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WHAT'S COMING IN SQL SERVER "DENALI"

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MVP

ABOUT COEO

- Consulting Services

first choice for customers and partners with complex requirements and business or mission critical systems anywhere in Europe

- Managed Services

*Proactive day-to-day SQL Server operations and management
On-site support consulting
24x7 Monitoring and break/fix support escalation*

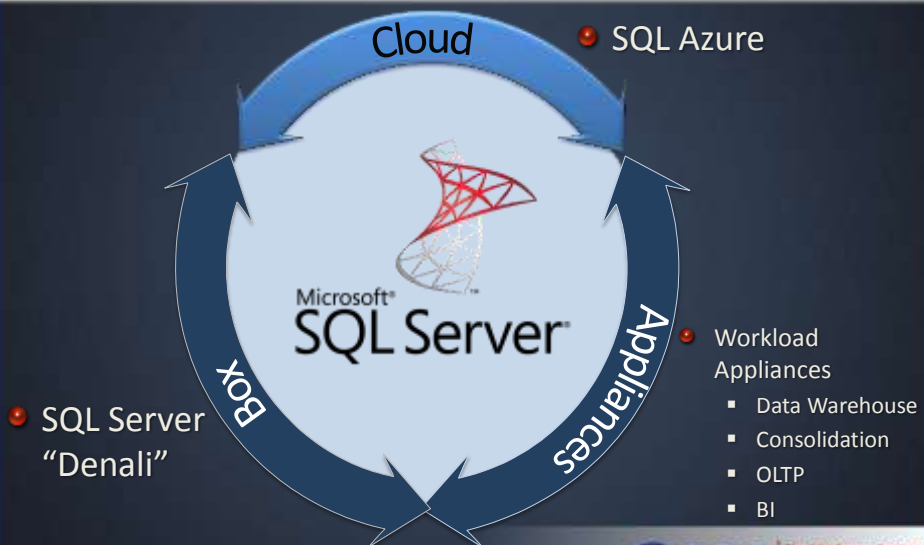


AGENDA

- SQL Server Strategy
- Appliances
- What's new
- Reporting Services & Project Crescent
- ColumnStore indexes
- Other features you may not know about
- Changing the way you think about High Availability

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STRATEGY



APPLIANCES

- Infrastructure and server software in a single integrated solution

- Data Warehousing
- Business Intelligence
- Private Cloud (Virtualization & Consolidation)
- OLTP – Online Transaction Processing



- Optimized for business goals, optimized for resource usage, optimized per workload

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MAJOR RELEASE

High Availability	Scalability and Performance	Security & Manageability	Web & Breadth	Business Intelligence	EDIM
AlwaysOn	> 1000 Partitions / table	User-Defined Server Roles	PHP Driver	Unified Semantic Model	Data Lineage
Reliable & Integrated Failover Detection	Column store DW	SQL Studio	Semantic Platform	Crescent	Impact Analysis
Application Centric Failover	Fast FileStream	Contained Database Authentication	LocalDB	In-memory BI for corporate	SSIS Server
Multiple Readable Secondaries	Win32 access to database files	Database Replay	UTF-16	Alerting	Data Quality
Online Operations	Fast Full Text	Audit Enhancements	Paging for result sets	Sysprep for AS	Enhanced MDS
HA for StreamInsight	FileTable	Management Pack for High Availability	Full Globe Spatial Support	PowerPivot Enhancements	
Windows Server Core Support		Backup Secondaries	DAC Enhancements	Reporting as SharePoint Shared Service	
		SSMS Enhancements	ODBC for Linux		
		Default Schema for Windows Group	JDBC 4.0 driver		

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REPORTING SERVICES & PROJECT CRESCENT

- Self Service Alerting
 - No changes to existing reports required
- Self Service Reporting (Project Crescent)
 - New ad-hoc reporting and data visualization tool
 - Replaces Report Builder 1.0
 - Compliments Report Builder 3.0 and BIDS

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PROJECT CRESCENT

movie sales report

28 Weeks Later

Book Carter... 20th Century Fox
 Director: Book Carter
 Rating: 4.5/5
 Genre: Horror

B Heads in a Buffet (Tag)

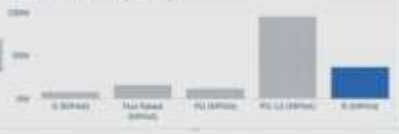
Tom Schulman 20th Century Fox
 Director: Tom Schulman
 Rating: 4.5/5
 Genre: Comedy

A History of Violence

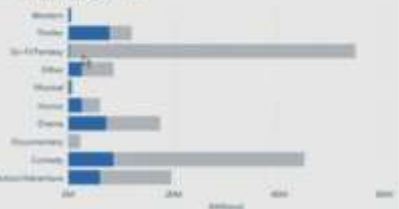
David Cronenberg CBS
 Director: David Cronenberg
 Rating: 4.5/5
 Genre: Thriller

Aliens vs. Predator - Requiem

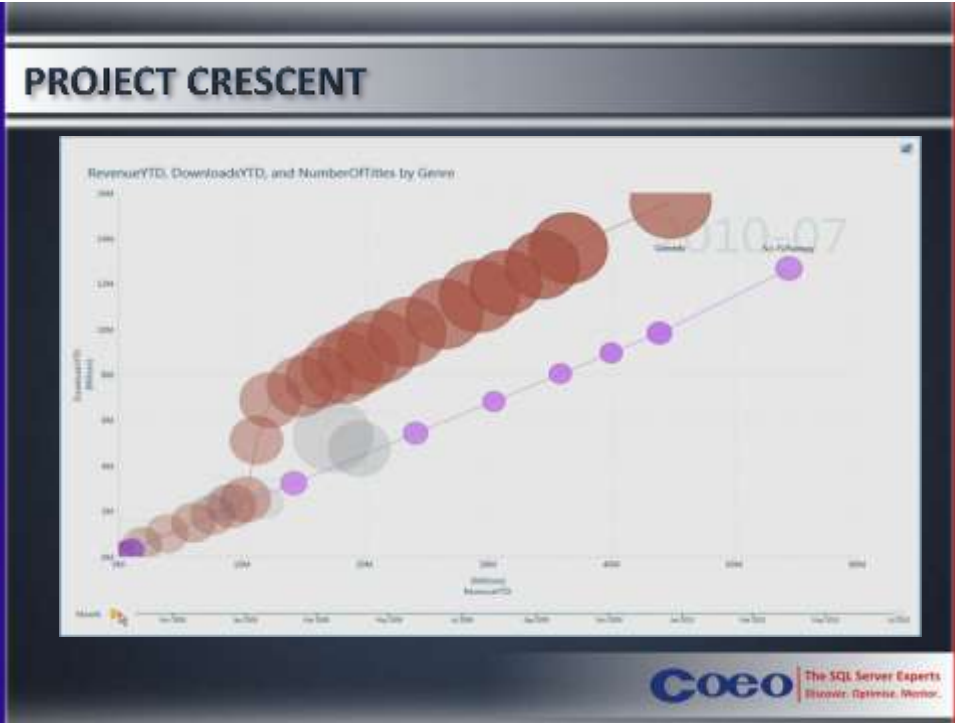
Sum of Revenue by Rating



Revenue YTD by Genre



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COLUMNSTORE INDEXES

- Project Apollo
 - Column Store Index
 - New query processing mode called “batch”
- Targeted for data warehousing workloads
 - Reading large data volumes, star schema
 - Star joins, aggregation, and filtering

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COLUMNSTORE INDEXES

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COLUMNSTORE INDEXES

- Only 1 column store index per table is allowed
 - It is recommended to put all the columns in the index
- Table becomes read-only
 - Disable the index to update the table and then rebuild

DEMO

ColumnStore Indexes

OTHER NEW FEATURES

- Windows Server Core
- User-Defined Server Roles
- Default Schema for Windows Groups
- T-SQL Support for Window Aggregation
- XE Profiler
- Distributed Replay
- FILETABLE

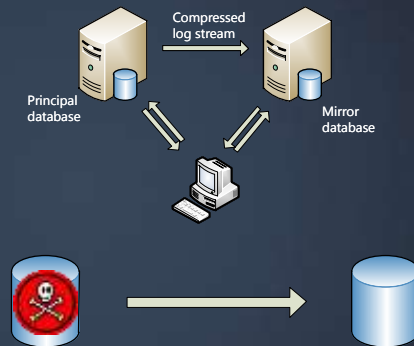
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**CHANGING THE WAY YOU THINK ABOUT
HIGH AVAILABILITY**

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DATABASE MIRRORING WITH AUTOMATIC FAILOVER

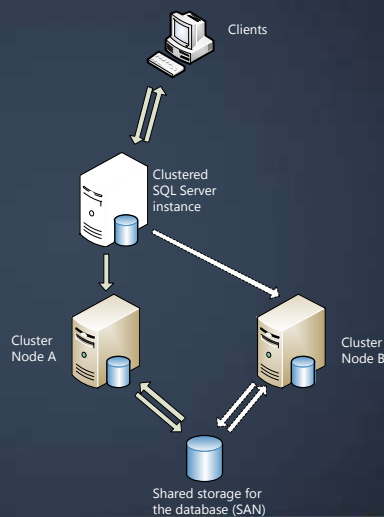
- Very fast failover
- Great for HA
- 1:1 mapping
- Inter-database dependencies will cause problems
- Real-time reporting isn't possible on the mirror
- Client needs to be aware of primary and mirror server



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WINDOWS FAILOVER CLUSTERING

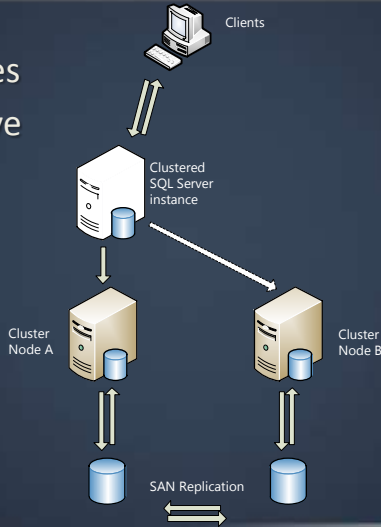
- Protects the whole server
- Clients only need the virtual server name
- There is only one copy of the database



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GEO-CLUSTERING

- HA across sites
- Very expensive



SQL SERVER DENALI – ALWAYS ON

- Combines the best of database mirroring and failover clustering
 - AlwaysOn Availability Groups
 - AlwaysOn Failover Clustering
- Up to 4 database replicas
- Real-time reporting from a readable replica
- Grouping of databases into an Availability Group
 - Availability Group is the new unit of failover

SQL SERVER DENALI – ALWAYS ON

- User configurable failure detection
- Support for clustering across subnets
- AlwaysOn Availability Groups makes multi-site High-Availability feasible without the need for SAN replication

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Always On Availability Groups

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SUMMARY




- ✓ Self-service reporting with interactive data visualizations (Crescent)
- ✓ ColumnStore Indexes for turbo-charging data warehouse queries
- ✓ AlwaysOn Availability Groups
 - ✓ Multiple database replicas
 - ✓ Readable replicas
 - ✓ Single connection point
 - ✓ Configurable failure detection
 - ✓ Multi-site HA made easy!

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LINKS

More Information...

- Come and see us at SQLBits in Liverpool 29/9-01/10
 - <http://www.sqlbits.com>
- Pre-Conference Training Day
 - Upgrading you DBA Skills to SQL Server Denali
 - Email info@coeo.com for a discount code



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