



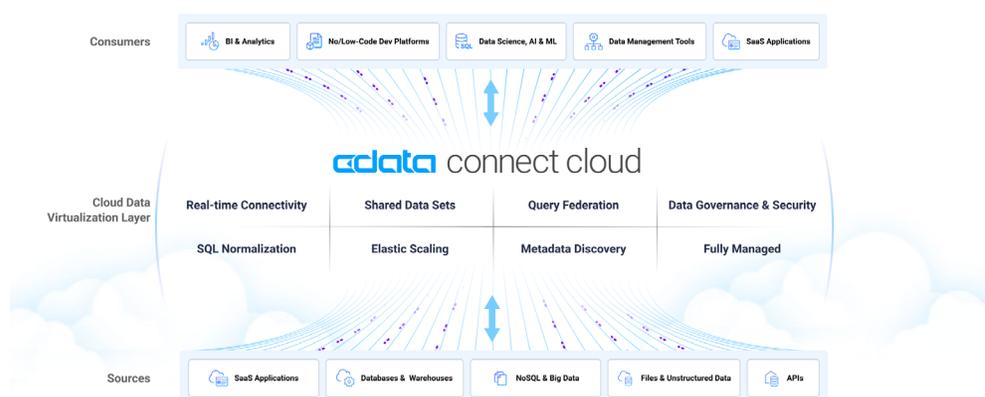
TECHNICAL DATASHEET

CData Connect Cloud



Providing connectivity and access to business and operational data organization-wide can be challenging, especially when dealing with fragmented data across various infrastructures. To overcome these barriers, an integrated strategy is necessary. Data virtualization can be the key to establishing a logical data architecture that unifies the data.

CData Connect Cloud reimagines data virtualization for the cloud. The fully-managed SaaS platform offers broad access to live data from cloud applications and data sources, quick time to value, scalable cloud infrastructure, and centralized monitoring and governance controls. By incorporating CData Connect Cloud into their data management process, organizations can streamline operations and unleash the full potential of their data assets.



Connect seamlessly to live data in the cloud

IT departments are getting more requests than ever from the lines of business to access and visualize their data in order to understand trends and performance. However, most enterprises face challenges managing and integrating multiple cloud applications that lack native connectivity with third-party tools.

Connect Cloud connects seamlessly to hundreds of cloud applications and data sources from within a unified, cloud-native interface. The connections are built using a standardized methodology already compatible with numerous data tools to allow users to quickly and easily add connections without the need for driver installation, custom API development, or maintenance. Now, IT can quickly fulfill data requests across the organization, and employees in every department can view and analyze the data they need, whenever they need it.

Cultivate agile and timely decision-making with live data

Connect Cloud accesses source system data in real time, eliminating the risks that come with traditional batch-loading processes that move data from the source system into a data warehouse. With access to live data directly from the source, businesses can make data-driven decisions on the fly and create an agile work environment that adapts to changes as quickly as the data itself.

Universal connectivity from any client

Connect Cloud provides flexible data access options that conform to SQL standards, eliminating the need for custom development efforts against specific client APIs. The platform ensures that each API adheres to the same standards as relational databases, making it easy to connect with any application and scale integrations as an organization's tech stack grows.

Whether users need to analyze data through a visualization tool or build internal applications for processing data on a no-code/low-code platform, Connect Cloud offers multiple ways to access data, including:

- **REST API:** With CData Connect Cloud's REST API, accessing data from any client is a breeze. The API supports a comprehensive SQL dialect, making complex filtering, JOINS, and functions possible.
- **OData:** The CData Connect Cloud OData API connects OData-compatible client tools to data without additional software or drivers. OData offers a standard protocol for applications to communicate and exchange data, promoting interoperability between various platforms and systems. The OData service is compliant with the latest OData specification, version 4.0. Users can customize their OData service only to expose their chosen data, ensuring that the data remains safe from unauthorized access.
- **Virtual SQL Server:** CData Connect Cloud connects to data from client tools that support SQL Server connections through a virtual SQL Server. This virtual SQL Server behaves like a traditional SQL Server and offers various query options, yet when a client connects to the virtual SQL Server, the data is returned live from the source. Additionally, every connection established in Connect Cloud is treated as a separate catalog in the virtual SQL Server connection.

Comprehensive connectivity to cloud data

Connecting cloud data from different sources can create business challenges that often require a deep understanding of data schema and extensive development to link related or aggregate data for analysis. This can create challenges in maintaining data quality and integrity when writing back to the source, using external scripting, or manipulating column values.

Connect Cloud provides robust SQL support to overcome these challenges. These features include:

- **Metadata Discovery:** Robust metadata discovery for supported data sources allows for the discovery of custom tables, columns, and stored procedures. Data types are in standard database format, making it easier to perform data operations within BI, ETL, and reporting platforms. CData Connectors dynamically determine data types if the source does not provide one. For example, when accessing CSV, Connect Cloud scans the first 500 rows to determine the column's best data type.
- **Comprehensive Query Processing (SQL-92 compliant):** Connect Cloud is built using the same high-level query engine as CData Drivers. Including in-memory processing improves the data source's capabilities, allowing for analytical summaries, complex filtering, JOINS, and other useful features.
- **Create, Read, Update, Delete (CRUD) Support:** Users can perform and govern read and write operations with customizable security settings in Connect Cloud, or in the data source.
- **String, Date, Numeric SQL Functions:** The query engine offers a diverse library of over 50 functions that can effectively manipulate column values to produce the desired results. Commonly used functions include Regex, JSON, and XML processing.

SaaS data prepared for seamless analytics and integration

Creating a detailed representation of cloud data sources' structure, relationships, and attributes can be daunting. Data comes in many formats and can be difficult to connect without proficient technical skills, a deep understanding of data manipulation, and knowledge of REST APIs for making requests, handling responses, and parsing JSON or XML data.

CData offers a simplified approach to understanding and accessing various data formats by converting them into a tabular format. This makes it easy to comprehend and use the data with any tool without requiring a high level of proficiency in specific skill sets.

This approach includes:

- **JSON and XML:** Connect Cloud scans JSON or XML data and identifies rows based on patterns within the documents. If the default data model does not meet requirements, customizable settings are available to adjust how the data is modeled.
- **Cube data:** Connect Cloud offers standard reports to easily access cube data. Querying the data cubes directly and retrieving it in a tabular format is possible by providing the required dimensions and metrics.
- **Child data:** When connecting to APIs, it is not uncommon to encounter an endpoint that provides both parent and child data. CData aggregates the child data within the parent table, avoiding the need for a second request. Additionally, CData creates a separate table for the child data, streamlining the process with specific tools.

Simplified data governance

CData Connect Cloud simplifies and streamlines data governance by keeping data in the source system location. Real-time queries reduce the risk of errors caused by faulty data, retain permissions in the source system, and eliminate the need for ETL/ELT processes by granting direct access to live data.

Support for preferred SSO providers

Single Sign-On (SSO) can benefit organizations, as it reduces the IT burden for account management, enhances security, and streamlines the user experience. However, integrating SSO with SaaS applications and cloud services can be a complex process. For instance, not all SaaS applications support SSO protocols, and depending on how they are implemented, they can cause compatibility issues. Certain vendors may have limited support for preferred SSO providers, and some might require a significant investment of time and resources for a seamless integration with SSO.

With the SSO authentication feature in Connect Cloud, users can sign in to the tool through their organization's preferred SSO provider instead of creating separate credentials.

Connect Cloud supports several preferred SSO providers:

- SAML
- OpenID Connect
- Google Workspace
- Microsoft Azure AD
- Active Directory Federation Services (ADFS)
- Active Directory/LDAP
- Ping Federate

To ensure a smooth experience with Connect Cloud, it is recommended to review the documentation for each connector to determine the authentication methods available based on its API capabilities.

Honoring source system-level user permissions

Enabling user credentials in Connect Cloud ensures that every user enters their own credentials to access data sources, which enforces proper user permission privileges at the system source level. This enhances data governance by preventing unauthorized access, protecting data privacy, and maintaining data quality and integrity.

Improved data security with real-time monitoring and audit logs

Keeping track of multiple data connections, user permission levels and activity, and configuration changes can be time-consuming.

Connect Cloud provides a monitoring feature that records all system activities and events –including usage by data source and user, and any modifications to user accounts, settings, and system configurations. This audit log allows administrators to closely monitor and review user activity, helping them quickly detect and prevent unauthorized access, potential data breaches, or other security incidents.

Operational efficiency

Traditional data connectivity and virtualization solutions were primarily designed for on-premises data sources. These solutions have older architectures requiring technical resources to install a physical driver and acquire hardware or cloud storage as more data sources and users are added throughout the organization. These obstacles result in an implementation cycle of weeks and months. While there remains a need for on-prem data connectivity for data sources within a firewall, cloud-centric organizations rely on multiple cloud applications that don't support driver installation.

CData Connect Cloud is a fully-managed SaaS platform, built in the cloud to be dynamically scalable. This eliminates the need for installation and maintenance updates, or additional hardware as the organization scales data sources and users. Organizations can now connect in minutes to hours, not weeks to months.

Unified data from multiple cloud sources

Leveraging multiple cloud applications to address specific business and operational needs often results in data silos, hindering the ability to generate comprehensive, accurate reports across data sources. A common resolution is to combine the data into a data warehouse, yet this can add to the list of tools to manage, and lead organizations to report on stale data.

Query federation from Connect Cloud seamlessly combines live data from multiple cloud applications and presents it as a unified set of results, without the need for data movement or ETL tools. The federated query processor achieves this by breaking down user-defined queries into subqueries executed across each data source presenting the results. This ensures data consistency, accuracy, and integrity.



Curated and sharable data views

'Data culture' is expanding across the business landscape as organizations place more emphasis on enabling business users to access to and report on the data they need to measure success, understand gaps, and make decisions. However, analyzing and reporting on cloud application data can be difficult without some expertise in the database structure, and business users will quickly get overwhelmed trying to find only the data they care about.

Connect Cloud enables users to directly access cloud application data from the Data Explorer interface in the platform without the need to engage with an analytic or reporting tool. From the Data Explorer, users can create and preview data and save business-specific views that can be queried similarly to how the data source would be queried. These views can be shared and used by other users in the organization and accessed from analytics tools, increasing efficiency and improving data governance.

The CData difference

CData Connect Cloud offers a new kind of data virtualization – for the cloud. The fully-managed, easy-to-use SaaS platform simplifies the complexity of integrating various cloud data sources by providing a consistent interface, regardless of the source system. With real-time integration for any app, like Salesforce, SharePoint, and Workday, or data solution, like BigQuery, MongoDB, Snowflake, S3, and Databricks. For any additional sources, the API Connector allows users to create data connections to any source in minutes without coding.

CData Software is the data connectivity company. Our self-service data products and connectivity solutions provide universal access to live data from hundreds of popular on-premises and cloud applications. Millions of users worldwide rely on CData to enable advanced analytics, boost cloud adoption, streamline operations, and create a more connected business. Consumable by any user, accessible within any application, and built for all enterprises, CData is redefining data-driven business.

Learn more at CData.com

