

Paving the way to \$400M+ value with real-time production visibility and automated OEE tracking for a leading aircraft manufacturer

Cognizant helps a leading global aircraft manufacturer automate OEE tracking, providing real-time production visibility and modeling \$400M+ in potential throughput and cost improvements.



At a glance

Industry

Aerospace & Defense/Manufacturing

Location

Global

Challenge

Manual OEE tracking led to inaccurate efficiency reporting across ~250 machines

Success Highlights

- Over \$400M projected in modeled financial impact
- Over 10% hidden efficiency gap identified

The challenge



Manual tracking masked true performance

A global aerospace manufacturer operated a complex production landscape of ~250 machines across its aircraft and aviation systems facilities. Overall equipment effectiveness (OEE) was manually calculated using operator-entered data, which introduced discrepancies and led to inaccurate performance metrics.

Inaccurate data hindered decision-making

These inaccuracies not only masked inefficiencies but also hindered the client's ability to accurately measure and improve plant throughput. The organization needed a data-driven, scalable solution to uncover the true baseline of OEE and support strategic decisions around investments, performance improvements and future scalability

Our approach

Cognizant conducted a comprehensive multilayered assessment and developed a solution tailored to the client's production environment:

- **Site and technical assessments:** We evaluated key production sites, machinery, architecture and data systems to understand the existing OEE calculation mechanisms
- **Data discrepancy analysis:** Our team analyzed the OEE input methods and formulas to identify overreporting issues and root causes
- **Tailored OEE model design:** We developed a custom-fit OEE model aligned to the client's operational parameters
- **To-be architecture and rollout planning:** Future-state architecture was designed to support full-scale deployment across plants, along with a phased implementation roadmap
- **Business case development:** We quantified the ROI potential by modeling the impact of correcting OEE underreporting, establishing a clear link between data integrity and throughput gains



Business outcomes



Uncovering the true baseline of efficiency

Automating OEE tracking highlighted discrepancies that, if addressed, could lead to over 10% improvement in operational efficiency. The modeled benefits included higher throughput, deferred capital investments and reduced unit costs, representing over \$400M in potential value.

Cognizant's OEE automation approach provided the client with accurate performance baselines and insights into hidden inefficiencies. Based on these findings, the projected benefits include:

- **\$400M**
projected in annual throughput improvement
- **\$16M**
projected in CapEx avoidance over three years
- **10%+**
hidden efficiency gap identified

These results are modeled projections based on identified OEE gaps and expected operational improvements. Future phases will focus on scaling the solution across all production lines.



Cognizant (Nasdaq-100: CTSI) engineers modern businesses. We help our clients modernize technology, reimagine processes and transform experiences so they can stay ahead in our fast-changing world. Together, we're improving everyday life. See how at www.cognizant.com or @cognizant.

World Headquarters

300 Frank W. Burr Blvd.
Suite 36, 6th Floor
Teaneck, NJ 07666 USA
Phone: +1 201 801 0233
Fax: +1 201 801 0243
Toll Free: +1 888 937 3277

European Headquarters

280 Bishopsgate
London
EC2M 4RB
England
Tel: +44 (01) 020 7297 7600

India Operations Headquarters

5/535, Okkiam Thoraipakkam,
Old Mahabalipuram Road,
Chennai 600 096
Tel: 1-800-208-6999
Fax: +91 (01) 44 4209 6060

APAC Headquarters

1 Fusionopolis Link, Level 5
NEXUS@One-North, North
Tower
Singapore 138542
Phone: +65 6812 4000
Email:
inquiry@cognizant.com

© Copyright 2025, Cognizant. All rights reserved. No part of this document may be reproduced, stored in a retrieval system, transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the express written permission of Cognizant. The information contained herein is subject to change without notice. All other trademarks mentioned here in are the property of their respective owners.