



CAMBRIDGE SOLUTIONS LTD



CASE STUDY: Cisco Systems, Inc

CUSTOMER

Cisco Systems, Inc. is the worldwide leader in networking for the Internet. Cisco's Internet Protocol-based (IP) networking solutions are the foundation of the Internet and most corporate, education, and government networks around the world.

Cisco provides the broadest line of solutions for transporting data, voice and video within buildings, across campuses, or around the world.

Cisco solutions ensure that networks both public and private operate with maximum performance, security, and flexibility. In addition, Cisco solutions are the basis for most large, complex networks used by corporations, public institutions, telecommunication companies, and are found in a growing number of medium-sized commercial enterprises.

- Broadband communications
- Next generation OSS support and integration
- Software product design and development
- Software services.

ABOUT THE PRODUCT – CEMF

Cisco Element Manager Framework (CEMF) /Element Manager (EM) Development

CEMF is a product suite of advanced carrier class framework, end operator applications, and toolkits. This suite was designed specifically to address the challenges of developing and deploying robust, large scale, multi-vendor, and multi technology management solutions. It is designed to overcome the limitations of traditional enterprise network management solutions, particularly in the 'broadband access market', and also in other network management applications

This group has been working on the development and testing of element managers for various Cisco devices like 6260 DSLAM series, GSR 12000 series, SCM (6400) and also on the Cisco Element Manager Component Suite commonly (CEMCS). The engineers in this group have worked in the Element Manager development of various technology interfaces as part of CEMCS development.

RELATIONSHIP

This center was started in January 1999 with the strength of about 10 people and has grown up to 60 engineers. Team gained expertise in CEMF/AVMT/ EM development through the training imparted by CISCO. Multi site development at DODC Chennai and on-site at US/UK. DODC team coordinated with on-site team to understand the client requirements, procedures, processes and specifications..

SCOPE OF WORK

The scope of work involves developing element managers for configuring and managing wide range of Cisco devices like DSLAMs, Routers, Switches, etc. These are being developed over customer's proprietary platform named Cisco Element Manger Framework using the Access Vision Management



Toolkit. Element managers for 6260, 6130 DSLAMs and 12000-Gigabit Routers developed from here are running successfully in various end-user premises across the globe.

Scandent has also been part of Cisco Element Manager Component Suite development – which comprises of a set of generic components like ADSL, DMT, POS, ATM, SONET etc. This provides the ability to manage the service provider’s hardware in a generic fashion and at higher levels of abstraction (like end-end services and subscribers) rather than at Line-Card/Interface level

Scandent also has a separate testing team in CISCO- ODC to test all the software developed here and the software developed in on-site. DDTS used as defect tracking system. The testing team also used Tcl scripts to test the software using simulator. Simple Agent Pro was used for this purpose..

Programming Languages / Tools : C++, OOD, Clearcase, AVMT, DDTS, Purify, Pure Coverage, Quantify, CEMF, ILOG, Perl

Operating System : SUN Solaris

Networking : TCP/IP, SNMP

Database : ATM, ADSL, DMT, SONET, POS, IP