

CYIENT

REINVENTING THE A&D VALUE CHAIN

Leverage cutting-edge digital technologies to connect systems and processes for a positive human and business impact





THE CONVERGENCE OF THE DIGITAL AND PHYSICAL WORLDS HAS BUILT AN ECOSYSTEM THAT FOCUSES ON REIMAGINING THE A&D INDUSTRY VALUES AND HOW THEY CAN BE DIFFERENTIATED THROUGH ENHANCEMENTS TO THE PRODUCT DEVELOPMENT LIFECYCLE. CLEARLY, DIGITAL TRANSFORMATION HAS MOVED BEYOND BEING ANOTHER TECHNOLOGY TREND.

Overview

Major players across the aerospace & defense (A&D) industry are making digital solutions fundamental to their enterprise strategy with a long-term view on how it can redefine and reinvent established business practices. They recognize how technologies such as cloud, IoT, big data, and advanced analytics can drive automated decision-making on an unprecedented scale. Cyient works collaboratively with our clients and partners to enable a game-changing business and human impact by deploying digital technologies across the design, build, operate & maintain stages for their product development life cycle.

The Digital Ecosystem at Cyient

To understand emerging challenges better, the industry needs to step back to understand the clients' unique across the entire domain—from corporate leadership, to program managers, to engineers, and the shop floor. It is essential to understand the landscape of all potential solutions that can meet the established requirements. This is why we follow a technology-agnostic approach in designing our solutions for an increasingly connected world. We approach digital requirements with a flexible business model that allows us to assess the need and align an appropriate level of response that may use any combination of digital technologies. This means that we are not dependent on any single technology and comprehensively assess the risks and return on investment of alternative solutions in order to deploy the most suitable combination that is bespoke to our customer's needs.

Our solutions impact all stages of the product lifecycle through the Design, Build, Operate & Maintain phase. The impact has manifested across the design optimization suite, connected factory, connected supply chain, predictive

asset management, digital MRO, and technical publication solutions that we have delivered to some of the leading global OEMs in A&D.

Cyient's methodologies in bringing about digital transformation are hinged on the fundamental principle of building a digital culture and ecosystem. This is backed by the necessary investments in talent, technology, partnerships, acquisitions, and organizational structure.

In creating this digital culture and ecosystem we:



Foster digital innovation via technology and domain labs, idea incubation, hackathons and training



Enable operational structures by setting up dedicated teams to build digital solutions and IP



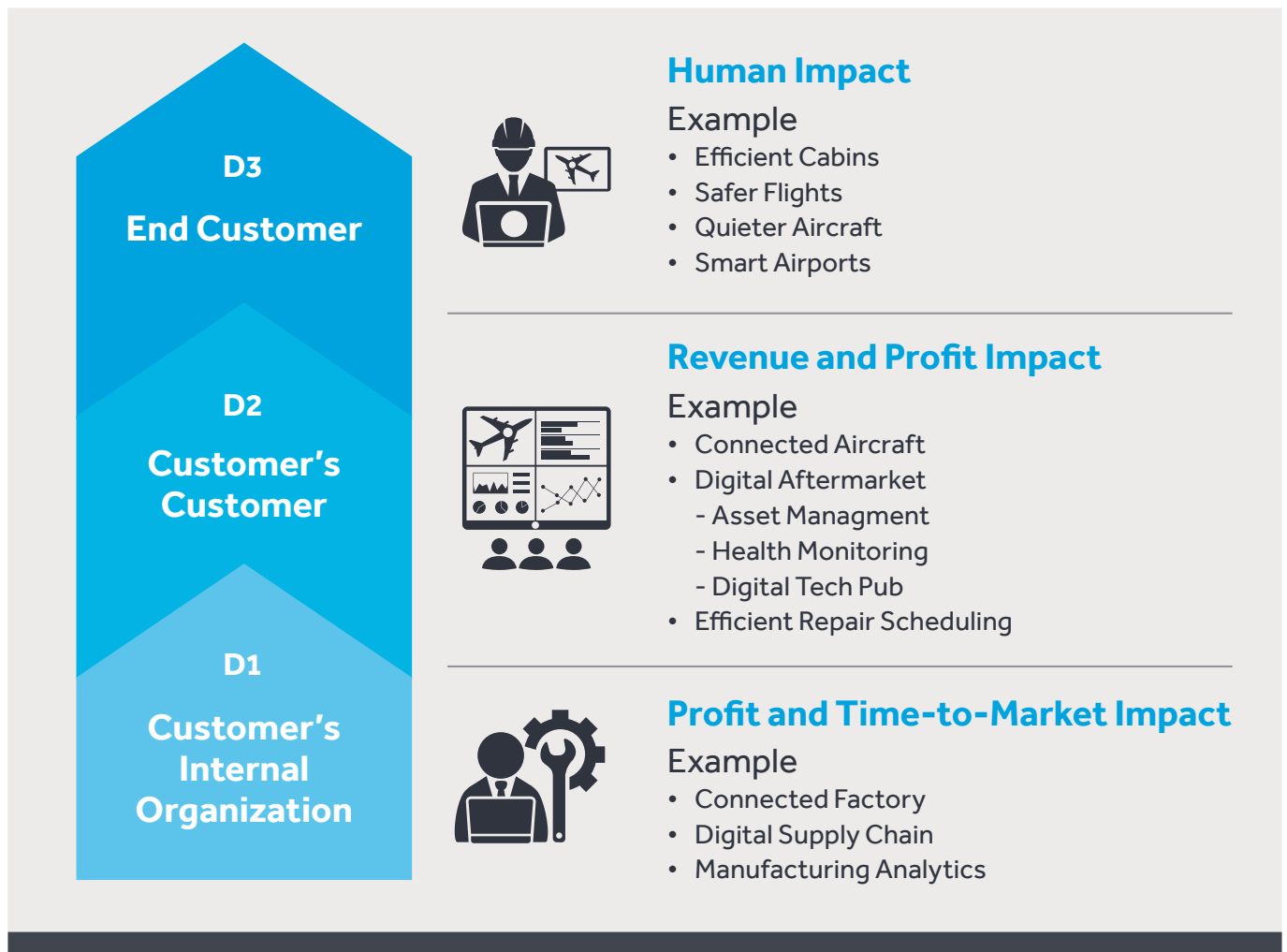
Co-create new solutions by working closely with clients, academia, business partners, and start-ups



WE CREATE RADICAL AND DISRUPTIVE BUSINESS MODELS FOR THE A&D INDUSTRY AND IMPLEMENT SOLUTIONS WITH A FOCUS ON DELIVERING GREATER VALUE FOR END CUSTOMERS.



Value Creation through Digital Technologies



Fostering Imagination. Enabling Innovation.

As a global digital partner in the A&D domain, we have delivered comprehensive solutions across our clients' value chain. Our solutions are agile, innovative, and give businesses a much-needed competitive edge.

AR/VR-Based Maintenance, Repair, and Training



Depending on the age of aircraft and operations of the airline, a grounded aircraft can cost anywhere from \$10,000 to \$150,000. Cyient's virtual and augmented reality solutions have helped maintenance technicians of leading global airlines to complete their tasks faster with a higher degree of safety. These solutions not just streamline the process for the technicians but also improve the training efficiency and job performance of other airline employees' including flight attendants and ground staff.

Results

- Saved millions of dollars spent annually on repairs and resulting delays
- Improved training quality and offered an immersive learning experience
- Enabled technicians to effectively conduct repair operations remotely
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The non-conformance of an aircraft engine part to its quality parameters as defined in design leads to the raising of an EQN in the build phase. The high number of such EQNs in a typical aircraft engine manufacturing process and their manual resolution eats into an organization's time and resources. Cyient has designed a machine learning model-based digital tool that helps to electronically document, manage, and track non-conformance with materials, work-in-process, or finished components. It results in more effective quality management and cross-functional communication between inventory control managers, manufacturing engineering managers, production control managers and quality inspectors for streamlined product development.

Results

- Identified the most suitable resolution to an EQN
- Reduced costs involved in rectifying non-conformance
- Improved time-to-market for aircraft engine products
- Enabled clients to stay compliant on quality standards



Cyient has developed a predictive model based on machine learning techniques that provides insights into specific component performance to maintenance staff. This optimization model helps in identifying inspection combinations that produce the required performance gain.

Results

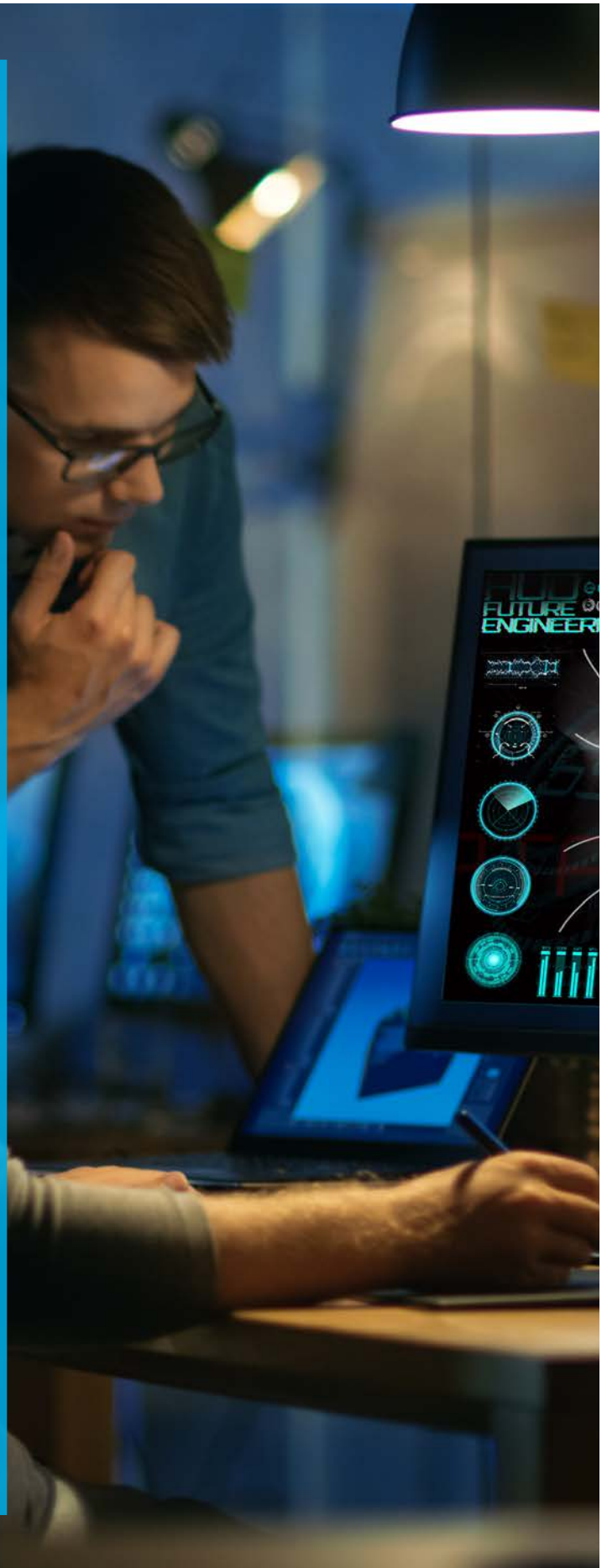
- Identified key variables that impact maintenance
- Helped improve maintenance planning
- Optimized overhaul shop inventory
- Ensured faster decisions and reduced costs

THE CYIENT EDGE

With two decades of experience in the A&D domain, Cyient employs pragmatic, flexible, and innovative strategies to meet our clients' business requirements. Supporting the entire value chain through the Design, Build, and Maintain stages, we shape trends for successful products and services in a connected A&D industry. Working in close collaboration with clients, we co-innovate to design and optimize future-ready solutions.

With our domain experience spanning product engineering, digitization of processes, analytics, business intelligence, and supply chain initiatives we help A&D companies in smoothly navigating through their large-scale transformational programs. We leverage our technology capabilities in analytics, IoT, augmented and virtual reality, robotic process automation, additive manufacturing, drone technology, cloud, and mobility to design and develop both standard products and customized solutions for leading aerospace and defense companies.

As an organization we are committed to investing up to 5% of our revenues into R&D to continually co-create industry-leading solutions with partners and clients. The pace of developments in the A&D industry will only get faster in times to come, and the engineering teams at Cyient are ready to address these new challenges.



About Cyient

Cyient (Estd: 1991, NSE: CYIENT) provides engineering, manufacturing, geospatial, networks, digital, and operations management solutions and services to global industry leaders. We leverage the power of digital technology and advanced analytics capabilities, along with domain knowledge and technical expertise, to solve complex business problems. As a Design, Build, and Maintain partner, we take solution ownership across the value chain to help our clients focus on their core, innovate, and stay ahead of the curve.

Relationships lie at the heart of how we work. With more than 15,000 employees in 22 countries, we partner with clients to operate as part of their extended team, in ways that best suit their organization's culture and requirements. Our industry focus spans aerospace and defense, medical, telecommunications, rail transportation, semiconductor, utilities, industrial, energy and natural resources.

For more information, please visit
www.cyient.com

Contact Us

North America Headquarters

Cyient, Inc.
99 East River Drive
5th Floor
East Hartford, CT 06108
USA
T: +1 860 528 5430
F: +1 860 528 5873

Europe, Middle East, and Africa Headquarters

Cyient Europe Ltd.
The Space Holborn
235 High Holborn
London WC1V 7LE
UK
T: +44 20 7404 0640
F: +44 20 7404 0664

Asia Pacific Headquarters

Cyient Limited
Level 1, 350 Collins Street
Melbourne, Victoria, 3000
Australia
T: +61 3 8605 4815
F: +61 3 8601 1180

Global Headquarters

Cyient Limited
Plot No. 11
Software Units Layout
Infocity, Madhapur
Hyderabad - 500081
India
T: +91 40 6764 1000
F: +91 40 2311 0352