



ACCENTURE ENGINEERING COMPUTE SOLUTION

VIDEO TRANSCRIPT

Managing run-away costs, innovating cost effectively and extracting maximum value from the grid, these are challenges well known to companies using high performance computing for product engineering.

Common pain points include technological complexity, growing infrastructure spend and the mounting cost pressures to be agile amid volatile market demands.

The Accenture Engineering Compute Solution helps you accelerate innovation and manage overall cost. While greater throughput of workloads and faster provisioning of infrastructure lead to faster time to market, companies are able to reduce total cost of ownership by saving memory and core, increasing utilization and improving throughput per dollar.

Let's explain it in a solution blueprint.

We use AI & machine learning-based prediction of infrastructure resources to increase utilization, efficiency and throughput of compute resources. The Resource Orchestrator applies policies to provision workloads to on-premise or on-cloud infrastructure to meet business objectives. The Demand Planner helps to accurately forecast resources and define project priorities.

Let's understand in detail how Accenture's proprietary AI & machine learning techniques work through the four P's.

We baseline current metrics to simulate future metrics such as savings and throughput or utilization improvement. Our machine intelligence learns the job, user, project and function patterns and behaviors for millions of compute jobs from real-time and historical operational data for processor, memory and storage.

The job, user, project and function features involve tens of thousands of tokens from text data and tens of thousands of numerical features from a feature library. A selection process determines the most predictive features for specific purposes and creates profiles using multiple time frames such as hourly, daily, weekly and monthly.

The selected features are then used in multiple models to make individual predictions of memory, CPU, runtime and abend rates. To drive higher resiliency, the output of multiple models is combined to create final predictions.

The resource orchestrator takes the predictions from AI machine learning, and the product priorities and demand from the demand planner, and dynamically directs jobs to on-premise or on-cloud infrastructure.

The outcome is significant improvements in key value metrics and sizable reduction in infrastructure cost. For a leading manufacturer, while the compute and storage utilization has almost doubled, Memory and core

utilization went up to 65 to 75 percent along with an increase in Job throughput by 25 percent.

As a result, product manufacturing achieves accelerated innovation and reduced total cost of ownership.

Accenture Engineering Compute Solution.
Real business results. In the new.

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