



CORTADO

The Business Class of Mobile Services

Cortado Corporate Server for BlackBerry

■ Version 4.0

Installation and initial setup

Cortado. A Division of ThinPrint

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Safety warning

All ThinPrint products are pure software solutions. Please note the safety warnings in the technical documentation from your hardware vendor and from the manufacturer of each device and component.

Before beginning installation, we recommend closing all windows and applications and deactivating any virus scanner.

How to use this manual

The following conventions are used throughout this manual to represent recurring actions and text types.

Conventions

Note!	Important tip, explanation, exception
SMALL CAPS	Menu, command, dialog panel, option
<i>Italic</i> "Name"	Proper name, emphasis, variable
Courier	Keyboard input
→	Consecutive menu or command
■	Enumeration, head note
Example	Example
–	Procedural steps
1. 2.	
Page 5 www.cortado.com	Links



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Cortado Corporate Server for BlackBerry

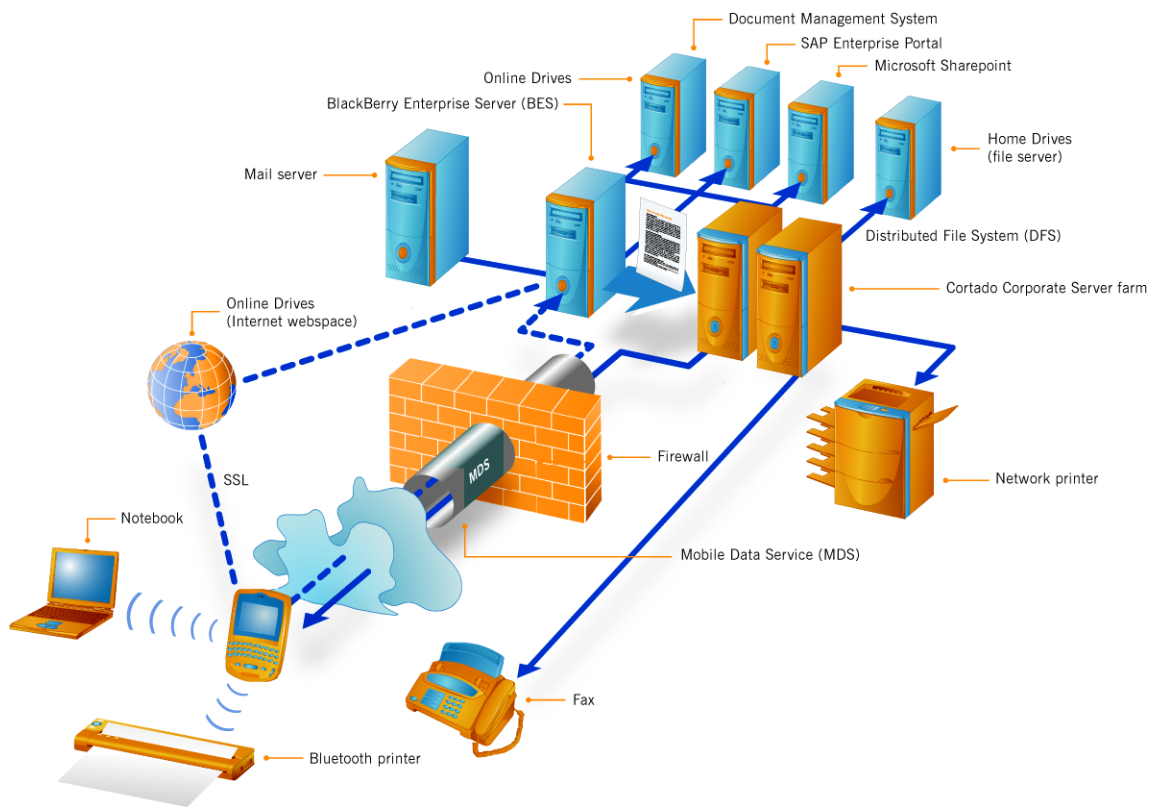
Cortado Corporate lets users have information available at any time and at any place, all via their BlackBerry smartphone. So they can view, copy and paste, print and fax documents on the spot!

Cortado Corporate highlights

- **Copy and view files.** Users can copy files from their corporate network to their BlackBerry smartphone or vice versa. They can view documents stored on their corporate network and can even use their BlackBerry smartphone as a memory stick.
- **“Save As”** will store e-mail attachments to network drives. This provides easy document access for others or a simple way to follow documentation requirements of the user.
- **“Send as e-mail”** will retrieve documents from the network. Users simply pick a file via the Cortado Corporate Server on the network drive, click SEND AS E-MAIL and the file will be e-mailed to the contact of their choice.
- **Folders can be organized** via cut, copy, paste, delete, rename and create functions. While mobile, users save time and simply organize files and folders on their company network via their BlackBerry smartphone without having a laptop with them.
- Users can **print any document** in its original format. They can print to any Bluetooth-enabled or network printer in their company in original format or let the Push Print functionality print their document automatically on their printer.
- **Faxes and Short Faxes** can be sent with the BlackBerry smartphone. Users can send e-mail attachments or any other document to fax machines or create faxes directly on their BlackBerry smartphone.
- **Present documents** from the BlackBerry smartphone on a computer screen with Present-to-Screen. Users can hold presentations via their BlackBerry smartphone by transferring documents to a computer screen in a highly compressed format.
- Users can **generate .pdf files** on their smartphones and print, fax or e-mail these documents.

Mobile access to company networks

The BlackBerry solution is the most reliable and approved mobile e-mail service. But what do you do if you are out of the office and need information which is not in e-mails but on the company server? With Cortado Corporate, users have access to all network drives – just like from a normal workstation.



Illus. 1 Cortado Corporate overview

Technology

Cortado Corporate Server is a client-server based solution, where the server component is installed behind a firewall at the company site. The communication between the clients¹ on the BlackBerry smartphones and the Cortado Corporate Server takes place completely through the secure MDS (Mobile Data Service) channel. The Cortado Corporate Server does not have any connection to the outside, just internal server connections, to the mail server and BlackBerry Enterprise Server (BES) for example.

The mobile access to the corporate network is realized through the Active Directory without causing any changes or extensions. Cortado Corporate Server is an open and scalable solution independent of the mail system offering not only access to the file system but also output functionalities to required information: every document can be displayed, printed, or even faxed. Another significant issue is the independence of file format, CAD documents or any Office files – Word, Project or Visio for example – are supported.

Cortado's flexible output options are integrated seamlessly into the BlackBerry menu structure and appear as an additional "Print" option. Print, fax and the Present-to-Screen function can be started directly from here.

¹ Cortado Explorer from version 3.6 or later

Once the print option is selected, the document is loaded on the Cortado Corporate Server and a print job is generated, compressed and sent as a data stream through the secure MDS channel to the BlackBerry smartphone.

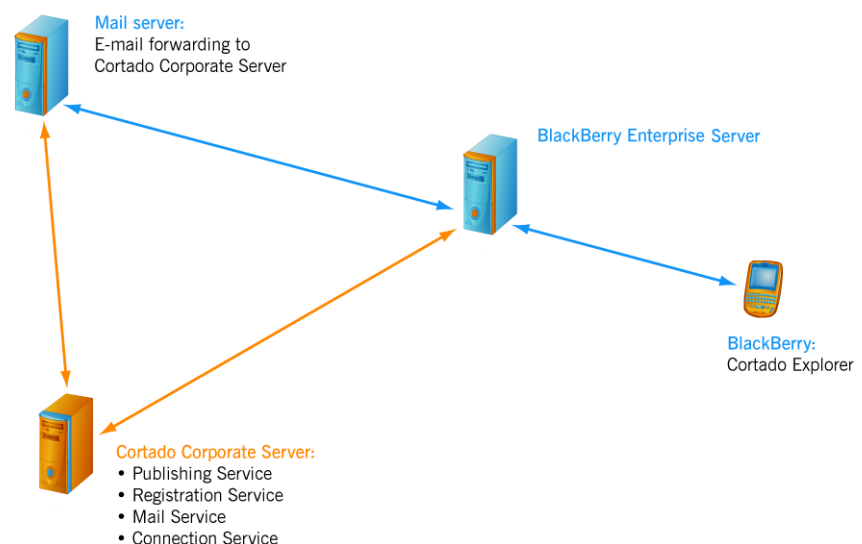
The document is printed in its original format. The highly compressed print job has a much smaller data volume than the original file. The same compression is used by the Cortado Presenter (Present-to-Screen).

By using the fax feature, the fax is sent directly from the Cortado Corporate Server, no data is transferred back to the device.

Cortado Corporate Server uses the BlackBerry Enterprise Server architecture with its outstanding security features. Print jobs are created by the server and sent securely via the BES to the BlackBerry smartphone. Both servers are behind a firewall. Another advantage is the innovative streaming technology. At no time is the document itself or the complete print job on the BlackBerry smartphone. Even if the device is lost or stolen, it is impossible to access the documents. Furthermore, only Bluetooth printers to which the user has previously explicitly established a connection (“pairing”) are accepted. The encryption of the Bluetooth connection then corresponds to the key length used for pairing.

The installation and initial configuration process

1. Install Cortado Corporate Server ([Page 8](#))
2. Configure the basic settings of the Cortado Corporate Server ([Page 11](#))
3. Configure your company’s mail server for e-mail forwarding to the Cortado Corporate Server (Exchange: [Page 18](#), Lotus Domino: [Page 22](#), Novell Groupwise: [Page 24](#))
4. User configuration (see Configuration manual)



Illus. 2 The Cortado Corporate components (Cortado Corporate Server can also be installed on the BlackBerry Enterprise Server)



System requirements

The following are the operating system, software, and hardware requirements:

■ Operating system and software requirements

- Cortado Corporate Server:
Windows Server 2003 or R2 (32 bit) with Service Pack 2 or higher
- BlackBerry Enterprise Server: version 4.1 or higher
- SQL database of the BlackBerry Enterprise Server:
SQL server must be remotely configurable
- BlackBerry smartphones: firmware version 4.1 or higher; support of local files with firmware version 4.2 or higher

■ Hardware: As suitable for the operating system (the amount of memory and the number of processors depend on the number of Cortado Corporate users). Minimum requirements for the Cortado Corporate Server:

- Intel Pentium/Celeron, AMD6/Athlon/Duron or compatible processor with 733 MHz, 1 GB RAM
- 2 GB of free space on hard drive for the Cortado Corporate Server

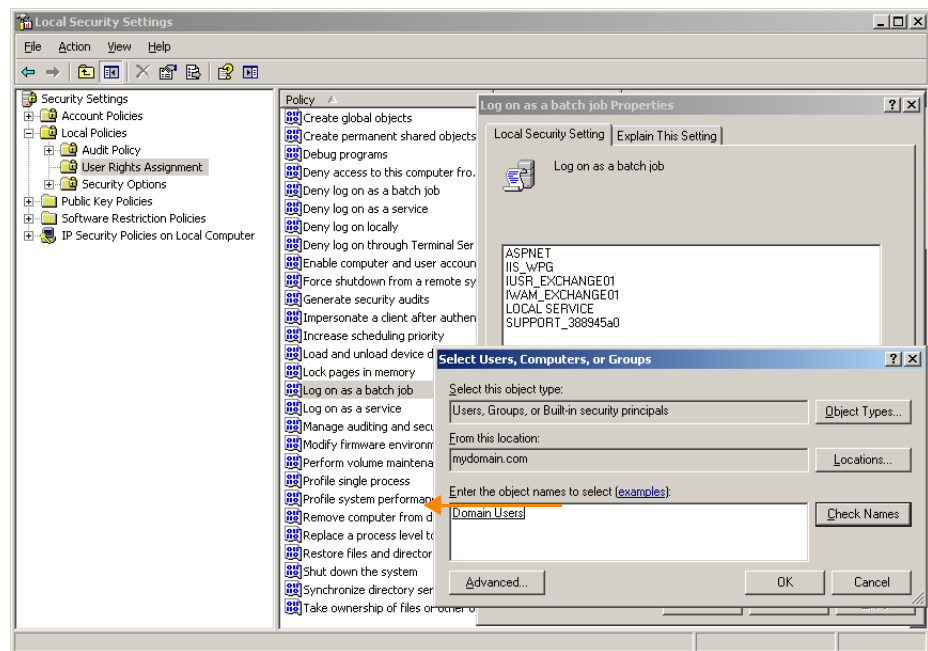
- You can also install the Cortado Corporate Server on the BlackBerry Enterprise Server, but not on a mail server or Domain Controller.
- The server on which the Cortado Corporate Server is to be installed must be a member of the same domain as the BES; the mail server must be a member of this domain only if it is running MS Exchange.
- As the allocation of the users' network drives is carried out via DFS (Distributed File System), this function should not be deactivated. Nevertheless you can find out how to inhibit the file access for users in the configuration manual.
- Please pay attention that the Cortado Corporate Server requires a Domain Controller as well as users who are activated in the Active Directory, even when using Novell Groupwise.
- If a proxy server is being used in your BlackBerry infrastructure, this needs to be transparent in some places for the installation of the Cortado Corporate Server. This concerns the communication between the clients and the server on its' ports 81 (Client Communication Port) and 82 (Client Registration Port). For how to proceed please see the relevant documentation.

Note! Please also inform yourself about installation requirements in the next section, "Preparing to install Cortado Corporate Server", before installing the Cortado Corporate Server.

Preparing to install Cortado Corporate Server

Activating group policy Cortado Corporate Server automatically carries out all actions on behalf of the BlackBerry user in his user context. That's why the group policy LOG ON AS A BATCH JOB must be activated for all domain users on the Cortado Corporate Server prior to installing the software (START → SETTINGS → CONTROL PANEL → ADMINISTRATIVE TOOLS → LOCAL SECURITY POLICY, see Illus. 3).

Furthermore the users need a User Principle Name (UPN).



Illus. 3 Cortado Corporate Server:
Adding Domain Users to the LOG ON AS A BATCH JOB policy

Fax If the fax option is to be provided to users, Windows Fax Services (and a compatible modem) must be installed on the Cortado Corporate Server.

Installation goal

With installation of Cortado Corporate Server all necessary license keys and applications will be installed. Additionally, the Cortado Corporate Services will be registered.

Installing Cortado Corporate Server

We recommend that you log on as domain administrator to the server which will be setup as the Cortado Corporate Server. You can also log on as a domain user with local administrator rights, but then you will not be able to use the Active Directory options which are offered under the user management of the Configuration Assistant (see [Page 13](#)). These are, however, just to make the configuration and user management more convenient, and are not necessary to accomplish these tasks.



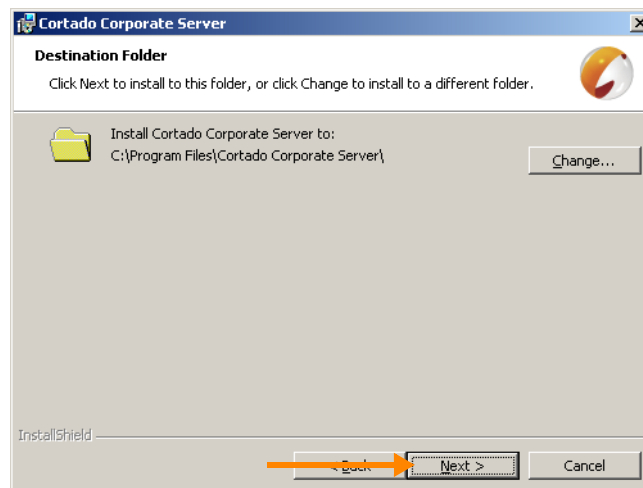
In either case, you should bear in mind that the configuration and user management can only be carried out with the user account which was used at installation.

1. Start the installation program by running **Setup.exe**, which can be found on the product CD or downloaded from the Cortado website.
2. Confirm the “Welcome” window by clicking NEXT.
3. Read and accept the Cortado Corporate license agreement and click NEXT (Illus. 4).



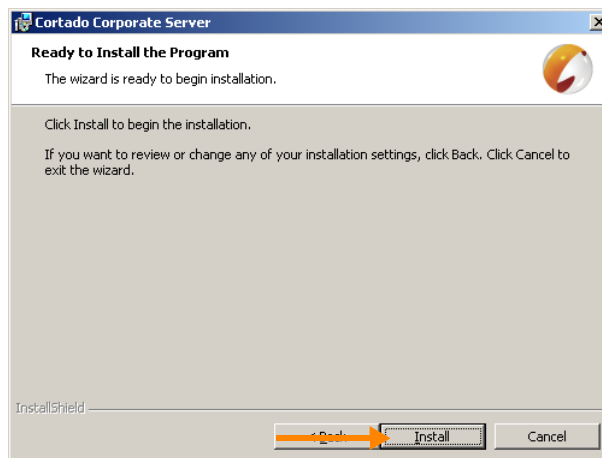
Illus. 4 License agreement

4. Enter the CUSTOMER INFORMATION and proceed with NEXT.
5. In the next window (Illus. 5) you can designate the destination folder. Click NEXT and the Cortado Corporate Server will be installed at C:\Program Files\Cortado Corporate Server. If you prefer a different folder, click CHANGE.



Illus. 5 Choose destination folder

6. When you click **INSTALL** in the next window (Illus. 6), installation of the Cortado Corporate components will begin.



Illus. 6 Begin installation

7. Click **FINISH** (Illus. 7) to complete installation and start the initial configuration.



Illus. 7 Finish installation

Installation results The installation program installed all necessary demo license keys. The Cortado Corporate services are registered and started, but not yet configured. Additionally, the following programs have been installed – if necessary:

- ThinPrint License Manager
- MSXML 6.0 SP1
- Microsoft .NET Framework 2.0 SP1
- Java 2 Standard Edition Runtime Environment 6.0 Update 12
- OpenOffice.org 3.0.0
- Active Directory Application Mode (ADAM)
- Microsoft Internet Information Services 6



Note! The evaluation period of the installed demo license keys elapses after 30 days. If you want to use Cortado Corporate Server furthermore please purchase and **activate the software** within this period. Full particulars can be found in the chapter “License activation” in the Configuration manual.

Configuring the Cortado Corporate Server

After installing Cortado Corporate Server, the **Configuration Assistant** automatically opens to guide you through the initial configuration. You can change the settings entered here at any time by running the Configuration Assistant again (START→ PROGRAMS→ CORTADO CORPORATE SERVER→ CONFIGURATION ASSISTANT).

Initial configuration goal

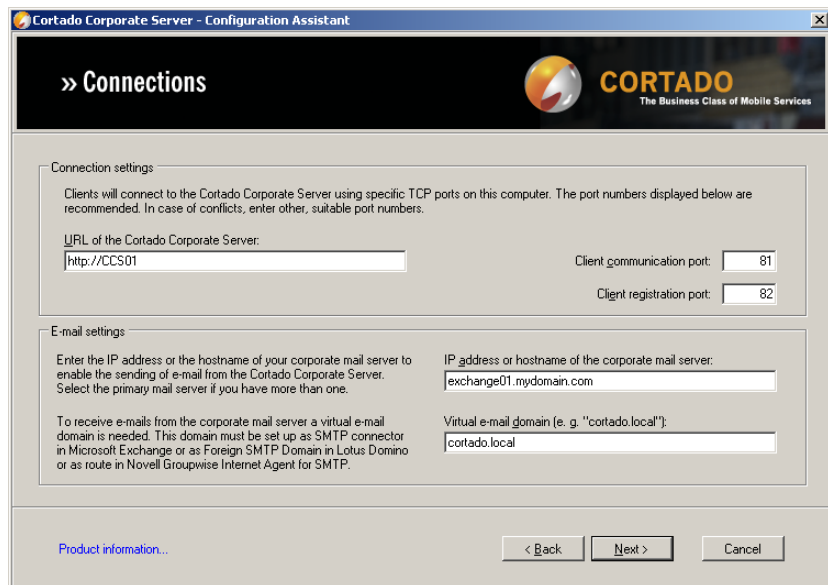
With the initial configuration the following settings are specified:

- Prepare the e-mail forwarding between the mail server and the Cortado Corporate Server
- Define the path to the storage for Cortado Corporate user directories

In a standard configuration, you can carry over all the settings entered into the configuration assistant and confirm each with NEXT.

Connection settings

After you have confirmed the Welcome window with NEXT the connection settings open (CONNECTIONS, Illus. 8)



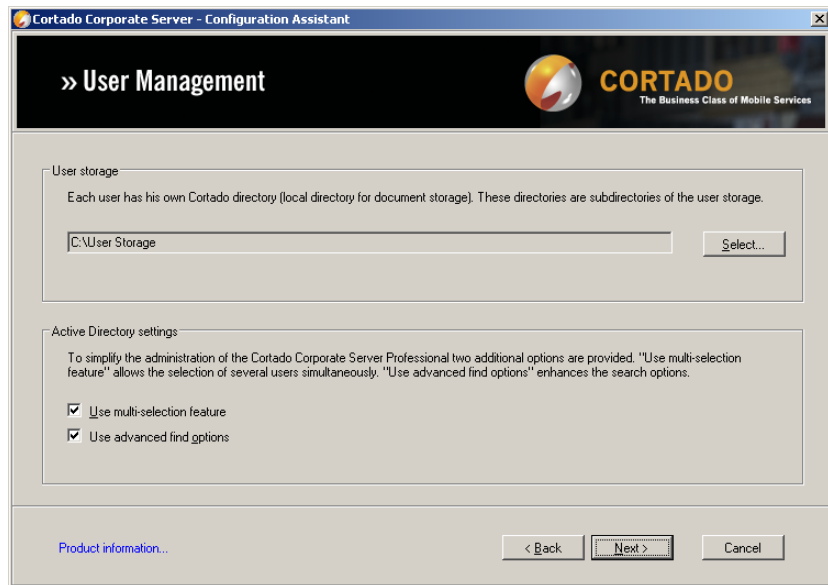
Illus. 8 Connection settings

- Under CONNECTION SETTINGS (Illus. 8, top) enter the URL of the Cortado Corporate Server. Please note that the URL of the Cortado Corporate Server must be reachable from the BES. The offered URL can be accepted. Furthermore the following TCP ports are required:
 - CLIENT COMMUNICATION PORT:
The default port for connections from the BlackBerry devices to the Cortado Corporate Server is 81.
 - CLIENT REGISTRATION PORT:
The default port that the BlackBerry devices use to register with the Cortado Corporate Server is 82.
- If these port numbers are occupied by other applications select different ones.



- Under E-MAIL SETTINGS (Illus. 8, bottom), enter the IP address or host name of your primary corporate mail server.
- As VIRTUAL E-MAIL DOMAIN enter the address of the SMTP connector (Microsoft Exchange) or the name of the SMTP Foreign Domain (Lotus Domino) that you will create on the mail server after the initial configuration of the Cortado Corporate Server (arbitrary; suggestion: *cortado.local*; see „Configuring the mail server“, [Page 18](#); for further Novell Groupwise information see [Page 24](#)).
- Click NEXT to continue.

User management



Illus. 9 User management settings

- If you do not want to change any of these optional settings, click NEXT.
- Otherwise set the path to the USER STORAGE, the root directory of the Cortado Corporate Server. The user directories are located therein (default: c:\User Storage)². In these directories are the folder “My Documents“ as well as the links for shared folders on the company network located (see “Drive-access configuration” in the Configuration manual).

We recommend activating the multi-selection feature and the convenient search function (USE ADVANCED FIND OPTIONS)³ under ACTIVE DIRECTORY, so that later user configuration is significantly simplified (see chapter “User configuration” in the configuration manual).

² In the User Storage each user can only see her or his own directory.
³ These options are only available if Cortado Corporate Server is installed and configured by a domain administrator.

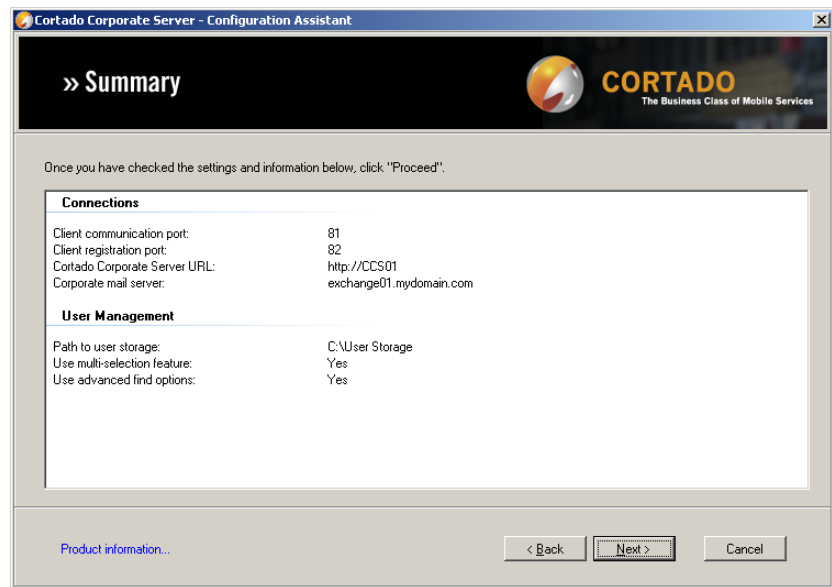
The option USE MULTI-SELECTION FEATURE allows you to edit multiple users at the same time in the user management of the Cortado Corporate configuration console (see “User management” in the Configuration manual).

Note! Enabling the USE MULTI-SELECTION FEATURE option will effect a change of the “adminMultiselectPropertyPages” attribute in your company’s Active Directory.

Activating the function USE ADVANCED FIND OPTIONS allows you to also display the Cortado Corporate tab, where diverse user settings can be adjusted, in the local user search in the domain.

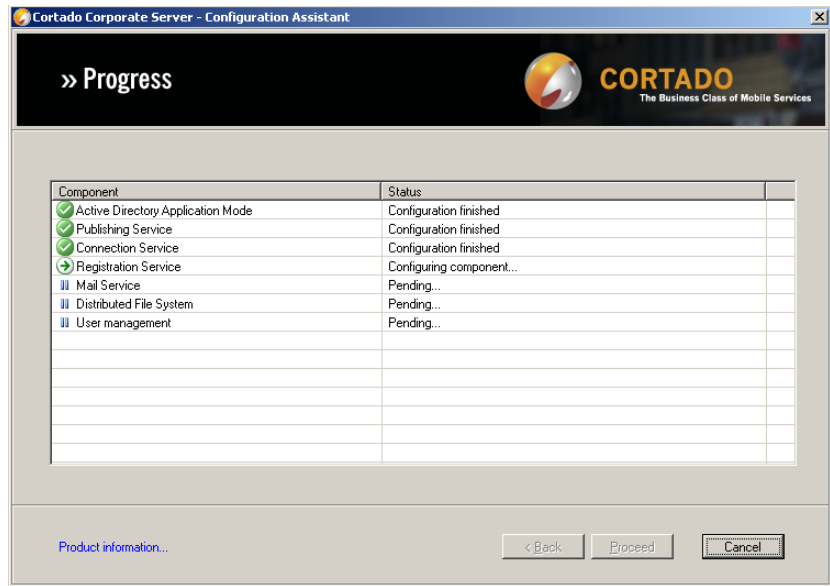
Note! Enabling the USE ADVANCED FIND OPTIONS changes the “adminPropertyPages” attribute in your company’s Active Directory.

- When you click NEXT, the selected settings for initial configuration will be displayed (Illus. 10).



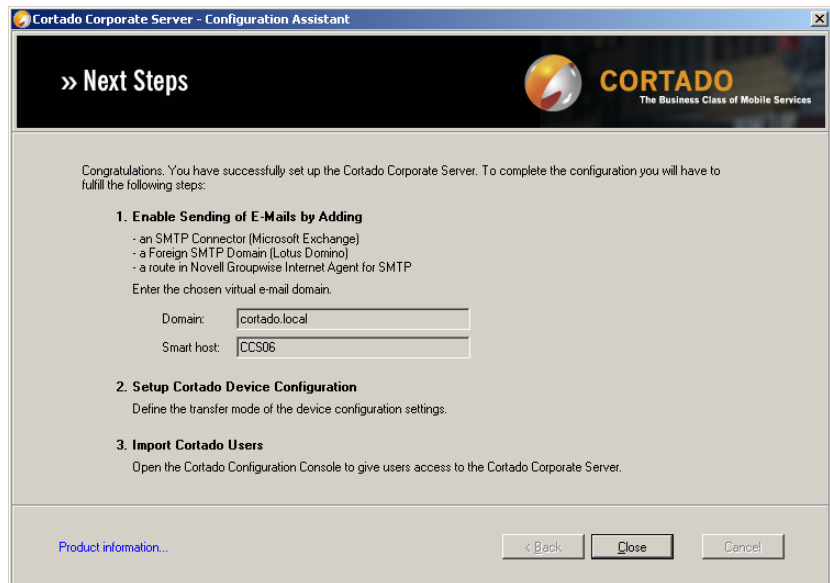
Illus. 10 Initial configuration summary

- Verify the information. If everything is correct, click NEXT to continue. The services will now be configured. Initial configuration is finished when a green checkmark appears next to all the services (Illus. 11). If a red cross appears you can double-click it to show an error description (also see “Abbreviations”, [Page 25](#)).



Illus. 11 Components are being configured

- Click NEXT. An information window with further instructions opens (Illus. 12). Close the window.



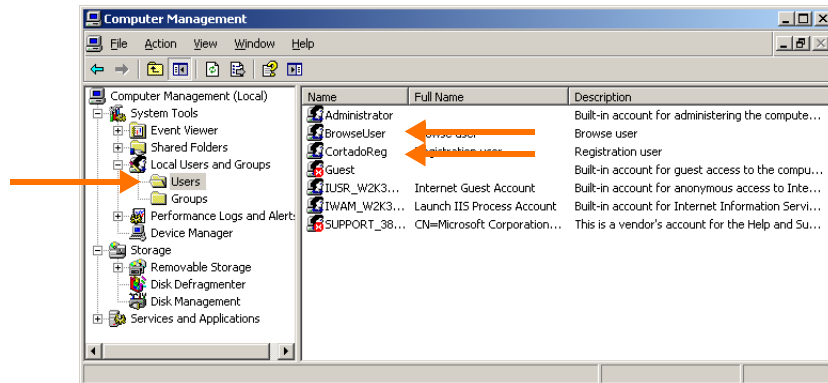
Illus. 12 Configuration finished

Results of initial configuration

The initial configuration creates two user accounts, one printer, printer ports, and folders in the installation directory (Illus. 14 to 17).

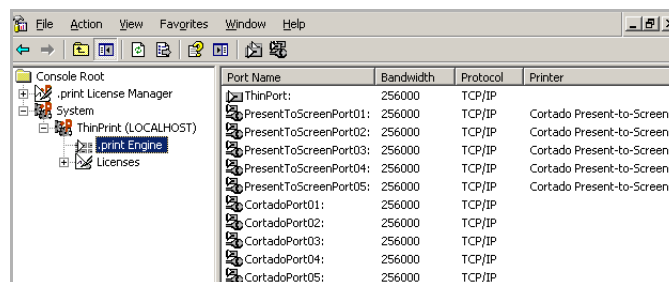
In detail:

- User accounts:
 - A “virtual” user of the Publishing Service’s web service: “BrowseUser”
 - Virtual Registration Service account: “CortadoReg”



Illus. 13 Local users added

- Printer ports (ThinPrint Port type⁴):
 - “CortadoPort01” to “CortadoPort05” (Illus. 14) – combined in a printer pool
 - “PresentToScreenPort01” to “PresentToScreenPort05” – combined in a printer pool
- Printer:
 - A printer has been installed for Present-to-Screen. It has been added to the PresentToScreenPorts.



Illus. 14 Printer ports added

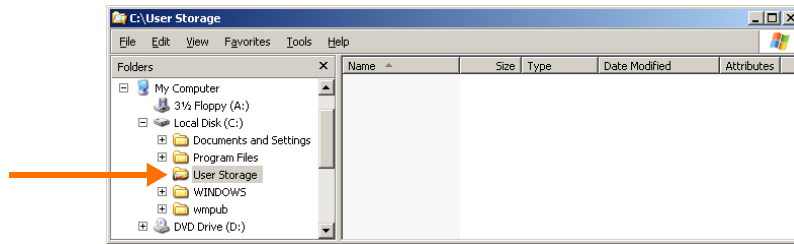
- Folders:
 - “User Storage” (Illus. 15): This directory is the Cortado Corporate Server’s root directory; it’s currently empty.

Once a user account has been activated for Cortado Corporate in the Configuration Console (or in the AD), s/he will get her or his own directory. The folder “My Documents“ as well as links to shared folders on the company net-

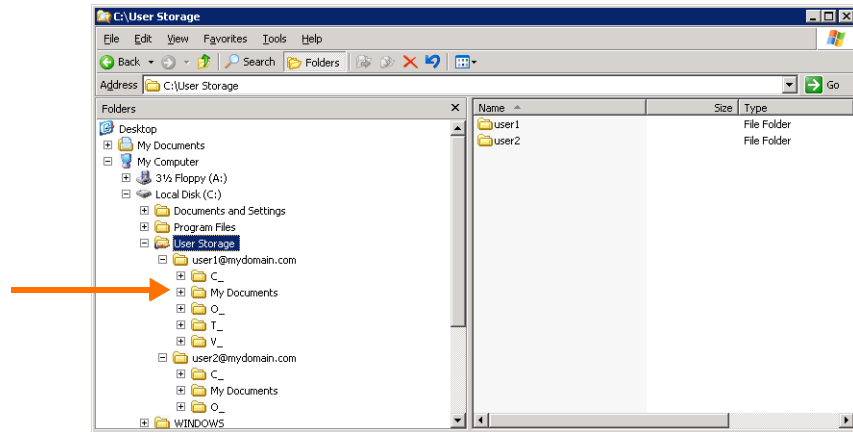
4 Printer ports of the .print Engine, which has been installed with the Cortado Corporate Server



work are created in each user directory (see “Drive-access configuration” in the Configuration manual). These links are listed as HOME DRIVES in the Cortado Explorer on the BlackBerry smartphone.⁵



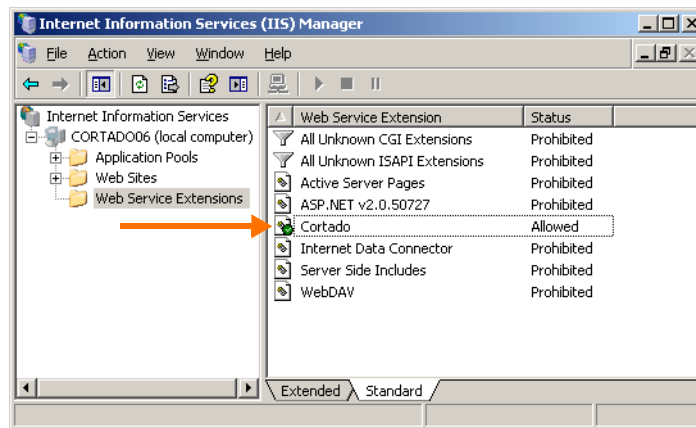
Illus. 15 Cortado Corporate Server root directory (directly after initial configuration): USER STORAGE



Illus. 16 USER STORAGE after entering users (example)

- The Cortado Registration Service has been set as a web service using TCP port 82 (default; see START→ SETTINGS→ CONTROL PANEL→ ADMINISTRATIVE TOOLS→ INTERNET INFORMATION SERVICES (IIS) MANAGER, Illus. 17).
- The Cortado services ADAM, Publishing Service, Connection Service, and Mail Service have been configured and started.

⁵ Please do never confuse: Each user can have a *Home Folder* in the Active Directory and a *user directory* in the Cortado Corporate Server’s User Storage.



Illus. 17 Registration Service as the “Cortado” web service

Configuring the mail server

Learn in this chapter how to set up the e-mail forwarding with Microsoft Exchange (see below), Lotus Domino and Novell GroupWise. If you are using Lotus Domino, skip the following section and continue reading on [Page 22](#). Learn how to set up e-mail forwarding with Novell Groupwise on [Page 24](#).

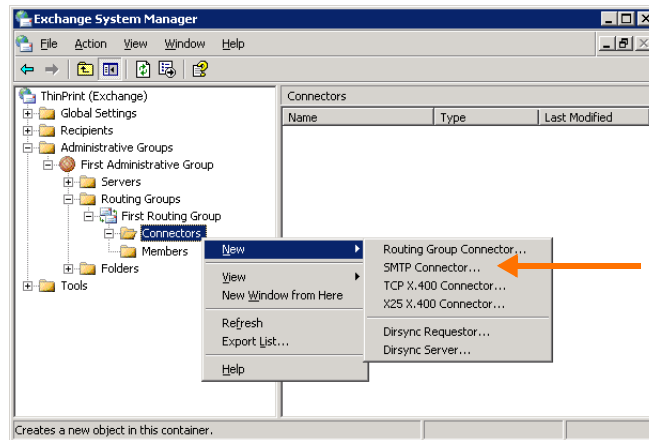
Setting up e-mail forwarding with Microsoft Exchange

Configuring an SMTP connector

Cortado Corporate needs an e-mail forwarding from the mail server to the Cortado Corporate Server. Exchange servers are linked to respective domains; e-mail forwarding is possible to foreign domains only. Both the Cortado Corporate Server and the mail server are members of the same domain. Because the e-mails have to be forwarded within this domain an additionally – not really existent – domain is necessary (e.g., “cortado.local”).

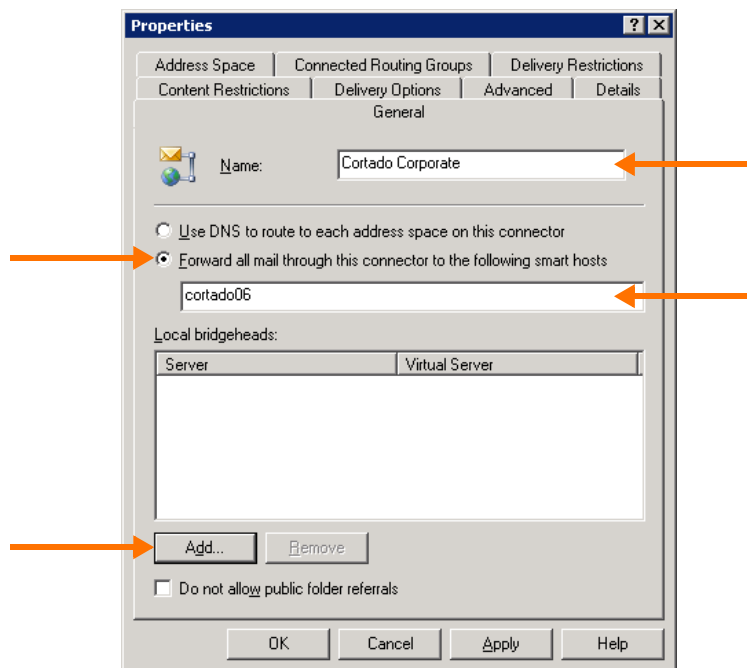


1. To do so, open the Microsoft Exchange System Manager (START → PROGRAMS → MICROSOFT EXCHANGE → SYSTEM MANAGER).
2. Select CONNECTORS → NEW → SMTP CONNECTOR (Illus. 18).



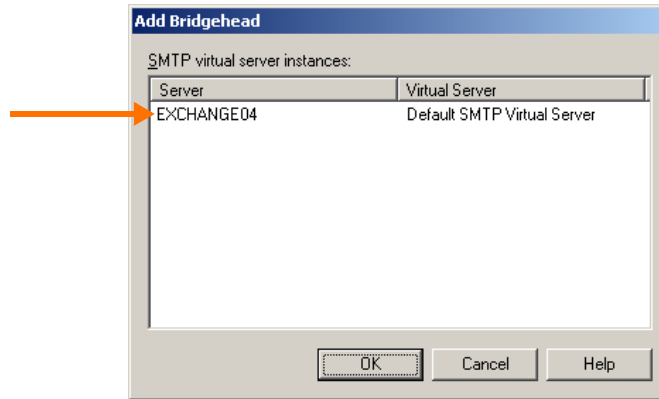
Illus. 18 Setting up a connector (example for Exchange 2003)

3. A new window opens (Illus. 19).



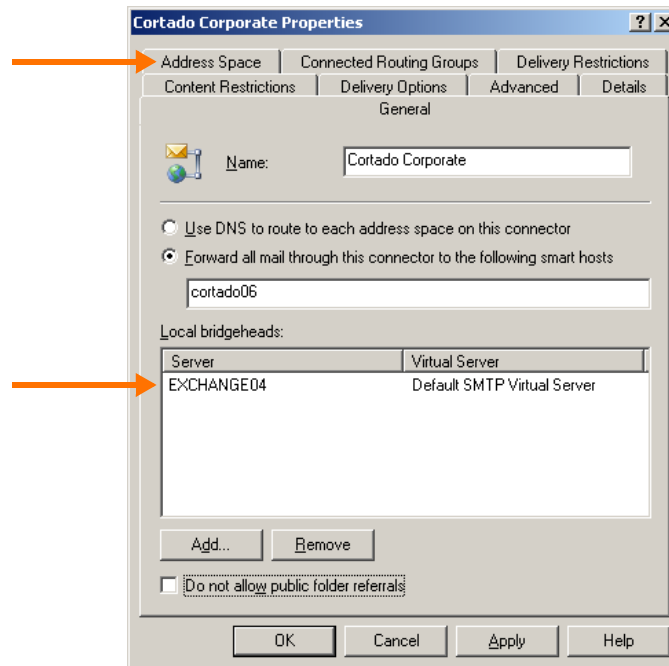
Illus. 19 E-mails will be forwarded to the Cortado Corporate Server

4. Give the connector a name (for example, Cortado Corporate) (Illus. 19).
5. Enable FORWARD ALL MAIL THROUGH THIS CONNECTOR TO THE FOLLOWING SMART HOSTS. Enter the address of the Cortado Corporate Server (IP address or host name; example in Illus. 19).
6. Click ADD. A new window opens (Illus. 20). Select all relevant Exchange servers. Click OK.



Illus. 20 Selecting Exchange server

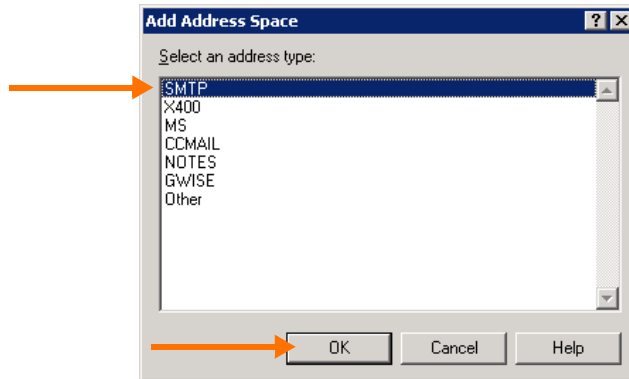
7. Your Exchange server is displayed as a local bridgehead now (Illus. 21).



Illus. 21 Connector properties entered

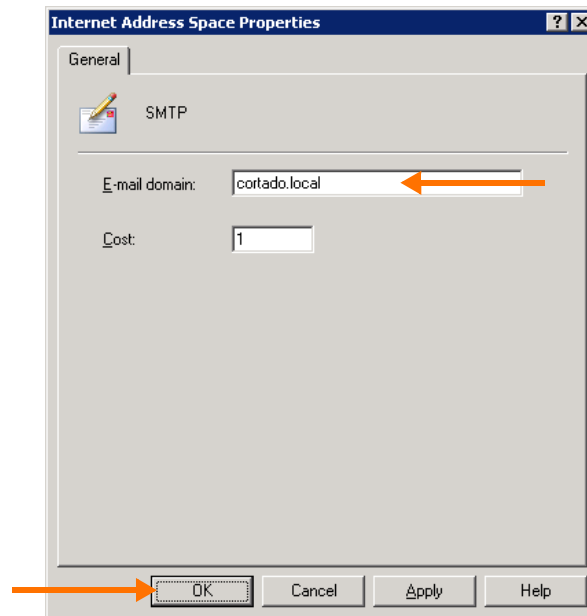


- 8. Select the ADDRESS SPACE tab (top arrow in Illus. 21). Click ADD.
- 9. A new window opens (Illus. 22). Select SMTP and click OK.



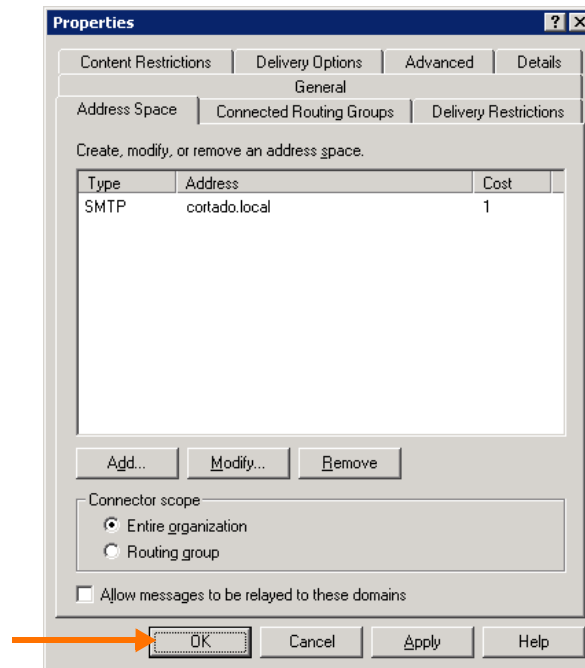
Illus. 22 Specifying domain type

- 10. A new window opens (Illus. 23). Enter the not really existent e-mail domain that you configured on the Cortado Corporate Server before “cortado.local” as E-MAIL DOMAIN and click OK (e.g. “cortado.local”, see also Illus. 8). Click OK to confirm.



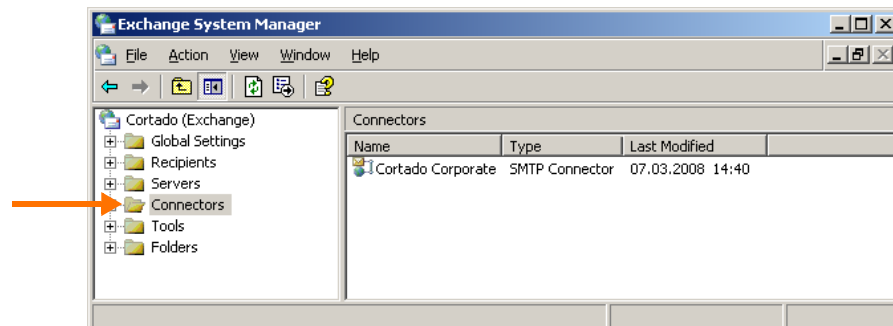
Illus. 23 Entering the – not really existent – e-mail domain

11. Click OK to confirm your settings (Illus. 24).



Illus. 24 Finishing connector configuration

12. The SMTP connector thus configured will now be listed under CONNECTORS (Illus. 25).



Illus. 25 Connector added

All e-mails to be printed will be automatically forwarded to the Cortado Corporate Server – namely to the domain entered here.

Setting up e-mail forwarding with Lotus Domino

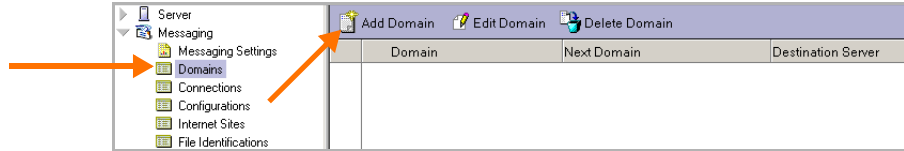
Creating a Foreign SMTP Domain

During the printing process, the e-mails to be printed are forwarded – with control information – to the Cortado Corporate Server via SMTP. This requires the setup of an external e-mail domain, which forwards e-mails addressed to a not really existent e-mail domain (“cortado.local”) to the Cortado Corporate Server (see also Illus. 8). This ensures that “normal” e-mail traffic is not disrupted.

The Cortado Corporate Server components do not require direct access to the users’ mailboxes.

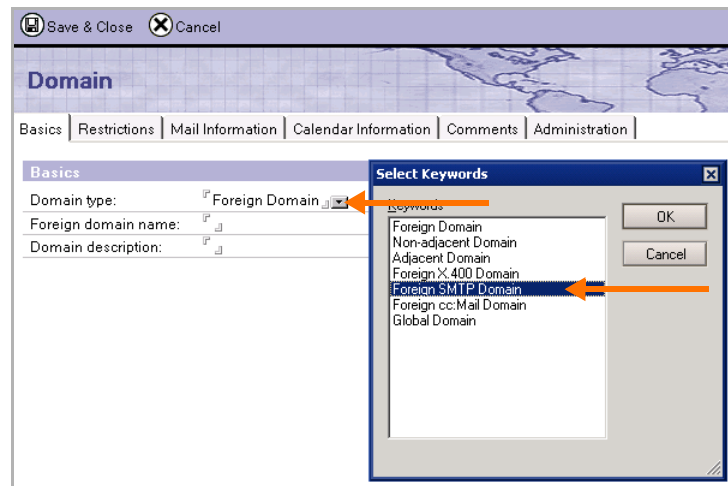


1. Start the **Domino Administrator**.
2. Select the **CONFIGURATION** tab.
3. Select **MESSAGING** → **DOMAINS** (Illus. 26, left arrow).
4. Click **ADD DOMAIN** now (right arrow).



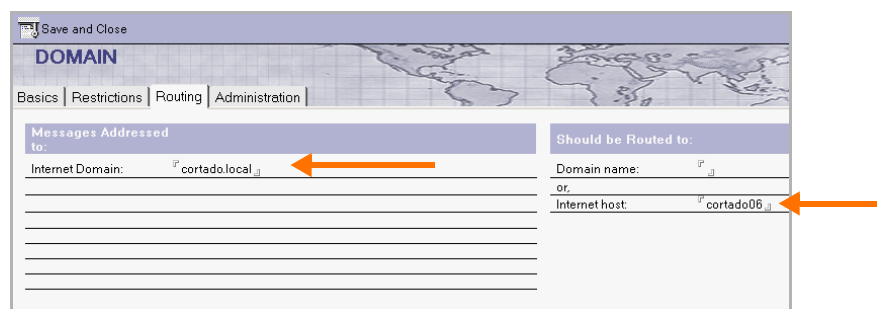
Illus. 26 Adding a domain

5. The **DOMAIN TYPE** has to be a **Foreign SMTP Domain** (Illus. 27, rear window). To do so, click the combo box in the relevant line (left arrow). In the window that opens, select **FOREIGN SMTP DOMAIN** (right arrow). Once you click **OK**, the **FOREIGN SMTP DOMAIN** is entered as the domain type.



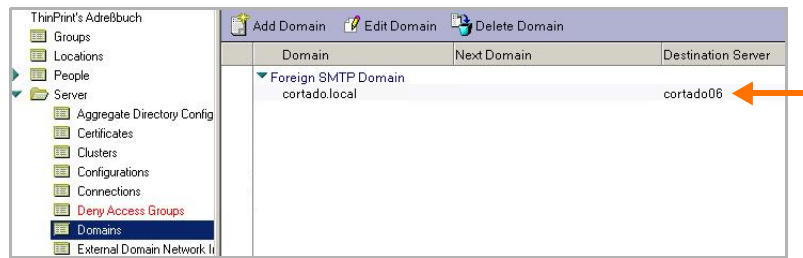
Illus. 27 Creating the foreign SMTP domain

6. Go to the **ROUTING** tab (Illus. 28). As **INTERNET DOMAIN** enter “cortado.local” (left arrow). As **INTERNET HOST** enter the IP address (or host name) of the Cortado Corporate Server (right arrow). (See also Illus. 8.)



Illus. 28 Routing settings: Entering the – not really existent – e-mail domain and the Cortado Corporate Server

7. Once you click SAVE AND CLOSE (Illus. 28), the address of the Cortado Corporate Server will appear under DESTINATION SERVER (Illus. 29).



Illus. 29 Foreign SMTP domain configured

All e-mails to be printed will be automatically forwarded to the Cortado Corporate Server – namely to the Foreign SMTP Domain created here.

Setting up e-mail forwarding with Novell Groupwise

Adjusting the Internet Agent

During the printing process, the e-mails to be printed are forwarded – with control information – to the Cortado Corporate Server via SMTP. This requires the setup of an external e-mail domain, which forwards e-mails addressed to a not really existent e-mail domain (“cortado.local”) to the Cortado Corporate Server (see also Illus. 8). This ensures that “normal” e-mail traffic is not disrupted.

This forwarding occurs by a route that must be added to the Groupwise Internet Agent for SMTP. To do this, create the configuration file route.cfg (= text file) in the home directory of the Internet Agent on the Groupwise Server (domain\wpgate\gwia). Enter here the not really existent e-mail domain that you already set up previously on the Cortado Corporate Server (for example, “cortado.local”, see Illus. 8). Add the IP address (in brackets) or the host name of the Cortado Corporate Server to the domain name, for example: cortado.local [192.168.1.5] . Make sure that the file ends with a blank line and save it.

The e-mails to be printed are automatically forwarded to the Cortado Corporate Server, namely to the domain entered here.

User configuration

You have carried out an initial configuration of Cortado Corporate Server and set up the e-mail forwarding between mail server and Cortado Corporate Server. Following this, the device registration has to be prepared and the users have to be enabled for Cortado Corporate. Further information about that can be found in the Configuration Manual. If you want to deliver the configuration information by IT Policy to the Black-Berry smartphones, then configurations on the BES need to be carried out (see Configuration Manual).



Appendix

Customer service and technical support

www.cortado.com/support
support@cortado.com

Abbreviations

AD	Active Directory
ADAM	Active Directory Application Mode
BES	BlackBerry Enterprise Server
Bluetooth printing	printing with mobile devices via a local interface like Bluetooth, infrared, or WLAN (see "Local Printers" on client-side)
CN	Common Name
DC	Domain Controller/Domain Component
DFS	Distributed File System
DNS	Domain Name System
GB	Gigabyte
HTTP	Hypertext Transfer Protocol
ID	Identification number
IIS	Internet Information Services
IMEI	International Mobile Equipment Identity
MB	Megabyte
MDS	Mobile Data Service (RIM)
MMC	Microsoft Management Console
OU	Organizational Unit
PIN	Personal Identification Number
RAM	Random Access Memory
Reg PIN	Registration PIN
RIM	Research in Motion
SMTP	Simple Mail Transfer Protocol
SP	Service Pack
SQL	Structured Query Language
TCP/IP	Transport Control Protocol/Internet Protocol
TP	ThinPrint
UNC	Universal Naming Convention
UPN	User Principle Name
URL	Universal Resource Locator (Internet address)