



INDUSTRY

Telkom Indonesia (PT. Telekomunikasi Indonesia, Tbk) the state owned telecommunications provider in Indonesia is no stranger to change. From the company's restructuring in 1995, to the government mandated deregulation of the telecommunications industry, they are undergoing a transformation from monopoly to competitive service provider.

Now as telecommunications services shift from Plain Ordinary Telephone Services (POTS) to Multi-media and Mobility businesses, they move forward again in the face of increasing competition in local markets.

Their goal for the 2000's according to management is to be one of the best Information & Communication (Infokom) providers in the region. To accomplish that goal, they have upgraded infrastructure, network and switching technologies which allows them to provide more value added and revenue generating services. Each hardware and software acquisition should enable Telkom to generate new revenue while reducing operational costs.

CommuniGate Pro at Telkom Indonesia— Solution for a Telco Environment

INITIATIVES

In 1997, Telkom established a new division that provides Internet and Multimedia services. Its main business areas are network infrastructure (TELKOMNet) and online services (PlasaCom). TELKOMNet services include dial up, dedicated line, broadband access, frame relay and global network. PlasaCom online services include portal, commerce, Internet Data Centers (IDC) and Application Service Providers (ASP).

"As a full network service provider, we need to provide our customers with both excellent access and content services" reports Widi Nugroho, Online Product Development Manager. "Considering the demand for services in Indonesia, we extended the online market to the public which is mainly young people between 15 - 40 years old." Indeed with over 60% of Indonesia's 220 million people under age 25, they foresee major growth in demand over the long term.

MESSAGING NEEDS

Before moving to CommuniGate Pro, Telkom's e-mail software was a combination of open source SMTP and Webmail. They found the performance of this system dropped significantly when it reached about 32,000 accounts.

Keeping with company-wide goals, they sought a new messaging solution that was feature rich and scalable enough for them to offer advanced messaging services as the market demanded, while keeping overall costs low. "We needed to provide a scalable, reliable, and manageable messaging solution," says

Nugroho. "We conducted thorough research and evaluation via the Internet, and did some trial runs and stress tests before we made the decision. CommuniGate Pro has many-many advantages as compared to its competitors; multi-platform support, multi O/S support, and it is extremely cost effective."

SOLUTION

In early 2000, Telkom chose CommuniGate Pro from CommuniGate Systems running on two separate servers, each in a single server configuration. After two years with zero unscheduled downtime, the installation had grown to almost 500,000 accounts and hundreds of domains per server. To continue to support that level of growth and make managing the system much easier, Telkom upgraded to the Dynamic Cluster architecture. The migrating from two single servers into the Dynamic Cluster took less than 2 hours.

The award-winning CommuniGate Pro messaging software, combined with the Dynamic Cluster architecture provides 99.999% reliability, high performance and the support for virtually unlimited growth. The solution operates as a group of front-end and back-end servers, accessing domain and account data on a shared file system. This multi-level architecture enables load balancing and server redundancy, providing fast performance and availability with no single point of failure. Intelligent traffic routing and automatic fail-over assures that even if multiple servers stop working, all users can access their e-mail as long as one server is operational on the front and back end.

ARCHITECTURE

Telkom's CommuniGate Pro Dynamic Cluster supports over millions of accounts with Webmail and POP3 services. The front-ends are powered by HP AlphaServer ES40s, with an Alteon switch providing load balancing between them. Additional ES40s comprise the back-ends. The data, 60 terabytes, is stored with HP's TruCluster Server V5.1.

The Telkom installation highlights the stability and flexibility of CommuniGate Pro running in a Telco environment. The system hosts over millions of mailboxes and processes up to 5 million messages per day, with excellent performance and uptime. CommuniGate Pro's built-in Webmail module allows Telkom to provide its customers with a Webmail interface in Bahasa Indonesia, the country's official language. External solutions also can be easily integrated with CommuniGate Pro. In fact, Telkom has already integrated it with their centralized users database running on an Oracle Parallel Server. A small module maintains consistency between the CommuniGate Pro and Oracle directory, allowing for accurate directory services including white/yellow pages, and alumni/events directories

BENEFITS

For Telkom Indonesia, the result is unparalleled scalability and reliability, with future-proof technology. "With Dynamic Clustering we will be able to efficiently support the explosive growth of our customer base and, because the software is open for integration, it will support the additional services we plan on rolling out in the coming months, such as SMS and MMS," says Widi Nugroho.

The dynamic nature of the architecture makes day-to-day operations and management much easier. The secure, Web-based administration interface presents the entire cluster as a "Single System Image." Telkom can add capacity, provision services, perform upgrades and modify cluster wide settings from one central location, with no disruption to the end-users.

The CommuniGate Pro solution provides Telkom Indonesia with a Telco grade messaging system, adhering to their company goals of high performance, low cost, and excellent service. The solution also caters to expansion plans both in terms of the growing numbers of users and increased services. Summing it up, Widi Nugroho explains "CommuniGate Pro has made our lives easier. It solves our main problems and it's very easy to manage."

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