

Accelerate development of more intelligent and connected aircraft

DXC Workplace and Mobility Advisory Services

Benefits

- Use predictive analytics to enhance maintenance planning and trigger repairs.
- Eliminate unplanned maintenance and minimize downtime costs and inconvenience.
- Employ virtual replicas of physical performance to enhance operational availability and streamline maintenance.

Optimize operational efficiencies while innovating design.

Flight delays and cancellations from unplanned maintenance cost original equipment manufacturers (OEMs) and their customers billions of dollars every year, not to mention the impact on customer satisfaction. It's no surprise that a top priority for OEMs is to minimize operating costs and optimize operational availability.

Emerging digital tools can help OEMs and maintenance, repair, and overhaul (MRO) facilities overcome some of the aerospace and defense (A&D) industry's biggest challenges. In fact, researchers predict that these new developments — digital twins, artificial intelligence (AI), mobile applications, and unmanned aircraft systems (UAS) — are set to disrupt the aerospace and defense industry.

Establish your technology leadership

DXC Technology can help you assert your technological leadership in an industry that is already at the forefront of innovation.

DXC Workplace and Mobility Advisory Services for aerospace and defense helps your organization formulate goals, develop strategy and create a roadmap for flexible, emerging digital solutions that will deliver core benefits for your organization.

DXC experts align your workplace vision and strategy through a proprietary, panel-based workshop that matches business outcomes to various choice points. This collaborative engagement creates an interactive experience that explores how different DXC offerings can be integrated into your workplace.

Start your transformation with a detailed IT strategy and project roadmap. During a workshop, you will validate assumptions, refine vision and strategy, identify new ways of working, and design business models to build a business case based on predefined return on investment (ROI) models.

DXC industry and offering experts advise you on integrating required services and solutions. Our framework quickly addresses key issues and prioritizes requirements with a workplace-like experience familiar to users.

Harness the tools

DXC can help you minimize operating costs and optimize operational availability with smart maintenance and up-and-coming digital tools.

Smart maintenance

For decades, aerospace OEMs have been making extensive use of technology to produce new aircraft. But with

recent advances, aircraft engineers can connect thousands of people into the design and manufacturing process using information gathered through maintenance efforts. With technologies like virtual reality, engineers and operators can visualize how aircraft systems fit together, helping them prove designs before assembly and virtualize potential maintenance issues before they occur to design the correction in advance.

When you combine the capabilities of smart manufacturing, smart maintenance and the promise of these emerging technologies, the sky is the limit:

Digital twins is a state-of-the-art method of digitally replicating the operations of physical assets while they are in use. It is used to create a virtual replica of, say, an engine to show engineers how it is running. This replica can then be linked to IT systems to help streamline and optimize maintenance processes and operational availability. Virtual replicas showing how physical assets are performing also make it possible for manufacturers to tweak and hone designs and operating parameters.

AI is poised to invade the A&D space. One of the biggest opportunities for AI involves predictive maintenance. Predictive analytics can help optimize maintenance and capacity planning by reducing the need for routine maintenance and triggering repairs only when needed.

AI uses data from in-service aircraft to predict potential issues. These algorithms learn to predict delays and faults, giving airlines, airports and MRO

service companies a better chance of avoiding them. The ability to correctly predict the right moment to repair or replace a part is key to this approach — if it's too far in advance, the benefits of longer usage are lost, but if it's too late, unexpected failures can result in unavailable assets and lost revenue.

Cloud-based mobile solutions are also helping drive new efficiencies in A&D operations, particularly for line-of-business needs such as line maintenance execution and planning. Previously, OEMs and MROs were concerned about the amount of physical hardware they might need for new technologies, but the emergence of software-as-a-service (SaaS) tools and cloud-based mobile environments eliminates the cost of purchasing and managing on-premises technology and is proving to be attractive. Cloud-supported mobile tablets and other devices, for instance, can be rolled out to the workforce without physical installation. Consequently, OEMs can focus on the value they receive, not on the infrastructure they need, removing a barrier to change.

Unmanned aircraft systems (UAS), commonly known as drones, are revolutionizing inspections and other everyday tasks simply by allowing engineers to take a closer look at what's going on.

A typical visual inspection of commercial aircraft can take up to 6 hours. Drones can cut this time dramatically while offering greater accuracy — freeing up engineers' time, reducing maintenance costs and improving safety.

Initial UAS have already been used to enhance engineers' visual checks, looking for known or unknown fuselage damage, with the possibility of expanding to hail and lightning strike damage.

Going one step further, developments are now underway to automate inspections by giving engineers better tools they can deploy quickly, with less planning and training. Engineers would still control the flight of the UAS, but by using visual processing algorithms combined with enterprise IT systems, the drone could send work orders straight to the maintenance crew as soon as a fault is identified.

Why DXC?

Experience. DXC experts have years of experience managing and enhancing traditional IT, and we leverage that experience to lead clients in their digital transformation journeys.

Advice you can trust. Our highly skilled DXC industry and offering experts know your industry, users and environment.

Partnerships. Industry-leading technology partnerships with major contractors and vendors enable extensive architectural and operational insight that most partners lack.

Learn more at
**[www.dxc.technology/
workplace_and_mobility](http://www.dxc.technology/workplace_and_mobility)**

About DXC Technology

DXC Technology (DXC: NYSE) is the world's leading independent, end-to-end IT services company, serving nearly 6,000 private and public-sector clients from a diverse array of industries across 70 countries. The company's technology independence, global talent and extensive partner network deliver transformative digital offerings and solutions that help clients harness the power of innovation to thrive on change. DXC Technology is recognized among the best corporate citizens globally. For more information, visit **dxc.technology**.