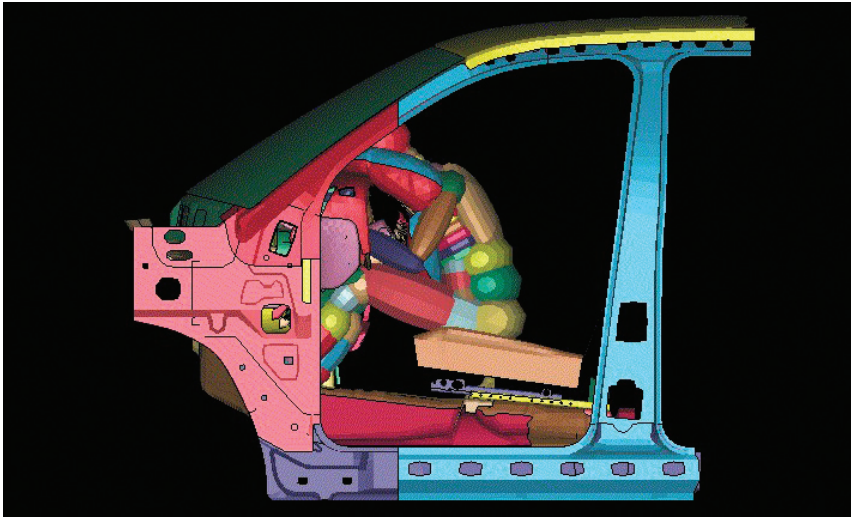


Automotive companies overcome cost pressures through innovation with IBM and Linux.



Industry models redefined

From car manufacturers and suppliers to distributors and dealers, companies in the automotive industry are finding their business models challenged at every turn. Competition is fierce, global and based on the efficiency of the entire supply chain. Rising costs can no longer be passed along to customers. Instead, pressures to reduce costs are being passed down the value chain, paring already thin margins.¹

As automotive companies realize they must be as innovative as ever — and more cost-efficient — they are re-examining traditional IT practices.



For example, many companies are finding that it no longer makes sense to deploy and maintain core business applications on proprietary operating systems. In their search for an industry-standard, reliable, cost-effective platform, they are increasingly turning to Linux®.

Automotive companies give Linux the green light

Linux is driving a revolution in automotive industry computing environments by:

- *Reducing total cost of ownership (TCO). By consolidating e-business workloads from multiple distributed servers onto an IBM @server zSeries™ system running Linux, companies can reduce TCO through lower capital and administration costs. They also save valuable data*

center floor space. If needed, additional Linux virtual servers can be deployed in minutes without increasing the zSeries server's capacity or associated licensing fees. Meanwhile, users benefit from the mainframe's high performance and reliability.

- *Enabling broader deployment of high-performance computing applications. Critical automotive applications such as crash simulation, computational fluid dynamics (CFD), and noise, vibration and harshness (NVH) studies previously required a supercomputer. Now these applications can run on clusters of low-cost Linux servers, making them easier to cost-justify and accelerating the product development process for automotive companies.*

Why Linux?

- *Reliable high performance — offers better uptime performance than Microsoft® Windows® platforms, according to the Standish Research Group²*
- *Cost effective — requires no licensing fees, making it free or very low priced*
- *Flexible — provides complete portability, running on multiple platforms*
- *Built for growth — sets records for cluster computing scalability.*

DaimlerChrysler selects Linux cluster for low-cost crash analysis and simulation

A world-leading automotive, transportation and services company, DaimlerChrysler selected a 108-node Linux cluster of IBM IntelliStation® workstations to perform crash test simulations. The automaker opted for the Linux solution because it meets the performance and scalability requirements of the crash simulations at a significantly lower cost.

SAS Automotive Systems deploys Linux applications to improve plant communication

Germany-based SAS Automotive Systems, a joint venture between France-based Faurecia and Germany-based Siemens VDO, is a leading manufacturer of automotive cockpit modules, e.g., instrument panels and steering columns. The Spain-based subsidiary of the company wanted a more powerful and open computing environment to facilitate communication between plants. The company decided to implement three Lotus® Domino™ servers running on Red Hat Linux in IBM @server xSeries™ platforms, along with Lotus Notes® clients. The new implementation resulted in improved network performance, enhanced communications options and cost savings of €10,000.

IBM: the fast, safe, sure way to Linux

Whether you turn to IBM for Linux-based hardware and software, a total cost of ownership study or day-to-day technical support, you'll get a solution with significant measurable benefits. IBM has optimized its technology for the

Linux platform—from its WebSphere® infrastructure software to its DB2® data management software to the full line of IBM @server systems. It is helping key application developers get their industry applications ported to and optimized for the Linux environment. And IBM's comprehensive line of consulting, from staff training programs to Solution Partnership Centers, delivers the services you need to make your Linux deployment a success.

IBM's commitment to Linux is unparalleled in the industry. The company has invested more than \$1 billion and the time of over 250 consultants, establishing IBM Linux Technology Centers. It has formed strategic partnerships with key Linux distributors including SuSE, Caldera, Red Hat and Turbolinux. IT analyst firm D.H. Brown recently recognized IBM's record of achievement on the Linux platform, giving it the highest rating for industry leadership in several areas, including breadth of products, focus on applications and services and support. In fact, IBM's contribution to Linux has surpassed that of Compaq, Dell, HP and Sun, according to the report. Maybe that's why so many automotive industry companies have already deployed Linux with the help of IBM.

Following IBM's lead, significant numbers of independent software vendors such as Adapco (Star CD), Ansys, Fluent, LSTC (LS Dyna), MSC (Nastran), PeopleSoft and SAP are developing automotive applications for Linux. With so many Linux solutions available, automotive companies are driving down costs and arriving at a new level of reliable performance by choosing the IBM/Linux platform. Isn't it time you considered Linux?

For more information

To find out more about IBM offerings for the automotive industry, please visit us online at ibm.com/linux.



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¹"21st Century Automotive Business Challenges and Models," Office for the Study of Automotive Transportation, University of Michigan Transportation Research Institute, May 2002, <http://www.osat.umich.edu/SAE-ds-502.ppt>.

²In a cluster environment Microsoft experiences 30 hours of downtime per year versus Linux at 14 hours, according to Standish Research Group research report, *Is Linux Legit?*

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