TECH mahindra

BROCHURE

Offering Innovative and Customer-Centric IT Experiences

Abstract

Why AWS?

Manufacturers are embracing digital transformation to answer many of today's challenges and position their companies for long-term success. They are looking for innovative ways to make data-driven decisions, further automate processes, and take advantage of new technologies such as machine learning, computer vision, and robotics. They seek ways to squeeze out additional productivity, maximize asset availability, and improve quality, all while lowering costs.

In addition to meeting quality and production optimization goals, manufacturers are more aggressively tackling sustainability goals. They strive to reduce consumption of water, compressed air, gas, electricity, and steam to lighten their energy footprint.

Amazon Web Services (AWS) was born from our industrial operations at Amazon, and we understand the needs of factory operations. For more than 20 years, Amazon has been designing and manufacturing smart products. We also distribute billions of products through our globally connected distribution network using cutting-edge automation, machine learning services, and robotics, with AWS at the core.

AWS helps you transform manufacturing operations with the most comprehensive and advanced set of cloud solutions available today. Instead of focusing on building and maintaining your data center infrastructure, concentrate your resources on creating innovative new products, improving operational efficiencies across the value chain, and optimizing production.

Introduction

Improve product and production process design

AWS delivers virtually unlimited compute and storage capacity, along with one of the most comprehensive sets of edge-to- cloud solutions available today. Reduce time to results and time to market by running more parallel tasks than most on- premises environments allow. Innovate faster without the worry about scaling your data center infrastructure.

When designers, scientists, and engineers run high-performance computing (HPC) workloads in the cloud, they can use model-based design and large-scale parallel simulations to quickly solve complex computing challenges and collaborate more effectively with secure file sharing, and access to AWS resources worldwide.

- Unlimited compute and storage
- Reduce time to results and market
- Capacity Edge-to-cloud solutions
- Innovate faster

Leading semiconductor companies today use AWS to take advantage of a more rapid, flexible deployment of computer-aided engineering (CAE) and electronic design automation (EDA) infrastructure, from the complete integrated circuit design workflow to register-transfer-level (RTL) design, to the delivery of GDSII files to a foundry for chip fabrication. AWS compute, storage, and higher-level services are available on a dynamic, as-needed basis without the significant up- front capital expenditure that is typically required for performance- critical EDA workloads.

AWS offers a secure, agile, and scalable platform with a comprehensive set of services and solutions for high-performance design, verification, and smart manufacturing, supporting EDA and rapid semiconductor innovation in the cloud. Semiconductor design simulation, verification, lithography, metrology, yield analysis, and many other workloads benefit from the scalability and performance of the AWS Cloud.

Get smart with your data

Manufacturing depends on data – not just gathering it but using it effectively. To get more out of valuable data in your factory it needs to be extracted from disparate sources and production systems, structured for context, and stored, and then analyzed to optimize production, machine availability, and quality. AWS Cloud services address these use cases by helping manufacturers extract, structure, and store data from a variety of current and legacy equipment into a data lake for a combined, single source of truth.

Enhance security and streamline operations

Protecting your intellectual property and the integrity of your production processes is vital in today's business environment, where operational technology (OT) infrastructure cyberattacks are on the rise. At AWS, cloud security is our highest priority. When you work with us, you'll benefit from a data center and network architecture that's built to meet the requirements of the most security- sensitive industries and organizations.

Our Solutions for Manufacturing on AWS

Tech Mahindra, a Mahindra Group company, offers innovative and customer-centric IT experiences and is a leading provider of digital transformation, consulting, and business reengineering services and solutions. Tech Mahindra has partnered with AWS to transition its world-class IT and business process outsourcing service solutions to the cloud. Hosting its newly launched Engineering Cloud solution with AWS brings a tightly integrated, user-friendly experience to all of Tech Mahindra's customers.

Engineering Cloud

Engineering Cloud gives you a one-stop, public/private cloud-based solution to centralize your product data management IT, Multi-CAD, product lifestyle management, and enterprise resource planning (ERP) software. Hosting with AWS brings uninterrupted access to even the most data-intensive files and provides stringent data security protocols, all at measurable cost savings. Engineering Cloud solution utilizes AWS native services like Appstream, Workspaces for CAD deployment on Cloud, HPC instances for CAE workloads and host of other services to deploy multi-tiered PLM architecture on cloud.

Key features

Engineering Cloud is a hybrid/public/private cloud solution that hosts CAD, CAE, and PLM software to deliver agility, performance, data security, cost efficiency, and accelerated innovation to your engineering R&D function.

Integrated, unified product view. Centralization of CAD/PLM workstations provides an accessible, unified product view for better efficiency.

Accelerated engineering performance. Tech Mahindra accelerators manage the PDM IT, Multi-CAD, PLM, and ERP cloud landscape.

Proven integration approach. Our adoption strategy includes templates with ready-to-use framework and Accelerators

DevOps support. The solution is easy to implement and provides optimization and support for any DevOps environment.

Optimized services. Optimized visualization, server, storage, disaster recovery, and networking systems enable better performance and high scalability.

Benefits

Enterprise-level and granular level visibility along with business insights typically result in 5-10% improvement in OEE and 5-15% improvement in EBITDA.

Lower engineering costs. 50% reduction in engineering workstation and infrastructure costs.

Save on licensing. 15% to 20% reduction in engineering tools license and administration cost.

Reduce operational expenditure. 20% to 30% improvement in overall operational cost efficiency.

Improve administrative efficiency. 65% reduction in administrative support services.

Streamline collaboration. Increased systems and process optimization, including improved internal and external collaborations.

The NXT.NOW™ Advantage

Our solution comes with a ready-to-use code for automated deployment of infrastructure as well as application, which leads to potential **reduced time-to-market.**

With the re-use of DevOps CICD process to re-deploy/re-setup environments for R&D, enterprises can significantly **lower operational costs.**

Tech Mahindra comes with **a strong foundation** across product, process, and manufacturing, and extensive experience in PLM/CAD/CAE/CAM

TOP 10
STRONGEST
IT SERVICES BRAND

FASTEST-GROWING
IT SERVICES BRAND
IN BRAND VALUE RANK

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