



*Integration that makes sense*

# e-Commerce Survey for Transportation, Logistics, and Supply Chain



**Many e-Commerce industry surveys have produced informative articles and reports, but in today's business climate, e-Commerce itself may not be the most important focus. Business Integration Technology (BIT) recently conducted a survey that examined the collaborative business processes of seven enterprises engaged in transportation, logistics, and supply chain activities and revealed how e-Commerce technology is supporting those processes.**

**BIT, a leader in B2B integration for transportation, logistics, and supply chain, thanks the survey participants for their contribution to this important effort. We hope you find the results of the survey valuable.**

**Business Integration Technology, Inc.**

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## Executive Overview

In contrast with other surveys conducted across broader groups and business processes, participants in the BIT e-Commerce Survey for Transportation, Logistics, and Supply Chain are much more connected with their trading partners via B2B integration. They find specific value in *direct* connection with their trading partners and continue to leverage the strengths of traditional EDI and VAN services, while embracing newer XML and Web Services.

## Background

Business Integration Technology conducted the e-Commerce Survey for Transportation, Logistics, and Supply Chain in September 2005. Seven companies participated – five Fortune 500 and two smaller companies. Manufacturing was the most heavily represented segment. The responses included input from e-Commerce directors, logistics executives, and information technology professionals focused on B2B integration.

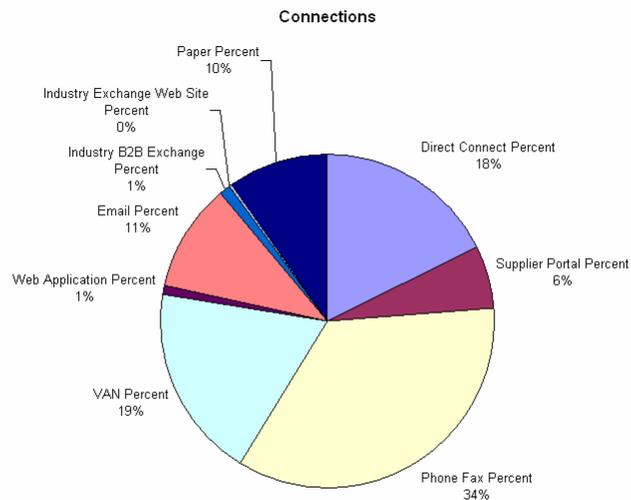
The survey asked participants about all three types of collaboration: B2B integration (machine-to-machine), Web forms and portals (person-to-machine), and manual processes (person-to-person) across suppliers, customers, and carriers. It drilled down into business processes, formats, and protocols that participants have implemented as B2B integration for competitive advantage.

The survey looked at suppliers, customers, and carriers engaged in e-Commerce integration within two categories, strategic and non-strategic partners, to highlight the different business approaches. We chose the top 10% by rank ordering as an indicator for strategic relationships. The “bottom half” – referring to the lowest 50% by rank – comprised the non-strategic category. Participants were asked to include business processes shared with logistics providers as if they were carriers in their own right.

## Findings

### Connections

Collaborative business processes may be conducted by US mail, telephone, fax or a number of electronic communications methods. The results may surprise you. Phone and fax still provide about a third of all connections, partly because even well-connected strategic partners still use phone and fax for some transactions. Un-normalized data

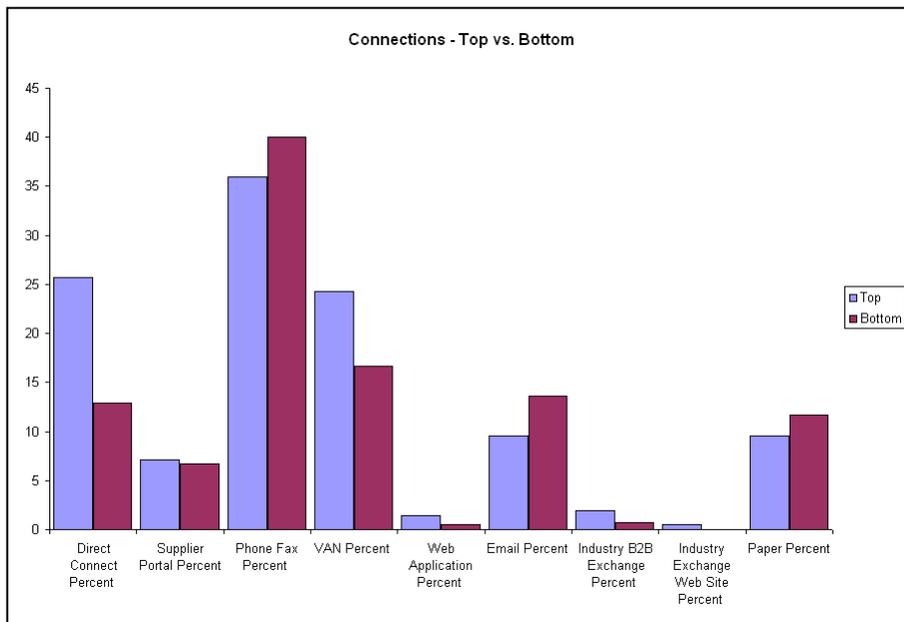
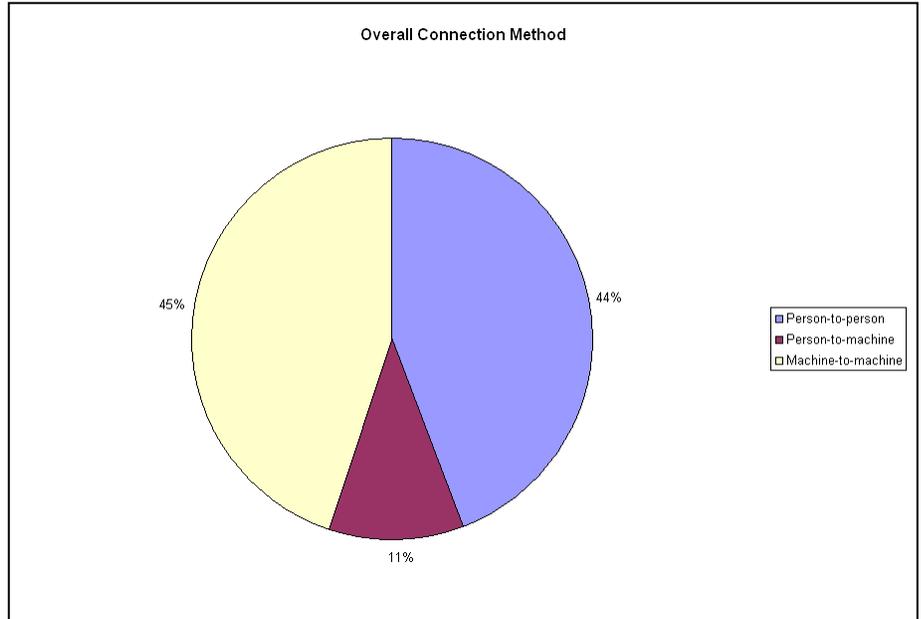


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showed 15% of collaborative processes using two or more connection methods. E-mail acceptance was a significant 10% share. While sender E-mail may be automated, e-mail is essentially a faster and cheaper replacement for paper mail, and still entails manual processes on both ends. Direct connection to trading partners is growing rapidly and now stands neck-and-neck with the venerable VAN; both stand near the one-in-five mark. Portals hold a smaller but significant 5% share. Despite the industry “buzz”, messaging through industry exchanges and the industry exchange Web sites is less than 5%. Use of much-hyped B2B connections by directly interacting through an enterprise Web application is negligible. Overall, person-to-person collaboration is about the same as machine-to-machine collaboration. Significantly, person-to-machine connectivity runs a distant third, in marked contrast with many references to 90%+ plus manual methods.



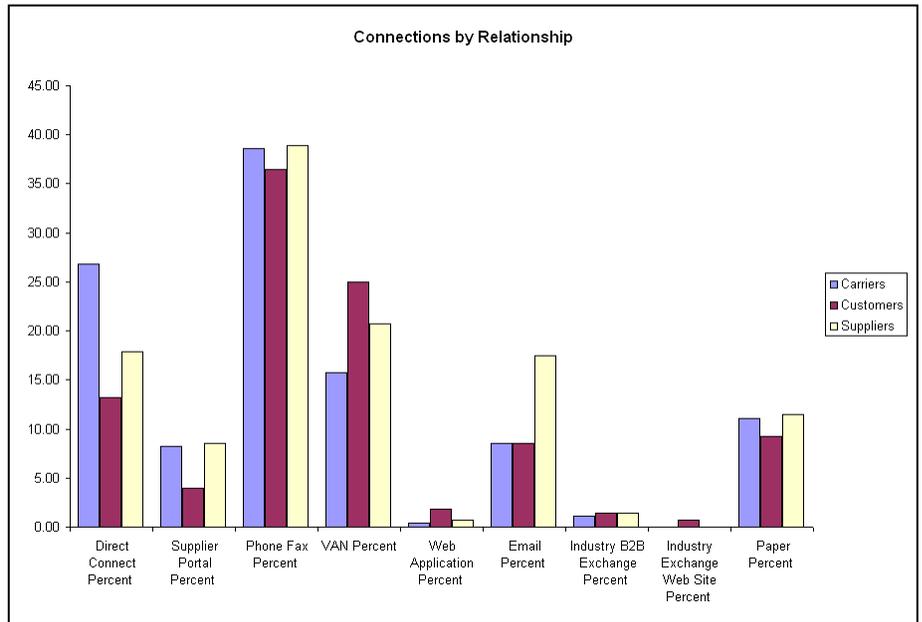
Analyzing connectivity by strategic and non-strategic business partnerships reveals no big surprises. It makes sense to devote resources to strategic relationships and the results show it. Top-tier trading partners are twice as likely to have a direct connection and 50% more likely to connect through a VAN than bottom-tier partners. Again, this may be a smaller fraction of the strategic partner’s volume, but the study didn’t specifically measure that. Strategic and non-strategic show little difference in phone, fax, paper and e-mail. E-mail is actually more prevalent in the lower tier.

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Looking at connections by business relationship provides a few insights. Investments in direct connection offered the best business value for relationships involving carriers, with over one in four meriting direct connection. Suppliers, of course, are the prime users of supplier portals but fewer than one in ten take advantage of this channel. Manual processes – phone, fax and paper – are about even across relationships, with phone and fax used by well over a third for all three groups. Participants found a VAN worthwhile for collaboration with customers (25%), suppliers (20%), and carriers (15%+). Participants used E-mail more for suppliers (15%+), while all other methods fell under 10%. Web applications are more common for customers, but all are low, below 5%. Industry B2B exchanges fall well below 5%.

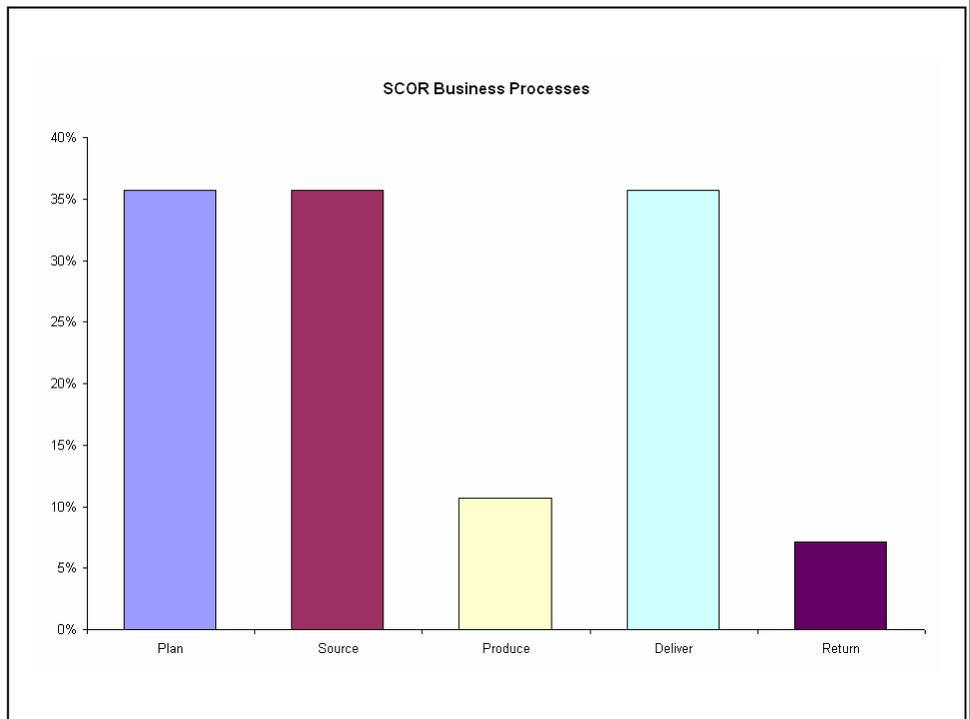


## Business Processes

The balance of the survey focused on B2B integration and excluded manual person-to-person and semi-automated person-to-machine collaboration. We examined the collaborative processes in two groups, supply chain and transportation/logistics.

### Supply Chain

For supply chain business processes, we used the Supply Chain Council's SCOR® Supply-Chain Operations Reference-model (SCOR) (<http://www.supply-chain.org/>). With both suppliers and customers, collaborative supply chain processes are well represented. Collaboration was much less prevalent in production business processes and even less prevalent in returns. Surprisingly,

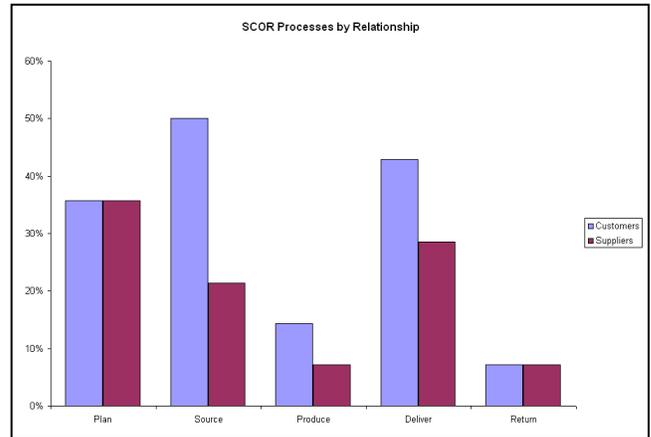
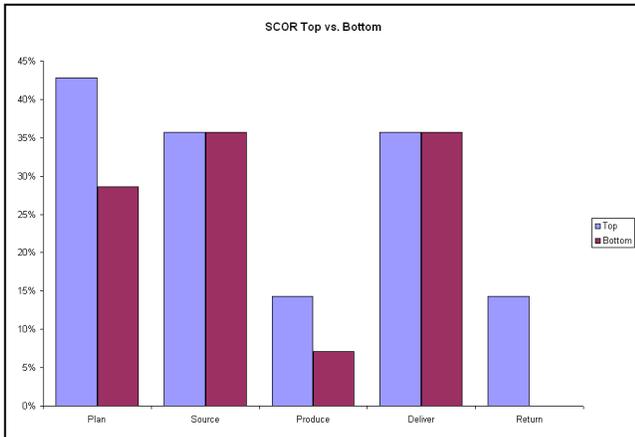


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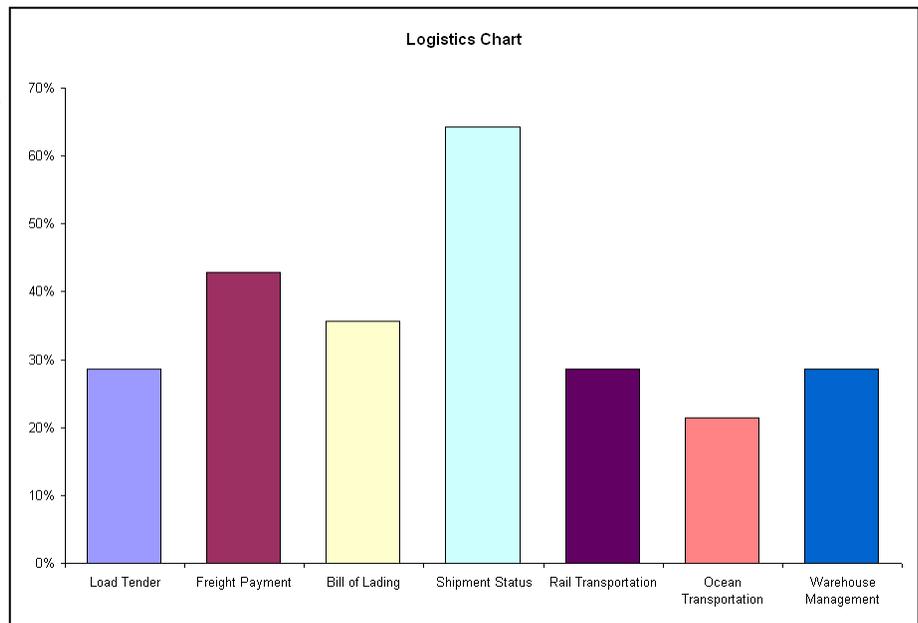
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there was little difference between top-tier and bottom-tier collaboration except for returns, which were implemented exclusively for strategic relationships. Looking at the business relationship, we found that most enterprises pursue extensive collaboration with their customers rather than their suppliers. This focus is evident in the “execution space” of sourcing, production, and delivery. Collaborative sourcing is nearly 50% with customers versus 20% with suppliers. Planning is practiced upstream and downstream with equal frequency (about one out of three). Collaboration on returns is less likely, with less than 10% penetration.



## Transportation and Logistics

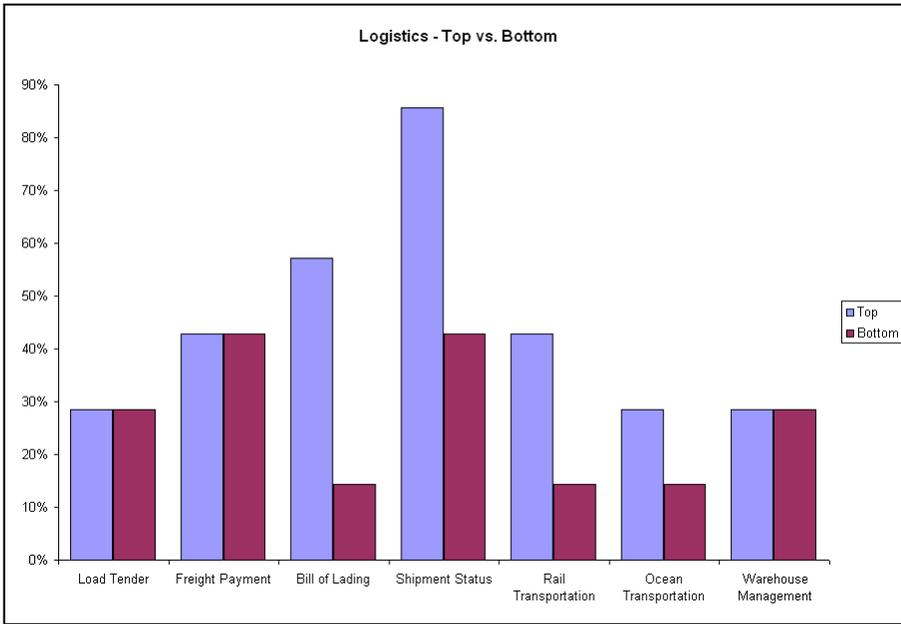
Within transportation and logistics, our data highlighted shipment visibility as seen in four key documents – load tendering, freight payments, bills of lading, and shipment status – across rail and ocean transportation and warehouse management. On the specific business processes of logistics, B2B integration for collaboration was evenly distributed except for shipment status. Many businesses apparently see value in B2B integration for in-transit shipment visibility. Two out of three enterprises have implemented electronic shipment status. Freight payment (50%) is also a popular process for automation. Perhaps the most significant finding is that all logistics processes are relatively common with 25% implementation by survey participants.



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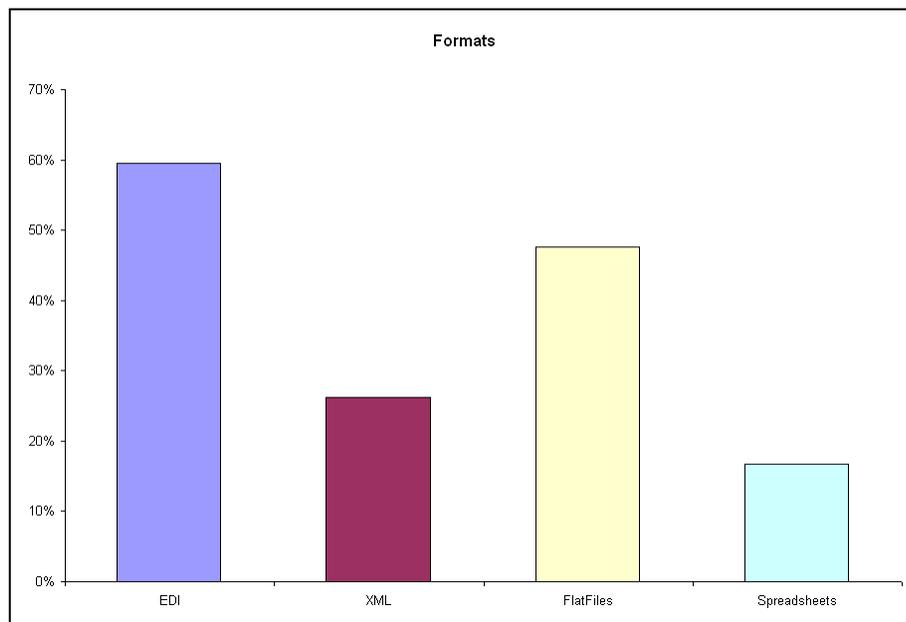
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Breaking out B2B integration for collaboration in logistics between the top and bottom tiers reveals that shipment status B2B integration is approaching 90% of connected strategic carriers! If there is one business process that provides value when integrated, shipment status is it. In addition, comparing the top and bottom tiers reveals that integration with railroads usually occurs when the railroad is a top-tier carrier for the shipper or consignee. Electronic bill of lading appears highly correlated with strategic rail or ocean carrier relationships.

## Formats

To drill down into the technology that supports these collaborative business processes, we examined the formats of the messages themselves. Contrary to what some in the tech media have trumpeted for five years, EDI is far from “dead”, retaining a more than two-to-one lead over XML. “Flat files” are the easiest format to produce and remain very popular. Even spreadsheets (20%) are a popular format for B2B integration.

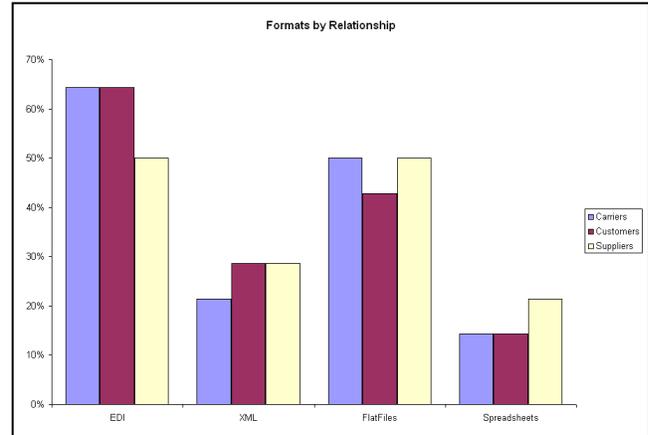
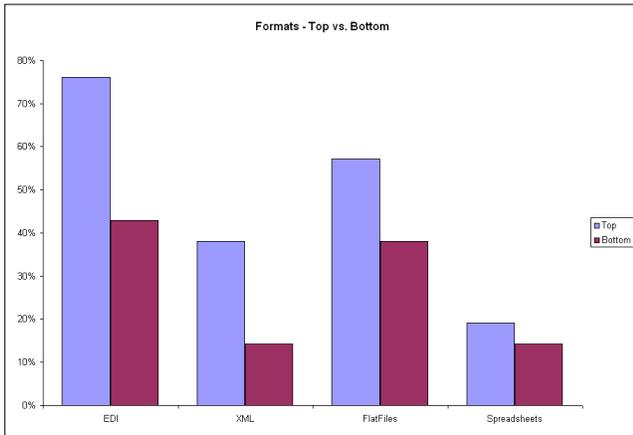


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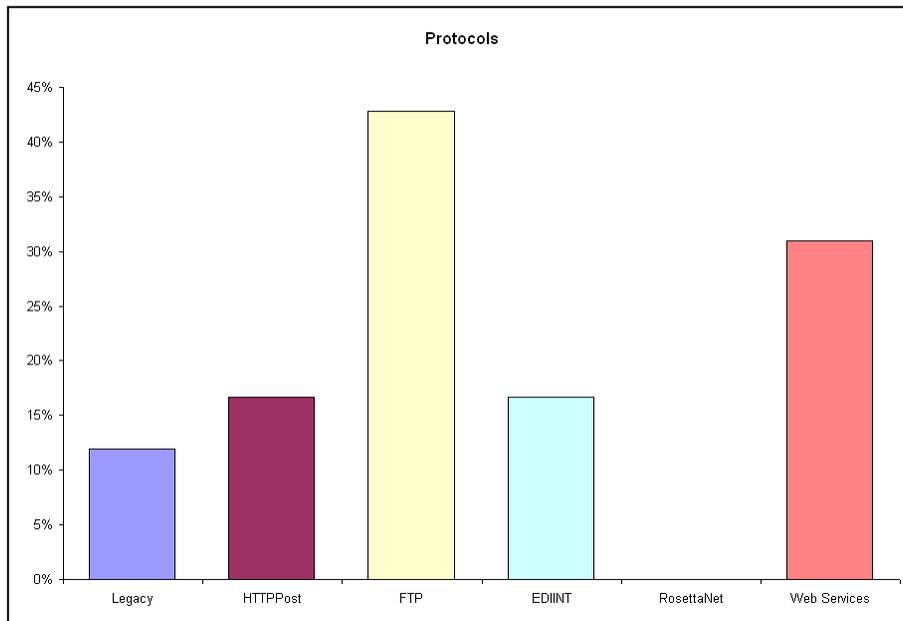
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Comparing strategic relationships to non-strategic, EDI is nearly twice as pervasive for the top tier. The spread for XML is even greater – nearly three-to-one! For the bottom tier, spreadsheets and flat files appear to be much easier than XML to produce and cost-justify. Data showed little variation in message format usage by business relationship, with EDI marginally higher for carriers and customers and XML marginally lower for carriers. This may be because of the long history of EDI for transportation.



## Protocols

Examining the protocols used to transmit the messages held a huge surprise: Web Services, a relative newcomer, ranked second behind FTP. FTP's popularity is well known. Web services is still in the "technology hype" phase, so the results are a clear endorsement of a relatively new technology.

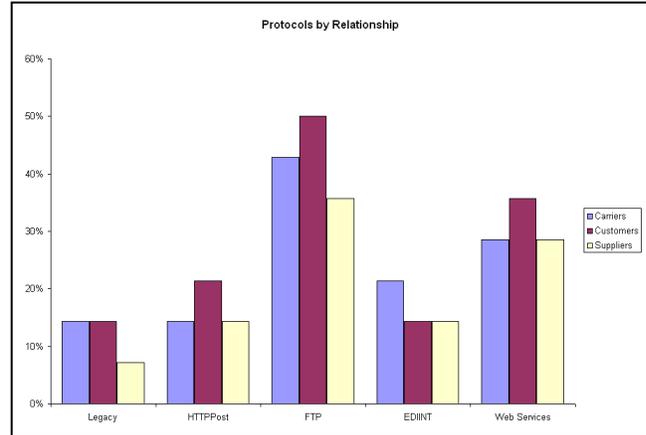
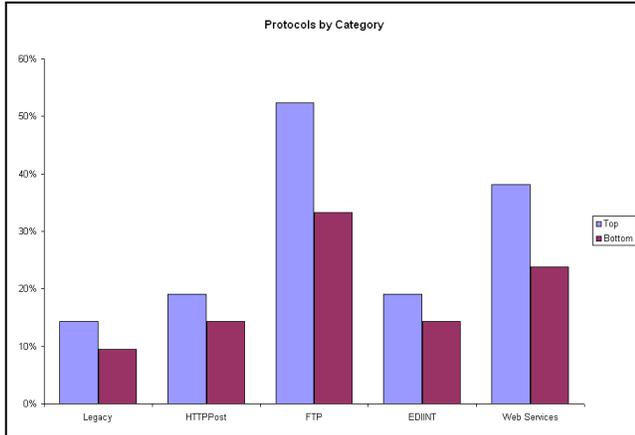


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We examined the use of the various protocols by strength of the business relationship (top-tier vs. bottom half) and the type of relationship. Although top-tier partners are much more likely to be connected, little difference in the protocol chosen emerged. The proportions remain relatively consistent across the board. Likewise, use of the various protocols was evenly distributed across business relationships.



## Summary

In summary, the participants in the e-Commerce Survey for Transportation, Logistics, and Supply Chain find a great deal of value in B2B integration with their trading partners. In contrast with other surveys conducted across broader groups and business processes, the participants are much more connected. They find value in direct connection with their trading partners and continue to leverage the strengths of traditional EDI and VAN services while embracing newer direct connection, XML and Web Services.

## About Business Integration Technology, Inc.

Business Integration Technology (BIT), a leader in B2B integration for transportation, logistics, and supply chain, designs and implements highly cost-effective business-to-business connections that eliminate the costs of doing business with paper, phone and fax. With deep roots in transportation, supply chain and logistics, BIT brings innovative value to shippers, carriers, 3PLs, and any firm looking to improve cycle time and reduce cost.

You only pay us for the work our business-to-business experts do, not for licenses or transaction fees. You own the solution, you run it, and you save month after month.

BIT is a start-up based on the team that built the messaging engine that runs North American Rail. BIT is also a partly-owned subsidiary of Daugherty Business Solutions with over 20 years experience and over 400 consultants in St. Louis, Atlanta and Chicago.

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