

1. Introduction

1.2. Legal notice

Author

Dipl.-Ing. Manfred Dillmann
<https://www.madicon.de>

Edition

Edition 1 from 2022-01-25

Copyright - Copyright notice

All contents of this documentation, in particular texts, photographs and graphics, are protected by copyright. Unless expressly indicated otherwise, the copyright is held by Manfred Dillmann.

Please ask me if you want to use the contents of this documentation.

© Manfred Dillmann. All rights reserved.

Hints

The author of this documentation is not responsible for the function or errors of the software described in this documentation.

The greatest care has been taken in the preparation of texts and illustrations - nevertheless, errors cannot be completely ruled out.

The author cannot accept any legal responsibility or any liability for incorrect information and its consequences. The author is grateful for suggestions for improvement and information on errors.

In this documentation, product names are used without the guarantee of free usability and without special identification. However, it must be assumed that many of the product names are also registered trademarks or are to be regarded as such.

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**.

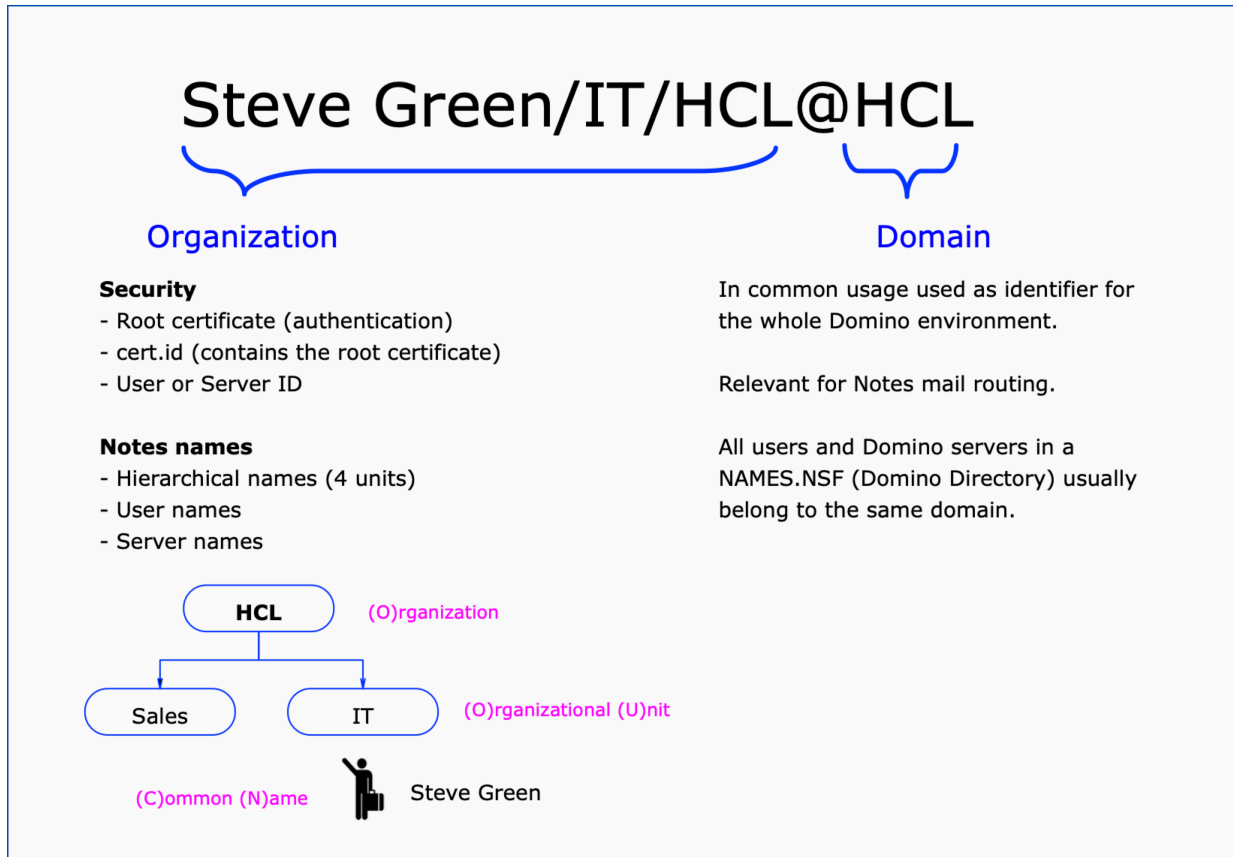
This allows data to be stored at different locations of a company on Domino servers operated at the location for fast network access by users. In the background, this data is synchronized (replicated) by the Domino servers, thus ensuring a consistent data pool worldwide.

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.

I would like to describe the differences using the example of a Notes mail address.



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.

2.2.2.3. Components of the Notes names

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

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:

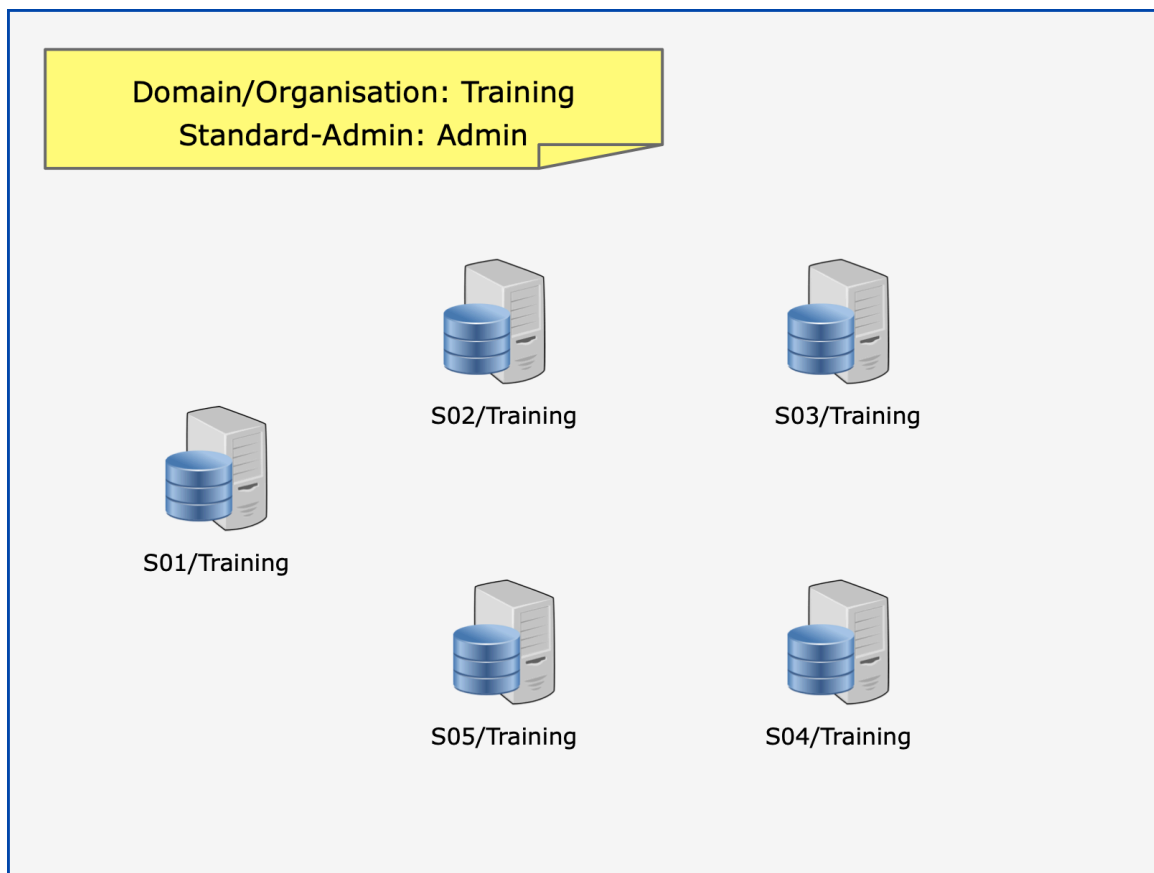
Steve Green/IT/**HCL@IBM**

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.

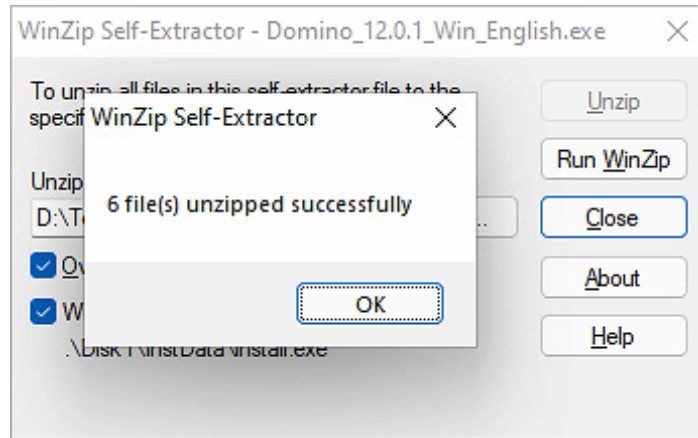
To keep the number of required Windows instances low, one Domino server and optionally one Notes client (incl. Domino Administrator client) are installed on each Windows operating system.

The following names/designations must be defined in advance:

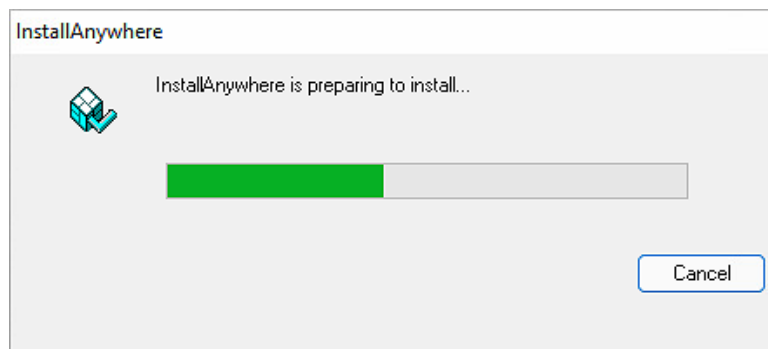
- **Domain/Organization**
For simplicity, the domain and organization are given the same names, e.g. Training.
- **Standard-Administrator**
The administrator to be named during the configuration of the 1st Domino server is at the same time also the first user of the new Notes/Domino environment - however 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).

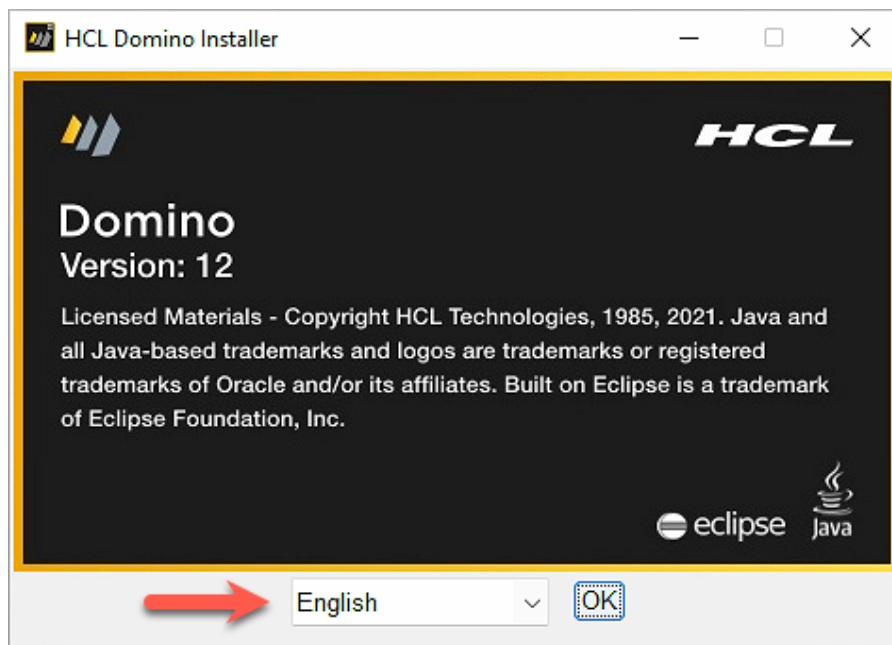
- **Server names**
In our environment we choose the server names S01, S02 to Sxx.



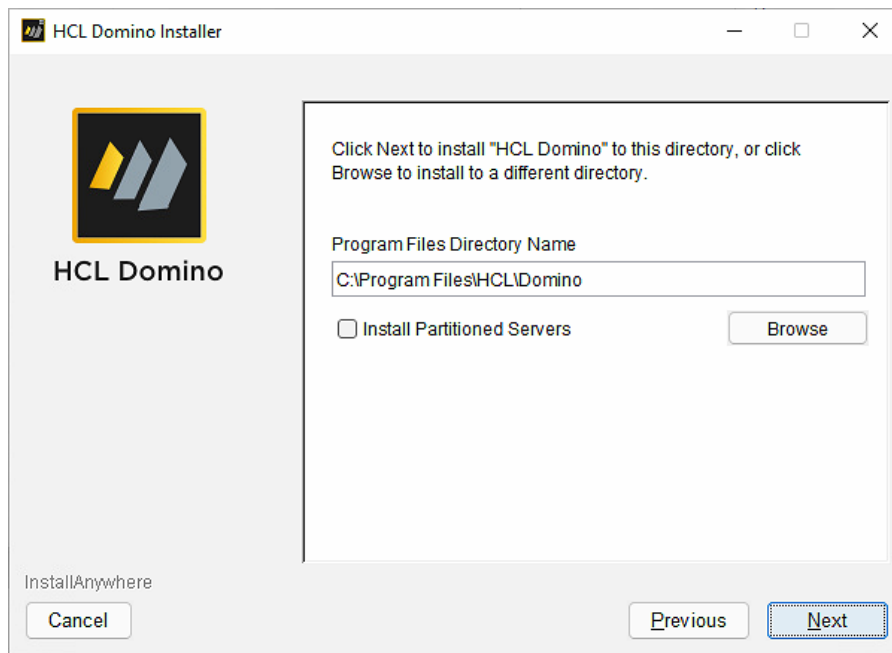
As soon as you confirm this dialog with »OK«, the actual installation routine starts.



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.



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.

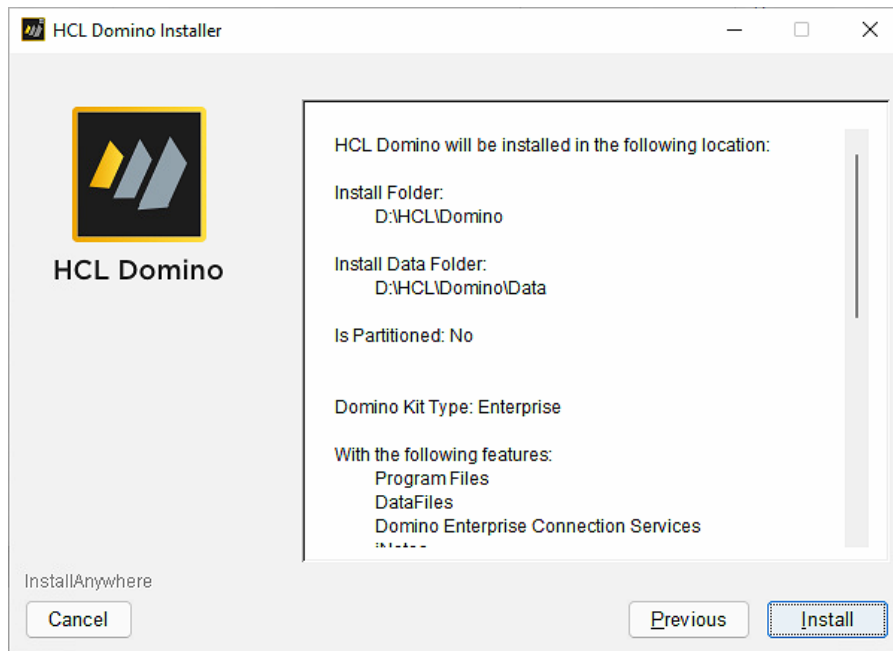
Important

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

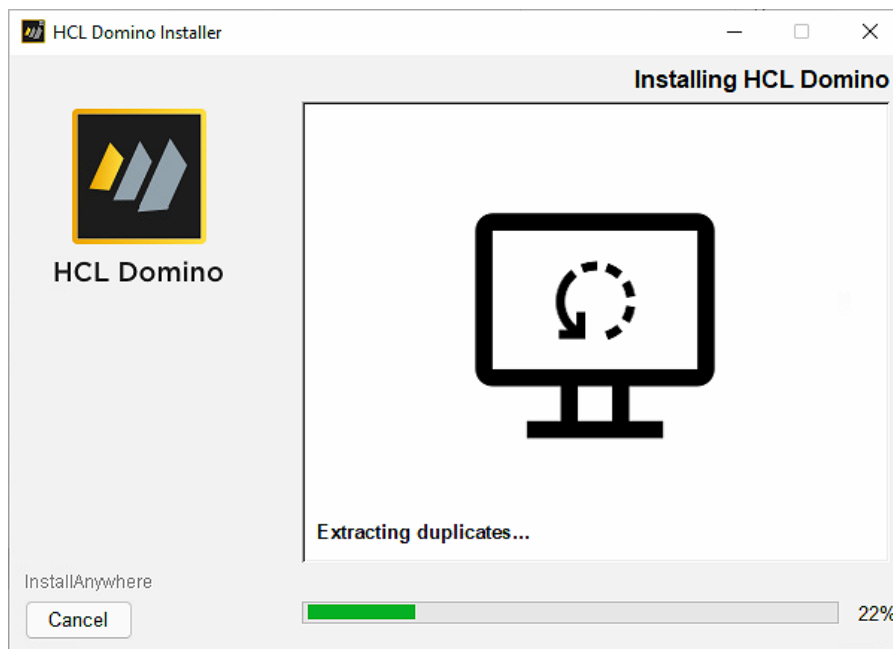
Do not activate this option »just for fun«, but only if you have read up on the topic of partitioned Domino servers and actually need this functionality.

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.



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



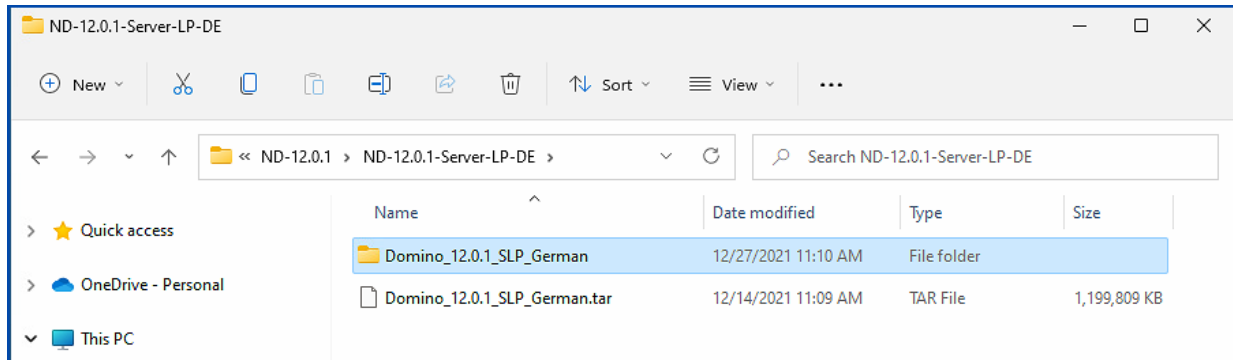
The installation will be completed within a few minutes.

3.3. Optional: Language Pack

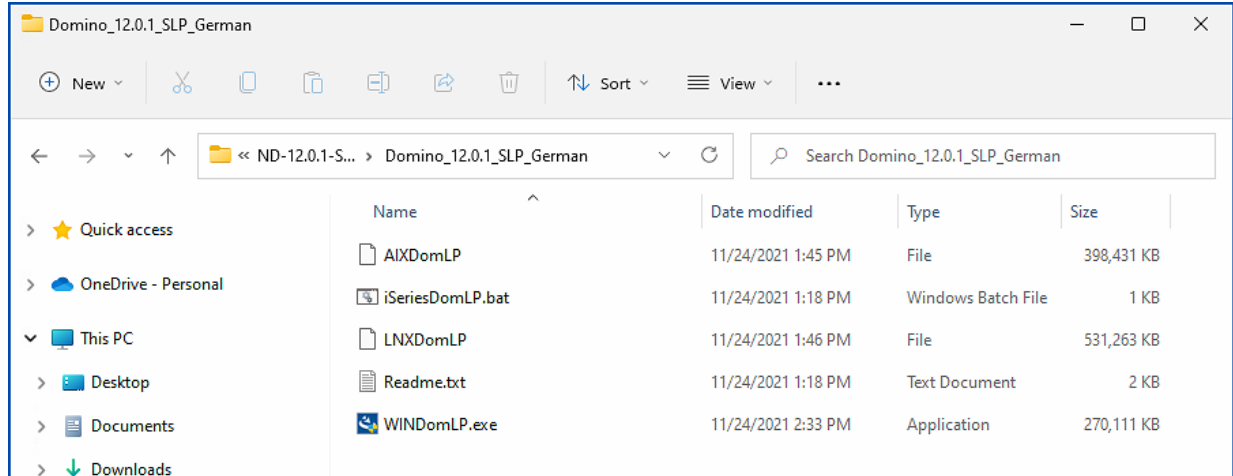
Domino servers have always been delivered in English since version 6. Before this time, the Domino server was localized (as is still the case today with the Notes client) - but usually caused more problems in the various languages and was more error-prone than the English-language original.

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.



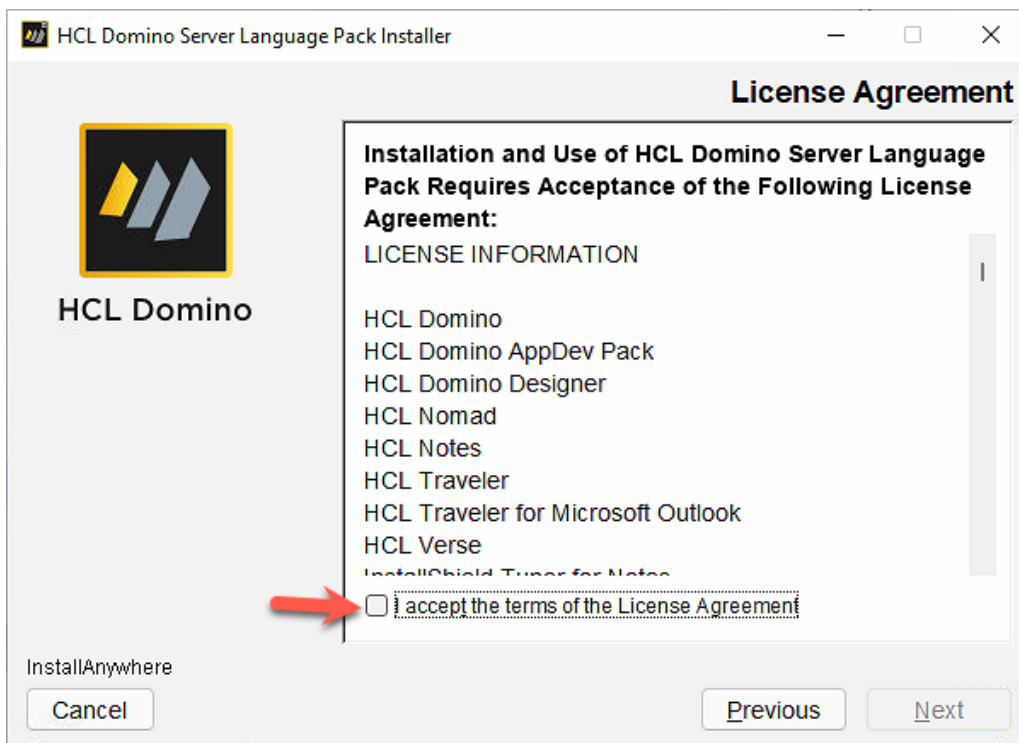
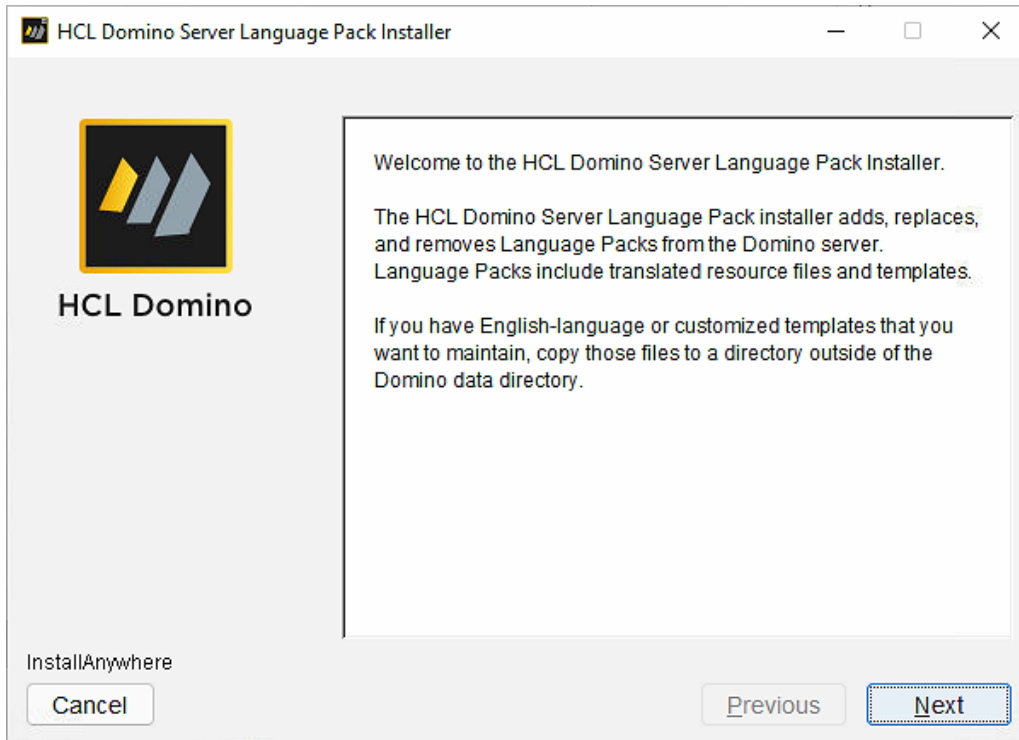
Since it is not possible to unpack a .tar archive file with on-board tools on a freshly installed Windows, I performed this step on another machine - therefore the **Domino_12.0.1_SLP_German** folder is already present in the screenshot.

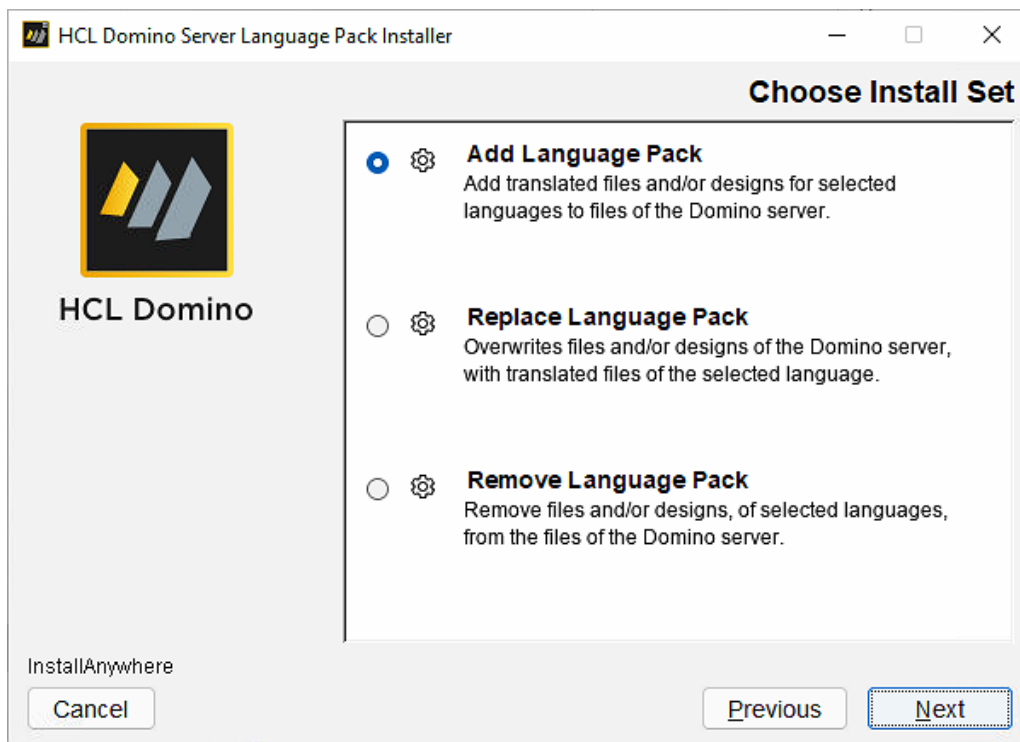


In addition to files for use under Unix (Linux, AIX) and the IBM iSeries (formerly AS400), there is also a file **WINDomLP.exe** suitable for use under Windows.

This is executed with a double click².

² 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.





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:

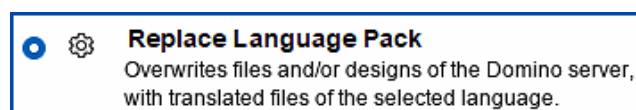
- With each language added, the mailboxes of all users grow by about 30 MByte (if design compression is active by about 15 MByte). This may cause disk space or backup problems for a large number of users.
- Certain system applications (e.g. the Domino Directory - names.nsf) support only one language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

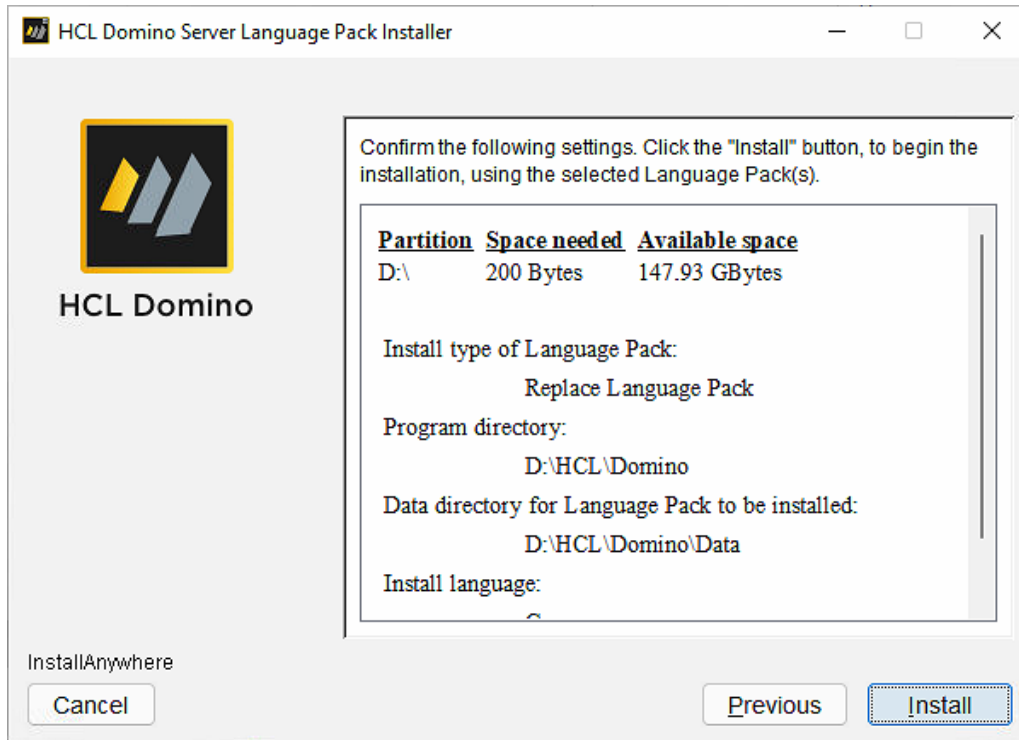
Hint

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

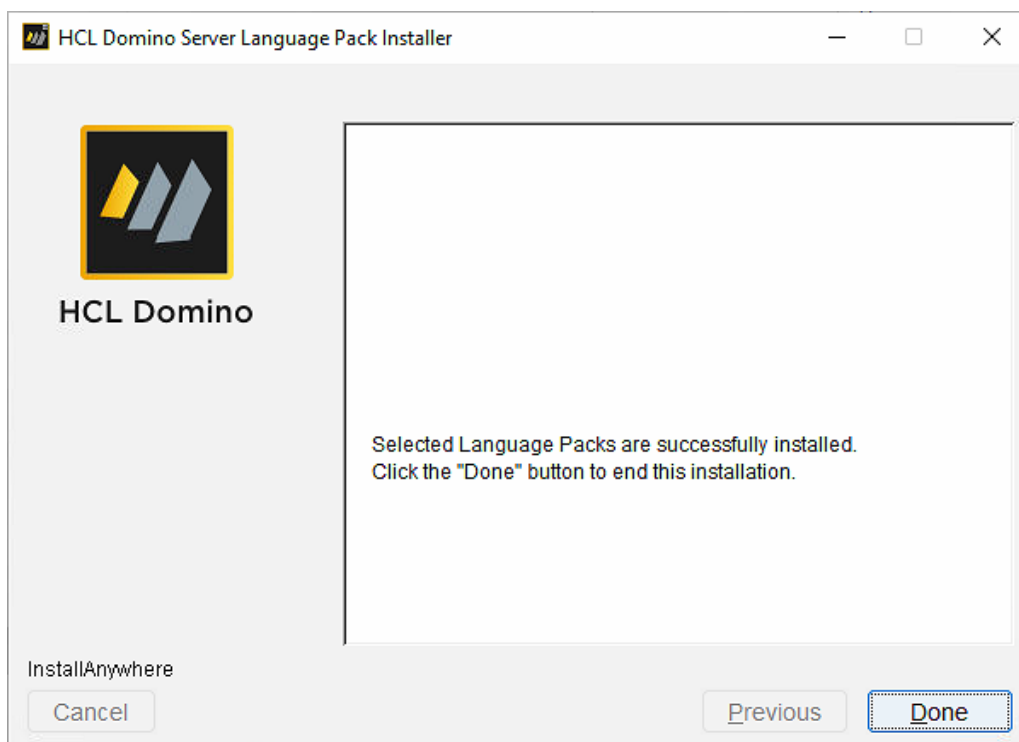
Especially the templates intended for use by an administrator are mostly only available in English!



We select the »Replace Language Pack« option.



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



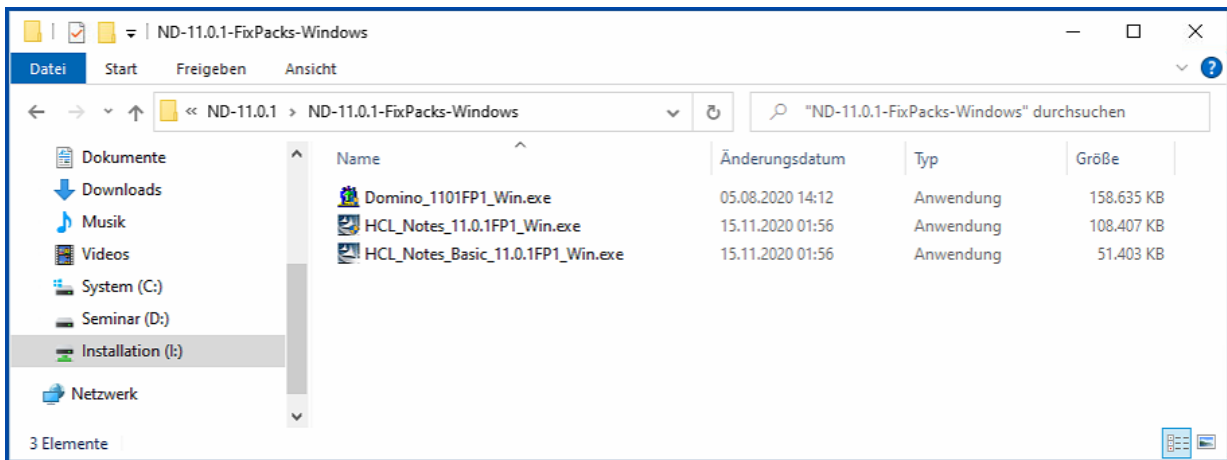
The language pack has been successfully installed.

3.4. Optional: Installation Fixpack

Hint

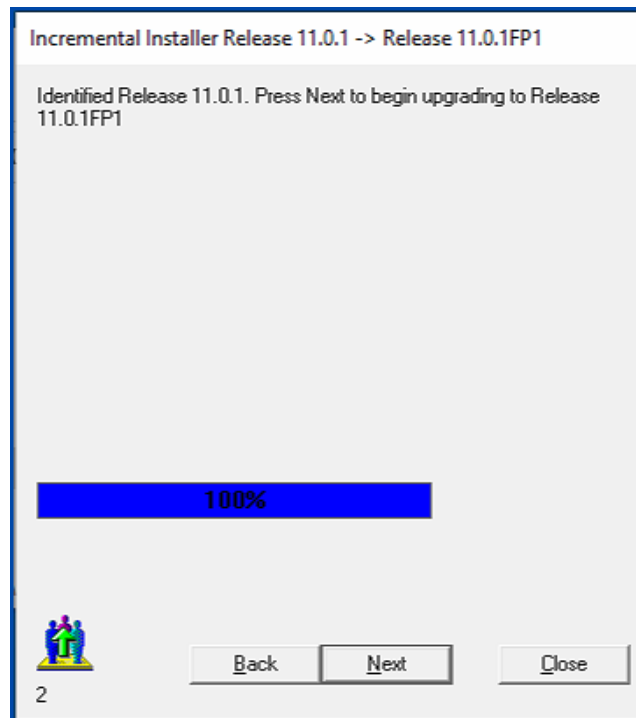
If you install a fixpack at a later point in time - after the Domino server was already in operation - the Domino server must be terminated beforehand (e.g. by the command »quit« or »exit« at the Domino console) and the service must also be terminated at the Windows services.

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.

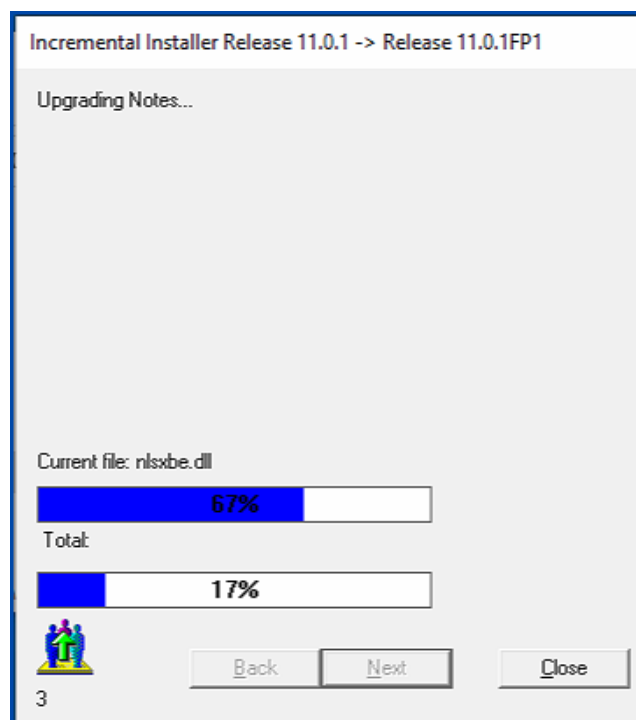


Different fixpacks are provided for the Domino Server and the Notes Clients (Basic and Standard). We start the installation of the Domino Server Fixpack by double-clicking³ on the file **Domino_1101FP1_Win.exe**.

³ 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.



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



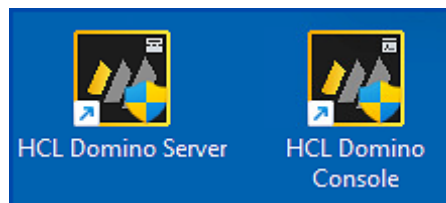
The installation of the fixpack is performed.

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.

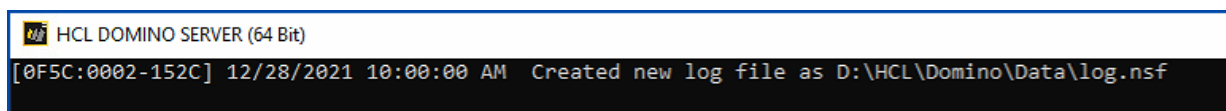
3.5.2. Executing the configuration

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.

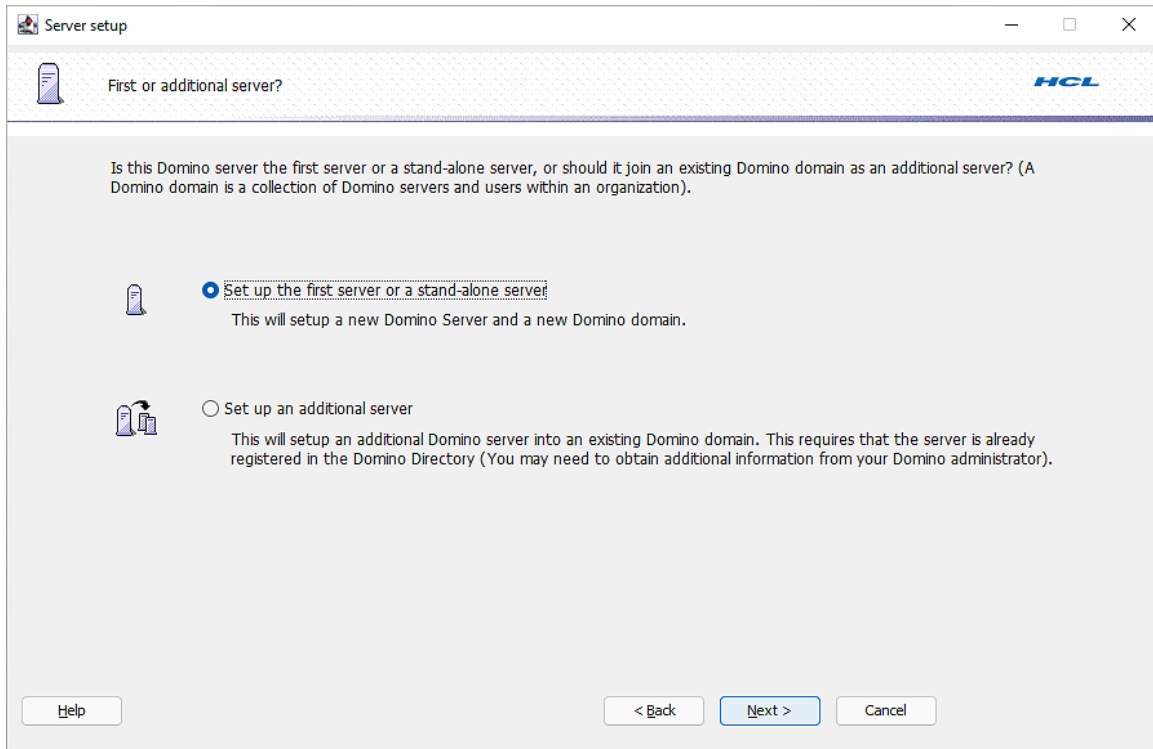
We use the following terms:

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

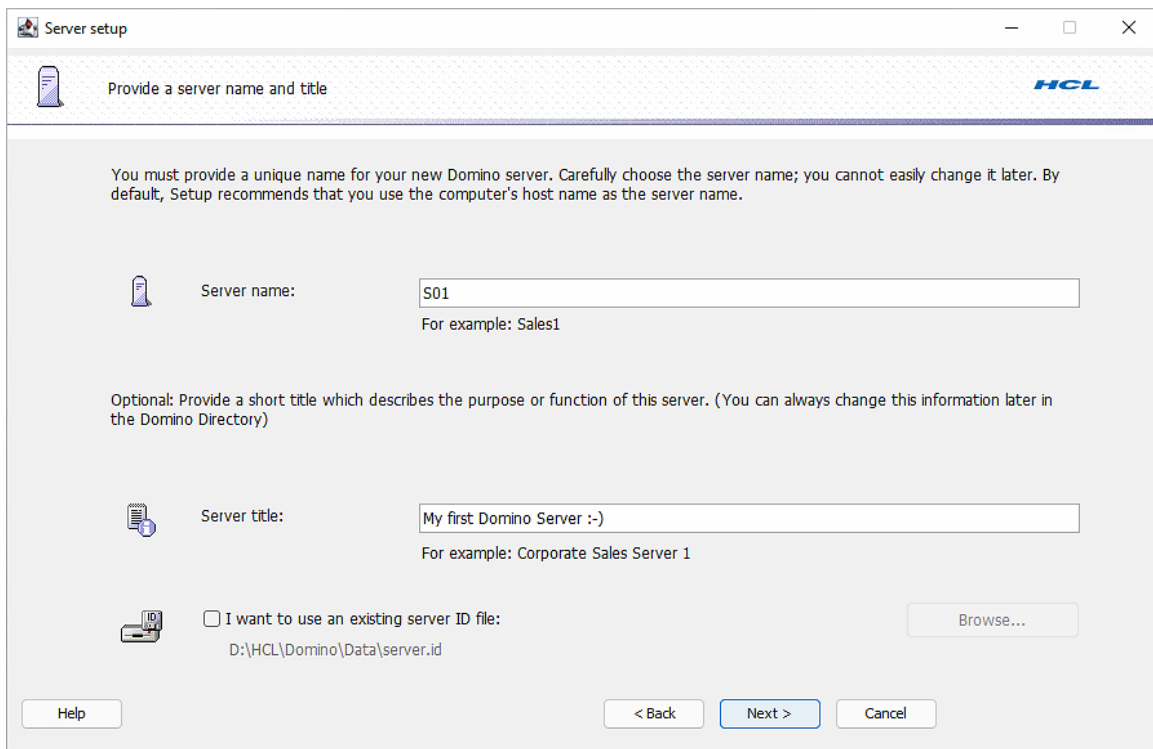
By double-clicking on the »HCL Domino Server« icon we start the configuration.



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«.

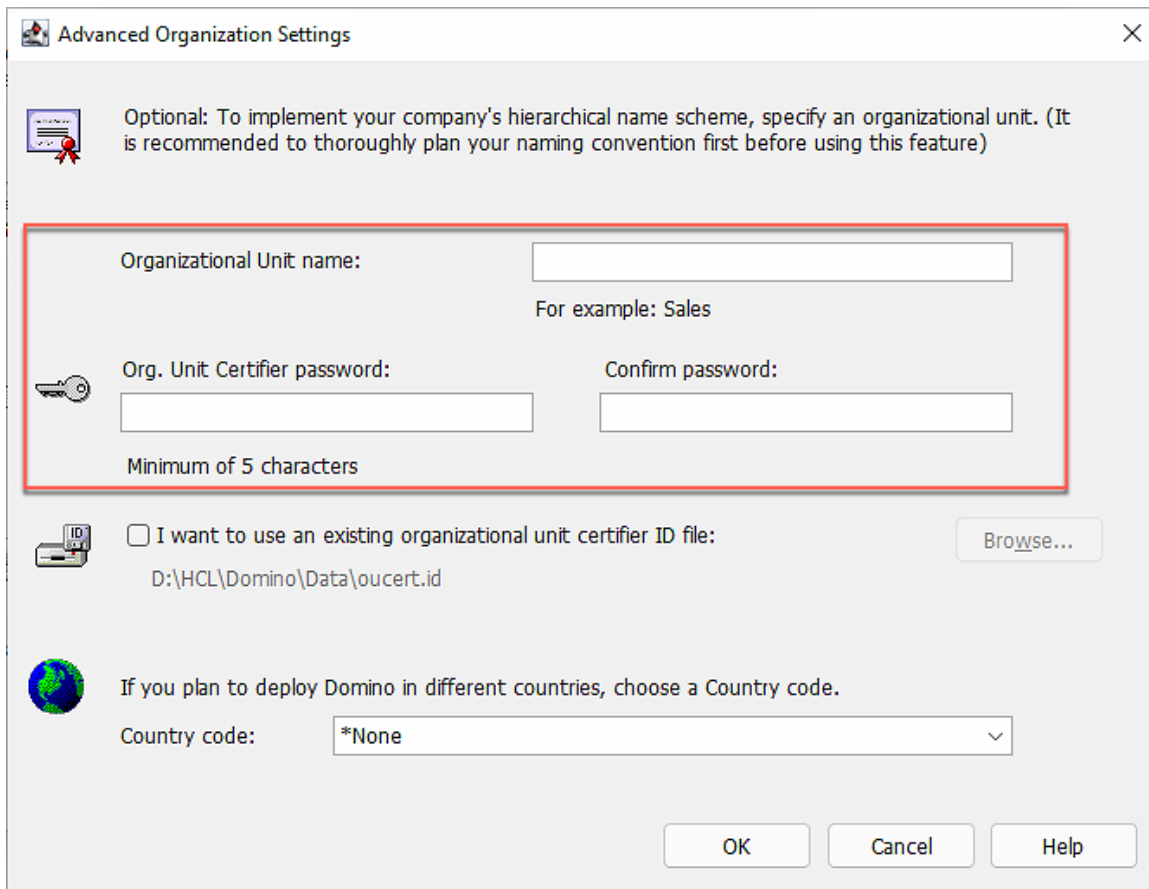


Since we are installing a brand new Notes/Domino environment, we select the option »Set up the first server or a stand-alone server«. We will learn about the second option later in the chapter [5. Additional Domino Servers](#) on page [89](#) when configuring another Domino server.



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?



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:

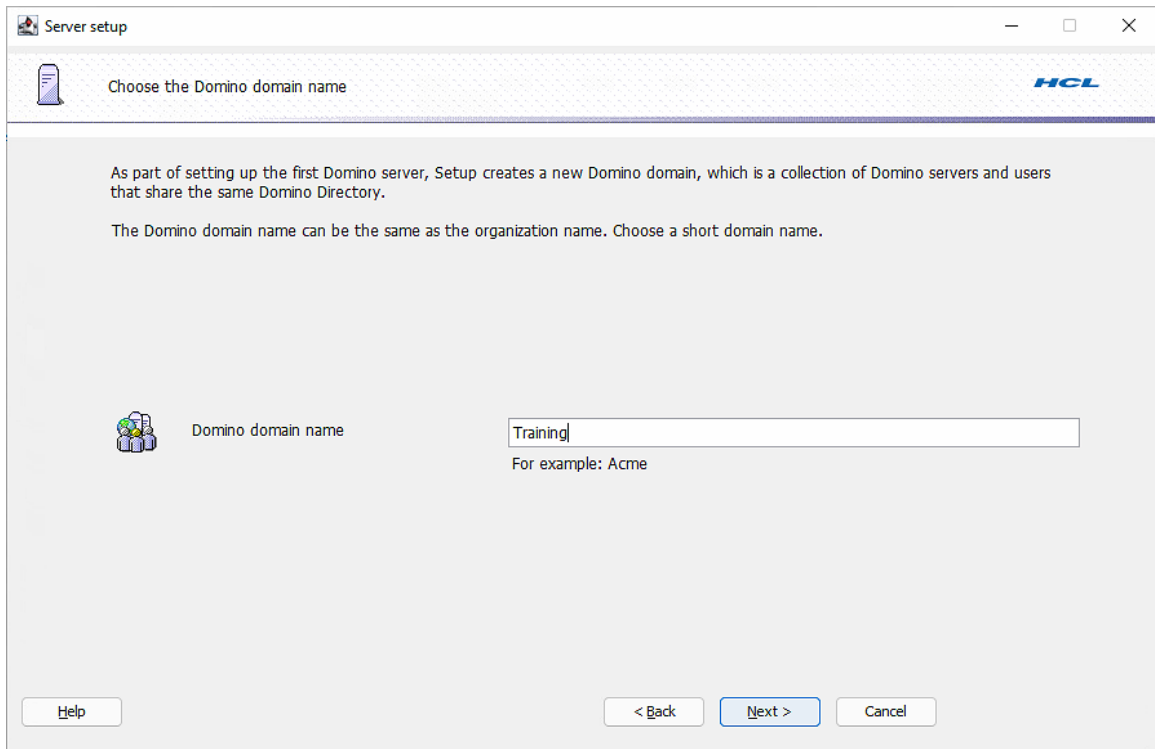
S01/SVR/Training

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

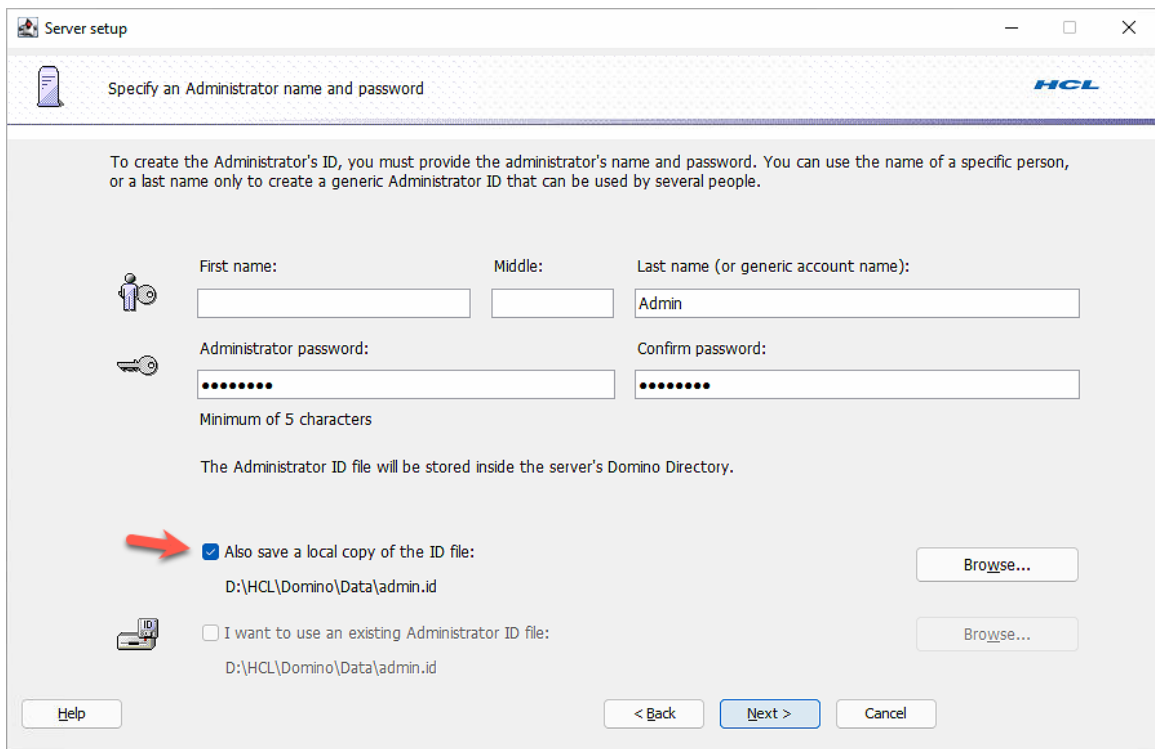
In the Domino Data directory a Organizational Unit ID file with the name »oucert.id« is created. This file must be password protected and therefore there are the appropriate input fields in this dialog.

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.



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



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 high-performance 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.

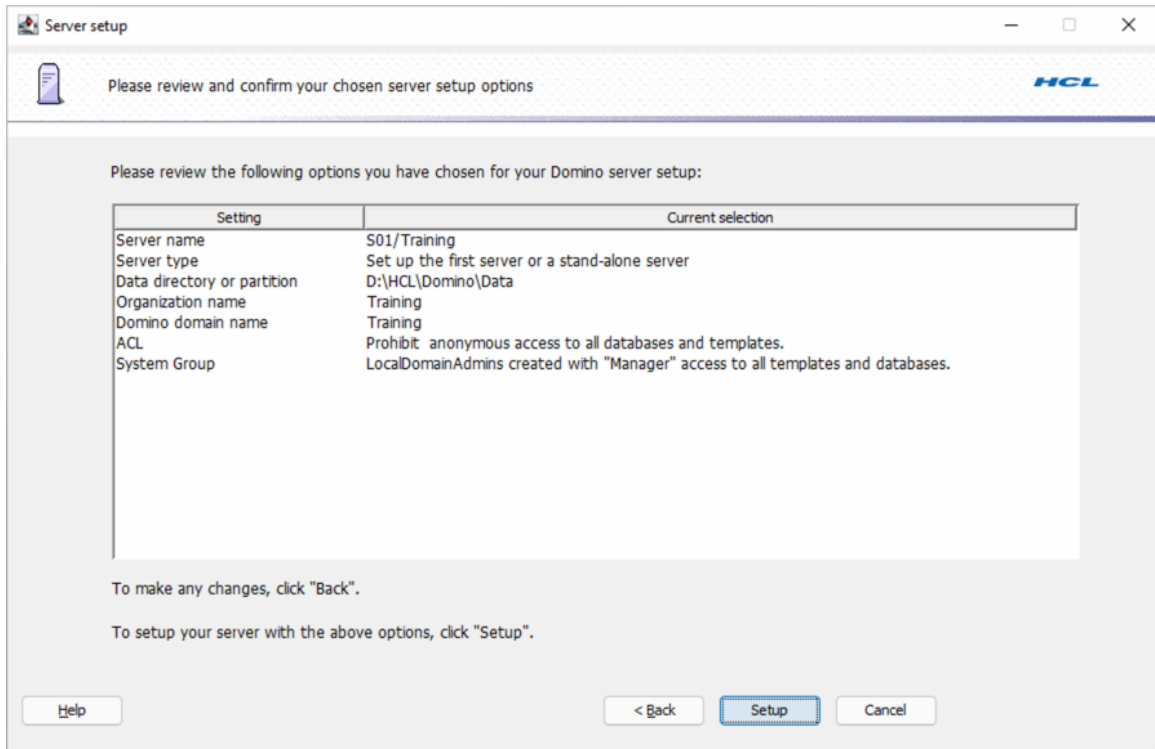
The field should never be left empty, because server add-ons (Traveler etc.) increasingly reference the FQI name.

Important

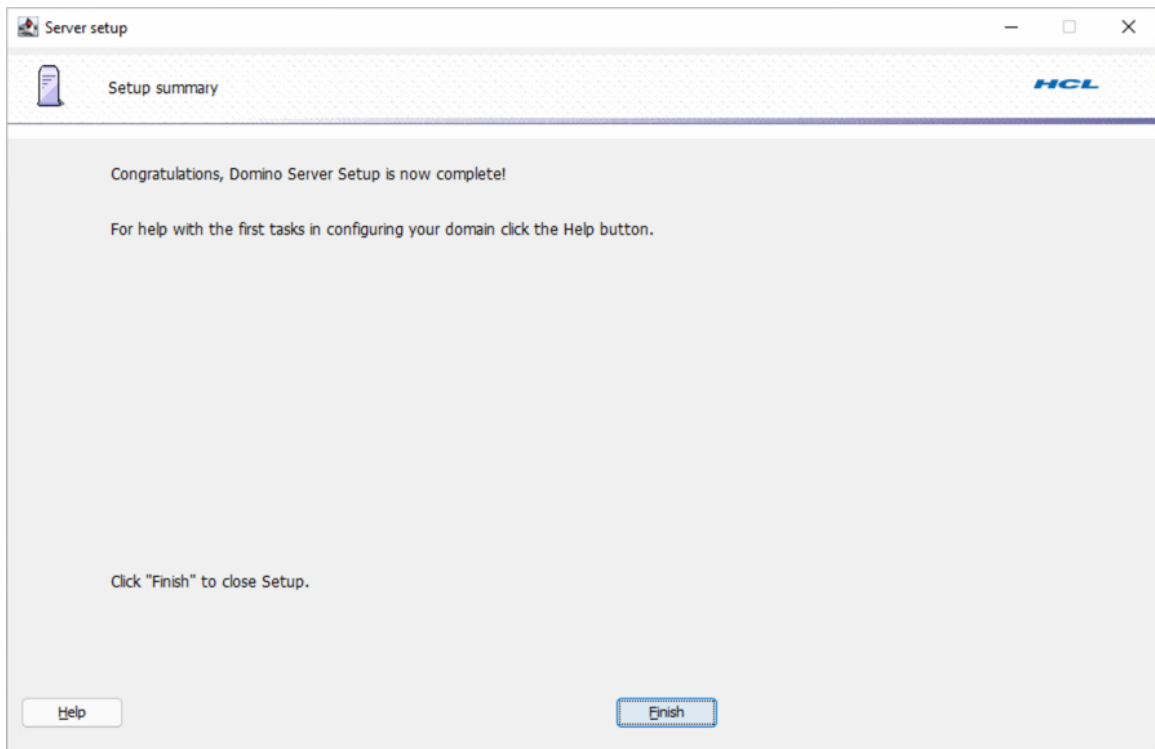
The entries in this dialog must be correct!

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.

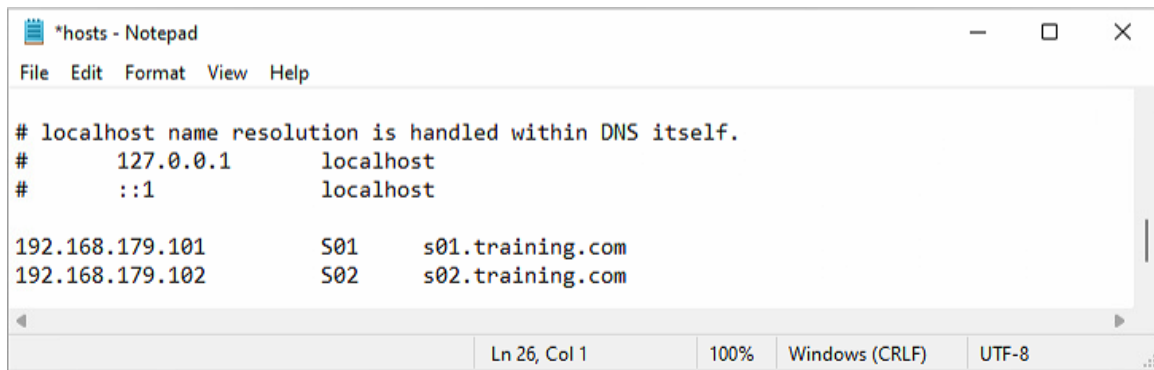
In the next step, security-relevant settings are defined.



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



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

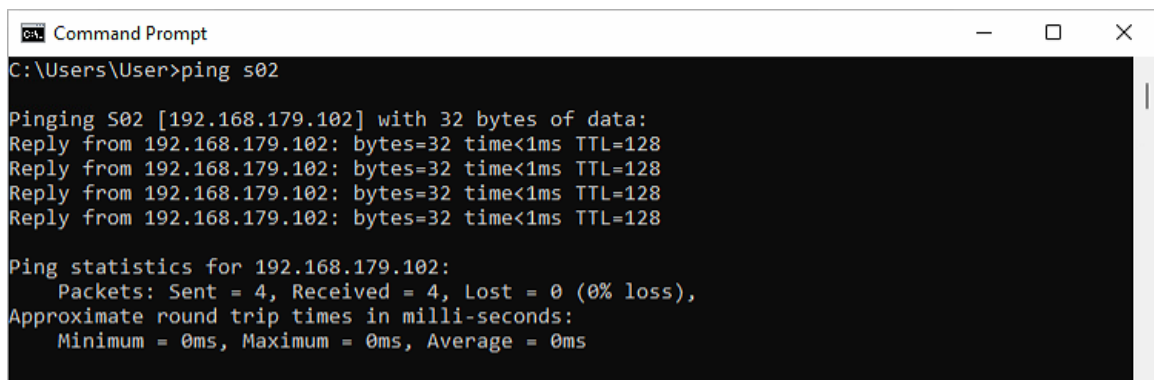
# localhost name resolution is handled within DNS itself.
# 127.0.0.1 localhost
# ::1 localhost

192.168.179.101 S01 s01.training.com
192.168.179.102 S02 s02.training.com

Ln 26, Col 1 100% Windows (CRLF) UTF-8

```

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.

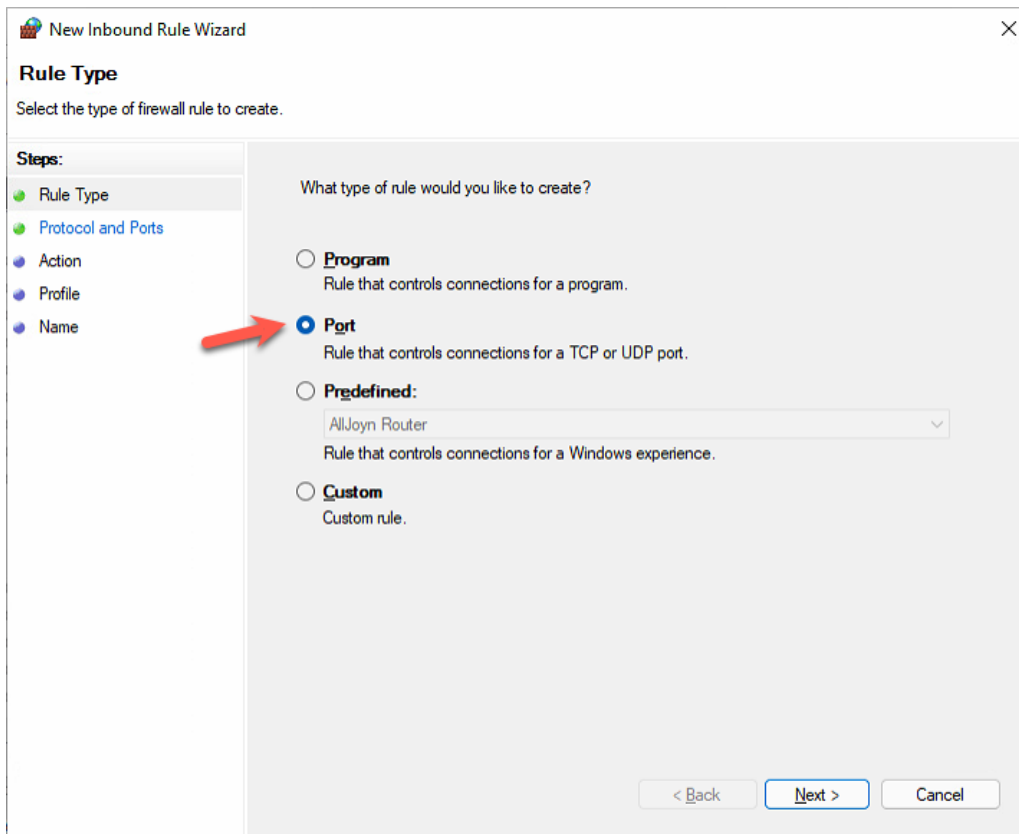
3.6.2. Configure Windows Firewall

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.

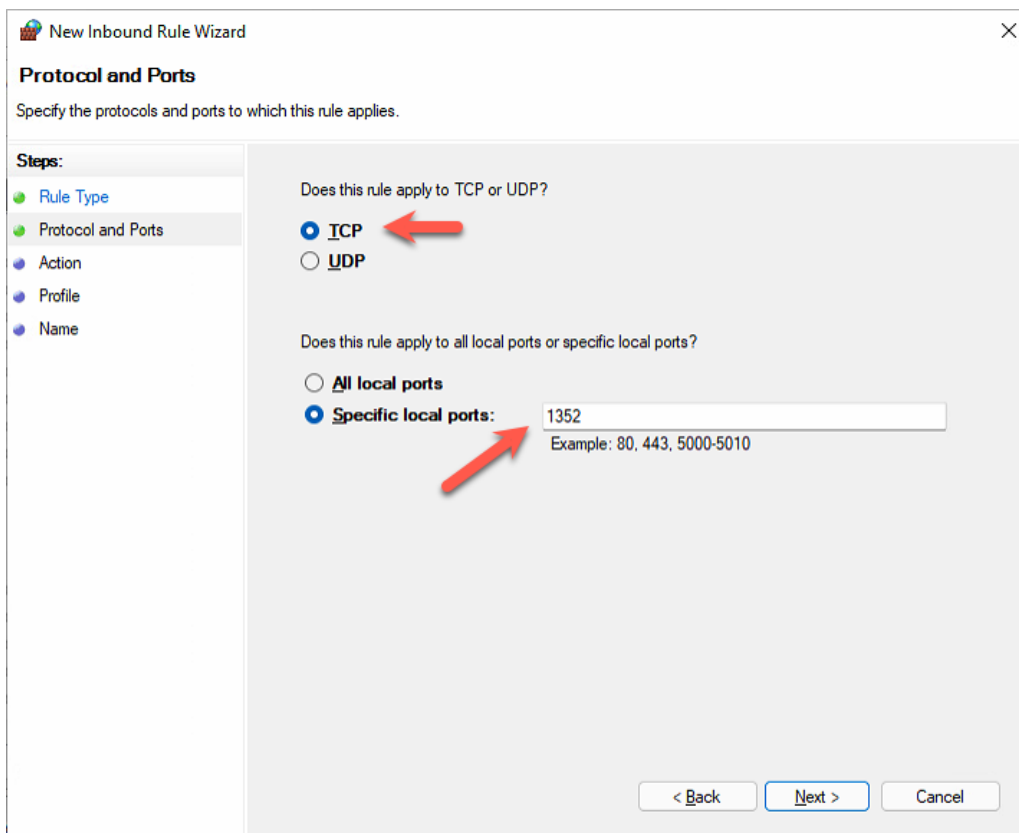
Domino servers communicate with each other and with Notes clients initially on TCP port »1352«. This port is not enabled in the firewall.

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.

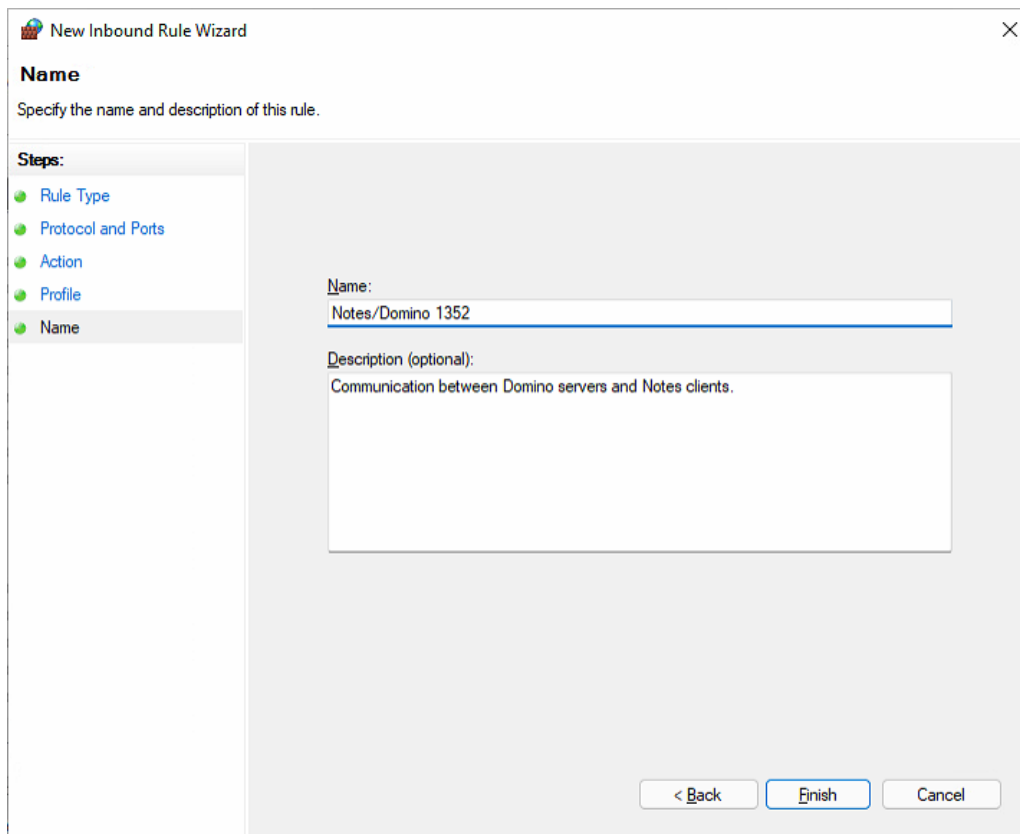


Select the »Port« rule type and confirm with »Next«.

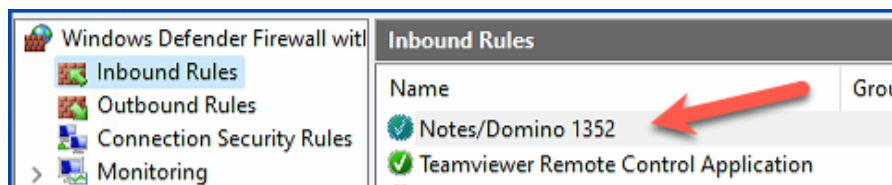


Select the protocol »TCP« and enter the port »1352«.

Select the desired profiles.



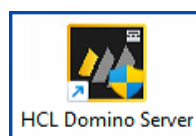
Name the rule (optionally add a description) and click »Finish«.



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.

```

S01/Training: HCL Domino Server (64 Bit)
[18F0:0002-1728] 12/31/2021 09:53:17 AM RnRMgr: Informational: Schedule Manager is responsible for the busytime database 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 collection is not 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:\HCL\Domino\Data\names.nsf view note Title:'($Adminp)')
[1960:0005-105C] 12/31/2021 09:53:17 AM Invalid collection data was detected.
[0FB4:0039-0948] 12/31/2021 09:53:17 AM An Adminp request has been submitted to update port information in the server document
[18F0:0002-1728] 12/31/2021 09:53:17 AM Rooms and Resources Manager: Informational: Detailed schedule information collection is not enabled via the domain-wide Server Configuration document.
[0FB4:0006-152C] 12/31/2021 09:53:17 AM Database Server started
[1960:0002-105C] 12/31/2021 09:53:17 AM Administration Process started
[18F0:0002-1728] 12/31/2021 09:53:17 AM RnRMgr: Validating schedule database
[18F0:0002-1728] 12/31/2021 09:53:18 AM RnRMgr: Done validating schedule database
[0E2C:0002-0D40] 12/31/2021 09:53:18 AM SchedMgr: Done validating schedule database
[0820:0002-1750] 12/31/2021 09:53:18 AM Design error for database 'events4.nsf': Unable to refresh 'Monitoring Configuration' - the view/index has been modified. Please try again.
[0448:0004-151C] 12/31/2021 09:53:22 AM Informational, rebuild view needed - invalid collection header (reading D:\HCL\Domino\Data\names.nsf view note Title:'($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 s01.training.com
[0820:0000-16B0] 12/31/2021 09:53:25 AM Event: Creating the Domino-Dom,,nenmonitor (11) database.
[0820:0000-16B0] 12/31/2021 09:53:25 AM Created Domain Monitoring Database from template, verify ACL as changes may have been lost
>

```

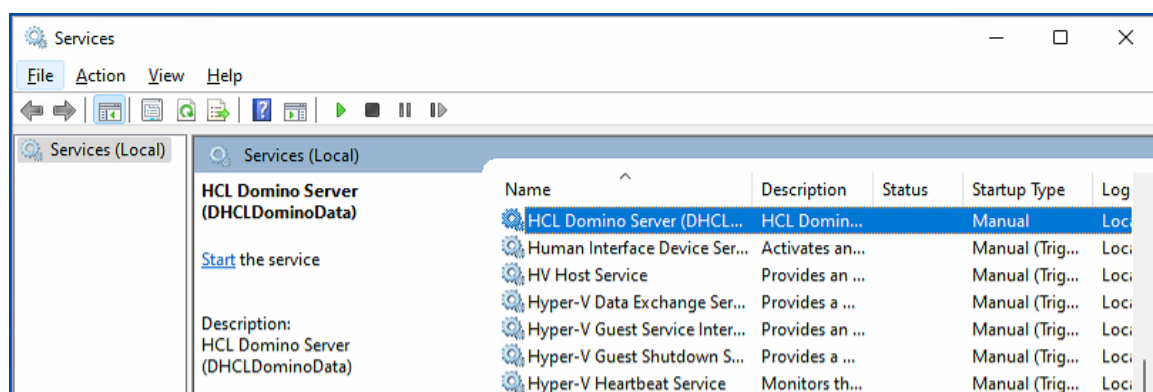
The startup process of the Domino server can be followed in the immediately displayed console and checked for warning or error messages.

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.



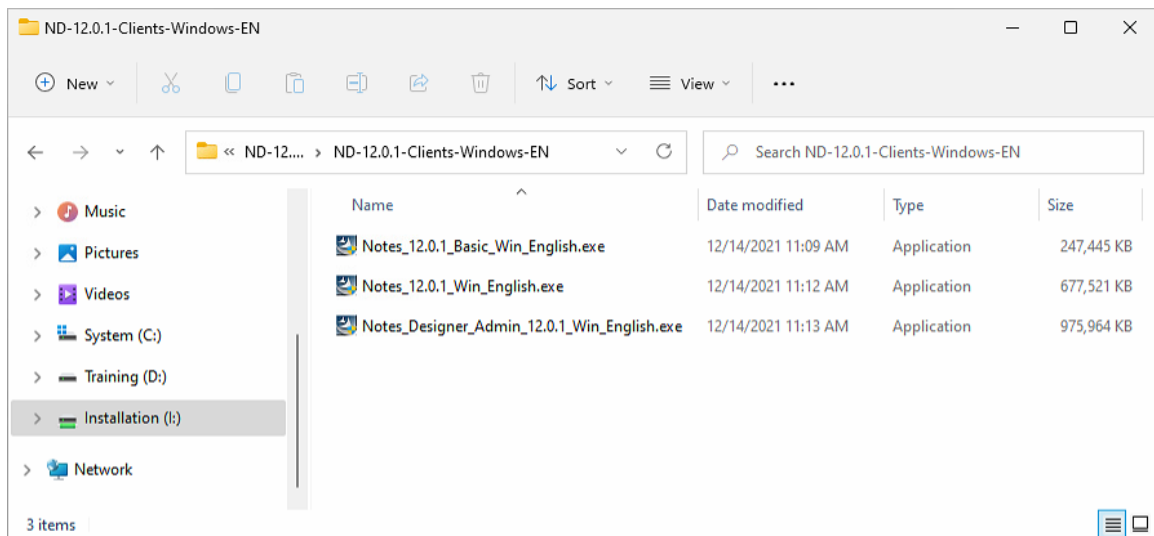
The Domino server can be started in the Windows services.

Hint

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

My tip: **Consolas**

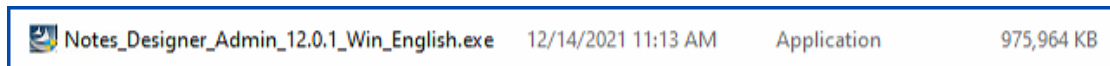
The tool for the administration of a Notes/Domino environment is the HCL Domino Administrator Client, which is installed together with the Notes Client.



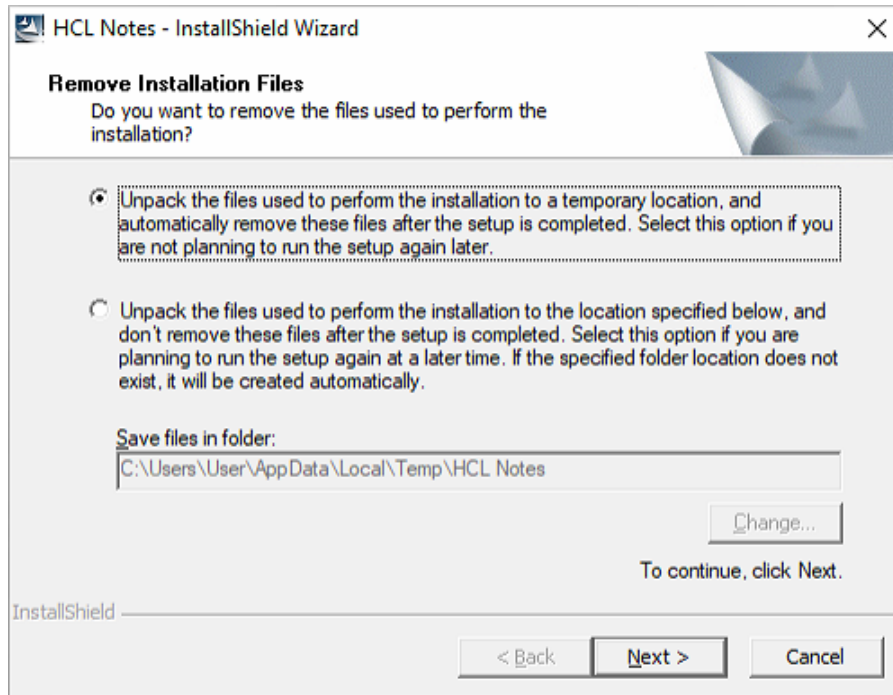
In contrast to the Domino server, which is always available in English, the Notes client is offered localized - i.e. in various languages.

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



We start the installation by double-clicking⁴ on the executable archive file.



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).

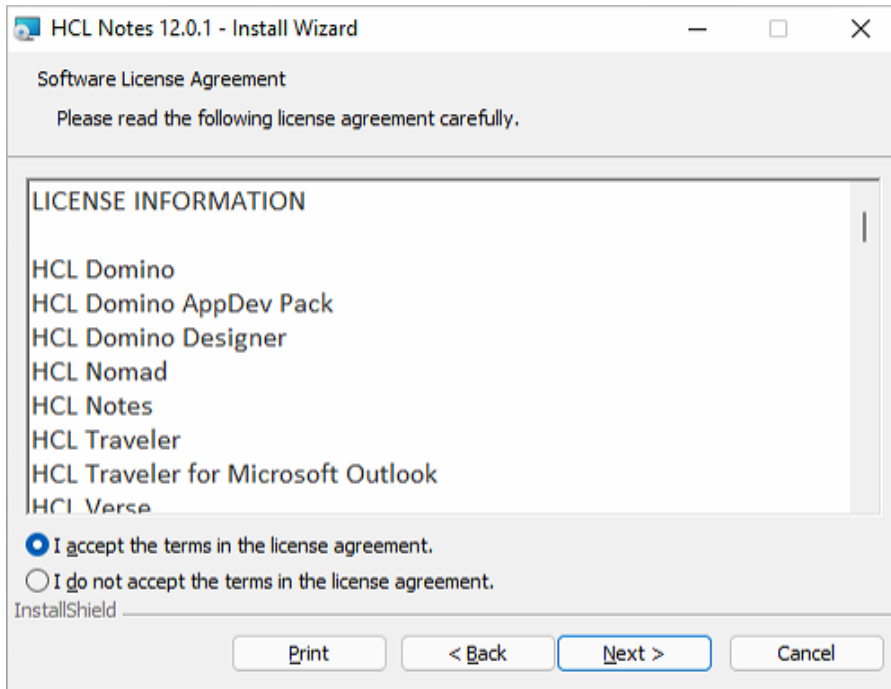
Hint

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

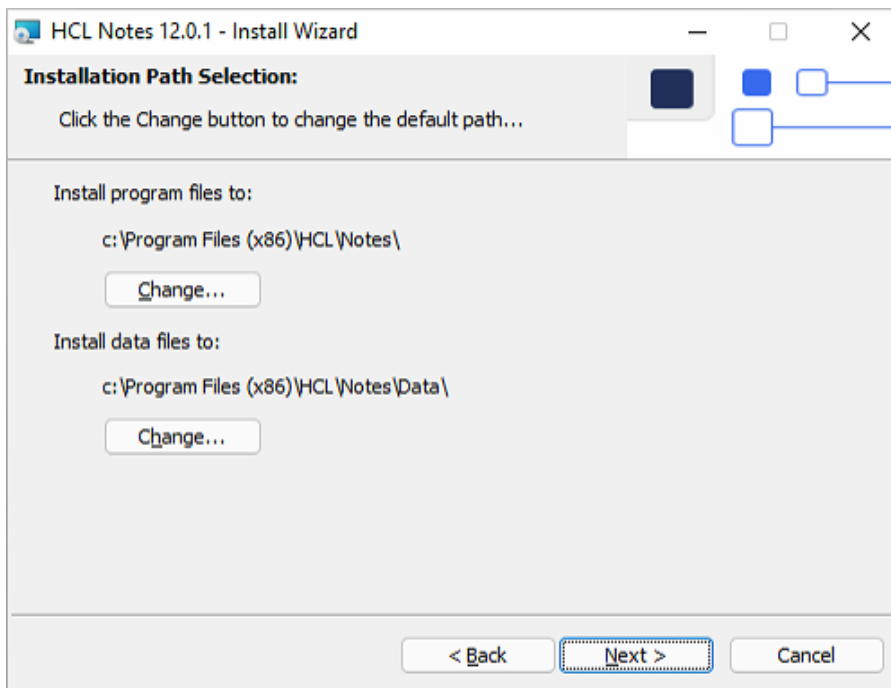
Extracting the installation file from the archive file costs some time for each installation. You can avoid this time-consuming process this way.

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

⁴ 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.

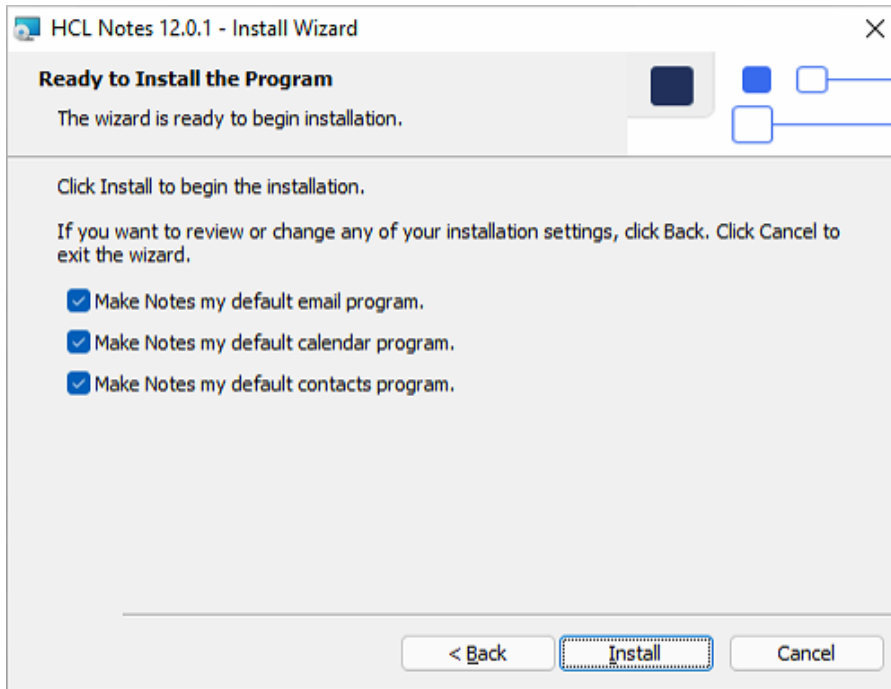


The license agreement must be accepted. However, no entry of a license or activation key is required.

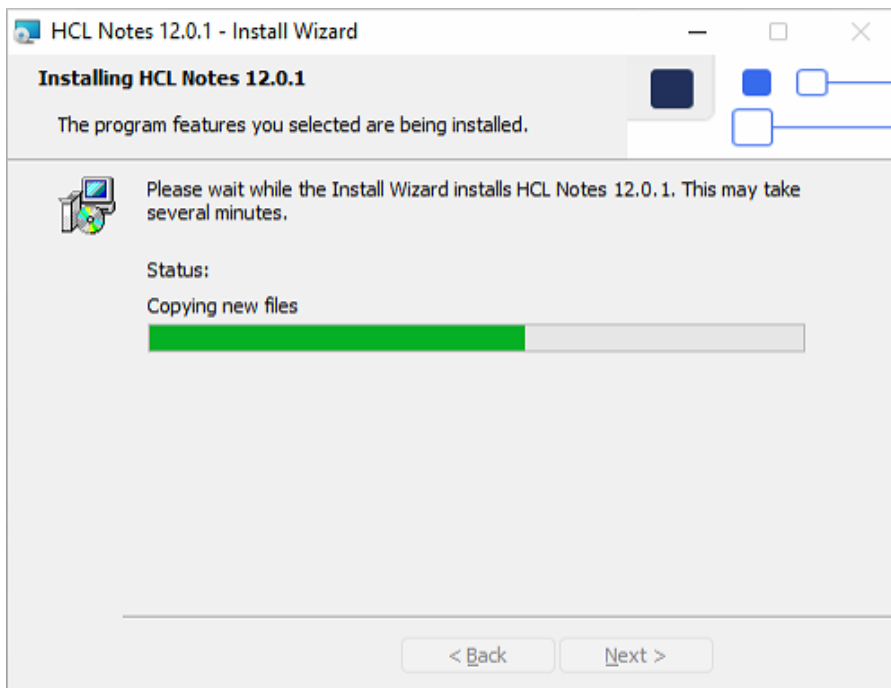


The paths according to the usual installation paths in Windows for a 32 bit application. We change the paths to:

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



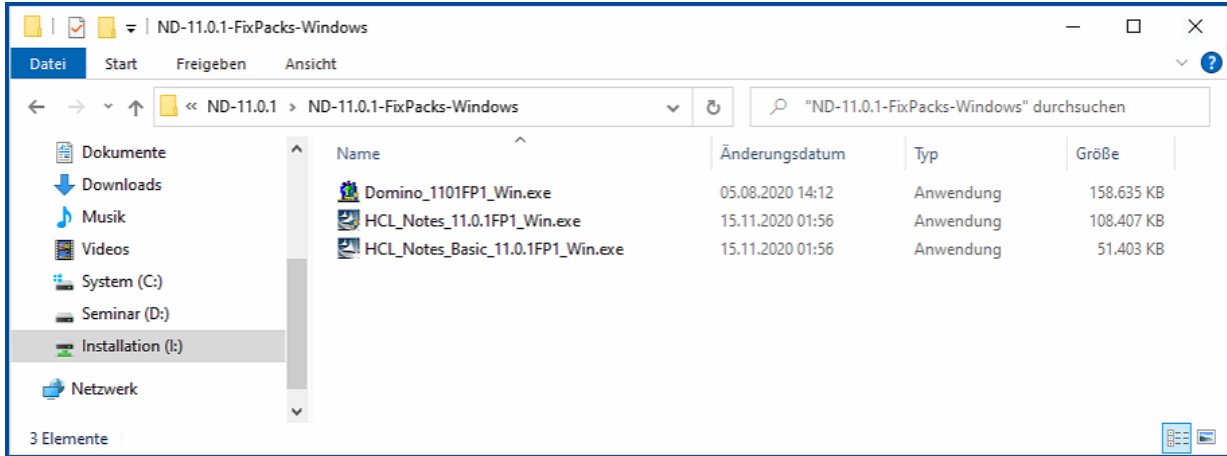
All options are enabled. The Notes client is the responsible application on the operating system level for »**mailto**« links on web pages, for **calendar** files (.ics, .ical) and **contact** files (.vcf).



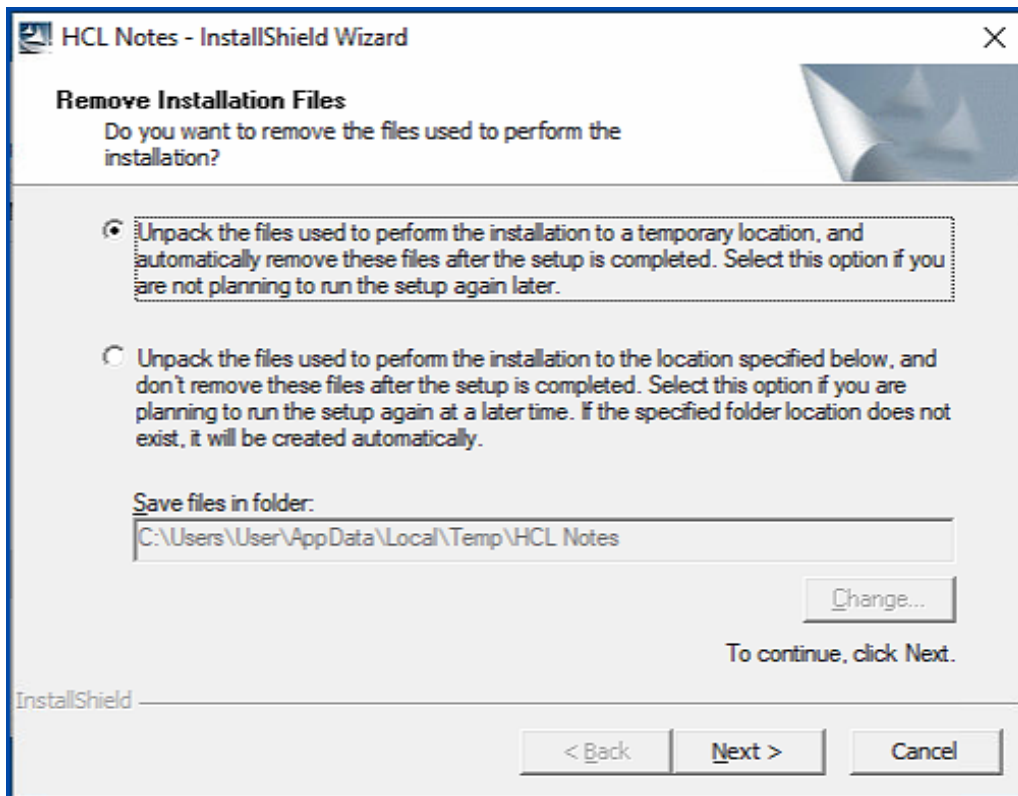
The installation of the Notes client is performed. This process can take several minutes.

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.

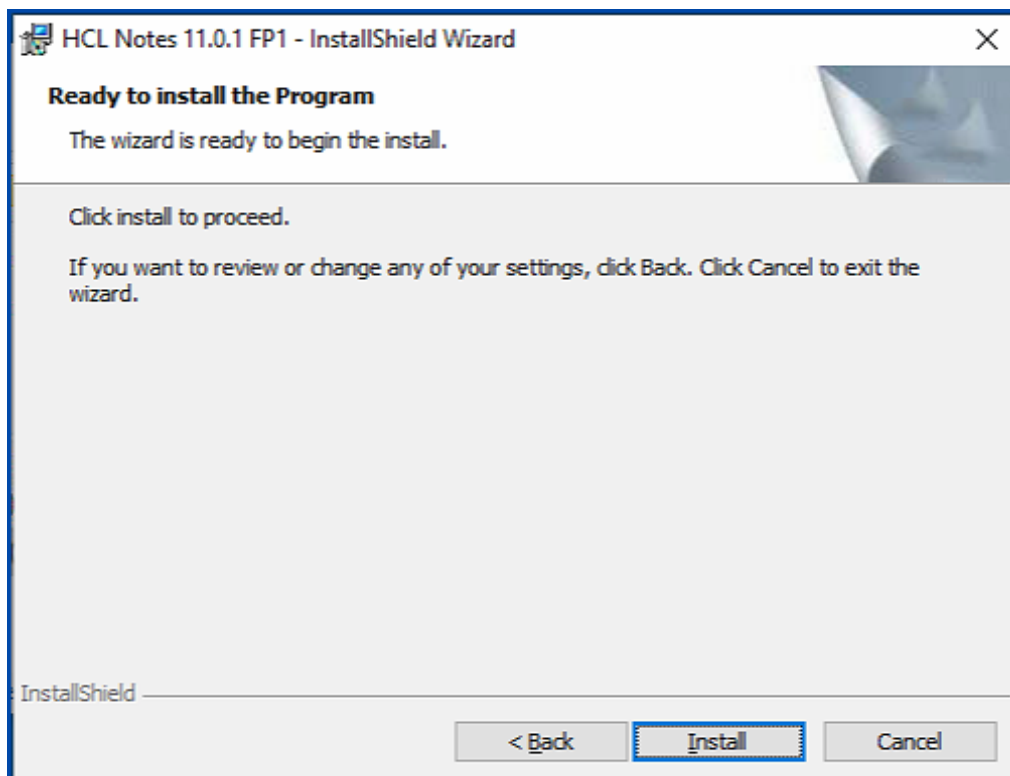
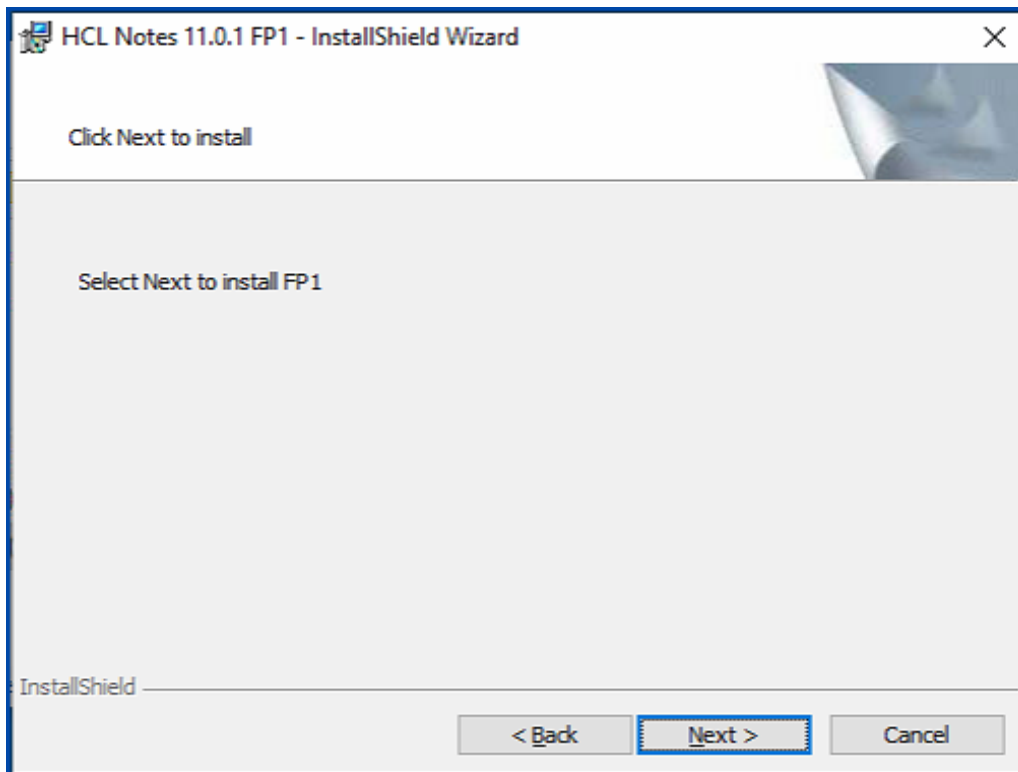


For the Domino Server and the Notes Clients (Basic and Standard) different fixpacks are provided. We start the installation of the Standard Client Fixpack by double-clicking⁵ on the file HCL_Notes_11.0.1FP1_Win.exe.



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.

⁵ 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.



Start the installation by clicking the »Install« button.

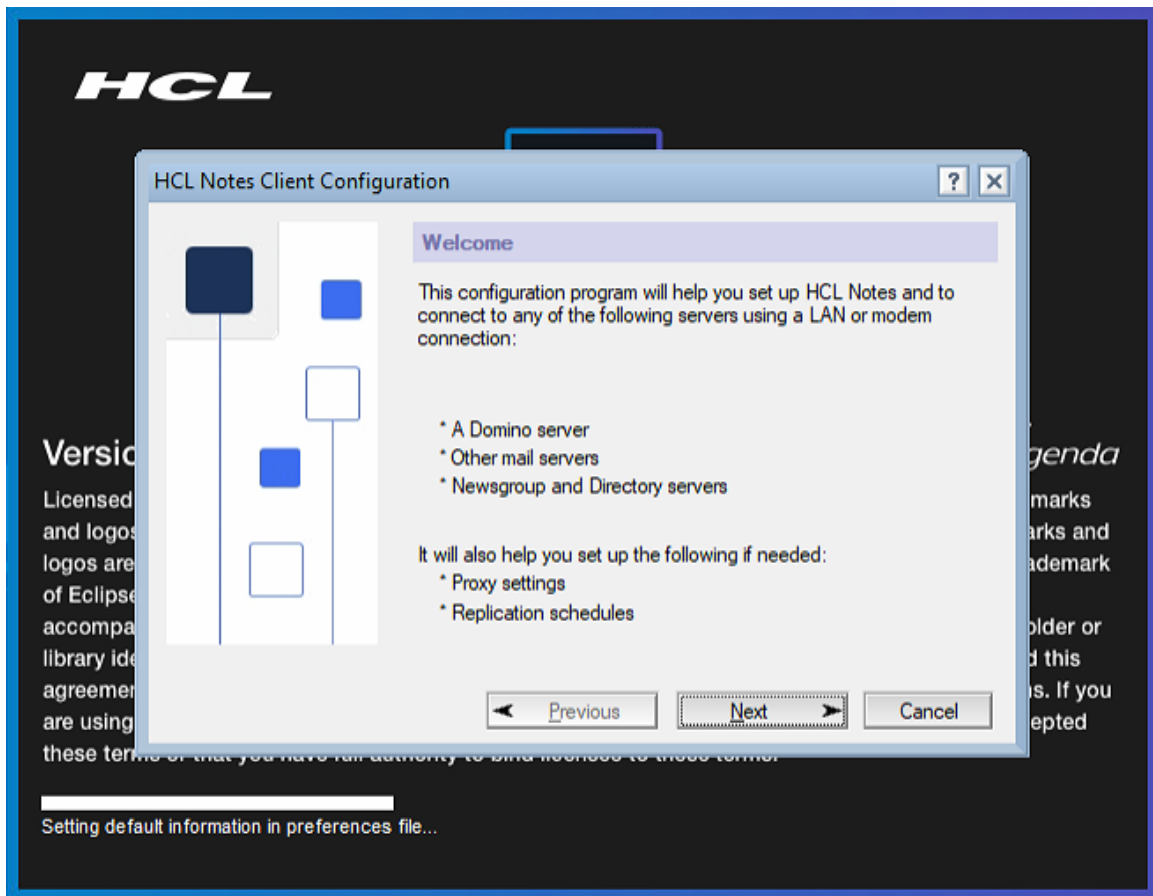
4.4. Startup of the Domino Administrator Client

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.

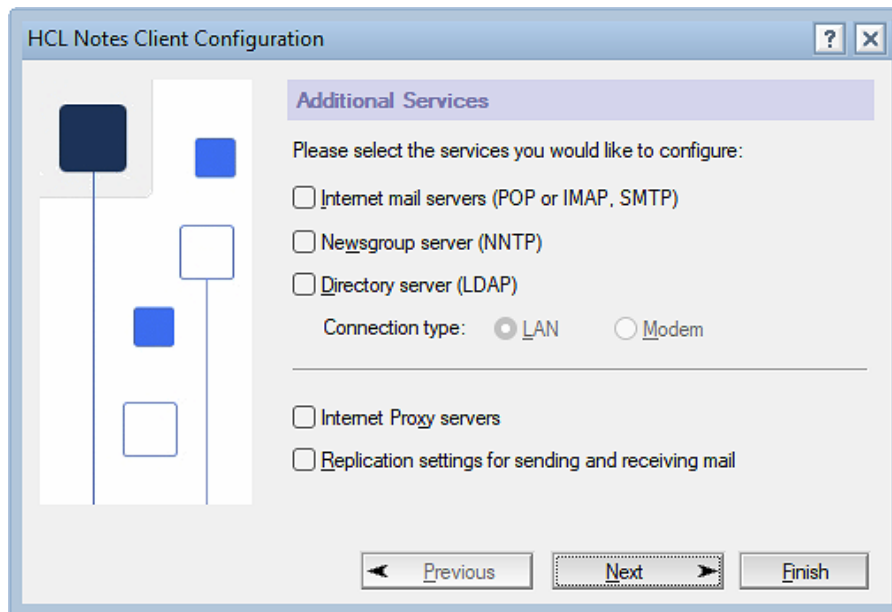
Hint

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.



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



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

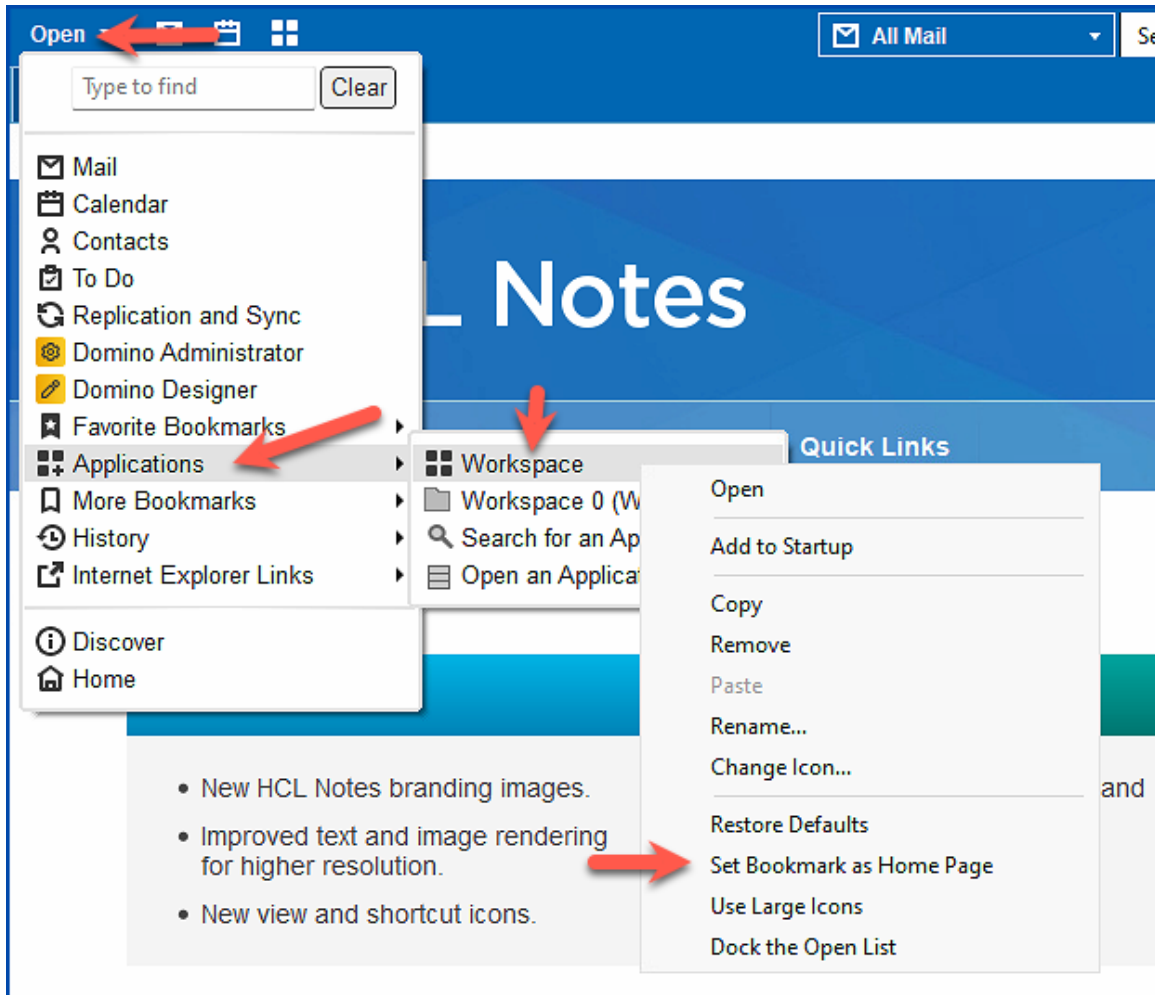
- **Internet mail server (POP or IMAP, SMTP)**
The Notes client can independently use Internet mail accounts (in addition to the company mail account). In many companies this is not desired or allowed.
- **Newsgroup server (NNTP)**
The use of newsgroups on the Internet is not very common today. However, the Notes client still supports the **Newsgroup Network Transfer Protocol**.
- **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.

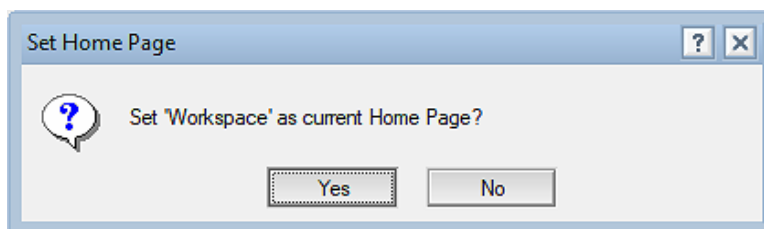
- **Replication Settings for Sending and receiving mail**
The Notes client can also make its mail functions offline (for mobile users with a notebook, for example) - mails are replicated in this case. This option can be used to configure this already at this point.

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 → click the »Applications« menu item → right-click the »Workspace« menu item (this opens a popup menu) → click the »Set Bookmark as Home Page« menu item. The change must be confirmed in the following dialog.



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« → »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

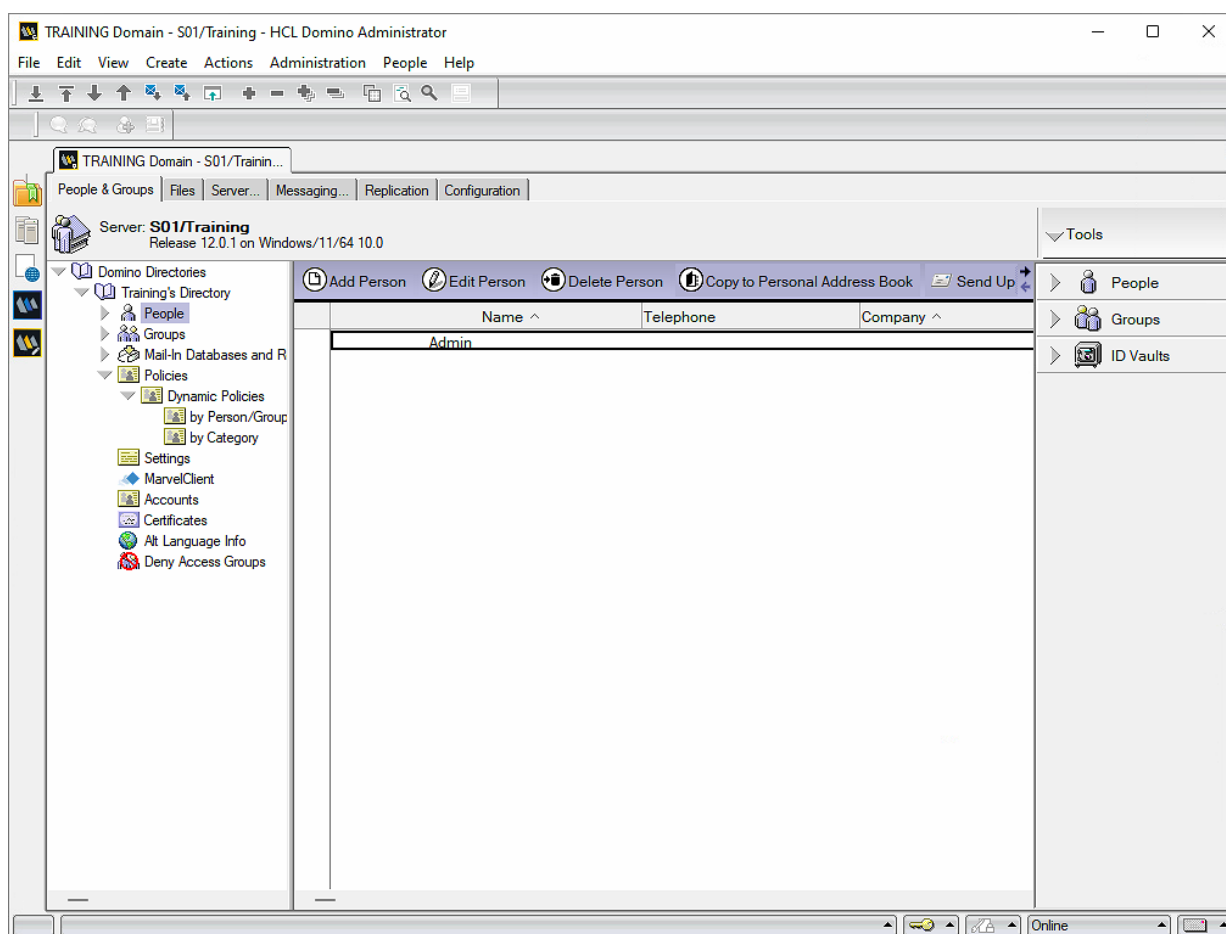
The administrator can store Domino servers as favorites here (right click on one of the Domino servers e.g. in the domain overview - see point 2). In very large Notes/Domino environments, you can display only the Domino servers that are under your responsibility. This allows a faster access.

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



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.

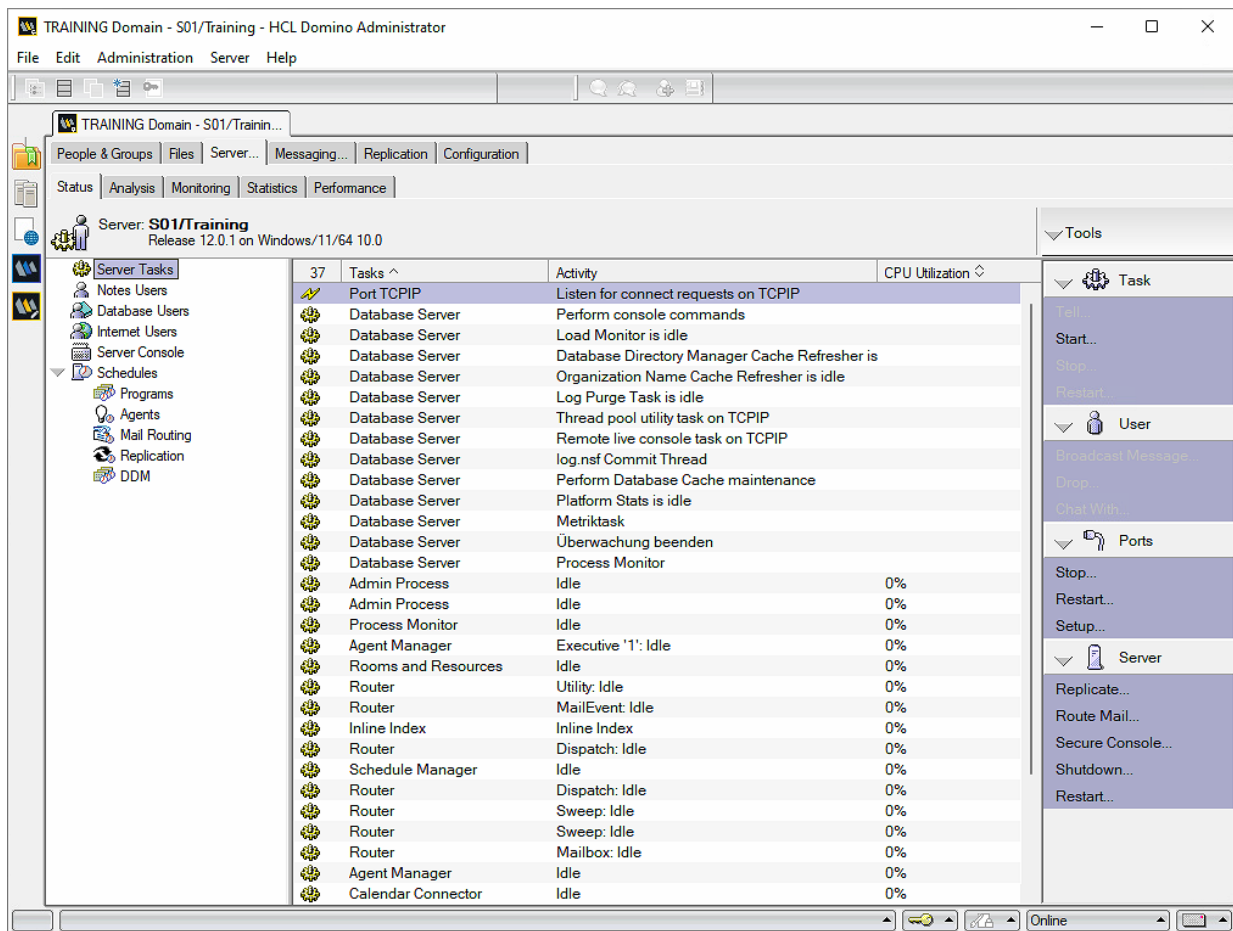
The structure shown here appears in a similar form on all tabs: on the left you can select an area (e.g. the »People« or »Groups« views). In the middle area the available entries are then displayed and on the right you will find the appropriate tools under »Tools«.

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

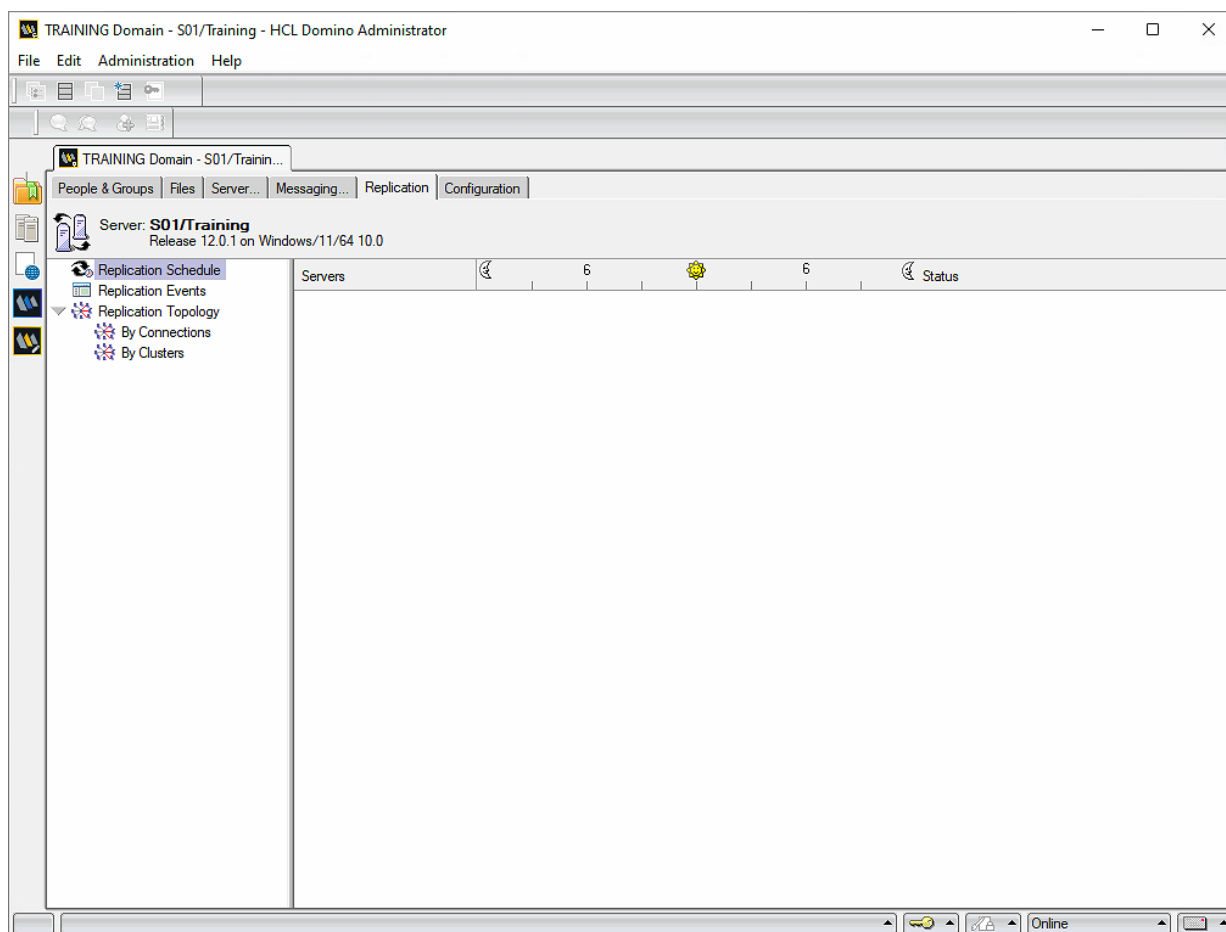


This tab is about the display of the actual state of a Domino server in the broadest sense. You can view various parameters, results of monitoring or performance, etc., but also stop or start services - in addition, a live console is also available for direct interaction with the Domino server.

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



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

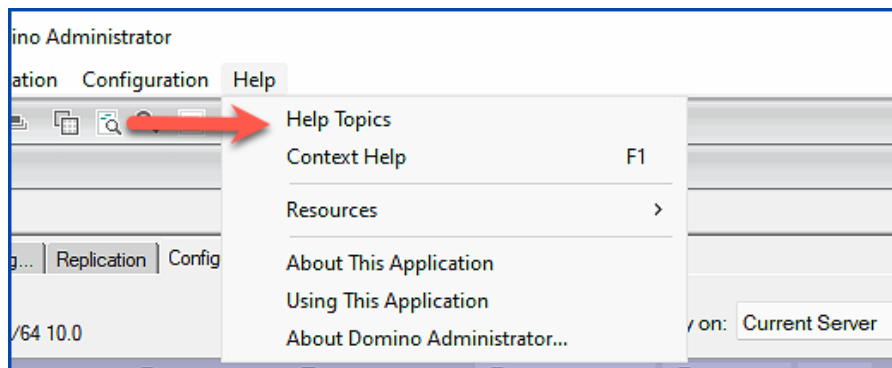
Hint

Replication is a scheduled synchronization of applications between Domino servers.

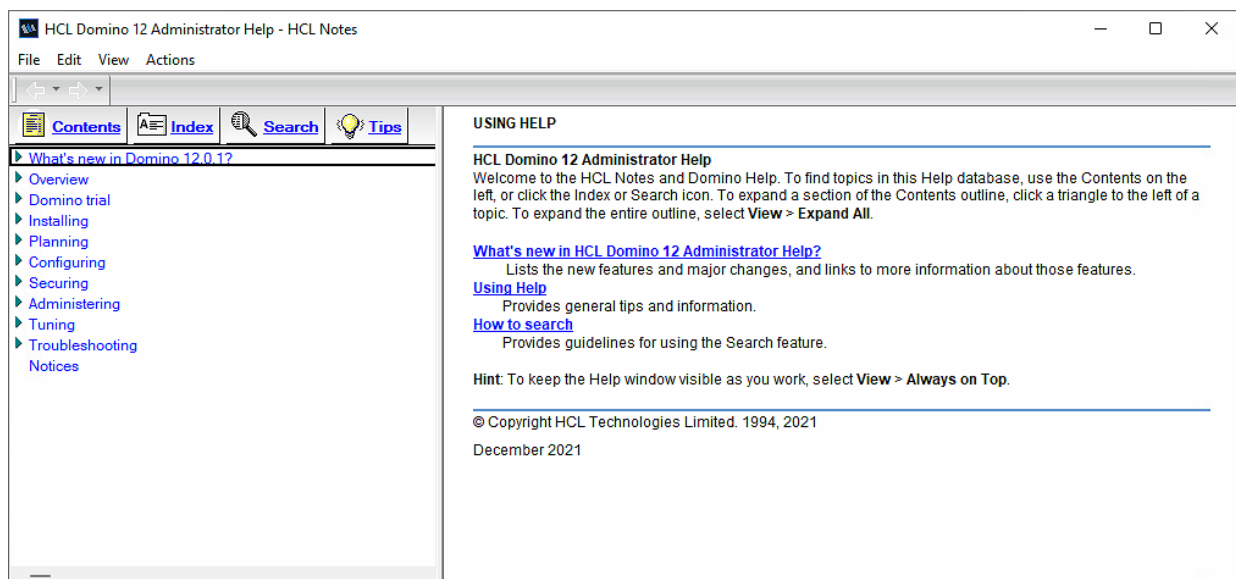
4.6. Help for self-help

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.



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



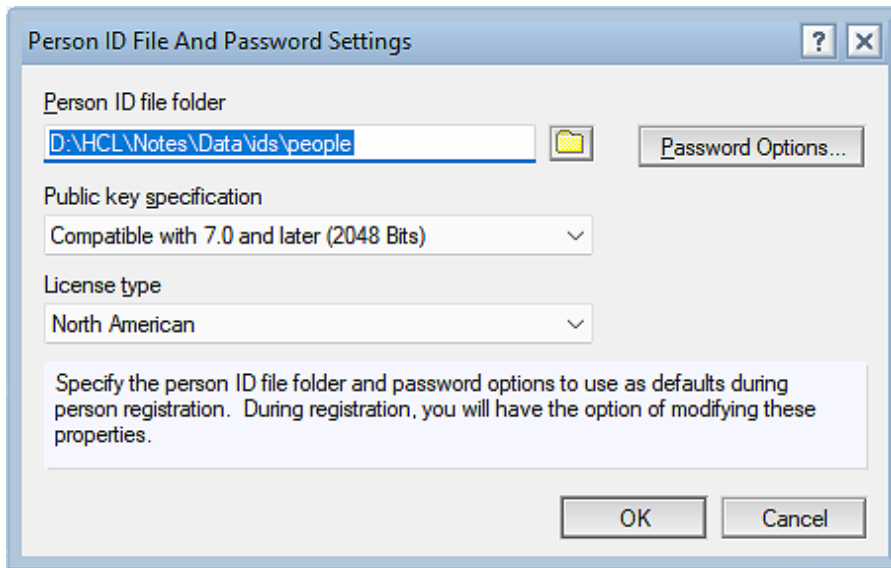
Above the navigation on the left, you will find the tabs »Contents« (content structured by topic), »Index« (in the manner of a keyword index) and »Search« (search option across all content - a full-text index for a quick search is created on the first access).

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.

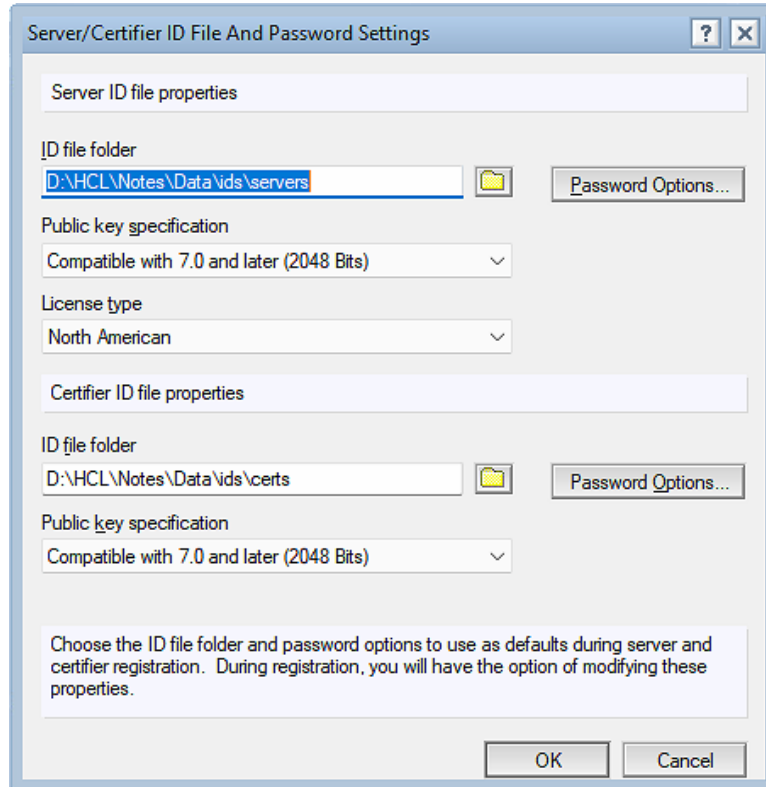
5. Additional Domino Servers

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



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.



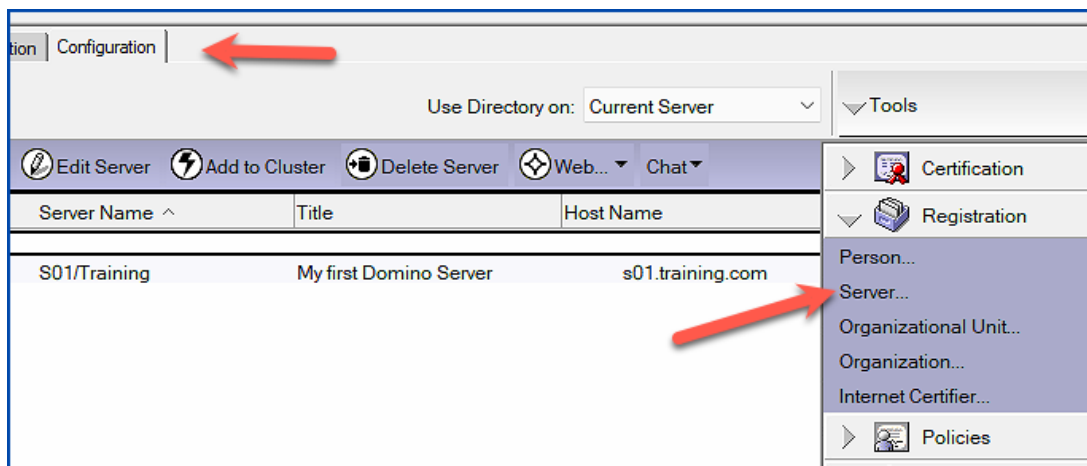
Also here the paths for servers registered in the future (D:\HCL\Notes\ids\servers) and certifier (D:\HCL\Notes\ids\certs) are displayed and can be adjusted if necessary.

5.2. Registration of additional Domino servers

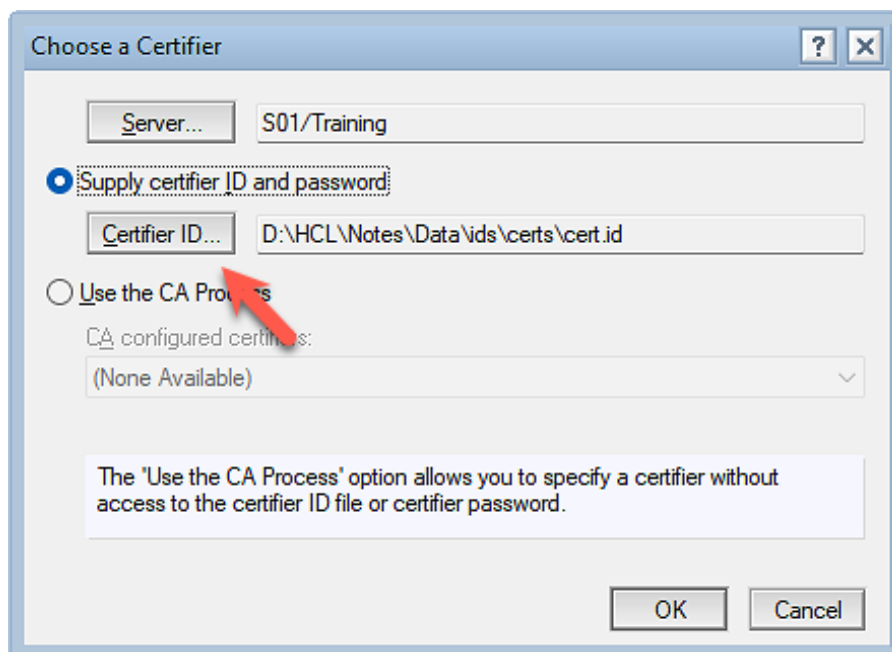
Hint

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.



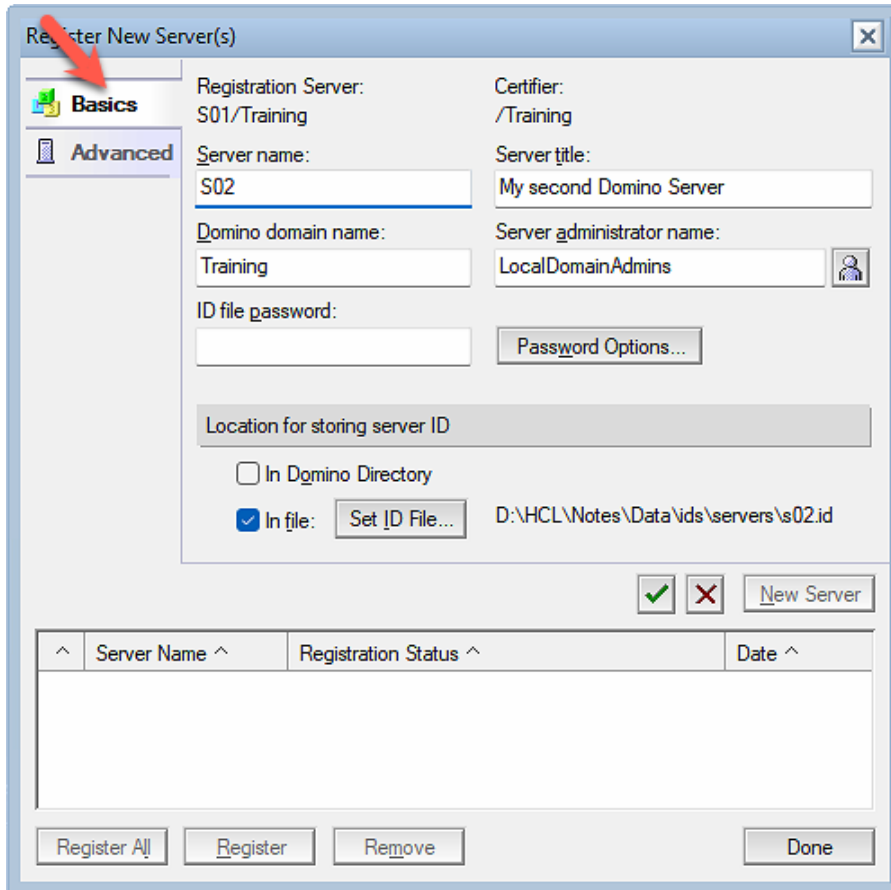
On the »Configuration« tab, we select the »Registration« → »Server...« option in the tools.



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

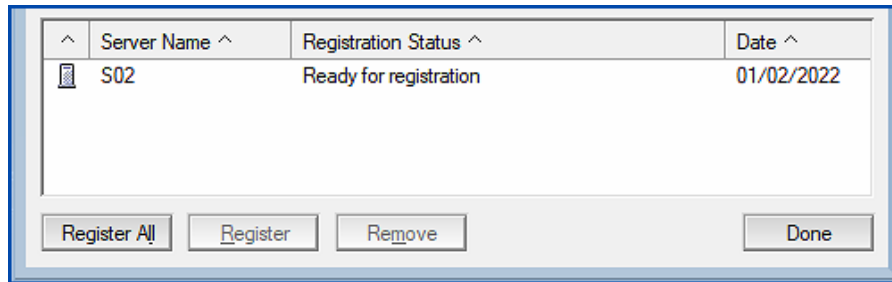
Certificate authority	Domino also knows a CA service (Certification Authority) as an alternative to the use of certifiers in the form of files, which can also manage Internet certificates.
-----------------------	--

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

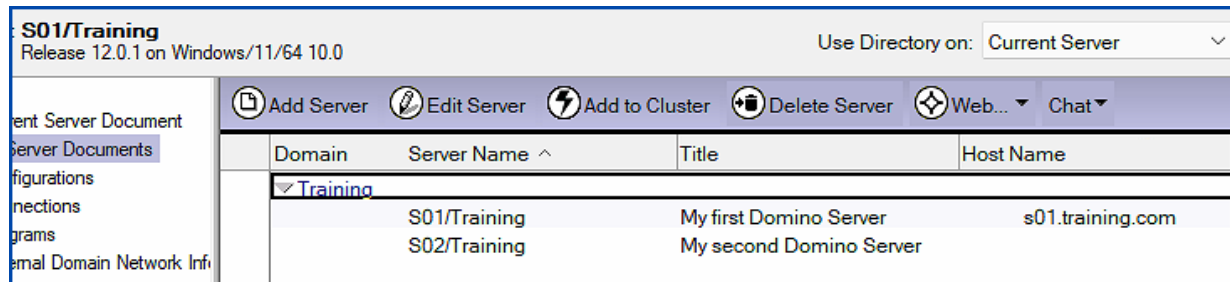


Options existing on the »Basics« tab:

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.



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

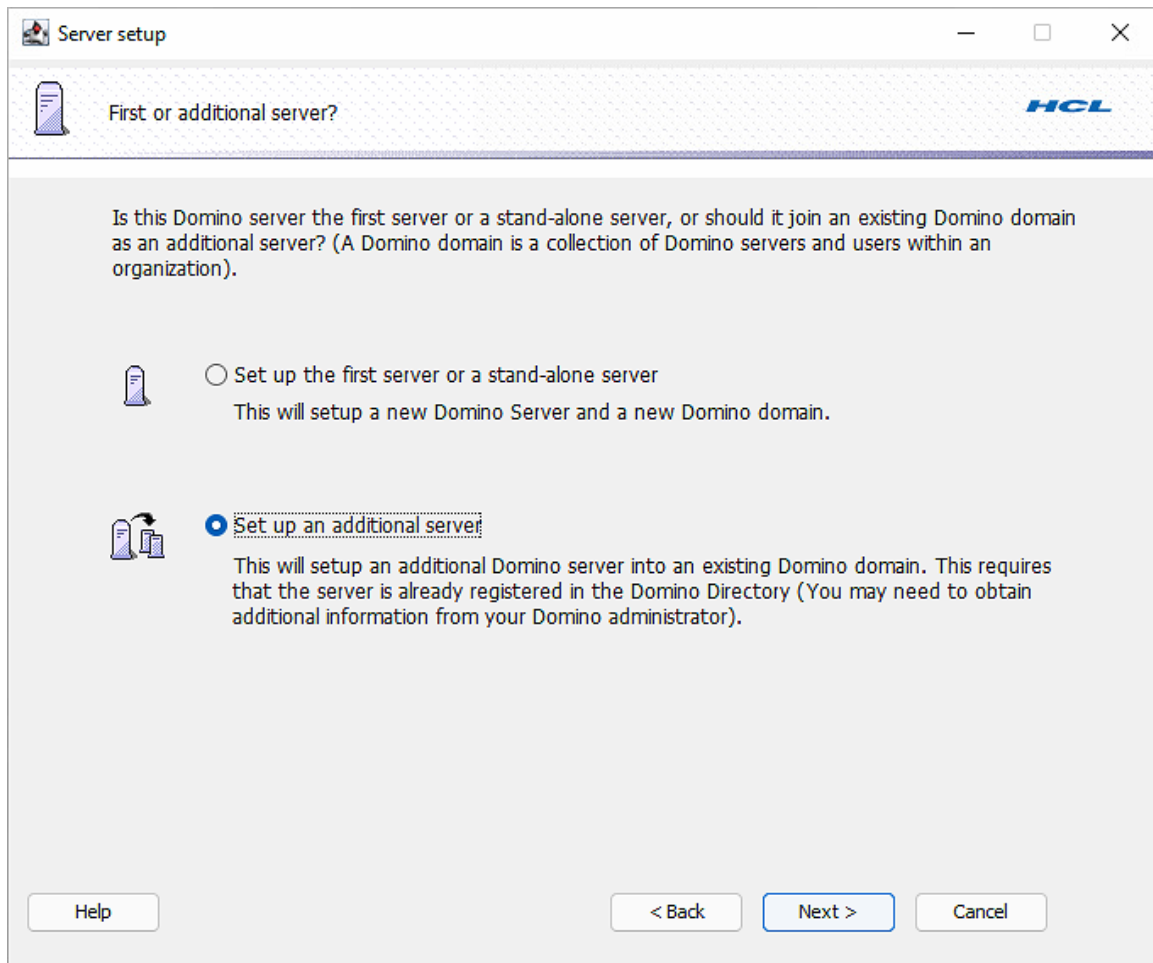


After refreshing the display using function key »F9«, the new server is displayed in Domino Administrator and can be put into operation in the next step.

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.

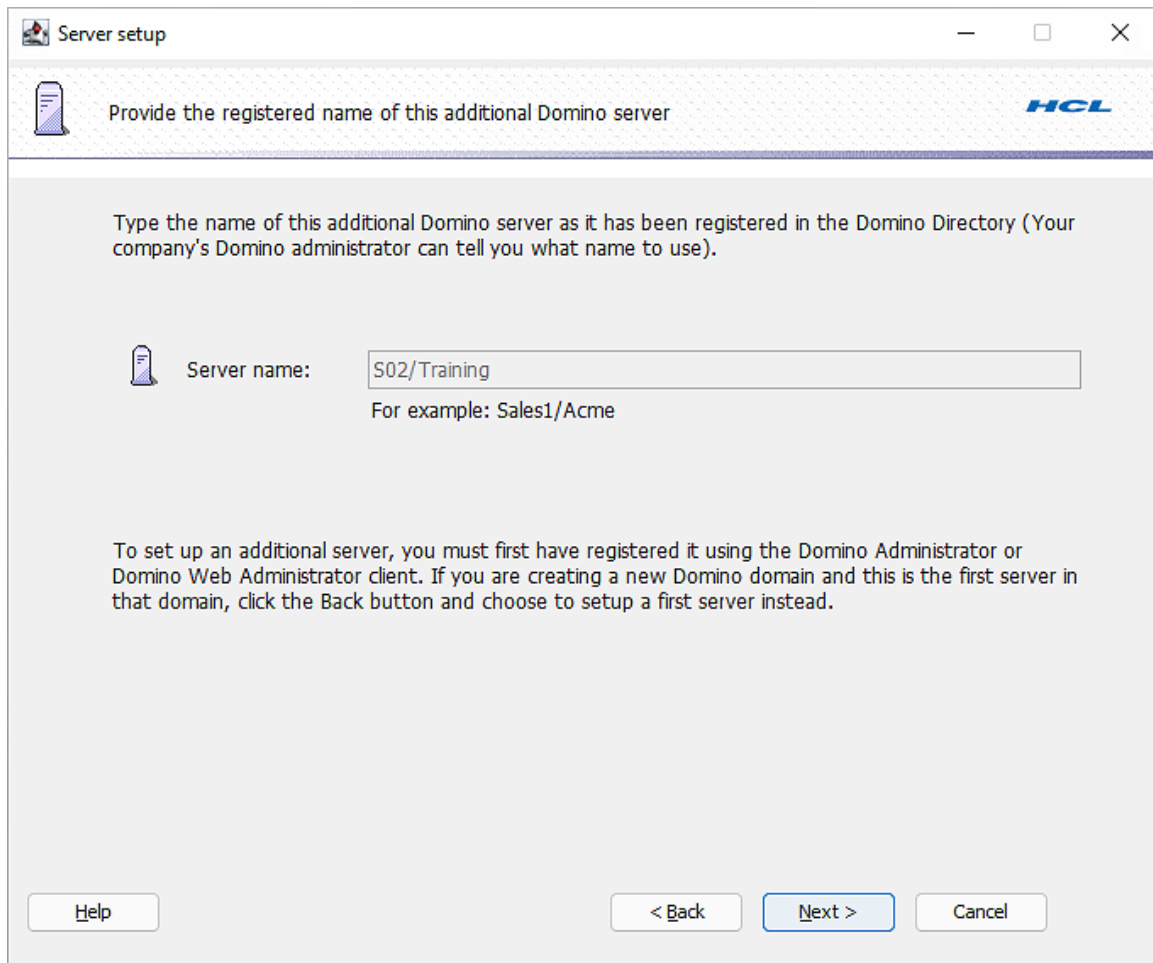


In contrast to the configuration of the 1st Domino server, we select the »Set up an additional server« option.

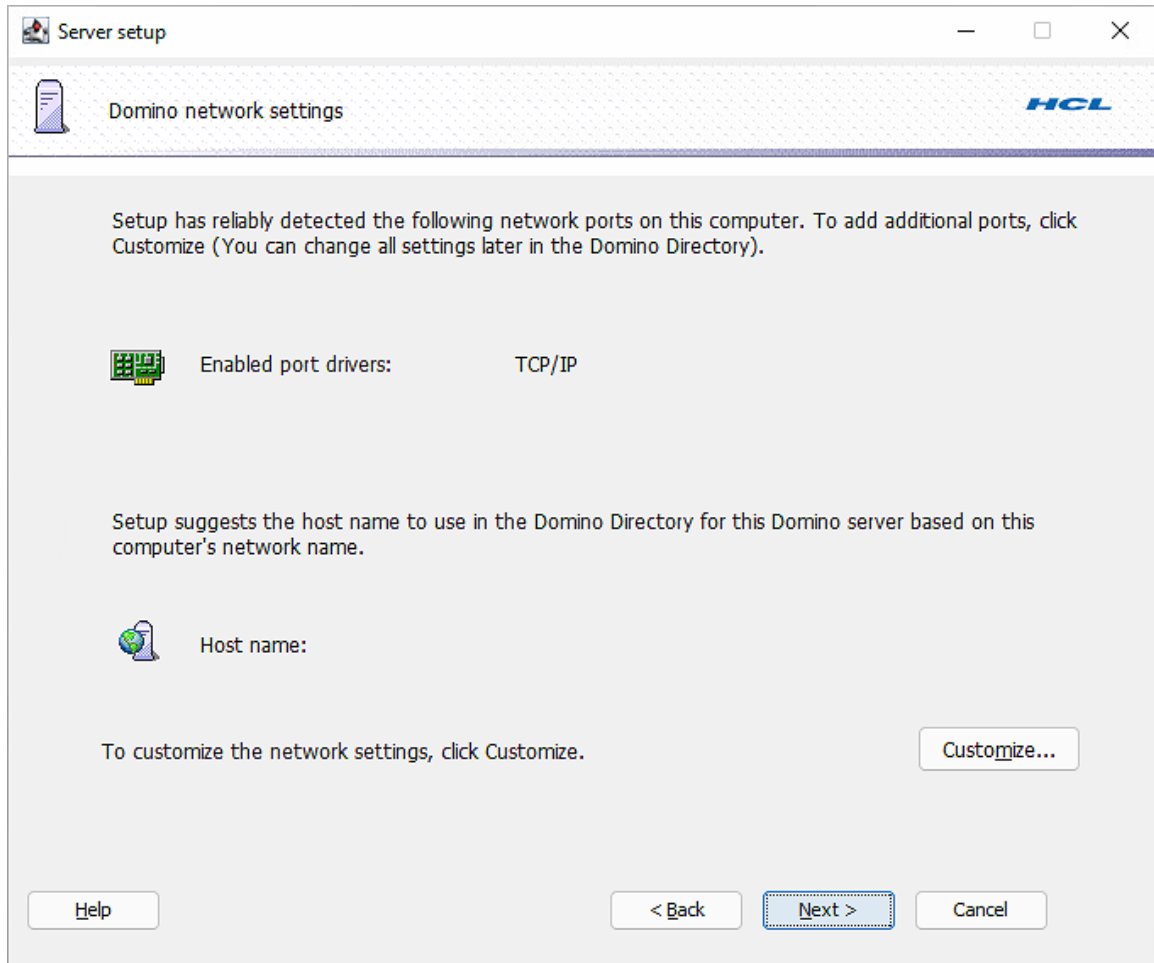
Important

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.

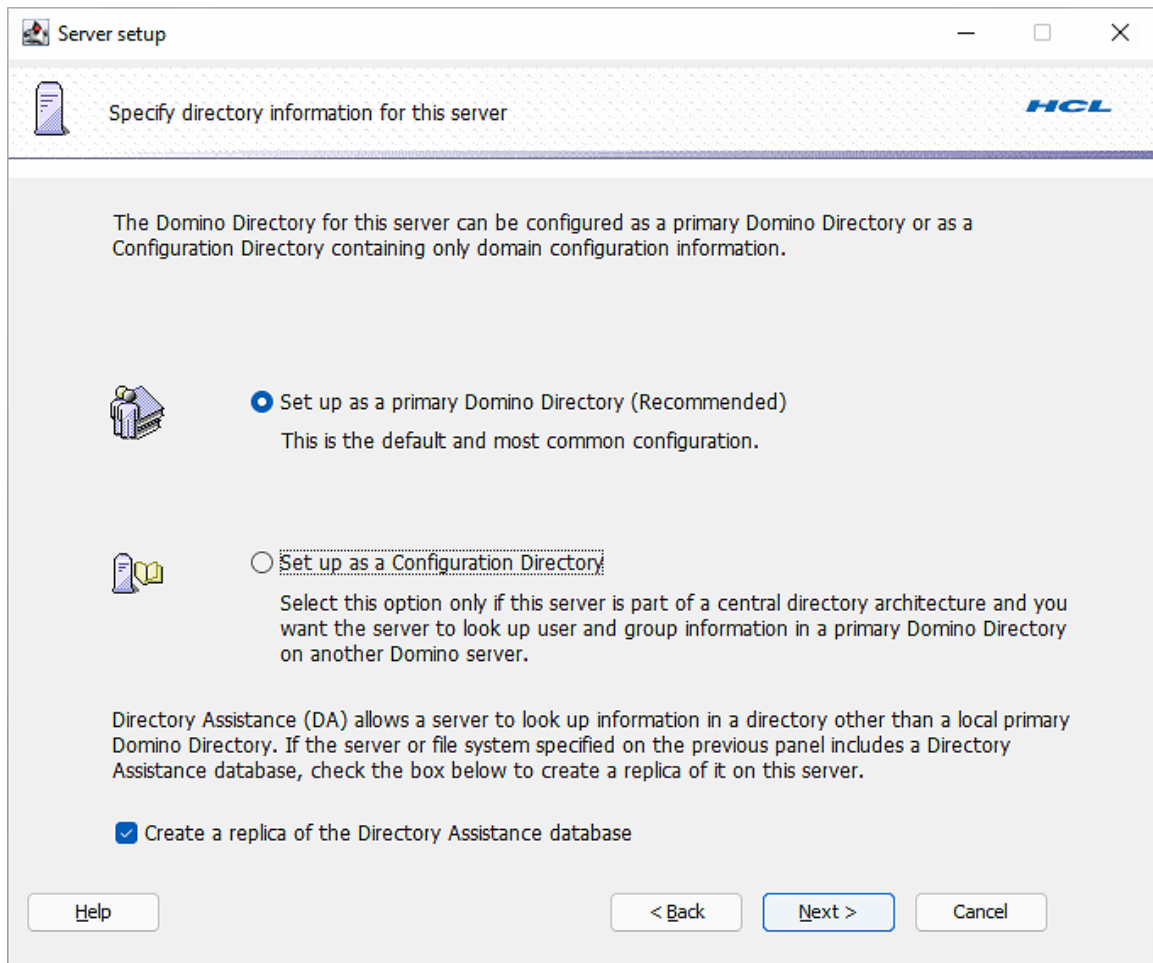
As a result, the servers would not communicate with each other and the existing admin would not have access to the new Domino server.



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



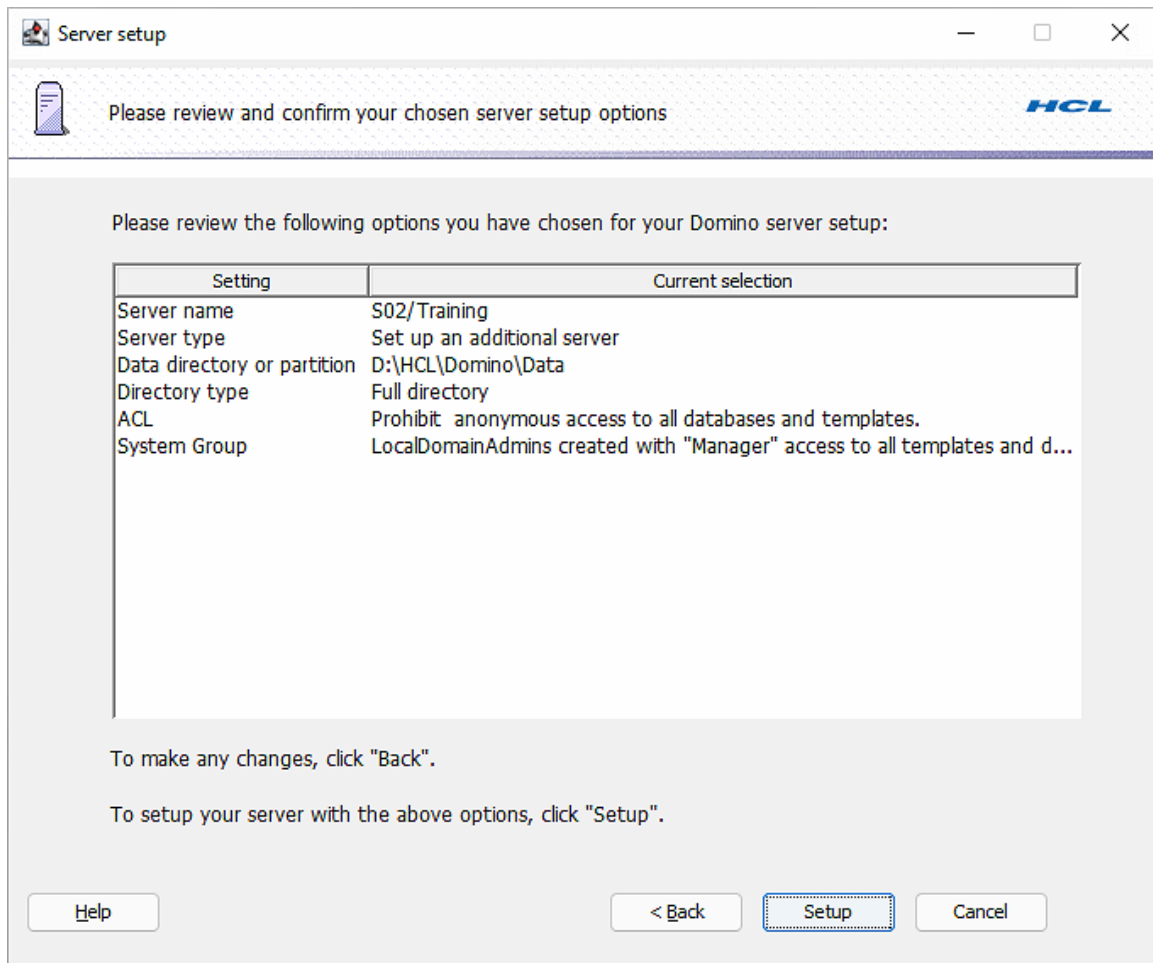
Using the »Customize« button we set the Common Name (CN) and the FQI name of the Domino server.



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.



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.

