European Centre for the Development of Vocational Training

Cedefop ICT profile

1. POSITION IN THE ORGANISATION

See the organisational chart on Cedefop's web site

http://www.cedefop.europa.eu/index.asp?section=2&sub=2

2. HUMAN RESOURCES IN THE ICT

Cedefop's ICT department currently comprises 10 experienced individuals, involved in project coordination, software, web and database development, technical administration and support (systems, network, security, firewall, web servers, Livelink, etc.).

All Cedefop's websites, services, information systems, applications, the Livelink document management system, servers, databases and technical equipment are hosted internally and being managed, supported and developed by the ICT department. Some development and support is outsourced; outsourcing is managed and controlled by the ICT department.

3. NETWORK AND TELECOM PROFILE

(1) The internal network (LAN) is based on a switched Gigabit Ethernet backbone using Cisco technology and VLAN architecture. Current Internet bandwidth: 20 Mbps over the Gigabit backbone of *GRNET*. Backup Internet connection through wireless link with OTEnet (1 Mbps).

(2) Connection with the TESTA-II network of the European Commission (connects to the EC Intranet and other online services such as CIRCA). Connection via an encrypted VPN to Cedefop's Brussels office.

(3) Security: firewall (Checkpoint FW-1), e-mail security and anti-virus systems (F-secure).

(4) Siemens Hicom 300 HDMS Telephone Center, with Siemens Xpressions unified messaging for voicemail and e-fax.

4. SYSTEMS

(1) The main operating system infrastructure is built on a Microsoft Windows 2003 Active Directory network controlled by 3 domain controllers (Single Forrest – Two sites, one in Thessaloniki and one in Brussels).

(2)   The business critical services are supported by three pairs of clustered systems connected using Fibre Channel Switches to two SAN Subsystems (Compaq MA-8000 and Hewlett Packard EVA-4000), as follows:

   (a)   File and Print services are controlled by a two-node clustered system (active-passive) based on Windows 2003 Advanced Server (two Hewlett Packard Blades BL360 connected to the EVA-4000 Storage).

   (b)   Internal e-mail services are based on a two-node active-passive Windows 2003 Advanced Server – Exchange 2003 cluster (two Compaq DL380G2 connected to the MA-8000 Storage) and an external front-end Exchange Webmail server (OWA). Migration to Hewlett Packard Blade servers and the EVA-4000 storage in on-going.

   (c)   Document Management, Workgroup and Intranet Services based on the Opentext Livelink Software Platform are hosted in a two-node active-active Windows 2000 Advanced Server cluster (two Compaq DL380G3 connected to the MA-8000 Storage). Extranet access is supported via an external Livelink front- end. Migration to Hewlett Packard Blade servers and the EVA-4000 storage in on-going.

(3)   Large scalable storage capacity with several hundreds of GB exists in a few tens of hard disks resides in the SAN. Backup is done with Brightstore Arcserve software, using one HP MSL6060 tape library with four SDLT drives, directly connected to the SANs.

(4)   There are also several standalone File, Print, Web, database and document servers, running MS-Windows OSs (Windows 2000 and Windows NT) and some Linux servers (DNS, network and systems monitoring, logging, mailing lists, Apache).

5. EMAIL

(1)   Internal Email services run on a clustered system based on Windows 2003 Advanced Server and Microsoft Exchange Server Enterprise 2003. This system is using the same SAN as the File and Print Services. Exchange's Outlook Web Access (OWA) is hosted on a dedicated server, on the DMZ.

(2)   Front end Internet e-mail security gateway is hosted on two Compaq DL380G3 Windows 2000 servers, running Clearswift's MIMEsweeper, and screening from spam and virus threats.

6. WEB INFRASTRUCTURE

(1)   Web application environment and expertise: mainly Microsoft IIS flavours 3 (Intranet) and 4 (all the others), ASP technology, LDAP, SQL, Database access, XML, VBScript, Microsoft SQL Server, Sybase. In May 2008, it was decided to move to Microsoft .NET technology.

(2)   Web log analysis, statistics and analytics is done with WebTrends Marketing Lab 2 (v8.1). The primary search engine for Cedefop's websites is the licensed Google Custom Search, Business Edition.

(3)   The official Cedefop corporate informational web site (www.cedefop.europa.eu) is running on Windows 2000 and IIS 5.0.

(4)   Cedefop's interactive large core business site (ETV - www.trainingvillage.gr), with 50,000 registered users, is based on ASP scripting, designed on the LDAP front-end of Microsoft's Site Server 3 with an SQL server 7.0 as a backend, maintained in-house, running on two Compaq DL350 servers.

(5)   The Europass website (Europass CV, Language Passport, Mobility, Diploma/Certificate Supplement - http://europass.cedefop.europa.eu) is based on JSP/Jakarta/Tomcat/Apache web technologies and MS-SQL DB Server and is running on two Compaq DL380 servers.

(6)   The web based IS "OLIVE" (http://studyvisits.cedefop.europa.eu) is used for managing a decentralised network of study visits exchanges. It is running on Windows 2003 / IIS 6 / ASP / Sybase 15 on the "New-Idefix" server of Cedefop's Study Visits department.

(7)   Cedefop's Library hosts a web site (libserver.cedefop.europa.eu) on an Apache server, running on the Aleph system and on the IBM AIX/RS6000.

(8)   Extranet functionalities (http://extranet.cedefop.europa.eu) are implemented on Livelink (see below).

(9)   A web proxy server ("squid") with 50GB cache is playing the role of a Web gateway to Cedefop's Brussels office computers.

7.   INTERNAL DATABASE / INFORMATION SYSTEMS AND APPLICATIONS

(1)   Cedefop's custom-made Financial, Budgetary, Accounting and Human Resources ERP system ("Fibus"), built on Power Builder 8 and Sybase ASE 12.5, is hosted on a dedicated Compaq ML530 running Windows 2000 OS.

(2)   The Library system (Aleph v.14.2.9) of Cedefop is hosted on an IBM RS6000 server running AIX and Oracle 8.17.

(3)   Opentext Livelink is being used as a Document Management, Groupware, Workflow and Intranet/Extranet Integrated Information System. Cedefop's Intranet is based on Livelink. A dedicated Livelink administrator is managing and developing the system.

(4)   "Myfibus" is a web-based personalised employee information system based on Microsoft ASP.

8.   DESKTOP ENVIRONMENT

The desktop environment includes approximately 160 PCs, running Windows XP Professional, Office 2003 and ca 30 printers and multifunction machines.

9. AUDIO-VISUAL SYSTEMS

Advanced videoconferencing infrastructure and know-how exists.