Jitterbit Technical Overview : Microsoft Dynamics CRM

Jitterbit allows you to easily integrate Microsoft Dynamics CRM with any cloud, mobile or on premise application. Jitterbit's intuitive Studio delivers the easiest way of designing and running modern integrations with implementation times that average less than ten days.
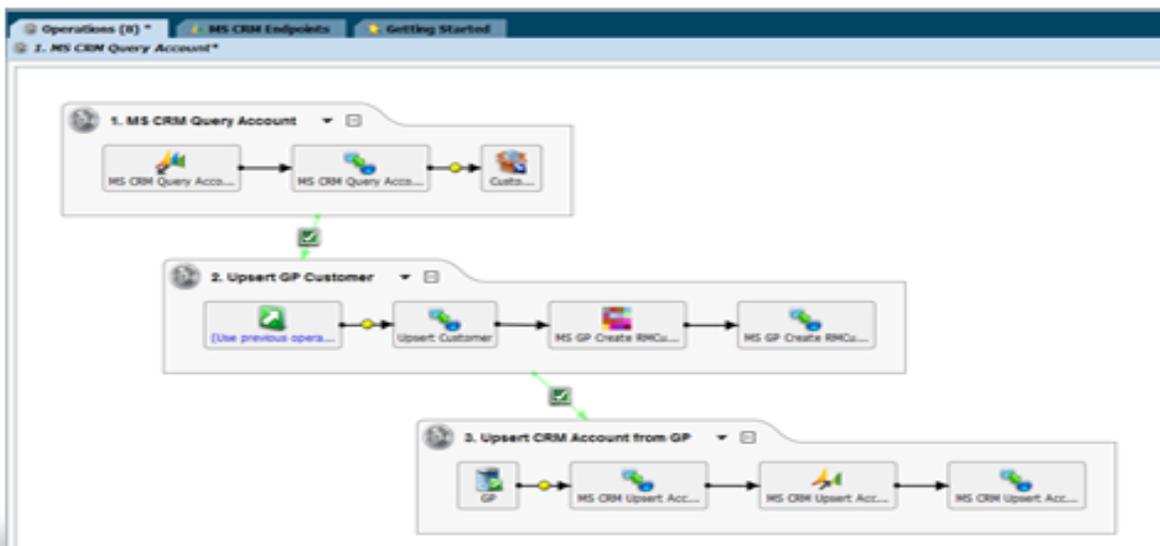
Jitterbit is a fully graphical integration solution that provides users a platform and suite of productivity tools to create and share their integration efforts. Jitterbit can be used stand-alone, or with existing EAI infrastructures.

With the Jitterbit Solution you can integrate data between Microsoft Dynamics CRM and other enterprise applications, Web Services, XML data sources, legacy systems, and simple and complex flat-files. Along with a scalable and secure server, Jitterbit provides a powerful graphical environment to help you quickly design, implement, test, deploy, and manage your integration projects.
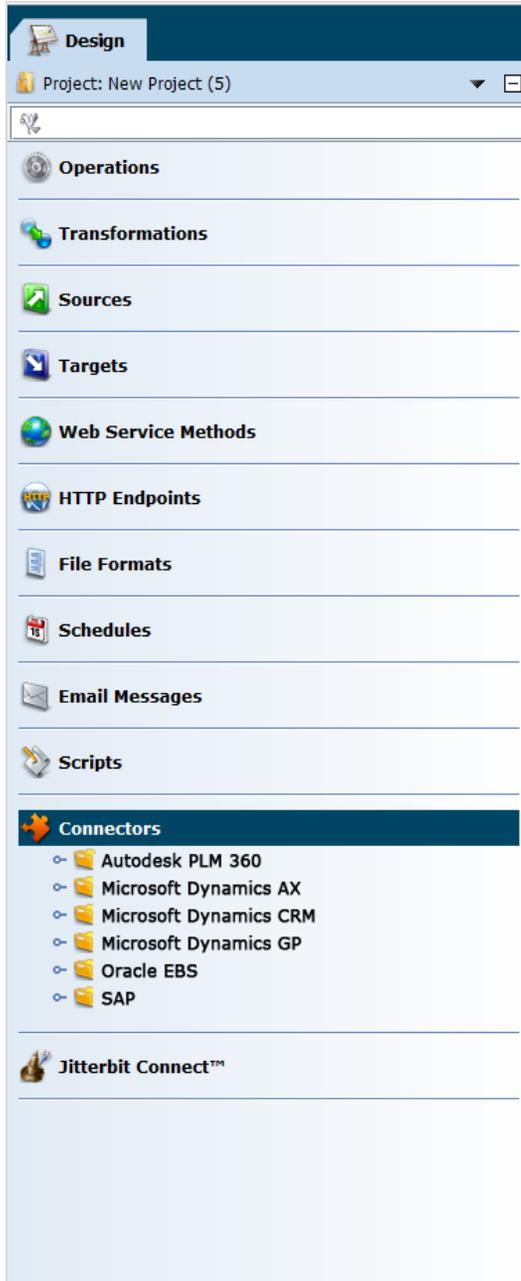
Streamline Microsoft Dynamics CRM Business Processes:
Integrations can run in real-time or batch and include a rich set of process-modeling tools to automate complex business processes across multiple systems.

- Automated the Lead-to-Order process with real-time interactions between CRM and ERP.
- Create Order-to-Cash processes by sending automated billing notifications.
- Customer/Account synchronization. Get unified view of customers for up-sell opportunities.
- Synchronize product catalog between CRM and Oracle EBS for real-time inventory.
- Update Price Book information between Dynamics CRM and ERP.
- Connect leads with marketing automation tools.

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The Jitterbit Studio is used to create new integration projects or open and modify existing projects. The Studio provides a graphical environment designed for rapid development by both business analysts and technical developers. Designed to be easy to use and maintain, the application allows you to create integration operations without writing a single line of code and intuitively guides you through the creation, modification, and management of an integration project.

Connecting to Systems

Jitterbit makes connecting even the most complex enterprise applications simple with a standards-based approach that includes native support for the major transports and protocols that you need to reach your systems:

- ODBC / JBDC connectivity to all major databases
- Internet protocols including HTTP(S), FTP, S/FTP, SMTP and POP3
- Complete XML and Web Services support
- Hosted Web Services that allow you publish your own web services directly from the Jitterbit UI.

All of these connectivity capabilities are available within a single application which means you can complete multiple integrations without ever leaving the UI.   Connectivity is decoupled from the source and target systems which means you never have to make changes to your production systems or install additional adapters.

Jitterbit Connector for Microsoft Dynamics CRM

Jitterbit Connectors are built to deliver the most complete, yet flexible, integrations with the most common CRM applications including Dynamics CRM. The Jitterbit Dynamics CRM connector supports all Dynamics CRM editions: CRM Online, CRM 2011, CRM 4.0, CRM 3.0.

Native Microsoft Dynamics CRM Connectivity

The first job of a connector is to connect to a business system. There are often several ways to access data and functions within a system including defined APIs, database access, and vendor specific frameworks. Jitterbit builds connectors based on the most common business requirements and the native functions provided by each system.

Jitterbit's Microsoft Dynamics CRM connector uses REST and SOAP web services to access Dynamics CRM data and functions. REST services are invoked for functions such as query, create, retrieve and update. The connector also provides unique functionality such as upsert, which updates a Dynamics CRM record if it exists and creates it if it does not.

Jitterbit supports different deployments of Dynamics CRM, including customer deployed, partner hosted and CRM Online.
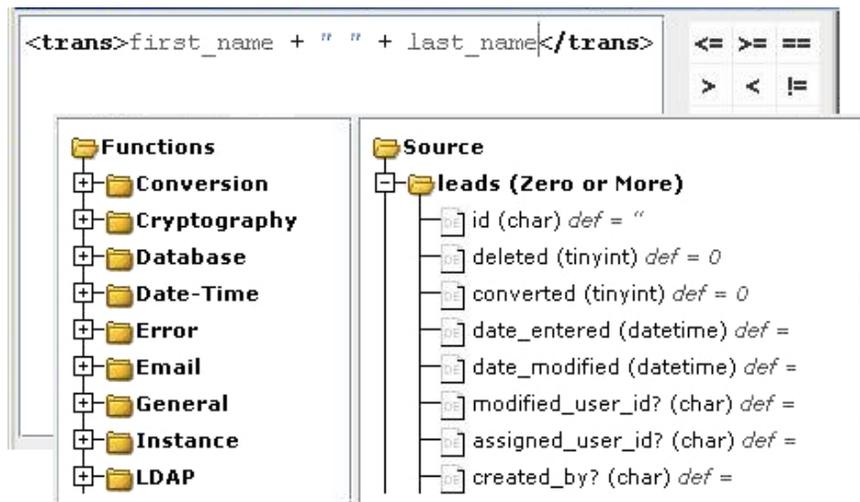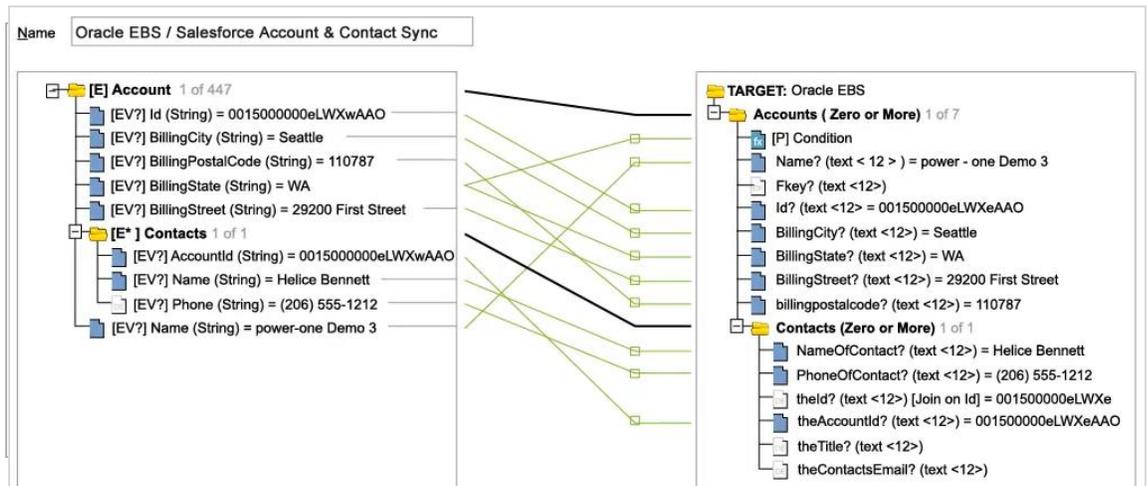
The Jitterbit connector provides access to both standard and custom objects within CRM and provides a point-and-click query builder to simplify data access.

Data Transformation

Jitterbit provides a very powerful yet easy-to-use visual mapping tool that allows you to transform data between systems in minutes.

You can shorten transformation development time by using the auto-mapping feature to map similar document structures. This interface gives you tremendous flexibility and control over data transformations without the need for coding.

Adding conditions, normalizing and de-normalizing between disparate data structures can be done graphically. Jitterbit will also highlight potential problems in your data transformations and suggest resolutions.
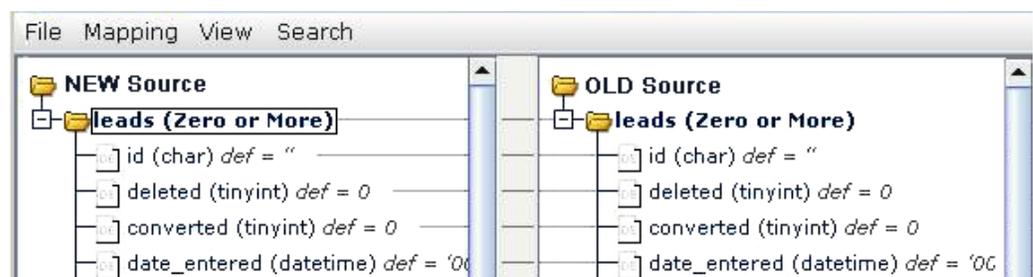
Formula Builder

The formula builder includes over 100 pre-built functions that you can drag and drop directly into the workspace for stored procedures. For more complex transformation logic the formula builder provides a user experience similar to creating Excel macros. The formula builder also lets you test every function you use against your data sources and highlights potential issues.

Point-and-Click to add functions from the built-in Library – you don't need to leave the UI and you never need to code your own functions!
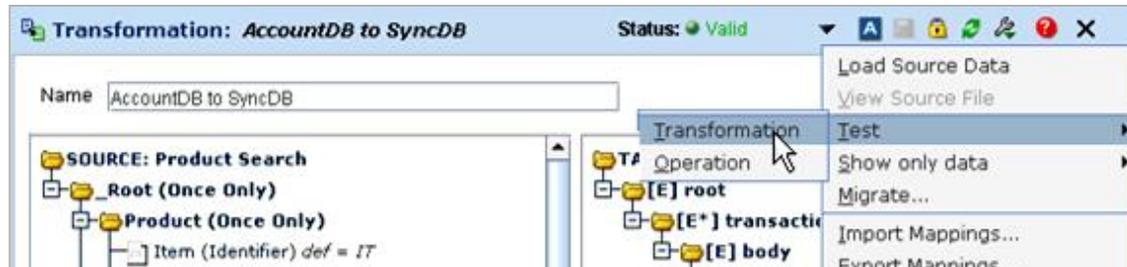
Transformation Migration

At some point in time you will likely need to upgrade the version of one or more of the applications with which you are integrating your data. To quickly and seamlessly make this transition, the transformation interface provides a drag-and-drop migration tool that helps you move between the old and new APIs.

Migration maps can also be imported so that if a community member has already performed a migration to the new API from the previous you can apply their upgrade.

Transformation Testing

Jitterbit gives you with the ability to test as you configure. You can load source data to view sample data as you map. You can test a transformation made to a single target element to view the results of a formula. You can test the entire transformation, the web service call or the operation to view the complete results of your work.

Test your data transformations on-the-fly directly in the Jitterbit UI.

Project Validation

In order to improve productivity, Jitterbit highlights errors or potential issues as the user configures their integration. The environment includes the following types of validation:

- *Object Status* - Every object within Jitterbit such as an operation, transformation, source, target etc. includes an objects status that highlights if the object has a valid definition or not. This status changes as configuration setting are set so that any issues that a user may introduce are immediately highlighted.

- *Test All Connections*- Validates if your Jitterbit Server Environment can connect to all the systems your project needs to access.

- *Validate Project* - Every object in a project is validated automatically before deployment and the system will not deploy invalid configurations. Your can validate your project at any time while using Jitterbit.

Point-and-Click Deployment and Validation

Publishing your completed Jitterpak to one or more Jitterbit Integration Servers is a simple one-click process. You can easily publish the same project to a development, test or production environment.

Context Sensitive Help System

Jitterbit includes a context sensitive help system that provides 1-click help during every aspect of an integration project.

Administration

Jitterbit includes an Administration Console that has easy-to-use and powerful tools for monitoring and managing every aspect of Jitterbit, including:

- **System Console** – Allows users to monitor and manage all associated Jitterbit Servers.
- **User Console** – Manage users and groups and assign access levels to any part of a Jitterbit project.
- **System Queue** – View and manage all operations that are currently running or pending.
- **Operation Log** – View the status and details of all completed operations on the server.
- **Scheduler Console** – Monitor and manage the status of the system's scheduling engine.
- **JMS Console** – Get a full view of the JMS services currently running on the system.

At the time of deployment, the transaction is first posted to the System Queue via a scheduler or an application event. Once processed, the operation status is recorded in the Log while details of the operation are available in the corresponding history (e.g. when the operation started, when it completed, amount of data processed, number of files processed, which files were processed). The Queue, Log and History can be sorted, filtered and searched to quickly locate the information required.

Administration tools are built-in Never leave the UI!
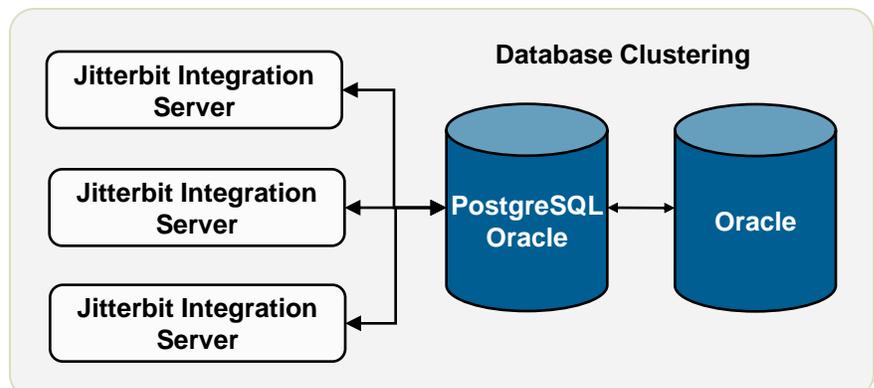
Jitterbit Integration Server

The Integration Server is the powerful, scalable run-time engine that processes all integration operations that have been deployed to it from Jitterbit.

Scalability, Reliability and Disaster Recovery

The Jitterbit Server architecture has been developed so that you can configure the level of reliability and transaction volume that your organization requires.

The Jitterbit Server uses a multi-threaded architecture to execute hundreds of operations concurrently and the number of threads can be configured based on your hardware and predicted workload. In addition, Jitterbit optimizes the execution of integration operations by caching connections and using reference data to reduce application communication. The transformation engine is optimized to auto-select appropriate parsing techniques for faster data throughput. If the system detects a fault it will send appropriate notifications and/or execute additional operations to compensate for failures.

With Jitterbit, you are never locked into hardware or licenses tied to hardware - you can install Jitterbit on any readily available hardware platform that runs Windows or Unix-based platforms. If your integration workload requires more processing power you can simply add additional Jitterbit Servers in a clustered configuration. Adding additional servers also improves reliability and availability.

Security

The Jitterbit Integration Server provides comprehensive security including encrypted messaging, access restrictions to a Jitterbit project, Role-based Access Control that allows control over any objects in your project.

The server includes an Apache server that enables for full administration SSL and x.509 certificates to ensure that all messages sent are authenticated and have not been altered. When Jitterbit accesses information on either source or target systems it uses the security protocols supported by those systems e.g. database user authentication and access control, PGP (Pretty Good Privacy) options for encrypting data in files, LDAP authentication for accessing directory serves, Web Service and Oasis authentication for web services.

Existing enterprise security protocols can be imported and reused within Jitterbit via standards-based plug-ins.
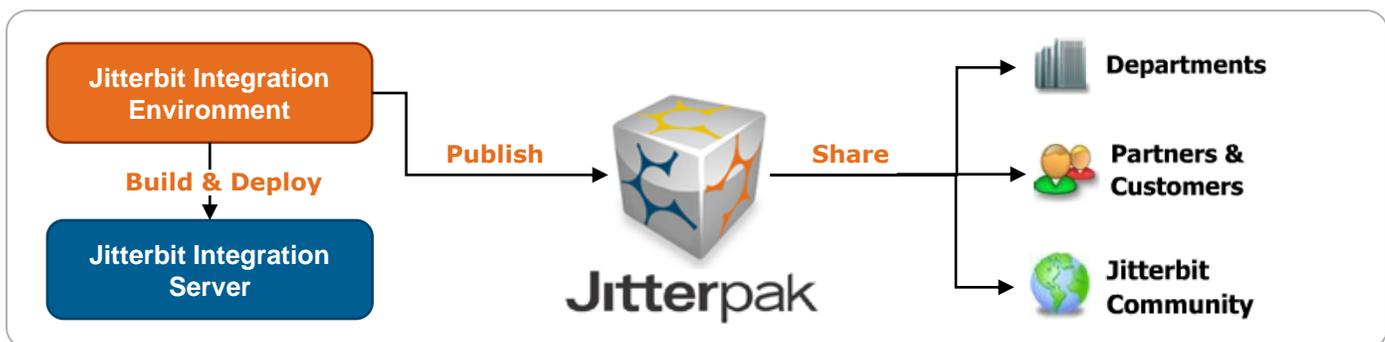
Transport Protocols

- HTTP/S
- FTP
- SFTP
- Web Services (SOAP)
- ODBC
- JDBC
- Windows File Share
- POP3

Data Formats

- XML – (XSD, DTD, WSDL
- Major Databases
- Single Structure Flat Files
- Hierarchical Structure Flat Files

Jitterpaks: Sharable Integration

Today, most organizations start their integrations from scratch, doing monotonous work that has already been done in similar projects. Jitterbit has been designed to make integration a shared goal where common integration definitions can be reused within organizations and by the Jitterbit community.   This is made possible by Jitterpaks. Jitterpaks are portable and sharable documents that include everything necessary to complete a standard integration. Jitterbit users can import, export, and share every aspect of an integration, including document definitions, data mappings and transformations, and operations.

Jitterbit makes it easy to import and export the entire blueprint of your integration. Jitterpaks can be shared across your enterprise, with partners, and throughout the Jitterbit community. As the Jitterbit community continues to grow, integration projects will take less time and become easier to maintain as best practices continue to evolve with the Jitterbit community.

Jitterpaks and associated professional support and services can be found at www.jitterbit.com.