

## Mobile Customer Engagement

In many parts of the world people are carrying a supercomputer in their pocket in the form of a smartphone.

Consider this:

*“In 1994 the combined TOTAL number of transistors sold worldwide in PCs that year, was 1.2 Billion.”*

*“In 2015, a single iPhone 6 contains 2 Billion transistors”*

(Ben Evans a16z - 2014)

Due to the availability of high-speed wireless networks, access to the Internet is ‘almost’ universal. The combination of a powerful computing device (smartphone) and ubiquitous connectivity to an infinite data and computing resource, will be profound. It will impact the logistics industry in many unexpected ways.

This universal data connectivity enables activity at the edges of any physical network to function as if they are adjacent to the core. This means that operators and customers are immediately linked into the operational processes. This virtual closeness provides an immediate pathway for data, information, instruction and feedback, amplifying the capability of any organisation that takes advantage of it.

This paper is an attempt to consider the possibilities and implications of this mobile revolution and how the customers of logistics service providers can be engaged and interact as partners.

### Accountability

Customers demand to know more - carriers must streamline and improve their technology platforms to support these demands - this will be very challenging in some places.

The value of data increases as accuracy improves, so everyone has incentive to keep it up to date. This improves operations, creates customer trust and builds loyalty.

*“Why would we allow customers to access our systems? They would see when we screw up...”*

Ex Customer Services Manager.

Previous generations of logistics information systems were primarily document generation platforms. This was because most of the industry depended on the flow of paper documentation. Some of the more advanced systems introduced the ability to provide price quotations, along with the monitoring of simple process flows. The arrival of the internet completely changed the game and the rapid adoption of the technology by the express parcel companies illustrated the potential. They connected their Track and Trace systems to the internet and allowed their customers to see the progress of their shipments at any time.

It required huge levels of capital investment by them to create the network of systems and scanners that captured the track and trace data. But, by allowing customers to directly view this information, they transferred the role of customer service agent from the company directly to the customer. This dramatically reduced the number of calls into the call centres and highlighted the advantage of allowing customers to engage directly with the operational systems. It quickly became normal to query pricing information, to book shipments and to obtain proof of delivery confirmations, online.

As a result, increased customer expectations caused logistics service providers to rethink what their systems needed to do. In short, an evolution from essentially document production and process control systems, towards more flexible, agile and collaborative platforms. As this evolution was taking hold, mobile phones began to transform into handheld computers, extending the ability to capture data and access information via any cellular network.

This transformation has occurred in parallel with the move away from production driven sales models, towards demand fulfillment models. In short, from 'pushing' products into markets, to 'pulling' them through, in response to customer demand. The Internet has enabled customers to signal their demand directly to the product source, combined with the ability to immediately switch to another supplier if they cannot get exactly what they want, when they want it.

This approach is a profound challenge to the inherent information systems used by many organisations, many of which were designed to streamline processes and operations for internal efficiencies. Connecting these sclerotic, process centric environments to high velocity, very high transaction customer interfaces (or apps), is not easy and seldom ends well. To meet this challenge requires a fundamental rethink of how a company organises its information systems and operational processes. It puts the customer at the centre of any proposition and is much easier to do if you are starting with a blank sheet of paper.

In the business to consumer (B2C) segment, Amazon is the best example of what is possible when this is done well. They made a clear decision at the outset that the customer would find interacting with the company and using their services, as

painless as technology allows. Anything that could prevent or delay a customer from selecting, purchasing and then receiving delivery of their goods was to be eliminated. Ideally a customer should only have to 'click' once and then payment and delivery would just happen. To a large degree they have achieved this and consequently it has been echoed by large numbers of other retailers who have realised what was possible.

This has now created an expectation that all online services should be as seamless as this experience. How companies and specifically in the context of this paper, logistics companies, can support these goals will be crucial to their success in the market. They need to be agile, adaptable and most importantly, customer centric organisations. The goal must be to make customers both allies and evangelists of your extended enterprise.

## **The agile enterprise**

The challenge of scale and adaptability is forcing many companies to examine the advantages of cloud computing. The cost of operating in-house data centres is becoming unsustainable in comparison with using a cloud service provider to do the same thing (except for some very specific instances). Alongside this, the operational applications (the programs that reside and run on the data centre infrastructure) are having to be redesigned to exploit these new and virtually unlimited platforms.

People have been seduced by the utility of many of the apps they use on their mobile devices and PCs. They don't understand or, more significantly, don't care, that these apps are linked to complex data stores and transaction processing systems, often running on the other side of the planet. All they care about is that they can get the answer to their question, or issue an instruction that makes something happen exactly as they want. Customer centric organisations understand this and are adopting the necessary technology building blocks to make it happen.

Logistics operators have seen the results of access to online track and trace systems. Customers now expect any carrier to provide this kind of capability. While this is slightly easier to do when dealing with single shipments moving through the domain of a single carrier, it becomes more complex when shipments are consolidated and moved via several different carriers. But this is just the tip of the iceberg. Freight Forwarders, third party logistics service providers (3PLs) and other players in the industry, need to share information between themselves and out to their customers, partners and stakeholders. Rather than being concerned by the challenges this conundrum presents, they should consider the opportunities.

Starting with the customer, order and shipment information can be shared and augmented throughout the process. It's not unusual to have track and trace information overlaid onto maps to show the location and progress of shipments as they transit the delivery path. With the appropriate systems in place, the operators,

(carriers, local drivers, etc.), shipper and consignee are all linked into a quasi-social network where communication can occur.

This is especially vital in dynamic environments where order demand requires shipments to be rerouted, or when there is damage, or unexpected delays, or interruptions to the schedule. The primary mechanisms for this to happen already exist as there are multiple apps performing similar actions in other domains. This is also advantageous to the logistics companies, as customers using these tools are also sharing more information about their operations as a consequence.

As these tools become part of the operational landscape, the volume of data and information accumulated enables logistics operators to create more precise service solutions. The science of big data analytics is moving into the mainstream to support these activities.

The earlier that information about orders and shipments is captured in the process, the more accurate the information is likely to be. This has huge benefits, as more accurate information helps to improve clarity, avoid errors and streamline processes. A practical example of this can be seen when a proof of delivery confirmation automatically triggers payments to the respective suppliers and stakeholders.

By combining all parties into the information loop, problems can be identified quickly helping to bring a resolution as soon as possible. This is in contrast to the alternative scenario of phone calls, emails and queries trying to work out where something might be, what the problem is and who is responsible. This is still very common, raising costs and frustrating customers.

Transparency and access to data across the network helps to establish trust between partners. Trusted networks are generally much more efficient and have higher levels of customer retention. This results in increased revenues and reduced costs.

Network connected mobile devices are very powerful communication and sensor platforms. They are the means to engage every party in the chain. All of the actors can be combined into a virtual partnership tasked with delivering the service to the customer. This is particularly important for the parts of the operation that directly interact with the customer. e.g. delivery drivers and customer service personnel. They can also be incentivised to deliver an enhanced service via the mobile device directly linked to the controlling system.

In many markets, transportation services rely on a large pool of sub contracted owner drivers. Use of these resources lowers the cost of dedicated services, but also reduces the ability to monitor and manage service levels. Thanks to the advances in mobile technologies, these independent contractors can now be linked and managed directly as part of the process.

The taxi business is undergoing a seismic shift in many cities around the world as this principle is adopted on a wide scale. Drivers can download the relevant app onto their smartphone, complete a simple form and are then available as a resource for hire, with the system taking care of the booking and payment automatically. Customers can then rate the driver via their smartphone app and the best performers are highlighted.

In the case of logistics service providers, using this approach to manage their pools of subcontractors has huge potential. They can operate as very agile and adaptable nodes on the network, receiving availability requests and jobs directly on their devices. They are then able to directly schedule the pick up with the manufacturing facility or DC dock location, coordinating with other actors in the chain and all the while keeping the client updated automatically. Depending on their performance ratings, micro bonuses could be applied to their accounts, encouraging consistent high performance. This should enhance the network performance overall.

The same principles apply to each and every other party in the logistics chain. Where goods are moved through multiple locations and handled by many different partners, whether at a cross dock or consolidation facility, the information ‘chain of custody’ is in sync with the physical one. The net result is that customers are encouraged to engage with the logistics service provider as a ‘partner’ rather than just a supplier.

### **Huge amounts of data demand investment in better systems**

All of these developments present a great opportunity for new logistics service providers, as they can build their business around the idea of information services as a utility. They can do this at cost levels a fraction of what they would have been say 10 years ago. This gives them tremendous flexibility and the opportunity to match the scale and capability of larger, established companies. It enables them to focus systems and resources on customers, with the flexibility to quickly adjust or enhance the solution in response to market conditions.

Established companies who already have large system installations, will have to decide how they can take advantage of these new services and interoperate with them or discard whole chunks of their enterprise technology platforms. This is a considerable challenge, but one they will have to address in order to compete with nimble and effective competitors.

In many emerging markets, logistics service providers can take advantage of these developments to establish systems platforms that deliver unparalleled levels of customer service. Providing relevant information directly to the mobile devices of all participants in the chain will be the operating norm. Customers will use their mobile device to monitor progress, send instructions and query or resolve any issues with their shipments. Over time, the logistics service provider will be able to examine the accumulated data to gain a greater understanding of the customers’ shipping

requirements and any underlying signals indicating where operations can be improved. This proactive approach to customer service can be seen as delivering on the performance 'promise'.

For the other parties in the logistics chain, the advantages of deploying mobile apps into their operations both increases accountability and enhances service levels. Those companies that may be reluctant to engage with the logistics service provider using these technologies, are also sending the signal that they distrust transparency in operations. This may not make them reliable partners on a long term basis.

For those parties that are prepared to engage in this way, they should also be able to use the data to improve their own operations. Mobile applications can reduce the amount of manual form filling or spreadsheet updates to a minimum. It avoids the need to pass information through numerous parties before it is entered into a system. This frequently results in incomplete or inaccurate data, causing problems and delays further along the information chain.

In some operational environments, especially those in public or general purpose facilities, access to dedicated staff is not possible. But through apps that can be downloaded onto a mobile device, even ad-hoc freelance staff can become an informed dedicated resource. Instructions on the screen of a mobile phone can exploit the cameras, GPS and other sensors they have, so as to ensure shipments are handled appropriately and are consolidated and moved according to plan. Thus all leaving a complete audit trail of date, time, location, action, operator.

With such a rich pool of information available, operational managers can enjoy a real-time view of operations, issues and any problems, even if they are away from their desk. Using their mobile device, they can tap into business intelligence applications to determine the most appropriate options for resolving any issues. Thanks to the direct connection between the app and their operating environment, they can initiate the relevant actions and, at the same time, keep the customer and any relevant parties fully informed.

Access to the rich pool of operational data on mobile devices, enables managers, partners and customers the ability to review the same information, at the same time. This is especially helpful during contract negotiations, but on a day-to-day basis, gets to the cause of problems faster. This ensures the resolution is quicker and more coherent than if it is based on incomplete or inaccurate data spread across numerous spreadsheets, ad-hoc phone calls and disparate systems.

## **Customer First means Mobile First**

When selecting a system, logistics service providers should consider how well any potential vendor incorporates mobile devices. Accessing the vendors systems via a browser from any PC or mobile device is no substitute for a dedicated application designed for that device. Analysis has shown that users tend to spend more time using apps than they do accessing the same functionality through a browser.

Apps can also maximise the other functions of the mobile device such as the cameras, GPS and location sensors and mapping apps. This is not usually available if you use the mobile devices browser. It is reasonable to expect that app developers understand that the mobile device will only increase capability as technologies evolve.

It's an interesting maxim from computer science classes that computers should never have to ask for any information they are capable of collecting themselves. This applies particularly to mobile devices. How logistics service providers take advantage of these developments may well be the key to market domination. Working with vendors who understand this and have developed their solutions with an open customer centric mindset, should be at the top of any selection list.