



AIRLINE SOARS WITH BLADES

Jakarta-based airline PT Garuda Indonesia reduces energy use by 40 percent and space requirements by 50 percent with Dell™ PowerEdge™ blade servers.

CHALLENGE

PT Garuda Indonesia wanted to boost the efficiency of its business operations by developing its IT infrastructure further and running key front-end applications on high-performance servers.

SOLUTION

The airline deployed Dell PowerEdge M600 blade servers paired with Dell PowerEdge M1000e modular blade enclosures. The Dell blade servers have helped the company reduce energy consumption, optimize data center space, and provide a reliable, scalable IT infrastructure for its applications.

BENEFITS

- Dell blade servers equipped with quad-core Intel® Xeon® processors helped cut energy use by 40 percent and reduce the data center footprint by 50 percent.
- Dell consultants helped optimize deployment of the server solution, which was completed in three months.
- Dell ProSupport provides custom IT support and services to help meet Garuda Indonesia's requirements.

Jakarta-based PT Garuda Indonesia is Indonesia's flag carrier. Founded in 1949, the national airline flies to 21 domestic destinations and 19 cities in Asia, the southwest Pacific, and the Middle East, while transporting 12 million passengers annually.

Recently, Garuda Indonesia has been challenged by competing international airlines and budget carriers as well as changing economic conditions. In 2003, the Association of Southeast Asian Nations (ASEAN) endorsed Open Sky, a policy targeted for implementation in 2015. Open Sky is designed to promote airline industry competition and to give all airlines from ASEAN the scope to compete on intra-ASEAN routes, which have traditionally been monopolized by local airlines. These factors have placed pressure on Garuda Indonesia to maximize its efficiency and effectiveness; as a result, the company increasingly relies on its IT infrastructure.

IMPROVING APPLICATION PERFORMANCE

Garuda Indonesia runs many applications that require secure, reliable, high-performance servers, such as an enterprise resource planning (ERP) system, business accounting applications, an automated reservation system, the Garuda portal, and Garuda Online Booking—an Internet booking and payment application that integrates other applications and the Internet booking and payment gateway.

Improving application performance on Garuda Indonesia's automated reservation system for travel agents and the airline's international offices is critical. "Each passenger must be served in less than three seconds, regardless of whether the system is accessed from Jakarta, Surabaya, Tokyo, or Riyadh. We need a solid IT infrastructure in place to run our reservation system," says M. Ismed Arifin, vice president of information system solutions for Garuda Indonesia.

While the airline's back-end systems still run on mainframe systems, Garuda Indonesia is focusing on middleware and front-end applications that will run on Intel platform-based servers. The company has a mixed-application environment that includes SAP® Business Suite and a number of Microsoft® products. To boost the effectiveness of the airline's business operations, new servers were needed to run key front-end applications. Garuda Indonesia held an open tender for the new server solution, inviting top-tier vendors to compete in an online auction. From

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—M. Ismed Arifin
Vice president of information system solutions
for Garuda Indonesia
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this process, Dell was selected as the supplier, besting the competition because of the performance and features of its proposed servers, outstanding overall value, and supporting services.

Garuda Indonesia was pleased to continue its relationship with Dell, having already used Dell hardware for over 15 years. When the company first implemented SAP Business Suite, it had 600 Dell OptiPlex™ desktop clients; today, that number has grown to over 1,000. Dell solution architects assessed Garuda Indonesia's requirements and recommended a suitable hardware solution. The airline deployed a series of Dell PowerEdge M600 blade servers with the latest quad-core Intel Xeon processors, housed in PowerEdge M1000e modular blade enclosures. The blades connect to a set of Dell/EMC CX3-20c storage area network arrays, enabling Garuda Indonesia to replace its existing tower servers and host its business applications. This Dell solution was deployed within three months.

DEPLOYING EFFICIENT BLADE SERVERS

The Dell blade servers have enabled Garuda Indonesia to substantially reduce its energy use. The PowerEdge M1000e enclosure takes advantage of thermal design efficiencies that optimize airflow to help cool the chassis and enable higher performance in a lower power envelope. The PowerEdge M600 blades in the enclosure are based on the Intel Xeon processor

5400 series and the Intel Core™ micro-architecture, helping Garuda Indonesia maximize data center performance and density and improve energy performance. Second-generation Intel quad-core technology helps simplify the process of condensing the airline's applications for efficient operation at a reduced total cost of ownership. “We found that our blade solution reduced energy consumption by as much as 40 percent,” says Ismed.

Although many servers are running in Garuda Indonesia's data center, the company has entrusted the Dell blades with running the most critical front-end applications, including Microsoft Exchange Server 2007. Used by 2,000 employees across Garuda Indonesia's global operations, the Exchange platform plays a key role in collaboration and communication. Garuda Indonesia is also currently developing a Business Intelligence application from SAP that will run on blade servers and provide airline management with the latest data on the company's performance.

The Dell blades come with tools such as the Dell OpenManage™ suite that help simplify the deployment and management of the airline's server solution, including alerts enabling the company to act quickly to resolve problems. Deploying the blades into Garuda Indonesia's data center was simple, with 16 blades housed in the PowerEdge M1000e enclosure. The PowerEdge M1000e is designed to support future blade technologies regardless

of processor or chipset architecture, helping to secure Garuda Indonesia's investment. “The compact and modular design of the blades has allowed us to get the most out of our data center space, reducing our data center footprint by 50 percent,” says Ismed.

SCALING TO MEET EXPANDING BUSINESS NEEDS

Garuda Indonesia has received positive feedback from users of applications that run on the blades and from IT staff benefiting from improved ease of management. The company is confident in Dell's enterprise capability and wants to explore ways that Dell can help keep the airline at the forefront of technology, such as virtualization. Plus, Garuda Indonesia is confident of the committed support services from Dell ProSupport. “Based on our experience with Dell, we are assured that Dell will be committed to invest their time to provide all the consulting and support services we might need,” says Ismed.

Looking ahead, Garuda Indonesia wants to further enhance its operations with new customer-facing applications such as the Garuda Frequent Flyer loyalty program, and with the delivery of new fleets for long-haul flights to Europe. “As business expands, we will have to scale our IT infrastructure to meet new demands, and we know Dell will be there for us,” concludes Ismed. 

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