BANYAN TECHNOLOGY

THE LAST DAYS OF EDI, AND THE RISE OF LIVE CONNECTIONS

This White Paper will review the differences in capability and functionality of batch-based technology such as EDI, compared to live connectivity directly with carriers.

Topics Include

- The difference between EDI and live connections
- How connecting directly with your carriers impacts freight costs
- The effect live carrier connections can have on process and workflow

OBJECTIVE

Over the past several years, the amount of discussion surrounding how technology will impact the freight industry has only increased with the exponential rise in technological advancements.

Arguably, one of the most impactful ongoing advancements gets to the very core of freight management: APIs, or application program interfaces, are beginning to displace the industry standard EDI, or electronic data interchange. Both EDI and API transmit data from one system to another, but the differences — when applied to transportation software — are substantial enough to shift industry standards.

BATCH-BASED TECHNOLOGY VS. LIVE CONNECTIONS

At the highest level, there are two different type of communication between shippers or 3PLs and their carriers: Batch-based technology vs. live connections.

Examples of batch-based technology:
- EDI
- FTP
- OCR
- Mail (email or snailmail)

Live connections include:
- APIS
- Web extraction
- Mobile push alerts

Since the 1970s, EDI has replaced postal mail, fax machines, and email communication. The most popular business documents exchanged via EDI include purchase orders, invoices, and bills of lading. EDI set the precedence for establishing a standard language between organizations.

In addition to EDI, other forms of batch-based technology include FTP (file transfer protocol), and OCR (optical character recognition), which is a method for converting hand-written documents to an electronic text document. Mail, both email and physical mail, highlight a weakness typical of most batch-based technology - that manual involvement is required for daily operations.

A variety of challenges are inherent to batch-based technology; the number one limitation is that by definition, data is packaged up in batches or groups which means that time is lost before the batch is transmitted. For example, EDI 214s which include a carrier shipment status message, are typically batched and sent overnight meaning that critical shipping messages can sit, waiting for hours before they are received.

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On the contrary, live connections enable the exchange of data in real-time. APIs, or application program interfaces, are one form of live connections.

Rather than simply facilitating the exchange of documents, APIs enable programs on computers, tablets, and mobile phones to "talk" to each other — or exchange information in real-time. Like EDI, APIs are a predetermined set of rules to communicate between various organizations and software. These API connections can plug in and enable efficiencies in a variety of areas of freight management, including gathering rates, booking loads, and automating freight bill audit.

A common example of the use of APIs is in the travel industry - with travel sites like Kayak or Expedia or Travelocity, you're using APIs to see up-to-the-minute pricing from airlines. This allows you to select the best price for the best travel schedule that works for you. That same logic and functionality, when applied to the freight industry, is drastically different from a batch-based system like EDI where users experience a gap in communication while data is packaged-up and transmitted.

It's important to note that when shifting from a batch-based technology to live carrier connectivity, APIs are just one form of live connections. Live connections also include web data extraction and mobile push alerts.

ADDED FUNCTIONALITY WITH LIVE CONNECTIONS

The combination of the various forms of live connections results in real-time communication throughout the entire freight management process. This access to live information enables shippers direct access to live lane-by-lane transit times and rates, which can reduce or even eliminate the need for RFPs.

Oftentimes, carriers publish updated rates to their own information systems. Rather than spending time logging into multiple systems to pull rates, when a shipper is directly connected with a carrier, that information can be gathered in real-time. This live-look at real-time competitive rates empowers shippers to select the best carrier for the job and eliminates the risk of missing an opportunity for selecting a carrier with a better cost on a given lane.

Live connections also provide the ability to book loads and directly receive confirmation that it was received, compared to a batch-based technology where acknowledgement of the load may never take place.

In addition to the benefits on the upfront side of freight management – like gathering competitive rates and booking loads – live connections with carriers reduce the need for freight-bill audit. With live connections in an automated system, organizations have the ability to set the thresholds for when to flag an order for review. So instead of having a team member responsible for reviewing invoices to pay and ensuring they match the quoted price, support staff only has to review when something is automatically flagged as being outside of the norm.

These advantages, plus the adjustment in resources dedicated to freight, all contribute to a more streamlined process and the total ROI of live connections.

In short, while EDI offers a way to send batches of some types of documents in standardized formats and at pre-determined intervals, live connections, including APIs, offer instantaneous exchange of information – information not accessible with EDI alone.

CONSIDERATIONS FOR IMPLEMENTING LIVE CARRIER CONNECTIONS

It is worth noting that there are separate business considerations when evaluating the move to live carrier connectivity: organizational systems and staff play a role in the efficiency of live connections. Legacy systems may need to be evaluated for their capacity to use a modern technology such as APIs. For example, systems such as AS/400 may require a bolt-on solution to modernize the system and enable live connectivity.

In addition, IT, billing, and freight support staff may be unfamiliar with the concept of APIs, and hesitant to shift to a process that may eliminate a portion of their daily activities.

CONCLUSION

EDI and other batch-based technology has served a great purpose for many years – these tools established an understanding that we are more efficient as a whole with a standard communication language and process.

In everything, but especially within this fast-paced business world, a mindset of continuous improvement is critical for long-term success. Live carrier connections, including APIs, provide greater functionality, visibility, and opportunity for cost-savings than EDI ever has.

Never has there been better access in the transport industry to the type of "big data" and connectivity necessary to address risks, negotiate better transit times, and lower total freight costs.

About Banyan Technology

Banyan Technology is North America's leading provider of live carrier and API connectivity for transportation management. With more than 1,300 carrier connections and 27,000 users, Banyan Technology provides commercial shippers, brokers, and 3PLs with unparalleled access to carrier data. These connections boost efficiency, improve visibility, and deliver permanent reductions in shipping costs.

Want to learn more?

Schedule a demo time convenient for you to see an ROI calculation specific to your organization's operations: www.banyantechnology.com/contact-us

Or, watch this video to see how an award-winning manufacturer and LTL carrier in Ohio is building for the future with Banyan, with a freight savings in excess of 20%: bit.ly/Banyan20 or search "Banyan Technology" on YouTube.