

# RSSBus Connect

A Unified Integration Solution for  
Digital Transformation



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## Executive Summary

The road to digital transformation is paved with data integration. Whether organizations are looking to streamline internal operations, automate business-to-business processes, or transfer data to data lakes/warehouses for analysis, data integration plays an indispensable role.

Enterprise application integration is a huge market that will be worth \$13.34 billion by 2019, according to MarketsandMarkets. But application-to-application (A2A) and business-to-business (B2B) electronic data interchange (EDI) integrations are highly complex. They typically span multiple data types, formats, and standards not to mention cloud and on-premises platforms. Existing, legacy data integration solutions consist of complex manual processes, extensive coding, expensive services, or archaic technologies. Integration projects thus can require an army of consultants to setup and configure.

This white paper describes a modern solution that dramatically simplifies integration across on-premises and cloud-based processes, services, application and data—both within individual organizations or across multiple organizations. A modern integration solution, RSSBus Connect™ provides comprehensive application and data integration that does not require coding or multiple, complex development tools.

## Data Integration is Key to Digital Transformation

Organizations are increasingly undergoing digital transformation, using digital technologies to optimize business operations and create value. Data integration is essential to this process. It enables organizations to simplify internal workflows by sharing data A2A, automate B2B workflows through EDI, and take advantage of analytics by moving data into data warehouses and data lakes.

But data integration is easier said than done. These data integration scenarios require the exchange of all types of data—structured data from databases, unstructured text and social media information, streaming data from IoT sensors—across cloud-based and on-premises databases and applications. This data may need to move in multiple directions: on-premises-to-on-premises, cloud-to-on-premises, cloud-to-cloud, and on-premises-to-cloud.

A2A integrations must consider the many data types, formats, APIs, databases, email, and so on. Each business may have customized its systems to store additional data relevant only to them that must be integrated into other applications. Internal business processes for using even standard tools like Salesforce can differ dramatically from one company to the next, impacting integration requirements. As a result, sharing data between applications typically requires complex manual processes, extensive coding, or expensive services.

B2B integration is even more complex. Foundational technologies, such as EDI, dominate messaging across the supply chain, retail, logistics, and finance, but embody the complexity of more than 50 years of technical debt. Because the data is not tabular—it has its own structure and highly technical syntax—organizations must understand the data to map it to or from internal systems. Troubleshooting networking issues on often unreliable networks is challenging. At the same time, many EDI solutions are archaic, using complex interfaces with a substantial learning curve rather than modern technologies such as Web-based UIs.

## RSSBus Connect Facilitates Data Integration

RSSBus Connect is an integration solution that provides a suite of connectors that simplify the development, execution, and governance of integration flows that connect on-premises and cloud-based processes, services, applications and data within individual organizations or across multiple organizations. With RSSBus Connect, organizations benefit from application and data integration capabilities, eliminate the need for coding or development tools because the solution is process driven, and can take advantage of pre-packaged integrations and API management.

Specifically, RSSBus Connect offers the following capabilities

- **Standardized integration using Connectors and APIs**
- **A global 360-degree view of multi-step data exchange workflows**
- **An API-driven architecture**
- **Comprehensive monitoring and logging**
- **Scheduling**
- **Flexible deployment**
- **Security**
- **Full extensibility**
- **Hybrid integration**

## Standardized Integration using Connectors and APIs

Central to the RSSBus Connect integration architecture are standardized Connectors that can be used to build workflows that provide a global view of an organization's integrations.

Bundled Connectors are reusable building blocks for creating a flow of data through RSSBus Connect. Each Connector inputs messages and either transforms them from one format to another or transports them to and from their destination. Transform Connectors are used to change the format of messages to another format such as XML, JSON, EDI, and Excel. Transport Connectors connect to many different types of systems including applications, databases, and other servers.

Each instance of a Connector has an input folder that it monitors for new messages to process and an output folder where it places files that have been received or processed by the Connector. Each instance contains specific information about how to process an individual message. This information can include server connection information, XML schema information, or other settings that tell the port how to process the messages it receives.

RSSBus uses the file system to store messages it creates and passes from one Connector to the next, simplifying complexity by eliminating the dependency on a database-driven messaging model.

Connectors can be used for:

- **Application Integration**—Connectors include everything you need to move files between applications; for example, between HubSpot and Salesforce. For A2A transfer, users can take advantage of pre-packaged workflows to connect to a wide range of applications (CRM & marketing automation, ERP & collaboration, accounting, social networking, financial, and eCommerce).
- **Database Integration**—Connectors connect directly to all types of databases including traditional RDBMS systems as well as NoSQL and large data warehouses, enabling you to easily move data in and out of these systems.
- **EDI messaging**—Connectors can translate, map and change file formats from your enterprise applications to EDI messaging standards, such as X12, EDIFACT, IDoc (SAP), TRADACOMS, VDA, and XML.
- **Managed file transfer**—Connectors perform secure file transfer to send files from one trading partner to another. We provide a Drummond Certified solution for AS2 and AS4 messaging and file transfer and support major MFT standards like AS2, AS4, OFTP, and SFTP. The application is also certified with Odette for OFTP and e-SENS for AS4.
- **APIs**—the API Connector can create APIs that kick off message flows for use in process-based orchestration. When a client calls that API and passes inputs, they kick off predefined processes, and a result is returned. These processes are orchestrated through flows designed in the UI.
- **Document generation**—Connectors can process or generate documents based on pre-defined templates. Documents that can be generated or processed include Excel and PDF. This capability can be used to generate reports, invoices, labels, and so on.

## Connector Configuration Made Easy

RSSBus Connect simplifies the process of configuring steps in a workflow.

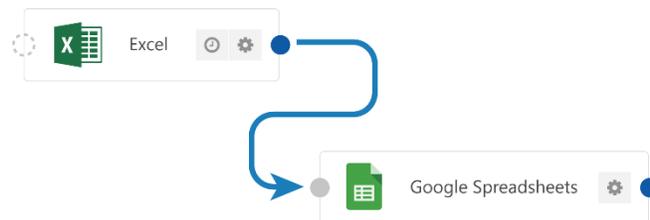
All connectors operate by passing messages from one connection to another. Messages can have any format. But most applications and databases use a relational model, defining a standard table-like structure for all the entities they access to provide a standard mapping process across all application and data types. Extensive support for SQL query language capabilities makes it easy to interact with the data without the need to understand the underlying APIs for each connection.



RSSBus Connect provides a wide range of preconfigured “Packaged Integration Flows.” In these flows, Connectors/workflows come preconfigured to perform various multi-step integration tasks that move files from one Connector to the next to complete a specific task. Examples include:

- Migrating accounts from DynamicsCRM to Salesforce
- Synchronizing data from Excel to Google spreadsheets
- Synchronizing Google Drive files to a SharePoint site

Users can easily customize these pre-configured workflows to their own requirements rather than having to create workflows from scratch.



## API-Driven Architecture

While the RSSBus Connect UI is great for configuring relatively simple, straightforward integrations, many organizations need to automate complex redundant tasks or take advantage of RSSBus Connect management capabilities from within an external application. Our REST-based management API exposes all features of the application through a modern web API interface like REST, JSON, or OData, so users can onboard new connections programmatically, create their own complex scripted management workflows, or take advantage of individual RSSBus Connect capacities from another application.

Users can also create their own custom APIs (or microservices) to provide entry points that trigger integration workflows, access data, and publish data without the need to write code. Workflows can do things like update data, send notifications and generate reports. Creating workflows triggered by microservices enables users to build an infrastructure that is easy to develop, test and maintain. Such an infrastructure helps their business to scale and reduces the complexity of a large, monolithic integration platform. Organizations can also build APIs that provide secure, real-time access to siloed data stored in a custom database, files such as Excel, or in legacy applications.

## Comprehensive Monitoring and Logging

Audit trails/logs are necessary for regulatory compliance and simplify troubleshooting by allowing customers to track a message's location when errors arise. RSSBus Connect provides audit/log trails that offer a complete history of how each message was processed.

The product creates these audit/log trails by employing a standard, text-based, MIME message format used by many mail clients to communicate data as it flows between Connectors. As messages proceed through each step in the integration process, RSSBus Connect stores metadata that defines and tracks what happened to the message.

The solution provides various levels of logging. For example, verbose logging options include the entire request and response, as well as informational logs. Users have full control over which logs to enable/disable so they can manage the amount of logging data the application retains. Users can also automatically manage or prune logs using settings that automatically archive or delete logs once they reach a certain age, allowing the user to minimize the application footprint.

Any editor can view log data for any file at any time on the file system without specialized software. This eliminates the need to perform maintenance to keep the log performing well and allows users to access logs even if the application goes down. The standard API also connects to reporting tools such as PowerPivot and Tableau.

Configuration files are all plaintext INI formatted files, making it easy to backup and edit.

### Scheduling

Users have flexible control over when integration jobs occur with RSSBus Connect. They can create event-driven triggers to perform an action or employ fine-grained control over scheduling. Complex scheduling options based on Unix Cron syntax allow users to schedule jobs to run periodically at fixed times, dates, or intervals (e.g. by the minute, hour, day of month, month, or day of week).

### Flexible Deployment

RSSBus Connect provides a wide range of flexible deployment options to meet customer requirements. As a web application, RSSBus Connect requires a web server. Versions are available for Java and Windows. The Java version runs as a Java .WAR file and can be deployed to any Java Servlet container, such as Apache Tomcat, Eclipse Jetty, JBoss, Oracle WebLogic, and IBM WebSphere. The Windows version gives users the option of using an embedded web server for ease of operation or Microsoft IIS for more robust security options that provide full control over authentication and server configuration.

Many options are available for DMZ deployment. The web server can be installed on premise, in the cloud or hosted by RSSBus. Users can also deploy a hybrid model when they need to connect to systems or trading partners directly in a DMZ or in the cloud outside their internal network and then move the data to the internal network. RSSBus Connect also comes equipped with a Cloud Gateway feature that acts as a DMZ proxy, eliminating the need to expose RSSBus Connect through your company's public firewall. Users can even migrate from platform to another.

Built on a modern architecture, RSSBus Connect is also optimized to run in containers, allowing users to easily spin up new environments on the fly without configuration for load balancing, high availability, scaling, and quickly creating new test environments.

## Security

RSSBus Connect secures customer data through a comprehensive range of security protections that include:

- **Authentication:** Existing Active Directory or LDAP servers provide granular control over user directory permissions and authenticate users.
- **Certificate management:** An integrated certificate management dashboard is available to manage all Open PGP keys, SSH keys, and other types of certificates.
- **Secure file transfer:** Connectors support many protocols for secure file transfer including SFTP, FTPS, and AS2.
- **Encryption:** RSSBus Connect's Open PGP Connector or AES encryption using the Zip Connector encrypt data at rest or in motion. Windows encryption can be used encrypt passwords or sensitive parts of the profile.
- **Secure access:** TLS security on the Web server hosting RSSBus Connect can secure access to the application. User-generated authtokens secure API access.

## Fully Extensible

While integration may seem simple from 30,000 feet, the devil is in the details. Users may need more flexibility than a simple integration tool can provide for their integration scenario. For organizations with more sophisticated requirements, RSBScript is a cross-platform configuration language that allows users to extend RSSBus Connect platform in a highly flexible manner. RSBScript delivers a full array of programming capabilities including data manipulation formatters (e.g. string, add numbers), operations (e.g. querying a database, calling REST services), and key word operators (e.g., If/else, Switch/Case, Try/Catch).

With RSBScript, users can create custom events that kick off pre- or post-processing events, triggers or other integrations that hook into existing Connectors. For example, users can employ RSBScript to create a post-processing event that routes a file to multiple destinations or resubmits a message after 50 minutes if it initially fails to transmit.

Users can also extend an integration by creating custom Connectors in the language of their choice, such as Java or C#, to connect with custom databases, internal systems, or enhance functional capabilities of the application.

## Hybrid Integration

Today's pervasive integration challenges are putting new pressures on IT leaders to reshape their integration infrastructure. Forward-thinking organizations are adopting a hybrid integration approach based on infrastructure building blocks that span on-premises application integration, API management, Integration Platform as a Service (iPaaS), and Integration Software as a Service (iSaaS) capabilities.

RSSBus Connect is a natural companion for this evolution in infrastructure, combining cross-functional integration with a universally available hybrid integration solution. The hybrid features span the core capabilities of leading iPaaS and API management to provide a dynamic and highly flexible solution for all types of integration. Users can use RSSBus Connect as a standalone platform to power their business or can pick and choose capabilities and functionality to augment current data connectivity. Whether an organization needs to extend legacy integration, modernize data flow, or push leading-edge integration technologies to the cloud, RSSBus Connect's hybrid integration capabilities can help them deliver robust, secure, and reliable connectivity.

## Conclusion

As organizations digitally transform their internal and B2B processes to streamline operations and create innovative customer value, they must inevitably share data across internal and external applications. While automating integration flows has been a complex and time-consuming process in the past, it no longer has to be. With the RSSBus Connect iPaaS solution, organizations dramatically simplify the development and visualization of end-to-end integration flows across on-premises and cloud-based processes, services, applications and data within or across organizations. They can now easily perform integrations that connect on-premises and cloud-based processes, services, applications and data within individual organizations or across multiple organizations integrations without programming. At the same time, they gain the flexibility to create sophisticated workflows that meet their organization's specific requirements.

Download RSSBus Connect today and begin connecting data across your organization to drive the data strategy of your company.

## About RSSBus

RSSBus provides high-performance, reliable, and fully-extensible products that simplify the process of producing, consuming, and integrating data. The RSSBus products enable a simple yet effective layer of middleware that helps users drive information flow without the added complexity that is common across other integration solutions.

At RSSBus our goal is to provide customers with the tools necessary to seamlessly integrate applications, services, and data without having to manage additional layers of complexity. We know your organization places a large investment on data management and we are proud to be a trusted provider of data integration products.

Browse our [Connectors](#) or see our [Application Integration](#)