

# HP successfully implements a Network Management System for global electronics chain LG Electronics



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– Chae-Hwan Lim,  
Network Part Manager  
Technical Support Group  
Business Innovation Team 2  
LG Electronics





LG Electronics has earned a reputation for delivering innovative digital products and services to customers around the world. Their long-term vision is to become one of the world's top three electronics/IT companies by 2010. To that end, they have adopted a growth strategy of 'Fast Innovation' and 'Fast Growth' based on a philosophy of 'Great Company, Great People'.

Faced with the need to facilitate business processes for its 76 companies, LG Electronics implemented a global Network Management System (NMS) to manage its global network infrastructure more efficiently. Through the global NMS, LG Electronics' network operations became more transparent and this helped the management team make better decisions.

The company had substantially expanded its worldwide operations by establishing three business units - Digital Display and Media, Digital Appliance, and Telecommunication Equipment and Handset. The head office in Korea required a model that is able to integrate its overseas subsidiaries and manage the global network infrastructure more efficiently.

#### **Establishing the need for network transparency and management**

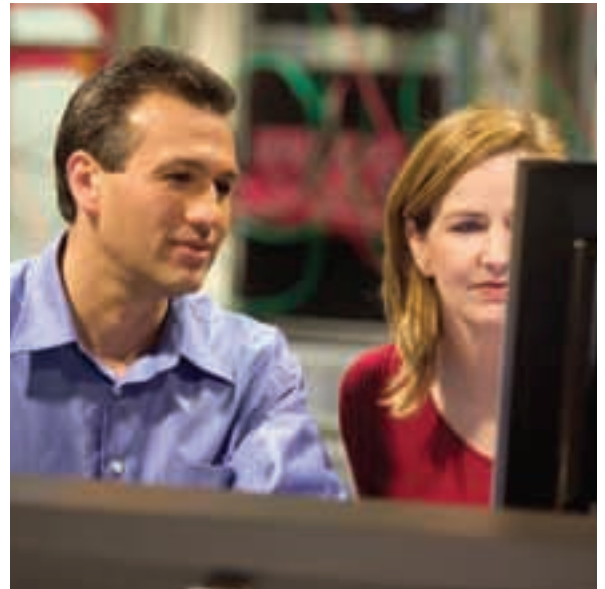
Previously, the designated engineer was the only person who had access to LG Electronics' network management structure. Precious time was wasted in monitoring the network asset information of each office around the world. It was difficult to survey the network environment from the perspective of a single enterprise.

To resolve this issue, LG Electronics partnered with HP to design a global Network Management System and provide a solution to help the company better manage their current disparate network infrastructure. After a thorough analysis, the company decided to adopt central and regional distribution management systems to cover the global network. By developing a web interface, LG Electronics is able to check the network status of the entire organisation with ease.

When the blueprint for the global NMS implementation was out, LG Electronics began shortlisting the right solutions. They wanted a system that was reliable and that has been successfully adopted by companies globally. They also needed a standard that could meet the requirements of all the overseas subsidiaries and they found the answer in HP's OpenView management solution.

"We reviewed the company's diversified global needs as well as those in Korea and decided on HP OpenView. Other solutions focused on server-centric system management but HP OpenView met the organisation's basic requirements and have been successfully deployed globally," said Chae-Hwan Lim, Network Part Manager of the Technical Support Group at Business Innovation Team 2.

"HP has also proven to be reliable and efficient during our NMS consulting process," he continued.



### **Implementing the global network management system**

During implementation, LG Electronics deployed 25 units of HP rp7410 and rp5470 servers, and workstations for the new network. At the same time, they jointly developed the system with HP by setting up the global network health check, configuration management, fault management, performance management, and configuration/change history management.

While conducting a network health check, LG Electronics noted the utilisation rates and response times of the network equipment at the local and offshore offices. Users are now able to check the status of the consolidated network at a glance and evaluate each office's utilisation rates.

The company also implemented a fault management system that displays, in real time, what the fault is and where it lies. They can also execute simple commands to rectify faults through an Internet connection.

The performance management system allowed the user to view detailed statistics on network performance in real time. The configuration management system that followed gave an overall view of all network configurations, as well as WAN/LAN information on one screen. LG Electronics also implemented the system to log incidents on fault identification and resolution for future reference.

The entire process took 10 months to complete, from design and prototype (July to September 2003) to implementation (October to February 2004) and finally to actually building the system (March to April 2004).

"The most attractive feature of the global NMS is that we can now view the network status of all offices worldwide at a glance and make faster decisions," said Gyeong-Yun Pyo, Assistant Manager of Network Service Team 1, Network Service Center, Infra Solution Division at Business Support Unit.

"There were obstacles in the development process particularly in processing data across different offices. But we overcame them through many brainstorming sessions between HP and our staff," she added.

With the businesses of LG Electronics so diversified and developed on a large scale, a lot of effort was invested in designing the system processes. The main problems were data processing in various languages and context, as well as establishing remote access.

"We solved these problems through our active partnership with HP. One of the main factors that contributed to the project's success was the strength of the consulting team. They were responsible for analysing our network requirements thoroughly before the actual implementation," revealed Pyo.

### Reaping the benefits worldwide

After the global NMS implementation project was completed, LG Electronics achieved greater transparency of network operations, and maximised the operational and management efficiency of the entire organisation. The company could also do away with many manual processes as well as access and manage information that was previously only available through the appointed engineer. Companies such as LG Electronics are turning to HP OpenView to help build and manage their adaptive enterprises.

"The greatest benefit of implementing the NMS is gaining the ability to directly access the global network management information from the web. The system

automatically detects and reports any existing faults to the user in real time thus facilitating fault resolution." said Lim.

Both the user and manager can take advantage of the same process. They can extract all the network management information from one location and take the necessary action to resolve any problem that occurs in the network.

"As the global NMS has been stable, we plan to strengthen the analysis tool and add advanced services such as traffic analysis in a heterogeneous environment. We also want to implement Active Directory to consolidate the scattered resources and to manage clients better in 2005," he concluded.

## Screen configurations of key functions in LG Electronics Global NMS

### Health Management

- Network health check and status of each office
- Network health trend management of each office



### Performance Management

- Regular data collection of equipment performance
- Performance threshold management and reporting



### Fault Management

- Monitoring and analysis of fault status
- History of faults and reporting

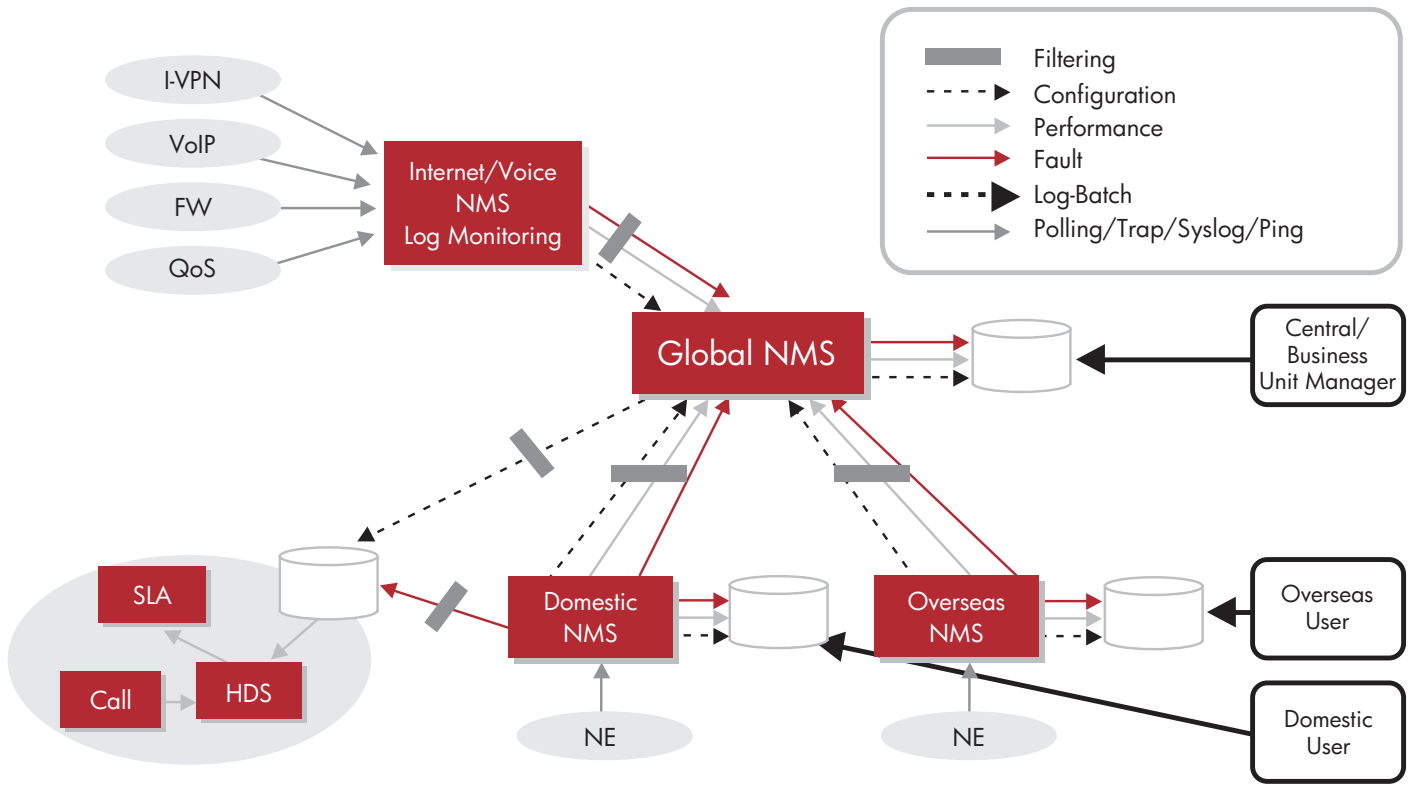


### Configuration Management

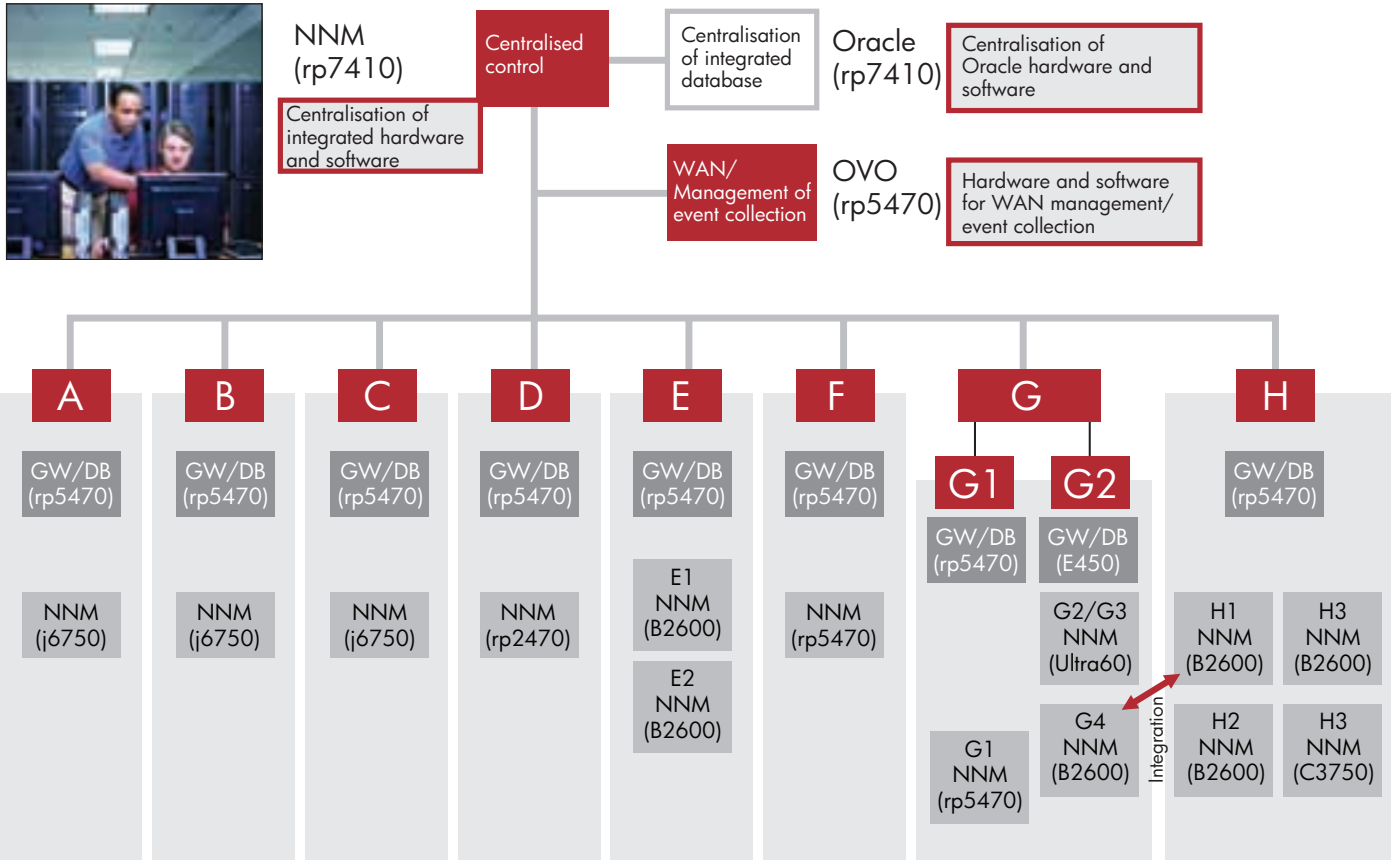
- History of equipment/office configuration
- Network configuration status of overseas corporations



# Data flow of LG Electronics global NMS



# LG Electronics global NMS distribution management system by region



## Challenges

- Difficulty in managing a distributed network of 76 companies worldwide
- Only the appointed engineer was allowed to directly access the network
- Wasted time and valuable resources in troubleshooting network problems

## Solutions

- HP OpenView Network Node Manager 6.4
- HP OpenView Operations 7.1
- HP rp7410 and rp5470 servers, and workstations

## Benefits

- Greater transparency of network operation
- Rapid identification and reporting of faults for immediate resolution
- Improved efficiency in network information management
- Seamless communication between users and managers contributed to faster and better decision making

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For more information on HP OpenView, visit:  
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