

With a new high performance computing platform from HiperLogic and Hewlett Packard, Amcor is able to reduce the time used to perform fluid dynamic calculations from 3 days to 6 hours, , allowing them to create the most cost-effective and sustainable containers at a fraction of the price.

HIPERLOGIC



“The TotalCAE tool HiperLogic has created is exceptional; now our scientists are enthused to come to work because they have excellent systems to work with, and the customers are impressed because by the time they express a requirement, we already have a number of solutions to offer.” Suresh Krishnan, Manager, Advanced Engineering Services Group--Amcor

Company Overview

Amcor serves as one of the world's top global packaging companies. Although it humbly began as a small Australian paper manufacturer in the 1860's, today, Amcor boasts over 300 sites in 43 countries. Most of these locations specialize in specific sectors of the packaging market. As a global packaging company, Amcor offers customers the highest standards in innovative packaging solutions, reliable service and partnerships built on excellence. For well over 100 years the activities of AMCOR, and its place in the Australian community, have been characterized by a genuine respect for the laws of the land, as well as a respect for the rights of their customers and consumers.

Challenges

As Amcor emphasizes sustainability in their packaging, they needed to ensure that their packaging (particularly their plastic containers) was as lightweight as possible and utilized materials in the most efficient manner. In order to achieve this goal, designers and manufacturing engineers performed numerous simulations and computational fluid dynamic calculations in order to discern the most sustainable and cost effective packaging models. It was also imperative to perform these simulations to find any potential design flaws, as a difference of few additional grams of materials utilized in one bottle could increase the cost by millions of dollars. These computations and simulations were essential for providing their customers more design options and retain their competitive edge.

Using AMCOR's previous system, these computations could take as much as 3 days. The extended licensing fees needed created significant costs for AMCOR, and preoccupied the scientists and engineers' time that could have been spent working on other designs and solutions.

Solution Snapshots

Hardware

HP ProLiant DL360 Server Clusters

Software

HP Insight Control Manager

Services

HiperLogic Integration:

HiperLogic TotalCAE Web interface

Engineering and Integration Services

Microsoft HPC Server 2008 R2 Installation Services

Objectives

- Employ HP High Performance Computing technology to accelerate the creation of packaging products through innovative calculation and simulation.
- Develop a unique, web-based solution that can be easily and quickly accessed from desktop, laptop, or remote locations, allowing AMCOR to retain a competitive edge through the increased level of productivity and creativity.

Approach

- Worked with HiperLogic to design, engineer, install and integrate a new HP HPC cluster system.
- Purchased HP ProLiant DL360 G7 Server Clusters that allow for a customized solution that can compute and simulate renderings from remote locations at a quick rate, allowing the designers and engineers much more freedom and time for creative innovation. “The unique web-based TotalCAE tool with underlying HP technology has allowed us to perform the fluid dynamic calculations in 6 hours instead of 3 days. This has really empowered the AMCOR team with the ability to quickly create many more options of sustainable, high-performance containers for our customers.” Suresh Krishnan, AMCOR
- Dramatically save in software licensing fees with the significant reduction in use-time.

Impact

- “HiperLogic was able to customize and install a solution that fit our needs. Anytime a customer desires that we work on a new project we immediately have solutions and design options using our HP HPC Clusters and customized web interface from HiperLogic. It has given us a great competitive edge.” Suresh Krishnan

About HiperLogic

HiperLogic is a high performance computing and CAE/CFD IT technology consulting firm that is committed to helping clients utilize leading edge technologies to gain a competitive edge over their competition, reduce costs, and increase business flexibility.

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