Modernising the UK military's logistics

Have UK forces benefited from Leidos' digital transformation and is a single supply chain integration portal the future of defence supply?

Military forces and large enterprises across the globe have always recognised the need to modernise and secure their supply chains, but this is being brought into hard focus now in light of the Covid-19 pandemic. Currently, supply chains exist as a collection of systems in different military domains, and there are varying integration approaches and security protocols, making synchronisation a significant challenge. However, a new piece of technology has been rolled out in the UK that is helping the MOD improve performance and lower costs across its supply chain.

In the UK, Leidos operates the commodity procurement, storage and distribution functions through the Logistics, Commodities Services and Transformation (LCST) Programme. This 13-year, £6.7 billion contract was awarded in 2015, with the primary focus on enhancing a core part of the UK's defence supply chain through digital transformation. Leidos assembled a skilled and experienced team of private sector defence and logistic partners with the global expertise to deliver the transformation required.

Since 2015, this has delivered over £1 billion-worth of products to the military, using cutting-edge procurement techniques and strong governance. That means getting everything from food rations to boots exactly where they need to be, at the right cost and at the right time. With an effective process for engaging the market, the programme has driven equal opportunity to over 450 suppliers – particularly small and medium enterprises – across a range of commodity sectors, including food, fuel, medicine and clothing.

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This is a dramatic change, as previously the MOD used a lot of manual processes to enable orders. Leidos' challenge was to remove aged technical debt in the existing systems within a two-and-a-half-year timeframe. This involved building interfaces with the legacy systems at the same time as improving information flows, and delivering modern end-user services and a source of trusted management information. Clearly, security was of paramount importance, with robust processes needed for approvals, financials and identity management.

Supply chain integration portal

The key to these successful changes has been the creation of a single supply chain integration portal (SCIP). This system takes the best-of-breed information technology from online retailers, and combines it with the security expertise that Leidos has developed over the course of five decades working with the military worldwide.

∧ SCIP has the capacity and breadth to run the military supply chain of the future

SCIP provides a secure integration platform that serves as the central hub to broker inbound and outbound messages and queues that interface with non-government systems that sit outside the system. Leidos designed the solution to operate in a cross-domain context, allowing independent applications that are distributed across the various military domains to communicate with each other securely. The technical architecture of SCIP supports web services that enable Leidos to deliver rapid digital transformation, combined with embedding robust security controls for the whole digital journey.

Future of military supply chains

SCIP has the capacity and breadth to run the military supply chain of the future, and we have seen this first hand. The technology has been able to reduce the time it takes from receiving an order and then packing it for shipment from, in some cases, 24 to 48 hours, down to a matter of minutes. There is also a huge amount of complexity in the items that need to be delivered. For instance, within the MOD supply chain there are controlled pharmacy items where strict controls are in place on who has access to order those items. This information is all inbuilt within the system, delivering security and efficiency.

The nature of the workforce in the military is also changing, and there is recognition that the supply chain must keep up with technology that has already become the

norm. Most recruits have now grown up in a world where smartphone technology is at the heart of everyday life, and next-day delivery is par for the course when online ordering. Our intention is to mirror that experience for soldiers, sailors and air personnel, so they can enjoy the same experience they have when shopping online for clothes when ordering their uniform. This technology will provide the MOD with the platform to make that happen.

Orders are placed via the e-catalogue, much as they would be on, say, Amazon, which provides detailed descriptions of items alongside illustrative photography and technical documentation. This enables users to find and order quickly the items they are looking for.

When a customer places an order through the e-catalogue, SCIP facilitates the order orchestration and management, then verifies the user identity and obtains financial authorisation, before checking availability of the product and initiating the ordering of more stock if it brings supplies below the required threshold. This is all done within a matter of seconds.

The vision is to develop the technology to expand the items available on the e-catalogue, from direct supply items to around 250,000 items stored in our warehouses. Additionally, the plan is to exploit the opportunities offered by the public cloud. Centrally orchestrating demands by adopting private cloud technology will reduce infrastructure costs, and SCIP has provided the digital transformation to enable a huge reduction in technical demand processing time, all scalable through cloud technology.

In conclusion

SCIP has proven to be robust, scalable and built for the future. It has delivered the security and data accuracy required by the MOD, whilst bringing together an array of disparate cross-domain systems and ensuring a robust data flow between them. The technology has orchestrated this entire process and delivered a step-change in defence logistics, acting as a service in a way that improves quality and reduces costs.

Technological solutions like SCIP are and will become increasingly essential as the military and large enterprises across the globe modernise their supply chains.