

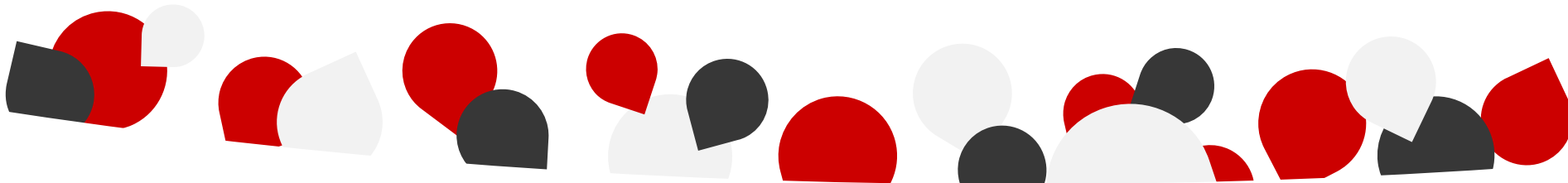


SQL in the City *Streamed*



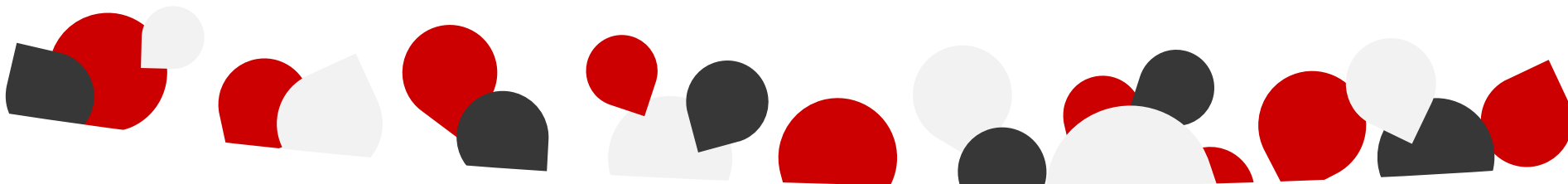
On-premise to Azure SQL Data Warehouse using Data Platform Studio

Grant Fritchey & Ally Parker



Goals

- Define the opportunity that Azure SQL Data Warehouse represents
- Define the problems presented by Azure SQL Data Warehouse
- Provide a solution to some of those problems

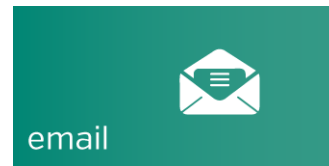


Get in touch

Grant Fritchey



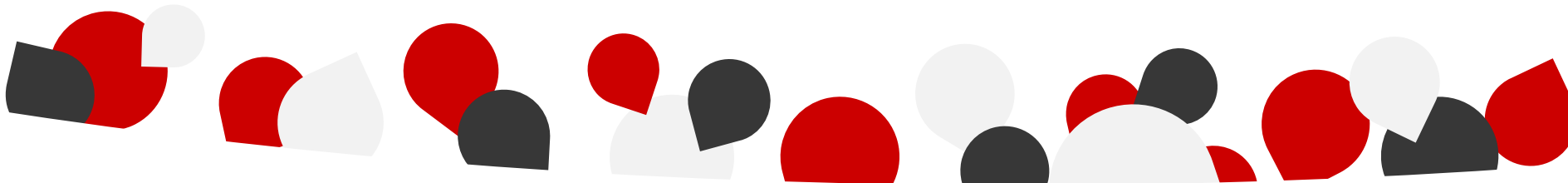
scarydba.com



grant@scarydba.com



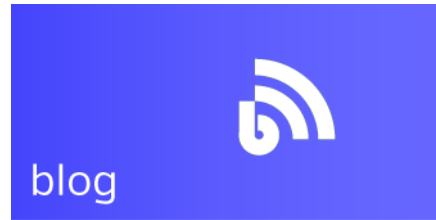
@gfritchey



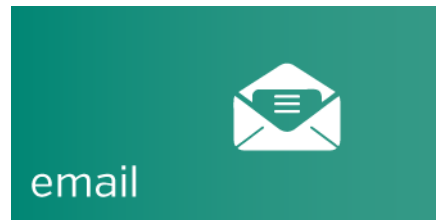
Ally Parker



Get in touch



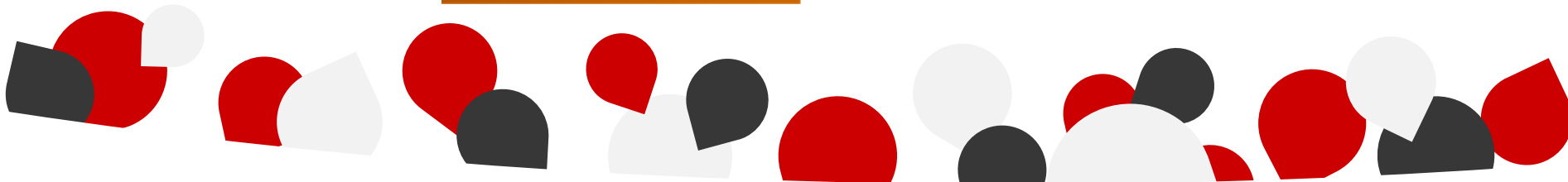
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ally.parker@red-gate.com



@redgateDPS



Analytics Platform System

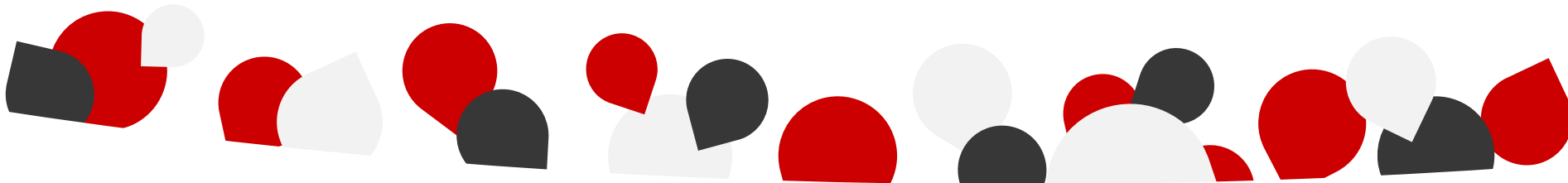


Analytics Platform System

- Massively parallel computing platform
- Scale out
- Multi-terabyte data warehousing
- Polybase query support
- All based on SQL Server

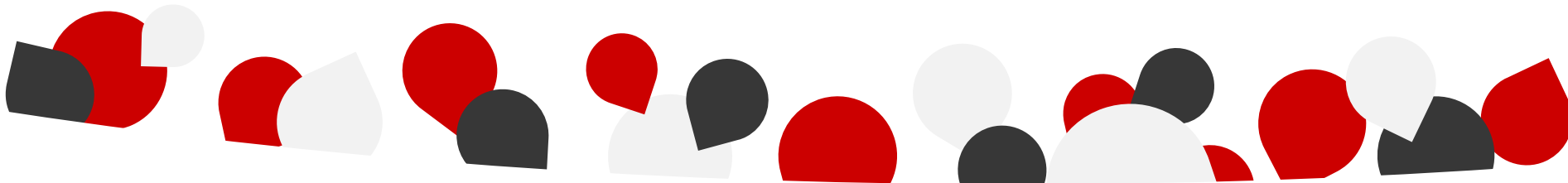


Microsoft®
SQL Server®



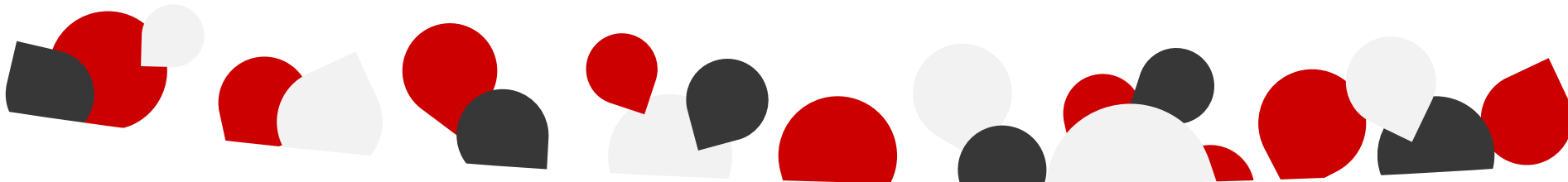
Analytics Platform System

- £1.2 million to start
- £456 thousand annual operating costs
- Must purchase to learn
- Must purchase to test



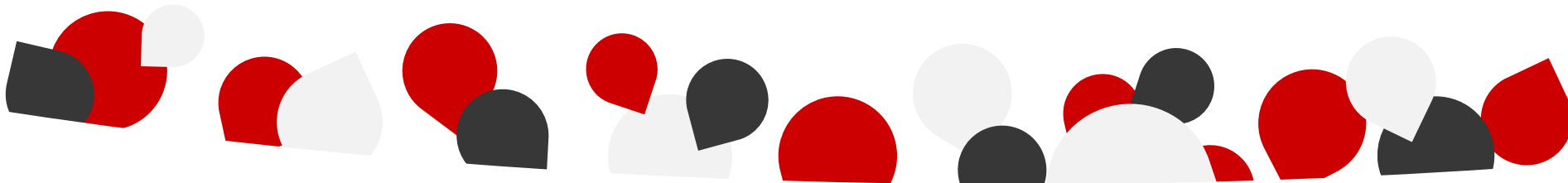
Azure SQL Data Warehouse

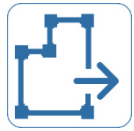
- Platform as a Service (PaaS)
- Pay for what you use
- Pay for when you use it
- £684 to £41k/month
- Or £8.2k to £492k/year
 - Depending on DWU use
 - Plus storage



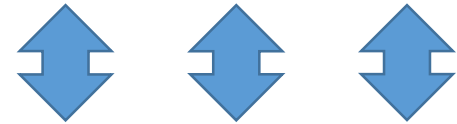
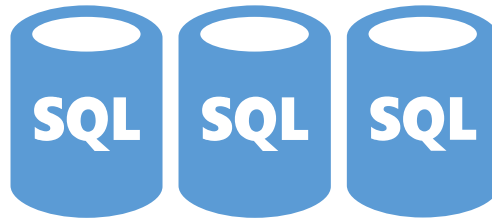
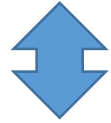
The Opportunity

- APS for less money
- Testing
- Training
- Massively parallel architecture
- Polybase
- Less money





Application



Control Node:
Coordinates data movement
and workload management

**Massively Parallel
Processing Engine**

Compute Nodes:
Provide processing mechanisms
in parallel or individually

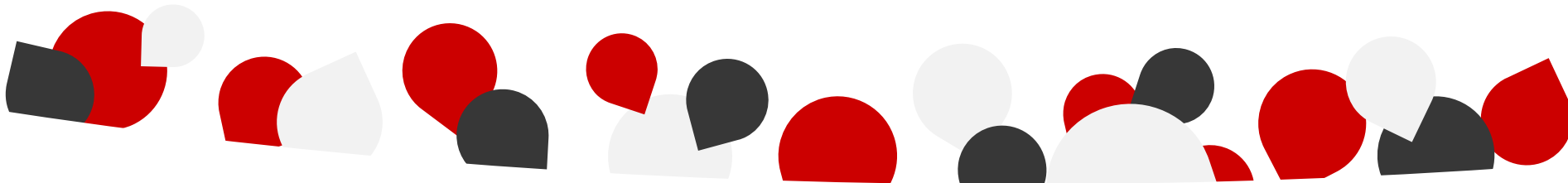
Read Access Geo-Redundant Storage:
RA-GRS stores multi-terabyte data
across Azure geo regions



The Problem

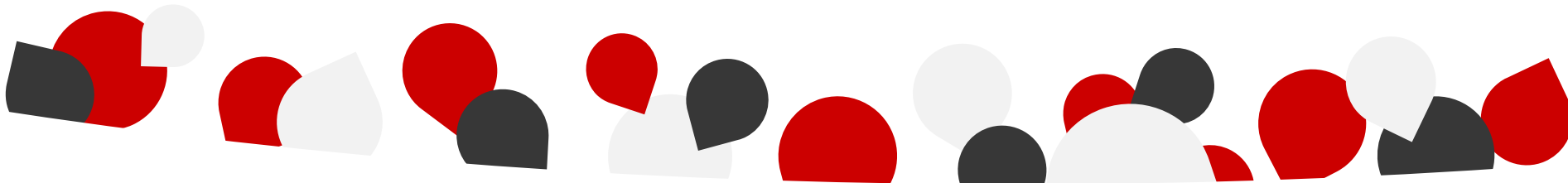
- Azure
- PaaS
- SQL Server

vs. SQL Data Warehouse



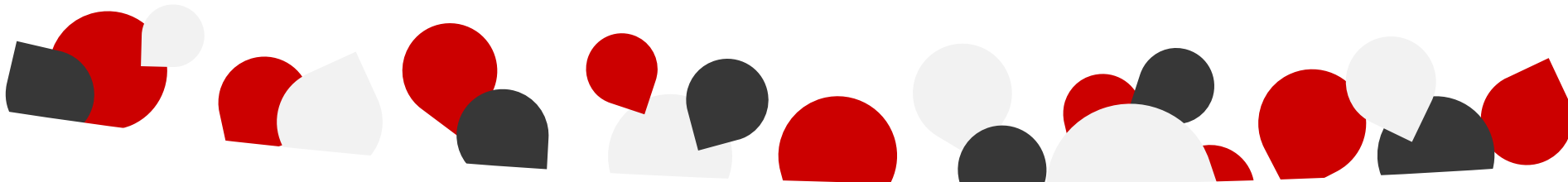
The Problem: Data Migration

- Azure Data Factory
- SQL Server Integration Services
- Classic export/import
- Polybase



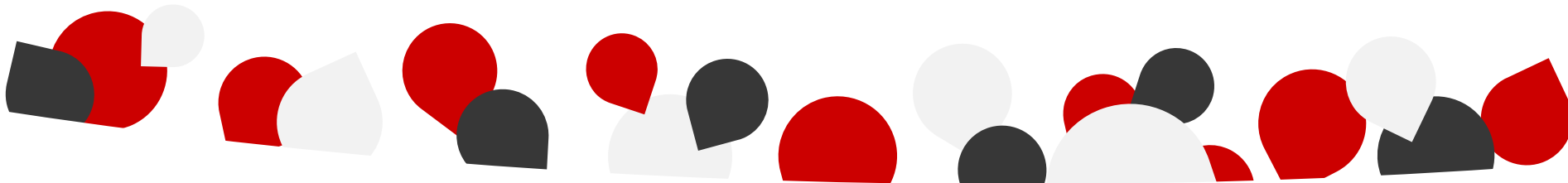
The Problem: Unsupported

- Currently (these things change)
 - Identity
 - Primary key, foreign key, unique and check constraints
 - Unique indexes
 - Computed columns
 - Sparse columns
 - User-Defined types
 - Sequence
 - Triggers
 - Indexed views
 - Synonyms
 - Data type incompatibility

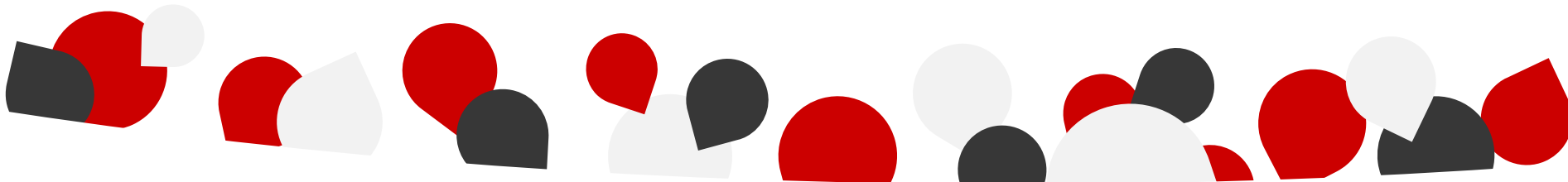
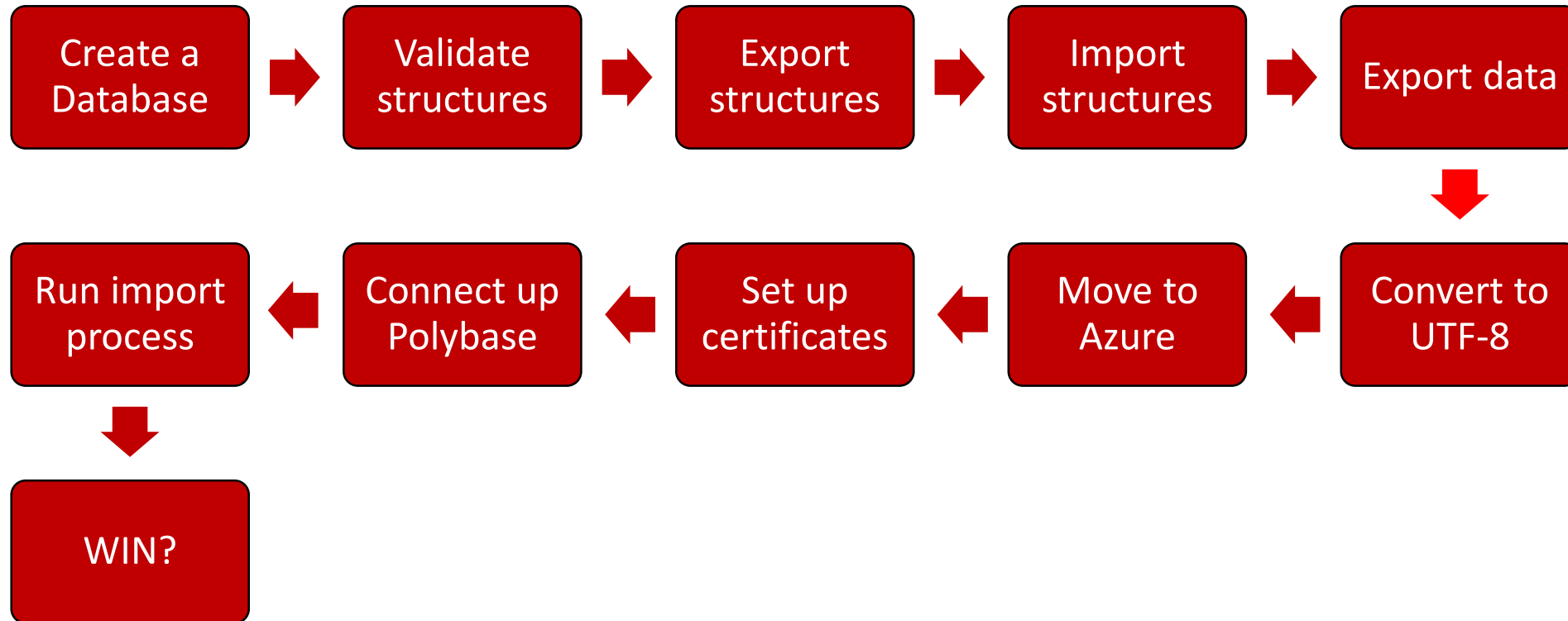


The Problem: Data Migration


- Azure Data Factory
- SQL Server Integration Services
- Classic export/import
- Polybase



Polybase Process





 NEW IMPORT

Imports

Gateways

Import

13th Jul 2016 10:48

- MovieManagement
AUBREY\MATURIN
- dwupload
DPS
- DWTest
dwtest2

Status:
Finished (00m:22s)

FINISHED

Options

Import

13th Jul 2016 10:39

- MovieManagement
AUBREY\MATURIN
- dwupload
DPS
- DWTest
dwtest2

Status:
Finished (00m:22s)

FINISHED

Options

Import

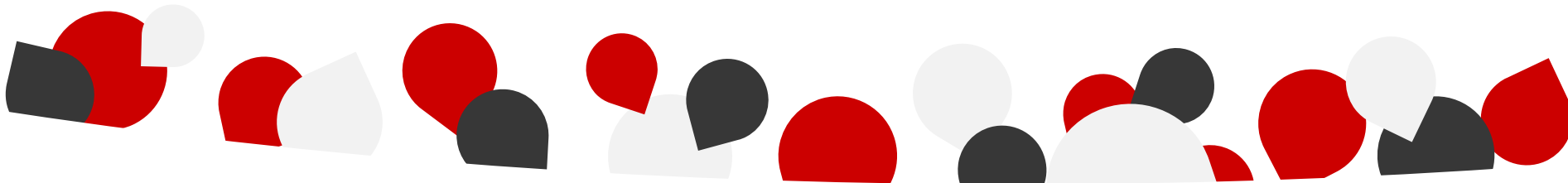
13th Jul 2016 10:33

- MovieManagement
AUBREY\MATURIN
- dwupload
DPS
- DWTest
dwtest2

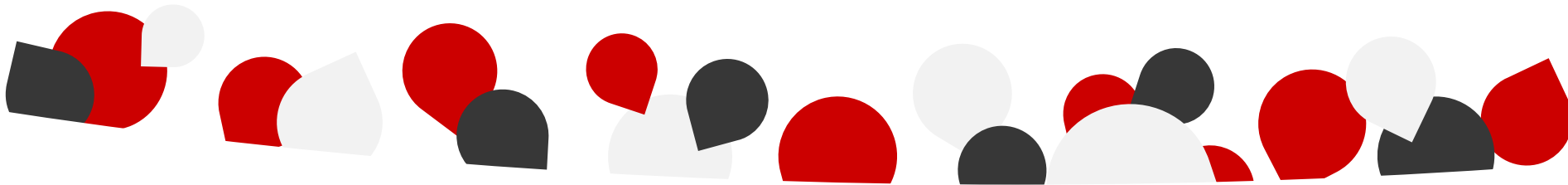
Status:
Finished (00m:23s)

FINISHED

Options



Demo



[How we help](#)[Azure integration](#)[Data security](#)

Data
Platform
Studio

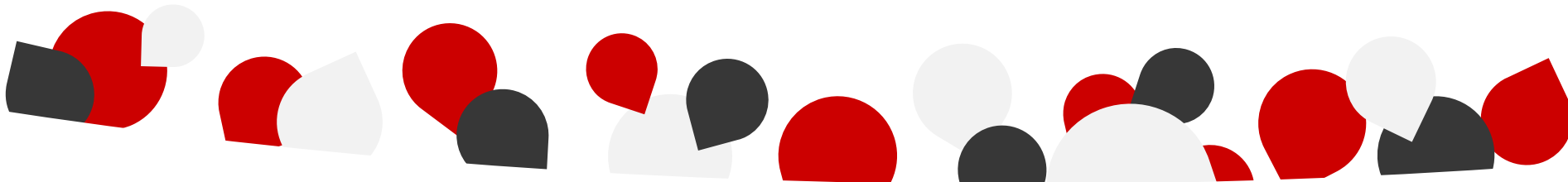
Migrate data to Azure and manage it across the Microsoft Data Platform

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