Digital platforms in freight transportation

A true industry disruptor?
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Executive summary

The wind of change is blowing strongly in transportation & logistics. Digitization is in full swing: it is opening a whole portfolio of new opportunities to reduce costs, differentiate product offerings and redefine business models. Digital freight platforms are driving the transformation. The narrow focus on clearly delineated market segments currently restricts their disruption potential. However, the long-term effect on the industry can be immense, as other sectors have shown.

Various players have entered the race for tomorrow’s leading market position in transportation & logistics. Digital innovators were at the forefront of this development, and now established providers are in reaction mode. Some joined the race early on, some joined later, and others are still evaluating how to play in this new field. Few providers have embedded their actions into coherent, well-conceived digital game plans. Many are adopting “me-too” strategies. Launching yet another digital freight exchange will not do it for established players. Others have already advanced significantly on the learning curve, and the industry is swamped with digital platforms by now. At the same time, M&A and cooperation options are limited: established players have already acquired or entered alliances with the most promising new entrants.

Strategic options for logistics service providers are fading. The race is wide open for everyone, but digital players are driving the change currently. Will new platforms reshape the industry? Possibly… Does this mean “game over” for traditional service providers? Not at all… Established players can build upon long industry experience, strong brand power and broad value-chain coverage to develop their future unique selling points. Digital pioneers, on the other hand, bring in cutting-edge technology, smart problem solving and agile structures to take on the fight.

Even though logistics service providers have lost their leading edge in certain areas, they continue to be in a strong position to come out as one of the few winners in this race. One thing is for sure: consequent action is required to sail with the wind towards the safe shores and avoid declining into a niche position.
1. Digital platforms are on the rise

New business models challenge the status quo in the industry

The transportation & logistics industry is changing. Technological improvements provide market players with the unique chance to catapult their business models from “manual, expensive and stiff” to “automated, efficient and agile”. Companies can benefit in three ways from the new opportunities that digitization has to offer, as Figure 1 depicts.

First, new technologies enable market players to increase efficiency in operations and administrative functions. Some examples: smart robots cut logistics costs by 20 percent at Amazon, augmented reality lowers picking errors by up to 25 percent in DHL warehouses, and current DB Schenker tests suggest up to 10 percent savings in truck-fuel consumption through platooning.

Second, companies may introduce new service offerings that have not been possible before. UPS, for example, has entered into a collaboration with the 3D printing company Fast Radius. Parts ordered by customers are printed “on demand” in UPS warehouses and shipped out right after production is completed. Daimler’s project, Matternet, on the other hand, uses a combination of drones and specialized vans to deliver parcels to customers in “remote” geographic areas.

While both of these strategic options are merely opportunities for established players to “improve their play,” there is a third alternative gaining more and more traction, as it allows market participants to entirely “change the game” in the industry.

Smart new business models – specifically in transportation – challenge the status quo and lay the foundation for a new competitive landscape. Digital, cloud-based platforms aim to position themselves at the customer interface. With nearly zero physical assets and purely on the backbone of modern IT solutions, they strive to take over the role of an efficient intermediary. With this approach, they threaten the business model of logistics service providers (LSPs), which have traditionally occupied this position in the market.

Digital freight exchanges (DFEs) are the most discussed example of such platforms presently. While the role of DFEs is strongly limited to certain market segments today, the long-term prospect looks promising: Digital platforms have already proven their disruptive potential in other industries. The travel sector serves as a prominent example for this: only a couple of years after their creation, platforms such as booking.com, hotels.com and expedia.com have gained relevant market shares from hotel chains and travel agents and built up worldwide recognition. For example, booking.com has today more than 20 million bookable rooms in over 200,000 hotels on offer.

The structures in freight transportation may not be entirely comparable with those found in the travel industry, but the analogy is not too far-fetched. Traditional LSPs tend to be slower, less flexible and more expensive in direct comparison with efficient platforms that can match freight capacity “instantly” with shipping demand, provide transport rates in no time, and coordinate all associated activities in a smooth and seamless way. In a price- and time-sensitive market such as T&L, this can be a crucial advantage.
The recent rise of digital freight exchanges is explainable

While DFEs are not a new phenomenon (first online implementations go back to the 1990s), they are now gaining momentum due to three developments:

1. **Technology has advanced significantly** in terms of front end, back end and connectivity of (transport) assets. Most modern platforms offer easy usability, smart algorithms and real-time data integration.

2. The hype around “shareconomy” has expanded from B2C and passenger transport to B2B and freight. Uber, Airbnb & others have shown the tremendous disruptive potential of efficient platforms when the right timing, technology and business application come together. PiggyBee and Stowga, for example, “imitate” their B2C counterparts and apply the shareconomy principle to the T&L world.

3. “Legacy” LSPs and carriers are joining the game to avoid missing out on an opportunity to protect and promote their own networks and assets. DHL’s “Saloodo!”, “Drive4Schenker” and Damco’s “Twill” are just three current examples of new digital platforms from established providers. Simultaneously, innovative start-ups such as FreightHub, LoadFox and CargoNexx create lots of media buzz. They raise the bar technologically and challenge traditional LSPs in their core businesses.

Figure 2: “Brave new world” – selected digital business models and platforms in transportation & logistics

Source: Arthur D. Little
2. Market potential is significant

Today, digital freight exchanges penetrate only selected market segments, but the focus is broadening

While goods transportation can come in many shapes, DFEs have traditionally been focusing on European and North American road freight. That is because certain market characteristics favor the appearance of such platforms. For example:

- **High fragmentation**, i.e., a large number of service providers with comparable strength
- **High commoditization**, i.e., a high degree of similarity among service offerings
- **High availability and flexibility of transport assets**, e.g., in terms of their geographic deployment
- **Availability of appropriate infrastructures**, specifically basic network structures and technology coverage
- **High demand for direct shipper-carrier engagement**, i.e., 1:1 commercial relationships with no intermediary
- **Low transport-chain complexities**, i.e., simple point-to-point moves

In **European road freight**, for example, commoditization and competition are high. Consequently, 20 percent of trucks move empty, and truck utilization is only at 60 percent. Furthermore, business complexity is low, with rather simple point-to-point moves that usually one transport provider can carry out from end to end. Finally, many shippers already cooperate directly with transport carriers today, and infrastructural pre-conditions in Europe are excellent. Thus, market conditions are favorable.

On the contrary, in **international air- and ocean freight**, fragmentation is comparably low, with only a few carriers per lane. Besides that, transport chains tend to be more complex: especially, intercontinental door-to-door transport requires effective linking of different parties to move one load from A to B. Last, but not least, the interest of freight carriers in entering into direct relationships with shippers is usually limited, as the efforts of maintaining such engagements typically outweigh the benefits of small, incremental volume gains – specifically in air freight and ocean LCL (less than container load). Hence, market conditions are less favorable in direct comparison.

Due to the technological progress, and as markets change, **certain disadvantageous characteristics have become less relevant or even irrelevant** over time. For example, nowadays it has become comparatively easy to integrate various partners within a complex transport chain. This and other developments have led to an expansion of DFEs into air- and ocean freight. Companies such as Coyote and FreightHub show there is room for digital platforms in new transport modes.

**Will DFEs in their current form disrupt the entire industry?**

This is unlikely because of their narrow business focus and value-chain coverage. However, digital platforms are continuously advancing, and there is noticeable impact on specific business segments already.

Today, the sweet spot for DFEs lies within the **non-contracted business segment**. This refers to freight loads outside long-term commercial agreements and existing transport management system (TMS) environments as provided by carrier integrators. In particular, large shippers typically contract significant portions of their freight volumes via tenders with a few strategic partners, as this generally provides cost advantages through bundling effects and increased planning stability. Digital players have avoided the contracted business segment for a long time, though, as it brings a vast range of additional requirements with it that should not be underestimated.

**Analysis suggests there is huge potential for digital freight exchanges already today**

To estimate DFE market potential, the above-mentioned key segments have to be addressed individually.

**European (EU) road transport** has a total market size of >14bn tons p.a., out of which 9.7bn tons are relevant for LSPs and carriers. 10 to 20 percent of this is accessible for freight exchanges, leading to total market potential of 1 to 2bn tons p.a. For the sake of comparison, leading European provider
TimoCom manages around 4 percent of this accessible volume, underlining that the freight exchange market is currently highly fragmented.

The US road freight market shows a similar picture: 15 to 20 percent of the approximately 5.3bn. tons p.a. that are accessible for LSPs and carriers can be considered the DFE market potential. This is equal to 0.8–1.1bn tons p.a.2

DFE potential in air- and ocean freight is more difficult to judge, as markets have a “global” logic and are much more volatile. Particularly, airfreight is highly price-sensitive, and hence, demand for spot shipments fluctuates as a reaction to changes in airfreight rates and cost of other transport modes – specifically ocean freight. For example, the introduction of slow-steaming initiatives and general rate increases (GRIs), bankruptcy of shipping lines (e.g., Hanjin) and recent US port strikes have or had significant impact on spot volumes in both markets. Additionally, even though freight tenders are popular among shippers to purchase and budget international freight, the spot business share can be comparatively high as carriers seek to maximize asset utilization by offering aggressive short-term rates. At the same time, shippers use the spot market to publish larger individual freight lots in order to achieve better market rates compared to those procured through general bids.

Considering that in airfreight, spot shipment shares are 35–50 percent, the global market potential for DFEs can be estimated at 35–50 million tons. In ocean freight, the spot business share can vary strongly by trade lane. While sometimes, it can be 20 percent or lower, it can reach up to 60 percent in other cases. Conservatively assuming an average market share of 30 percent, the DFE potential in ocean freight (FCL) equals around 39 million TEUs3.

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1 Sources: Eurostat, DSLV, expert opinions
2 Sources: DAT, US department of transportation, expert opinions
3 Sources: Aircargonews, DVZ, worldshipping, JOC, expert opinions
3. Digital platforms come in many shapes

Companies can build their digital business models around three key dimensions

Are all DFEs and digital platforms the same? No. There is a significant variety of provider types in the market, adopting different business models. In order to structure the various archetypes, three key differentiating dimensions can be considered.

Firstly, value-chain focus: As outlined, DFEs currently concentrate predominantly on the non-contracted part of the market, i.e., spot business. However, this is not a fixed constraint. Individual digital players have already entered the contracted business. Aiming towards this segment means providers need to build up new competencies:

- They have to cover new value-chain elements. Typical examples are key account and operations management. Traditional LSPs and carriers have experienced senior sales and operations management structures in place. This allows them to manage continuous improvement, handle escalations and trigger corrective actions.
- Additionally, some of the value-chain elements possess a very different nature in the contracted business. Large shippers, for example, expect their legal, commercial and other requirements to be followed rigorously instead of receiving standard service. This may require platforms to meet specific electronic data exchange (EDI), reporting or invoicing requirements.

Secondly, decision-making quality: Among the different (digital) business models, quality of decision-making varies strongly. While basic platforms purely display information, advanced environments allow for integration of real-time data and advanced analytics to make automated decisions.

Many traditional LSPs still base their operational and commercial decisions on manual data collection and heuristic methods. Advanced digital players find optimums in large data sets and immediately adjust network structures and routes to increase asset utilization. In spot pricing, it usually takes an LSP hours or days to provide a response to a client rate request. In contrast, modern platforms can calculate and offer rates in seconds based on smart algorithms.

Thirdly, commercial ownership: Another important dimension is whether providers take full responsibility for the information provided (e.g., via third parties) and services offered. Particularly, simple platforms act as information brokers only. They neither validate offer details nor take any liability or risk for the actual service provided to the client. Traditional LSPs take over responsibility, which is a key asset for shippers as it increases confidence.

Eight player archetypes are most relevant in the market today

Based on the above, Figure 5 illustrates the different archetypes of players and platforms in the T&L market. Those models, discussed in more detail in this paper, are colored in orange.

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Figure 4: Differences in the contracted and non-contracted transportation value chain

<table>
<thead>
<tr>
<th>Contracted business</th>
<th>Non-contracted business</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comm. decision</td>
<td>Spot pricing</td>
</tr>
<tr>
<td>Tender Mgmt.</td>
<td>Booking</td>
</tr>
<tr>
<td>Space procurement</td>
<td>Forecasting</td>
</tr>
<tr>
<td>Spot pricing</td>
<td>Booking/alloc.</td>
</tr>
<tr>
<td>Transport execution</td>
<td>Spot pricing</td>
</tr>
<tr>
<td>End-to-end</td>
<td>Booking</td>
</tr>
<tr>
<td>Tracking</td>
<td>Forecasting</td>
</tr>
<tr>
<td>Doc. &amp; invoicing</td>
<td>KAM Ops. mgmt.</td>
</tr>
<tr>
<td>Support functions</td>
<td>Reporting</td>
</tr>
<tr>
<td>Cont. improv.</td>
<td>Network redesign</td>
</tr>
</tbody>
</table>

Source: Arthur D. Little
The horizontal axis shows the degree of value-chain focus, ranging from specific niche elements in the spot business to full coverage in both the spot and the contracted segment.

The decision-making quality is represented on the vertical axis. Five stages, going from pure information brokering to smart decision-making, underline the technological maturity level and the quality of decisions taken by that market participant.

Whether a party takes over true end-to-end commercial responsibility, is reflected by the letter “R” in the respective boxes.

1. **Generic marketplaces:**

Large marketplaces with strong brand names are entering freight forwarding; the Alibaba-Maersk cooperation is a prominent example. While Alibaba possess the infrastructural basis to easily include transport offerings in its portfolio, its platform functions are not tailored towards T&L. For example, generic marketplaces cannot offer automated matching of freight supply and demand and they do not provide specific value-added services. Hence, they position themselves in the spot segment for small or irregular shippers that intend to compare and purchase simple freight services – in this case, port-to-port FCL ocean freight.

2. **Specialized marketplaces:**

Players in this category focus on transportation offerings and can accompany the underlying end-to-end processes – uShip is an example. Platforms usually do not offer automated matching of supply and demand. However, clients can choose from a variety of different offers and book them accordingly. Common associated activities such as booking, shipment assignment, tracking & tracing and invoicing are supported.

3. **Crowdshipping platforms:**

Platforms such as PiggyBee and Packmule predominantly target B2C customers that intend to ship small cargo units. They work with private persons to provide freight capacity or associated services. The functional platform scope and technological maturity level are usually comparable with specialized marketplaces.

4. **Digital freight exchanges 1.0 & 1.5:**

This group includes freight exchange leaders such as TimoCom and Teleroute, which have had established online offerings for years. Also, the new platforms of legacy carriers and LSPs such as Saloodo! and Drive4Schenker fall into this category. Even though traditional DFEs have constantly modernized their platforms, the new legacy-provider solutions tend to be more advanced.

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**Figure 5: Key (digital) archetypes in transportation & logistics**

- **Generic marketplaces:**
  - Open or proprietary spot pricing & brokerage platforms

- **Specialized marketplaces & crowdshipping platforms:**
  - Tender platforms

- **DFEs 1.0 & 1.5:**
  - Carrier integrators

- **DFEs 2.0 & e-forwarders:**
  - Vision: Digital LSPs
  - Automated decision-making (real-time input)
  - Automated decision-making (static input)
  - Manual decision-making/intuition
  - Smart decision-making (math. methods)
  - Information brokering

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**Source:** Arthur D. Little

**Players focused in this paper**

**Players that take full (commercial) responsibility**
This archetype focuses on spot business and sometimes supports regular (contracted) business to a low degree. From a transport-mode perspective, these platforms traditionally concentrate on road freight. Decision-making is usually based on static information (“post & match”). Many platforms support integration of real-time data, but this is not yet used on a broad scale, as a large amount of transport assets are simply not equipped with localization technology and sensors.

Established LSPs and carriers often use “white labeling” to ensure market presence in the DFE arena. Instead of developing own platforms (and risking high development costs), they enter alliances with established providers to gain access to their technology. DB Schenker, for example, is cooperating with uShip to offer their Drive4Schenker platform.

5. Digital freight exchanges 2.0 and e-forwarders:
Modern, high-end freight exchanges generally encompass the same features as 1.0- & 1.5-generation DFEs. However, they make extensive use of advanced algorithms to calculate and predict rates, capacities and means of optimization. Additionally, they tend to have wider value-chain focus. For example, some offer key account and operations management functions. On top of that, many platforms in this segment take commercial responsibility for their offers.

Cargonexx, for example, provides instant binding land-transport rates that are purely based on historic data analysis and forecasting. Gone are the days when a provider needed to reach out to a range of asset owners to collect offers and assemble a competitive quote for its client. Another player, LoadFox, dynamically analyzes loads posted by shippers in the network. It combines them into new, optimized transport routes that allow for higher truck utilization, and hence, tower transport rates.

Some players have already started to walk the path towards a fully digital LSP: “e-forwarders” such as FreightHub, Coyote and Freightex (both acquired by UPS), and Flexport offer LSP-like services. They try to “mimic” the traditional freight forwarder by starting to span virtual global networks, supporting regular freight flows and entering new modes of transport – especially air- and ocean freight.

6. Carrier integrators:
Even though they do not represent a new business model, providers of TMS environments are highly relevant players today, and they are constantly evolving. Essentially, a carrier integrator creates a “walled-in” market environment for a group of authorized LSPs and carriers. It allows full integration of data between transport providers and shippers to automate most of the transport management process: from booking, over shipment assignment and tracking & tracing, up to invoicing and reporting. As it positions itself as a single-source provider, they can integrate all transport modes accordingly.

Carrier integrators essentially enable virtual end-to-end collaboration – for both spot and contracted shipments. Information is typically automatically fed into the shipper’s ERP system, and all procedures run system-based, with very limited “personal” interaction between the parties. Prominent players in this category are GT Nexus (Infor), Transwide, Eyefreight and INet.

While they are responsible for the correctness of their allocation decisions, carrier integrators do not take ownership of the rates offered or services provided by parties connected to their platforms (i.e., LSPs and carriers).

7. Traditional LSPs:
Logistics service providers such as DHL, Kuehne + Nagel and DB Schenker still control most of the market and client interaction in the transportation & logistics industry – despite rising new players and the fact that decision-making is still often not so “smart,” but actually fairly inefficient.

Even today, LSP operating models are widely based on manual labor and outdated, heterogeneous system landscapes. Hence, most providers have launched large-scale IT harmonization and modernization projects over the last years – with moderate
success. Many transformation projects have failed or not delivered the intended outcome. Consequently, LSPs are still a long way off what is “state-of-the-art” technologically in 2017.

On the other hand, LSPs benefit from the fact that they have full value-chain offerings and take true responsibility for the services and rates that they provide to their clients.

8. Digital LSPs:

The vision of a digital logistics service provider is, so far, still a fantasy. As a target image, a digital LSP would cover all activities in both the spot and contracted business segments and make intelligent decisions in an automated, optimal and fast way – either based on real-time data or with the help of refined analytics. Furthermore, this provider would have global reach and access to all transport modes. It would support shippers in strategic logistics questions and continuous improvement to the same extent and quality as it would execute the day-to-day operations.

Even though progress has been made in recent years, there are still some functional gaps to be covered and technical limitations to overcome. For example, to realize real-time decision-making, an internet-of-things-like environment would need to be created by equipping all transport assets with modern communication technology.

Figure 6: Players with the best future perspectives come from very different starting positions – comparison based on three “key differentiation dimensions”

<table>
<thead>
<tr>
<th>Value-chain focus</th>
<th>Decision-making quality</th>
<th>Commercial ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Carrier integrators</strong></td>
<td>Spot (niches), contracted ( niches)</td>
<td>Automated (static) or smart</td>
</tr>
<tr>
<td><strong>Traditional LSPs</strong></td>
<td>Spot (full), contracted (full)</td>
<td>Manual or automated</td>
</tr>
<tr>
<td><strong>DFEs 2.0 &amp; e-forwarders</strong></td>
<td>Spot (full), contracted (niches)</td>
<td>Automated (real-time) or smart</td>
</tr>
<tr>
<td><strong>Vision: Digital LSP</strong></td>
<td>Spot (full), contracted (full)</td>
<td>Yes (full)</td>
</tr>
</tbody>
</table>

Source: Arthur D. Little
4. Who is best positioned for the future?

Not all business models will prevail – but there may be room for co-existence

The digital transformation in T&L has created a luxury situation for shippers. They have easier access to transport capacities and better visibility of provider offerings as well as rates. Competition among LSPs and carriers has intensified, ultimately leading to lower cost levels. Additionally, large shippers may close previous gaps in their transport operations, as it has never been easier to identify, compare and integrate new partners.

While there may be room for different platform archetypes to coexist, within the different platform categories strong consolidation can be expected: the current market environment is fragmented, with lots of players just offering “more of the same.” Many of the new platforms may disappear as quickly as they entered the scene. While some may simply be outmaneuvered by superior competitors, others may run out of funds and not be able to achieve the required critical mass fast enough. Finally, the most promising suspects will be acquired by stronger players.

For LSPs this means even more pressure on margins, as the remaining platforms will gain in market share – particularly in the highly profitable spot business. Previously, clients in need of spot rates simply ran out of time to effectively compare and challenge all the different market options. Today, shippers can receive very competitive quotations quickly.

At the same time, LSPs will continue to receive pressure from another group: carrier integrators. Already today, TMS providers are reducing profits of transport providers through relentless automation of transport processes. Trends such as “dynamic carrier assignment” mean that even for regular transport flows, usually covered by long-term rate agreements, providers now need to re-validate their price levels constantly in order to stay competitive within the shipper’s provider portfolio.

If LSPs do not find the sweet spot in this increasingly challenging market environment, they may lose significant market share or become obsolete. Others, specifically DFEs 2.0 and e-forwarders, are willing to take their role and position themselves at the top of the chain. With their much lower cost bases and higher flexibility, they can cope better with the new market conditions. Because they can easily onboard new clients, they have access to new revenue streams. As they can essentially mimic a carrier integrator-like environment for smaller shippers, they have easy access to the SME segment and can unlock new revenue streams, unlike traditional LSPs.

Particularly, simple DFEs, as well as spot pricing and brokerage platforms, seem to have the bleakest future perspectives among the providers discussed. The fact that they are not quite as efficient and/or broad in their functional scope means that their position is threatened. Better platforms will likely take their place if they do not evolve.

Independent niche specialists such as tender platforms and the aforementioned carrier integrators will most likely prevail – independent of what is happening on the (digital) LSP front. Consolidation has already advanced in this segment, and the few relevant remaining players have a strong market position with long-lasting client relationships.

For small shippers, marketplaces and crowdshipping platforms will continue to play an important role (maybe even more important in the future). Even general marketplaces may have “a right to live” in T&L, as they can offer transportation services via their platforms at nearly no marginal cost and as they have a strong brand recognition.

Nonetheless, the “Digital LSP” operating model seems to be what most market players are striving towards. Arthur D. Little analysis suggests that in particular, three types of market participants are well equipped to position themselves as leaders in tomorrow’s transportation market:

- DFEs 2.0 and e-forwarders
- Carrier integrators
- Traditional LSPs

What are the strategic options for the three most promising players?

Digital freight exchanges 2.0 & e-forwarders:
The high-end digital players are technologically unmatched, and they are rapidly catching up from the value-chain perspective.
However, large shippers do not yet have full confidence in their capability and reliability. Too new, unproven and secretive are most rising stars in comparison with the traditional LSP “tankships”.

Can high-end innovators gain relevant shares and position themselves as true strategic partners, even towards big international corporations? Some shippers have started discussions with new players. Some have even awarded small-business portions to them, e.g., Amazon, which works with FreightHub on inbound logistics. However, intensity of collaboration is still low in general.

If high-end digital players want to take a relevant position in the market (outside the small shipper segment), they need to:

- **Ensure sufficient funding** to be prepared for a long and fierce consolidation battle.
- **Rapidly expand** into other transport modes and close remaining functional gaps.
- **Gain critical mass** in focal segments to benefit from volume effects like traditional LSPs do.
- **Build confidence** by creating more transparency on their financial stability and existing business footprints.
- **Build reputation** through “buying into” large client businesses, executing them flawlessly and promoting them as reference cases.
- **Ally** with experienced players to get access to new clients and service offerings.

Arthur D. Little assessment: **high-end digital players are well positioned, but in order to advance, they need to expand or enter strategic alliances.**

Carrier integrators:

Their strong niche position in offering transport management excellence, as well as tailored client IT solutions, secures carrier integrators a key spot in today’s market. Their biggest asset, though, is their independent position. Not having any ties with the actual transport business means providers can automate processes without conflicts of interest.

However, their biggest strength is also their biggest weakness. Carrier integrators lack in functional width, deep T&L industry experience and operational involvement. Furthermore, they do not take over true end-to-end responsibility for services and commercial offerings of the integrated partners. These gaps make them mere intermediaries, and hence, vulnerable to attacks from the outside: will there still be a need for a mere collaboration platform when truly digitized and connected LSPs can act as efficient intermediaries with the most cost-effective and highest-quality transport options always at their fingertips? To remain relevant, they need to:

- **Further simplify systems and connectivity.** Today, company-wide TMS rollouts are still painful and costly for shippers. Savings potential is being left on the table.
- **Advance technologically** to stay at the edge of smart decision-making and automation.
- **Consider evolving their business models by building up T&L industry competence** to take active roles, e.g., in operations management, strategic network design or carrier selection.
- **Closely monitor “Digital LSP” developments** and be prepared to enter the game should their positions appear at stake.

Arthur D. Little assessment: **carrier integrators are very well positioned today, and they have plenty of strategic options for the future. To be safe, they need to monitor market developments and consider expansion of their current scope.**

Traditional LSPs:

Considering the rise of digital innovators, is it all “game over” for LSPs already? Not at all. In fact, they are still well in the game – if they take honest action now. Today, only traditional LSPs can provide “one-stop-shopping” value-chain offerings and access to truly global networks and all transport modes. Last, but not least, they have strong brand value and are often backed by larger holdings, investors, or even governments.

Can LSPs streamline their operating models and establish powerful digital presence to stay ahead? To be ready for the future, LSPs need to:

**First, rapidly catch up in operational efficiency:**

- **“Fix the basics”:** modernize IT landscapes and eliminate organizational inefficiencies.
- **Utilize digitization to enable a true step change** in operational and admin efficiency.

**Second, push service differentiation:**

- **Investigate new opportunities to develop “digitally charged” core products or “digitally enabled” new services.**
Push differentiation in their core businesses by building proprietary network advantages.

Third, develop a coherent digital game plan:

- **Start with a “why?”** to derive a comprehensive strategy that defines what role to play and where to attack or defend.
- **Start small but expand fast:** from screening over piloting to a global rollout.
- **Consider the transformational aspect** of digitization and actively reshape culture, processes and structures.
- **Consequently, focus on execution,** even against internal resistance.
- **Focus on the right partnerships** to be at the forefront of innovation, explore new business models and be able to scale up quickly.

Arthur D. Little assessment: LSPs are well positioned. Nevertheless, a coherent digital game plan is urgently needed to decide on playing fields and focus on execution.

Sitting and waiting is not an option. Neither is a simple “me-too” approach. LSPs need to step up their games. They must not be afraid of change, but of standstill, as their traditional operating models may not be required anymore in a not-so-distant future. Digitization can be a severe threat for LSPs, but also their unique chance to secure leading market positions for years to come.

**Figure 7: “Balance of powers” in freight transportation – digital players may position themselves at customer interfaces along all shipper segments; LSPs may fall behind**

<table>
<thead>
<tr>
<th>Shipper categories</th>
<th>Role of players</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Large</strong></td>
<td><strong>Inter-mediation</strong></td>
</tr>
<tr>
<td><strong>Medium</strong></td>
<td><strong>Transport coordination</strong></td>
</tr>
<tr>
<td><strong>Small</strong></td>
<td><strong>Transport execution</strong></td>
</tr>
<tr>
<td><strong>Private</strong></td>
<td><strong>Market-places &amp; crowd-shipping</strong></td>
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</table>

**Today**

- **Carriers**
- **Logistics service providers**
- **DFEs 1.0 & 1.5**

**Tomorrow?**

- **Carriers**
- **Logistics service providers**
- **DFEs 1.5 & 2.0, e-forwarders**
- **Market-places & crowd-shipping**

Source: Arthur D. Little
## Contacts

If you would like more information or to arrange an informal discussion on the issues raised here and how they affect your business, please contact:

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Arthur D. Little

Arthur D. Little has been at the forefront of innovation since 1886. We are an acknowledged thought leader in linking strategy, innovation and transformation in technology-intensive and converging industries. We navigate our clients through changing business ecosystems to uncover new growth opportunities. We enable our clients to build innovation capabilities and transform their organizations.

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