

LEO Technical Specification

Standard LEO uses:

Oracle Database 8i or 9i
Oracle Application Server 9i
Oracle Developer 6i or 9i incorporating Oracle Forms and Reports

LEO utilises the Oracle database, the world's most popular database supplied by the world's second largest software company. The Oracle database provides true open standards, scalability, robustness and stability.

The LEO database is a fully normalised relational design, developed with business users over 20 years providing a totally integrated product lifecycle management solution.

LEO was the first production system in the UK to use Oracle GUI Forms 4.0 in 1994 with the Docklands Light Railway. LEO was the first production system in the UK to use Oracle Forms over the Internet in 1996 with Telus of Canada. LEO was the first production system in the world to use the Oracle Application Server Wireless Edition in 2000.

LEO's database server will run on any hardware platform. [Supported server platforms include:](#)

[Fujitsu-Siemens Solaris](#)
[HP HP-UX PA-RISC](#)
[HP OpenVMS Alpha](#)
[IBM AIX RS/6000](#)
[Linux x86](#)
[Microsoft Windows Server 2003](#)
[Microsoft Windows 2000](#)
[Microsoft Windows NT](#)
[Sun Solaris SPARC](#)

LEO typically requires 5MHz CPU per concurrent user on RISC or SPARC chipsets, and 33MHz CPU per concurrent user on Intel Pentium chipsets. 15MB of RAM is also required per concurrent user. Hamilton Hall recommends multi-spindle SCSI disk systems for optimum database performance. Depending on kind of application LEO requires between 2GB and 20GB disk space.

LEO's client technology can be thick or thin, character mode terminals, any Windows flavour (including Microsoft, Apple Mac, Linux and X-Windows) and any web browser.

The minimum specification for a PC thick client is:

[128MB RAM](#)
[1GB disk space](#)
[200MHz Intel processor](#)
[Ethernet or Token Ring network card](#)
[Super VGA VDU](#)
[Operating system supporting IPX/SPX, NetBEUI, or TCP/IP network protocol](#)

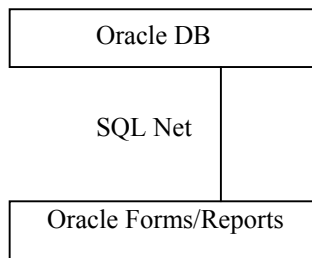
The minimum web browser specification for a thin client PC is:

[Netscape 4.0](#)
[Microsoft Internet Explorer 4.0](#)
[Opera 6.0](#)

[With a native Java Virtual Machine or Oracle Java Initiator.](#)

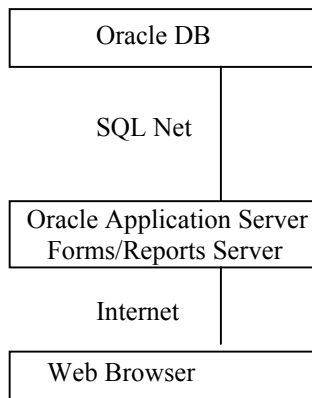
LEO can be distributed with three primary options:

The traditional two tier client server model



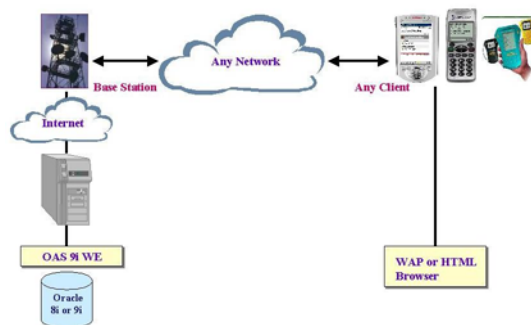
This uses Oracle connectivity tool called SQL Net to connect the database with the clients. The clients can character mode terminals or any Windows flavour (including Microsoft, Apple Mac, Linux and X-Windows).

The thin client three tier model:



The thin client will run on any Internet enabled client with a built in Java Virtual Machine.

The wireless model:



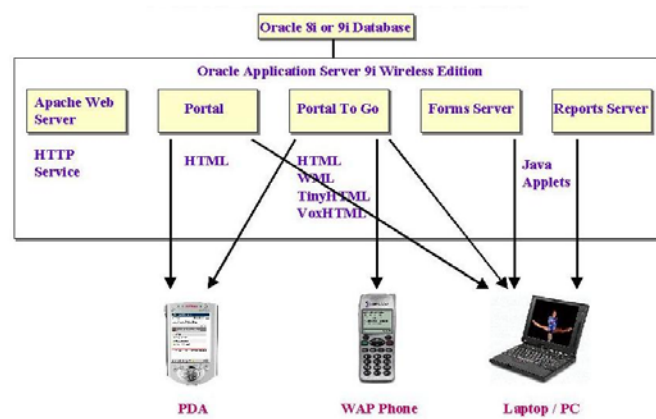
LEO's wireless technology will run on any network, any protocol and any mobile device. The network can be Wi-Fi, Mobitex, GSM, GPRS, HSCSD, UMTS or Tetra. The wireless client can be any wireless enabled WAP phone, PDA or laptop.

Supported PDA operating systems include:

Microsoft Pocket PC 2000 onwards

Microsoft Windows CE 3.0 onwards
Palm 4.0 onwards

In summary:



HHCL can also provide the following options:

For connectivity to legacy data:

LEO Link

Oracle Gateways to AS/400, APPC, DB2, Informix, Ingress, RDB, SQL Server, Sybase and Teradata.

For portals, intranet and internet pages:

LEO Portal

For GIS:

GeoConcept

Oracle Server Spatial Option

For reporting and data warehousing:

Oracle Express Objects

Brio SQR Reports

Brio Intelligence and Metrics Builder

Seagate Crystal Reports