

# Annex G - Livelink Installation summary

## Architecture Overview

The Livelink architecture in CEDEFOP serves two groups of users

- The external users (mainly Refernet), responsible to upload and retrieve content from all over Europe through connecting to the system via the Internet. These users own individual usernames and passwords to log-in to the system. Authentication is managed by the Livelink user account system itself. Some users are test accounts.

There are about 240 extranet accounts.

- The internal user accounts connecting to the system through CEDEFOP's Intranet. Users of this kind do not have to log-in to the Livelink system but only to the CEDEFOP domain. Some of these accounts are special accounts (administrative) or test accounts.

There are about 160 internal user accounts.

In order to support these two groups of users the architecture is organized in four areas

- The users' layer consists of the user's Web Browsers
- The DMZ layer consists of a single machine logically located in the DMZ area (LL-out machine)
- The CLUSTER area consists of two machines forming a cluster and executing the Livelink server (internal network), the Livelink admin server and the database server. The CLUSTER area can be separated in two logical areas (representing a virtual server each), the Livelink area and the database area. It consists of two server machines (LL-1 & LL-2), forming a cluster using the Microsoft Cluster mechanism existing in Windows 2000 environment. These two machines are exactly the same and have access to local disk and to a SAN through optical connection. The Cluster Configuration is active / standby which means that each time only one machine has access to the common storage area (SAN).

These logical layers are:

- The LIVELINK layer, that consists of a number of clusterized resources (including Livelink and Livelink Index Server) forming a virtual server called LIVELINK. This virtual server incorporates both LL1 and LL2 physical machines having the LL1 as active and LL2 as standby
- The DATABASE layer, that consists of a number of clusterized resources (including Microsoft SQL Server) forming a virtual server called ETHNIC. This virtual server incorporates both LL1 and LL2 physical machines having the LL2 as active and LL1 as standby.

To provide complete functionality, the system interfaces with the following CEDEFOP's systems

- CEDEFOP's Mailgateway
- CEDEFOP's Active Directory Server
- Cedefop's Public websites: Livelink will soon be also connected to a RedDot (CMS system) installation to provide content to the public websites of Cedefop.

Cedefop disposes of a test and development environment, similar to the production environment. The test environment is installed on virtual servers.

## Livelink Modules Installed

MODULE	VERSION	NOTES	Machine
Livelink Core	9.7.1		Livelink (LL-1 & LL-2)
Livelink Classifications	4.1.0		Livelink (LL-1 & LL-2)
Livelink Records Management	4.1.0	Requires Livelink Classifications 2.7.0	Livelink (LL-1 & LL-2)
Livelink Physical Objects	4.1.0		Livelink (LL-1 & LL-2)
Livelink Explorer Professional + Client Download + E-mail integration	4.8.2		Livelink (LL-1 & LL-2)
Livelink e-Link	9.7.1		Livelink (LL-1 & LL-2)
Livelink Forms	9.7.1		Livelink (LL-1 & LL-2)
Livelink WebForms	9.7.1	Requires Livelink Forms	Livelink (LL-1 & LL-2)

Livelink Renditions	2.0.2		Livelink (LL-1 & LL-2)
Livelink Directory Services	3.0.0		Livelink (LL-1 & LL-2)
CEDEFOP Files Extension	1.0.7		Livelink (LL-1 & LL-2)

SDK for 10 users			Livelink (LL-1 & LL-2)
------------------	--	--	------------------------

Cedefop has implemented several custom applications. Developments on Livelink have been done using

- Livelink workflows,
- xml exports and xsl transforms,
- javascript, java,
- Livelink LAPI,
- Livelink SDK custom modules.