MKS Toolkit Case Study

Siemens Business Services

Business Solutions and Services

Background:
On October 1, 1998, Siemens AG pooled its information and communication technology expertise to form a single business segment, "Information and Communications," (I and C) comprising three corporate groups: "Products," "Networks" and "Siemens Business Services."

With sales of nearly DM 50 billion and a workforce of 100,000-plus people, I and C represents one of the most important fields of business within the Siemens organization. This integrated structure reflects the global coalescence of products, services, and markets from the fields of information technology and communications; and, the analysts' prediction that I and C convergence is becoming the key customer need. As a service provider with a comprehensive portfolio of information technology and communications offerings, SBS joins this realignment to give Siemens an outstanding competitive position.

Access to Corporate Data within a heterogeneous Environment
In our business we have to develop complex job flows over heterogeneous hardware platforms. High Availability is a very important fact. To offer this we developed a special scheduler called JOCE (Job Control Environment). JOCE is very versatile in complex computer networks. Of course it also supports heterogeneous system landscapes. JOCE supports many Windows Systems along with established UNIX platforms, such as Solaris, Reliant UNIX, Linux, as well as, OPS clusters (ORACLE PARALLEL SERVER).

JOCE's modular architecture and its open, modular concept provides many approaches for integration into heterogeneous, mature system landscapes. JOCE has many different facets, including integrated threshold and performance analysis. It is very flexible and adaptable. GUI extensions and customer-specific macros are just two examples of how services can be implemented.

JOCE was first developed under UNIX, we later ported the application to Windows using MKS Toolkit for Interoperability (formerly MKS Toolkit Select). MKS Toolkit for Interoperability provides the accessibility of an X Window system display server, plus the power of all the UNIX commands. MKS offers a stable yet unique solution.

Today, if a customer wants to use JOCE on a Windows Platform, they will need MKS Toolkit for Interoperability, which they can purchase from their local reseller or directly from MKS.

The Business Solution: An Open Architecture to a Complex Environment
An important element of JOCE is the administration of the Internet-based GUI front-end. Each administration workstation requires only a standard browser to work with JOCE. Administrative activities can thus be carried out anywhere in the entire Intranet. This creates a global architecture.

In conventional scheduling concepts, a central server organizes the allocation of tasks to the client systems and monitors the activities that occur there. The availability of the overall system must be guaranteed by redundant HW (hardware) systems in the job control server.

Summary
IT environments are becoming more and more complex and heterogeneous. The associated administrative effort required for operation of these computer networks is growing immensely. The job scheduler "JOCE" provides uniform control and administration of EDP processes, in this complex environment.

In designing JOCE as a network-capable job scheduler, particular emphasis was placed on secure processes. It supports the user, not only in the actual core scheduling tasks (organization of job processes), but also in tangential areas, such as, resource control and performance monitoring. Beyond that, JOCE also offers an efficient programming environment for development of network-wide job processes.

- JOCE provides high-availability job scheduling in heterogeneous system landscapes.

- JOCE has a database-supported message system with interfaces to the most varied messaging systems and applications (e.g. SNMP, SMS).

- JOCE includes integrated threshold value and performance analysis.

All these functions make JOCE an excellent basis for a well functioning IT landscape.

We learned that MKS Toolkit for Interoperability is a powerful tool for UNIX and Windows interoperability. The Wndows features are integrated well, so when it was time to port JOCE it was executed quickly and easily and with very little effort. JOCE has more than 7000 lines of complex shell code. Today, we nearly have one common source between UNIX and Windows.

For more information about Siemens Business Services please visit:

www.sbs.de