

Perth SQL Server User Group
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SSRS 2016: The New Star of Extreme Makeover!

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Session Plan & Goals

- A history of SSRS to bring us up to speed
- Learn about new features through demos
- Understand the role of Mobile Reports (Datazen)
- See Power BI integration in action
- Architectural considerations
- Takeaways

Speaker Intro

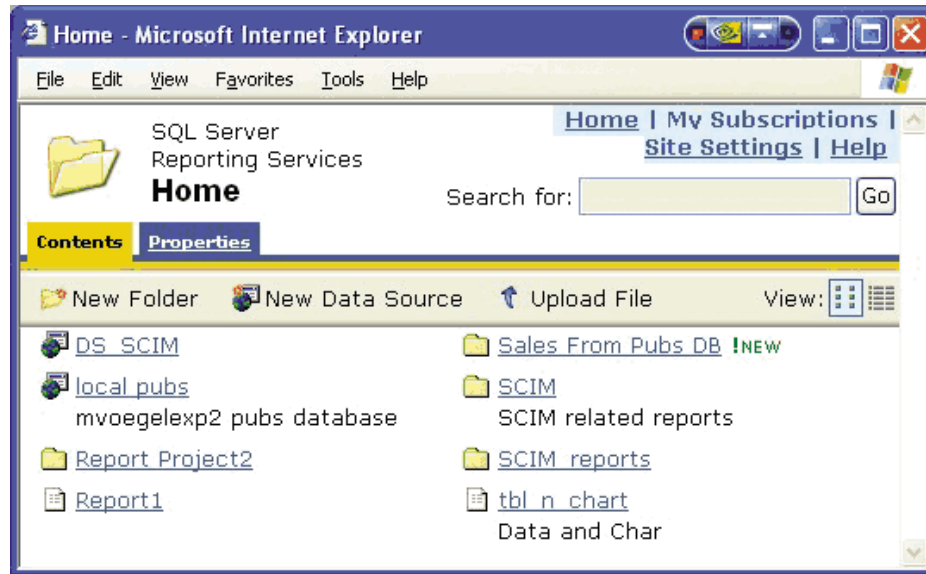
- Worked with MS Data stack since SQL2000
- Was a consultant and practice lead
 - Business Intelligence and Analytics (deepest/broadest knowledge)
 - SharePoint/Office 365
- Joined MSFT in January
 - Data Platform Solution Architect
 - Work with Enterprise clients across on-prem and cloud workloads

History of SSRS



Beginnings...

- First released as add-on to SQL Server 2000



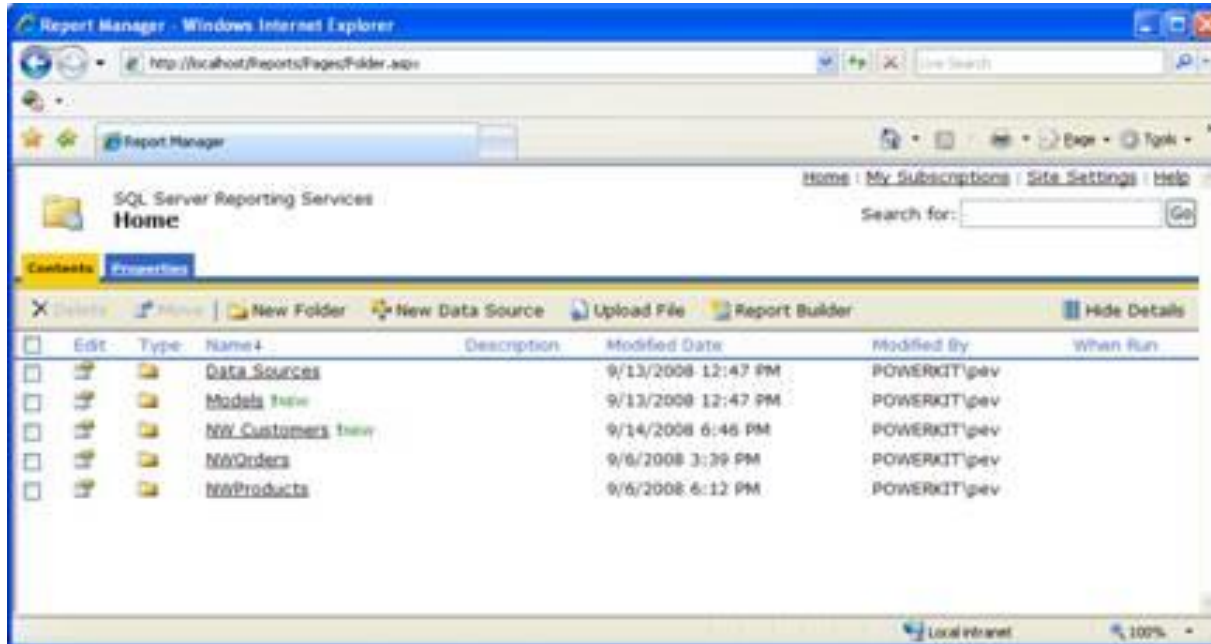
SSRS 2000 Brought

- Report Server
 - Process, render, scheduling and delivery, APIs
- Report Manager
 - Reports, Data Sources, Users/Roles, Snapshots
- Report Designer (Visual Studio .Net 2003)

- Note IIS dependency

Enter, SSRS 2005!

- Our old friend...



SSRS 2005 Highlights

- SharePoint Integration
- Direct Printing via ActiveX control
- Sorting and multivalued params
- Visual query designer for SSAS
- Extensibility through custom report items
- Report Builder (v1 😞)

Reports to Date...

Report Execution - Report ...

Home > SSRS reports - www.rbreporting.com > ReportExecution

From: 3/13/2012 Show Hidden: True/False View Report

To: 3/16/2012 11:59:59 PM Show Percents: True/False

Report Execution report. Please send your feedback to us: mailbox@rbreporting.com SSRS Report

Report Execution: Demo SSRS Server

Total		Active		Interactive		Subscriptions		Dashboard	
Requests	Errors	Users	Reports	Run	Errors	Run	Errors	Run	Errors
1523	0.13%	23	106	1024	0.2%	281	0%	218	0%

Daily Report Execution

Report Format

The report server keeps report execution history for 7300 days

Name	Report Count	Report Execution		
		Interactive	Subscription	Error
Buszilla reports - Free - mysql	2			
Custom Reports	37	25		0%
Dashboard	8	249	8	0%
Data Sources				
HP QC reports	106	405		0.25%
Red Tower	35	231	211	0%
SSRS reports - www.rbreporting.com	4	272		0%
CatalogView	Report	50		0%
Notification	Report			
ReportExecution	Report	98		0%
SubscriptionSummary	Report	124		0%
ReportServerDataSource	DataSource			
Notification	Report	10	66	0%
Read Mel (Linked Report)	Linked	20		0%
Total Reports: 177; Linked-Reports: 17		194	1212	285 0.07%

© 2011 Designed by Reliable Business Reporting, Inc. www.rbreporting.com Generated on 3/16/2012 4:32 PM

Microsoft Unified Communications Group Chat Dashboard

Chatroom Member Details

Monthly Postings

Monthly Users (New)

Largest Chatrooms by Explicit Membership

Chat Room	Members
Salas	4
Test9	3
Test4	3
Test5	2
Test6	2
Test7	2
Test8	2
Messaging	2
Test2	2
Test3	2

Smallest Chatrooms by Explicit Membership

Chat Room	Members

Chat Rooms / Categories

Most Active Chatrooms (Last 7 days)

Chat Room	Sessions

Least Active Chatrooms (Last 7 days)

Chat Room	Sessions

In the Last Seven Days

Posts 25

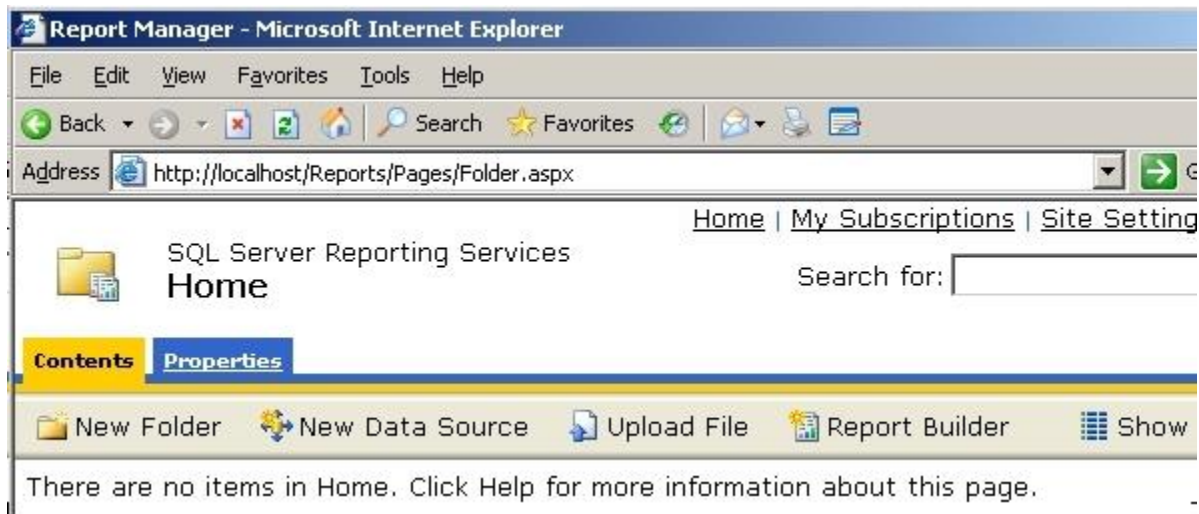
Most Recently Added Chatrooms

Chat Room	Date
Test9	6/20/2010 7:16:48 PM
Test8	6/20/2010 7:16:44 PM
Test7	6/20/2010 7:16:40 PM
Test6	6/20/2010 7:16:35 PM
Test5	6/20/2010 7:16:31 PM
Test4	6/20/2010 7:16:26 PM
Test3	6/20/2010 7:16:21 PM
Test2	6/20/2010 7:16:16 PM
Test1	6/20/2010 7:16:08 PM
Messaging	6/13/2010 3:20:49 PM

Most Active Users

And along came SSRS 2008

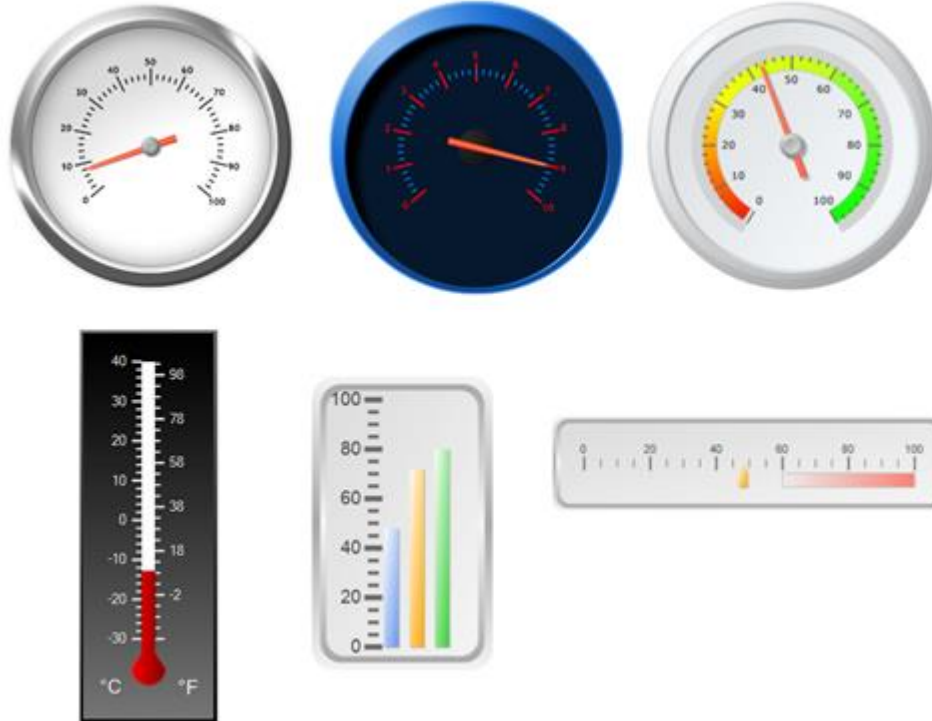
- Déjà vu !



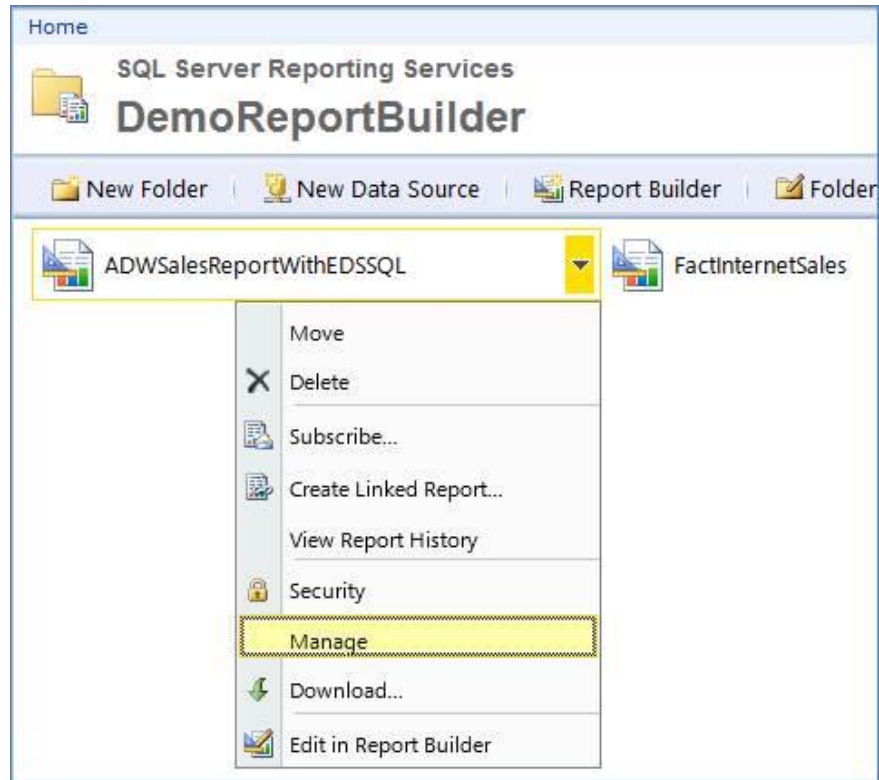
SSRS 2008 Highlights

- Report designer enhancements, + Tablix, Gauge
- Report Builder 2.0
- Page break/render improvements
- Export to Word
- SSRS Configuration Tool
- No more IIS dependency, unified service

SSRS 2008 Gauges



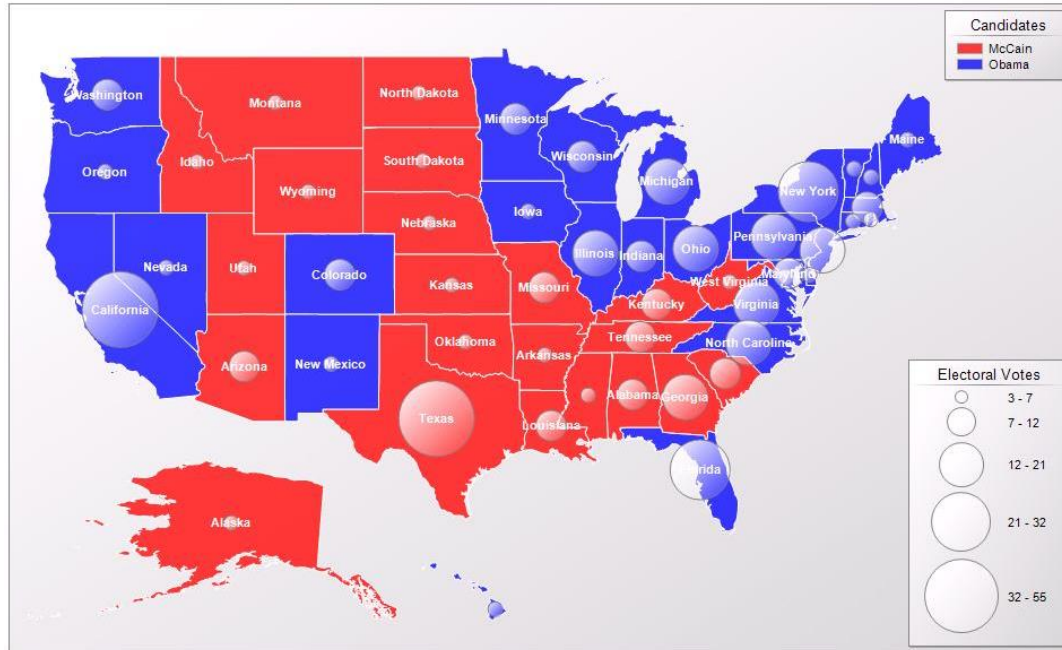
First Breath of Fresh Air: SSRS 2008 R2



SSRS 2008 R2

- New coat of paint for Report Manager
- Report Parts, Shared Datasets
- MANY SharePoint integration improvements
- Support for SQL Azure and PDW
- Visuals! Map, sparklines, indicators
- Cache refresh plans

Maps, Sparklines, Indicators in 2008 R2



Team	W/L By Week (H= Dark)	TO Ratio	Pts/G vs Avg	3rd %	Pen Yds
Arizona Cardinals	[Sparkline]	0	26.7	42%	
Atlanta Falcons	[Sparkline]	-3	24.4	43%	
Baltimore Ravens	[Sparkline]	13	24.1	41%	
Buffalo Bills	[Sparkline]	-8	21.0	40%	
Carolina Panthers	[Sparkline]	6	25.9	40%	
Chicago Bears	[Sparkline]	5	23.4	36%	
Cincinnati Bengals	[Sparkline]	-2	12.8	35%	
Cleveland Browns	[Sparkline]	5	14.5	34%	
Dallas Cowboys	[Sparkline]	-11	22.6	43%	
Denver Broncos	[Sparkline]	-17	23.1	48%	
Detroit Lions	[Sparkline]	-9	16.8	29%	
Green Bay Packers	[Sparkline]	7	26.2	44%	
Houston Texans	[Sparkline]	-10	22.9	42%	
Indianapolis Colts	[Sparkline]	9	23.6	50%	
Jacksonville Jaguars	[Sparkline]	-7	18.9	41%	
Kansas City Chiefs	[Sparkline]	5	18.2	38%	
Miami Dolphins	[Sparkline]	17	21.6	37%	
Minnesota Vikings	[Sparkline]	-6	23.7	39%	
New Orleans Saints	[Sparkline]	-4	28.9	48%	
New England Patriots	[Sparkline]	1	25.6	43%	
New York Giants	[Sparkline]	9	26.7	43%	

Then...

- SSRS 2012
 - Export to Word 2007/2010
 - Data Alerts
 - SSDT
- SSRS 2014
 - Uncomfortable silence...



Introducing SSRS 2016



SSRS 2016 Philosophy

- Works in any browser
- Works on any device
- Modern, appealing visuals as default
- Mobile is formally supported

Walkthrough

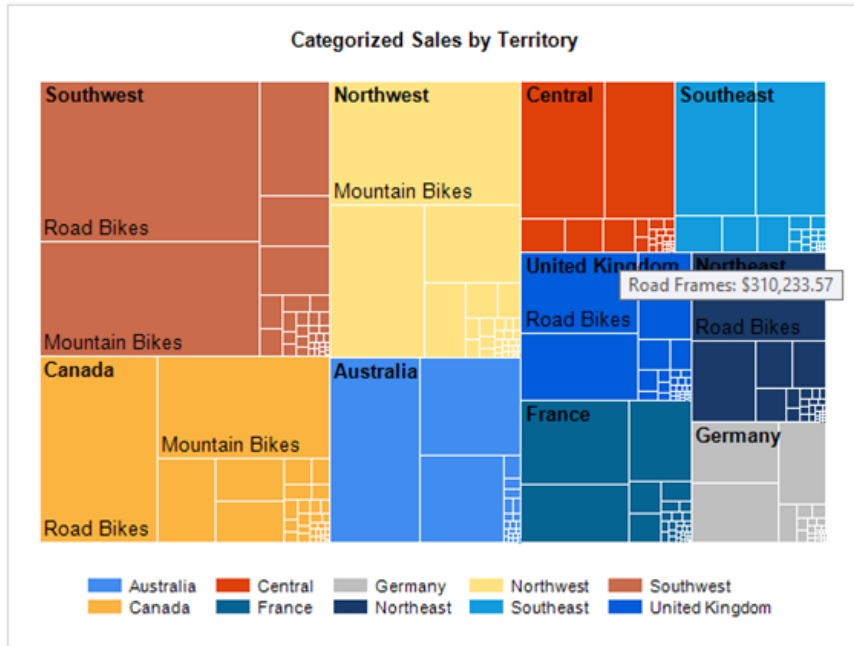
New Features



Feature: New Portal

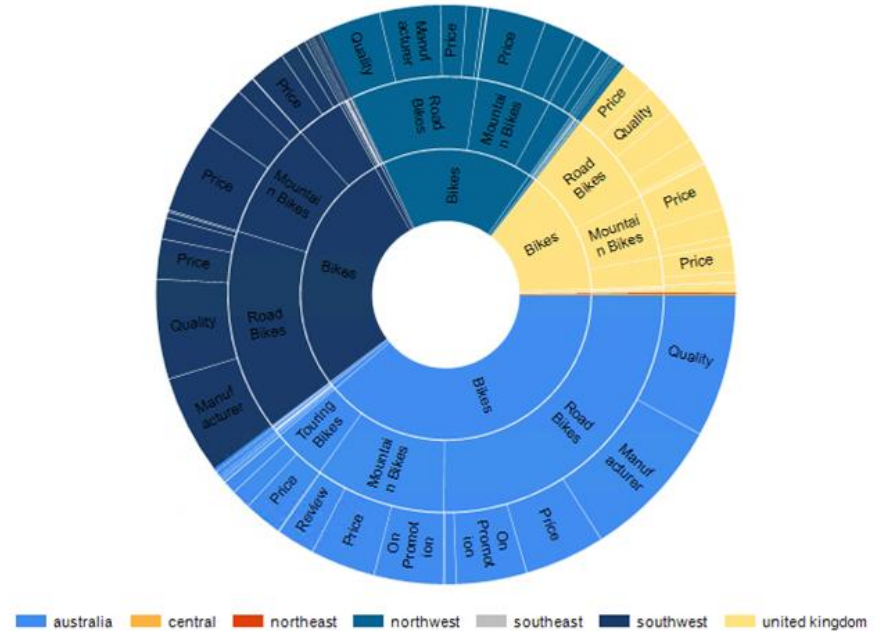
- HTML5 portal with responsive design
- Hosts KPIs, Mobile Reports, Paginated Reports

Feature: New Charts



Treemap

Categorized Sales by Territory, with sales reason



Sunburst

Demo:

New Portal & Charts



Feature: Brand Packages

- Allows custom branding!
- A package is a zip file that includes:
 - Metadata.xml
 - Color.json
 - Logo.png (Optional. Replaces "SQL Server Reporting Services" header. Aim for 290 x 60 pixels)
- Colours are set with hex values. Look online.
 - Buttons, title bar, search bar, left menu, text, report & home background, site settings, message colours (warnings etc), KPIs

Demo:

Brand
Package Files



Demo:

Brand
Packages



Feature: Default Visual Theme

- Borrows colours and styles from Power BI
- Default font is Segoe UI
- All properties still customisable as before

- Ok not really a feature but still useful!

Demo:

Default
Theme



Feature: Parameter Layout Control

- New grid available for layout
- Can drag and drop to change positions
- No longer stuck with left to right, 2 parameters per row!

Demo:

Parameter
Layout



Feature: KPIs

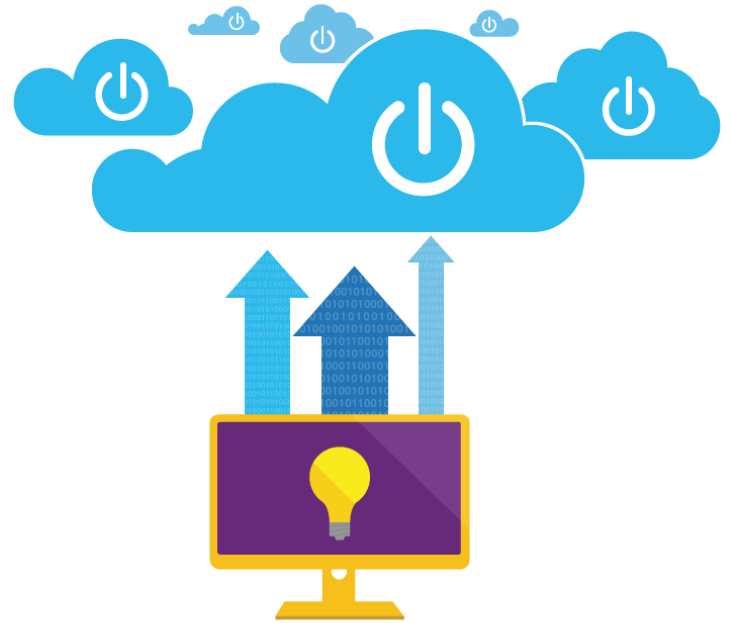
- Small visual indicator with summary stats, trends, and status indicators
- Built in SSRS Web portal
- Can reference static or dynamic data
 - Latter leverages SSRS Shared datasets
- View them in SSRS portal, or Power BI app

Feature: Power BI Integration

- Register Power BI in SSRS Config Manager
- User needs to add PBI account in My Settings
- Then, you can pin individual SSRS items to Power BI
- Set refresh frequency as required
- Needs stored credentials

Demo:

Power BI Integration



Feature: Mobile Reports

- This is what became of the Datazen acquisition
- Datazen Publisher -> Mobile Report Publisher
 - Same functionality as before
- Datazen Server -> SSRS Native Mode Server
 - Hosts Mobile content
- Content viewable via Power BI App (free)
 - Need to register and login to SSRS Server in App first

Demo:

Mobile Reports



Paginated , Mobile or Power BI???

- Paginated for highly formatted reports
 - Advanced geospatial currently only in SSRS
 - Fine control on all properties only in SSRS
 - Scheduled delivery only in SSRS
 - Export to variety of formats only in SSRS
- Power BI for quick mashups, manipulation and sharing. Also great to put on top of SSAS!
- Mobile Reports for quick, important metrics and trends

Guidance for Mixed Environment

- Use PowerBI.com as your analytics portal
 - Can host Power BI, SSRS, Excel and Web content
 - Drill down to source report is available for SSRS and Power BI content
- Plan data architecture to re-use same source where possible across technologies
 - Consider use of Power BI Gateways

Upgrading from Previous Versions

1. Open existing project in SSDT/Visual Studio 2015
2. You will be asked to upgrade
3. Reports etc will be upgraded automatically
 - Original files are automatically backed up 😊
4. Deploy to target SSRS 2016 instance

SharePoint Integration

- Works with SharePoint 2013 and 2016
- New features supported:
 - Treemaps and Sunburst charts, new HTML renderer, plugin-free printing, export to PowerPoint
- No KPIs
- No pinning to Power BI

The Roadmap

- Mobile Reports will be fully integrated
 - Mobile Report Publisher functionality will move to Power BI Desktop
- SSRS will host Power BI content on-prem

Final Takeaways

- SSRS 2016 fully embraces modern Web standards and paradigms and addresses long standing issues
- Mobile is a first class citizen
- Power BI integration opens huge possibilities
 - Excel can be pinned to Power BI too!
- Dont use SSRS in isolation
- SharePoint integration lacks KPIs and Mobile reports
- Plan, plan, plan!

Useful Links

- [What's new in SSRS 2016](#)
- [Brand Packages](#)
- [Mobile Reports](#)
- [Power BI Enterprise Gateway](#)

