

Case Study

How to achieve cross-stakeholder visibility of goods-in-transit without investing large amounts of capital into new hardware

Supply chain visibility has been a topic of interest for a number of years now with many organisations seeking to achieve such a vision. The benefits of visibility vary but ultimately, the principle is that all stakeholders involved in a supply chain have access to information regarding the movement of goods throughout the entire chain at all times. Obtaining such insight carries significant value, helping to make operations more efficient, improve communication between stakeholders, and even to drive automation of certain processes.

This case study details how the Entopy platform has helped Building Supplies Online (BSO) to achieve greater visibility within their supply chain, without having to invest large amounts of capital into new sensors and other IT hardware, helping BSO to deliver levels of visibility and communication to their customers that is unrivalled in their sector.



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THE COMPANY

BSO, owned by the Cairngorm Capital Group, offer over 40,000 products through their e-commerce website. Supplying goods to both hobbyists and trade, products range from tools to materials, from kitchens to bathrooms, from windows to doors. Offering one of the largest ranges of building products online, BSO are rapidly becoming the go-to brand for building materials, focused on excellent customer service, shortened delivery lead times and an expanding choice for their customers.

BSO is a forward-thinking organisation, recognising that to deliver excellence to their customers requires careful strategic planning and investment into key infrastructure. Their vision is to become the 'Amazon of building supplies', achieving growth through their expanding product range and driving customer loyalty and repeat custom.

A HIGHLY COMPLEX OPERATION

To provide such a wealth of choice to their customers, BSO work with many vendors and logistics partners. Building materials as a product group offers unique challenges in that some products are large, some are fragile, and some more expensive than others. Managing such a diverse product range has led to a complex logistics and operational model.

BSO holds an inventory of certain products, fulfilling orders directly from their own warehousing facility. BSO outsource the delivery of products through multiple logistics providers. Of the products that BSO hold inventory, the larger items require palletised shipping through specialist logistics providers and for the smaller products, BSO utilises parcel couriers. In certain cases, where the product is large, more expensive, or made to order, products are drop shipped directly from the vendor to BSO's customer.

BSO's operation involves multiple logistics partners, hundreds of product vendors with products taking a variety of logistics routes to the end customer. This presents a number of challenges for BSO including customer communication, monitoring multiple external systems, replenishment of inventories, and communication with vendors and logistics partners.

By gaining greater visibility across their supply chain, BSO would increase their control and ability to influence helping to improve customer experience, improve operational accuracy and reduce costs.

Entropy leverages data present within BSO's supply chain, to provide BSO and its customer's real-time visibility of goods-in-transit

BSO's primary objective was to gain real-time visibility of customer consignments to improve communication, service levels, and help BSO to identify and rectify issues more quickly.

Having already explored using new IoT (Internet of Things) sensors to track at asset level, deeming them too expensive and not operationally viable, BSO were looking for alternatives. Instead of collecting new data, Entropy connects existing IT & IoT systems such as fleet telematics (over 85% of UK HGV's are now fitted with a GPS tracker), TMS (Transport Management System) and ERP (Enterprise Resource Planning System) across stakeholders to deliver the visibility BSO required.

Entropy's platform turns vehicles into 'virtual inventory environments' using location data from existing telematics systems. The platform associates customer consignments with the relevant vehicles using scheduling data collected from the logistics partners TMS. The platform then populates the 'virtual environments' with consignment data from BSO's ERP.

Entropy's 'virtual inventory environments' enable multiple, individual consignments to be tracked per single vehicle, with each consignment having its own destination and associated geo-fence. When the consignment arrives at its destination, Entropy autonomously recognises the event using the geo-fence and completes the delivery, in-turn, detaching the consignment from the vehicle.

Entropy provides next-level visibility for both BSO and their customers. Customer communications are consistent and are sent directly from BSO, communicating real-time ETA, goods arrival, etc. All communications are branded with BSO colours and logos. Leveraging the additional control, BSO includes advertisements within the tracking screens helping to drive upsell.

Entropy links vehicle tracking data with back-office systems to provide real-time visibility of goods-in-transit. Using a combination of analytics and geo-fences, the platform contextualises the data and captures key events as individual consignments move through the supply chain.

Achieving visibility would be easier if one organisation owned the entire process and respective systems however, that isn't true in the case of BSO meaning there are multiple disparate systems in operation.

Entropy's platform 'sits' centrally between stakeholders and their respective systems, harmonising and contextualising data within the cloud, connecting the respective stakeholder systems whilst keeping them separate from direct integration.

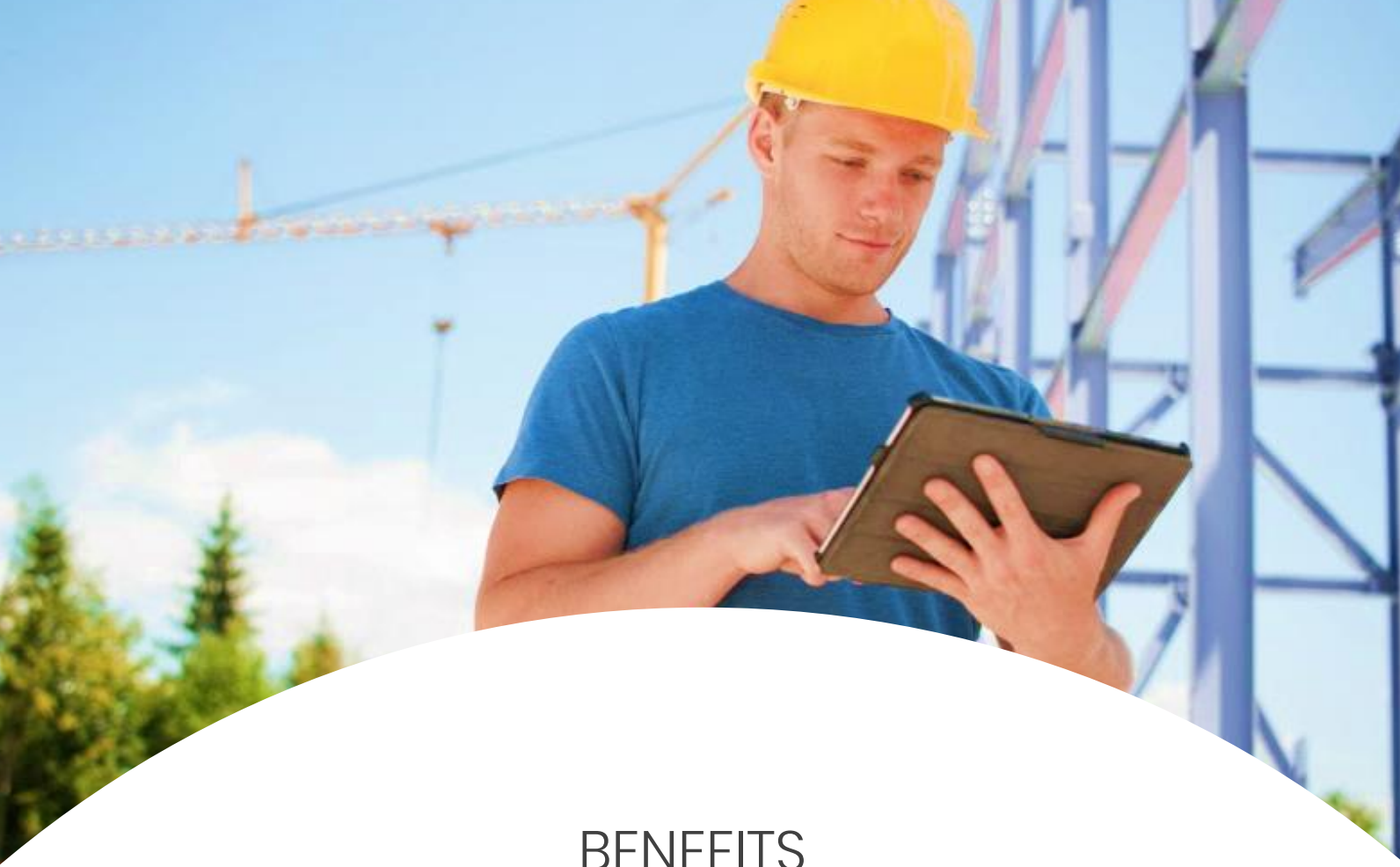
Each stakeholders system connects only with the Entropy platform. Entropy's open API's (Application Programme Interface) enable it to broker data from one connected system with multiple others. Entropy's approach means integrations are established much quicker than using traditional methods, with fewer integrations required overall.

The Entropy platform can act as a light-weight, control tower type application, as middleware, capturing key supply chain events and interfacing them directly with other stakeholder systems, or act as a source of supply chain data feeding larger solutions.

BSO is using the Entropy platform both as a front end application and as an events/communication broker between systems and stakeholders. BSO colleagues can log on to the cloud-based application to monitor their supply chain in real-time, whilst the platform captures key supply chain events and communicates them with BSO's customers (via email or SMS) and, in some cases, directly with other stakeholder systems.

The Entropy platform acts autonomously, gathering information and generating outputs without any manual intervention.





BENEFITS



Unrivalled visibility for both BSO and their customers, improving communication, customer experience, and increasing customer loyalty



Branded customer communications improve brand presence and create new advertising space through which BSO can drive upsell



Improved supply chain visibility, helping to identify and resolve issues more quickly



Improved communication with other stakeholders, reducing emails, phone calls and other administrative tasks



>70%

INCREASED CUSTOMER
SATISFACTION

10%

REDUCTION IN
ADMINISTRATIVE COSTS

1500

SHIPMENTS
TRACKED



NEXT STEPS

BSO and Entopy are now looking to the next phases of the collaboration. BSO intends to have over 70% of all goods sold being tracked via the Entopy platform. This will provide much-needed visibility for BSO to support their ever-growing and complex operation, ensuring consistency of communications and the overall experience received by their customers.

There are a number of integrations scheduled over the coming months that will see more suppliers and logistics partners systems connect with the Entopy platform.

BSO and Entopy have also started to explore ways in which the events captured within the Entopy platform can be used to deliver further automation, in turn reducing operating costs and increasing scalability of the overall operation. This will see further benefits, further streamlining and further cost reductions realised by BSO, helping BSO to continue to delight their customers.

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Prior to working with Entopy, we consulted multiple other vendors. These ranged from hardware to software providers. Entopy is the only company that we have found to be able to deliver what we need. Their platform is easy to use and the proof has been in the speed at which the various systems have been connected, and the robustness thereafter.

Our initial reaction to the Entopy platform is very positive and gives us a significant competitive advantage. We intend to rapidly expand adoption of the platform across our business and likely, other businesses within the Cairngorm Capital portfolio.

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– Daniel Button, Logistics Lead, BSO



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