IBM **Supply Chain**

The essential elements of a modern B2B architecture

What you need to consider when evaluating your B2B integration architecture and strategy

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Why B2B integration matters

Regardless of industry, business-to-business (B2B) integration is vital to the operation of most companies. At the most basic level, the B2B integration processes might consist of receiving an order over the phone or fax and then manually entering the information into an order management application. At the opposite end of the spectrum, integration can be completely automated, so only an exception can stop the process.

Because of this wide range of requirements, not all companies view B2B integration the same way. If you're not operating a complex business, B2B integration might not be a significant part of your day-to-day operations. Even at companies where B2B integration is critical, the organization might be complacent or view it as just IT infrastructure. In that case, B2B integration projects often don't get the budget and recognition they deserve.

Best-in-class companies recognize the value of B2B integration and even view it as a competitive differentiator. To modernize your B2B infrastructure and support future business growth, you need a strategy. The following highlights the essential B2B platform elements you should consider as you evaluate options for modernizing your B2B architecture going forward.

A single scalable and secure B2B integration gateway

Many organizations struggle with multiple-point solution gateways running on outdated technology that is at risk of being at the end of its support life. Operating multiple gateways creates processing silos where file and business documents are processed separately, which can lead to inefficient and redundant operations. Having multiple solutions also can negatively affect budgets and staffing, and complicate integration across back-end applications.

To move forward, you need a modernized platform that has:

- The ability to process both file-based transfers and business document-based use cases on a single B2B integration gateway.
- An architecture made up of reusable components.
- API extensions and management.
- Support for the industry's communications protocol requirements.
- The ability to encrypt data both at rest and in motion.
- Capabilities to authenticate partners before network access is granted.

IBM solutions offer:

- The ability to process both file and message-based use cases on a single gateway using the same protocols and security features.
- An extensible architecture that enables integration with other company-specific applications
- A single gateway that supports most communication protocol and security requirements.
- Support for data encryption, DMZ-based security and partner authentication.

Simplified onboarding and partner management

Onboarding and maintaining underlying trading partner and customer data is one of the most time-consuming activities IT departments must handle. Because businesses want to leverage partner relationships as soon as possible, there is pressure to reduce onboarding times. Often, IT departments are tasked with supporting growth both in the number of partners and a constantly changing mix of partners and their technical requirements. To bring partners on board, IT departments often struggle with redundant, manual tasks across multiple applications while keeping contact data and certificates up to date. Questions also arise about where to securely store this underlying data. Should it be stored on-premises, on a local cloud behind a firewall or on a public or private cloud?

A modernized platform should include:

- The ability for partners to self-manage aspects of the onboarding process and support each partner's specific technical requirements.
- A centralized application that supports onboarding across multiple business applications.
- Options to deploy centralized onboarding depending on data privacy requirements and the company's architectural strategy.
- The ability to monitor the state of a partner relationship.
- The ability to adjust scalability based on fluctuations in onboarding activity.

IBM solutions offer:

- Partner self-service capabilities so they can proactively set up and maintain their specific technical requirements for protocols and encryption.
- A single application to capture and manage partner contact data and certificates.
- The flexibility to store contact data on a public, private or local cloud (behind the firewall).
- A scalable architecture that includes cloud-based deployments that can adjust to changes in onboarding activity.

For more information, visit
Partner Engagement Management

High availability

Most enterprises can't afford any downtime to their underlying B2B platform or their trading partner communications, so it's vital to minimize the impact of a planned or unplanned outage. If an outage occurs, the company must be able to continue to accept documents and minimize the time it takes to resume operations. However, operating back-up, passive data centers can be expensive, and managing the business and security requirements for operating globally dispersed data centers can be challenging.

You need a platform that can:

- Continue to operate customer-facing communications during an outage.
- Cut over to an alternative data center in real time when an outage occurs.
- Support a global data center deployment strategy.
- Protect against data loss during an outage.
- Scale as the business grows.

IBM solutions offer:

- Customer-facing communications that are separate from core processing so they continue to operate during an outage.
- Real-time, file-based synchronization across data centers, which results in zero downtime during an outage.
- Multiple production data centers, which act as hot-site backups to each other.
- No single point of failure.
- Visibility over high-availability nodes and their operational status.
- An always-on foundation with the scalability and performance necessary to support global operations.

For more information, visit Global Mailbox

Adaptable capabilities

Business operations are constantly changing. Outdated B2B integration capabilities and a lack of configuration options can limit a company's ability to adapt to quickly changing operational requirements. In addition, integration processes typically involve some type of data transformation and compliance with industry data standards. The end result is excessive staff time spent converting one data format to another and planning how to adopt the next set of updated standards.

A modernized platform should include:

- Reconfigurable operational settings to accommodate changing business requirements.
- The ability to easily convert data from one source format to another.
- Support for the data standards in your industry.
- Automation of both internal and external integration processes.

IBM solutions offer:

- An extensive set of configurable capabilities.
- Any-to-any data transformation.
- Data standards for numerous industries such as banking, healthcare and supply chain operations.
- Automated workflows and exception processing.
- Process flows that can easily hand off content from B2B-focused processes to other IT and operational processes.

Visibility and analytics

Because of SLAs and governance over key business processes, visibility into integration processes is more important than ever. Businesses need to be able to view file contents or documents to help invoke the appropriate workflows and use B2B integration data to drive advanced analytics.

A modernized platform should provide:

- Visibility into integration processes and their status.
- Service-level agreement capabilities that trigger alerts on process exceptions.
- The ability to track individual documents.
- Advanced analytics capabilities that leverage the wealth of data flowing through the B2B integration platform.

IBM solutions offer:

- Visibility over end-to-end process flows.
- Visibility into cloud and on-premises processes.
- The ability to interpret the contents of a file to trigger appropriate workflows.
- Individual document tracking.
- High-availability node monitoring.
- Process optimization using real-time data.
- Advanced analytics that provide the cognitive insights you need to improve business outcomes.

Hybrid deployment models

Many companies are embracing cloud-based deployment models as a part of their business strategy, but it's important to consider the integration between cloud and on-premises applications. Security policies often dictate the data that can or cannot be stored in the cloud. Companies need to be careful where data is being stored because many application vendors rely on third parties to host their cloud offerings.

A modernized platform should include:

- APIs that enable integration with cloud-based applications.
- Visibility into hybrid integration processes.
- Flexibility to choose where customer and partner data is stored, such as on-premises or a cloud server.
- A single B2B integration vendor.

IBM solutions offer:

- APIs that enable easy integration with cloud- based applications.
- Integration across a mix of on-premises, local, private, public or hybrid application scenarios.
- The ability to choose where you store sensitive customer or partner onboarding data.
- The ability to select a mix of B2B integration deployment options.
- A single cloud hosting service for SaaS-based B2B integration.

What is your B2B strategy?

At IBM, we believe that companies need to deploy these essential elements of a modern B2B architecture to ensure their B2B capabilities can support operational requirements.

Watch this panel discussion in which IBM IT architects talk about the challenges of B2B integration and how IBM can help.

For more information about on premise B2B solutions, visit ibm.biz/B2BiSolutions

For more information about cloud based B2B solutions, visit, ibm.biz/SCBNCloud

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