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TAKE OFF WITH THE CLOUD

How the cloud can accelerate innovation, unlock future value, and elevate enterprise security in aerospace and defense

The Aerospace and Defense industry is grappling with major disruptive forces—from increasing competition to technology change to the effects of the COVID-19 crisis.

For many companies, another challenge lingers, threatening the industry's ability to drive innovation and profitable growth amid the increasing uncertainty: their IT systems. The solution? The cloud. Our research reveals moving to the cloud is a clear imperative for companies to address now to adjust IT spending, accelerate innovation, unlock future value, and elevate enterprise security.

MAJOR DISRUPTIONS

Major disruptions are dramatically reshaping the Aerospace and Defense industry—and companies will need to adapt if they want to be ready for the future.

Demand

Amid the COVID-19 pandemic, aerospace and defense companies are seeing a dramatic slowdown in commercial demand as workers go home, passengers stop traveling, and large customers delay accepting new aircrafts. On the defense side, however, demand for new products is strong and even increasing. Defense demand is more directly tied to longer-term government contracts and national defense priorities and, as such, is not as severely impacted by the effects of COVID-19.

Competition

Even before the COVID-19 crisis unfolded, companies were dramatically reshaping their portfolios through consolidation and new revenue streams, particularly in the aftermarket and sustainment segments. The global aerospace and defense sector wrapped up 2019 with another year of record mergers and acquisitions, and this momentum could continue, along with increased competition within and outside the industry.

Technology Change

According to research conducted at Accenture, 93% of aerospace and defense executives report that the pace of innovation in their organizations has accelerated over the past three years because of emerging technologies.[1] Driven by this change, leaders have been turning more and more to digital business models to improve revenue generation, drive efficiencies, and improve supply-chain performance. This will only continue and will accelerate in a post-COVID-19 world.

Talent and Workforce

Prior to the current crisis, technological change and new ways of working were disrupting jobs and the skills employees need to do them. The COVID-19 crisis has only accelerated this trend. Aerospace and defense companies must adapt to the rapidly changing conditions and figure out how to match workers to new roles and activities in the midst of a dynamically changing market. If that wasn't challenging enough, the industry is facing talent shortages as disruptive startups lure away STEM (science, technology, engineering, and mathematics) workers.

THE CHALLENGE CONFRONTING AEROSPACE AND DEFENSE COMPANIES: IT

To drive innovation and profitable growth, aerospace and defense companies know they must harness the benefits of new IT capabilities to remain competitive in a changing market. But often, their own IT infrastructure and systems hold them back.

As enterprise software platforms and infrastructure mature, more features are added to the legacy systems, and complexity inevitably grows. This pattern results in additional fixed operating costs, diverting precious investment in innovation and new capabilities. Over time, the challenge of connecting and updating these systems becomes overwhelming for IT teams, and undertaking strategic digital transformations as an organization becomes even more difficult. As a result, many companies simply add new systems in parallel to achieve the functionality they seek, creating more technological sprawl and associated complexity and cost.

Unfortunately, many aerospace and defense companies now find themselves hindered by an untenable IT environment – a patchwork of hundreds of different systems linked together by a complex and highly customized series of connections that slow collaboration and make it difficult to scale innovation.

The good news is many companies are doing something about it. Two-thirds of surveyed aerospace and defense companies report that they have already done formal planning and analysis of legacy applications for cloud migration, with more than half having an application modernization strategy in place. Some 86% of aerospace and defense companies have evaluated IaaS solutions, but only half have identified a chosen solution at this point.[2] Clearly, much work remains.

TAKE OFF WITH THE CLOUD

Based on our research and experience working with global companies, the most successful technology transformations involve a strategic migration of key workloads to the cloud.

The cloud enables companies across industries to adopt a wider range of technologies, including machine learning, augmented and virtual reality, and analytics—technologies proven to reduce complexity, encourage innovation, save costs, and spur collaboration between and among teams.

The cloud yields IT-related cost savings through the reduction of siloed systems and processes and a consolidation of licensing, maintenance and labor as compared to traditional IT systems. To this end, nearly three-quarters of aerospace and defense companies we surveyed have recognized or expect to recognize major benefits from reduced tooling costs related to cloud adoption.[3]

During the current crisis, the cloud has been a critical tool of business resilience. Aerospace and defense companies have rapidly scaled the use of a myriad of cloud-based remote-collaboration technologies such as video conferencing, collaboration and file-sharing to maintain production and keep critical business functions intact while safely and efficiently displacing large numbers of workers in a remote-only working environment.

But perhaps most critically for aerospace and defense companies, today's cloud providers have platforms that can deliver more comprehensive security than the companies themselves. Through the use of cloud platforms, combined with integrated security throughout the IT supply chain, companies can secure their critical data well beyond traditional perimeter security practices.

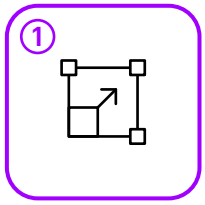
With security and compliance standards varying depending on the type of data, its origin, and its use, many companies struggle to find the balance between maintaining security and unlocking innovation. Furthermore, established procedures for safeguarding aerospace and defense data—which often involves government contracts and sensitive national security information—make some aerospace and defense leaders hesitate to embrace the integrated security capabilities of the cloud. Despite these factors, 60% of aerospace and defense companies we surveyed expect better security in the cloud.[4]

But aerospace and defense companies are far from cloud-ready. According to our research, only 38% have mature cloud practices and tools in place. And just over half have a cloud-strategy execution roadmap in place with KPIs to measure progress.[5] For an industry that is beset by a dynamic and changing market combined with competitive disruption, these findings should be cause for concern.

Furthermore, 44% have completed regulatory-compliance planning related to cloud adoption, with 52% still in the planning stage. When it comes to cloud security-related policies, only 54% have started planning, and a staggering 42% still have no planning carried out to date.[6]

A FOUR STEP PLAN TO REAP THE BENEFITS OF THE CLOUD

There are four steps aerospace and defense companies need to consider if they want to reap the benefits of the cloud.



Go Wide, Not Just Deep

Develop a business case and concrete plan for cloud adoption across the entire enterprise.

Unfortunately, companies can't simply flip a switch to put their operations on a cloud footing. Instead, they need to manage with one foot in the cloud environment while the other remains planted in the legacy organization, often for an extended period. Companies can succumb to a variety of operational pitfalls during this period, ranging from having the wrong talent to treating the cloud simply as an IT issue, rather than a core business mandate. Making this transition successfully requires resolute leadership, strong operational alignment, a clear execution roadmap based on measurable cloud value metrics, and fearless conviction. In a word, a plan.

Companies must develop a business case and concrete plan for cloud adoption across the entire enterprise. According to our research, less than half of companies have done this, even though 98% of firms told us they've at least begun discussions between IT and their lines of business about a cloud strategy.[7] Going wide across the enterprise means reversing course on making siloed investments in the cloud, where one part of the organization might be innovating in the cloud and another is not. This also means laying out in clear terms the benefits of the cloud for different strategic business goals and future value creation.

Retrofit Your IT House for the Cloud

Create an IT operating model that incorporates cloud.

Companies should create an IT operating model that includes the cloud. This means incorporating cloud-based processes across areas such as service strategy, service delivery, service assembly, service operations, supplier relationship management, and IT management. To date, only about 54% of firms report that they've defined a new IT operating model that accommodates cloud.[8]

Building and deploying this model means that IT must evolve its organization and processes, to benefit from cloud's ability to deliver at speed and at scale, with elasticity, in a self-service model. For firms that are embracing DevOps and Agile processes, it is critical to move on from the world of the traditional data center with its dedicated servers, static infrastructure, and established roles, and create an operating model that unleashes the full value of cloud.

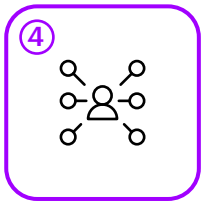
Focus on Systems Resiliency

Ensure that systems can operate during a major disruption or crisis with minimal impact on critical business and operational processes.

In the continuing COVID-19 crisis, systems resilience is being tested like never before. Aerospace and defense business leaders must ensure that their organizations can continue to operate through this unprecedented disruption by quickly addressing the stability of critical business processes and underlying systems. In short, they must focus on systems resilience. Systems resilience describes a system's ability to operate during a major disruption or crisis, with minimal impact on critical business and operational processes. This means preventing outages, mitigating their impact, or recovering from them.

Systems reliance is especially important as aerospace and defense companies manage new demand pressures, supply chain and logistics constraints, and workforce challenges as more employees need to work remotely.

In addition to transforming legacy IT operations, aerospace and defense companies can use Artificial Intelligence (AI) technologies to enable supplier-risk monitoring and evaluate the impact on operational and financial risks, and simulation of end to end what-if scenarios. Aerospace and defense companies also need to implement automation for key functional domains to drive operational efficiency and sustainable cost savings through the use of RPA and AI implementations.



Develop Strength from Within

Identify and cultivate dedicated cloud talent.

To take full advantage of the cloud, aerospace and defense companies must identify and cultivate dedicated resources to help new internal cloud users. This will require a well-designed program for upskilling and formal training, as well as knowledgeable support available for cloud-related questions. Only about a third of companies today describe their employees' level of skills and experience as being mature in key cloud areas.[9] A visible, top-down commitment from leadership will help the company navigate and take full advantage of the new capabilities offered by cloud.

CRITICAL CHOICES AHEAD

Moving to the cloud takes time—in many cases, shifting to a cloud footing can take two to three years. That's why it's critical to have a plan that ensures the legacy organization recognizes the magnitude of the changes ahead—from increased competition to the next pandemic.

While each company's systems are different and resilience improvements will vary depending upon a number of factors, the combination of the actions we've outlined can position your company to face complex challenges today and in the future.

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