



CAMBRIDGE SOLUTIONS LTD



*CASE STUDY: GE Medical Systems, Asia Pacific*

## CUSTOMER

**GE Medical Systems** is a world leader in medical diagnostic imaging technology, services and health care productivity. Products include computed tomography (CT) scanners, X-ray equipment, magnetic resonance imaging (MR) systems, nuclear medicine cameras, ultrasound systems, patient monitoring devices, and mammography systems. Its global operations provide sales, service, engineering and manufacturing in more than 100 countries.

## WHAT IS GE IPMS?

The IPMS is an initiative undertaken by GE Medical Systems, Singapore to measure and monitor the performance of network dependant services (like mail servers) for the entire Asia Pacific region. The system enables the users to swiftly identify the affected service and take the necessary action. The performance reports can be viewed and analyzed for different periods of time (i.e. daily, weekly, and monthly basis).

## CHALLENGE

GE Medical Systems, Singapore required a mechanism to constantly monitor the performance of network related services like Internet server, Intranet server, Microsoft Exchange server etc

## SOLUTION

CAMBRIDGE proposed a solution consisting of a data collection engine, which collects data from all Asia Pacific Locations and stores the computed evaluation parameters (like Yield, Median, and Span) in an Oracle 8i database. The first component of the data collection engine, which resides in the remote locations, is a scheduled program that sends data files from the remote server to the Singapore server. This program is scheduled to run three times a day. The second component, residing in the Singapore server, reads the data files and uploads the data contained therein to the Oracle database. A key part of the system is the collection of reports that the user can view. The reports allow a user to view the network performance on daily, weekly, and monthly basis. Performance trends can be viewed using trends graphs.

The system has an extremely dynamic Administration module that allows user management, customization of the reports available to the general users, and an entry module for entry of errors that cause the network performance to degrade.

Performance degradations are reported to the Administrators by e-mail. The system also has a manual upload process that takes care of data files that are not transferred to the Singapore server.

## FEATURES

- Automates monitoring and measurement of network performance.
- Enables accurate quantification of network performance in terms of Yield, Median, and Span of the response times.
- All network performance errors and general errors are reported automatically to the respective Administrators.
- Allows Administrators of servers at different countries to log the causes of network performance degradation.
- Supported by extremely user-friendly reports that enable swift detection of errors.
- System architecture allows it to be very easily expanded to include other operation poles of GE Medical Systems.

## KEY BENEFITS

- Automates monitoring and measurement of network performance.
- Enables accurate quantification of network performance in terms of Yield, Median, and Span of the response times.
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- Allows Administrators of servers at different countries to log the causes of network performance degradation.
- Supported by extremely user-friendly reports that enable swift detection of errors.
- System architecture allows it to be very easily expanded to include other operation poles of GE Medical Systems.

## SCENARIO

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## ENVIRONMENT

### Software:

- Solaris (OS)
- Microsoft® Windows NT 4.0 Server
- IPlanet 4.0 Web Server
- Java Server Pages
- Java Applications (JDK 1.3.1)
- Oracle 8i
- PL/SQL Procedures
- Microsoft® Visual Basic 6.0
- Microsoft® IE 5.0 and Above

### Hardware

- For Database and Web Servers
- Sun SPARC