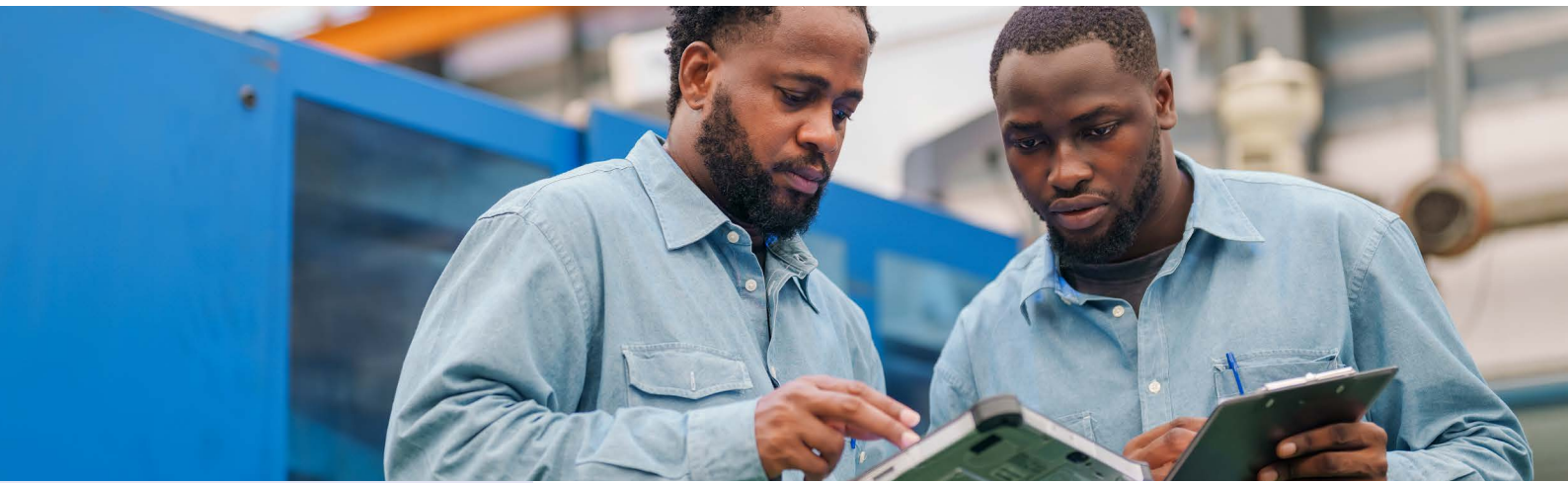


EXECUTIVE BRIEF

# Manufacturers turning to cloud-based B2B integration to build resilient supply chains

IDC research shows clear benefits and rising adoption



## Key findings

Manufacturers are amongst the most advanced in their use of B2B integration and they are already reaping significant benefits. However, a great deal still needs to be done if organizations are going to overcome future supply chain challenges.

- More than half of respondents (54%) already use automated B2B integration when dealing with customers. This is set to rise to three quarters (75%) within the next three years.
- Key benefits of B2B integration include reduced operating costs, improved supply chain visibility, faster time to market, improved market competitiveness and improved customer satisfaction.
- Supply chain performance has improved through the digital sharing of key documents including inventory inquiries (89%), product catalogues (88%), purchase orders (86%) and advance ship notices (85%).
- Cloud is the key enabling technology for supply chain integration, with AI second.
- Manufacturers lead the way in the deployment of IoT and are reaping the benefits as a result.

**The past few years have been extremely challenging for supply chains in every industry sector. Manufacturing has been amongst the worst affected, as businesses have experienced disruption, uncertainty and volatility.**

OpenText and IDC conducted global research to understand the role B2B integration plays in building agile and resilient supply chains. The results from manufacturing companies showed a clear correlation between cloud-based, automated B2B integration and supply chain performance. Manufacturers are investing in their B2B integration capabilities but still face many challenges when improving supply chain integration.

## Supply chain challenges put the focus on integration

Even prior to the COVID-19 pandemic, disruption had become the new norm for supply chains. Supply uncertainties were matched by demand volatility. Like every industry, manufacturers found their supply chains caught up in this whirlwind. Our research shows widespread disruption hit companies and will likely continue into the foreseeable future as new disruptions take hold.

Increased supplier costs	53%
Increased demand	46%
Transportation/delivery delays	40%

Increased transportation costs	39%
Increased demand volatility	36%
Reduced factory capacity/closures	35%

Table 1: Biggest disruptions to supply chain operations in the past two years

Building new levels of agility and resilience into modern supply chains places the focus on increased digitization, integration and collaboration across increasingly global, extended and complex supply networks.

For manufacturers, not only are supply chains more complex, so too are the products and the trading partner communities needed to supply them. Companies are realizing the scale of the challenge to digital supply chain integration this represents.

Complex supply networks with multiple tiers	28%
Complex products and product ranges	27%
Global, extended supply chains, elongated lead times	27%
Complex integration of multiple IT systems	24%
Lack of budget to implement process changes	24%
Frequent new products and increased product obsolescence	20%
Lack of internal skills	20%

Table 2: What are the major barriers to successful supply chain integration?

### Manufacturers rely on automated B2B integration and its rapid growth

According to our research, more than 50 percent of manufacturers are already using some form of automated B2B integration when dealing with customers. In fact, almost a quarter of organizations surveyed (24%) have already implemented fully automated, real-time integration.

The results show that B2B integration adoption is maturing—and at a very fast rate. Manual B2B transactions are set to drop by almost half over the next three years. At the same time, fully three quarters of all B2B transactions in the manufacturing sector will be through automated supply chain integration.

	Today	Three years
Manual and unstructured communication (paper, fax, phone, email, file sharing, etc.)	19%	12%
Manual but structured communication (web EDI or other portal solutions, web forms, smart forms, etc.)	27%	13%

**“Improving cooperation with partners and suppliers is the biggest challenge when improving the digital maturity of our supply chain.”**

IT Director, Large manufacturer

	Today	Three years
Automated message-based integration (direct EDI integration, value-added networks)	30%	42%
Automated real-time system integration (API-based synchronous integration)	24%	33%

Table 3: Format of B2B transactions with customers

Sadly, the picture is a little less impressive when it comes to dealing with suppliers. Just over 52 percent have automated B2B integration with their suppliers, with 20 percent still using phone, fax or email-based communications. Companies should be striving for 100 percent digitization of their trading partner community.

### B2B integration delivers tangible business benefits

In today’s modern supply chains with large and collaborative trading partner communities, the old, manual processes will no longer work for manufacturers. Manual processes are costly, slow and inefficient. They make it impossible for companies to build and create the business agility and resilience required to pivot to new products and new markets.

Reduced operating costs	41%
Improved supply chain visibility	37%
Faster time to market	36%
Improved market competitiveness	34%
Improved data quality and accuracy	34%
Reduced logistics costs	31%
Improved customer satisfaction	30%
Improved inventory turn rates	30%
Reduced cash-to-cash cycle times	29%
Reduced business and compliance risk	24%

Table 4: Top 10 benefits from digitally integrating the supply chain

This is evident when our manufacturing respondents were asked about the benefits of digital supply chain integration. While reducing costs—such as supplier or logistics costs—still ranked highly, a series of strategic business benefits were also brought to the fore. Faster time to market, better market competitiveness and improved customer satisfaction now feature as highly as improved payment cycles and supply chain or inventory visibility.

The manufacturers surveyed report receiving all those benefits from their B2B integration capabilities.

## Digitizing supply chain information drives improved performance

When asked about the level of improvements made to their supply chain by automating a range of documents, manufacturers report that exchanging information digitally through B2B integration brings substantial benefits.

The vast majority, between 82 and 89 percent of respondents, report experiencing performance improvements by digitally sharing a wide range of supply chain information, from accounting documents, such as POs and invoices, to logistics documents, such as ASNs or shipping status, to sales information, such as pricing or product catalogues.

**“Our biggest challenge is the management of the data needed in terms of collection and integration with third party providers.”**

Director, Mid-sized Manufacturer

	Respondents reporting performance improvements by sharing digitally	Respondents planning to share digitally in next three years
Inventory inquiry	86%	28%
Product catalogue	88%	27%
Purchase order	86%	41%
Functional or order acknowledgement	86%	21%
Advance ship notice	85%	34%
Returns	85%	23%
Request for quote	84%	31%
Bill of lading	84%	19%
Shipping status	83%	36%
Receiving advice	82%	16%

Table 5: % of respondents who report supply chain improvement through digital exchange by information type and expected adoption in next three years

As supply chain becomes more central to business success, these potential improvements are too big to ignore. However, our research suggests that progress toward digitizing these key supply chain documents is still slow.

There is only one document—the purchase order—that more than 40 percent of respondents expected to share digitally in the next three years. This may be partly explained by the complexity of system integration as well as the lack of budget and internal skills highlighted in Table 2.

## Supply chain integration relies on the cloud

Our research investigated the underlying digital technologies that are enabling B2B integration. For almost three quarters of retailers, cloud represented the most important technology. It provided the scalability, flexibility and security needed when building agile and resilient multi-tier, multi-party supply networks.

Cloud	67%
AI/ML	44%
Ecosystem collaboration	36%
Control Tower	27%

Table 6: Digital technologies driving supply chain integration

Although the technological capabilities to automate B2B integration do not hinge exclusively on cloud, the reality is that almost all new application development for the supply chain is taking place in Software as a Service (SaaS) applications. Manufacturers are reaping many benefits as a result of taking a cloud-based approach to B2B integration, including improved supply chain visibility, enhanced collaboration with partners and being faster on their feet when confront supply chain disruptions.

Improved overall supply chain visibility	53%
Cloud/SaaS means that we are always on the most recent version of an application	51%
We can more easily scale (either up or down) our supply chain IT/application needs	50%
Improved data sharing/collaboration	49%
Better features and functionality	47%
Improved compliance and risk mitigation	43%
More nimble and better able to respond to supply chain disruptions	42%
More robust security and data protection	42%

Table 7: Benefits of deploying cloud/SaaS for supply chain integration

As importantly, cloud delivered the foundation upon which the other technologies are built, especially AI and machine learning. This is an area where manufacturers are taking the lead, with more than 90 percent of respondents saying they already use some form of advanced analytics.

**“We’ll enable more cloud-based infrastructure, as we’re moving everything into a connected system to ease communication and data-sharing.”**

Supply Chain Manager,  
Canadian Manufacturer

Use basic analytics across our supply chain	12%
Use advanced analytics aligned with key supply chain metrics	56%
Use AI/ML to generate more predictive or prescriptive insights from across our supply chain operations	41%
We don’t use any form of AI/ML analytics at the moment	7%

Table 8: Use of advanced analytics and AI/ML in the supply chain

### Manufacturers excel in IoT

There has been a good deal of hype surrounding the Internet of Things that may, at times, have generated more heat than light. However, IoT potentially provides an invaluable source of real-time supply chain information. This is something that our manufacturing respondents seem to have seized upon, often showing rates of implementation more than double that of the average of all industries. Today, only three percent of manufacturers surveyed have no IoT capabilities, compared with more than 50 percent as an average across industries.

	Manufacturing	Industry average
Sensor enabled inputs – components, parts, ingredients, finished goods	36%	17%
Sensor enabled shipments – inbound trucks, outbound trucks, drop lots	42%	20%
Sensor enabled products – smart products	36%	17%
Sensor enabled asset and inventory – traceability and item detection	42%	20%
Sensor enabled warehouse equipment – shrink wrappers, forklifts, storage bays	41%	19%
Sensor enabled factory equipment	33%	8%
Sensor enabled health, safety, and security monitoring	38%	18%
Support autonomous operations – improve yield, process efficiencies and cost reduction	39%	21%
Quality and compliance monitoring and control	52%	23%
None- we do not currently incorporate IoT/ RFID into our supply chain	3%	52%

Table 9: Deployment of IoT within the supply chain

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## Looking forward

Commenting on this research, IDC pointed out that, “it has been the view of IDC for some time now that business-to-business (B2B) integration represents the backbone of the supply chain.”

This is especially true within manufacturers, where the supply chain is increasingly responsible for delivering business agility and strategic direction. Yet, while benefits are clear and progress is being made, manufacturers’ responses show that the process of digitizing documents that improve supply chain performance is still at an early stage.

As manufacturers accelerate their digital transformation and business restructuring initiatives, implementing a cloud-based, single digital backbone or foundation across the extended enterprise will be critical to their future competitiveness in the market.

The research findings from the IDC study highlight that there is still a great deal of work to be done to deliver effective, cloud-based B2B integration infrastructure capable of overcoming the challenges of increasingly global and complex supply networks and trading partner communities.

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