

TCS Accelerated Solution Deployed in SAP (S/4HANA) for the Aerospace Industry

TCS ASDS



As air traffic volumes witness a surge and regulatory complexities tighten, Aerospace & Defense manufacturers need to reimagine their existing models. Currently, a fragmented maintenance pathway, protracted design-to-implementation timelines, and lack of standardization are impeding progress. Manufacturers are struggling to scale, even as production backlogs increase and cost pressures intensify. Transitioning to next-generation technology environments such as SAP can help enterprises optimize processes and gain an upper hand.

Tata Consultancy Services (TCS) offers a specialized Accelerated Solution deployed in SAP S/4HANA (ASDS), built for the requirements of this industry. It mitigates the impact of variable factors on supply chain management, speeds up manufacturing and delivery, helps plan for spare parts and replacements, and provides clear visibility into the maintenance, repair and overhauling (MRO) pathway. Manufacturers can, therefore, meet and exceed expectations, driving profitability.

Overview

The global Aerospace & Defense industry is going through a tectonic shift. Emerging economies are entering the landscape, adding to supply pressures. Fuel prices and environmental concerns are also on the rise, requiring careful design optimization from manufacturers. Also, as mergers and acquisitions influence market dynamics, these enterprises need new ways to innovate, stay ahead of the competition, and drive profitability without compromising on cost/performance. By moving to a next-gen technology environment such as SAP, manufacturers can reimagine the different processes involved in the development, operations and maintenance lifecycle with a focus on future readiness.

Tata Consultancy Services (TCS) helps Aerospace and Defense manufacturers adopt SAP technology in order to transform capabilities. Our Accelerated Solution deployed in SAP S/4HANA (ASDS comprises three layers):

- The basic or foundational layer covering all the levers of operational excellence
- An extended layer for business excellence
- An optional or value-added layer which lays the foundation for digital transformation

The ASDS solution includes process models which reduce implementation efforts for aircraft manufacturers, along with pre-configured scenarios specific to the industry. By tailoring the solution for each unique implementation, we ensure your business requirements are met.

SWIFT MRO is fully Integrated Airline MRO solution built on SAP ECC platform.

Our Solution

A repository of more than 60 processes valid for aircraft manufacturers (TCS's ASDS Solution – Accelerated Solution deployed in SAP S/4HANA) and an end to end solution for MRO (TCS SWIFT MRO) make a complete ready-to-use package. Some of the features offered by TCS' ASDS and SWIFT MRO include:

Modular Implementation: allows enterprises to implement the requisite functionalities from SAP's cutting edge ERP suite, seamlessly integrating new systems to the existing architecture

Omnichannel Support: lets users access the platform through desktop, web, as well as mobile interfaces, enabling on-the-go decision making

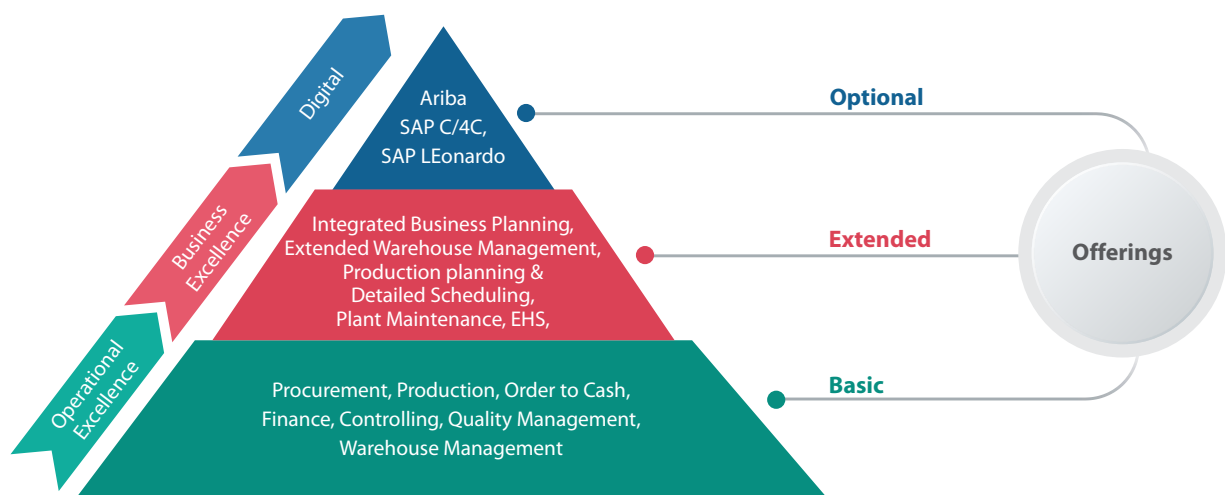
Process Automation: replaces manual workflows in key areas such as parts sourcing, to reduce efforts and contain errors

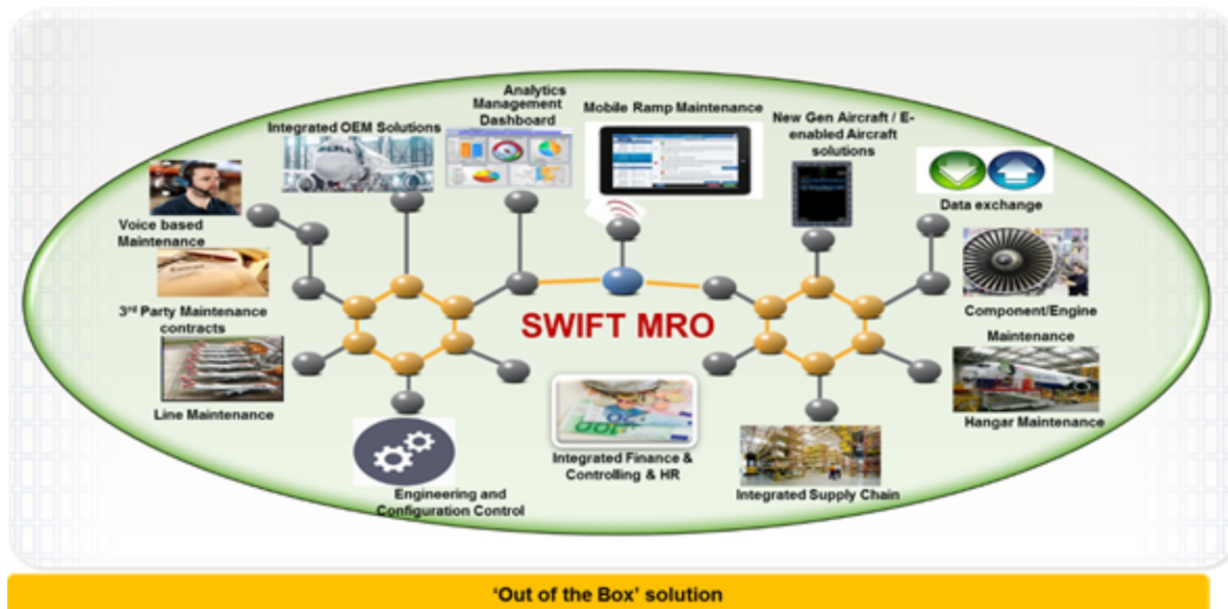
"Ready to Use"-Ability: protects the infrastructure with secure, role-based access requiring no additional measures before deployment

EHS Reporting: includes Windows Wordprocessor Integration (WWI) to enable regular reporting on environment, health and safety (EHS) processes

Monitoring and Traceability: lets users track different shipments across the supply chain improving traceability, identifying preventable spends and offering predictive insights into future needs

Built-in and Configurable Use Cases: aligns the SAP environment to Aerospace and Defense scenarios, leading to easy implementation as well as a high degree of flexibility





Benefits

Customers can achieve the following benefits:



Comprehensive Solution for MRO: utilize a SAP-certified solution to enhance tasks on the MRO value chain, via predictive insights and better technological continuity.



Reduced Costs: speed up SAP-based transformation and eliminate costs arising from project delays by following pre-configured industry-best processes specific to the industry. Improve plant efficiency and reduce undue operational expenses.



Smoother Rollouts: streamline development and delivery across geographies for smoother roll out in any market; thus achieving faster time-to-market with rapid solution setup.



Detailed Documentation: build a robust repository of digital assets and technology documentation, aiding regulatory compliance and audits for all your business processes.



Dedicated Support: access a dedicated support team with extensive Aerospace and Defense experience as well as certified SAP experts.



Standardized Processes: harmonize operations across manufacturing plants with a unified solution designed keeping in mind industry standards.

Areas of Engagements – Integrated Engineering

Avionics

- V&V / System Testing
- SW / HW Design

Engines

- Externals
- Mfg. Eng.
- Engine Controllers
- IOT

Aero Systems

- Interiors Design
- Landing Gears Design

Aero Structures

- Design & Analysis
- Detail Design Support

Lab, Ground & Flight Test

- Instrumentation Eng.
- Certification Support

Program Management

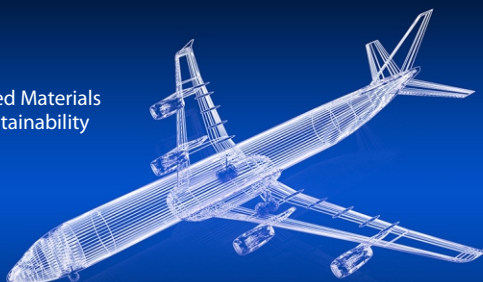
- Engineering Program
- PLM / MOM Transformation

R&D

- Advanced Materials
- Mfg. Sustainability

KBE

- Design & FEA Automation
- Productivity / Process Improvement
- Aircraft on Ground
- Flowtime optimization thru Lean



Knowledge Mgmt.

- Eng. Knowledge mgmt.

PLM

- Large Scale Implementation
- AMS & Migration

MOM

- MES Transformation & Support
- Asset management Solutions & Support
- Mfg. Eng.
- Value Eng. / Should costing

The TCS Advantage

By partnering with TCS, manufacturers can leverage the following differentiators:

- **Solution on 'Real-Time' Application Landscape:** TCS' solutions span multiple applications – SAP ERP in the middle, SAP IBP, SAP APO and digital applications in the periphery – reflecting aircraft manufacturers' landscapes in near-real time.
- **Deep Domain Knowledge:** These solutions are backed by a team with years of experience in Aerospace & Defense. Their inputs are instrumental in designing best practices, which are then deployed in SAP applications by dedicated technology professionals. TCS is well versed with Export Control Regulated Service Models.
- **Strategic Alliance with SAP:** TCS has worked on SAP delivery and engagements since 1998. We are the exclusive global partner for SAP's internal landscape, overseeing maintenance and deployment of all their IT systems. With a 16,500-strong SAP practice spread across geographies, TCS caters to 450+ ongoing engagements.
- **S/4 HANA Expertise:** TCS has a pool of over 1700 consultants trained in S/4HANA 30 leading organizations, working closely with TCS on their SAP S/4HANA deployments and PoCs. TCS' consultants are the largest consumers of SAP learning solutions, constantly striving to keep abreast of the latest innovative offerings from SAP.
- **Dedicated Center of Excellence:** Our dedicated SAP center of excellence (CoE) focuses on providing thought leadership across TCS' portfolio of SAP digital technologies, helping clients evaluate their roadmap for effective SAP S/4HANA implementation.

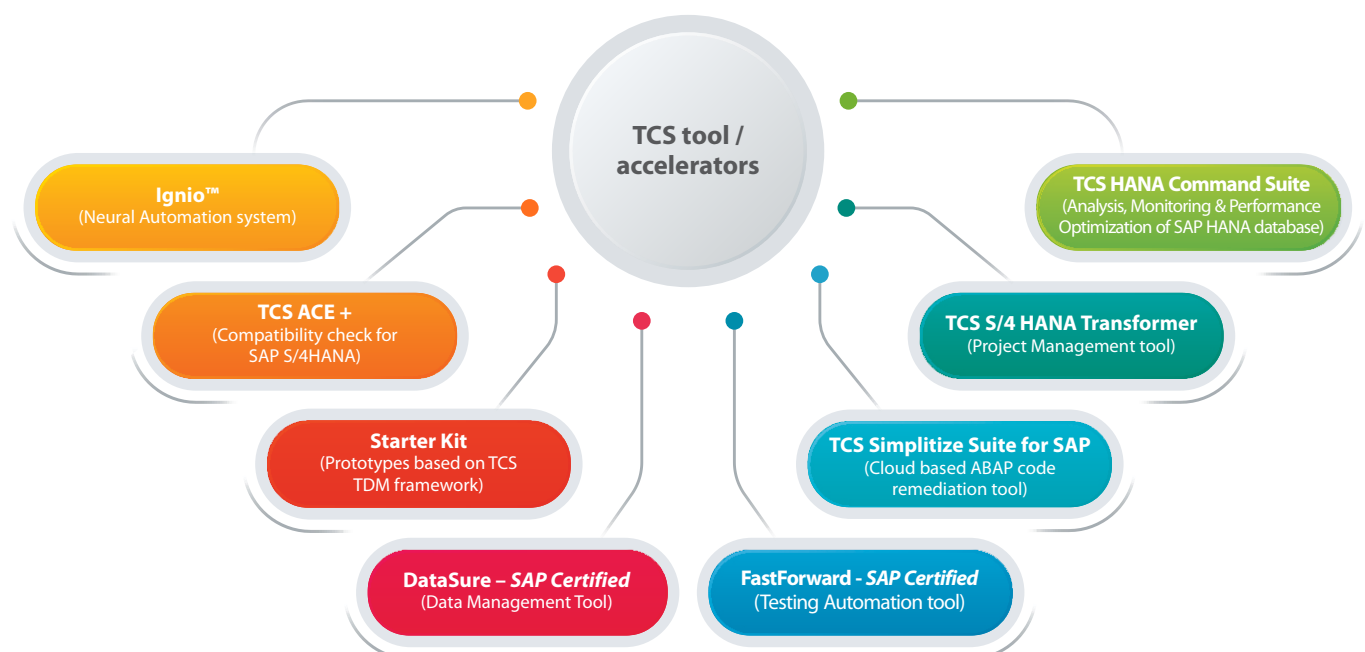
- **Business 4.0™ Framework**– It is the vision of TCS to help customers in their digital transformation journey. Business 4.0 is a framework of business behaviors that optimizes the digital advantage to create customer value. We have identified four business behaviors of digital leaders that help them monetize digital technologies. These include:
 - **Creating Exponential Value:** Deconstructed traditional value creation concepts to unveil new opportunities of delivering value to customers.
 - **Driving Mass Personalization:** Digital technologies are enabling businesses to provide customization at scale.
 - **Leveraging Ecosystems:** Businesses across industries are collaborating to deliver greater value to the customer. API-fication, analytics, digital platforms have taken collaboration to another level
 - **Embracing Risk:** To maximize digital advantage, businesses need to think big and focus on the potential value to the customer, rather than the risk involved.

How We Help our Customers

TCS worked with a UK-based airline major to build a fully integrated airline MRO solution, using the SAP ECC platform. The solution, called SWIFT MRO, was certified by SAP and allowed the airline to access an easy-to-use solution with minimum developmental efforts – this helped to identify and eliminate non-value-adding activities, increasing productivity for MRO operations.

TCS tools and accelerators:

TCS has a comprehensive set of tools and accelerators to enable your transformation initiative.



Awards & Recognition



About Tata Consultancy Services Ltd (TCS)

Tata Consultancy Services is an IT services, consulting and business solutions organization that delivers real results to global business, ensuring a level of certainty no other firm can match. TCS offers a consulting-led, integrated portfolio of IT and IT-enabled infrastructure, engineering and assurance services. This is delivered through its unique Global Network Delivery Model™, recognized as the benchmark of excellence in software development. A part of the Tata Group, India's largest industrial conglomerate, TCS has a global footprint and is listed on the National Stock Exchange and Bombay Stock Exchange in India.

For more information, visit us at www.tcs.com

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