

Defence

Delivering Public Service for the Future

Armed with a data supply chain,
Defence Logistics will never be the same

High performance. Delivered.



"The more I see of war, the more I realise how it all depends on administration and transportation . . . It takes little skill or imagination to see where you would like your army to be and when; it takes much more knowledge and hard work to know where you can place your forces and whether you can maintain them there."

General Archibald P. Wavell

"89% of global organisations believe big data will have a revolutionary impact on their operations equal to the creation of the internet."

Becoming Bold with Big Data, Accenture

While strategy and tactics may provide the goals and manoeuvres for any military force, logistics delivers the means. Having detailed insights about force readiness through the operational state of assets is central to mission success.

However, many defence logistics agencies are left relying on partial or outdated information to form this view. The data they need is housed within function-based silos – HR, finance, maintenance and others. When an accurate picture of preparedness is required, the right data needs to be manually cobbled together from a multitude of applications and databases across various functional domains. In the digital age, this won't suffice.

Ammunition for a key strategic asset

Business leaders now view data as among their most valuable strategic assets—some even call it the lifeblood of their organisation. Around the world, organisations that apply big data and analytics to their operations show productivity rates and profitability levels 5% to 6% higher than their peers.¹

To realise its value, data needs to be freed from its functional and technical silos so that it can flow usefully across the enterprise. It now becomes a Data Supply Chain – providing value where needed, triggering immediate action and enabling mission success.

For defence organisations, this will change the way they manage the business of logistics, HR, finance and operations. They will be able to get answers faster than they ever could before and be able to ask questions they never thought to ask before. It will lead them to being an organisation with a truly enterprise-wide view that learns from the descriptive past but also predictively plans for the future. In short, a data supply chain will transform defence by linking data within the domains but also integrating domains to provide a holistic mission outcomes focus that will enable improved decision making, increased efficiency and cost reduction.

Answering the crucial questions

Take the example of a maintenance coordinator in an operational unit. Certainly reviewing the scheduled maintenance forecast generated by the maintenance application is a key activity but currently that maintenance system is not part of an integrated data supply chain and therefore does not provide other key information such as:

- What operations are planned for these assets?
- Will enough assets be available?
- Will the required parts and spares be available?
- Will I have trained skilled qualified technicians available?
- Will I have the required facilities, test equipment and tooling available?
- What is the cost of performing the maintenance earlier or later than scheduled?

Answering these questions and many others is an ongoing process for maintenance planners and coordinators, however much of the information required is from outside the maintenance domain. An integrated data supply chain would enable each part of the organisation to view and contribute to delivery of the overall mission outcome.

Improved efficiency and decision making: A data supply chain in action

In the future environment, the maintenance coordinator will access the unit operations plan to review the unit commitment for operations, exercises and training over coming days, weeks and months. This activity can then be factored against the scheduled maintenance program to determine if the required numbers and types of assets will be available. An ERP (Enterprise Resource Planning) system would enable what-if scenarios to be run to understand the regulatory, maintenance and resource impacts of adjusting the schedule.

The unit supply staff now also review the aligned operations and maintenance plans and can proactively determine availability of spares and consumables with the goal of delivering the necessary components to maintenance as the activity becomes due. The ERP also allows monitoring of usage trends and so enables prediction of usage during periods of increased or decreased operational tempo. The ERP is also aware of the lead times for delivery of spares, parts and consumables to ensure orders are made at the appropriate time to allow delivery by the required date.

The maintenance coordinator will be able to readily check the availability of the required facilities such as workshops, hangar and dry dock, then view whether these facilities have the required equipment such as cranes, lifts, stands and pumps in service. The same applies to specialist tools and test equipment and whether they're calibrated, serviceable and available.

Finally, the maintenance coordinator must ensure they have the correct number of trained, skilled and qualified technicians available to perform the maintenance. The ERP will provide HR data including leave or course dates and possibly even any medical work restrictions that might preclude being employed on a particular activity or in certain locations. Simple information such as expiry date on a passport can impact a maintenance plan.

Gathering the required information to make effective informed decisions is currently a manual process requiring access to several siloed systems and taking many hours. This inefficient process is repeated on an almost daily basis across many units in defence organisations. An effective data supply chain, producing integrated data, puts consolidated enterprise information into the hands of the right people.

Data supply chain success factors

Creating an effective data supply chain is equal parts organisational structure, technology and culture.

Organisation

To create an effective data supply chain, each part of the enterprise – including logistics, HR, finance and operations – must understand not only their functional purpose but also the contribution to the overall defence mission outcome. This will require a change from the current mindset of functional data silos and technology, to one where data is recognised as a powerful, enterprise-wide asset.

Technology

An ERP is required to enable the right data to flow across functional domains. The system provides a master view of all data and allows the data to be used and reused where required. While the ERP delivers some rationalisation around standardisation of technologies there is also significant benefit to the organisation in the enablement of standardised policy, process and procedure.

Culture

An evolution of organisational culture will be required to recognise that the supply office doesn't just deal with supply data, and maintenance not just maintenance data. People will need to be trained to adopt this mindset and educated about the opportunities the data supply chain offers them to enhance their role and responsibilities.

If the importance of an effective data supply chain is understood, and each contributor is aware of the reliance on that data by many people across defence, quality will no doubt improve.

Where to next?

The value of a data supply chain stretches far beyond efficiency increases in defence logistics and other individual domains. Removing the data siloes and adopting an enterprise-wide view enables better data quality, improved decision-making and greater asset reliability and availability. An effective data supply chain will enable exploitation of digital technologies such as mobile and monitoring devices to increase variety and volume of data and more effective use of that data through advanced analytics to provide not only better historical descriptive analysis (what has happened) but also predictive analysis (what will likely happen) leading to intelligent automation of business process. This combination of better technologies, better tools and better data will mean:

- Operations are planned and full logistics liability understood
- Asset availability targets are met efficiently
- Required parts and spares are pre-ordered or pre-positioned automatically
- Trained skilled qualified technicians are assigned and ready
- Required facilities, test equipment and tooling are available
- Defence logistics, operations, HR and financial aspects are factored into plans
- Operational availability is optimised

Supporting mission success

The data supply chain is a key component of an enterprise environment. Used effectively it will deliver enhanced defence preparedness, ensure the military is rapidly deployable and has increased capability for defending national interests.

References

- ¹ "The geeks won: Accenture analytics and the journey to ROI", Accenture, 2013
- ² "Becoming bold with big data" Accenture, 2014
- ³ "The geeks won: Accenture analytics and the journey to ROI", Accenture, 2013
- ⁴ Accenture Technology Vision 2014, Data Supply Chain

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About Delivering Public Service for the Future

What does it take to deliver public service for the future? Public service leaders must embrace four structural shifts—advancing toward personalised services, insight-driven operations, a public entrepreneurship mindset and a cross-agency commitment to mission productivity. By making these shifts, leaders can support flourishing societies, safe, secure nations and economic vitality for citizens in a digital world—delivering public service for the future.

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