Astera Centerprise 10

Reimagining the Integration Landscape

Create Complex Dataflows in Minutes

Use the easy-to-use visual interface to develop, debug, and test integration flows with minimal IT intervention.

Integrate Data with Zero Coding Efforts

Access and consolidate enterprise assets from on-premise and cloud sources in an easy-to-use, intuitive GUI without writing any code.

Automate Business Processes for Faster Time-To-Insights

Accelerate performance by automating repeatable processes across the organization, and enable effortless collaboration with partners and business stakeholders.

Consume Integrated Data for Reporting and Analysis

Export consolidated data to databases, files, enterprise applications, or BI and analytics tools to draw actionable insights and improve organizational processes .

Instantly Access Files Stored in the Cloud

Transferring and accessing cloud data has become easier than ever. Directly write to and download files stored on cloud storage from within Astera's built-in Cloud File Browser.

GIT Integration

Effortlessly create a new repository or clone an existing one. Perform git operations like merge, pull, push, fetch, commit, etc. right from within Centerprise.
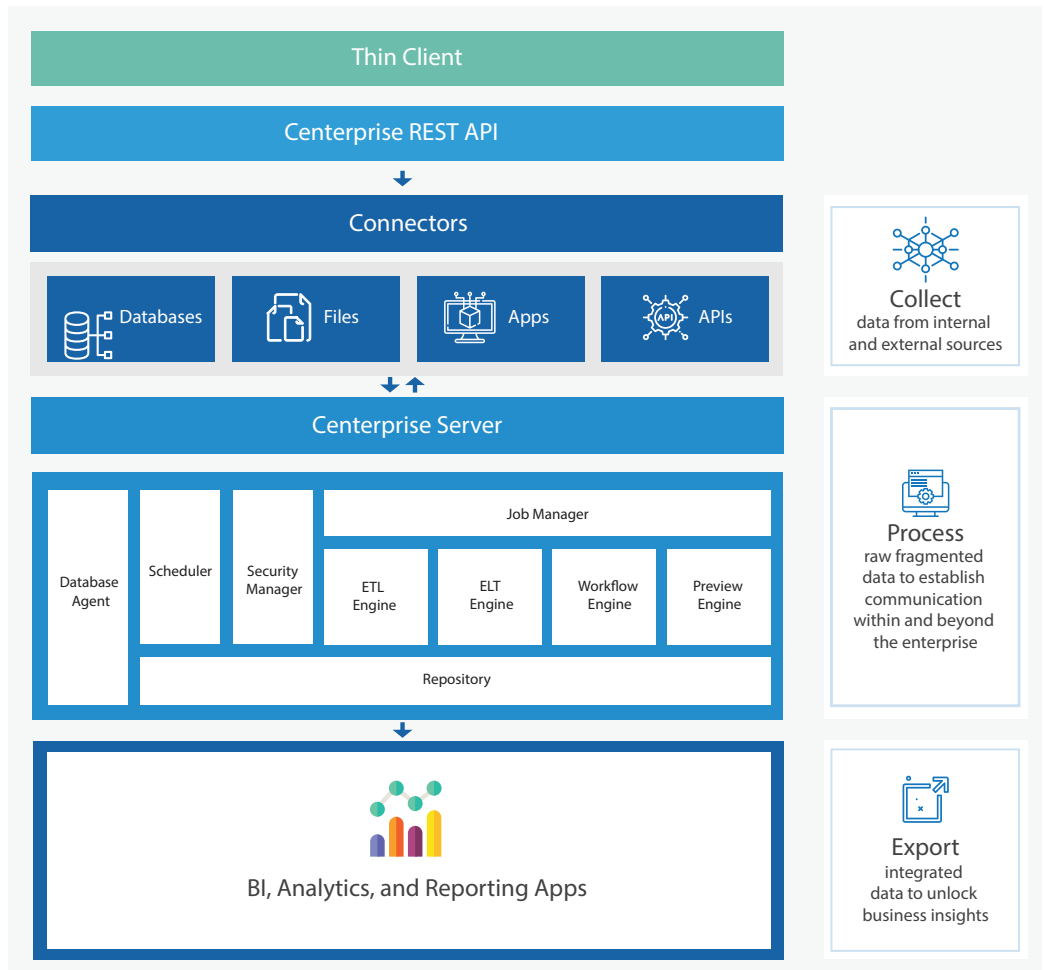
Centerprise Student

For students, Centerprise Student brings full client with a built-in server.

The massive explosion in data volume, variety, and velocity over the past decade has created significant challenges for organizations attempting to derive insights from their data. From data silos and data swamps to large and increasingly inefficient data management processes - stakeholders across the enterprise are finding it increasingly difficult to access the right data in a timely manner.

To establish a connection between these remote data points and manage information flow, organizations need integration. Astera Centerprise, an end-to-end integration platform, enables businesses to streamline integration by supporting data extraction, cleansing, transformation, and loading within a unified platform. By helping enterprises overcome IT complexity and gain holistic visibility into integration processes, the solution enables users to scale for their growing data needs.

Astera Centerprise Architecture

Collect data from internal and external sources

Process raw fragmented data to establish communication within and beyond the enterprise

Export integrated data to unlock business insights

Key Features
Centerprise Integration Server

REST Server Architecture: Simplify deployment and improve interoperability using the flexible client-server architecture

REST-Enabled Server and Thin Client	Connect multiple client applications with the Centerprise server using HTTPS commands. Database driver assemblies (DLLs) are installed on the server, eliminating driver installation on separate client machines, and reducing logistical and maintenance challenges for IT.
Server Configuration	Set up the Centerprise server by building and configuring a database repository, linking cluster database to the server, and activating license.
Server Explorer	Manage the cluster of servers that share the workload of queued jobs. Server Explorer enables quick access to the server properties, server log, cluster settings, license information, and other relevant details.

Deployment Environment

Integrated Development Environment (IDE): Create and manage your integration flows in a visual, user-friendly interface

Drag-and-Drop UI	Configure the source and destination systems, create rule-driven transformations, and debug or test integration flows using drag-and-drop actions.
Cut-Copy-Paste and Undo/Redo Capability	Refine mappings or modify objects in a dataflow using the standard cut-copy-paste and undo/redo options.
Instant Data Preview	Debug complex data mappings and view the output at any stage of the flow in real-time with a single click.
Toolbox	Easily access connectors and transformations via Toolbox to design your data processes.
Project Explorer	Manage your integration projects with a Project Explorer that facilitates easy access to shared connections, parameter information, dataflows, and workflows.

Source and Destination Connectors: Extract and load data from and to a range of structured, unstructured, and semi-structured systems using built-in connectors

Databases	Amazon Redshift, Amazon RDS, Amazon Aurora, Snowflake, Cloud SQL, MS Azure, Teradata, SQL Lite, MongoDB, Netezza, SQL Server, SAP HANA, MariaDB, Vertica, MySQL, Oracle, PostgreSQL, MS Access, IBM Db2, and others via Open Database Connectivity (ODBC)
Packaged Applications	Microsoft Dynamics CRM, Salesforce, Salesforce Rest V1 and Rest V2
Cloud Storage	Amazon S3, Microsoft Azure Blob Storage, FTP, SFTP, HDFS, and SCP
Data Warehouses	Amazon Redshift, Microsoft Azure, and Snowflake
Structured, Semi-Structured, and Unstructured File Formats	Parquet, Excel, delimited files, fixed-length text files, XML, JSON, TXT, RTF, PDF, PDF Forms, COBOL files and copybooks, EDI formats, including ANSI X12, EDIFACT, HIPAA, and HL7
Web Services and Other Protocols	ODP, OLE DB, REST, AS2, ADO. Net, emails, and file system

REST API Browser: Retrieve data from internal, external, and custom REST APIs

Import API	Access REST APIs by importing a JSON/YML file or URL.
Shared Connection	Configure Base URL, authentication protocols, and request timeout in the .sact or shared connection file generated on importing API.
REST Client	Retrieve all the HTTP calls present in the API (GET, POST, PUT, PATCH, and DELETE) through the REST API Browser.
Layout Generator	Build the output layout of an API by providing sample text or running requests.
REST Parameter Location	Specify which parameter or combination of parameters to use when making API calls. The API Browser supports query, header, and URL parameters.
Pagination	Manage the incoming records from an API source to prevent network traffic overload. Support is available for Offset, Cursor, and NEXT URL pagination patterns.

Shared Objects: Enable modularity by reusing objects in a dataflow

Shared Actions	Configure actions and logics as Shared Actions to reuse them in a dataflow or workflow.
Shared Connection	Configure database connection to be shared by multiple actions within the same dataflow.

ETL Engine

Map Data: Establish connection and bridge the gap between source and target systems

Data Mapping	Use drag-and-drop actions to cross-reference, convert, and validate data sets, without any hand-coding.
SmartMatch Functionality	Automate the process of resolving naming conflicts and formatting inconsistencies in high-volume integration jobs by creating a custom library that contains current and alternative values of a table's header field.
Dynamic Layout	Streamline time-consuming integration tasks by automatically propagating parameter configuration for source and destination entities through the linked data maps.

Data Transformation: Use built-in transformations to manipulate, convert, massage, or enhance data sets.

Record Level Transformations	Apply functions, lookups, or expressions on fields from a single record and derive values from it.
Set Level Transformations	Operate on multiple records by joining, aggregating, or reordering them to build robust flows .
Subflows	Encapsulate repeatable logic and transformation sequences in subflows and invoke them in dataflows to enable reusability and modularity.
Data Validation	Ensure the accuracy and quality of data prior to processing by cleansing data, profiling for errors, and applying data quality rules.

Data Source Browser: Query and access data from database source systems

Retrieve Database Sources	Access database sources and navigate their structures via the Data Source Browser.
Query Data	Write SQL scripts to query a specific database directly from the Data Source Browser.

Workflow Engine

Workflow Orchestration: Execute a sequence of integration jobs, such as dataflows and workflows, in serial or parallel on multiple servers

Run Jobs	Execute dataflows, workflows, as well as transfer and batch jobs on a single server or distribute them across multiple servers.
Job Scheduling	Automate jobs by specifying triggers based on running frequency, conditions, or file drops using the built-in job scheduler.
SQL Execution	Execute SQL commands by writing a script or running a file. The Run SQL Script task supports parameterization to substitute specific parts of SQL statements.
Data Validation	Configure the Centerprise server to send notification emails for job start, completion, and/or termination. In addition, metadata information about the job execution, including trace, error, and profile information, can also be sent via email.

Parameterization: Eliminate hard-coded values and simplify project deployment by parameterizing values that can be automatically replaced at runtime

Local Parameters	Specify variables locally in a flow using the Variables object that will be picked up at the runtime, changing multiple configurations with a simple value change.
Project Wide Parameters	Define project-wide parameters in a Config File to call these defined values in any dataflow or workflow within the project.Source Browser.

Performance

Performance Optimization: Improve efficiency and deliver data-driven initiatives quickly by leveraging performance features

Pushdown Optimization	Push down a job to a source or destination database for better resource utilization and faster processing.
Job Optimizer	Reduce job execution time by utilizing the built-in Job Optimizer that modifies the flow at run time. It removes unnecessary sort operations, adds ORDERBY clause on database sources, and offers real-time suggestions to speed up the process further.
Clustering and Partitioning	Distribute the workload among available resources by building clusters of servers, and process ETL jobs in parallel to deliver greater stability and performance.
High Availability & Failover Support	Set up several physical or virtual servers to ensure continuity of data process despite hardware or software outages.

User Authentication: Regulate access to data processes with advance authentication protocols

Bearer Token Authentication	Validate access requests to the server by generating a username, password, and Token URL for the user .
Secure Domain Communication	Authorize secure communication between the server and client machines using HTTPS. Encrypt information transmission by configuring an SSL protocol and .pfx certificate.
Seamless Password Recovery	Utilize the password recovery feature to recover forgotten passwords. An OTP is sent to the user's verified email address.

User Access: Manage and control access to resources based on user-defined roles

User Management	Add new users, assign them to a role, activate or deactivate user accounts, and view the complete list of registered users using a unified user management interface.
Role Management	Create new roles or delete/edit an existing one to manage access to different APIs and commands.
Access Control	Prevent unauthorized access by restricting data download on local machines.

Monitoring

Job Monitoring: Get insights into the progress of your jobs using the Job Monitor

Records Read	Get details about the type, start and end date, duration, records processed, and status about all jobs running or executed on a server.
Advanced Job Search	Filter jobs based on different criteria, such as Job ID, File Name, Job Type, Job Status, Error Type, Custom Data Range, and more .
View Child Jobs	View the progress of all the child jobs present in a workflow in a unified job management interface.
Job Progress	Get a summary of all the tasks executed in a dataflow or workflow with detailed information about each step.

Server Monitoring: Monitor server utilization for resource optimization and faster troubleshooting

Diagnostic File	Generate a server diagnostic file to get detailed information about the server for monitoring and troubleshooting in case of serve failure or downtime.
Server Log	Obtain info about the health of server components and filter results based on Date and Time, Server Name, Server ID, Severity, and Error Info.