapBC 2.0** [Launch](#)
Explore the latest release of iMapBC and explore a new tools interface with significant upgrades. [\[Learn More\]](#)
- iMapBC 2.0 - restricted access** [Launch](#)
The secure version of iMapBC 2.0 includes

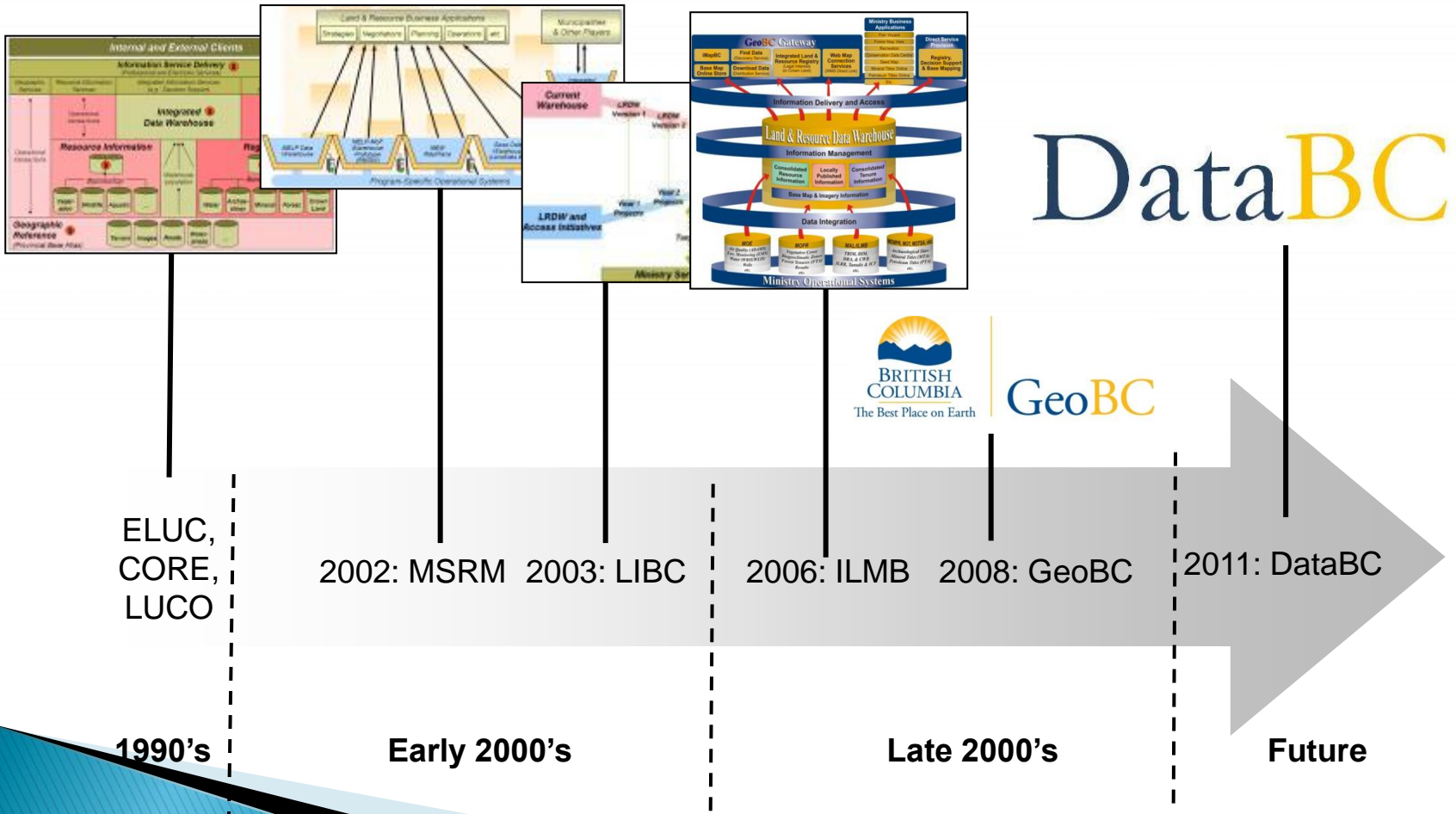


LOCATE

Turn an address into a point on the map, register a favourite location for use in various Government of B.C. services or explore British Columbia through the BC Geographical Names service. [\[Learn more\]](#)

- Physical Address Geocoder** [Launch](#)
Use this reliably accurate service to get spatial coordinates for any B.C. address. [\[Learn More\]](#)
- Geomark Web Service** [Launch](#)
A free web service for users to store an area

The Evolution of DataBC





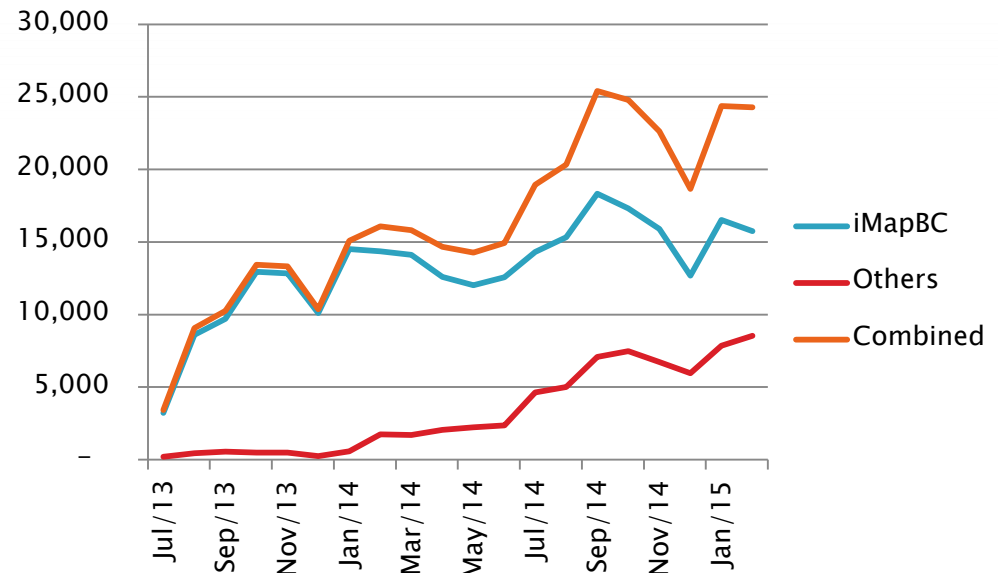
DataBC Holdings

- ▶ More than:
 - 2,500 feature classes
 - 3,400 presentation layers
 - 6,000 related tables
 - 1.6 billion rows of data
 - 400 app dependencies



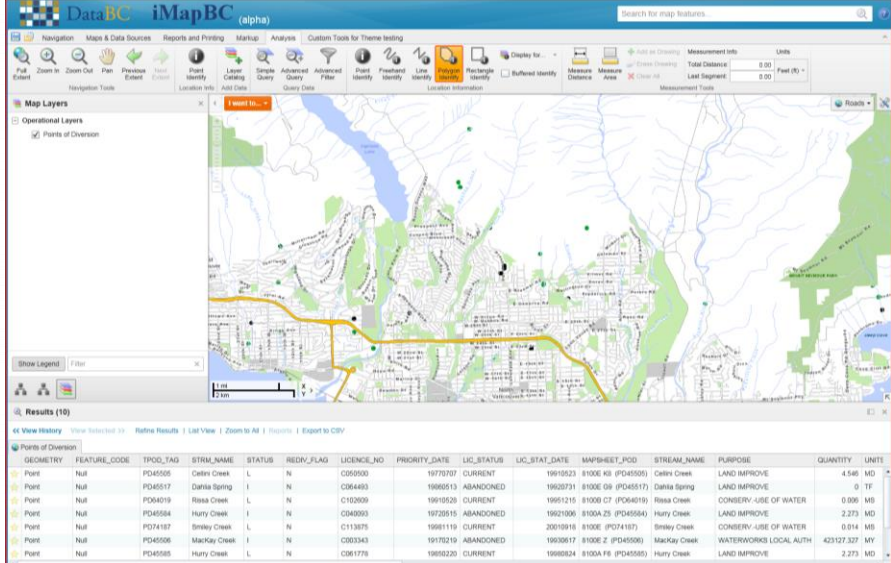
Extensive Use

- ▶ iMapBC has over 185,000 user sessions per year
- ▶ Users download over 110,000 products annually
- ▶ 20 million Geocodes in 2014



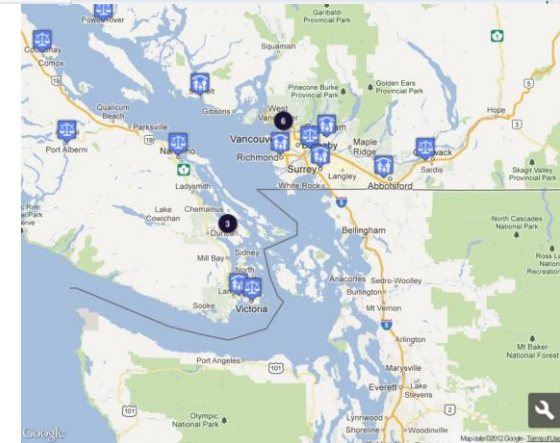
Existing Application Frameworks

- ▶ Used to host multiple applications
- ▶ UI Consistency
- ▶ Tool portability
- ▶ Quick to publish apps
- ▶ Cost effective
- ▶ Extendable



The screenshot shows the iMapBC (alpha) web application. The interface includes a navigation toolbar, a map area, and a data table. The data table is titled "Points of Diversion" and contains the following information:

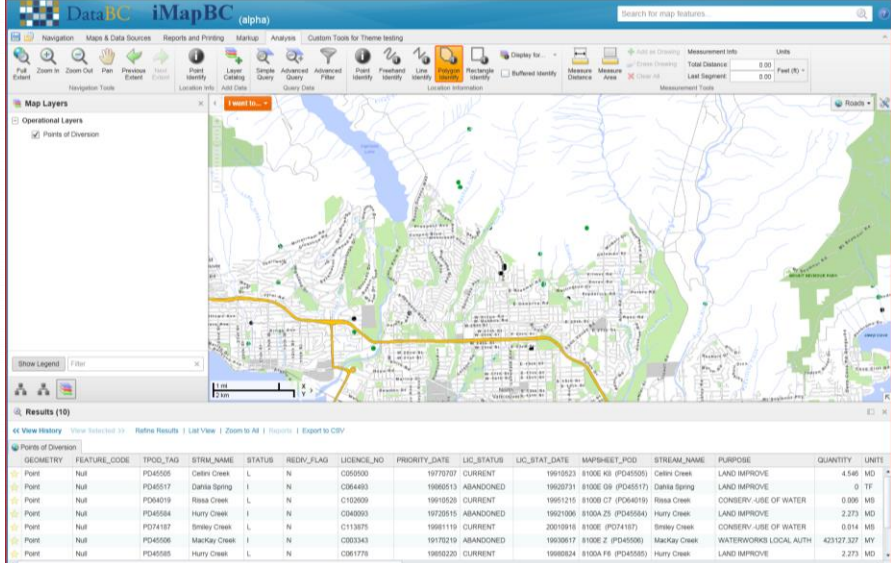
GEOMETRY	FEATURE_CODE	TPOD_TAG	STRM_NAME	STATUS	REDRV_FLAG	LICENCE_NO	PRIORITY_DATE	LIC_STATUS	LIC_STAT_DATE	MAPSHEET_PCD	STREAM_NAME	PURPOSE	QUANTITY	UNITS
Point	Null	PD45505	Caters Creek	L	N	C050500	19770707	CURRENT	19910523	8100E K8 (PD45505)	Caters Creek	LAND IMPROVE	4.546	MD
Point	Null	PD45517	Danisa Spring	L	N	C064493	19690513	ABANDONED	19620731	8100E 09 (PD45517)	Danisa Spring	LAND IMPROVE	0	TF
Point	Null	PD45479	Rosa Creek	L	N	C102069	19610526	CURRENT	19951216	81000 C7 (PD45479)	Rosa Creek	CONSERV-USE OF WATER	0.986	MS
Point	Null	PD45584	Hurry Creek	L	N	C046059	19705815	ABANDONED	19621006	8100A Z5 (PD45584)	Hurry Creek	LAND IMPROVE	2.273	MD
Point	Null	PD74187	Stevley Creek	L	N	C113875	19681119	CURRENT	20010916	8100E (PD74187)	Stevley Creek	CONSERV-USE OF WATER	0.814	MS
Point	Null	PD45506	MacKay Creek	L	N	C003343	19170219	ABANDONED	19930617	8100E Z (PD45506)	MacKay Creek	WATERWORKS LOCAL AUTH	423127	MY
Point	Null	PD45585	Hurry Creek	L	N	C061776	19680220	CURRENT	19680824	8100A F8 (PD45585)	Hurry Creek	LAND IMPROVE	2.273	MD



Technical Components

- ▶ Oracle 12C
- ▶ SDE 10.2
- ▶ Geocortex Essentials
- ▶ Silverlight, HTML5 Clients

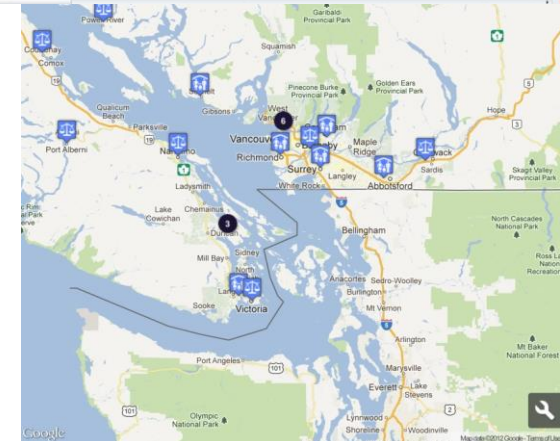
- ▶ Google Maps API
- ▶ Various Tile cache basemaps



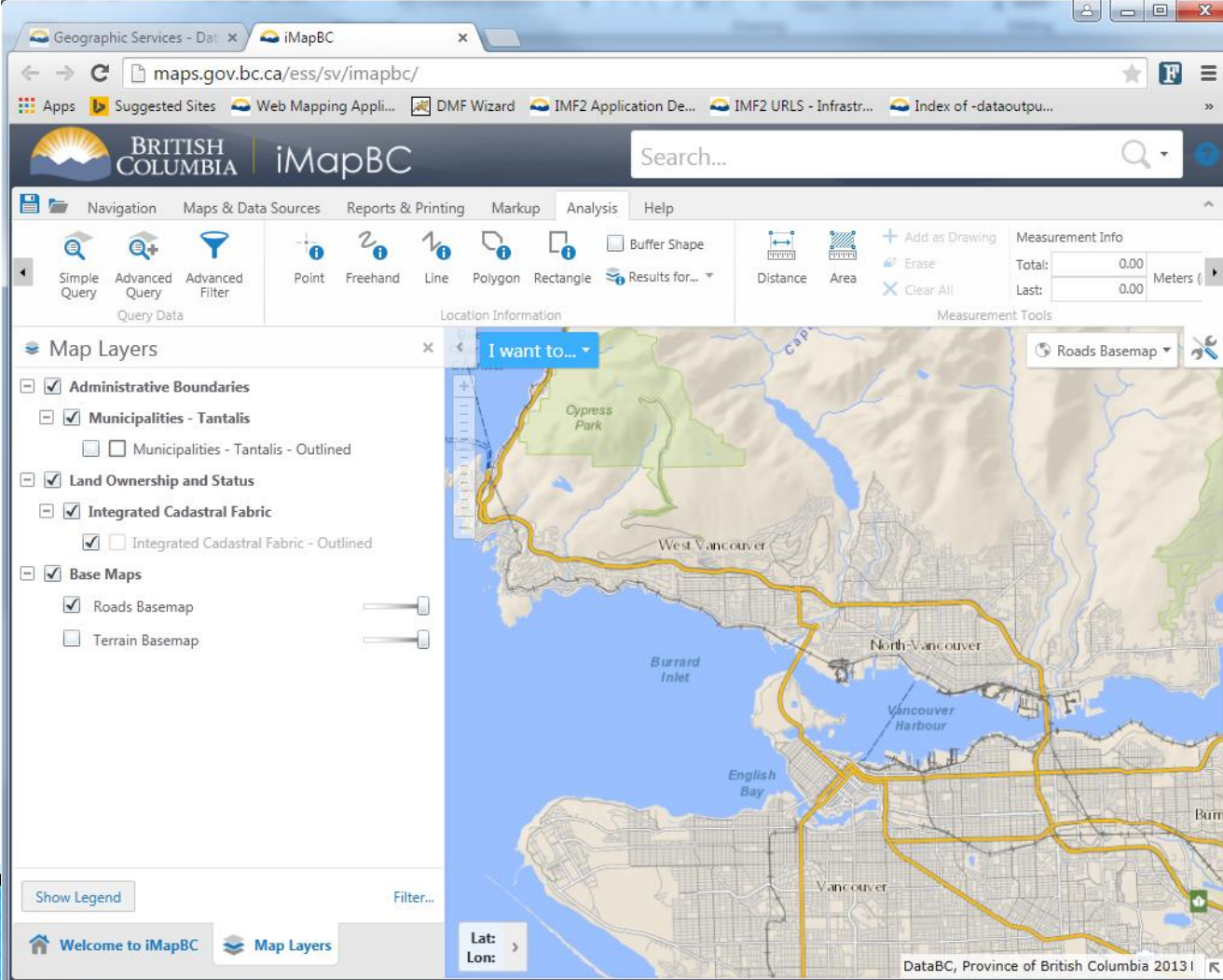
DataBC iMapBC (alpha)

Map Layers: Operational Layers, Points of Diversion

GEOMETRY	FEATURE_CODE	TPOD_TAG	STRM_NAME	STATUS	REDRV_FLAG	LICENCE_NO	PRIORITY_DATE	LIC_STATUS	LIC_STAT_DATE	MAPSHEET_PCD	STREAM_NAME	PURPOSE	QUANTITY	UNITS
Point	Null	PD45505	Caters Creek	L	N	C050500	197707	CURRENT	1991023	8100E K8 (PD45505)	Caters Creek	LAND IMPROVE	4.58	MD
Point	Null	PD45517	Dania Spring	L	N	C064483	1960513	ABANDONED	19620731	8100E 09 (PD45517)	Dania Spring	LAND IMPROVE	0	TF
Point	Null	PD45479	Rosa Creek	L	N	C102059	1961029	CURRENT	19651216	81000 C7 (PD45479)	Rosa Creek	CONSERV-USE OF WATER	0.86	MS
Point	Null	PD45584	Hurry Creek	L	N	C040503	1972815	ABANDONED	19621006	8100A Z5 (PD45584)	Hurry Creek	LAND IMPROVE	2.27	MD
Point	Null	PD74187	Smiley Creek	L	N	C113875	1968119	CURRENT	20010916	8100E (PD74187)	Smiley Creek	CONSERV-USE OF WATER	0.814	MS
Point	Null	PD45506	MacKay Creek	L	N	C003343	19170219	ABANDONED	19630617	8100E Z6 (PD45506)	MacKay Creek	WATERWORKS LOCAL AUTH	42327.327	MY
Point	Null	PD45585	Hurry Creek	L	N	C061778	19680220	CURRENT	19680224	8100A F8 (PD45585)	Hurry Creek	LAND IMPROVE	2.27	MD



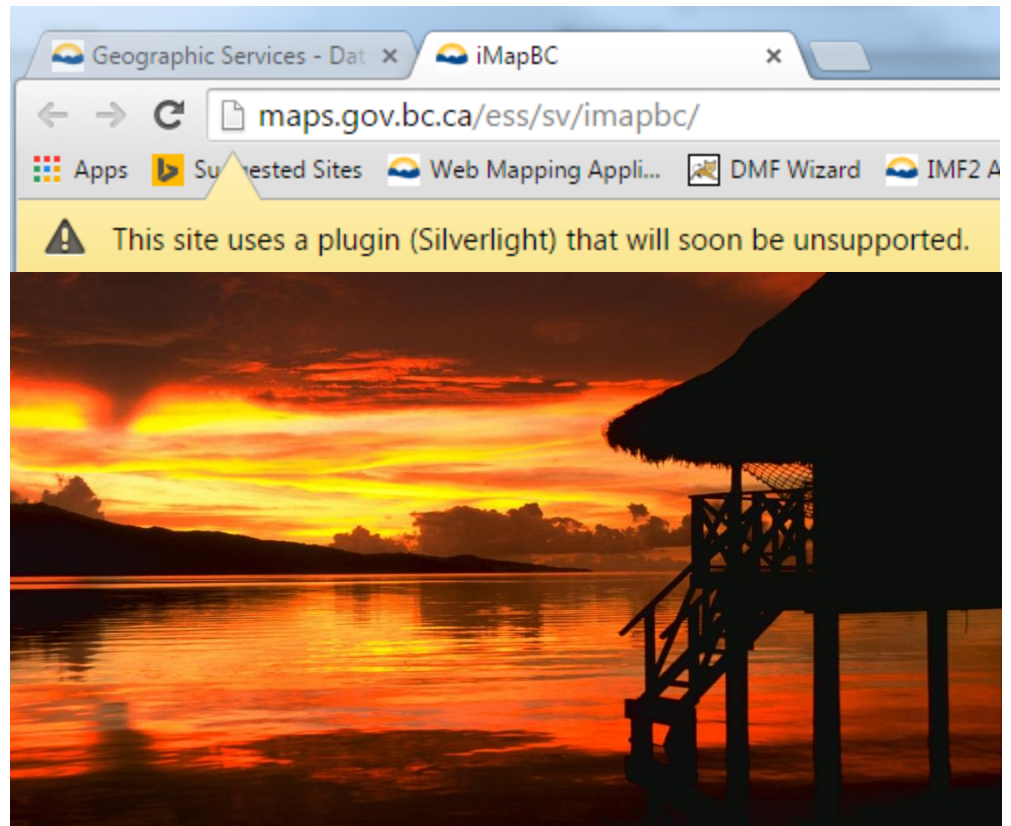
What is iMapBC?



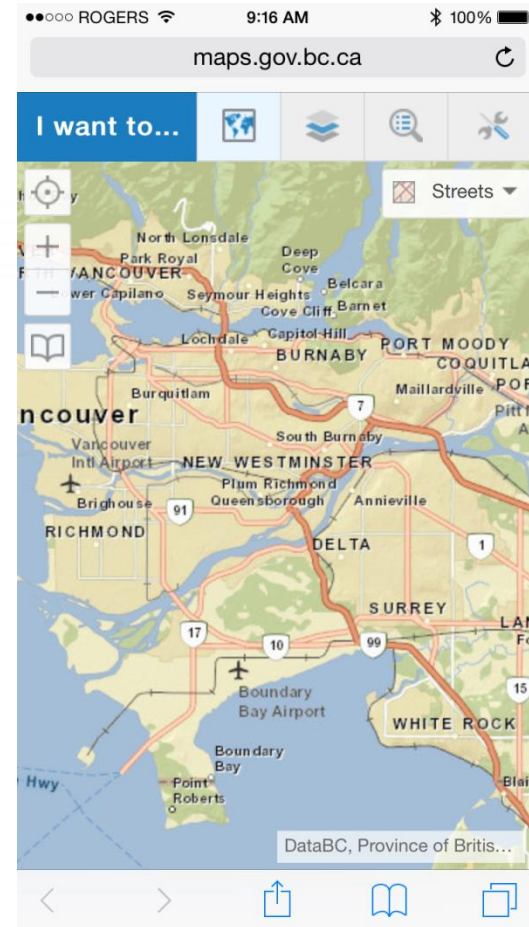
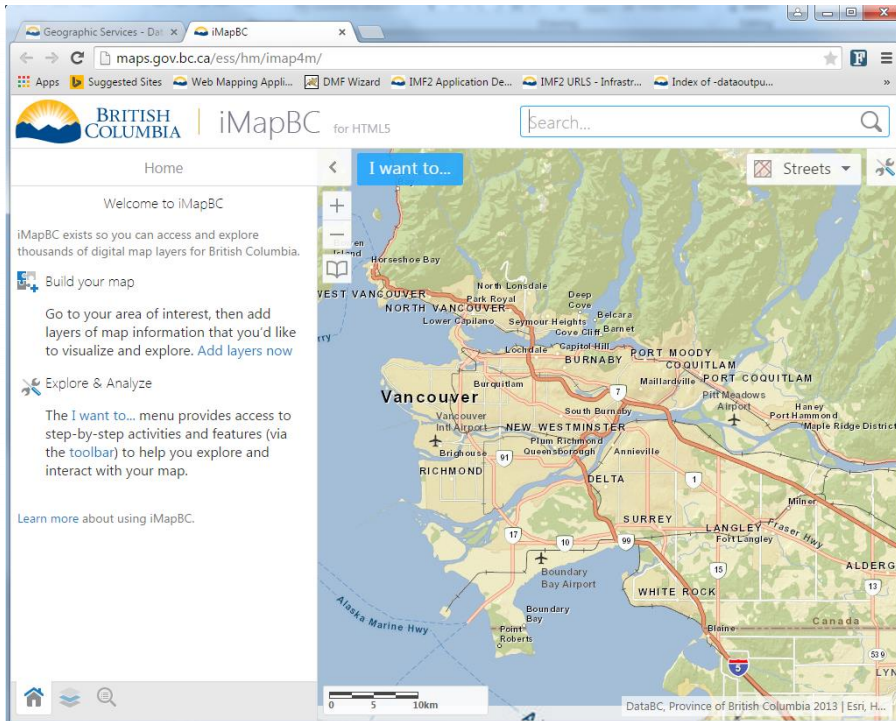
The screenshot displays the iMapBC web application interface. The browser address bar shows the URL `maps.gov.bc.ca/ess/sv/imapbc/`. The interface includes a search bar, a menu with options like Navigation, Maps & Data Sources, Reports & Printing, Markup, Analysis, and Help, and a toolbar with various mapping tools such as Point, Freehand, Line, Polygon, Rectangle, Buffer Shape, Distance, Area, Add as Drawing, Erase, and Clear All. A Measurement Info panel shows Total: 0.00 and Last: 0.00 Meters. The Map Layers panel on the left lists several layers, all of which are checked: Administrative Boundaries, Municipalities - Tantalus, Land Ownership and Status, Integrated Cadastral Fabric, and Base Maps (Roads Basemap and Terrain Basemap). The main map area shows a topographic map of Vancouver with a yellow line overlay. The map includes labels for Cypress Park, West Vancouver, Burrard Inlet, North Vancouver, Vancouver Harbour, English Bay, and Vancouver. A status bar at the bottom right indicates the data is from DataBC, Province of British Columbia 2013.



iMapBC and Silverlight's Sunset



iMapBC's move to HTML5



Feature parity is the goal



What about network availability...



Three paradigms for disconnected

▶ Web Applications

- Supports multiple devices through a web browser
- Updates pushed over the web instead of through an app marketplace
- Limited access to device hardware components
- Extended browser storage is a limiting factor, 3 – 5 MB, depending on browser and OS





Native Applications

- ▶ Custom apps downloaded and stored on the device
- ▶ Access device's full memory storage
- ▶ Generally written specifically for a given device (iOS, Android)
- ▶ Updates pushed through the marketplace





Hybrid Applications

- Combine web and native application approaches
- Host HTML & JavaScript web apps in native application ‘wrapper’
- The wrapper allows access device’s full memory storage and device hardware
- Functionality leverages the same application configuration used for web apps





DataBC's Direction

- ▶ Use the hybrid model while browser technology evolves
 - Rollout of app 'wrapper' through the Province's Apple App store account
 - Vision of users leveraging the desktop version of the software to 'prep' a session to save for offline use
 - Make loading features 'turn key'





DataBC's 12 month Roadmap

- ▶ Reaching feature parity with Silverlight
- ▶ Publishing a secure version of iMapBC for mobile
- ▶ Enabling disconnected in DataBC frameworks
- ▶ Implementing disconnected editing architecture
 - Not just for custom apps





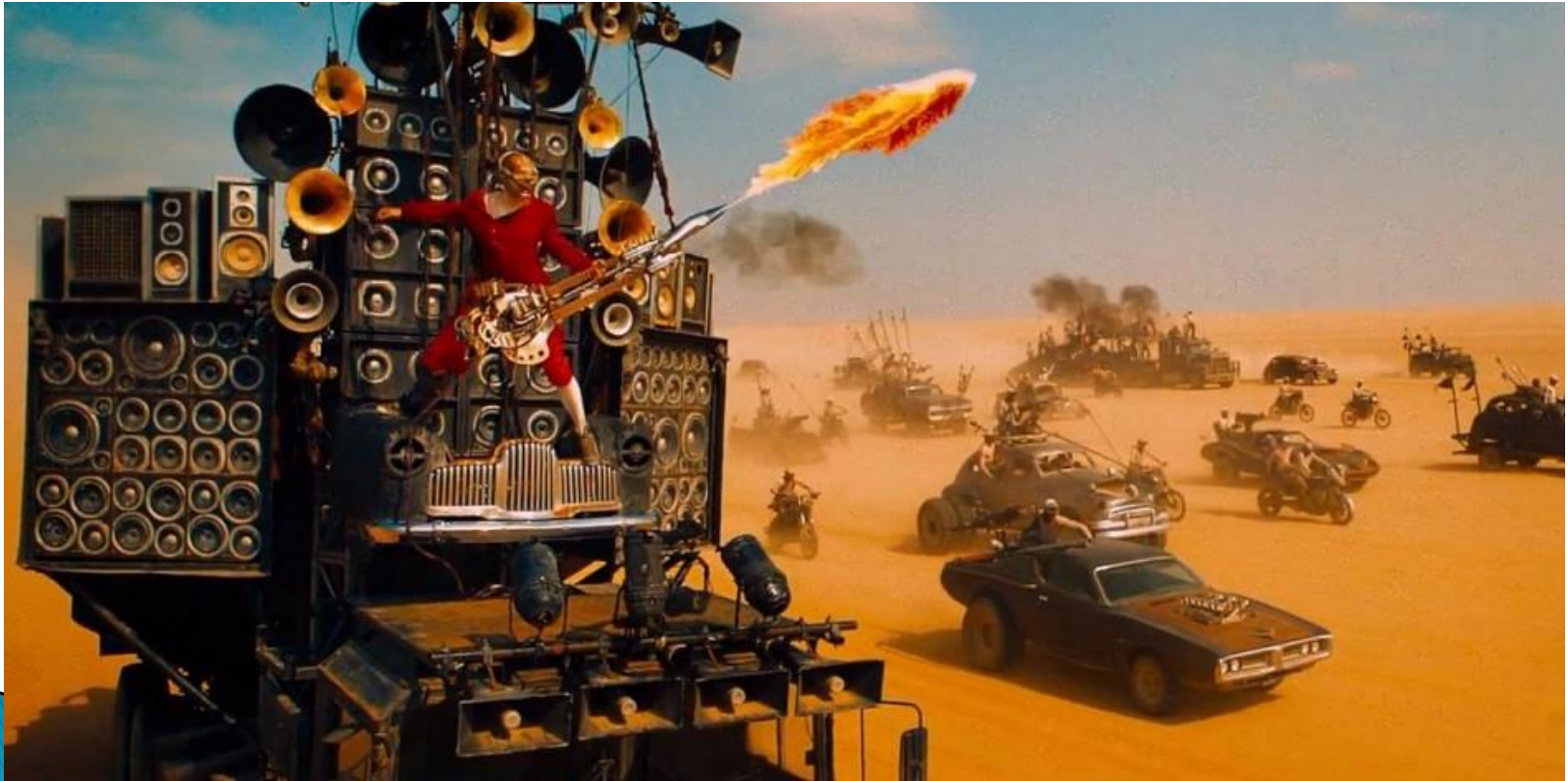
Launch the Demo





I'm between you and lunch 😊

Questions – Chris.Spicer@gov.bc.ca





In situ demo – backup slides

- ▶ tbd