

LPM V5 Overview

LPM software architecture

- **Client/Server architecture**
 - All information is shared by all authorised users (a result can be validated from any LPM workstation).
- **4 main groups of software applications :**
 - The embedded Oracle database (included in the LPM license), supplied with upgrades (Standard or Enterprise Edition with Hot Backup option).
 - Application services : Communications, files updates, work lists, result lists, etc.
 - Connections
 - Human-Machine Interface (HMI)
- **Communications with external sources**
 - Multi-LIS
 - Multi-standard
 - Multi-coding
 - Multi-departments,
 - Etc.
- **Integration in the laboratory structure**
 - Laboratory structure modeling
- **LPM supports :**
 - Windows XP
 - Windows 2003
 -

System architecture options

- Simple intrument combination (double or triple connection for instance).
[250 files/day]

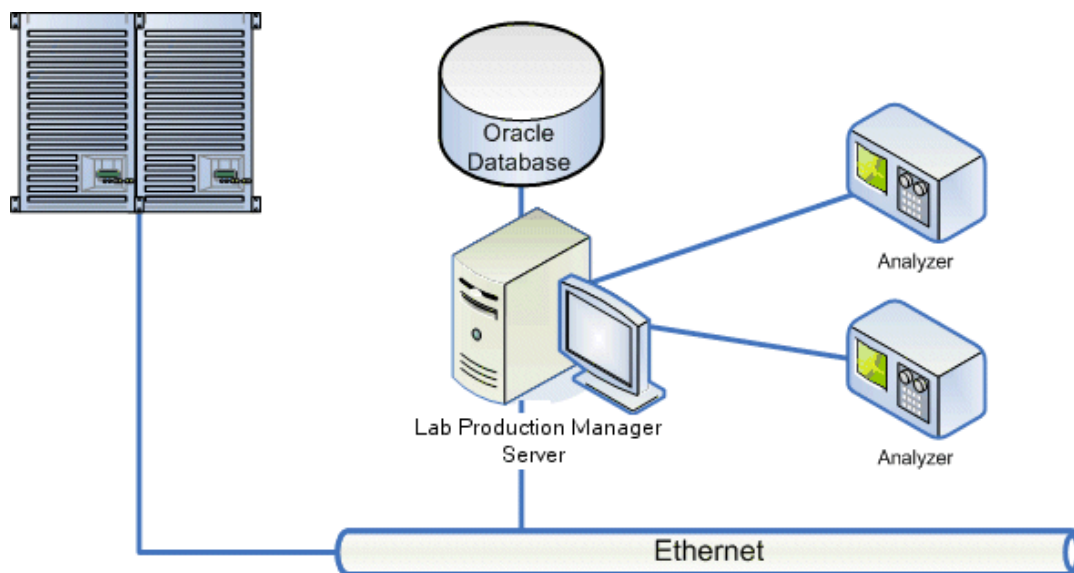


Figure 1 : Stand Alone Configuration

- Work group (Slide maker, Cell counter, etc.).
[500 files/day]

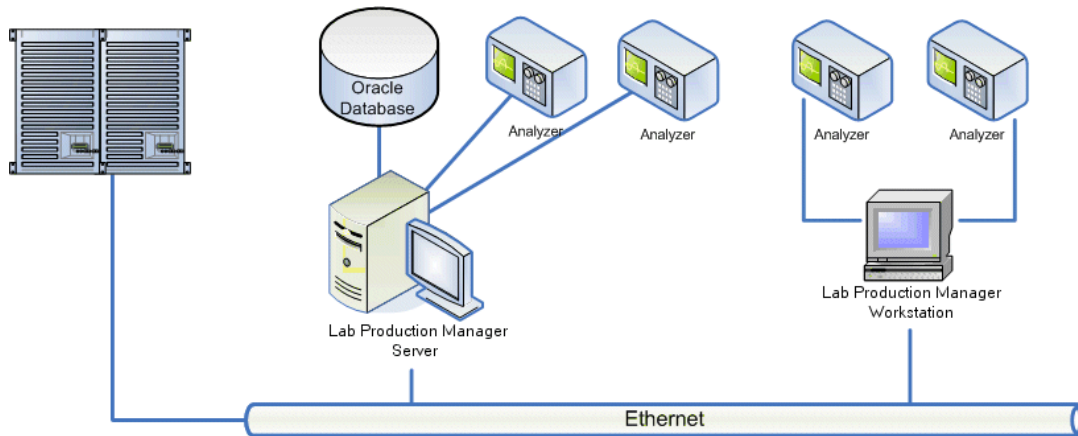


Figure 2 : Work group Configuration

- Muti-Discipline laboratory (> 15 intruments) [1.000 files/day]
- Multi-LIS environments, Multi-Site and workstation environments, sorting centres, automated tracks [9.000 files/day, 28.000 samples/day, >60 intruments, 100 workstations]

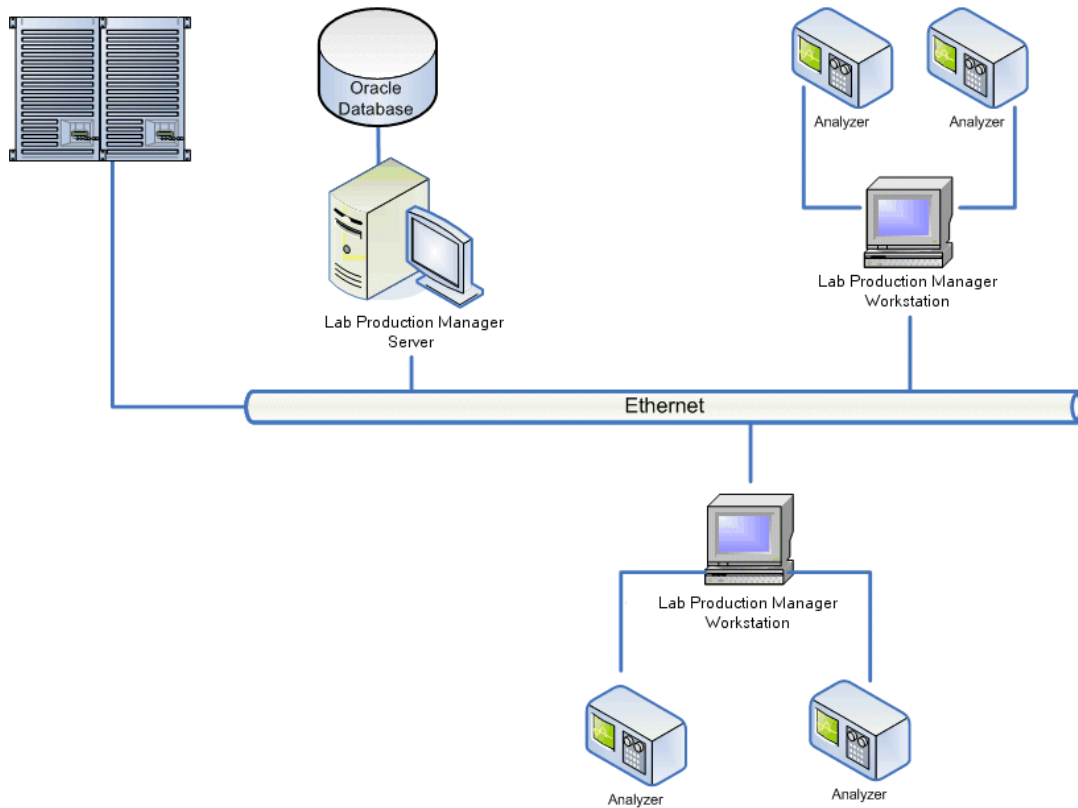


Figure 3 : Client-Server configuration

LPM = Extensive modularity

🔌 Several LIS's can be connected to one LPM server :

This is very useful in the case of an LIS change:

- ✓ During the transition period, it makes it possible to operate the « old » LIS and the new LIS simultaneously, while instrument connections keep running as well.. The results would be sent to the LIS that requested the tests.
- ✓ « Analyses », « Text Codes », etc. dictionaries may be different from one LIS to the other.
- ✓ Similarly « Patients ID's », « Requests », « Samples », may be different as well, while duplication prevention is ensured.

These advantages also apply during the implementation of a centralised technical platform.

- 🔌 Several LPM servers can be connected to a single while exchanging date. This option is very useful in case of multi-site configurations.
- 🔌 It is possible to synchronise the configuration of several LPM servers thanks to the configuration Export/Import feature.

Data Safety

The embedded database, operating in Hot Backup (mirrored) mode on two servers guarantees an increased reliability of the system. In addition the implementation of manual entry is available to overcome a potential unavailability of the LIS and prevents data loss in the event of Ethernet network unavailability.

Even when the LIS is unavailable, the LPM network makes it possible immediately and without specific measures to:

- 🔌 Register new request, manually or automatically.
- 🔌 Edit bar code on the laboratory network printers.
- 🔌 Work on instruments without any change in comparison to live mode.
- 🔌 Validate results technically.
- 🔌 Dispatch results across devices (Report printer, Fax, Results server, ...).
- 🔌 When the LIS is operational again, LPM transfers all files (requests and results) that were created during the LIS downtime. There is thus no need to re-enter data in the LIS.

Affordable connections

The license is divided in two parts:

1 – The workstation license which is due once and can be re-used in the event of an instrument replacement. In addition, this license includes an embedded Oracle license which, associated with the LPM maintenance contract, guarantees you to get free Oracle and LPM upgrades.

2 – The connection license which is the only amount due in the event of an instrument replacement. If the instrument is replaced within 3 years after its connection, the new connection will be prorated based on the number of lapsed months.

In summary, cheaper connections:

- You can add as many drivers (instrument connections) as desired on a workstation.
- When you replace an instrument, you only pay for the applicable driver (either fully or partially).
- Your maintenance contract gives you access to yearly trainings. These trainings involve LPM configuration modules and will enable your staff to handle basic changes. In addition, your contract gives you access to the hotline support as well as assistance in the event of a technical problem.

(Based on 2008 tariffs)