Infor LN Minimum hardware requirements

Sizing Documentation

Publication Information

Release: Infor LN Release level

Publication date: April 28, 2014

Document code: B0071D

Contents

About this guide

This document provides example configurations for an Infor LN implementation on a Microsoft Windows/SQL Server for these user scenarios:

- 1–25 concurrent users
- 25–50 concurrent users
- 50–100 concurrent users

Intended audience

This document is intended for technical consultants of Infor, partners and customers who are responsible for sizing and implementing Infor software.

Related documents

These documents are used as background information for this sizing, and can be used as general sizing background information:

- *B0065x – Infor LN Sizing and Technical Infrastructure background*.
- *B0036x US - Infor LN Configuration and Planning Questionnaire.*
- *B0052x US - Infor LN Sizing White Paper.*

Contacting Infor

If you have questions about Infor products, go to the Infor Xtreme Support portal at www.infor.com/inforxtreme.

If we update this document after the product release, we will post the new version on this Web site. We recommend that you check this Web site periodically for updated documentation.

If you have comments about Infor documentation, contact documentation@infor.com.

Chapter 1 Introduction

1

The minimum hardware requirements in this document are based on Intel/Windows. This does not mean that this is the only solution and the Infor preferred combination.

The hardware requirements are based on numerous assumptions, for details see *Assumptions*.

The configurations are provided for both Infor LN Web UI and the Infor Ming.le ™ based Infor LN UI Plugin.

If the assumptions do not fit your situation, you can consult the e-sizing assistant or the available sizing guide document.

You can send any questions to sizing@infor.com.

The scope of this document does not include additional IT environment issues, such as availability, redundancy, disaster recovery, backup/recovery procedures, and work requirements for Infor LN.

In providing this sizing information, Infor assumes no liability whatsoever for results that differ from estimates. We recommend that you confirm the data and sizing based on your own implementation experience and in consultation with the selected platform vendor.

Performance warranties

We performed this sizing thoroughly, but cannot guarantee optimal performance because there are many variables in the sizing procedure. Infor assumes no liability for any damages or extra costs that result from recommendations in this sizing recommendation.

Named users vs. concurrent users

The Infor LN sizing model is based on concurrent users. Therefore, the minimum requirements in this document are based on concurrent users.

A concurrent user works actively with the application simultaneously with other active users. An active user claims CPU and memory resources. In the Infor sizing model, a user is counted as a

concurrent user when they cause, at least once, some system activity within five minutes of using the application.

During the sales cycle, the number of named users is important. Infor LN is frequently sold based on named users.

A named user is a user who has a login account for the system, but does not necessarily work with the system at a given point in time. A named user can work with the system. There can be situations where all named users are concurrent users.

A named user claims only system resources when the user is logged on to the system; the only exception is disk space. Data entered earlier by this user must be kept on disk.

The ratio between named and concurrent users can differ per customer.

The rule of thumb is: #named users = 2 * #concurrent users.

Chapter 2 Assumptions

2

The results of an Infor LN hardware sizing depend on the customer input and the assumptions made.

For a detailed description about the assumptions, see "*Related documents*" in the "*About this guide"* section in this guide.

The minimum hardware requirements published in this document are based on these assumptions and recommendations:

- Standard configurations are specified for 1-25, 25-50 and 50-100 users.
- The configurations are provided for Infor LN Web UI and the Infor Ming.le /Infor LN UI Plugin.
- The sizing is based on Microsoft Windows Server 2008 R2 Enterprise Edition 64-bit, Microsoft Windows Server 2008 R2 Standard Edition 64-bit or Windows Server 2012 R2 Standard.
- Microsoft SQL Server 2008 R2 or 2012 Standard Edition database.
- The configuration does not support more than the number of users for which the configuration is specified.
- This sizing assumes an average of one concurrent batch per 50 concurrent users.
- A batch is a process which runs without user interaction for at least 10 minutes.
- The average load factor is 15. The load factor is the relationship between a real user and the benchmark tests on which the Infor LN sizing methodology is based.
- The future growth factor of 20 percent is included.
- The systems are sized on 80 percent CPU saturation. 20 percent is reserved for peak load.
- Infor LN FP9.
- The sizing is based on Unicode. The reason for this is to be flexible, because new software components can require Unicode.
- No Multi Language Enabling (MLE).
- Five tasks per user. A task is an open LN session.
- The Infor LN Web UI / Infor Ming.le LN UI Plugin sizings are based on Tomcat Web server. The LN UI Plugin cannot run without Ming.le
- Sizing is based on Ming.le Foundation.

Software which is not included

This software is not included in the hardware requirements:

- Infor ION.
- Integration-related software.
- Customizations.
- No other software installed.

Chapter 3 Hardware requirements Infor LN - Web UI

3

The minimum hardware requirements for Infor LN and Web UI.

Requirements for 1–25 and 25–50 concurrent users

The minimum hardware requirements for 1–25 and 25–50 concurrent users using Infor LN, based on Infor LN Web UI (no Infor Ming.le) and on the assumptions discussed earlier.

Hardware architecture

The hardware architecture is the same for both 1–25 and 25–50 concurrent users, and is based on a single server configuration. The database, application, and Web server are installed on one system. This solution is recommended for up to 50 concurrent users.

This figure shows a hardware architecture overview.

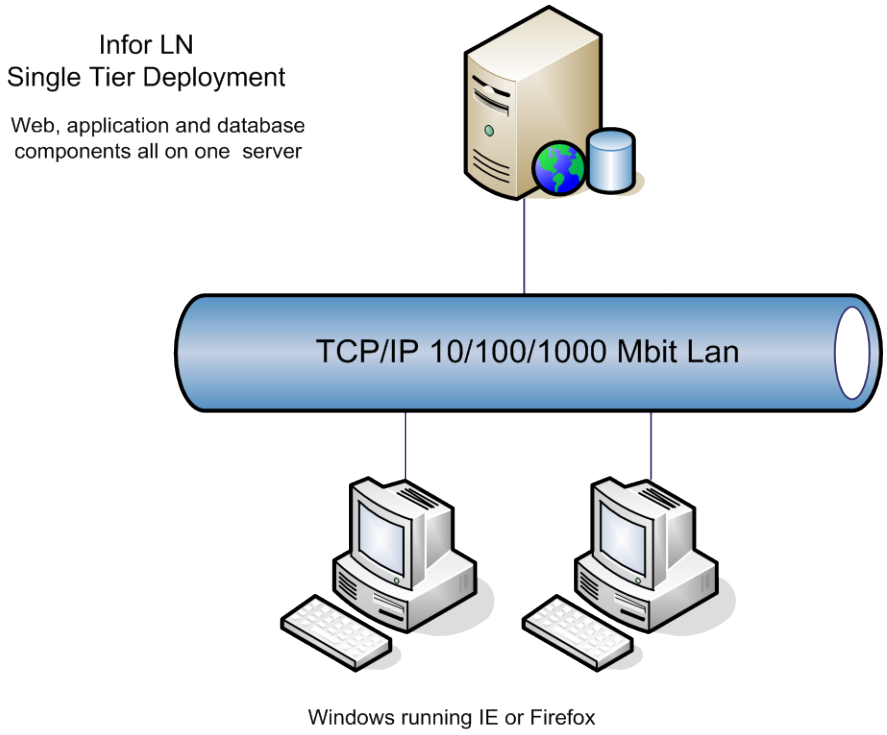

Figure 3-1 Single server configuration

Recommended configuration

This table shows the hardware specifications of the recommended configuration based on Infor LN Web UI:

Configuration for 1–25 concurrent users	
Type	Infor LN Application, Database and Web Server
Server specification	Quad-Core Intel Xeon E5 Series
CPU	1 Intel Xeon E5-2603, 1800 MHz
Memory	10 GB
Disk space	140 GB of estimated usage per year. The configured space will be higher. This storage space can also be configured on a SAN.

Configuration for 1–25 concurrent users	
	You must use at least six disks for the database component: Operating System (2 disk) RAID 1 is recommended. Database software and database log and archive files (2 disk) RAID 1. Database data files (4 disks) RAID 5 minimum. RAID 10 is recommended for the highest performance and high availability. Swap space must be spread across disks as recommended by the hardware manufacturer. If SAN storage is used an IO capacity of at least 600 IOPS is required.
Disk controller	If separate disks are used, for example, SCSII or SAS, we recommend that you use a controller with sufficient write-through cache, of at least 256 MB.

Configuration for 25–50 concurrent users	
Type	Infor LN Application, Database Server and Web Server
Server specification	6-Core Intel Xeon E5-2620 Series
CPU	1 Intel Xeon E5-2620, 2000 MHz
Memory	16 GB
Disk space	200 GB of estimated usage per year. The configured space will be higher. This storage space can also be configured on a SAN. You must use at least six disks for the database component: Operating System (2 disk) RAID 1 is recommended. Database software and database log and archive files (2 disk) RAID 1. Database data files (4 disks) RAID 5 minimum. RAID 10 is recommended for the highest performance and high availability. Swap space must be spread across disks as recommended by the hardware manufacturer. If SAN storage is used an IO capacity of at least 600 IOPS is required.
Disk controller	If separate disks are used, for example, SCSII or SAS, we recommend that you use a controller with sufficient write-through cache, of at least 256 MB.

Requirements for 50–100 concurrent users

The minimum hardware requirements for 50–100 concurrent users using Infor LN, based on Infor LN Web UI (no Infor Ming.le) and the assumptions discussed earlier.

Hardware architecture

This figure shows a hardware architecture overview. The application, database, and Web server are installed on one system.

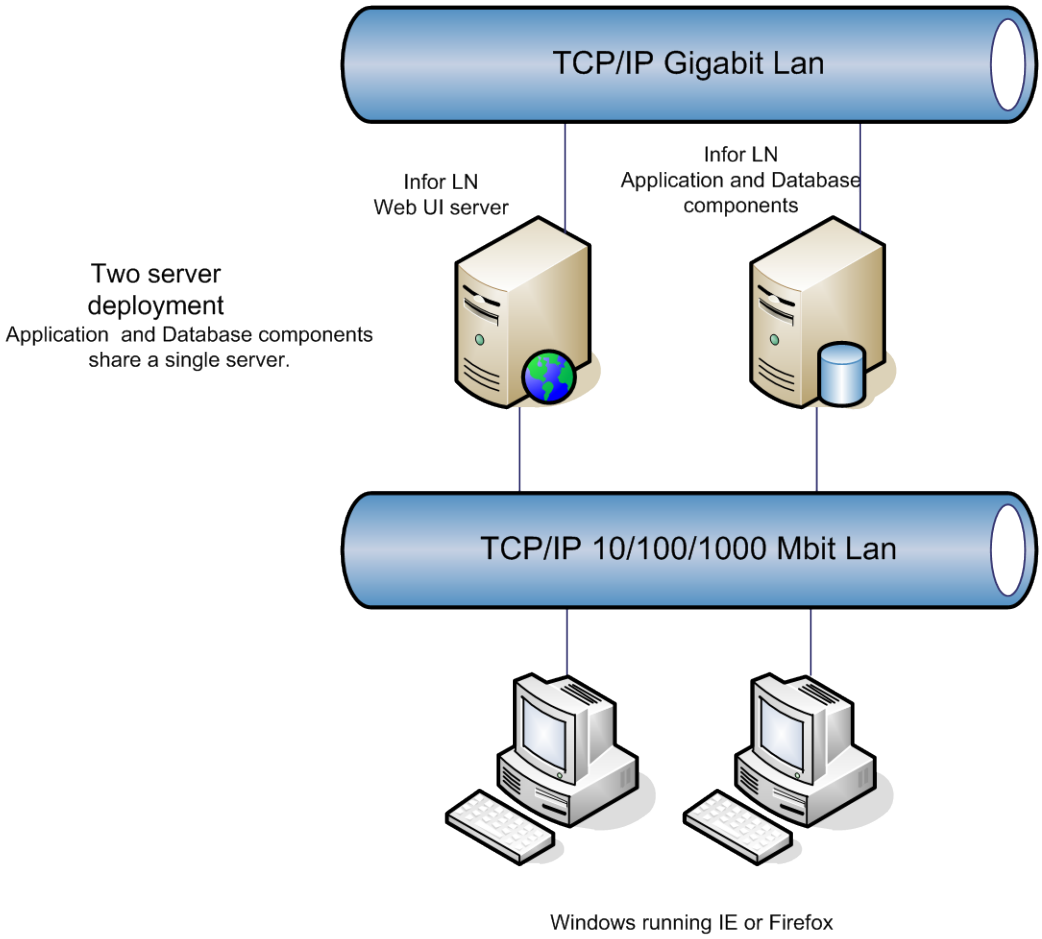

Figure 4-1 Two server solution for 100 concurrent Infor LN users

Recommended configuration

These tables show the hardware specifications of the recommended configurations:

Infor Web UI Server	
Type	Infor Web UI server
Server specification	Intel Xeon E5 Series
CPU	2 cores

Infor Web UI Server	
Memory	4 GB
Disk space	One mirrored hard disk (RAID-1) for the Operating System, Web server and Infor Web UI Software.

Infor LN Application and Database Server	
Type	Infor LN Application and Database server
Server specification	6-Core Intel Xeon E5 Series
CPU	1 Intel Xeon E5-2630, 2300 MHz
Memory	28 GB
Disk space	340 GB of estimated usage per year. The configured space will be higher. This storage space can also be configured on a SAN. You must use at least ten disks for the database component: Operating System (2 disk) RAID 1 is recommended. Database software and database log and archive files (2 disk) RAID 1. Database data files (8 disks) RAID 5 minimum. RAID 10 is recommended for the highest performance and high availability. Swap space must be spread across disks as recommended by the hardware manufacturer. If SAN storage is used an IO capacity of at least 1000 IOPS is required.
Disk controller	If separate disks are used, for example, SCSII or SAS, we recommend that you use a controller with sufficient write-through cache, of at least 256 MB.

Chapter 4 Hardware requirements Infor Ming.le – LN UI Plugin

4

The minimum hardware requirements for Infor Mingle and LN UI Plugin.

Requirements for 1–25 and 25–50 concurrent users

The minimum hardware requirements are based on the assumptions discussed earlier. The UI is based on the Infor Ming.le – LN UI Plugin. The Infor LN UI Plugin is an html5 client, which runs only in a Ming.le environment.

Hardware architecture

The hardware architecture is the same for both 1–25 and 25–50 concurrent users. Infor LN and the database are installed on a single server configuration. The UI is installed on a separate server.

This figure shows a hardware architecture overview.

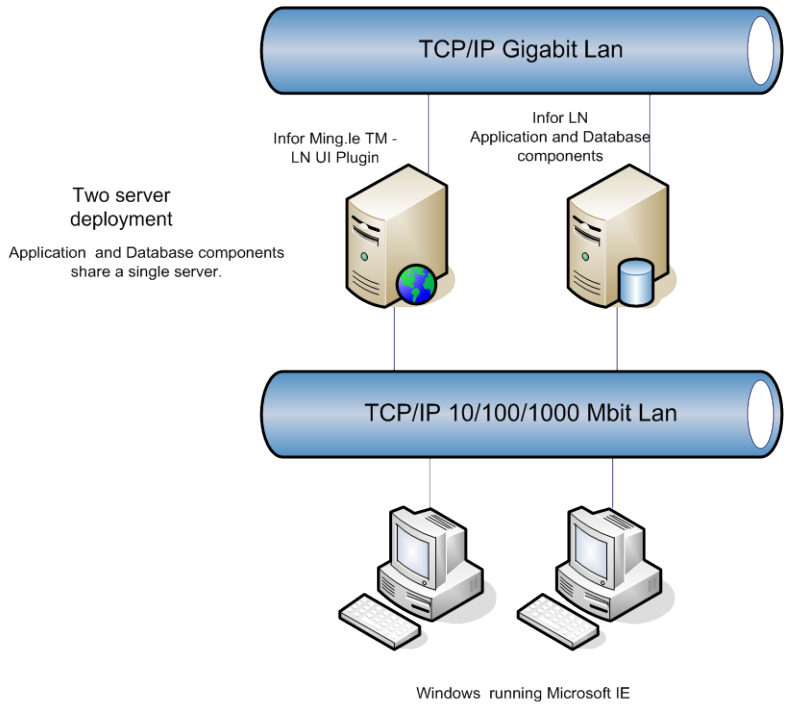

Figure 4-1 Two server solution

Recommended configuration

The tables show the hardware specifications of the recommended configurations:

Configuration Ming.le / Infor LN UI Plugin for 1-25; 25-50 concurrent users	
Type	Infor Ming.le / Web server
Server specification	Intel Xeon E5 series
CPU	4 cores
Memory	8 GB
Disk space	80 GB / 200 IOPs

Configuration for 1–25 concurrent users	
Type	Infor LN Application and Database server
Server specification	Intel Xeon E5 Series
CPU	1 quad-core Intel Xeon E5-2603, 1800 MHz

Configuration for 1–25 concurrent users	
Memory	10 GB
Disk space	140 GB of estimated usage per year. The configured space will be higher. This storage space can also be configured on a SAN. You must use at least six disks for the database component: Operating System (2 disk) RAID 1 is recommended. Database software and database log and archive files (2 disk) RAID 1. Database data files (4 disks) RAID 5 minimum. RAID 10 is recommended for the highest performance and high availability. Swap space must be spread across disks as recommended by the hardware manufacturer. If SAN storage is used an IO capacity of at least 600 IOPS is required.
Disk controller	If separate disks are used, for example, SCSII or SAS, we recommend that you use a controller with sufficient write-through cache, of at least 256 MB.

Configuration for 25–50 concurrent users	
Type	Infor LN Application, Database server
Server specification	4-Core Intel Xeon E5-2620 Series
CPU	1 Intel Xeon E5-2620, 2000 MHz
Memory	16 GB
Disk space	200 GB of estimated usage per year. The configured space will be higher. This storage space can also be configured on a SAN. You must use at least six disks for the database component: Operating System (2 disk) RAID 1 is recommended. Database software and database log and archive files (2 disk) RAID 1. Database data files (4 disks) RAID 5 minimum. RAID 10 is recommended for the highest performance and high availability. Swap space must be spread across disks as recommended by the hardware manufacturer. If SAN storage is used an IO capacity of at least 600 IOPS is required.
Disk controller	If separate disks are used, for example, SCSII or SAS, we recommend that you use a controller with sufficient write-through cache, of at least 256 MB.

Requirements for 50–100 Concurrent users

The minimum hardware requirements are based on the assumptions discussed earlier in this guide. The UI is based on the Infor Ming.le – LN UI Plugin. The Infor LN UI Plugin is an html5 client, which runs only in Ming.le environment.

Hardware architecture

This figure shows a hardware architecture overview. The database, application, and Web server are installed on one system.

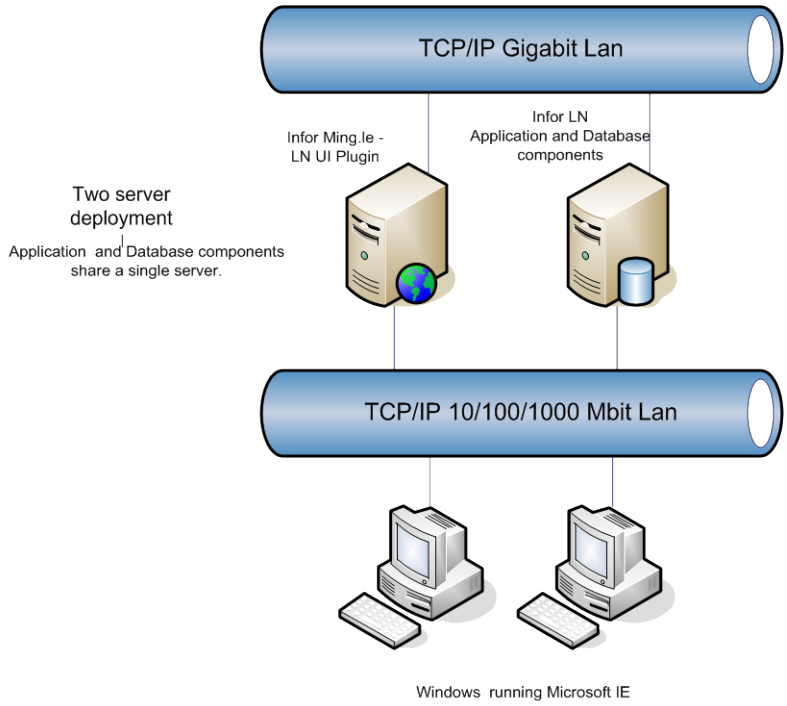

Figure 4-2 Two server solution for 100 concurrent Infor LN users

Recommended configuration

These tables show the hardware specifications of the recommended configurations:

Configuration Ming.le / Infor LN UI Plugin for 50-100 concurrent users	
Type	Infor Ming.leTM/Web server
Server specification	Intel Xeon E5 Series
CPU	4 cores
Memory	8 GB
Disk space	80 GB / 200 IOPs

Infor LN Application and Database Server	
Server specification	6-Core Intel Xeon E5 Series.
Type	Infor LN Application and Database Server
CPU	1 Intel Xeon E5-2630, 2300 MHz
Memory	28 GB
Disk space	340 GB of estimated usage per year. The configured space will be higher. This storage space can also be configured on a SAN. You must use at least ten disks for the database component: Operating System (2 disk) RAID 1 is recommended. Database software and database log and archive files (2 disk) RAID 1. Database data files (8 disks) RAID 5 minimum. RAID 10 is recommended for the highest performance and high availability. Swap space must be spread across disks as recommended by the hardware manufacturer. If SAN storage is used an IO capacity of at least 1000 IOPS is required.
Disk controller	If separate disks are used, for example, SCSII or SAS, we recommend that you use a controller with sufficient write-through cache, of at least 256 MB.