Thank you to all of our Sponsors!!

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- Sharegate
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- Microsoft
- 2toLEAD
- RENCORE
- PLURALSIGHT
The World of Data is Changing

"By 2015, organizations that build a modern information management system will outperform their peers financially by 20 percent."

– Gartner, Mark Beyer, “Information Management in the 21st Century”
Power BI: Everyone should have access to any data, any way, anywhere they need.
Who’s Suing Whom?
Major court cases in the telecoms world

- ORACLE
- QUALCOMM
- Google
- HTC
- Kodak
- ELAN
- SAMSUNG
- NOKIA
- LG
- RIM
- Sony Ericsson
- SHARP
- HITACHI
- Motorola
- Microsoft

- Illegal use of Java
- 2G tech
- Wireless data, speech coding & security
- Over 2D software patents
- Touch screen patents
- Over 18 patent infringements
- Lawsuit
- In process
- Resolved

$5 revenue
Increasing
Decreasing

S. McCandless & J. Key // v1.2 // Oct 10
InformationIsBeautiful.net

Source: Bloomberg, BBC, DigitalTrends.com
Only highlights or summaries of lawsuits
Everyone should have access to the data they need!!!
Evolution of BI
A powerful new way to work with data
Self-service business intelligence and analytics with Excel and the power of the cloud

Analyze in Excel
1 Billion Office Users

Collaborate in Power BI for Office 365
1 in 4 enterprise customers on Office 365

Discover  Analyze  Visualize

Share  Question  Mobility

Scalable  Manageable  Trusted
Unlock your Excel data
Analyze data and publish your workbooks to Power BI

Prep and model data with familiar and flexible Excel

Publish to Power BI and view through Excel Online

Connect live to Excel workbooks in OneDrive
Analyzing data with Excel

- **Discover**
  - Easily discover and access public and corporate data – *Power Query*

- **Analyze**
  - Model & analyze 100’s of millions of rows of data – *Power Pivot*

- **Visualize**
  - Explore your data with interactive visualization – *Power View*

- **Explore**
  - Uncover new insights with 3D geospatial analysis – *Power Map*
Analyzing data in Excel

Demo
A powerful way to work with data
Self-service business intelligence with familiar Excel and the power of the cloud

Analyze in Excel
1 Billion Office Users

Collaborate in Power BI for Office 365
1 in 4 enterprise customers on Office 365

Discover | Analyze | Visualize
Scalable | Manageable | Trusted
Power BI

Experience your data. Any data, any way, anywhere

- Power BI is a cloud-based business analytics service that enables
  - fast and easy access to your data
  - a live 360° view of your business
  - data discovery and exploration
  - insights from any device
  - collaboration across your organization
  - anyone to visualize and analyze data
## Power BI Overview

### Data sources
- **SaaS solutions**
  - e.g. Marketo, Salesforce, GitHub, Google analytics
- **On-premises data**
  - e.g. Analysis Services
- **Organizational content packs**
  - Corporate data sources or external data services
- **Azure services**
  - Azure SQL, Stream Analytics...
- **Excel files**
  - Workbook data / data models
- **Power BI Desktop files**
  - Data from files, databases, Azure, and other sources

### Power BI service
- **Content packs**
- **Live dashboards**
- **Visualizations**
- **Reports**
- **Datasets**
- **Data refresh**
- **Natural language query**
- **Sharing & collaboration**

### Power BI Desktop
- **Prepare**
- **Explore**
- **Report**
- **Share**

### Power BI REST APIs
```json
{
    "name":"String",
    "tables":
    {
        "name":"String",
        "columns":
        {
            "name":"String",
            "datatype":"String"
        }
    }
}
```
Create Power BI content
Visual data exploration & interactive reporting

- A freely downloadable Desktop tool for data exploration and interactive reporting
- Freeform drag and drop canvas
- Effortless publishing to the Power BI service
- Combines the power of Power Query, Power Pivot and Power View
- Dedicated BI workflow: Specializing in Interactive Visualization and Analysis
- Effortlessly publish interactive visual reports to users of Power BI
Share & Collaborate with Power BI and Office 365

- **BI Dashboards**: Quickly create collaborative BI dashboards
- **Content Packs**: Manage data queries for the team
- **Data Refresh**: Keep reports up to date with scheduled data refresh
- **Data Search**: Maintain a data catalog of searchable data
- **Mobile Access**: Stay connected with mobile access to your reports
- **Natural Language Questions**: Ask questions of your data in natural language

Supported on Windows, iOS, Android, and HTML5.
Power BI Technical Architecture

Bring your data to life

SaaS Data Sources
- GitHub
- Marketo
- Microsoft Dynamics CRM
- Salesforce
- SendGrid
- Zendesk

Azure-resident systems
- Azure SQL/DW
- Azure Stream Analytics
- HDInsight

On-premise systems / other
- OneDrive
- Corporate Data Sources
- AS Tabular

Power BI web browser
With natural language query, visual exploration etc.

Power BI Mobile Apps
with dashboards, alerting and visual exploration

Real time Dashboards
using Push API or ASA
Power BI High-Level Overview

Business analyst tools
- Excel
- Power BI Desktop

On-premises data
- SQL Server analysis services
- Databases and other data sources

Microsoft cloud
- Azure data services
- Office 365
- Dynamics
- Partner apps

Non-Microsoft cloud software systems (e.g., SaaS applications, IOT scenarios, and data streams)

Web browser

Mobile apps
See all your data in a single pane of glass
Live dashboards and interactive reports

- Monitor live dashboards for the data that matters most
- Track your data in real-time with support for streaming data
- Drill through to underlying reports to explore and discover new insight
- Pin new visualizations and KPIs to monitor performance
Connect live to your on-premises data

- Connect live to your existing on-premises data, including SQL Server Analysis Services
  - You can keep your data on-premises and enable BI analysts / end users to create Power BI reports
  - Connect to and refresh data securely via Azure Service Bus (SSL encrypted connection)
  - Service Bus only uses an outbound port, it does not require an inbound port to be opened on the on-premises firewall
- Realize the benefits of a SaaS-based BI solution without moving your data to the cloud
- Everything in the service is encrypted - Power BI uses HTTPS for all traffic
- For on-premise sources, e.g. SSAS, role-based and row-level data security is applied
- Data remains on-premise, only query is stored in Power BI
- Power BI requires valid accounts that meet the requirements of the specific data source

<table>
<thead>
<tr>
<th>Authentication method</th>
<th>Select data sources that use this method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>SQL Azure, Marketo, ODATA Feed</td>
</tr>
<tr>
<td>Account key</td>
<td>Blob store, Table store, HDInsight</td>
</tr>
<tr>
<td>OAuth</td>
<td>Salesforce, Google Analytics, ODATA Feed</td>
</tr>
<tr>
<td>Marketplace key</td>
<td>Azure Marketplace</td>
</tr>
<tr>
<td>Anonymous</td>
<td>ODATA Feed, Web</td>
</tr>
</tbody>
</table>
Team Collaboration
Integrated into the O365 Groups experience

Create groups in Power BI service

Share dashboards and reports by work group

Navigate from Power BI to other Office 365 workloads
**Key benefits and differentiators of Power BI**

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-built dashboards and reports for popular SaaS solutions</td>
<td></td>
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<tr>
<td>Real-time dashboard updates</td>
<td></td>
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<tr>
<td>Secure, live connection to your data sources, on-premises and in the cloud</td>
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<tr>
<td>Intuitive data exploration using natural language query</td>
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<tr>
<td>Integrated with familiar Microsoft products and utilizes commitment for scale &amp; availability in Azure</td>
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<tr>
<td>Fast deployment, hybrid configuration, secure, and integrated with existing IT systems.</td>
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</tbody>
</table>
Key benefits and differentiators of Power BI

Ease of Consumption

Live dashboards and reports - provide a 360° views of your business regardless of where data lives.

Natural Language Query & Cortana – more naturally explore and ask questions of your data.

Automated Insights - discover patterns and insights in your data automatically.

Real-time – views of your business operations with support for streaming data.

Mobile – Native mobile apps for iOS, Android, and Windows devices.

Integrated into your apps – integrate Power BI visualizations into your applications.

PowerPoint – include live Power BI visualizations in your presentations.
Everyone should have access to the data they need.

Average NYC Taxi Trip Speed

- 5:18AM: 24 mph
- 8:35AM: 11.5 mph
- 6:33PM: 11.5 mph
Other Resources

- http://powerbi.microsoft.com/
- http://visuals.powerbi.com/
- www.office365.com
- www.opendata.gc.ca
- www.getAlbert.ca
What Questions Do You Have?

Microsoft!

Thank you for attending!

Biray Giray: biray.giray@getalbert.ca
Michael McKiernan: michael.mckiernan@getalbert.ca
SharePint!

At the Observatory Student Pub in Building A

4:10 pm:  *New!* Experts’ Panel Q&A
4:30 pm:  Prizes and Giveaways
4:45 pm:  Wrap-up and SharePint!

Parking:  No need to move your car!*

If you don’t know where the Observatory is, ask an organizer or a volunteer for directions.

Remember to fill out your evaluation forms to win some great prizes!

Join the conversation – tweet at #spsottawa

*Please drive responsibly! We are happy to call you a cab 😊