CDC/Data Source Monitoring Demo

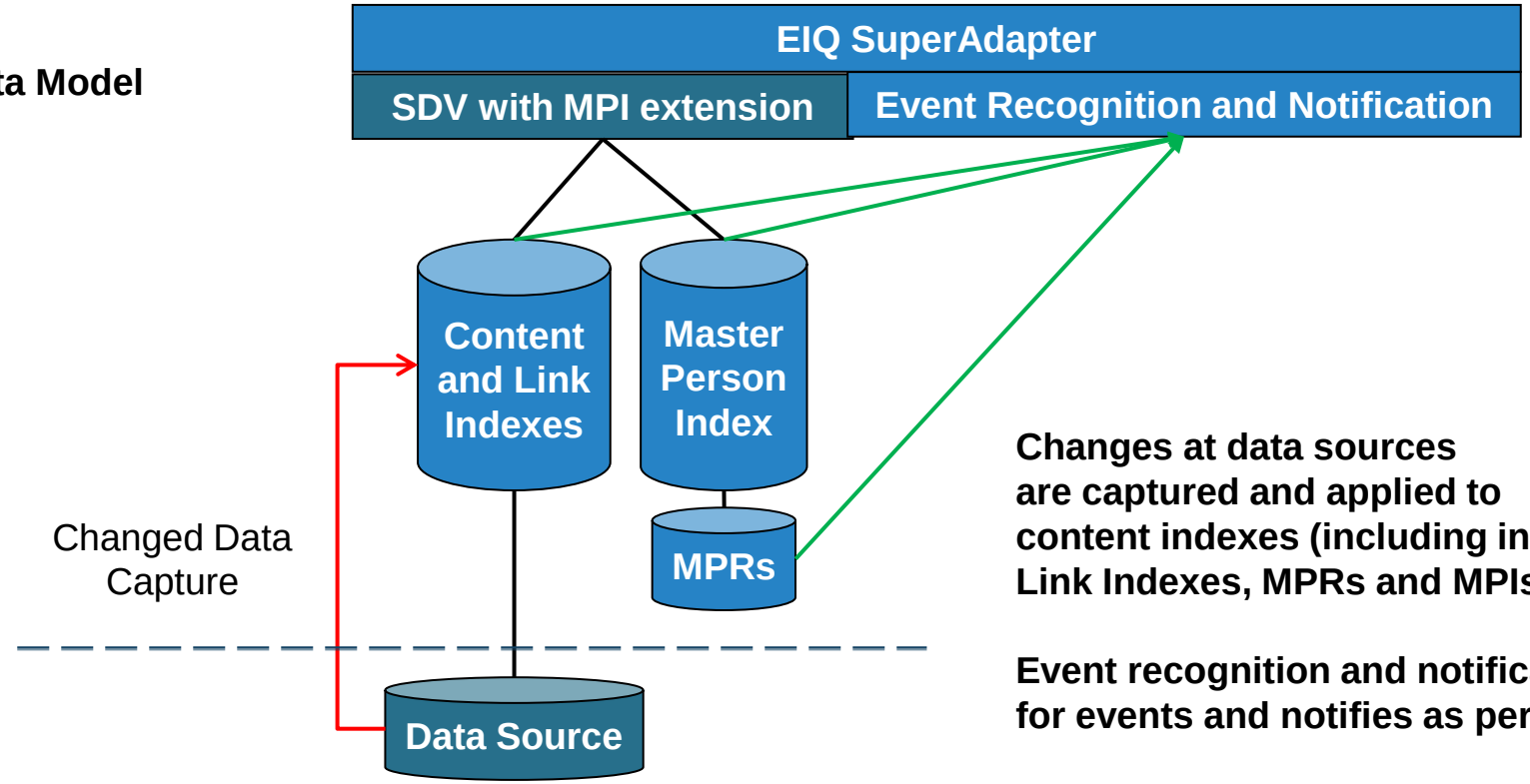
July 2019

CDC/Data Source Monitoring

Customer Challenge	Index-based Data Virtualization Solution
Process events as they happen in real-time.	Access data with index-based adapters, regardless of location or type.
Update data by writing back to data sources as events are processed.	Index data create indexed views for pre-aggregated results that support near real-time changes and write back to data sources.
Use self-serve analytics to provision data to communities of interest.	Set up CDC, query based polling or other monitoring methods to poll for changes in data.
	Provision data on an ad hoc basis or by using a subscription/stored query.

Data source monitoring and event processing demo

SDV = Standard Data View
aka Standard/Common Data Model
MPI = Master Person Index
MPR = Master Person Record



Changes at data sources are captured and applied to content indexes (including indexed views), Link Indexes, MPRs and MPIs

Event recognition and notification waits for events and notifies as per configuration

WT -> Data source monitoring and event processing

- As indexes and indexed views are updated, they can be monitored for data source and Key Performance Indicator (KPI) changes, with triggers to process events DEMO
- REST APIs in conjunction with open source and commercial Business Process Management (BPM) software
- Can use JavaScript and other code-based middleware – same data backend REST APIs

No backup screenshots

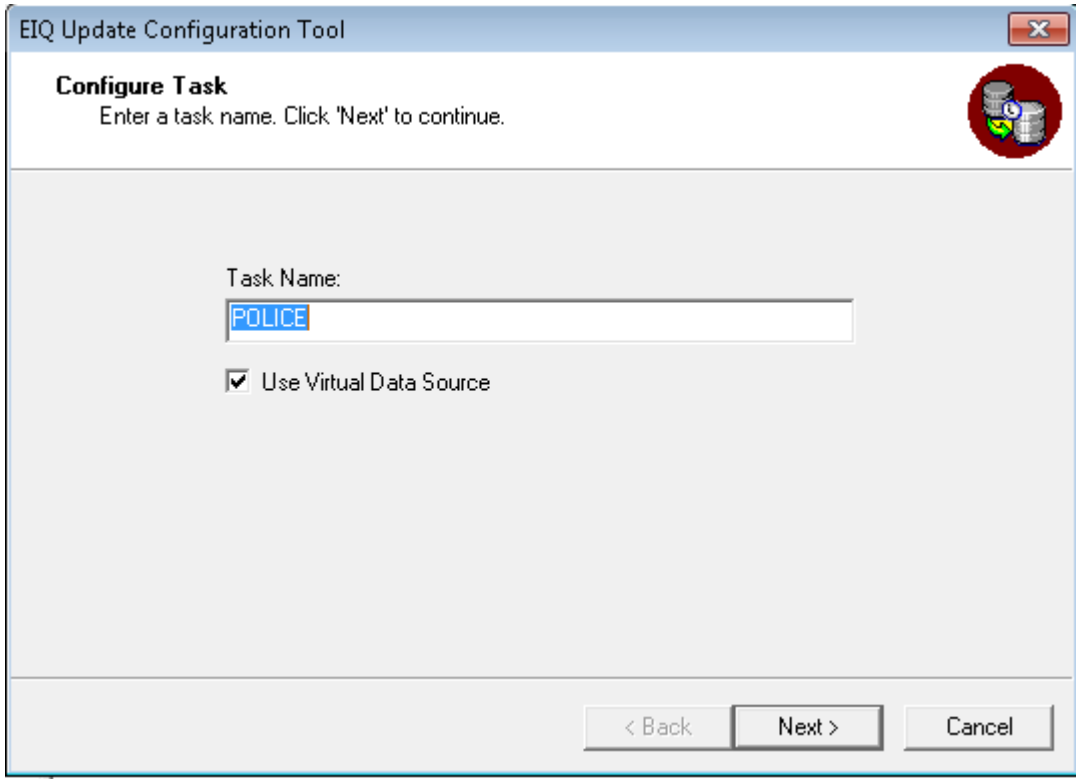
Enable CDC on SQL server

- Use POLICE
- GO

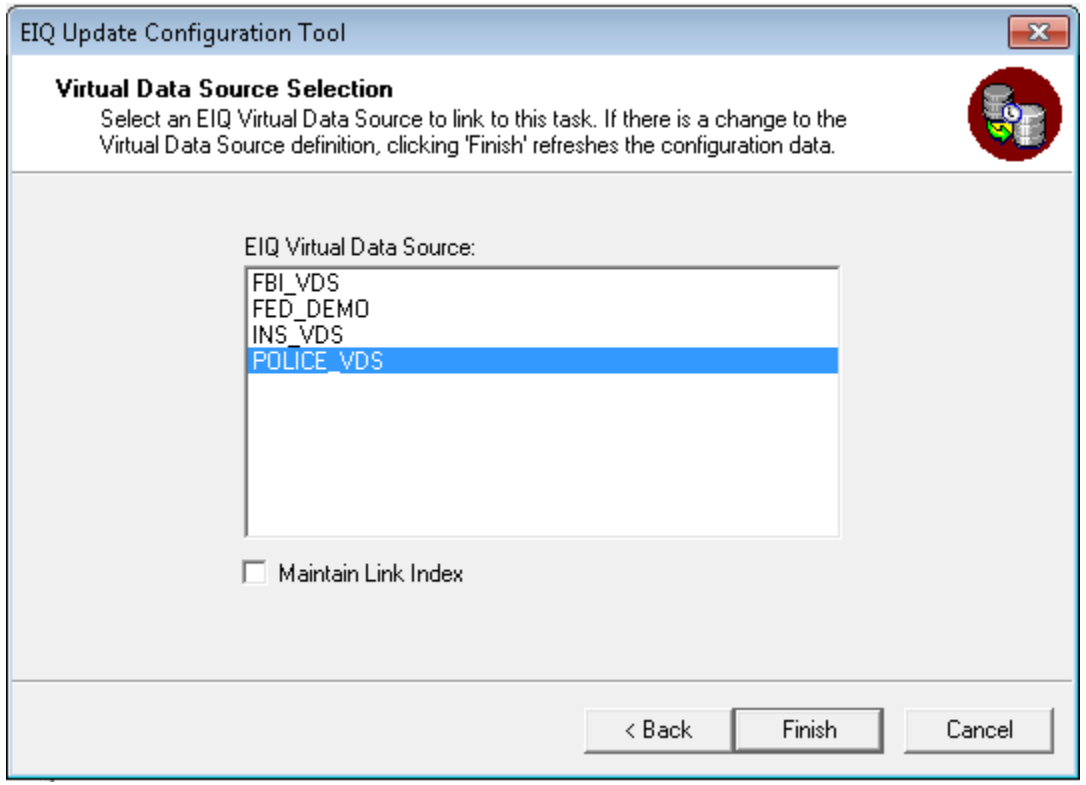
- exec sys.sp_cdc_enable_db
- GO
-
- exec sp_cdc_enable_table @source_schema =N'dbo',@source_name = 'LOPERSON', @role_name = null, @filegroup_name = null, @supports_net_changes = 1;
- GO
-
- Then activate CDC on the remaining two tables:
-
- exec sp_cdc_enable_table @source_schema =N'dbo',@source_name = 'INCIDENT', @role_name = null, @filegroup_name = null, @supports_net_changes = 1;
- GO
-
- exec sp_cdc_enable_table @source_schema =N'dbo',@source_name = 'PERSINCIDENT', @role_name = null, @filegroup_name = null, @supports_net_changes = 0;
- GO

Schedule a task for update using the Update Configuration Tool

- Configure a task

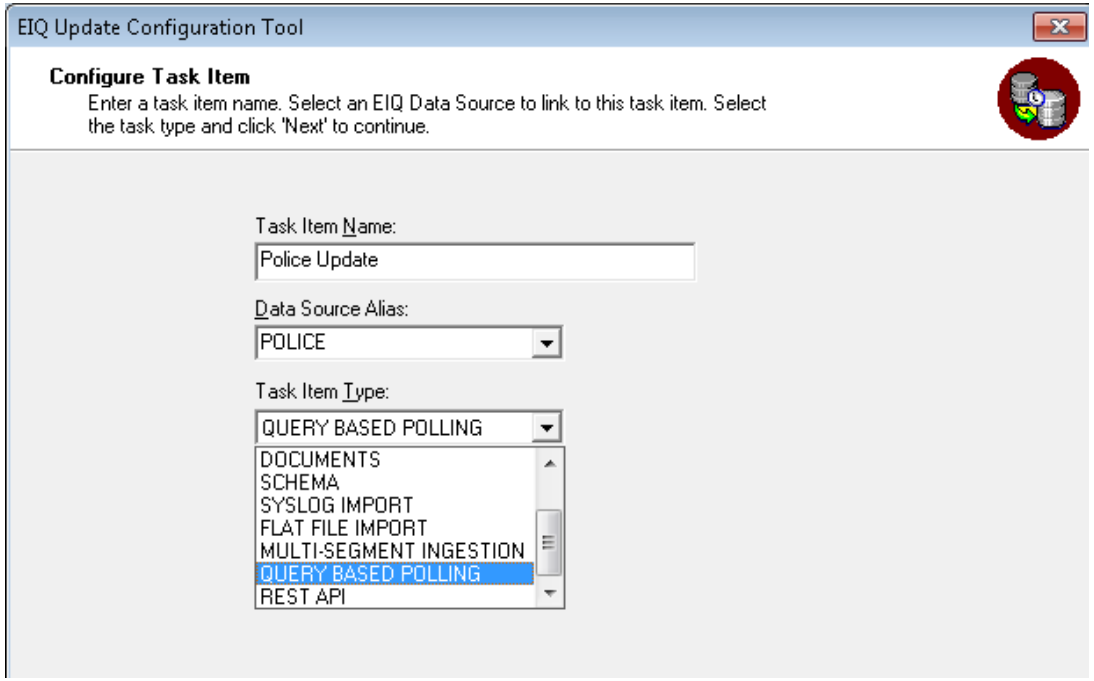


- Select the desired VDS and finish

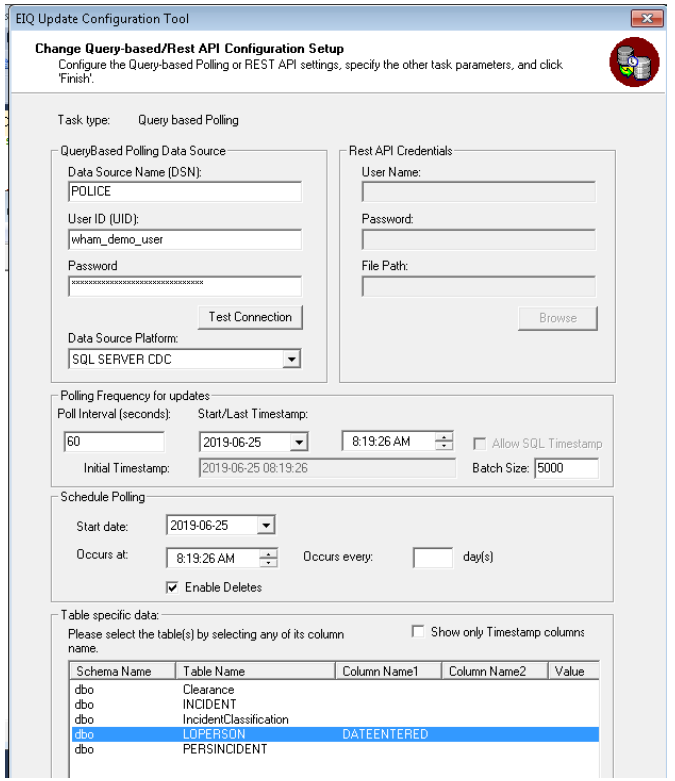


Configure the task item detail

Configure the task Item:
Name the item and choose the template

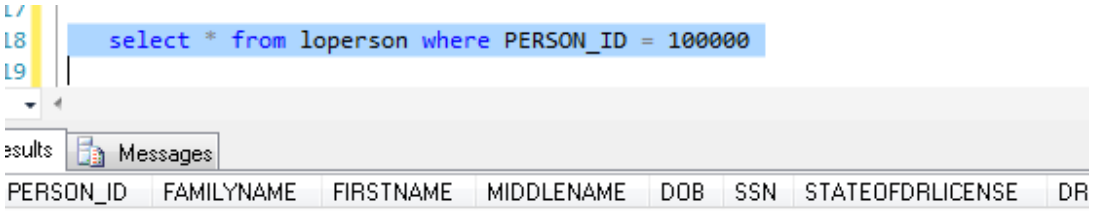


Configure the template specific details and choose the table to maintain

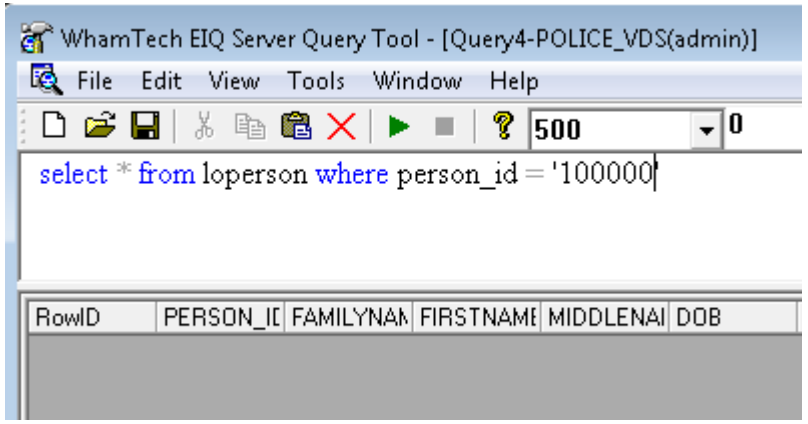


Verify record does not exist on SQL server and Index before inserting

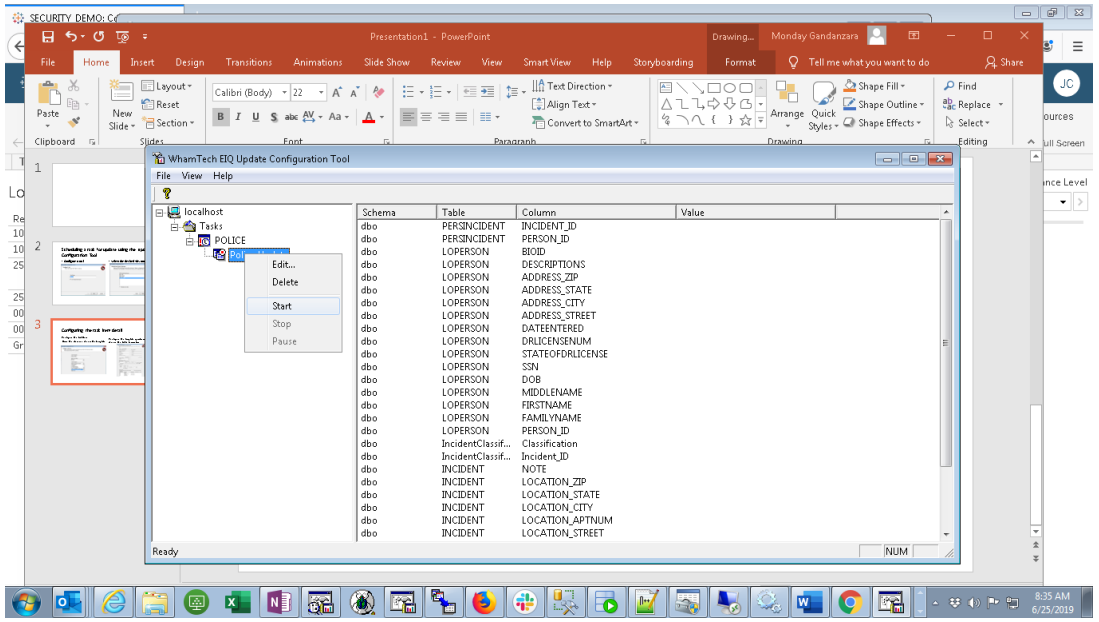
SQL Server



Index



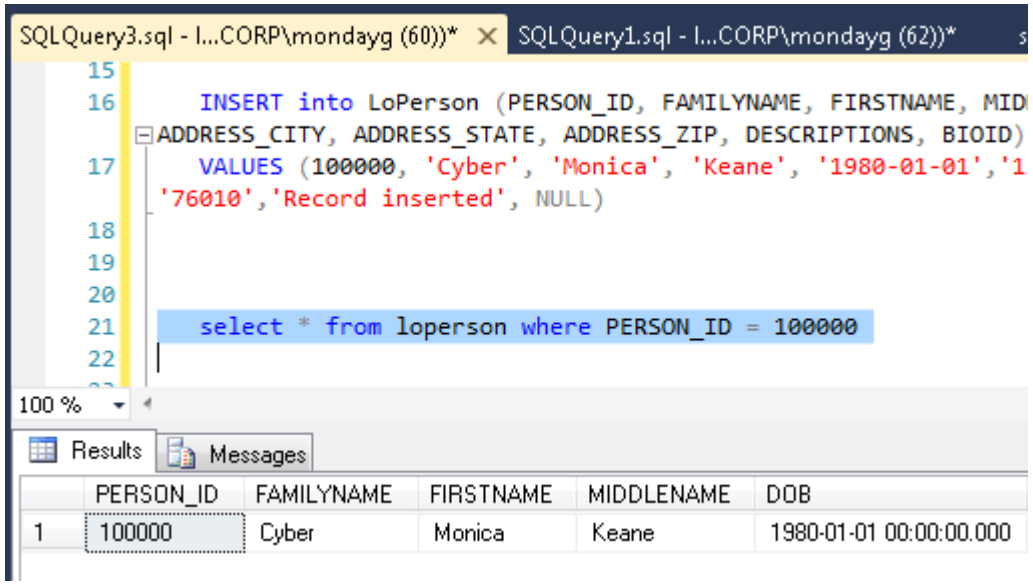
Start the task



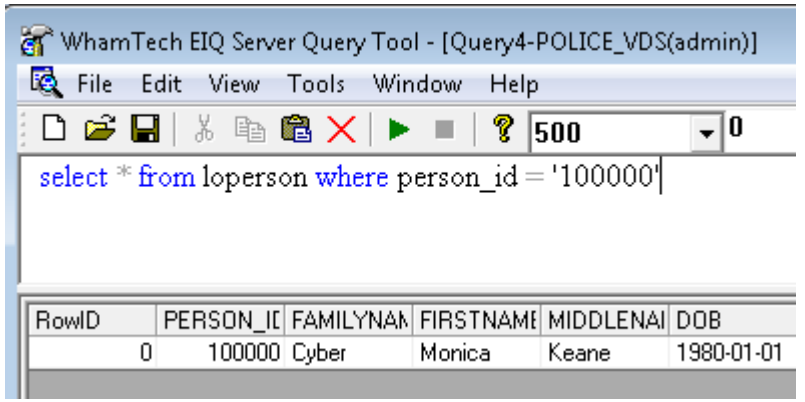
- Insert record on SQL server and monitor changes on index
- INSERT into LoPerson (PERSON_ID, FAMILYNAME, FIRSTNAME, MIDDLENAME, DOB, SSN, STATEOFDRLICENSE, DRLICENSENUM, DATEENTERED, ADDRESS_STREET, ADDRESS_CITY, ADDRESS_STATE, ADDRESS_ZIP, DESCRIPTIONS, BIOID)
- VALUES (100000, 'Cyber', 'Monica', 'Keane', '1980-01-01','123456789','TX','7654321', getdate(),'312 UTA Blvd', 'Arlington', 'TX', '76010','Record inserted', NULL)

Verify Insert

SQL Server after Insert



Index after insert



Write back to data sources

- Supports interoperability, master data and other updates
- Depends on data source system, data importance to schema and transaction processing
- Can be simple or require stored procedures at some level(s)

Data provisioning to Communities of Interest (COIs)

- Similar to supporting self-serve analytics, can provision data on an ad hoc basis or using a subscription/stored query, support a COI
- Tie-in with Feature 11. Data source monitoring and event processing

End of CDC/Data Source Monitoring Demo