SAP Analytics Cloud: Overview, Latest News and Modelling

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SAP Analytics Cloud Architecture

**Applications**

- **SAP Digital Boardroom**
  - BI: Discovery, Charts and tables, Geospatial
  - Planning: Events and workflows, Allocation, Value driver tree simulation
- **SAP Analytics Hub**
  - BI: Discovery, Charts and tables, Geospatial
  - Planning: Events and workflows, Allocation, Value driver tree simulation
  - Predictive: Smart Assist, Build & deploy predictive models
- **Mobile Experience**
  - Application Design: Scripting, Composites, UI theme & stylesheet
- **SAP App Center**
  - Embedding: Analytics into applications

**Core capabilities**

- Data connectivity
- Wrangling
- Modeling
- Administration Auditing
- Visualizations
- Collaboration
- Mobile
- APIs

**PaaS**

- SAP Cloud Platform
  - Amazon Web Services
  - SAP Data Center

**SAP Cloud Platform**

- Cloud data sources and applications
- On-premise data sources and applications

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From Self Service BI to Augmented BI

Connect and prepare your Information
- Prepare and model cloud and on-premise data from your browser
- Data connectors from SAP (BW, HANA, SAP Cloud Platform, Universes) and non-SAP sources
- Linking aggregated data
- Cross dataset calculations

Visualize and build your views
- Design, visualize, and create your stories live
- Add simple location analytics into your visualizations
- Personalize your own dashboard views

Share with your team
- Simply collaborate with your team
- Take action on your data
- Use permissions to control who can view and edit your analytics
Intelligent Augmentation

with SAP Analytics Cloud

Conversational
Ask questions in a conversational manner with instant results

Automated
Detect drivers of a KPI and take the next best action using automated machine learning

Predictive
Predict potential outcomes and forecasts with the push of a button
Simplify Access to Insight with Augmented BI
Machine Learning Integrated into SAC

Search to Insight:
- Just ask your question in natural language
- Discover top influencers of performance without having to look and automatically predict future values to improve results
- Get insights on-the-fly and continue your exploration in the story

Smart Discovery:
- Auto-generate fully populated, multi-tabbed stories with Overview, Key Influencers, Unexpected Values and Simulation tabs
- Analyze outliers and expose key influencers driving business-critical KPIs
- Predict future outcomes with interactive what-if simulations

Smart Predict:
- Classification, Regression, Time Series Forecasting
- Predictive made simple for business users
- Identify areas of improvement and risk to missing targets
- Forecast future values based on trustworthy results
Data Integration

Connect to data anywhere stored in on-premise databases, cloud databases, and personal files. Enrich data and business metadata in preparation for self-service data analysis through purpose built data modeling capabilities and calculations.

**Live connections**
- Data replication is not required
- Leverage business metadata directly without additional modeling
- Leverage existing security and data authorizations

**Data import connections**
- Business users can model data with Smart Data Preparation
- Easily track and reverse data transformations
- Refresh data on demand or via schedule
Data Sources

**Live**

- **Cloud data sources**
  - SAP Cloud Platform
  - SAP S/4HANA Cloud
  - SAP SuccessFactors
  - SAP Ariba

- **SAP data sources**
  - SAP HANA
  - SAP BW
  - SAP BW4/HANA
  - SAP S/4HANA
  - SAP BPC Embedded
  - SAP BusinessObjects Universe

- **Access via SDI for SAP Cloud Platform & SAP HANA**
  - Apache Hive
  - AWS
  - SAP Vora
  - SAP Sybase ASE, IQ, ESP
  - OData
  - Microsoft SQL Server
  - Spark SQL
  - Oracle
  - Teradata
  - MaxDB
  - IBM DB2
  - MySQL
  - Netezza
  - Facebook
  - Google+
  - Twitter

- **Partner delivered**
  - APOS
  - DB2
  - Denodo
  - Microsoft Analysis Services
  - Microsoft Azure
  - Microsoft SQL Server
  - MongoDB
  - MongoDB Atlas
  - MySQL
  - Netezza
  - Oracle
  - Oracle Essbase
  - Oracle Exadata
  - SAP IQ
  - SAP SQL Anywhere
  - Redshift
  - Teradata
  - Google BigQuery
  - Cloudera
  - Hortonworks
  - Amazon S3

**Import**

- **Cloud data sources**
  - SAP Hybris Cloud for Customer
  - SAP Cloud Platform
  - SAP Business ByDesign
  - SAP S/4HANA Cloud
  - SAP SuccessFactors
  - SAP Fieldglass
  - SAP Workforce Analytics
  - Salesforce
  - Concur
  - OData
  - Dow Jones DNA
  - Google BigQuery
  - Google Drive
  - Google Sheets
  - 3rd party CRM
  - 3rd party Cloud Storage

- **SAP data sources**
  - SAP BW
  - SAP HANA
  - SAP ECC
  - SAP BusinessObjects Universe
  - SAP BW4/HANA
  - SAP BPC NW & MS

- **Other data sources**
  - IBM
  - Microsoft SQL Server
  - MySQL
  - Netezza
  - OData
  - Oracle
  - CSV
  - Excel
  - Progress OpenEdge
  - Additional on-premise sources

- **Partner delivered**
  - APOS
  - CDATA
  - DataDirect Cloud
  - Web Intelligence
  - CData
  - QuickBooks
  - Microsoft SharePoint
  - Google Analytics
  - eloqua
  - 3rd party CRM
  - Microsoft Dynamics CRM
  - Marketo
  - SugarCRM
  - Oracle Marketing Cloud
  - Hubspot
  - Microsoft Dynamics CRM
  - Marketo
  - SugarCRM

Delivered
Planned within the next 6 months
Partners
BW Live


- “BW Live” embraces live connectivity to BW, BW/4HANA and S/4HANA.
- No additional modeling in SAC needed, BW query functionality supported out-of-the-box.
- No data replication into SAC
- Data remains behind your corporate firewall all the time when running queries and displaying results.
- No authorization replication needed: Underlying Authorizations are fully respected.
SAP Analytics Cloud Integration with SAP BW and BW/4HANA
Unique Direct Connectivity With BW Leveraging Best-In-Class SAP Interfaces

- **Direct. Secure. Simple.**
  - Simply connect to BW Queries or generated HANA views in your on-premise BW systems
  - No additional modeling in SAC needed (renaming and grouping of measures and dimensions is possible, but optional)
  - No data replication into SAC
  - Data remains behind your corporate firewall all the time when running queries and displaying results
  - No authorization replication needed: BW authorizations are fully respected

- **Best Possible End-to-End Integration.**
  - Use of unique best-in-class query interface (Firefly) to BW and HANA engines
  - Ability to access BW and HANA features that cannot be accessed through standard query interfaces (SQL, MDX)
  - Firefly interface is continuously enhanced alongside BW and HANA engine enhancements
Analytics Designer - What it is

Professional design of centrally governable analytic content, ranging from dashboards via guided analytics to sophisticated planning and Smart Predict applications

What is an application?
- Applications range from simple dashboards to complex applications
- Applications expose custom logic based on scripting
- Applications are created by a few experts to be consumed by many

What is application design?
- Rich set of capabilities for professional designers of analysis applications to meet sophisticated business requirements
- Dedicated development environment with advanced scripting capabilities
- Drive standardization of analytics content, create reusable UI elements and application logic (such as headers, footers, toolbars)
- Extending Applications via Custom Widgets and APIs
Product Description

This is the current state of planning and may be changed by SAP at any time.

- **Simple widgets**: images, buttons, dropdown menus, check box group, radio button group, shape, text, web page, RSS reader, clock
- **Data-driven widgets**: tables, charts, filter lines, R widget
- **Container Widgets**: pop-up/dialog and other container widgets
- **Dynamic Layouts**: Dynamic adjustment of screen real-estate without re-arranging all elements
- **Interactions** (e.g. filter, cascading behavior) between different widgets via scripting
- **Dynamic switch between widgets** (e.g. chart and table) at application run time
- **Dynamic and flexible selections on Crosstab and Charts**
- **Powerful scripting capabilities**
- **Script Objects for modularizing and reusing code** for enterprise applications

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### Analytics Designer Fundamentals

- **Operating Expenses is $87.80**

- **Net Revenue for Actual in Million USD**
  - Actual: 529.32
  - 2019: 349.55
  - 2018: 455.30
  - 2017: 35.47
  - Forecast: 384.49
  - Cost of Goods Sold: 364.07
  - Operating Income: 186.87
  - Selling Expense: 55.04
  - Depreciation & Amortization: 25.85
  - Employee Expense: 132.58
  - Travel: 55.05
  - Employee Expense Office: 14.15
  - Other Operating Expense: 25.73
  - Selling: 32.76

- **Net Revenue per Products for Actual in Million USD**
  - North: $28.61
  - South: 105.99

- **Total**
  - **$529.32**

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Extension capabilities to enable customers or partners to extend the tool

- **R Widgets** with scripting access
- **Composites**
  - Designers can create a collection of widgets to make a composite
  - Format by drag and drop of standard widgets, logic definition by data binding and scripting
  - Re-usable across applications
  - Decompose complex applications into smaller, manageable parts
- **Custom Widgets**
  - Developers can create sophisticated custom widgets
  - Custom functionality
Closed-loop Scenarios

Capabilities for closed-loop scenarios

- **OData calls** to call into transactional system
- Support **planning** capabilities with scripting access
  - Expose Planning Features via toolbar and quick action menus
  - Customize the planning workflow programmatically by scripting
- Supporting **predictive capabilities** with scripting access
  - Use trained model to predict the future
  - Control prediction workflow by scripting
  - Visualize and access predictive results

This is the current state of planning and may be changed by SAP at any time.
A Data Warehouse in the cloud needs state-of-the-art elasticity and scaling capabilities. By using HANA, we can offer this out-of-the-box and are also open for sequel-based ecosystems.

By building on SAC technology based on HANA, CDW natively brings a solid analytical engine and the respective visualization without the need for additional infrastructure.

With features like data governance and life cycle, modelling capabilities, and a space concept, CDW goes far beyond traditional scalable data storages as a true Data Warehousing tool.

Business content, semantic, modelling, consistent UX across SAP Cloud LoBs and CDW, and a hybrid model with customers’ on-premise solutions offer a seamless business integration.
Join our Beta Program at www.sapdatawarehouse.cloud

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