

# Architecture Decision Record(ADR) on CDS views for BP Catalyst Program

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- Status: Approved
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## Technical Story:

- Determine the best usage of CDS views in BP Catalyst program

## Context and Problem Statement

Core Data Services (CDS) views are pre-assembled assets offered out of the box within SAP ERP system. Determine if CDS Views from SAP can be leveraged to meet business requirements for project Catalyst and should be ingested into AWS for reporting.

## Decision Drivers

- Minimal SAP S4 customizations
- Impact on S4 Database
- Production ready
- Create Self-service Analytical Data Models
- Resilient and can be expanded
- Support GP's broader Enterprise Data Strategies and Integrated Data Products
- Lessons learned from CPG Digital Core
- Solution accelerators to expedite delivery of BI solutions
- Performance SLAs for analytics and reporting can be met
- Required data latency can be achieved
- SAP and Deloitte's path of recommendation to leverage CDS views
- Technical Limitation of egressing CDS views from SAP S4 using SLT & BODS

## Considered Options

- SAP Base Tables
- SAP Created CDS Views
- Customized SAP CDS views

## Assumptions

- SAP Created CDS Views: SAP asset which we can interact with same way as a base table from change data capture and data processing perspective where the logic in the CDS view can be accessed.

## Decision Outcome

Chosen option: Considering all the options, GP architectural team's recommendation is to leverage SAP base tables to augment self-service analytical capability of Catalyst program. GP does not want to own the support for Customized CDS Views as the maintenance of these assets have proven challenging in past experiences. Until it is confirmed that the CDS views can meet business requirements, ingest the raw tables into the EDL and federate those assets in GP enterprise thereby futureproofing our BI solutions. If the underlying SAP CDS base views align with GP business requirements, with pending SAI and GP architecture team approval they can be leveraged to accelerate delivery.

## Positive Consequences

- Supports GP broader enterprise data strategy and integrated data product journey
- Adhering to guiding principles of ERP implementation by minimizing S4 customizations
- Fostering data understanding across the domain teams

## Negative Consequences

- Reverse engineering the CDS View logic when troubleshooting incomplete or inaccurate data identified in testing is challenging
- Requires strong SAP technical acumen

## Pros and Cons of the Options

### SAP Base Tables

- Good, because no customizations on S4, will make ERP system to operate smoothly.
- Good, because it supports joining these SAP assets with other domain tables possible.
- Good, because creating self-service analytical models is possible.
- Good, EDL can become the lake for GP enterprise and operate as the data foundational plane
- Good, Future Proofing the BI Solutions for broader applications
- Bad, SAP table understandings

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- Good, EDL can become the lake for GP enterprise and operate as the data foundational plane
- Bad, SAP table understandings
- Bad, SAP Provided CDS Views are still technically transformed data and is anti to a Raw only ingest into the Data Lake

### Customized SAP CDS views

- Good, because it accelerates the development process
- Good, SAP knowledge resources are widely available
- Bad, customizing our S4 system results in traffic/load on Application Database.
- Bad, because Debugging makes them difficult if we customize the SAP CDS views
- Bad, because GP organization practice is highly complex and the amount of customized CDS views may impact the operational support of the Application

- Bad, SAP won't support a highly customized CDS view.
- Bad, Enterprise Data Strategy does not allow transformed data into the Data Lake.