# 1. Introduction

## 1.2. Legal notice

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### Hints

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## 2.1. What is Notes/Domino?

Depending on which Notes user you ask, you often get answers like:

- Mail program
- Calendar
- Information store
- PIM (Personal Information Management)
- etc.

The answers obviously depend on which functions the individuals have used in the Notes client so far.

We want to approach this question from a more technical point of view. This will make it clearer why Notes/Domino is so much more than »just a mail program«. I would like to mention the following points in this regard:

### • **Database system** (not relational)

Notes/Domino is essentially a database system - in the broadest sense, the software is used to store and manage information in the form of data records.

It is not a relational database system - in contrast to e.g. Access, IBM DB2 and Oracle it does not work with intensive use of relationships of the data sets. Notes/Domino follows a document-oriented approach and is also often referred to as »No SQL Database«.

#### Client/Server System

Notes/Domino is designed from the beginning to be a »multi-user application« and to offer simultaneous use by multiple people.

Therefore, the software is divided into the components Domino Server (storage and management of data, ensuring access rights, execution of background services for data management, etc.) and Notes Client (frontend, convenient access by users to the data).

Access to data stored on Domino servers is always via the network - thus simultaneous access by any number of users is possible. This approach is also indicated by the term »Groupware« - i.e. software for sharing data in a team.

### • Distributed data storage

The Notes/Domino platform does **not** follow the approach of central data storage. Rather, individual applications (databases) can be distributed across multiple Domino servers (even Notes clients) and kept synchronized through so-called **replication**.

This allows data to be stored at different locations of a company on Domino servers operated at the location for fast network access by users. In the background, this data is synchronized (replicated) by the Domino servers, thus ensuring a consistent data pool worldwide.

Since the Notes client is also able to store and synchronize application replicas locally, mobile users with a notebook can access all applications even when offline.

## 2.2. Domino Domain vs. Domino Organization

The terms »Domain« and »Organization« are frequently used in Domino - they even play an important role during the planning and commissioning of a new Domino environment. Therefore, we want to clarify in the following what exactly is meant by these terms and which technical aspect they describe in each case.





## 2.2.1. Domain

The right part of a mail address (after the @« symbol) is called the Domino domain - in the example >HCL«. In common usage, the domain is often also used as an identifier for the entire Domino environment.

The domain is primarily relevant for mail routing - similar to SMTP mail routing. By specifying the domain you do not have any information where exactly the mailbox of a user is stored, but the basic mail-technical assignment of a user is determined by the Domino domain.

#### Hint

Basically, you can assume that all users and servers stored in a Domino Directory (names.nsf) belong to the same domain.

Component	Description	Required	Number of characters
(C)ommon Name	First and last name of a person or server name	Yes	max. 79
(O)rganization (U)nit	Department (max. 4 levels)	No	max. 32
(O)rganization	usually name of the company	Yes	3 - 64
(C)Country	Country identifier (standardized 2 characters)	No	2

### 2.2.2.3. Components of the Notes names

## Important

The country component (C) is a fixed part of the organization name and cannot be changed later.

How to create departments (are optional) is explained in chapter 10.1. Organization (O) and Organizational Units (OUs) on page 173.

## 2.2.3. Domain and organization with the same name?

In order not to confuse users, it is recommended to name the domain and organization the same. Users would definitely be surprised if different names were used in their Notes name.

Example:

### Steve Green/IT/HCL@IBM

However, the names for the domain and the organization can basically be freely chosen and in certain Notes/Domino environments this also makes sense.

#### Hint

Since the chosen names for domain and organization can be changed later only with considerable effort, you should choose names that can be used for a longer period of time.

## 3.1. Planned Domino Environment



In our learning environment (as well as in other test settings), any number of Domino servers and Notes clients can be installed.

To keep the number of required Windows instances low, one Domino server and optionally one Notes client (incl. Domino Administrator client) are installed on each Windows operating system.

The following names/designations must be defined in advance:

### • Domain/Organization

For simplicity, the domain and organization are given the same names, e.g. Training.

### • Standard-Administrator

The administrator to be named during the configuration of the 1st Domino server is at the same time also the first user of the new Notes/Domino environment - however equipped with higher rights.

In contrast to other systems (for Windows: administrator, for Linux/Unix: root) the name of the administrator may be freely chosen. We set this to »Admin« (only the last name is used).

### • Server names

In our environment we choose the server names S01, S02 to Sxx.

To unzin all files in this self-extractor file to the specif WinZip Self-Extractor X	<u>U</u> nzip
Unzip D:\Ti 6 file(s) unzipped successfully	Run <u>W</u> inZip <u>C</u> lose
W OK	<u>A</u> bout <u>H</u> elp

As soon as you confirm this dialog with »OK«, the actual installation routine starts.

InstallAnywh	ere	
<b>&amp;</b>	InstallAnywhere is preparing to install	
	Cancel	)

Now the HCL Domino Installer is displayed.



### Hint

The language for the installation can be selected at the bottom of the dialog. The Domino server itself runs since version 6 always in English language (messages at the console, commands etc.). Even if you install a »Language Pack« it stays like this.

		_		×
HCL Domino	Click Next to install "HCL Domino" to this dired Browse to install to a different directory. Program Files Directory Name C:\Program Files\HCL\Domino	ctory, o	r click Browse	
InstallAnywhere Cancel	Previo	ous	Nex	t

The executable files of the Domino server are installed in this path.

The given path corresponds to the Microsoft standard for 64 bit applications. We will install both the Domino Server and the Notes Client below the HCL path, e.g.: in the case of the Domino Server:

## D:\HCL\Domino

The option »Install Partitioned Servers« dates back to the times before virtualization of operating systems (e.g. VMWare, HyperV) was known and used - you could run up to 4 Domino servers on a single operating system.

The Domino servers shared the resources of the operating system, but were logically and security-wise independent from each other.

#### Important

To use partitioned Domino servers it is not enough to enable this option only! Further manual steps are necessary.

Do not activate this option »just for fun«, but only if you have read up on the topic of partitioned Domino servers and actually need this functionality.

For the moment, the pre-selected option »Domino Enterprise Server« is OK in any case - mail as well as application services and also special functions (e.g. Cluster) are available with this license type.

Or to put it another way: a Domino Server installed with the »Domino Enterprise Server« license supports all possible requirements comprehensively.

M HCL Domino Installer	_		×
HCL Domino	HCL Domino will be installed in the following location Install Folder: D:\HCL\Domino Install Data Folder: D:\HCL\Domino\Data Is Partitioned: No Domino Kit Type: Enterprise With the following features: Program Files DataFiles Domino Enterprise Connection Services	n:	
InstallAnywhere Cancel	Previous	Inst	tall

After clicking the »Install« button, the installation will start.



The installation will be completed within a few minutes.

## 3.3. Optional: Language Pack

Domino servers have always been delivered in English since version 6. Before this time, the Domino server was localized (as is still the case today with the Notes client) - but usually caused more problems in the various languages and was more error-prone than the English-language original.

In order to be able to use additional languages in one's own Domino environment (e.g. mailboxes of the users), language packs in various languages are offered for installation.

We will now install the German language pack for the 1st Domino server of our environment.



Since it is not possible to unpack a .tar archive file with on-board tools on a freshly installed Windows, I performed this step on another machine - therefore the **Domino\_12.0.1\_SLP\_German** folder is already present in the screenshot.

Domino_12.0.1_SLP_German				- 0	×
🕀 New - 🔏 🔲 🛅	E]] 🖄 🔟 🕄 Sort ∽	$\equiv$ View $\sim$			
← → ~ ↑ 🚞 « ND-12.0.1	-S > Domino_12.0.1_SLP_German ~	C 🔎 Search Dor	mino_12.0.1_SLP_Germar	1	
A duick accord	Name	Date modified	Туре	Size	
	AIXDomLP	11/24/2021 1:45 PM	File	398,431 KB	
> 🦲 OneDrive - Personal	iSeriesDomLP.bat	11/24/2021 1:18 PM	Windows Batch File	1 KB	
🗸 🛄 This PC	LNXDomLP	11/24/2021 1:46 PM	File	531,263 KB	
> 🛅 Desktop	Readme.txt	11/24/2021 1:18 PM	Text Document	2 KB	
> 📑 Documents	😋 WINDomLP.exe	11/24/2021 2:33 PM	Application	270,111 KB	
> 🞍 Downloads					

In addition to files for use under Unix (Linux, AIX) and the IBM iSeries (formerly AS400), there is also a file **WinDomLP.exe** suitable for use under Windows.

This is executed with a double click<sup>2</sup>.

<sup>&</sup>lt;sup>2</sup> If you are not logged on to Windows with administrator rights, it may be necessary to start the file with the »Run as administrator« option.

MCL Domino Server Language F	ack Installer	_		×
HCL Domino	Welcome to the HCL Domino Server La The HCL Domino Server Language Pa and removes Language Packs from the Language Packs include translated res If you have English-language or custon want to maintain, copy those files to a d Domino data directory.	anguage Pack Ir ck installer add Domino server cource files and nized templates lirectory outside	nstaller. s, replace templates that you of the	·S, 3.
InstallAnywhere Cancel	Ē	Previous	<u>N</u> ext	1

🗾 HCL Domino Server Language Pack Installer		_		×
		License A	green	nent
	Installation and Use of HCL D Pack Requires Acceptance of Agreement: LICENSE INFORMATION	omino Server the Following	Langua Licens	ge e
HCL Domino	HCL Domino HCL Domino AppDev Pack HCL Domino Designer HCL Nomad HCL Notes HCL Traveler HCL Traveler for Microsoft Outle HCL Verse	ook		
InstallAnywhere Cancel	,	Previous	<u>N</u> ex	t

MCL Domino Server Language P	ack In	staller	- 🗆 X
			Choose Install Set
	•	Ø	Add Language Pack Add translated files and/or designs for selected languages to files of the Domino server.
HCL Domino	0	ŝ	Replace Language Pack Overwrites files and/or designs of the Domino server, with translated files of the selected language.
	0	ŝ	<b>Remove Language Pack</b> Remove files and/or designs, of selected languages, from the files of the Domino server.
InstallAnywhere	,		
Cancel			Previous Next

In this dialog it can be selected whether the language pack is added (so that several languages can be made available in the mailbox, for example) or whether the language pack replaces all languages that may exist.

With the option »Add Language Pack« the following has to be considered:

- With each language added, the mailboxes of all users grow by about 30 MByte (if design compression is active by about 15 MByte). This may cause disk space or backup problems for a large number of users.
- Certain system applications (e.g. the Domino Directory names.nsf) support only one language and this remains on the initially available language English.

If you want to use only the German language throughout the applications, this is only possible via the »Replace Language Pack« option.

#### Hint

Even when using the »Replace Language Pack« option, only a small part of the total number of available templates is available in German.

Especially the templates intended for use by an administrator are mostly only available in English!



We select the »Replace Language Pack« option.

MCL Domino Server Language P	ack Installer — 🗆 🗙
	Confirm the following settings. Click the "Install" button, to begin the installation, using the selected Language Pack(s).
HCL Domino	Partition     Space needed     Available space       D:\     200 Bytes     147.93 GBytes
	Install type of Language Pack: Replace Language Pack
	Program directory:
	Data directory for Language Pack to be installed:
	Install language:
InstallAnywhere Cancel	Previous Install

Before the installation routine starts, various identification values for the installation are displayed again for verification.

W HCL Domino Server Language P	ack Installer	_		×
HCL Domino	Selected Language Packs are suc Click the "Done" button to end this	cessfully installed.		
InstallAnywhere Cancel		Previous	Done	е

The language pack has been successfully installed.

## 3.4. Optional: Installation Fixpack

#### Hint

If you install a fixpack at a later point in time - after the Domino server was already in operation - the Domino server must be terminated beforehand (e.g. by the command »quit« or »exit« at the Domino console) and the service must also be terminated at the Windows services.

At the time of writing this book, no fixpack was available from HCL for Domino Server version 12.0.1. Therefore, the following screenshots are from the installation of a version 11.0.1 fixpack - HCL may have modified the dialogs slightly.



Different fixpacks are provided for the Domino Server and the Notes Clients (Basic and Standard). We start the installation of the Domino Server Fixpack by double-clicking<sup>3</sup> on the file **Domino\_1101FP1\_Win.exe**.

<sup>&</sup>lt;sup>3</sup> If you are not logged on to Windows with administrator rights, it may be necessary to start the file with the »Run as administrator« option.

Incremental Insta	ler Release 11.0.1 -> Release 11.0.1FP1
Identified Release 11.0.1FP1	11.0.1. Press Next to begin upgrading to Release
	100%
2 2	<u>B</u> ack <u>N</u> ext <u>C</u> lose

The installation routine has checked if the fixpack matches the version of the installed Domino server.

Incremental Insta	aller Release 1	1.0.1 -> Release	11.0.1FP1
Upgrading Notes.			
Current file: nlsxbe	e.dll		
	67%		
Total:			
	17%		
<u>10</u>	<u>B</u> ack	Next	Close
3			

The installation of the fixpack is performed.

## 3.5. Configuration of the 1st Domino server

After the Domino Server, the language pack and a fixpack (optional) have been installed, the Domino Server must now be configured.

The required software is already installed, but the planned namings for domain/organization, the default administrator and the Domino server must be specified during configuration.

## 3.5.1. Why are there 2 icons on the desktop for the server?



In earlier times, there was only the icon for Domino Server on the Windows desktop. This has changed since Microsoft no longer allows direct interaction of an application running as a service with the Windows desktop.

This means that a Domino Server - when running as a service - is no longer displayed on the Windows desktop (previously it was displayed in a DOS-like window).

Therefore, since this change by Microsoft, there is the »HCL Domino Console« - an application that displays the Domino server live and with the possibility of interaction.

As soon as the first Domino Server is running, we will have a closer look at it.

## 3.5.2. Executing the configuration

The names requested during the configuration of a Domino server were described and defined in the chapter 3.1. Planned Domino Environment on page 17.

We use the following terms:

Parameter	Definition
Domain/Organization	Training
Standard-Administrator	Admin
Servername (Common Name)	S01

By double-clicking on the »HCL Domino Server« icon we start the configuration.

MCL DOMINO SERV	/ER (64 Bit)						
[0F5C:0002-152C]	12/28/2021	10:00:00	АМ	Created r	new log	file	as D:\HCL\Domino\Data\log.nsf

For a short period of time a command line window opens: from Domino version 12 on, even before the actual configuration is done, the application »Log« (log.nsf) is created. One gets so a complete log »from the first second«.



Since we are installing a brand new Notes/Domino environment, we select the option »Set up the first server or a stand-alone server«. We will learn about the second option later in the chapter 5. Additional Domino Servers on page 89 when configuring another Domino server.

🛃 Server setup			- 🗆	×
Provide a serv	ver name and title		HCL	
You must pro default, Setu	ovide a unique name for your i p recommends that you use t	new Domino server. Carefully choose the server name; you cannot easily change it la the computer's host name as the server name.	ter.By	
	Server name:	S01 For example: Sales1		
Optional: Pro the Domino I	vide a short title which descrit Directory)	pes the purpose or function of this server. (You can always change this information l	ater in	
	Server title:	My first Domino Server :-) For example: Corporate Sales Server 1		
	I want to use an existing s D:\HCL\Domino\Data\servi	erver ID file: Browse		
Help		< Back Next > Cancel		

In this dialog, the »Server name« (S01) and optionally a short description (can be changed later at any time in the server document - no technical meaning) are specified.

### Additional Organizational Unit desired?

🛃 Adva	ranced Organization Settings	×
Ę	Optional: To implement your company's hierarchical name scheme, specify an is recommended to thoroughly plan your naming convention first before using	organizational unit. (It this feature)
	Organizational Unit name:	
	For example: Sales	
-0	Org. Unit Certifier password: Confirm password:	
	Minimum of 5 characters	
-	I want to use an existing organizational unit certifier ID file: D:\HCL\Domino\Data\oucert.id	Bro <u>w</u> se
	If you plan to deploy Domino in different countries, choose a Country code.	
	Country code: *None	~
	ОК	Cancel Help

In the upper part of the dialog an »Organizational Unit name« (a department name) can be specified. If we would enter there e.g. »SVR«, the Domino server would have the hierarchical name:

### S01/SVR/Training

Thus, it is possible to create a departmental admittance point already during the configuration of the 1st Domino server.

In the Domino Data directory a Organizational Unit ID file with the name »oucert.id« is created. This file must be password protected and therefore there are the appropriate input fields in this dialog.

If one wants to use an additional Organizational Unit for the Domino servers, each administrator may decide individually. This is an optional setting.

Both options are optional - therefore we do not activate them and confirm the dialog by clicking the »Next« button.

Server setup	- 🗆 X
Choose the Domino domain name	HCL
As part of setting up the first Domino server, Setu that share the same Domino Directory. The Domino domain name can be the same as the	up creates a new Domino domain, which is a collection of Domino servers and users e organization name. Choose a short domain name.
Domino domain name	Training For example: Acme
Help	< <u>Back</u> <u>Next</u> > Cancel

We set the name for the domain to »Training« as we did for the organization.

🛃 Server setup				- 🗆	×
Specify an	Administrator name and password	REALINA		HCL	
To create or a last n	the Administrator's ID, you must provide ame only to create a generic Administrato	the administrator's r ID that can be us	name and password. You can use the name ed by several people.	e of a specific person,	
ĝo	First name:	Middle:	Last name (or generic account name):		
	Administrator password:		Confirm password:		
	Minimum of 5 characters The Administrator ID file will be stored	inside the server's	Domino Directory.		
	Also save a local copy of the ID file: D:\HCL\Domino\Data\admin.id			Bro <u>w</u> se	
	I want to use an existing Administra D:\HCL\Domino\Data\admin.id	tor ID file:		Bro <u>w</u> se	
Help			< <u>B</u> ack Next > Cancel		

Since each service listed here requires resources and therefore places a load on the Domino server during operation, you should by no means activate all services.

On the contrary: as much as necessary and as little as possible - this way you get a highperformance Domino server that initially only runs the services that are basically needed. If further services should be used later, they can usually be activated by a few clicks.

Therefore, only the following services should be activated (the first 4 of the following list are marked with a \*\* in the screenshot and are assumed to be basic services for proper operation):

- **Database Replicator** Performs replication of applications with other Domino servers.
- Mailrouter Executes the mail routing.
- Agent Manager Ensures that scheduled or event-driven agents are executed in Domino applications.
- Administration Process Execution of background processes - primarily in the context of user administration.
- **Calendar Connector** Important for cross-server provision of scheduling information (calendar).
- Schedule Manager

Manages scheduling information for all users and resources used (rooms, vehicles, etc.), if any.

• **Rooms and Resources Manager** Booking and management of resources defined in a resource application.

All other services enabled as defaults (e.g. LDAP) can be disabled for the moment.

#### Hint

If you already know exactly which services are needed in your Domino environment, you can activate these services.

We return to the previous dialog and can set the network settings for the Domino server by clicking the »Next« button.

### • Notes Network

Is given by the network interface used and normally requires no change.

#### • Host Name

The common name (CN) of the Domino server. In the example: »S01«.

### • Encrypt

If this option is enabled, all data traffic of this Domino server (to other servers or Notes clients) is transmitted encrypted. Since the encryption and decryption of the data packets represents an additional load for the Domino server, this option should not be activated in the internal, secure LAN.

It is sufficient if one of the communication partners has this option enabled.

#### Compress

If this option is enabled, all data packets to be transmitted are compressed and decompressed at the receiver. This can improve the throughput on transmission routes with (very) low bandwidth (e.g. modem connection). Compression requires additional resources and should not be activated for fast connections.

For use, both communication partners must have this option enabled (also for Notes clients).

#### • Fully qualified internet host name (FQI Name)

Here the FQI name is specified in the form »host.domain.tld«. If a real internet domain is specified, the Domino server will know for which internet domain it is responsible for SMTP mail routing.

The field should never be left empty, because server add-ons (Traveler etc.) increasingly reference the FQI name.

#### Important

The entries in this dialog must be correct!

If the entries are incorrect, there is a risk that the Domino server in question will start but cannot be accessed via Domino Administrator. Mail routing or replication with other Domino servers may then not work either.

In the next step, security-relevant settings are defined.

🛃 Server s	etup		- 0	×
	Please review and confirm your	chosen server setup options	HCL	
	Please review the following opt	ions you have chosen for your Domino server setup:		
	Setting	Current selection		
	Server name Server type Data directory or partition Organization name Domino domain name ACL System Group	S01/Training Set up the first server or a stand-alone server D:\HCL\Domino\Data Training Training Prohibit anonymous access to all databases and templates. LocalDomainAdmins created with "Manager" access to all templates and databases.		
	To make any changes, click "Ba	ick".		
	To setup your server with the	above options, click "Setup".		
Help		< Back Setup Cancel		

After checking the selected settings, the setup can be started by clicking the »Setup« button, usually the execution takes only a few seconds.

Server :	ietup	-		×
	Setup summary		HCL	
	Congratulations, Domino Server Setup is now complete!			
	For help with the first tasks in configuring your domain click the Help button.			
	Click "Finish" to close Setup.			
Help	Einish			

The configuration of the 1st Domino server is now complete and the dialog can be closed by clicking the »Finish« button.

🗮 *hosts - Notepad					-		×
File Edit Format View Help	р						
<pre># localhost name resolu # 127.0.0.1 # ::1 192.168.179.101</pre>	ution is han localhost localhost	dled within DNS its	elf.				1
192.168.179.102	501 50 502 50	2.training.com					
4							
		Ln 26, Col 1	100%	Windows (CRLF)	UTF-8	5	

Now the »ping« command should also return a successful name resolve.

Command Prompt	_	×
C:\Users\User>ping s02		
Pinging S02 [192.168.179.102] with 32 bytes of data: Reply from 192.168.179.102: bytes=32 time<1ms TTL=128 Reply from 192.168.179.102: bytes=32 time<1ms TTL=128 Reply from 192.168.179.102: bytes=32 time<1ms TTL=128 Reply from 192.168.179.102: bytes=32 time<1ms TTL=128		
Ping statistics for 192.168.179.102: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 0ms, Maximum = 0ms, Average = 0ms		

#### Hint

It is possible that no response comes back from the machine that you want to address via the »ping« command.

This is controlled by the settings of the Windows firewall (see next section) - on Windows desktop machines there is no response in the default configuration, on Windows servers there is always a response.

## 3.6.2. Configure Windows Firewall

The Windows Firewall has been automatically enabled on a freshly installed Windows operating system for years. This also makes sense, so access via the network is only possible (if at all) on certain network ports.

Domino servers communicate with each other and with Notes clients initially on TCP port »1352«. This port is not enabled in the firewall.

To enable our Domino servers to communicate with each other as well as with the Domino Administrator or Notes client, we first open the Windows firewall for port 1352.

Enter »Firewall« in the Windows search window.



Select the »Port« rule type and confirm with »Next«.

🔗 New Inbound Rule Wizard		×
Protocol and Ports		
Specify the protocols and ports to v	which this rule applies.	
Steps:		
a Rule Type	Does this rule apply to TCP or UDP?	
Protocol and Ports	<u>о т</u> ср —	
Action	○ <u>U</u> DP	
Profile		
Name	Does this rule apply to all local ports or specific local ports?	
	○ All local ports	
	Specific local ports: 1352	
	Example: 80, 443, 5000-5010	_
	< <u>B</u> ack <u>N</u> ext > Ca	incel

Select the protocol »TCP« and enter the port »1352«.

#### Select the desired profiles.

💣 New Inbound Rule Wizar	3	×
Name		
Specify the name and description	of this rule.	
Steps:		
Rule Type		
Protocol and Ports		
Action		
Profile	Name:	
Name	Notes/Domino 1352	
	Description (optional):	
	Communication between Domino servers and Notes clients.	
	< Back Finish Cancel	

Name the rule (optionally add a description) and click »Finish«.

🝻 Windows Defender Firewall witl	Inbound Rules	
Cuthound Rules	Name	Grou
Connection Security Rules	🔮 Notes/Domino 1352	
> 🌉 Monitoring	Teamviewer Remote Control Application	

The communication between Domino servers and Notes clients to the server should now work properly.

## 3.6.3. Starting the Domino server as an application

For the first start of the Domino server after the configuration I like to use a start as a normal application. A CMD-like window opens immediately and the start messages of the Domino server can be checked for error messages (warning high/low, failure, fatal, error, panic etc.).



We double-click on the »HCL Domino Server« icon.

1 S01/Training: HCL Domino Server (64 Bit)		$\times$
[18F0:0002-1728] 12/31/2021 09:53:17 AM RnRMgr: Informational: Schedule Manager is responsible for the busytime	datab	as
e on this server.		
[0FB4:0010-152C] 12/31/2021 09:53:17 AM Invalid collection data was detected.		
[0E2C:0002-0D40] 12/31/2021 09:53:17 AM Schedule Manager: Informational: Detailed schedule information collectio	n is	no
t enabled via the domain-wide Server Configuration document.		
[0E2C:0002-0D40] 12/31/2021 09:53:17 AM SchedMgr: Validating schedule database		
[1960:0005-105C] 12/31/2021 09:53:17 AM Informational, rebuild view needed - invalid collection header (reading	D:\HC	L
Domino\Data\names.nsf view note Title:'(\$Adminp)')		
[1960:0005-105C] 12/31/2021 09:53:17 AM Invalid collection data was detected.		
[0FB4:0039-0948] 12/31/2021 09:53:17 AM An Adminp request has been submitted to update port information in the s	erver	d
ocument		
[18F0:0002-1728] 12/31/2021 09:53:17 AM Rooms and Resources Manager: Informational: Detailed schedule informatio	n col	le
ction is not enabled via the domain-wide Server Configuration document.		
[0FB4:0006-152C] 12/31/2021 09:53:17 AM Database Server started		
[1960:0002-105C] 12/31/2021 09:53:17 AM Administration Process started		
[18F0:0002-1728] 12/31/2021 09:53:17 AM RnRMgr: Validating schedule database		
[18F0:0002-1728] 12/31/2021 09:53:18 AM RnRMgr: Done validating schedule database		
[0E2C:0002-0D40] 12/31/2021 09:53:18 AM SchedMgr: Done validating schedule database		
[0820:0002-1750] 12/31/2021 09:53:18 AM Design error for database 'events4.nsf': Unable to refresh 'Monitoring C	onfig	ur
ation' - the view/index has been modified. Please try again.		
[0448:0004-151C] 12/31/2021 09:53:22 AM Informational, rebuild view needed - invalid collection header (reading	D:\HC	L
Domino\Data\names.nsf view note Title:'(\$Clusters)')		
[0448:0004-151C] 12/31/2021 09:53:22 AM Invalid collection data was detected.		
[0448:0002-151C] 12/31/2021 09:53:22 AM Router: Mail Router started for domain TRAINING		
[0448:0002-151C] 12/31/2021 09:53:22 AM Router: Internet SMTP host s01 in domain training.com; SMTP display host	name	s
01.training.com		
[0820:000D-16B0] 12/31/2021 09:53:25 AM Event: Creating the Domino-Dom,nenmonitor (11) database.		
[0820:000D-16B0] 12/31/2021 09:53:25 AM Created Domain Monitoring Database from template, verify ACL as changes	may h	iav
e been lost		
> <u>_</u>		

The startup process of the Domino server can be followed in the immediately displayed console and checked for warning or error messages.

## 3.6.4. Starting the Domino server as a Windows service

Normally, a Domino server runs as a service under the Windows operating system. This has the advantage, for example, that the Domino server runs even when no user is logged in.

#### Hint

A Domino server cannot run as an application and a service at the **same time**. If the Domino server is currently running as an application, it must be shut down by entering the console command »quit« or »exit« before starting it as a service.

Services					- 0	×
<u>File</u> <u>A</u> ction <u>V</u> iew	<u>H</u> elp					
	ù 📑   🛛 📷   🕨 🔲 II IV					
🥋 Services (Local)	Services (Local)					
HCL Domino Server	Name	Description	Status	Startup Type	Log	
	(DHCLDominoData)	HCL Domino Server (DHCL	HCL Domin		Manual	Loci
	Chart the service	🥋 Human Interface Device Ser	Activates an		Manual (Trig	Loci
	Start the service	🥋 HV Host Service	Provides an		Manual (Trig	Loci
		🥋 Hyper-V Data Exchange Ser	Provides a		Manual (Trig	Loci
Desci HCL (DHC	Description:	🥋 Hyper-V Guest Service Inter	Provides an		Manual (Trig	Loci
	(DHCL Domino Server	🥋 Hyper-V Guest Shutdown S	Provides a		Manual (Trig	Loci
	(Bricebonniobata)	🎑 Hyper-V Heartbeat Service	Monitors th		Manual (Trig	Loci

The Domino server can be started in the Windows services.

#### Hint

If the font used is too small or you don't like it - the font can be changed via the menu item \*Edit«  $\rightarrow$  \*Console Font...«.

## My tip: Consolas

The tool for the administration of a Notes/Domino environment is the HCL Domino Administrator Client, which is installed together with the Notes Client.

DD-12.0.1-Clients-Windows-EN			_	
🕀 New - 🔏 🔲 🛅	E) 🖄 🗊 🏷 Sort 🗸 🧮 Vi	ew · · · ·		
$\leftarrow \rightarrow \checkmark \uparrow$ <b>D-12</b>	> ND-12.0.1-Clients-Windows-EN $\checkmark$ C	. ○ Search ND-12.0.1	-Clients-Windows-EN	
> 🕖 Music	Name	Date modified	Туре	Size
> 🔀 Pictures	🛃 Notes_12.0.1_Basic_Win_English.exe	12/14/2021 11:09 AM	Application	247,445 KB
> 🔝 Videos	🛃 Notes_12.0.1_Win_English.exe	12/14/2021 11:12 AM	Application	677,521 KB
> 🏪 System (C:)	🛃 Notes_Designer_Admin_12.0.1_Win_English.exe	12/14/2021 11:13 AM	Application	975,964 KB
> 📻 Training (D:)				
> 📩 Installation (l:)				
> 🛬 Network				
3 items				

In contrast to the Domino server, which is always available in English, the Notes client is offered localized - i.e. in various languages.

In the screenshot you can see that the Notes client is available in 3 variants with a clear difference in the size of the respective installation file - this has the following background.

## 4.2. Installation of the Domino Administrator Clients

Votes_Designer_Admin_12.0.1_Win_English.exe 12	2/14/2021 11:13 AM	Application	975,964 KB
------------------------------------------------	--------------------	-------------	------------

We start the installation by double-clicking<sup>4</sup> on the executable archive file.

🛃 HCL N	lotes - InstallShield Wizard	×
Remov Do ins	re Installation Files you want to remove the files used to perform the stallation?	
(•	Unpack the files used to perform the installation to a temporary location, and automatically remove these files after the setup is completed. Select this option if you are not planning to run the setup again later.	
c	Unpack the files used to perform the installation to the location specified below, and don't remove these files after the setup is completed. Select this option if you are planning to run the setup again at a later time. If the specified folder location does not exist, it will be created automatically.	
	Save files in folder:	
	C:\Users\User\AppData\Local\Temp\HCL Notes	
	<u>C</u> hange	
	To continue, click Next.	
InstallShield	I	
	< <u>B</u> ack <u>N</u> ext > Cancel	

In this dialog you can specify whether the installation files extracted from the archive file will continue to be available after installation (lower option) or will be deleted automatically (upper option).

### Hint

If you want to install a larger number of Notes clients, it makes sense to select the lower option.

Extracting the installation file from the archive file costs some time for each installation. You can avoid this time-consuming process this way.

We leave the upper option enabled and confirm the dialog by pressing the »Next« button.

<sup>&</sup>lt;sup>4</sup> If you are not logged on to Windows with administrator rights, it may be necessary to start the file with the »Run as administrator« option.

0.	HCL Notes 12.0.1 - Install Wizard —		$\times$
S	Software License Agreement		
	Please read the following license agreement carefully.		
L	ICENSE INFORMATION		_
	ICL Domino ICL Domino AppDev Pack ICL Domino Designer ICL Nomad ICL Notes ICL Traveler ICL Traveler for Microsoft Outlook ICL Verse		I
C	I accept the terms in the license agreement. I do not accept the terms in the license agreement. tallShield	Canc	el

The license agreement must be accepted. However, no entry of a license or activation key is required.

🔂 HCL Notes 12.0.1 - Install Wizard	_		×
Installation Path Selection:			
Click the Change button to change the default path		$\square$	
Install program files to: c:\Program Files (x86)\HCL\Notes\ Change Install data files to: c:\Program Files (x86)\HCL\Notes\Data\ Change			
< <u>B</u> ack Ne	ext >	Cancel	

The paths according to the usual installation paths in Windows for a 32 bit application. We change the paths to:

D:\HCL\Notes D:\HCL\Notes\Data

E HCL Notes 12.0.1 - Install Wizard			×
Ready to Install the Program			
The wizard is ready to begin installation	•		
Click Install to begin the installation.			
If you want to review or change any of exit the wizard.	your installation	n settings, click Bac	ck. Click Cancel to
🗹 Make Notes my default email progra	am.		
🗹 Make Notes my default calendar pr	ogram.		
🗹 Make Notes my default contacts pr	ogram.		
	< <u>B</u> ack	<u>I</u> nstall	Cancel

All options are enabled. The Notes client is the responsible application on the operating system level for **»mailto**« links on web pages, for **calendar** files (.ics, .ical) and **contact** files (.vcf).

🛃 HCL Not	tes 12.0.1 - Install Wizard — 🗆 🖂 🗡
Installing	HCL Notes 12.0.1
The prog	gram features you selected are being installed.
18	Please wait while the Install Wizard installs HCL Notes 12.0.1. This may take several minutes.
	Status:
	Copying new files
	< <u>B</u> ack <u>N</u> ext >

The installation of the Notes client is performed. This process can take several minutes.

## 4.3. Optional: Installation Client Fixpack

At the time of writing this book, no fixpack was yet available from HCL for Notes Clients version 12.0.1. Therefore, the following screenshots are from the installation of a fixpack of version 11.0.1 - possibly HCL has modified the dialogs slightly.

🕑 🔜 ╤   ND-11.0.1-FixPac	ks-Windows			- 0	×
Datei Start Freigeben	Ansicht				~ 🕐
← → · ↑ 🔂 « ND-11.0.1	> ND-11.0.1-FixPacks-Windows	✓ ੈ	-FixPacks-Windows" d	lurchsuchen	
🗄 Dokumente	^ Name ^	Änderungsdatum	Тур	Größe	
🕹 Downloads	🙆 Domino_1101FP1_Win.exe	05.08.2020 14:12	Anwendung	158.635 KB	
👌 Musik	W HCL_Notes_11.0.1FP1_Win.exe	15.11.2020 01:56	Anwendung	108.407 KB	
🚪 Videos	HCL_Notes_Basic_11.0.1FP1_Win.exe	15.11.2020 01:56	Anwendung	51.403 KB	
🏪 System (C:)					
👝 Seminar (D:)					
🛫 Installation (l:)					
🔿 Netzwerk					
3 Elemente	~				

For the Domino Server and the Notes Clients (Basic and Standard) different fixpacks are provided. We start the installation of the Standard Client Fixpack by double-clicking<sup>5</sup> on the file  $HCL_Notes_{11.0.1FP1}$  Win.exe.

E HCL N	otes - InstallShield Wizard	×			
Remov Do inst	e Installation Files you want to remove the files used to perform the tallation?				
e	Unpack the files used to perform the installation to a temporary location automatically remove these files after the setup is completed. Select t are not planning to run the setup again later.	on, and his option if you			
C Unpack the files used to perform the installation to the location specified below, and don't remove these files after the setup is completed. Select this option if you are planning to run the setup again at a later time. If the specified folder location does not exist, it will be created automatically.					
	Save files in folder:				
	C:\Users\User\AppData\Local\Temp\HCL Notes				
		<u>C</u> hange			
	To con	tinue, click Next.			
InstallShield	< <u>B</u> ack <u>N</u> ext >	Cancel			

As with the installation of the Notes clients, you can select whether the installation files are extracted temporarily or permanently (at a freely selectable location). We use the upper option that is selected as default.

<sup>&</sup>lt;sup>5</sup> If you are not logged on to Windows with administrator rights, it may be necessary to start the file with the »Run as administrator« option.

🖟 HCL Notes 11.0.1 FP1 - InstallShield V	Vizard		×
Click Next to install			
Select Next to install FP1			
InstallShield	< <u>B</u> ack	Next >	Cancel

🔀 HCL Notes 11.0.1 FP1 - InstallShield Wizard	Х
Ready to install the Program The wizard is ready to begin the install.	
Click install to proceed.	
If you want to review or change any of your settings, dick Back. Click Cano wizard.	el to exit the
InstallShield	
< <u>B</u> ack <u>I</u> nstall	Cancel

Start the installation by clicking the »Install« button.

## 4.4. Startup of the Domino Administrator Client

After installing the desired Notes clients and the fixpack, the Domino Administrator must now be configured. To do this, we start the **Notes Client** by double-clicking on the program icon on the Windows desktop.

## Hint

Seminar participants have reported to me that in the past they themselves carried out the configuration of the client workstation by starting the Domino Administrator client.

In some cases, however, this caused problems later when using the Notes client - this variant can therefore not be recommended.

HCL Notes Client Configu	ration	? 🗙
Versic Licensed and logos logos are of Eclipse accompa library ide agreemer are using these terms of that, so have not on the	Welcome         This configuration program will help you set up HCL Notes and to connect to any of the following servers using a LAN or modem connection:         • A Domino server         • A Domino server         • Other mail servers         • Other mail servers         • Newsgroup and Directory servers         It will also help you set up the following if needed:         • Proxy settings         • Replication schedules         Image: Previous       Next         • Description represented to the procession of	el

We confirm the dialog by clicking the »Next« button.

HCL Notes Client Configuration		
	Additional Services         Please select the services you would like to configure:         Internet mail servers (POP or IMAP, SMTP)         Newsgroup server (NNTP)         Directory server (LDAP)         Connection type:	
	Internet Proxy servers           Replication settings for sending and receiving mail	
	Previous     Next     E	inish

This dialog offers the following **optional** settings:

#### • Internet mail server (POP or IMAP, SMTP)

The Notes client can independently use Internet mail accounts (in addition to the company mail account). In many companies this is not desired or allowed.

#### • Newsgroup server (NNTP)

The use of newsgroups on the Internet is not very common today. However, the Notes client still supports the **N**ewsgroup **N**etwork **T**ransfer **P**rotocol.

#### • Directory server (LDAP)

The Notes client can independently query directories via Lightweight Directory Access Protocol.

#### • Internet Proxy servers

In companies, Internet access for users is usually provided via a proxy server. This can also be used by the Notes client, e.g. for retrieving Internet pages.

Since the browser embedded in the Notes client has not been updated for a long time and can therefore hardly display a current web page reasonably, calling web pages directly in the Notes client is seldom used today.

#### • Replication Settings for Sendung and receiving mail

The Notes client can also make its mail functions offline (for mobile users with a notebook, for example) - mails are replicated in this case. This option can be used to configure this already at this point.

We do not need any of these options and confirm the dialog by clicking the »Next« button. The configuration of the Notes client is now complete and the client is finally started (this may take a moment).

## 4.5.1.1. Activate Workspace



Click the »Open« button at the top left  $\rightarrow$  click the »Applications« menu item  $\rightarrow$  right-click the »Workspace« menu item (this opens a popup menu)  $\rightarrow$  click the »Set Bookmark as Home Page« menu item. The change must be confirmed in the following dialog.

Set Home Page	? ×
Set 'Workspace' as current Home Page?	
Yes No	

This procedure permanently sets the »Workspace« as the start page for all further restarts of the Notes client.

By right-clicking in the workspace, you can also set your own background image in the popup menu - or alternatively, no background image can be displayed.

## 4.5.2. Starting the Domino Administrator Client

The Domino Administrator can be started either by double-clicking on the program icon on the Windows desktop or via the  $Open \rightarrow Domino Administrator button of the Notes client.$ 

#### Hint

When the Domino Administrator client is started for the first time, the system application »events4.nsf« is created locally on the Notes client. This system data application contains over 10k documents and slightly delays the startup process. It is an auxiliary application for Domino monitoring and will not be discussed further here.

In the Notes client workspace the application icon is added automatically.

## 4.5.3. Bookmark bar

On the left edge of the Domino Administrator window there is a vertical bar with icons - the so-called »bookmark bar«.



The symbols have the following meaning:

### 1. Favorites

The administrator can store Domino servers as favorites here (right click on one of the Domino servers e.g. in the domain overview - see point 2). In very large Notes/Domino environments, you can display only the Domino servers that are under your responsibility. This allows a faster access.

### 2. Domain overview

Probably the most frequently used bookmark. Here you get a complete overview of all existing Domino servers and you can also view information about the version, operating system, existing clusters, named networks, etc.

By clicking on one of the server names, the Domino administrator can connect to that server and enable direct interaction with that Domino server.

## 4.5.4. Tab: People & Groups

🕎 TRAINING Domain - S01/Training - HCL Domino Administrator	- 🗆 X
File Edit View Create Actions Administration People Help	
] ± ∓ + ↑ ª ª □ + = Ѣ Ѣ Ⴊ & <	
TRAINING Domain - S01/Trainin	
People & Groups Files Server Messaging Replication Configuration	
Server: S01/Training Release 12.0.1 on Windows/11/64 10.0	Tools
Copy to Personal Address Book	Up 🗧 🖒 👸 People
Name ^ Telephone Company ^	🗼 📸 Groups
Admin     Admin	D Vaults
V Representation of the second	
Via Dynamic Policies	
by Category	
Settings	
Marve/Client	
Alt Language Info	
A Deny Access Groups	
N9	

People in organizations come and go - so it is probably at the user level that most administrative tasks occur. That's why the »People & Groups« tab is the first tab in Domino Administrator.

The structure shown here appears in a similar form on all tabs: on the left you can select an area (e.g. the »People« or »Groups« views). In the middle area the available entries are then displayed and on the right you will find the appropriate tools under »Tools«.

Later on, we will take a closer look at people, groups (including »Deny Access Groups«), and policies and settings.

#### Hint

It is not intended here to present all available options.

## 4.5.6. Tab: Server

14	TRAINING Domain - S01/Training - HC	L Domi	no Administrator			– 🗆 🗙
File	Edit Administration Server Hel	lp				
	日 🗅 智 😁					
	TRAINING Domain - S01/Trainin					
	People & Groups   Files   Server   Me	essaging	Replication Configuration			
	Status Analysis Monitoring Statistic	cs Perf	ormance			
L	Release 12.0.1 on Wind	lows/11/	64 10.0			Tools
100	🔅 Server Tasks	37	Tasks ^	Activity	CPU Utilization 🗘	L. Alls Tack
	🔏 Notes Users	N	Port TCPIP	Listen for connect requests on TCPIF	, ,	V WV Task
<b>1</b> 12	💫 Database Users		Database Server	Perform console commands		Tell
	A Internet Users	-	Database Server	Load Monitor is idle		Start
	Server Console	49	Database Server	Database Directory Manager Cache	Refresher is	Chara -
	V 🕐 Schedules	49	Database Server	Organization Name Cache Refreshe	er is idle	Stop
	Programs		Database Server	Log Purge Task is idle		Restart
	Ω <sub>Ø</sub> Agents	-	Database Server	Thread pool utility task on TCPIP		🗌 🖵 🖓 User
	🚳 Mail Routing		Database Server	Remote live console task on TCPIP		
	Replication	-	Database Server	log.nsf Commit Thread		Broadcast Message
	B DDM	-	Database Server	Perform Database Cache maintenar	nce	Drop
		٠	Database Server	Platform Stats is idle		Class With
		-	Database Server	Metriktask		Ghac With
		-	Database Server	Überwachung beenden		Ports
		-	Database Server	Process Monitor		Stan
		-	Admin Process	ldle	0%	Stop
		-	Admin Process	ldle	0%	Restart
		-	Process Monitor	ldle	0%	Setup
		-	Agent Manager	Executive '1': Idle	0%	
		-	Rooms and Resources	Idle	0%	Server
		-	Router	Utility: Idle	0%	Replicate
		-	Router	MailEvent: Idle	0%	Boute Mail
		-	Inline Index	Inline Index	0%	
		<b>\$</b>	Router	Dispatch: Idle	0%	Secure Console
		<b>\$</b>	Schedule Manager	ldle	0%	Shutdown
		-	Router	Dispatch: Idle	0%	Restart
		-	Router	Sweep: Idle	0%	
		-	Router	Sweep: Idle	0%	
			Router	Mailbox: Idle	0%	
		-	Agent Manager	Idle	0%	
		<b>\$</b>	Calendar Connector	Idle	0%	
					▲ 🛹 ▲ 🖉	Online

This tab is about the display of the actual state of a Domino server in the broadest sense. You can view various parameters, results of monitoring or performance, etc., but also stop or start services - in addition, a live console is also available for direct interaction with the Domino server.

There are the following subordinate tabs:

Tab	Usage
Status	View and control server tasks, active Notes users, application users, Internet users, server console and scheduled activity overviews.
Analysis	Access to the LOG application, the application catalog and the application for administration requests.
Monitoring	Real-time monitoring for active services of the Domino server.
Statistics	Overview of all statistical values of the Domino server (characteristic values, which the server continuously updates since its last restart)
Performance	Activity Trends in real time or as historical values.

## 4.5.8. Tab: Replication

112	TRAINING Domain - S01/Training - HCL Domino Administrator -		×
File	Edit Administration Help		
	J III TRAINING Domain - S01/Trainin		
<b>D</b>	People & Groups Files Server Messaging Replication Configuration		
Ē	Server: S01/Training Release 12.0.1 on Windows/11/64 10.0		
L	Replication Schedule Servers 2 6 2 Status		
660	W → Replication Topology		
614	🔆 By Connections		
	숫중 By Clusters		
		<u> </u>	<u> </u>

Here you can view replication schedules, replication events ( look into the application LOG) and an overview of the replication topology.

#### Hint

Replication is a scheduled synchronization of applications between Domino servers.

## 4.6. Help for self-help

As you can guess from the overview of the functional tabs, Domino Server is complex and so is the tool used to manage it - Domino Administrator. Probably no book available on the market - including this one - will fully describe all available options and settings. Complete information is offered by HCL itself (chapter 12.7. Official HCL product documentation on page 255).

However, this is not necessary, because there is an almost complete description of all available options with the help function integrated in the Domino Administrator Client.

ino Administrator			
ation Configuration	Help		
- G G <b>erma</b>	🔶 Help Topics		
	Context Help	F1	
	Resources	>	
g Replication Config	About This Application		
/64 10.0	Using This Application About Domino Administrator		/on: Current Server

Click the »Help Topics« menu item in the Help menu.

W HCL Domino 12 Administrator Help - HCL Notes	-		Х
File Edit View Actions			
Contents Index Search Strips	USING HELP		
What's new in Domino 12.0.1?     Overview     Domino trial     Installing     Planning     Configuring     Securing     Administering     Tuning     Troubleshooting     Notices	HCL Domino 12 Administrator Help Welcome to the HCL Notes and Domino Help. To find topics in this Help database, use the Conter left, or click the Index or Search icon. To expand a section of the Contents outline, click a triangle to topic. To expand the entire outline, select View > Expand All. What's new in HCL Domino 12 Administrator Help? Lists the new features and major changes, and links to more information about those features Using Help Provides general tips and information. How to search Provides guidelines for using the Search feature. Hint: To keep the Help window visible as you work, select View > Always on Top. © Copyright HCL Technologies Limited. 1994, 2021 December 2021	ts on the the left of	a
			- %!

Above the navigation on the left, you will find the tabs »Contents« (content structured by topic), »Index« (in the manner of a keyword index) and »Search« (search option across all content - a full-textiIndex for a quick search is created on the first access).

Advantages of the integrated help:

- The content comes directly from HCL, is comprehensive and accurate.
- The full text index gives you a quick search option.
- The contents are always matching to the used Domino version.
- At any point in your use of Domino Administrator, help is available at the click of a button.

# 5. Additional Domino Servers

for newly registered users or Domino servers. Click on the button »User ID/Password Options«.

Person ID File And Password Settings	? ×
<u>P</u> erson ID file folder	
D:\HCL\Notes\Data\ids\people	Password Options
Public key specification	
Compatible with 7.0 and later (2048 Bits)	~
License type	
North American	~
Specify the person ID file folder and password options person registration. During registration, you will have t properties.	s to use as defaults during the option of modifying these
	OK Cancel

Here you can see in which path (in the example: D:\HCL\Notes\ids\people) user IDs are stored when registering new users. It would make sense to have a network drive so that other administrators can also access these files.

We confirm the dialog by clicking the »OK« button and click the »Server/Certifier Registration« button in the parent dialog.

Server/Certifier ID File And Password Settings		? ×
Server ID file properties		
ID (II - C-L)		
D:\HCL\Notes\Data\ids\servers	Prosword Option	
		s
Public key specification		
Compatible with 7.0 and later (2048 Bits)	~	
License type		
North American	$\sim$	
Certifier ID file properties ID <u>fi</u> le folder		
D:\HCL\Notes\Data\ids\certs	Password Option	s
Public <u>k</u> ey specification		
Compatible with 7.0 and later (2048 Bits)	~	
Choose the ID file folder and password options to use certifier registration. During registration, you will have properties.	e as defaults during server and the option of modifying these	d ;
	OK Cance	el

Also here the paths for servers registered in the future (D: $HCL\Notes\ids\servers$ ) and certifier (D: $HCL\Notes\ids\certs$ ) are displayed and can be adjusted if necessary.

## 5.2. Registration of additional Domino servers

#### Hint

The installation of a Domino server was described in detail in the chapter 3.2. Installation of the 1st Domino Server on page 18. The procedure does not change for additional Domino Servers.

Before a Domino server can be put into operation, it must first be registered in Domino Administrator and thus made available in the Domino environment.

Use Directory on: Current Server	Tools Certification
ØEdit Server  Add to Cluster  Delete Server  Web ▼ Chat ▼	Certification
Server Name ^ Title Host Name .	🧹 🎯 Registration
S01/Training My first Domino Server s01.training.com	Person Server Organizational Unit Organization Internet Certifier

On the »Configuration« tab, we select the »Registration«  $\rightarrow$  »Server...« option in the tools.

Choose a Certifier
S01/Training
<ul> <li>Supply certifier ID and password</li> </ul>
Certifier ID D:\HCL\Notes\Data\ids\certs\cert.id
O <u>U</u> se the CA Provess CA configured certinels:
(None Available)
The 'Use the CA Process' option allows you to specify a certifier without access to the certifier ID file or certifier password.
· · · · · · · · · · · · · · · · · · ·
OK Cancel

By clicking on the button »Certifier ID...« the file »cert.id« can be selected.

Certificate authority	Domino also knows a CA service (Certification Authority) as an alternative to the use of certifiers in the form of files, which can
	also manage Internet certificates.

We leave the defaults and confirm the dialog with »Continue«.

Resister New Ser	rver(s)			×	
🛃 Basics	Registratio S01/Traini	n Server: ng	Certifier: /Training		
Advanced	<u>S</u> erver nan	ne:	Server <u>t</u> itle:		
	S02		My second Domino Server		
	<u>D</u> omino do	main name:	Server administrator name:		
	Training		LocalDomainAdmins	<u>a</u>	
	ID file <u>p</u> ass	word:			
			Password Options		
	Location	or storing server ID			
	🗌 ln	D <u>o</u> mino Directory			
	🕑 in t	file: Set ID File	D:\HCL\Notes\Data\ids\s	ervers\s02.id	
			✓ ×	New Server	
^ Server Na	me ^	Registration Status ^		Date ^	
Register All	<u>R</u> egister	Remove		Done	

Options existing on the »Basics« tab:

Parameter	Meaning
Registration Server	During registration, in addition to the »server.id« file, a document is also created in the Domino Directory (names.nsf) on the server selected here. The selection was made in the previous dialog.
Certifier	Under this level (here: organization »Training«) the new server is registered. The selection was made in the second to last dialog.
Server name	Desired common name (CN) of the Domino server.
Server title	This name is freely selectable, has no technical meaning and is entered in the server document of the new Domino server.
Domino domain name	The name of the Domino Domain (Proposed correctly, but in capital letters. This can be adjusted for uniform naming - but has no technical meaning).
Server administrator name	The person entered here (will be filled in automatically) has administrative rights on the new Domino server. However, it makes more sense to enter the group »LocalDomainAdmins« here, so that other administrators can also manage this server.
ID file password	Password for the new server ID file. Is only required if the server ID is to be saved as a file attachment in the server document in the Domino Directory (names.nsf). Be sure to read the following point.

^	Server Name ^	Registration Status ^	Date ^
	S02	Ready for registration	01/02/2022
Re	gister All <u>R</u> egister	Remove	Done

The »Register All« button (or »Register« if you have selected servers) registers the new Domino server.

Release 12.0.1 on Windows/11/64 10.0 Use Directory on: Current Server							~		
ent Server Document	۵	Add Server	Ø Edit Server	Add to Cluster	Delete Server	⊗v	Veb 🔻	Chat▼	
erver Documents		Domain	Server Name	^ Titl	e		Host Na	me	
figurations		Training							
nections			S01/Training	My	first Domino Server		s	01.training.c	om
grams emal Domain Network Infe			S02/Training	My	second Domino Ser	/er		2	

After refreshing the display using function key »F9«, the new server is displayed in Domino Administrator and can be put into operation in the next step.

#### Hint

The new server ID with the file name »s02.id« is available in the path »D: \HCL\Notes\ids\servers« and should be copied into the directory »Data« of the 2nd Domino server before configuration.

It does not make sense to rename the new server ID to e.g.: »server.id« - on the opposite, due to the server name (CN) contained in the file name, one knows immediately which ID file one is dealing with.

Server setup	-		×
First or additional server?		нс	
Is this Domino server the first server or a stand-alone server, or should it join an existin as an additional server? (A Domino domain is a collection of Domino servers and users or organization).	ıg Domino within an	domain	
<ul> <li>Set up the first server or a stand-alone server</li> <li>This will setup a new Domino Server and a new Domino domain.</li> </ul>			
<ul> <li>Set up an additional server.</li> <li>This will setup an additional Domino server into an existing Domino domain that the server is already registered in the Domino Directory (You may neadditional information from your Domino administrator).</li> </ul>	n. This req aed to obt	juires ain	
Help < Back Next >	Cance	I	

In contrast to the configuration of the 1st Domino server, we select the »Set up an additional server« option.

#### Important

Do not select the option »Set up the first server or a stand-alone server«. Even if the naming of server, domain and organization would be done correctly as planned, a whole new Domino environment with a new file »cert.id« would be created.

As a result, the servers would not communicate with each other and the existing admin would not have access to the new Domino server.

🛃 Sen	ver setup		-		×
	Provide the registered na	me of this additional Domino server		нс	•
	Type the name of this a company's Domino admir	ditional Domino server as it has been registered in istrator can tell you what name to use).	the Domino Director	y (Your	
	Server name:	S02/Training			
		For example: Sales1/Acme			
	To set up an additional s Domino Web Administrat that domain, click the Ba	erver, you must first have registered it using the D or client. If you are creating a new Domino domair ck button and choose to setup a first server instea	omino Administrator 1 and this is the first s ad.	or Server in	
H	elp	< <u>B</u> ack	lext > Cance	I	

To avoid using the wrong server ID by mistake, the full server name is displayed again in this dialog.

🛃 Server setup —		×
Domino network settings	нс	
Setup has reliably detected the following network ports on this computer. To add additional p Customize (You can change all settings later in the Domino Directory).	oorts, click	
Enabled port drivers: TCP/IP		
Setup suggests the host name to use in the Domino Directory for this Domino server based o computer's network name.	n this	
ᡚ Host name:		
To customize the network settings, click Customize.	o <u>m</u> ize	
Help < Back Next > Can	icel	

Using the <code>>Customize</code> button we set the Common Name (CN) and the FQI name of the Domino server.

🛃 Ser	ver setup	-		×
	Specify directory information for this server		нс	-
	The Domino Directory for this server can be configured as a primary Domino Directory of Configuration Directory containing only domain configuration information.	)r as a		
	• Set up as a primary Domino Directory (Recommended) This is the default and most common configuration.			
	Set up as a Configuration Directory Select this option only if this server is part of a central directory archit want the server to look up user and group information in a primary D on another Domino server.	tecture a omino Dir	nd you ectory	
	Directory Assistance (DA) allows a server to look up information in a directory other tha Domino Directory. If the server or file system specified on the previous panel includes a Assistance database, check the box below to create a replica of it on this server.	in a local Directory	primary /	
	Create a replica of the Directory Assistance database			
E	elp < Back Next >	Cance	I	

The default »Set up as a primary Domino Directory« should always be used here.

A »Configuration Directory« is a reduced Domino Directory (names.nsf) which does not contain any users and groups. The Domino server, which is operated with such a reduced directory, must therefore always query other Domino servers for this information, e.g. during mail routing. This puts a load on the network and is not a reasonable solution compared to the saved storage space (that is the idea of this feature).

The »Directory Assistance« (help application for managing additional directories) is an optional feature. Since there is no »Directory Assistance« application in a newly set up Domino environment, it does not matter whether this option has been enabled or not.

🛃 Server setup —						
Please review and confirm y	our chosen server setup options	нс				
Please review the following	options you have chosen for your Domino server setup:					
Setting	Current selection					
Server name Server type Data directory or partition Directory type ACL System Group	S02/Training Set up an additional server D:\HCL\Domino\Data Full directory Prohibit anonymous access to all databases and templates. LocalDomainAdmins created with "Manager" access to all templates	and d				
To make any changes, click "Back".						
To setup your server with the above options, click "Setup".						
Help	< <u>B</u> ack Setup Cance	el				

Before the configuration of the 2nd Domino server completes, the previously selected settings are displayed once again in this dialog.

The setup can now be started by clicking the »Next« button.

