

What's New for Business Intelligence in SQL Server 2012 “Denali”








By: Jen Underwood, Microsoft



Agenda

- Recent Announcements
- Enterprise Information Management Features
 - Master Data Management
 - Data Quality Services
 - Impact Analysis and Lineage Tracking
 - Integration Services
- Business Intelligence
 - PowerPivot v 2.0
 - Business Intelligence Semantic Model (BISM)
 - Reporting Services
 - Project Crescent

SQL 2012 Highlights – 170+ new features

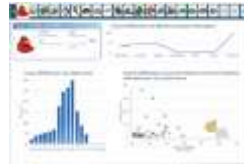
 High Availability	 Scalability & Performance	 Security & Manageability	 Beyond Relational	 Web & Breadth	 Business Intelligence	 EIM
SQL Server AlwaysOn	Up to 15K Partitions/Table	User-Defined Server Roles	Microsoft Project “Juneau”	PHP Driver	Unified Semantic Model	SSIS Server
Reliable, Integrated Failover Detection	Column Store Index, “Apollo”	Contained Database Authentication	Win32 Access to Database files	Local DB Runtime	Crescent	Data Quality
Application Centric Failover	Fast FILESTREAM	Database Replay	FileTable	UTF-16	In-memory BI for corporate	Enhanced MDS
Multiple Secondaries	Fast Full-Text Search	Audit Enhancements	Semantic Search Platform	Paging for result sets	Alerting	MDS add-in for Excel
Readable Secondaries	Fast Spatial Performance	Management Pack for High Availability	Full Globe Spatial Support	JDBC 4.0 driver	Sysprep for AS	
Online Operations	DBC & OLTP Appliances/RAs	Backup Secondaries	DAC Enhancements	Support for ARM processors	PowerPivot Enhancements	
HA for StreamInsight		Default Schema for Windows Group	ODBC for Linux		Reporting as SharePoint Shared Service	
Windows Server Core Support		Active Directory w/ SharePoint for SSRS	Hybrid Applications with SQL Azure			

Hadoop Hive Connector: Big Data Integration

SSRS



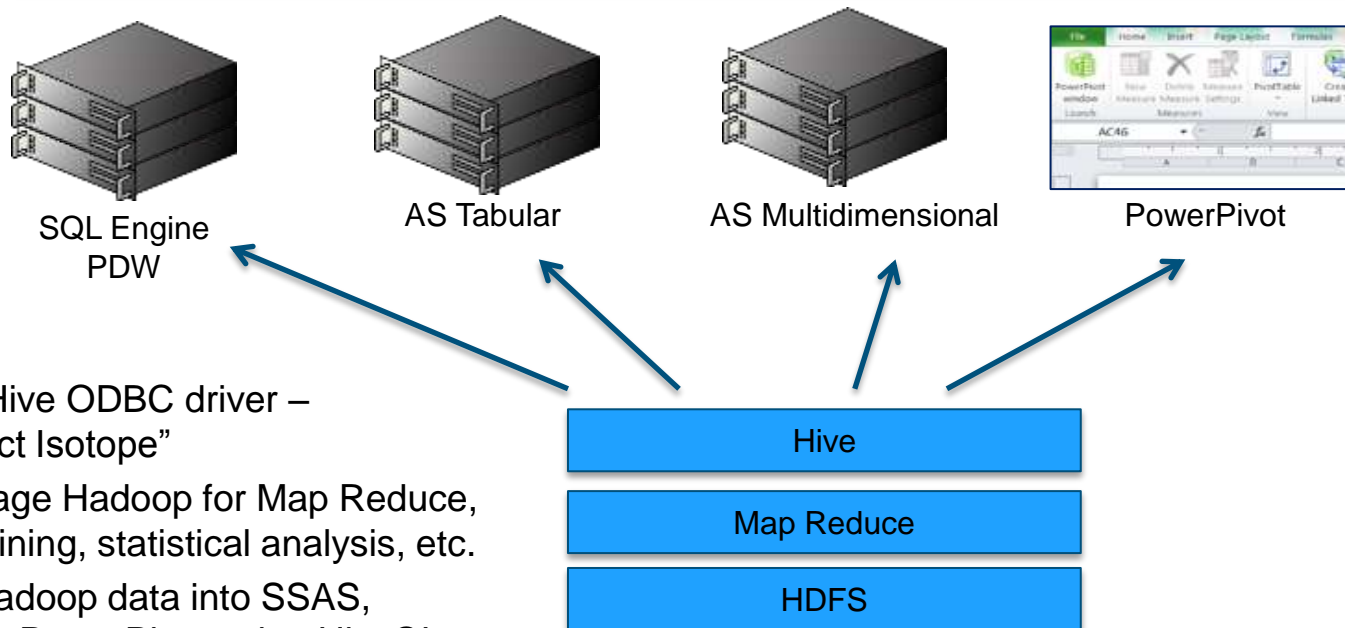
Crescent/Power View



Excel/PowerPivot



Analytical Apps

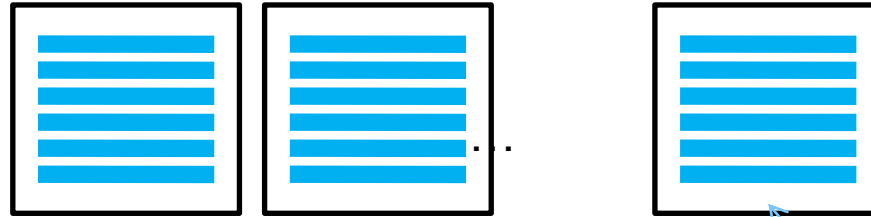


- New Hive ODBC driver – “Project Isotope”
- Leverage Hadoop for Map Reduce, text mining, statistical analysis, etc.
- Get Hadoop data into SSAS, SSRS, PowerPivot using HiveQL

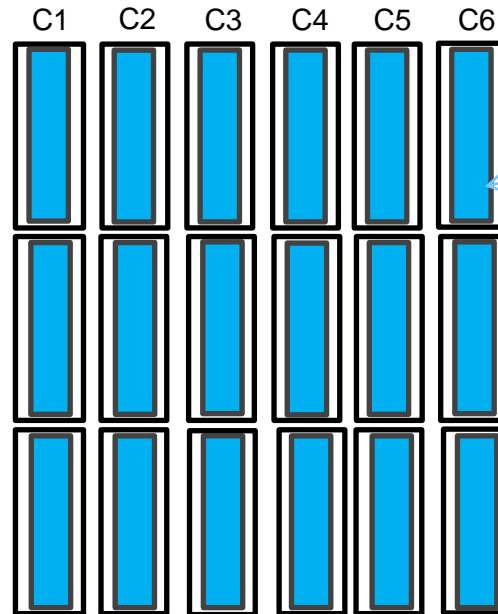
Apollo Columnstore Index

Queries 5x – 100x faster than row store with less space

Row store:



Column store:



Leverages

VertiPaq

Compression:

Pages

Mobility

- Customers looking to deploy and use Microsoft BI on mobile devices today have a broad host of Microsoft partners available to them. These partner solutions support a wide range of mobile devices and are built off of the Microsoft BI solution stack.
- **Extended Results** <http://www.extendedresults.com>

iPad

iPhone

Android

Android Tablet

Blackberry

Windows Phone

Windows Slate

Cisco Cius

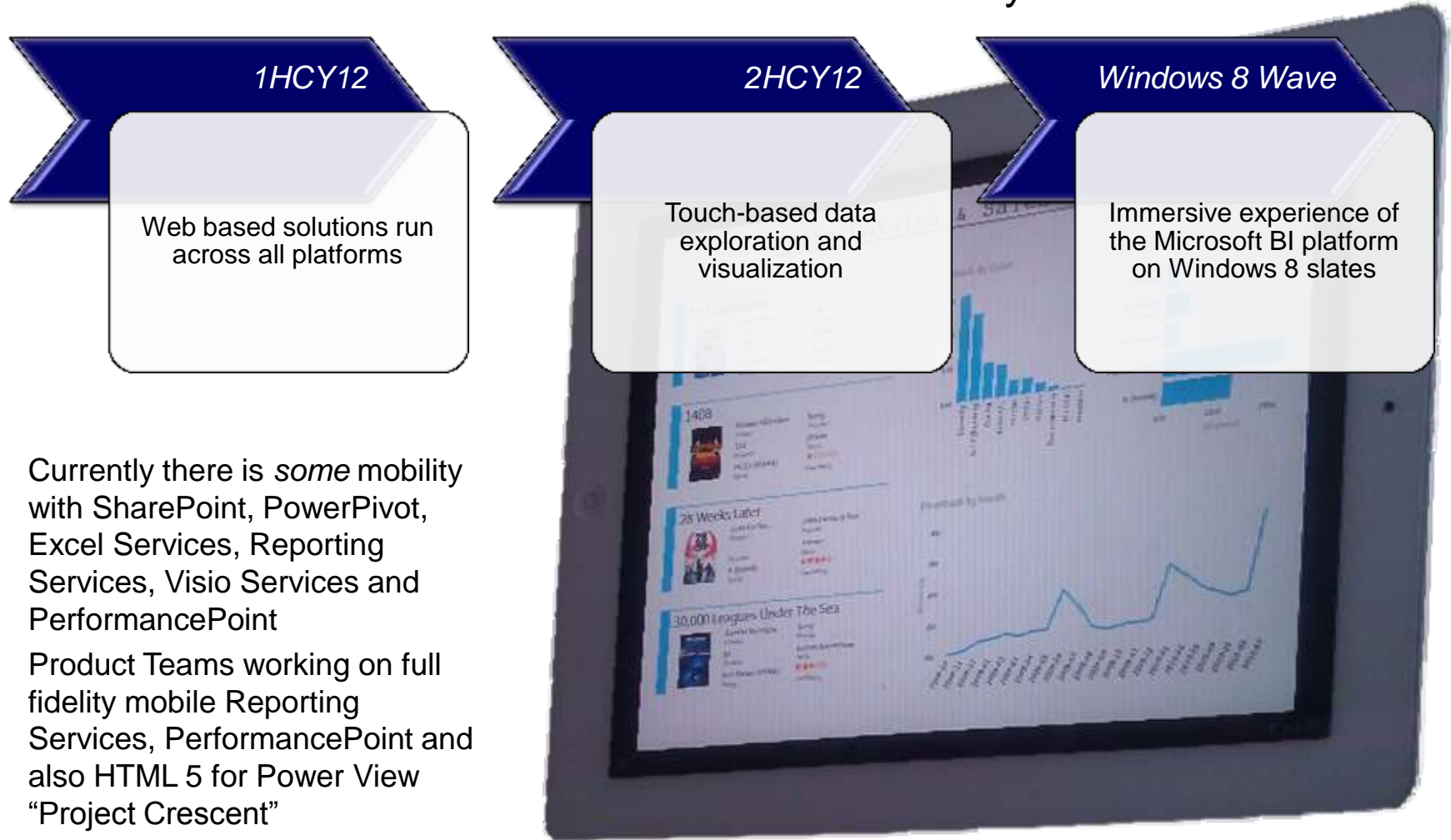
Honeycomb

Desktop



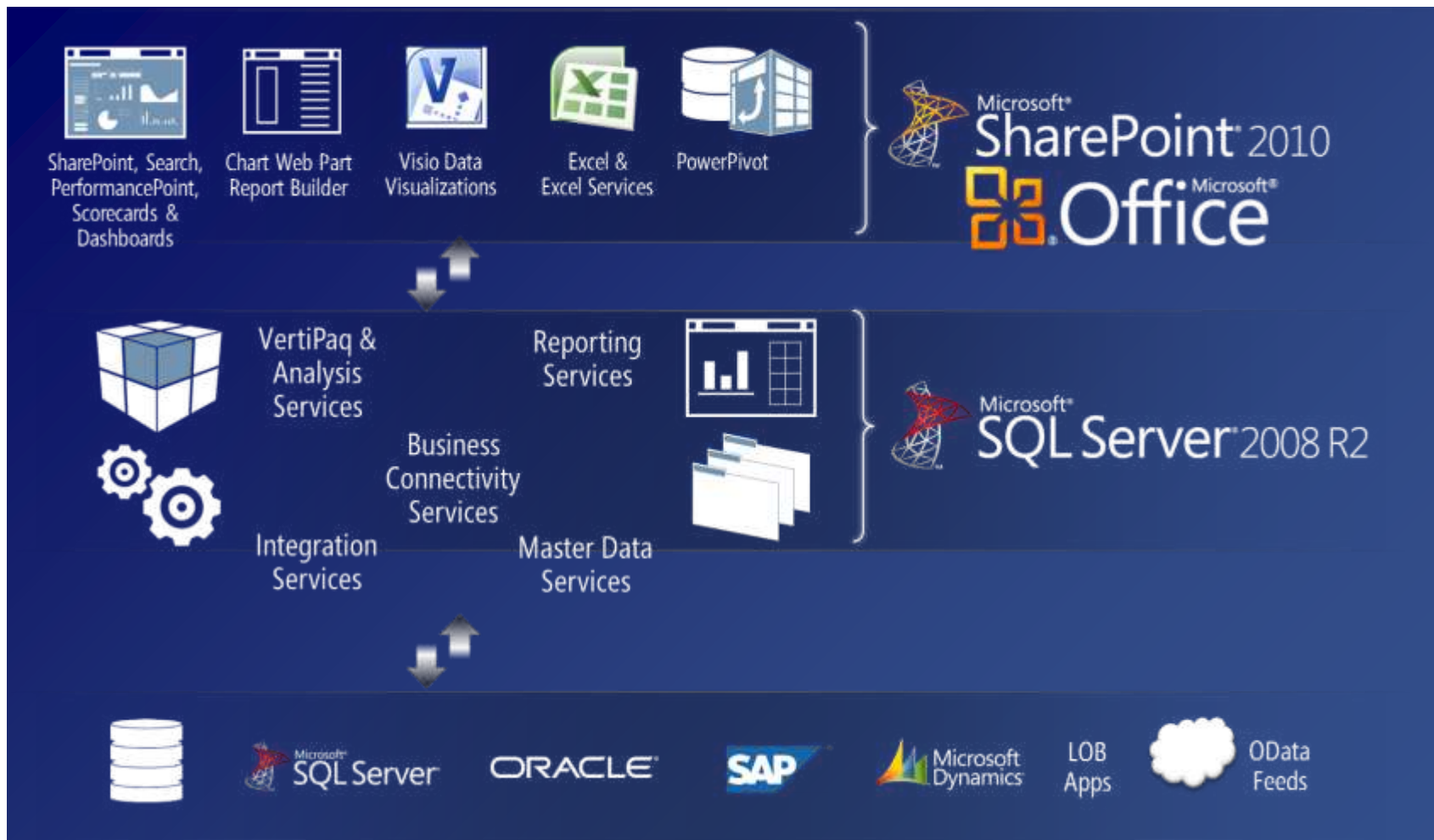
Microsoft Mobile BI Vision Roadmap

Vision: Deliver highly interactive and immersive BI experiences across different devices to all users wherever they are.



- Currently there is *some* mobility with SharePoint, PowerPivot, Excel Services, Reporting Services, Visio Services and PerformancePoint
- Product Teams working on full fidelity mobile Reporting Services, PerformancePoint and also HTML 5 for Power View “Project Crescent”

Microsoft BI Today



Enterprise Information Management

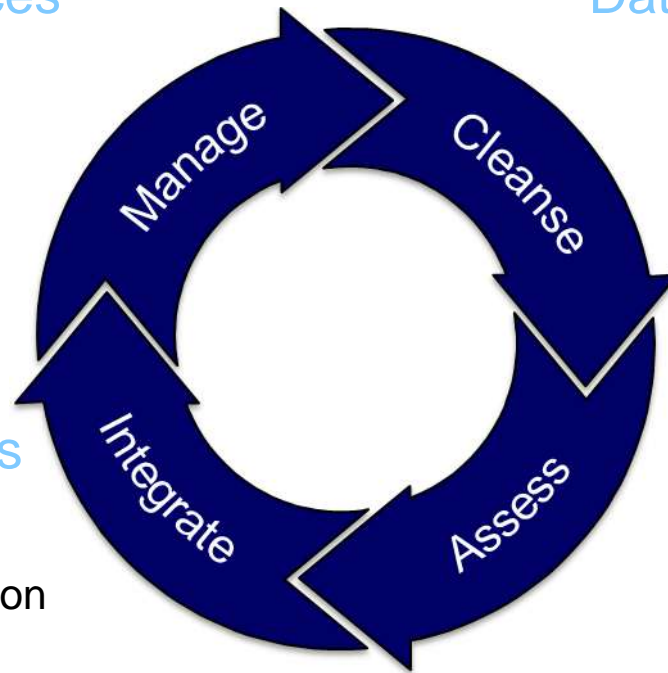
Improved and new BI tools for building and managing
“one version of the truth”

Master Data Services

- Data quality
- Familiar tools
- Performance

Integration Services

- Easy data loading
- MDS and DQS Integration



Data Quality Services

- Profiling
- Cleansing
- Matching

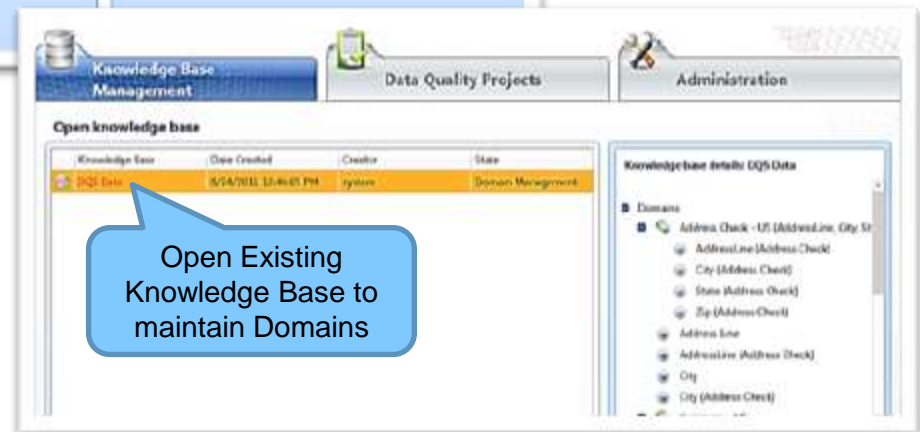
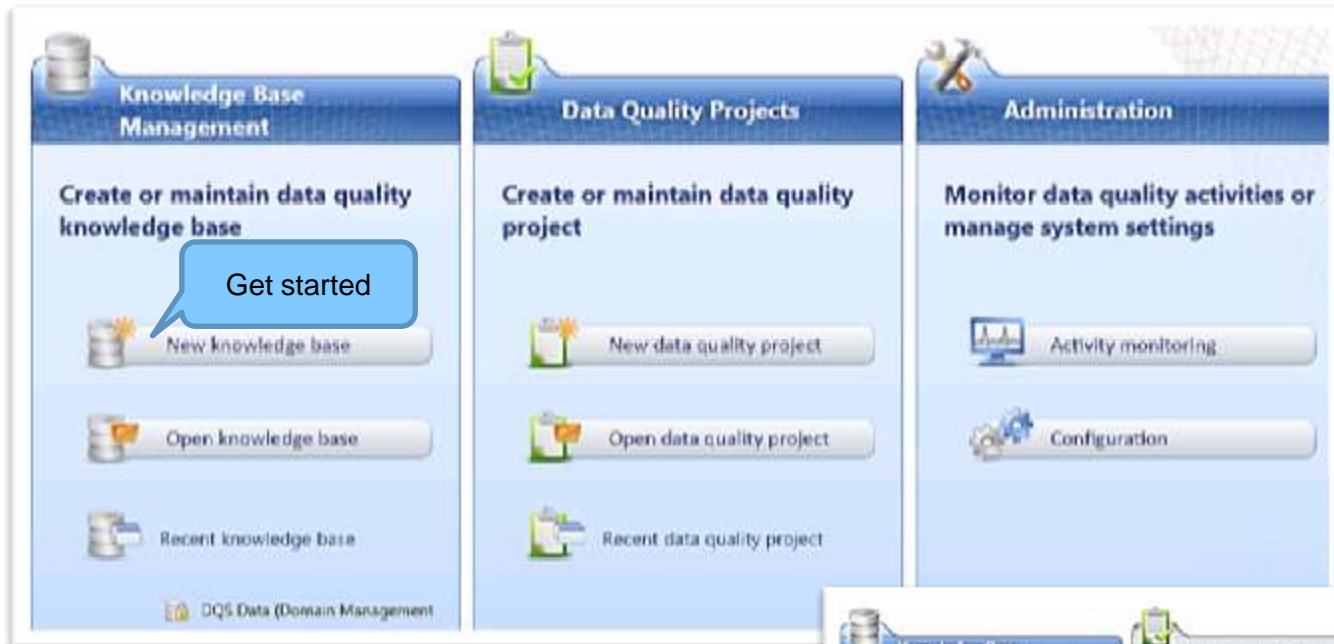
Metadata/ Impact Analysis

- Lineage tracking
with data sources

New Data Quality Services (DQS)

- Data Quality Services (DQS) out-of-the-box in “Denali”
- Applies natural-language "learning" algorithms for pattern-matching to cleanse and enrich source data
 - Trained data produces a new record of accurate, consistent, improved data that can be mapped back to sources
 - Uses rules discovered during cleansing processes that can be repeatedly used to analyze future data sets and improves over time
 - DQS platform consists of a Data Quality (DQ) database, a DQ server, a DQ client, a DQ proxy, and SQL Server Integration Services (SSIS) components
 - Improve data quality by connecting the DQ client to batches of unstructured source data
 - DQS analyzes the source data for strong associations and syntactic errors, which are then stored as rules, indexed values, and metadata in the Data Quality Knowledge Base (DQKB)
- How To Videos: <http://msdn.microsoft.com/en-us/sqlserver/hh323832.aspx>

New Data Quality Services (DQS)



New Data Quality Services (DQS)

Domain Management

Knowledge Base: DQS Data Activity: Domain Management

Domain Management

Domain

- Address Check - US (AddressLine, City, State)
- Address Line
- AddressLine (Address Check)
- City
- City (Address Check)
- Company - US
- Company Name
- Country
- Country (2 char leading)
- Country (3 char leading)
- State
- State (Address Check)
- Zip (Address Check)

Address Check - US (AddressLine, City, State)

CD Properties Reference Data

Service Provider	Description
Address Check - Melissa Data	Verifies and standardizes address data against the most current refresh

Address Check - Melissa Data

Providers Settings

Auto Correction Threshold: 28

Suggested Candidates: 3

Min Confidence: 87

URL: <https://ids.melissadata.net/v1/AddressCheck>

[Melissa Data Privacy](#)

Example with third-party data quality service Melissa Data

Domain Management

Knowledge Base: DQS Data Activity: Domain Management

Domain Management

Domain

- Address Check - US (AddressLine, City, State)
- Address Line
- AddressLine (Address Check)
- City
- City (Address Check)
- Company - US
- Company Name
- Country
- Country (2 char leading)
- Country (3 char leading)
- State
- State (Address Check)
- Zip (Address Check)

State

Domain Properties Reference Data Domain Rules

Domain Values Term-Based Relations

Statistics (All Values 240) Correct: 303 Errors: 37 Invalid: 0

Find: Filter: All Values

Value	Type	Correct To
Alabama		
AL	✓	
Ala.	✗	Alabama
Alaska	✓	
AK	✓	
Alas.	✗	Alaska
Arizona	✓	
Ariz.	✗	Arizona

Map data reference schema data values to valid values

New Data Quality Services (DQS)

Data Quality Project Knowledge Base: DQS Data

Map Cleanse Manage and View result

Specify a connection to a source table/view and map to domains

Data Source: SQL Server

Database: TailspinToys

Table/View: DimState

Mappings:

Source Column	Domain
StateCode (nvarchar)	State (Address)

Map target schema to cleanse to DQS reference schema

Data Quality Project Knowledge Base: DQS Data Data Quality Project: Demo

Map Cleanse Manage and View results Export

Perform cleansing on the selected data source

Start

Step	Progress	Start	End
Pre-processing Records	50/50	Start: 9/11/2011 6:06:28 PM	End: 9/11/2011 6:06:34 PM
Cleansing Records	100%	Start: 9/11/2011 6:06:28 PM	End: 9/11/2011 6:06:35 PM

Profiler The data source has been completed successfully.

Source Statistics

Records: 50

Correct Records: 0 (0%)

Corrected Records: 0 (0%)

Invalid Records: 0 (0%)

Corrected Values: 0 (0%)

Suggested Values: 0 (0%)

Field	Domain	Corrected Values	Suggested Values	Completeness
StateCode	State (Address Check)	0 (0%)	0 (0%)	100%

Run data cleanse

New Data Quality Services (DQS)

Data Quality Project Knowledge Base: DQS Data Data Quality Project: Demo Activity: Cleansing

Map Cleanse **Manage and View results** Export

Perform interactive data cleansing

Domain	No. of values
State (Address Check)	51

State (Address Check)

Suggested (0) New (50) **Invalid (1)** Corrected (0) Correct (0)

Search Value:

Value	# Records	Correct To	Confidence	Reason	Approve	Reject
JJ	1	*	0%	New value	<input type="radio"/>	<input checked="" type="radio"/>

Records containing the value:

Correct To	Confidence	Reason	Approve	Reject	StateCode	Sta
*	0%		<input type="radio"/>	<input checked="" type="radio"/>	JJ	55

Review results, save corrections to Knowledge Base for reuse

New Data Quality Services (DQS)

The image shows the SSIS Data Flow Task Designer with a new DQS Cleansing Task. A callout bubble points to the task with the text "NEW SSIS DQS Cleansing Task". The data flow is: OLE DB Source - spinToys (Database) -> DQS Cleansing - Check State -> OLE DB Destination - DQS Results. A red line labeled "DQS Cleansing" connects the task to the configuration window.

The "DQS Cleansing Transformation Editor" window is open, showing the "Mapping" tab. A callout bubble points to the "Data quality knowledge base" dropdown, which is set to "DQS Data", with the text "Map to DQS Knowledge Base".

The "Advanced" tab is also open, showing a list of "Available Input Columns". A callout bubble points to the "StateCode" row, which is checked, with the text "Map Automated Corrections".

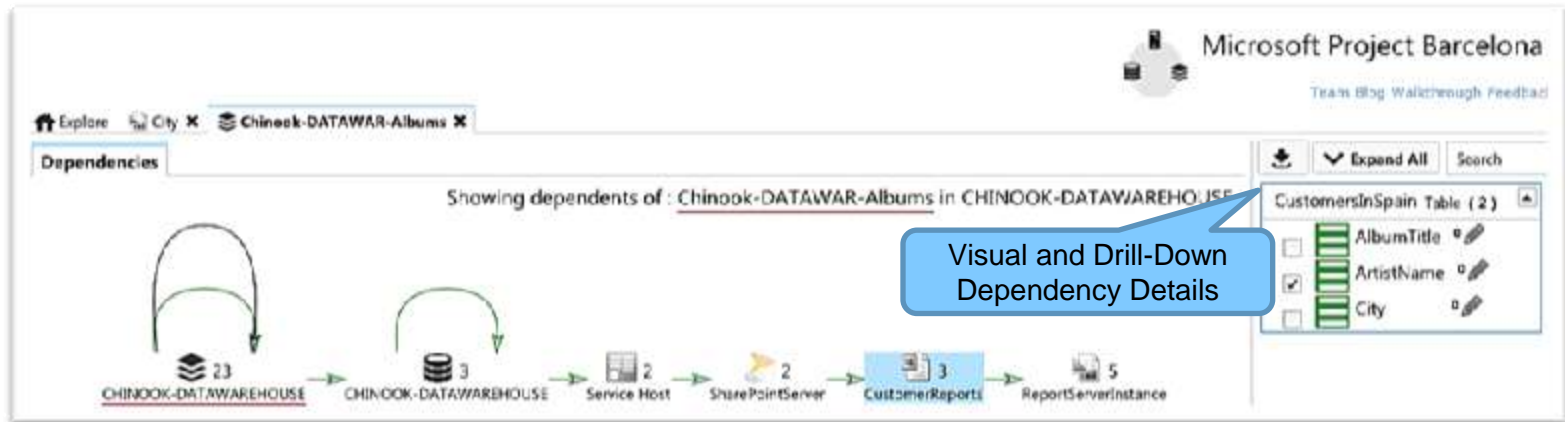
Input Column	Domain	Source Output Alias	Corrected Output Alias
StateCode	State (Address Check)	StateCode	Corrected_StateCode

Master Data Services v. 2.0



- MDS product features are maturing
- Better MDS Data Steward User Interfaces via Web and now Excel
 - Allows business users to create, load, manage and correct data all within Excel via the Master Data Services Excel add-in
 - Improved merge/match, versioning, workflow and hierarchy management
 - Simplified data model creation
- Integration with Data Quality Services
- New Entity based Staging versus the prior single shared
- Performance Improvements

Impact Analysis and Lineage



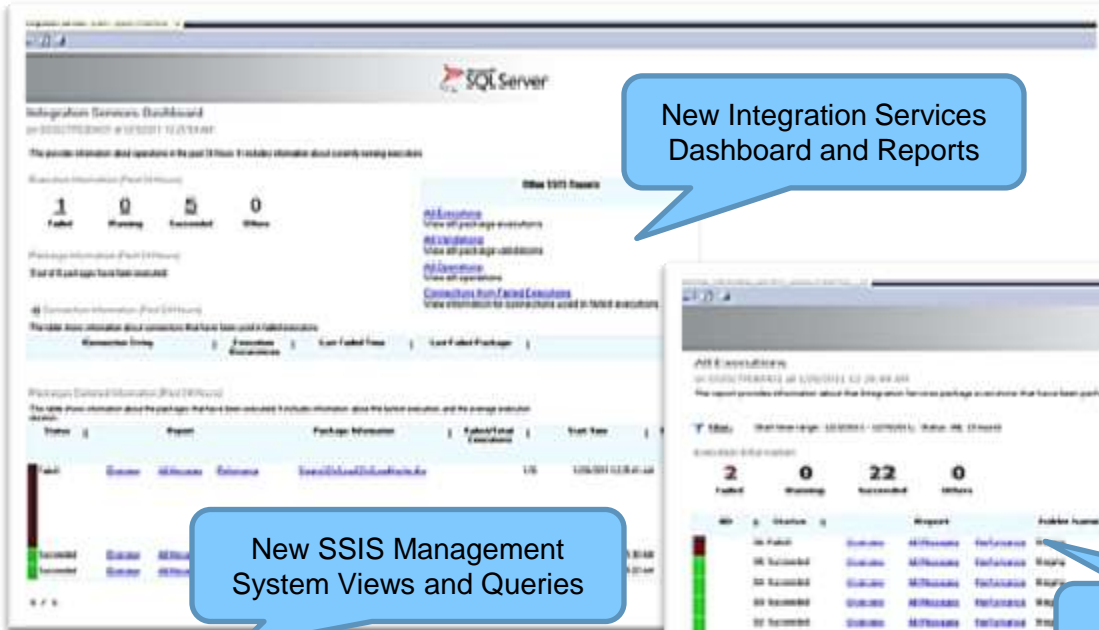
- Project Barcelona (<http://projectbarcelona.cloudapp.net>) enterprise metadata and data flow information available and consumable across the enterprise
- Foundation for tracking impact/lineage in SQL platform
- Query views in DependencyCatalog database to view dependency information which was extracted for impact analysis and data lineage
- Dependency Designer window in SQL Server Management Studio provides different views that show how objects are related with regard to data lineage and impact
- Also access impact and data lineage information using Microsoft.SqlServer.Dependencies.

Integration Services Improvements

- User Interface Improvements
 - More intuitive, easier learning curve
 - Shared connection managers
- Top Connect Requests
 - Now has UNDO and REDO !!!!!!!!!!!!!!!
 - Flexible Authoring in the Data Flow Designer
- Easier deployment, configuration and management
 - SSIS Server
 - Support for parameters
 - Excellent new features for SSIS management and issue troubleshooting via SSMS Integration Services Dashboard, catalog and performance stored procedures
- Variety of enhanced performance features



Integration Services Improvements



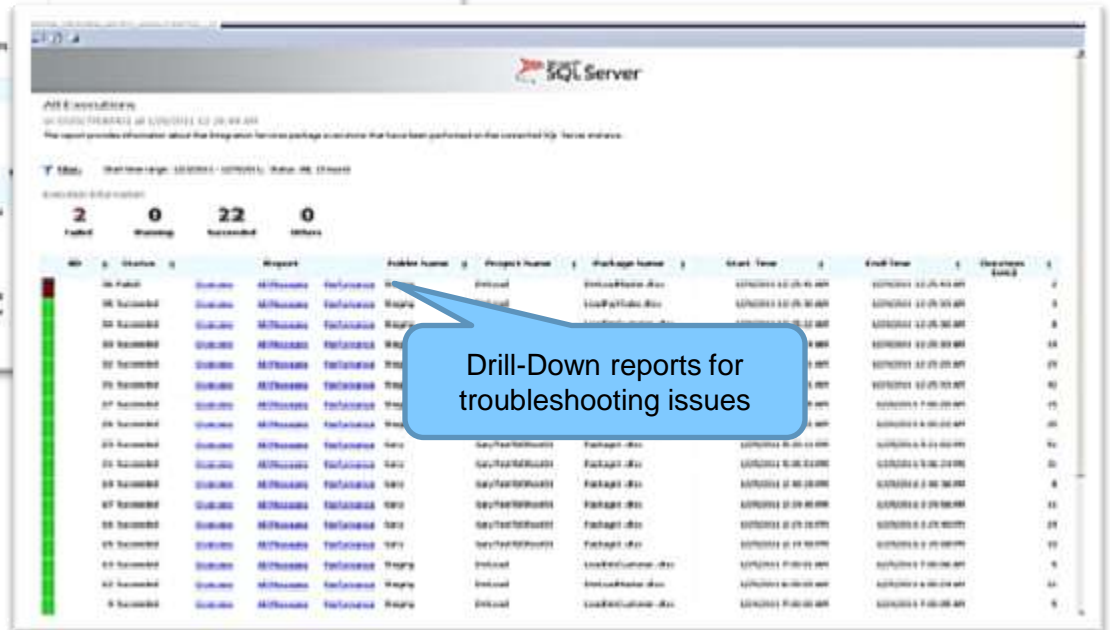
New Integration Services Dashboard and Reports

New SSIS Management System Views and Queries

The screenshot shows the 'Integration Services Dashboard' in SQL Server Enterprise Manager. It features a top navigation bar with the 'SQL Server' logo. Below the title, there's a summary section with four status indicators: 'Failed' (1), 'Warning' (0), 'Succeeded' (5), and 'Others' (0). The main area is divided into several sections: 'All Executions' (with a 'View all package executions' link), 'All Packages' (with a 'View all package definitions' link), 'All Operations' (with a 'View all operations' link), and 'Connections, Full-Faceted Connections' (with a 'View connections to structures used in failed executions' link). A table below shows a list of packages with columns for 'Status', 'Package Information', 'Failed/Failed Connections', and 'Start Time'. The table has a green bar on the left indicating overall health.

New Integration Services Dashboard and Reports

New SSIS Management System Views and Queries



Drill-Down reports for troubleshooting issues

The screenshot shows a 'Drill-Down' report for troubleshooting issues. It features a top navigation bar with the 'SQL Server' logo. Below the title, there's a summary section with four status indicators: 'Failed' (2), 'Warning' (0), 'Succeeded' (22), and 'Others' (0). The main area is a table with columns: 'ID', 'Status', 'Package', 'Report', 'Folder Name', 'Project Name', 'Package Name', 'Start Time', 'End Time', and 'User Name'. The table has a green bar on the left indicating overall health.

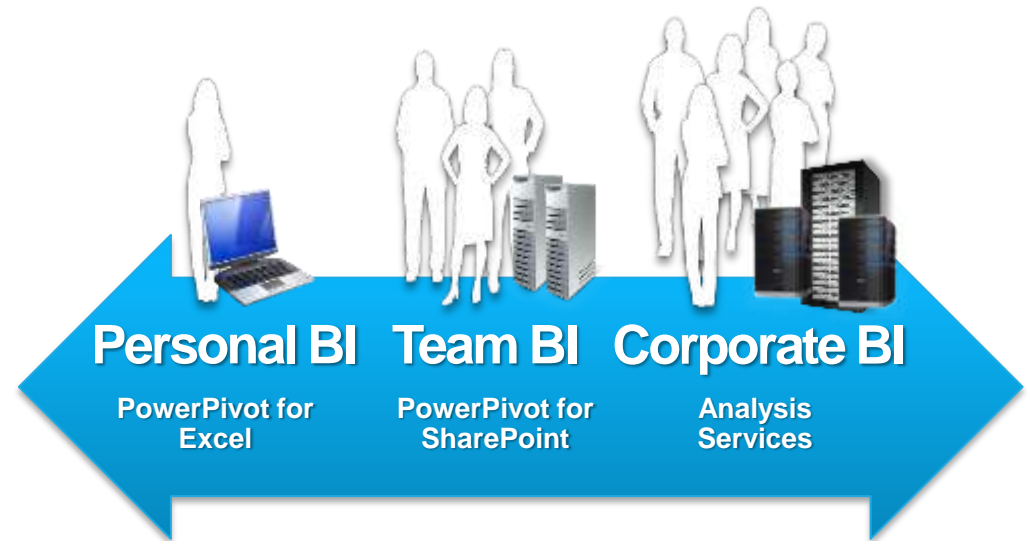
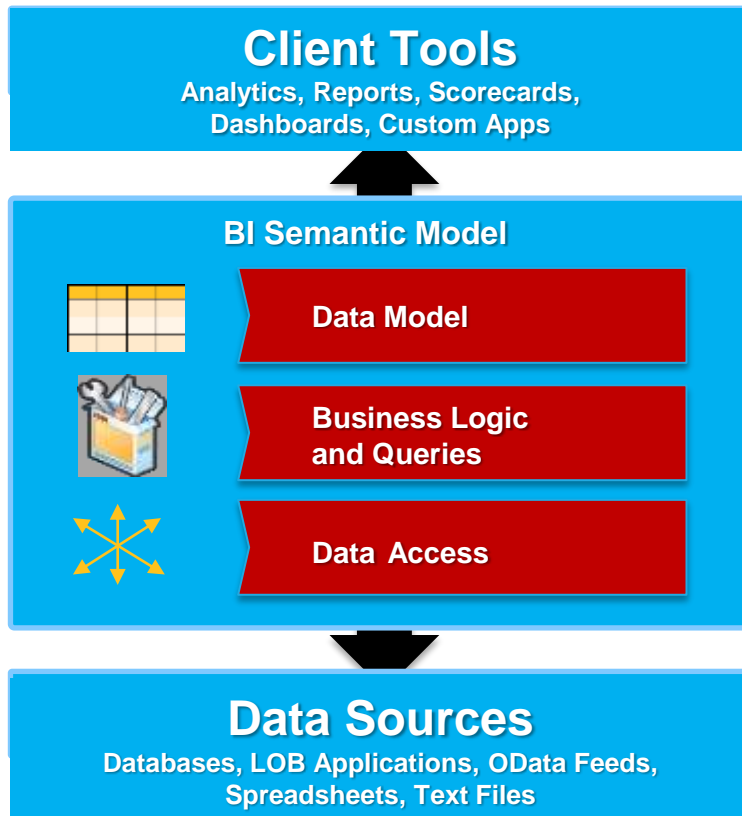
ID	Status	Package	Report	Folder Name	Project Name	Package Name	Start Time	End Time	User Name
16	Failed	SSISPackage	Performance	Default	Default	SSISPackage - (R)	2010/11/11 12:25:41 AM	2010/11/11 12:25:41 AM	?
18	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:30 AM	2010/11/11 12:25:30 AM	?
20	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:30 AM	2010/11/11 12:25:30 AM	?
22	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
24	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
26	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
28	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
30	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
32	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
34	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
36	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
38	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
40	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
42	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
44	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
46	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
48	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?
50	Succeeded	SSISPackage	Performance	Report	SSISPackage - (R)	SSISPackage - (R)	2010/11/11 12:25:29 AM	2010/11/11 12:25:29 AM	?

New objects for troubleshooting:

- catalog.event_messages
- catalog.event_message_context
- catalog.executable_statistics
- catalog.execution_data_statistics
- dm_execution_performance_counters

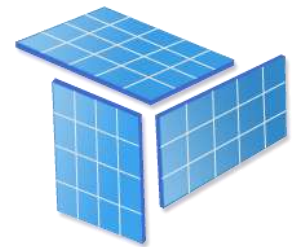
BI Semantic Model: Architecture

One Model for All End User Experiences



BI Semantic Model (BISM)

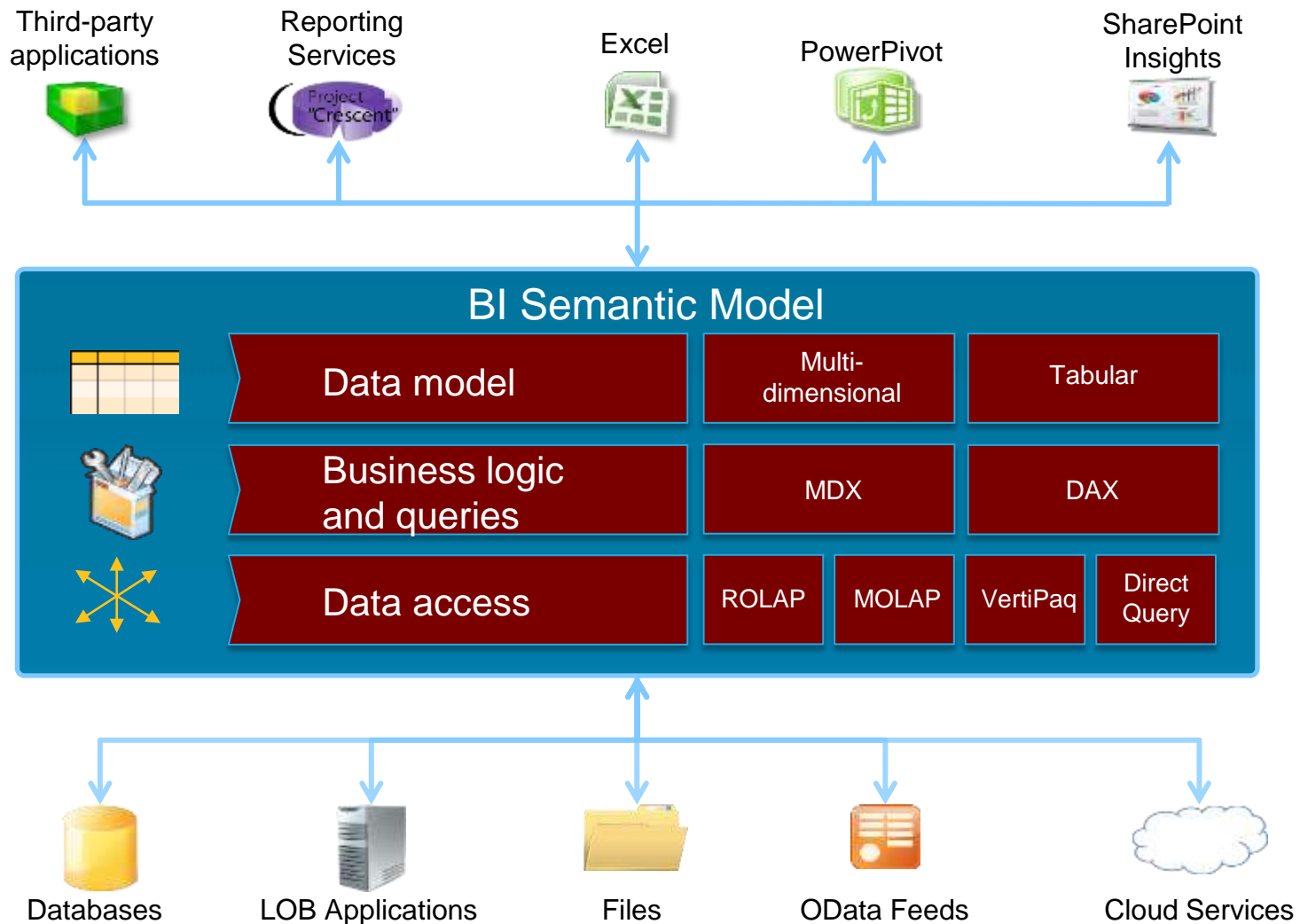
- One model for Business Intelligence
 - For reporting, analytics, scorecards, dashboards
 - For all users – Personal, Team, Organization BI
 - Unification of OLAP (UDM) and report (SMDL) models
- Tabular and Multidimensional Sources
 - Model can be cached (VertiPaq) or pass-through (Real-time)
 - Sophisticated business logic using DAX and MDX
- Designed for High performance and scalability
 - Optimized for latest hardware – multi-core, in-memory
 - Supports enterprise grade security and data volumes
 - Professional development and management tools



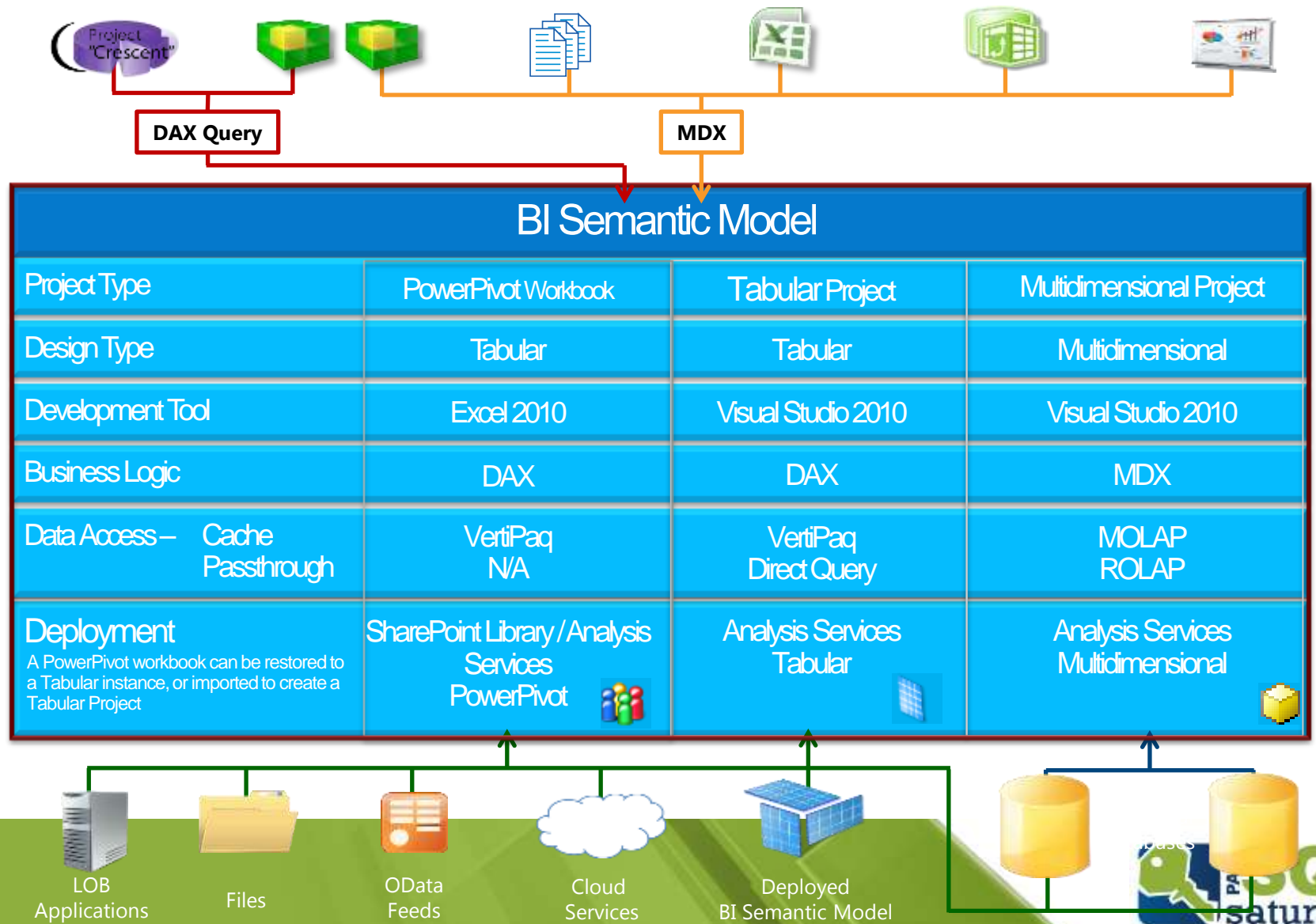
BI Semantic Model (BISM)

- Robust Modeling in Visual Studio
 - Multiple relationships, hierarchies
 - Key performance indicators, drill-through, perspectives
 - Rich data types, blobs, images
- Sophisticated Business Logic
 - Data Analysis Expressions (DAX), Excel formulas, MDX
 - Relational operators (Filter, Aggregate, Group By, Lookup)
 - Statistical, time intelligence (YTD, QTD) functions
 - Rank, Top N, Visual Totals, Distinct Count
- Fine-Grained Security
 - Role-based security model using Active Directory
 - Row and column level security to secure data at the deepest level

BI Semantic Model: Architecture



BI Semantic Model: Architecture



Choosing the Right Approach

Data Access and Storage

VertiPaq

- In-memory column store with typical 10x compression
- Brute force memory scans is high performance by default, and no tuning is required
- Basic paging support and data volume mostly limited to physical memory

MOLAP

- Disk based store with typical 3x compression
- Disk scans with in-memory subcube caching, and aggregation tuning required
- Extensive paging support and data volumes can scale to multiple terabytes

Direct Query

- Passes through DAX queries and calculations to fully exploit backend database capabilities
- No support for MDX queries and no support for data sources other than SQL Server

ROLAP

- Passes through fact table requests and is not recommended for large dimension tables
- Supports most relational data sources though no support for aggregations except with SQL Server indexed views

BI Semantic Model (BISM)

The image consists of two screenshots of Microsoft Visual Studio. The top screenshot shows the 'New Project' dialog box with the 'Business Intelligence' category selected. A blue callout bubble points to the 'Business Intelligence Semantic Model' option, with the text 'New BISM project type'. Another blue callout bubble points to the 'Import from Analysis Services or PowerPivot' option, with the text 'Import from Analysis Services or PowerPivot'. The bottom screenshot shows a data table in the 'Model.bim' file. A blue callout bubble points to the 'TFS' icon in the Solution Explorer, with the text 'Visual Studio development with integrated TFS Source Control'.

Table Data:

StoreKey	GeographyKey	StoreManager	StoreType	StoreName	StoreDescription	Status	OpenDate
18	678	46	Store	Cariboo Fernon S...	Cariboo Fernon Store	On	3/2/...
17	551	131	Store	Cariboo Spokane ...	Cariboo Spokane Store	On	3/2/...
20	624	52	Store	Cariboo Englewo...	Cariboo Englewood Store	On	9/2/...
22	571	54	Store	Cariboo Westmin...	Cariboo Westminister Store	On	11/1/...
23	838	57	Store	Cariboo Greely...	Cariboo Greely No. 1 S...	On	2/3/...
27	899	89	Store	Cariboo Lafre...	Cariboo Lafre...	On	3/2/...
30	823	62	Store	Cariboo Port Cell...	Cariboo Port Cell...	On	3/2/...
32	873	63	Store	Cariboo Millen S...	Cariboo Millen S...	On	3/2/...
35	918	65	Store	Cariboo Denver...	Cariboo Denver...	On	3/2/...
37	903	66	Store	Cariboo Southe...	Cariboo Southe...	On	3/2/...
40	790	88	Store	Cariboo Acton S...	Cariboo Acton S...	On	3/2/...
42	846	71	Store	Cariboo Green Bk...	Cariboo Green Bay Store	On	8/1/...
48	901	34	Store	Cariboo Outback...	Cariboo Outback Store	On	11/1/...
47	878	75	Store	Cariboo Minneap...	Cariboo Minneap...	On	11/1/...
50	948	76	Store	Cariboo Wauke...	Cariboo Wauke...	On	8/1/...
52	906	127	Store	Cariboo Burling...	Cariboo Burlington Store	On	8/1/...
55	835	77	Store	Cariboo Germant...	Cariboo Germantown Store	On	9/5/...
57	913	76	Store	Cariboo Port Wel...	Cariboo Port Wel...	On	11/2/...

BI Semantic Model (BISM)

Role Manager

Specify the roles for the BI semantic model. Roles define a group of users with a set of permissions on the Analysis Services database.

Name	Permissions	Description
ViewerRole	Read and Refresh	This is the new PowerPivot BISM Security Role

New Copy Delete

Details - ViewerRole

Row Filters: Members

Specify DAX expressions that return Boolean values. Only rows that match the specified filters are visible.

Table	DAX Filter
DimDate	
DimProduct	
DimRegion	
DimState	
FactSales	

New BISM Tabular Mode Security Features

Partition Manager

Use partitions to divide a table into logical parts that can be processed independently.

Table: DimDate

Partitions

Partition Name	# Rows	Size (KB)	Last Refresh
DimDate	1401	7	9/11/2011 7:51:53 PM

New Copy Delete

Details - DimDate

Partition Name: DimDate

Connection: SqlServer localhost TailspinToys

Switch To: Table Preview

Source Name: dbo.DimDate Query Editor

DateID	Date	Month	Quarter	Year
20090101	1/1/2009 12...	2009-01	Q1	2009
20090102	1/2/2009 12...	2009-01	Q1	2009
20090103	1/3/2009 12...	2009-01	Q1	2009
20090104	1/4/2009 12...	2009-01	Q1	2009

New BISM Tabular Mode Partitioning Features

PowerPivot v. 2.0

- Next version is much more robust for typical BI scenarios
 - Hierarchies
 - Multiple table relationships
 - Role playing dimensions
 - Date type table and better Time Intelligence
 - KPIs
- DAX server queries and language improvements
 - Rank, Top N, Switch and more
 - Many to many optimizations via DAX
- Usability Enhancements
- Much needed relationship diagrams designer
- Development life-cycle graduation features
 - Analyst > Power User > BI Developer
 - Restore Excel PowerPivot to BISM Server Model
 - DAX Security in Visual Studio BISM projects



PowerPivot v. 2.0

The screenshot displays the PowerPivot for Excel - Book2 interface. The ribbon includes the Design tab with options for Data Type, Format, and various view options. A callout bubble points to the 'Diagram View' button, labeled 'New Visual Diagram View'. Another callout bubble points to the 'Measure Grid' button, labeled 'New Measure Grid'. A third callout bubble points to the 'KPIs' checkbox in the ribbon, labeled 'New Hierarchies and KPIs'. A fourth callout bubble points to the 'DimDate' table in the model, labeled 'New Date Type Table for Time Intelligence'. The data model diagram shows four tables: DimRegion, DimState, DimProduct, and DimDate, connected to a FactSales table. DimRegion is connected to DimState, DimState to DimProduct, and DimProduct to FactSales. DimDate is connected to FactSales.

PowerPivot for Excel - Book2

Home Design

Paste From Database From Report From Azure DataMarket Refresh PivotTable

Data Type: Format: \$ % <.0 >.0

Clear All Filters Sort by Column

AutoSum Create KPI

Data View Diagram View Show Hidden Measure Grid

Reset Layout Display: Columns Measures Hierarchies KPIs

DimRegion

- RegionID
- RegionName
- RegionMap

DimState

- StateID
- StateCode
- StateName
- Population
- RegionID

DimProduct

- ProductID
- ProductSKU
- ProductName
- ProductCategory
- ItemGroup
- KitType
- Channels
- Demographic
- RetailPrice
- WholesalePrice
- DemoProductHierarchy
- ProductCategory (Produ...

DimDate

- DateID
- Date
- Month
- Quarter
- Year

FactSales

- StateID
- ProductID
- Quantity

Reporting Services

- Streamlined integration of Reporting Services and SharePoint
 - Integration to SharePoint has been manual and difficult to configure
 - Not all SharePoint Administrative tasks were available for Reporting
 - New built-in scale and load balancer
 - RS catalog as SharePoint Service DB
 - SharePoint Cross-farm access
 - ULS Logging integration
- Proactive Self Services Alerting
 - Historically a very common yet difficult requirement now out-of-the-box
 - User defined, data-driven alerting
 - Business user defines rules and thresholds on data while viewing report
 - Push approach increases productivity and speed to action

User-Defined Self Service Alerting

- Create Data Alerts within Reporting Services Reports
 - Report authors maintain control over available data for alerting
 - Users can create alerts directly on the data visible in reports
- Detect Important Data Level Changes
 - Intuitive Alert Rules (greater than, before/after)
 - Easy to use scheduling (weekly, daily, monthly)
 - Relevant data included in Alert Message
- Alert Management in SharePoint
 - Fine grained authorization
 - Self-managed through SharePoint
 - IT visibility and control over user-defined alerts



User-Defined Self Service Alerting

Microsoft Reporting Services Alert Manager

View data alert definitions for user: John Smith

View data alert definitions for report: Show All

Data Alert Name	Item Name	Created By	Data Alert Instance
Company/ItemReport	Company/ItemReport.rdl	John Smith	
Northwind Sales	Northwind.rdl	John Smith	
USA Crime Statistics	USA Crime Statistics.rdl	John Smith	

Manage User-Defined Alerts

New Data Alert - USA Crime Statistics

Report name: USA Crime Statistics

Data feed name: CrimeStats

City	Year	Population	Car_Theft	Property_C
Anchorage	2007	284142	1256	11107
Bethel	2007	6488	19	107
Bristol Bay Borough	2007	1028	14	49
Cordova	2007	2322	3	14
Craig	2007	1186	3	18
Dillingham				
Fairbanks				
Haines				
Homer				
Houston	2007	1992	8	40
Juneau	2007	30746	53	1364

Data alert name: USA Crime Statistics

Alert me if any data in the data feed has:

City is Fairbanks and Car_Theft is greater than 170

(Add rule...)

Schedule settings

Recurrence pattern: Weekly - every 1 week(s) on Monday

Advanced

E-mail settings

Recipient(s): SomeOne@Contoso.com

Subject: Data alert for USA Crime Statistics

Data alert will be saved to: <http://Contoso/>

Save Cancel

Push User Defined Report Data Level Alerts with Defined Schedules

Define Alert Rules

More Reporting Services Improvements

- New Office file formats added
 - Word rendering to *.docx format
 - Excel rendering to *.xlsx format
- New ZIP-compressed files
- Larger worksheets in Excel
 - Row limitation increased to 1 million from 65k
 - Column limitation increased to 16k from 256
 - Just because you can, does not mean you should!
- Performance enhancements



New Project Crescent



- Simple to use interactive, visual data exploration
 - Ad-hoc reporting off PowerPivot and BISM models in SharePoint
 - Analysis Services is a high priority on the roadmap!
- Highly visual design experience
 - Allows users to visualize and interact with data directly in a web browser
 - Quick and simple drag-drop highly interactive reporting
 - Object templates for easy report design
 - Contextual selections on reports without any programming
 - Slicers, Basic and Advanced shown or hidden filtering
 - Variety of visualization types, vertical and horizontal multiples
- Presentation-ready at all times
 - Designed for story telling with data
 - “Play” reports over time periods to view data changes over time

New Project Crescent

MOVIE SALES REPORT

Sum of Downloads by Rating

Rating	Downloads (Millions)
G (MPAA)	~1.5
NC-17 (MPAA)	~0.5
Not Rated (MPAA)	~4.5
PG (MPAA)	~3.5
PG-13 (MPAA)	~10.5
R (MPAA)	~10.5

Revenue YTD, Downloads YTD and # Titles by Genre

Genre	Revenue (Millions)	Downloads (Millions)	# Titles
Comedy	~18	~15	~45
Sci-Fi/Fantasy	~15	~12	~40
Drama	~10	~8	~30
Other	~5	~4	~20

Export reports for story telling with data

Interactive charts highlight selected data distributions in charts

Animated charts play over time periods

30,000 Leagues Under The Sea

Gabriel Bologna
Director
85
Duration
Not Rated (MPAA)
User Rating

Region	Region Map	Revenue YTD
Midwest		18,252
New England		108
Northeast		11

Sliders, Banding, Callout Templates

Charts, Grids, Scatter Plots and Maps

New Project Crescent

Visualizations

Table Matrix Column Bar Line Scatter Slicer Tiles

Tailspin Toys Revenue Analysis

Also Slicers and Tiles for Visual Filtering

Basic and Advanced Filtering

Visual Vertical and Horizontal Multiples

Year

2009
2010
2011
2012

KitType

■ KIT
■ RTF

Value: Sum of Revenue

Axis: RegionName

Series: KitType

Vertical Multiples: ProductCategory

Horizontal Multiples:

ProductID
ProductSKU
ProductName
ProductCategory
ItemGroup
KitType
Channels
Demographic
RetailPrice
WholesalePrice

Region	ProductCategory	Year	KitType	Revenue (thousands)	
Midwest	Co-Axial	2011	KIT	~10	
			RTF	~10	
	Collective pitch	2011	KIT	~70	
			RTF	~50	
	Fixed pitch	2011	KIT	~70	
			RTF	~40	
	New England	Co-Axial	2011	KIT	~5
				RTF	~5
		Collective pitch	2011	KIT	~50
				RTF	~10
		Fixed pitch	2011	KIT	~5
				RTF	~5
Northeast		Co-Axial	2011	KIT	~10
				RTF	~10
		Collective pitch	2011	KIT	~40
				RTF	~30
		Fixed pitch	2011	KIT	~40
				RTF	~30
	Pacific Northwest	Co-Axial	2011	KIT	~5
				RTF	~5
		Collective pitch	2011	KIT	~35
				RTF	~35
		Fixed pitch	2011	KIT	~35
				RTF	~35
Southern		Co-Axial	2011	KIT	~10
				RTF	~10
		Collective pitch	2011	KIT	~35
				RTF	~35
		Fixed pitch	2011	KIT	~35
				RTF	~35
	Southwest	Co-Axial	2011	KIT	~5
				RTF	~5
		Collective pitch	2011	KIT	~15
				RTF	~15
		Fixed pitch	2011	KIT	~15
				RTF	~15
Midwest		Glider	2011	KIT	~0
				RTF	~0
		Trainer	2011	KIT	~10
				RTF	~40
		Warbird	2011	KIT	~10
				RTF	~30
	New England	Glider	2011	KIT	~0
				RTF	~0
		Trainer	2011	KIT	~10
				RTF	~10
		Warbird	2011	KIT	~10
				RTF	~10
Northeast		Glider	2011	KIT	~0
				RTF	~0
		Trainer	2011	KIT	~10
				RTF	~10
		Warbird	2011	KIT	~10
				RTF	~10
	Pacific Northwest	Glider	2011	KIT	~0
				RTF	~0
		Trainer	2011	KIT	~10
				RTF	~10
		Warbird	2011	KIT	~10
				RTF	~10
Southern		Glider	2011	KIT	~0
				RTF	~0
		Trainer	2011	KIT	~10
				RTF	~40
		Warbird	2011	KIT	~10
				RTF	~30
	Southwest	Glider	2011	KIT	~0
				RTF	~0
		Trainer	2011	KIT	~10
				RTF	~10
		Warbird	2011	KIT	~10
				RTF	~10

Resources

- Denali Resource Center
http://msdn.microsoft.com/en-us/sqlserver/denali_resource_center.aspx
- SQL Server Denali Books Online
[http://msdn.microsoft.com/en-us/library/ms130214\(v=SQL.110\).aspx](http://msdn.microsoft.com/en-us/library/ms130214(v=SQL.110).aspx)
- Data Platform Insider
<http://blogs.technet.com/b/dataplatforminsider>
- DQS Blog
<http://blogs.msdn.com/b/dqs>
- Master Data Services Portal
<http://msdn.microsoft.com/en-us/sqlserver/ff943581.aspx>
- Business Intelligence Semantic Model: Tabular Modeling
[http://msdn.microsoft.com/en-us/library/hh212945\(v=SQL.110\).aspx](http://msdn.microsoft.com/en-us/library/hh212945(v=SQL.110).aspx)
- Project Crescent Overview
<http://social.technet.microsoft.com/wiki/contents/articles/project-crescent-overview.aspx>
- PowerPivot
<http://www.PowerPivot.com>
- PowerPivot Info
<http://powerpivot-info.com>
- PowerPivot Geek
<http://powerpivotgeek.com>
- SSAS and PowerPivot
<http://blogs.msdn.com/b/analysisisservices>
- My Website and Blog
<http://www.jenunderwood.com>