


# CIS mobile: Installation Guide

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Synactive GmbH
Herrmann-Löns-Str. 27
66125 Saarbrücken
Germany

Tel. +49 6897 728930
email office@synactive.com
http://www.synactive.com

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# 1. General

CIS mobile is installed on a Windows server as an IIS application (Microsoft Internet Information Services). The data connection to your SAP system is implemented via RFC (Remote Function Call) and SAP GUI .

The installation consists of the following main steps:

- Providing all prerequisites on the server
- Creating a CIS service user (Windows)
- Copying the files and defining the application in IIS
- Adapting CIS mobile to your needs (SAP connection , company name , etc.)

The installation guide is formulated in detail and illustrated with numerous screen-shots, so that no special IIS expertise is required.

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# 2. Prerequisites

(1) Web server:  Windows Server 2008 (or above) or Windows 7

(2) Space required on the server
- 0.1GB of disk space
- 2GB of additional memory for 50 simultaneously active users

(3)IIIS 7.x (or above) installed , IIS feature "ISAPI Extensions" activated

*The IIS setup or subsequent configuration of IIS features can be regulated at any time without needing Windows installation files.*

Entering the URL http://localhost in the Browser should display the „Welcome“ screen of the IIS, or the first HTML page of  an IIS default application. If the „Welcome" screen or the default application does not appear please check the IIS installation.



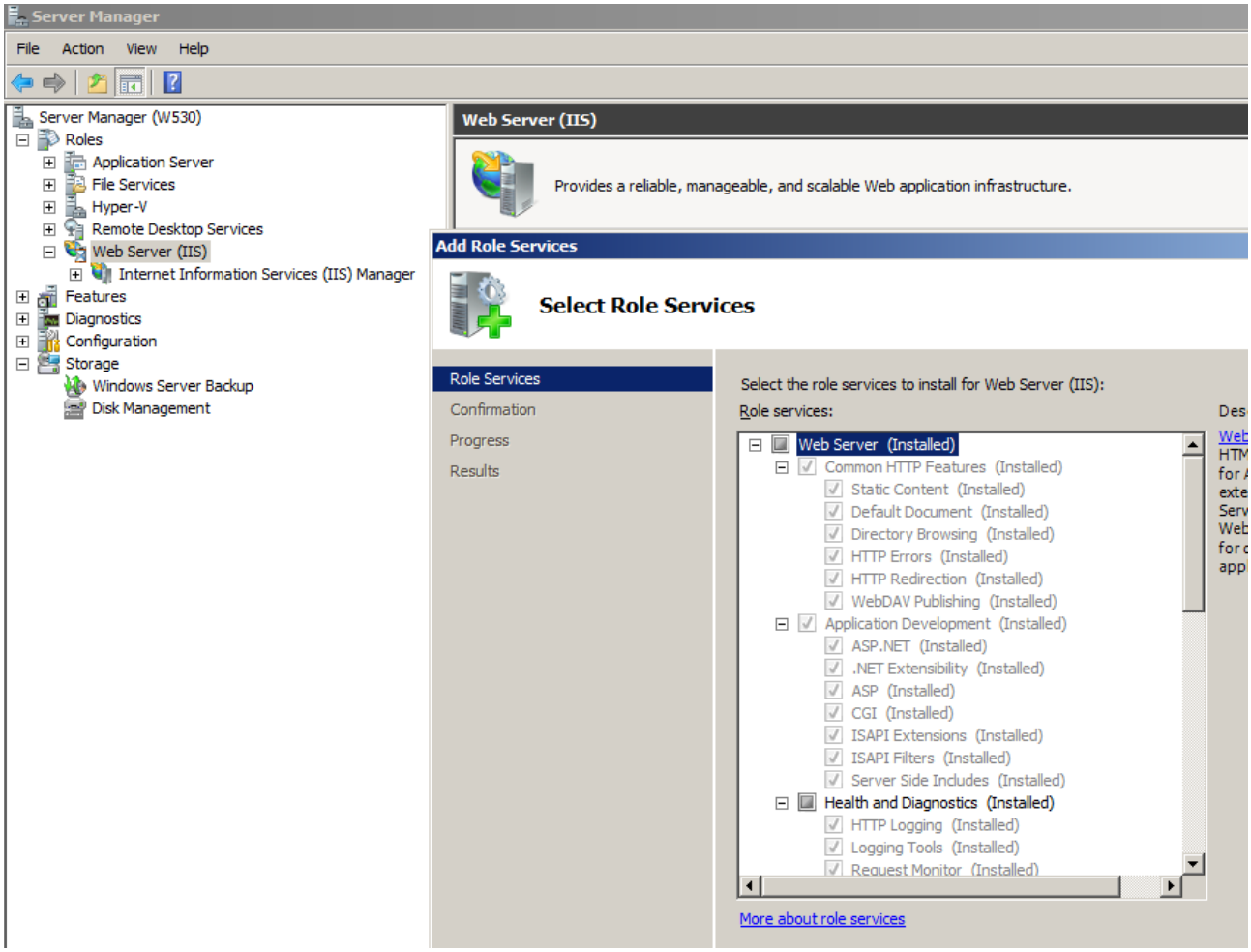

For the CIS installation it suffices that your web server can be reached in your own local network. In this guide we do not cover the typical external internet access topics such as domain registration, fixed IP address, routers and port forwarding, firewalls, SAP Web

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Dispatcher.

The IIS "ISAPI Extensions"  can be configured in the Windows Server manager through "Add Role Services"

→ Web Server
→ Application Development
→ ISAPI Extensions




(4) You can use CIS mobile via https, which we recommend in production systems. This can be configured at any time after the CIS installation.

(5) SAP GUI 7.30 or above

(6) SAP GUI Scripting

The SAP profile parameter

sapgui / user_scripting

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needs to be set to TRUE.

You can control the use of SAP GUI Scripting individually for each user: Set the SAP profile parameter

sapgui / user_scripting_per_user

to TRUE and add the SAP authorization " S_SCR ", " Execute (16) for all CIS users.

For more details see

http://www.erpexecutive.com/2010/12/how-to-enable-sap-gui-scripting/

and the " SAP GUI Scripting Security Guide"

http://www.sdn.sap.com/irj/sdn/go/portal/prtroot/docs/library/uuid/3099a575-9cf4-2a10-9492-9838706b9262?overridelayout=true&49868865327964

(7) Microsoft Visual Studio 2012 or above

*If you want to develop your own add-ons.*

(8) .NET Framework 4.0 enabled

In Windows Server Manager choose Features -> Add feature and tick the .NET Framework 4.0 checkbox.

(9) Internet Explorer 10 or above

*Is not required but is recommended for local testing.*

(10) CIS mobile installation file „cismobile.setup.zip“ with license

*Available from Synactive GmbH, email office@synactive.com*

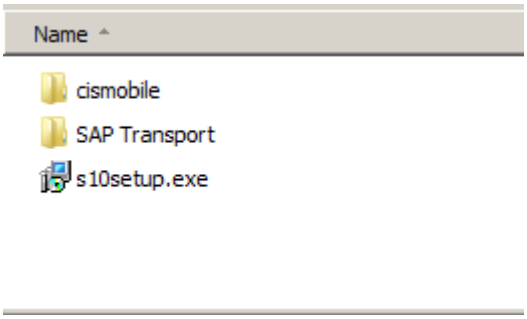
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# 3. Installation

### *Step 1: Unzip the installation file*

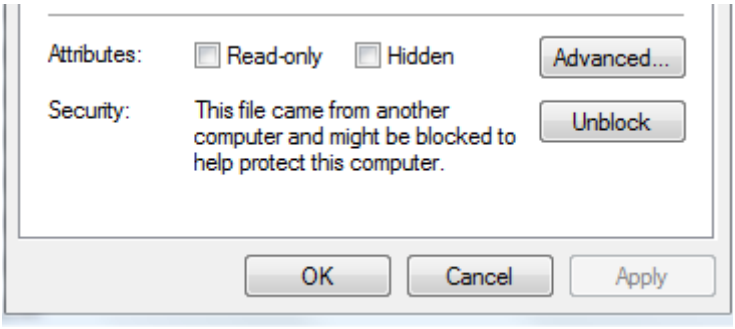
Unzip the file " cismobile.setup.zip " into an arbitrary directory, e.g. C:\cismobilesetup. The folder can be deleted after installation.

The folder with the extracted files looks as follows:




**Hint:**
If you downloaded the .zip file from an internet server like www.synactive.com or another source it might be necessary to make sure that windows trusts all the files in the archive.

That means you need to unblock the .zip file. To do so, right click on the file and select “properties”. Then click on “unblock” as shown on the following picture:




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## *Step 2: Install the S10 Repository*

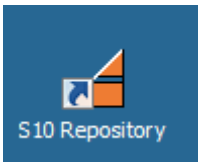
Execute the program „s10setup.exe“.

This installs the development environment „Synactive S10 Repository“ which we need in order to configure CIS mobile later on, and also for the development of your own add-ons.

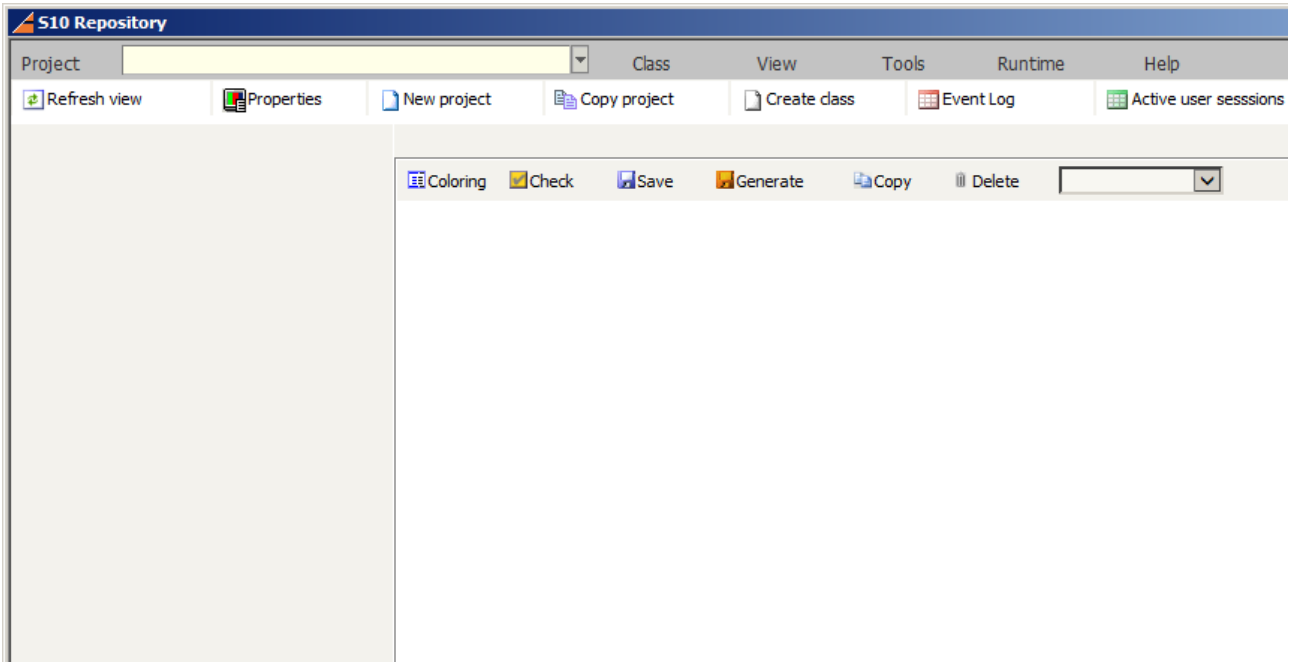
During the setup you may choose an arbitrary path where the setup will create a folder „s10develop“. You may keep the default „C:“ so that the installation creates „C:\s10develop.“

## Test after Step 2

Your desktop now contains a link to the „S10 Repository“:




Clicking this link you can start the S10 Repository which will come up with an empty screen:




You may close the S10 repository now; we will need it later on .

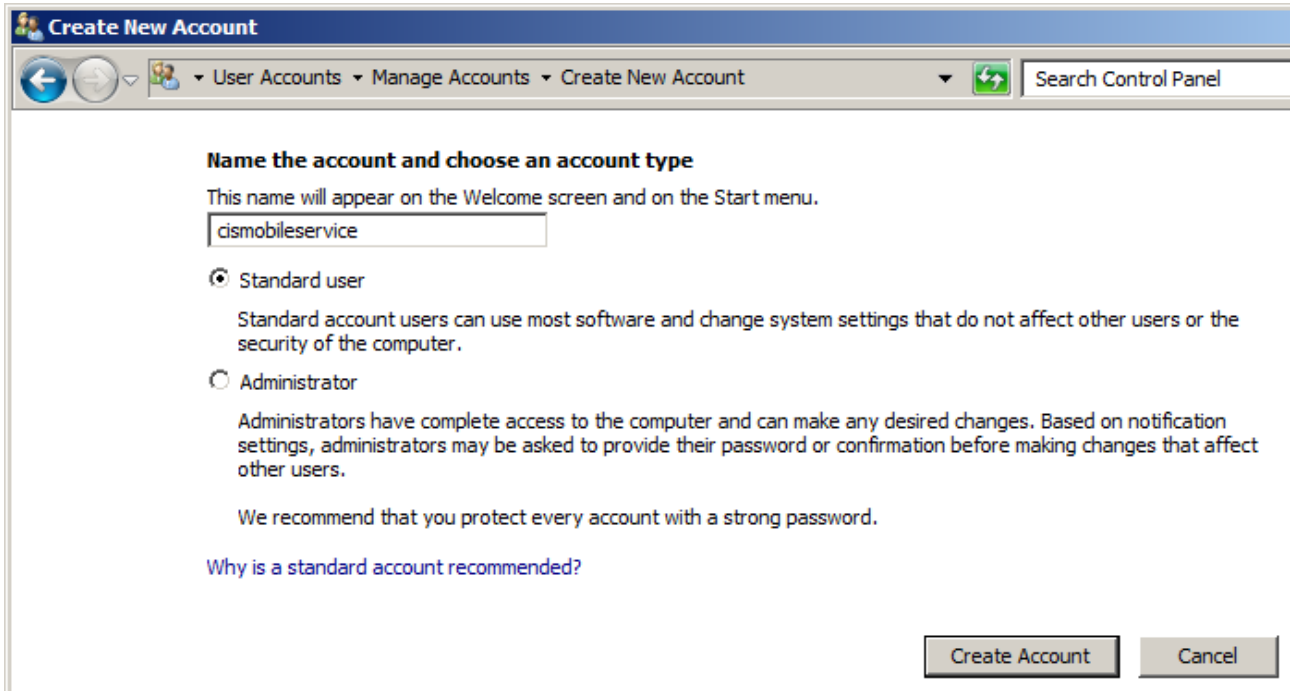
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## *Step 3: Create a Windows user with the appropriate authorizations*

All CIS mobile activities on the server will be carried out with the user „cismobileservice“ that we will create now. It is not necessary that you grant general „administrator“ privileges to this user.

Please observe that the Windows user „cismobileservice“ is completely independent of the SAP authorization checks that are included in CIS mobile. The SAP authorizations are always checked for the SAP user that actually logs on to CIS mobile, wheras the Windows user „cismobileservice“ is a single technical user for the IIS process and related tasks.

*You may choose any other Windows user name, different from „cismobileservice“, if there are naming conventions to be observed in your company.*




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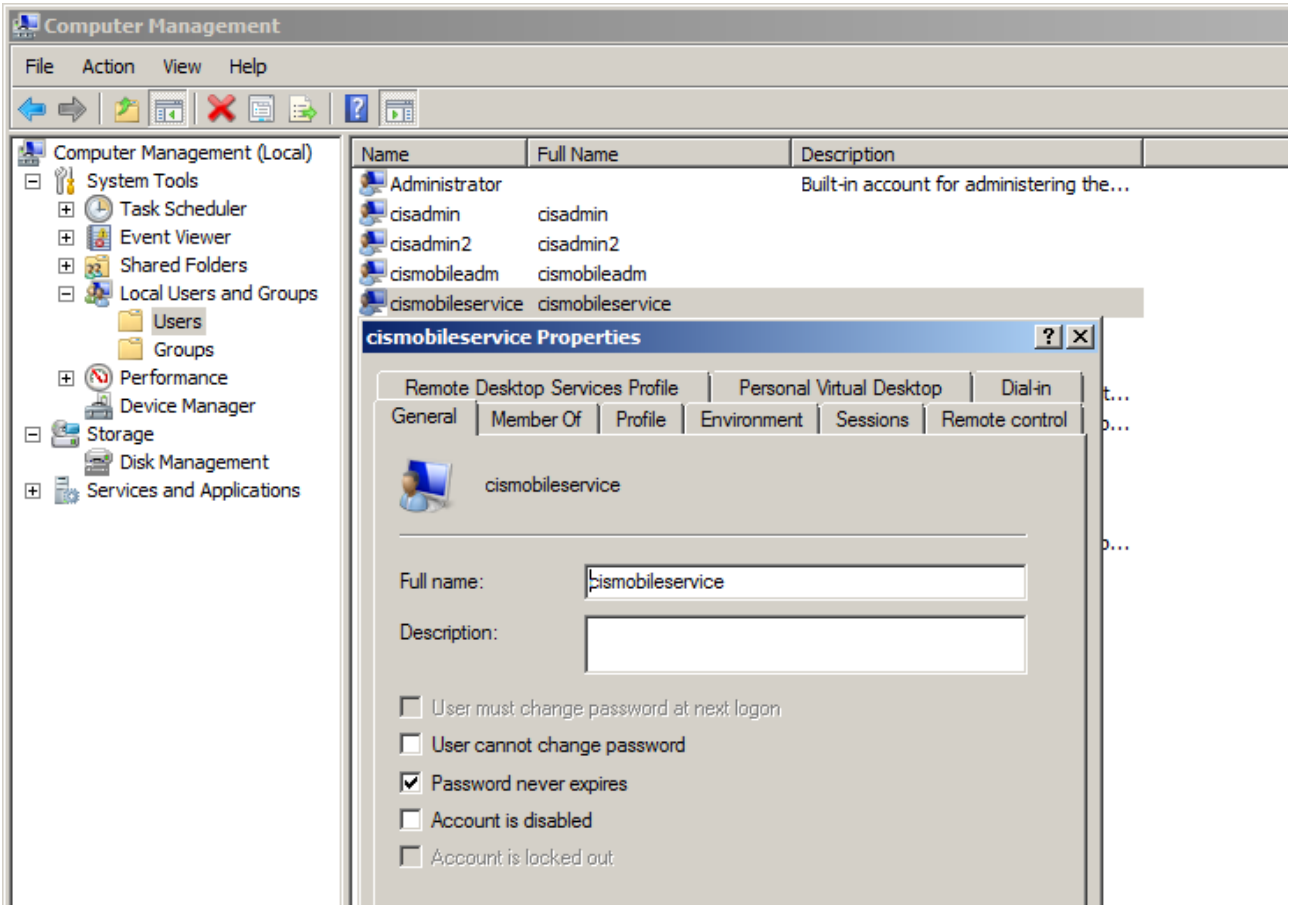



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We suggest you do not configure a password expiration for „cismobileservice“, since this could result in a sudden stop of CIS mobile after the expiration date. If company regulations insist on a password expiration even for such service users, please schedule the prolongation in a suitable way.

To set a non-expiring password, proceed as follows:

→ Computer management
→ Local Users and Groups
→ Users
→ Right mouse click on „cismobileservice“
→ Properties




We have now completed the creation of the CIS mobile service user. Logoff from Windows and logon with this new user in order to set a couple of SAP GUI default values.

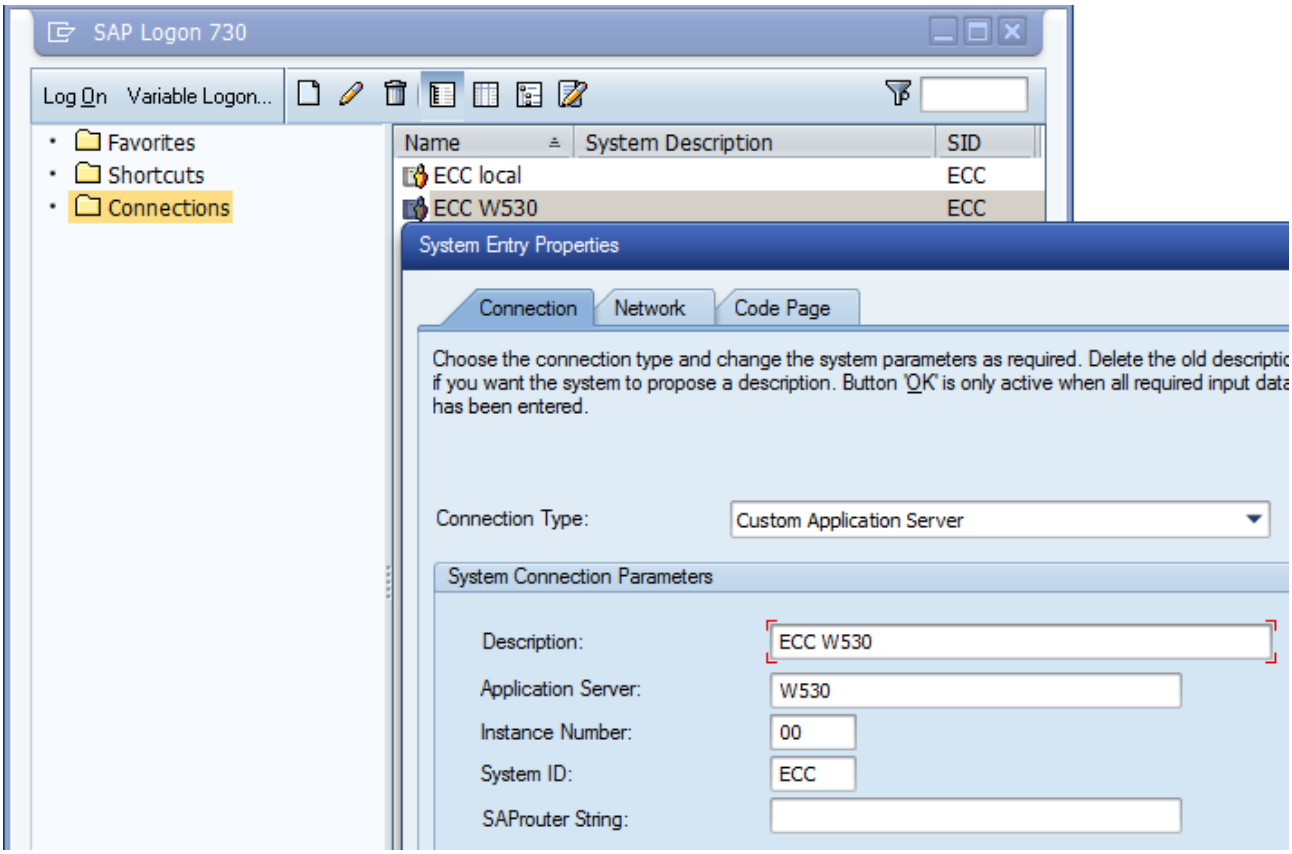
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Click on

->Start
->Change user

and log on with „cismobileservice“.

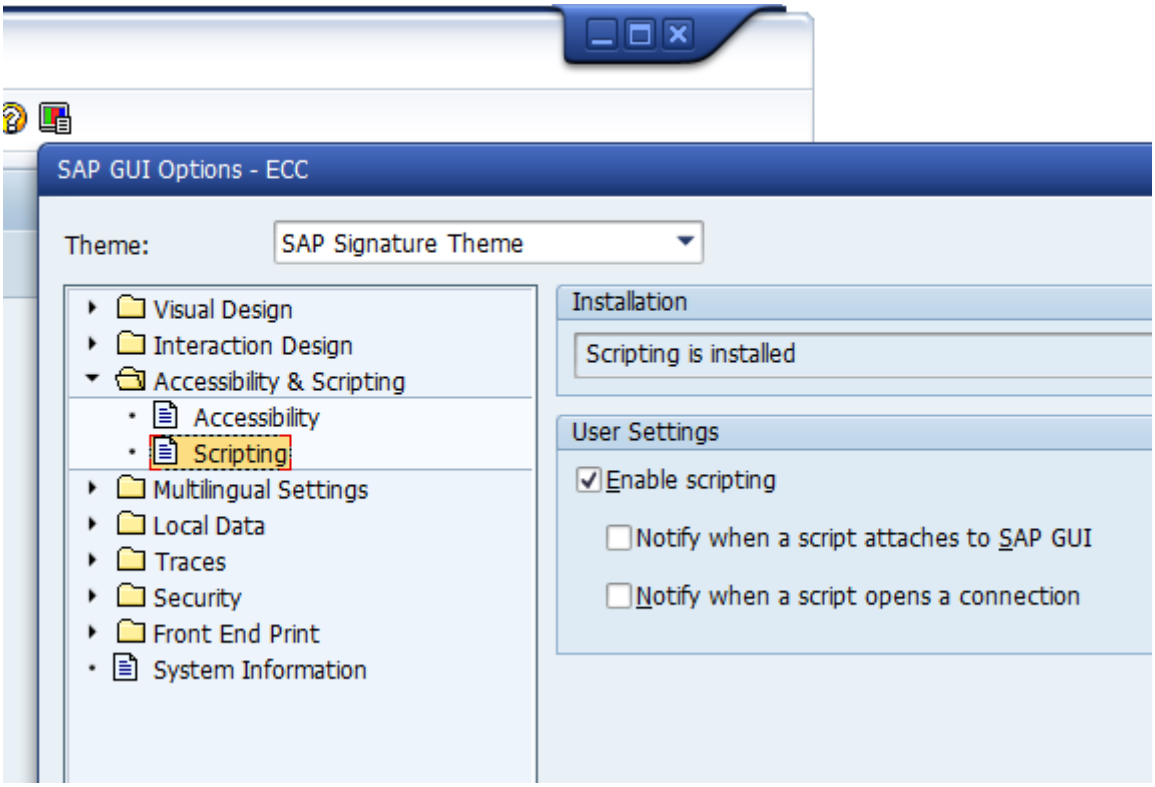
Start the SAP Logon and enter the data for the SAP system you want to use. Example:




Logon to this SAP system with any user name.

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Then click on „SAP GUI options“,  enable „Scripting“ and disable the two notifications:

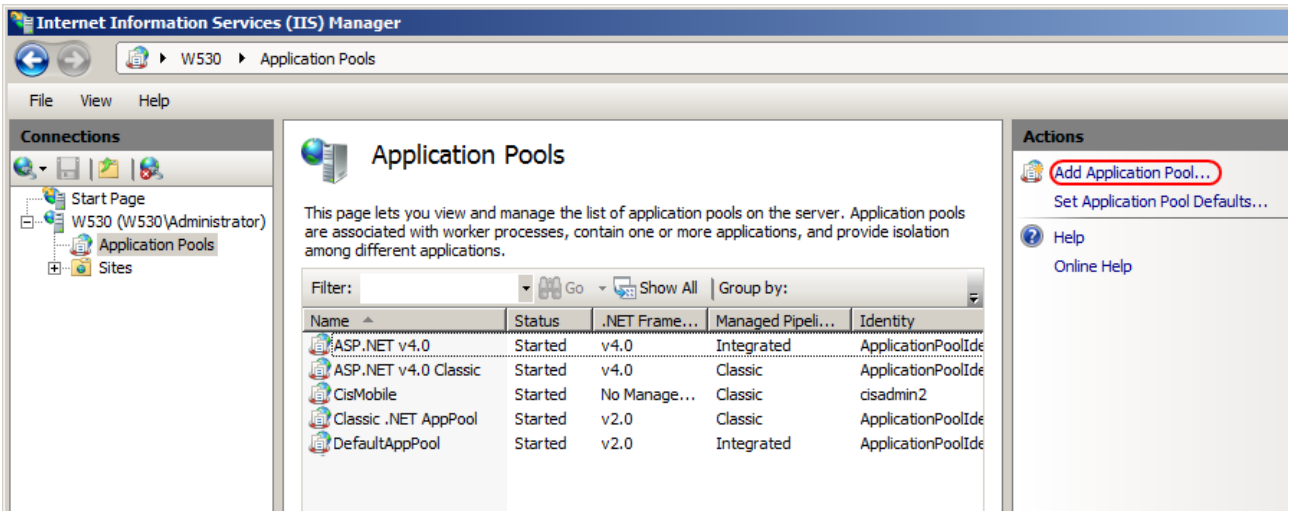



Logoff from SAP, and then change the Windows session back to your normal user.

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## *Step 4: Create the IIS application pool „cismobile“*

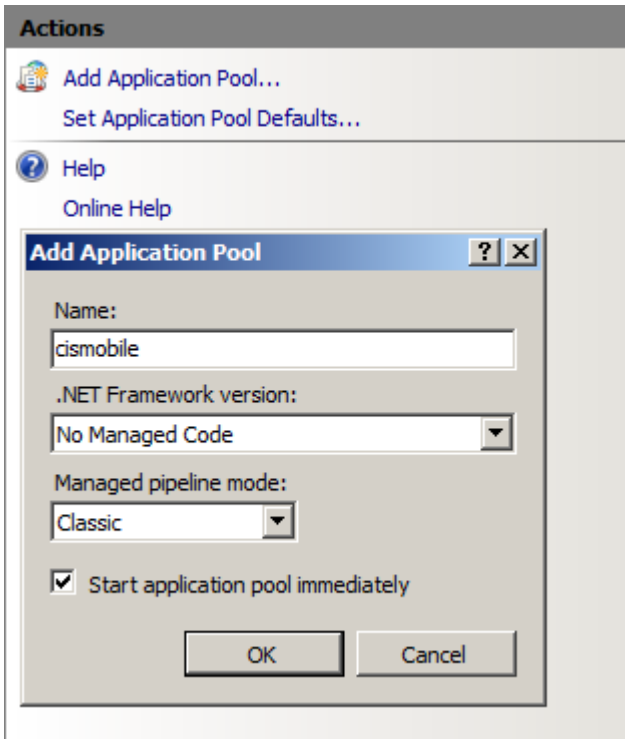
Start the IIS Manager, e.g. by entering „IIS“ in the „Run“ command line.  Then click on „Application Pools“:




On the right hand side, click on „Add Application Pool“.

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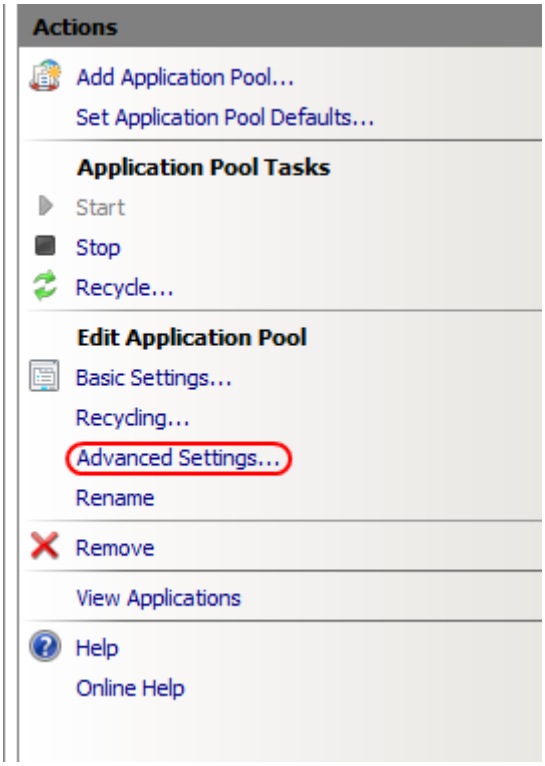
Choose a suitable name for the application pool e.g. „cismobile“:




Choose „No Managed Code“ and „Classic“ pipeline mode.

*All application pool settings can be changed later in cases where you have overlooked something or clicked on „OK“ before completing the settings.*

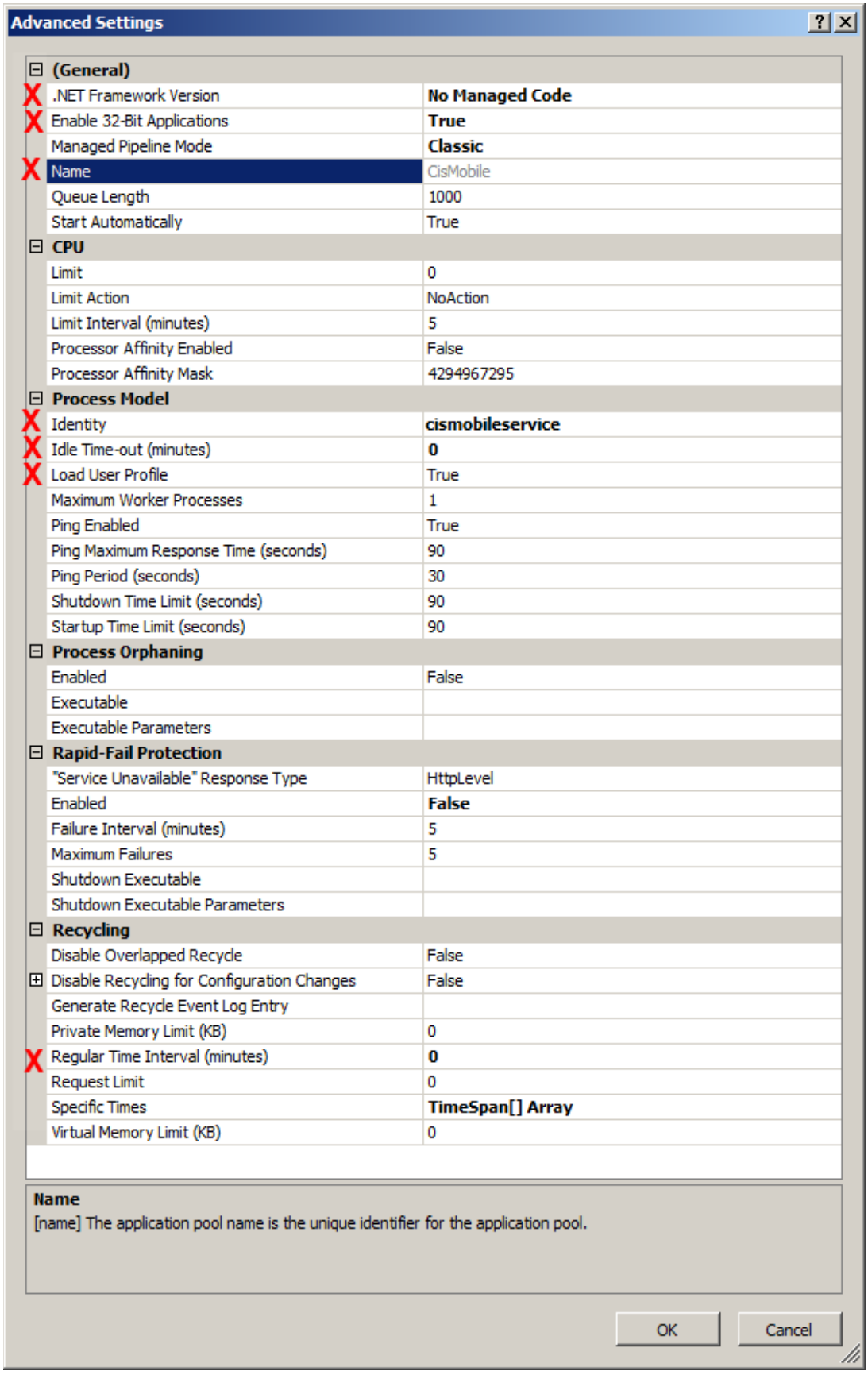
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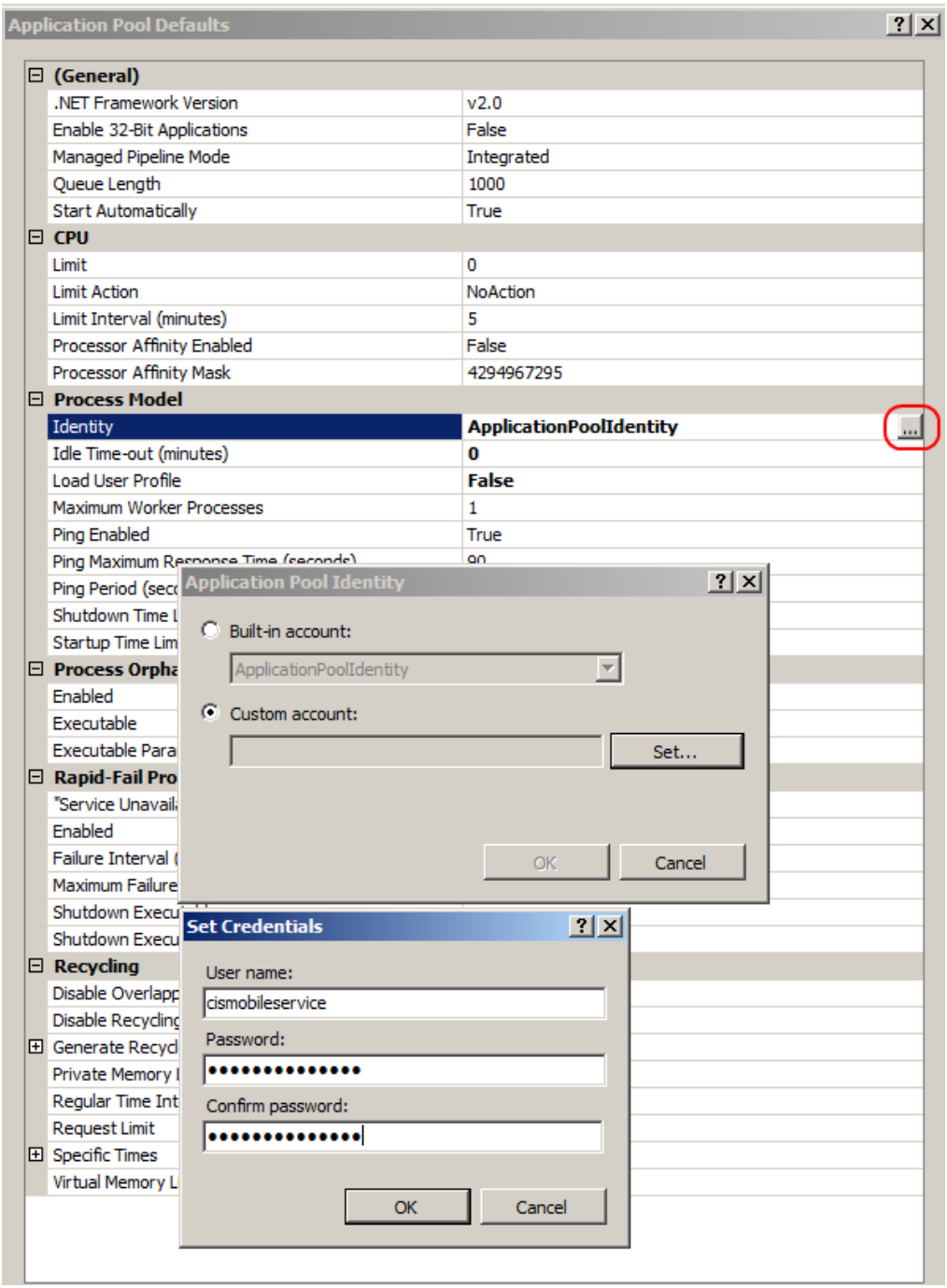

After clicking „OK“ you choose the „Advanced Settings“.

The next screen contains various application pool settings. We can leave the default values for most of them but a couple of settings need to be changed. These are marked in red in the next screenshot:

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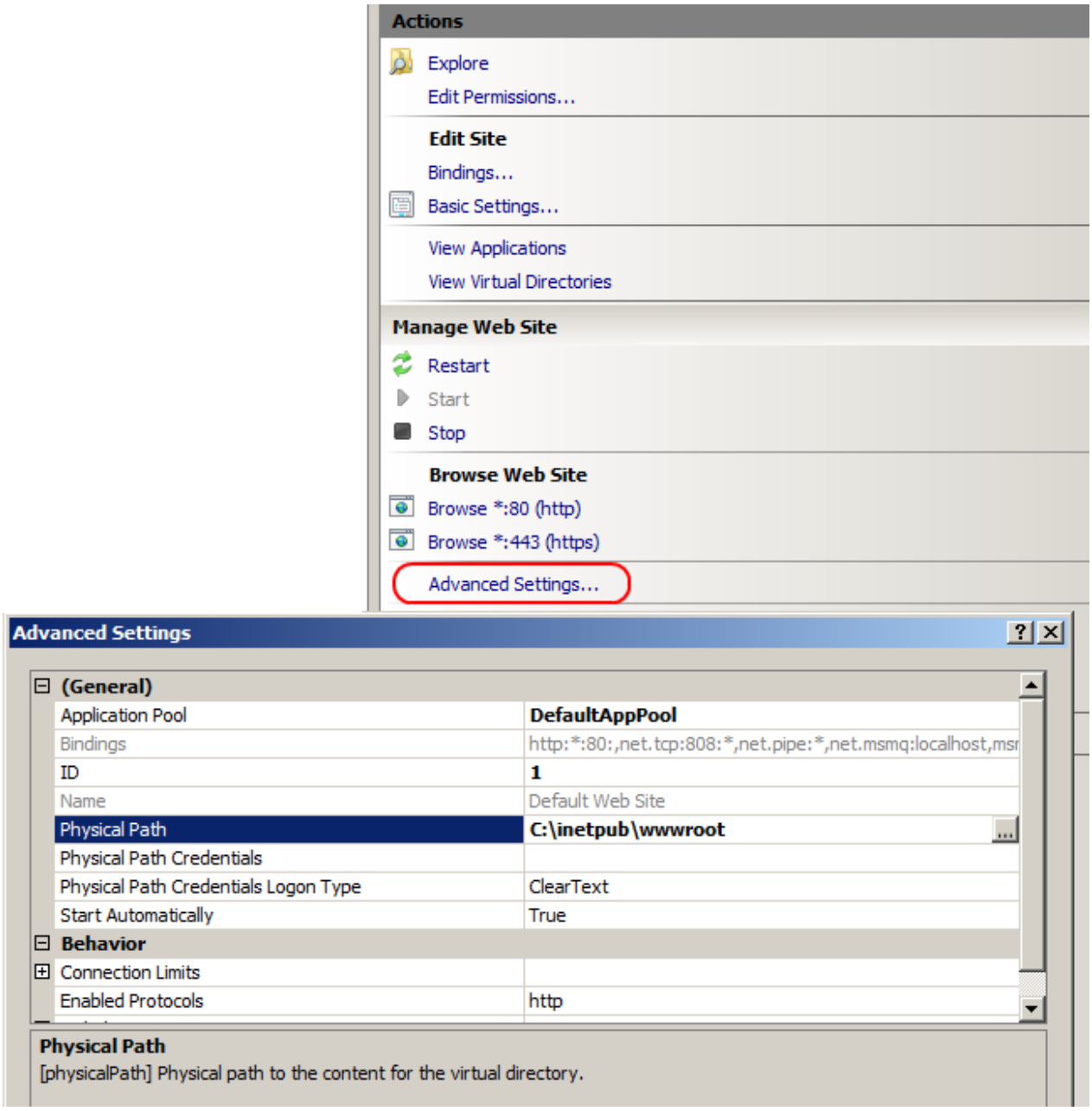

*Please note: If you are on 32-Bit Windows there is no option „Enable 32-Bit Application“*

We configure our new application pool to run with the „cismobileservice“ user account: Click on the selection icon right hand side in row „Identity“, then choose „Custom account“ and enter the user name „cismobileservice“ and the password.

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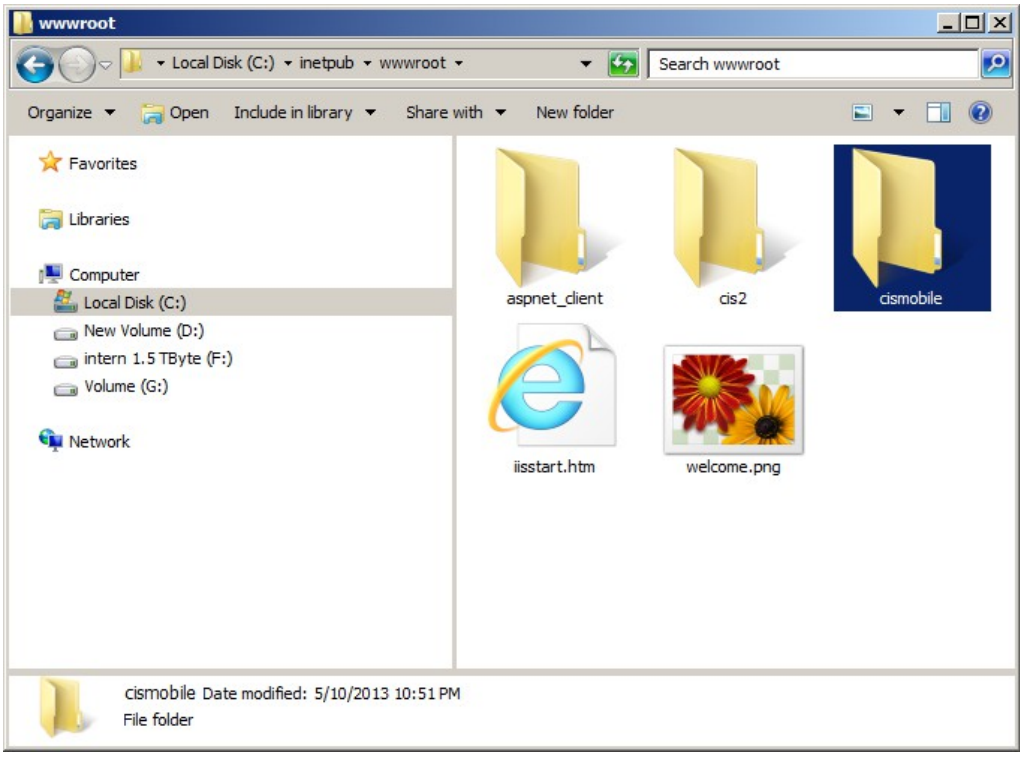
### *Step 5: Create the IIS application „cismobile“*

First we need to know the pysical path of of the „Default Web Site“ in IIS. In many cases this is „C:\inetpub\wwwroot“ but it can be another one. Click on „Default Web Site“, then right hand side on „Advanced Settings“:




Copy the folder „cismobile“ from the CIS mobile installation folder into the „Default Web Site“ folder, e.g. into „C:\inetpub\wwwroot“.

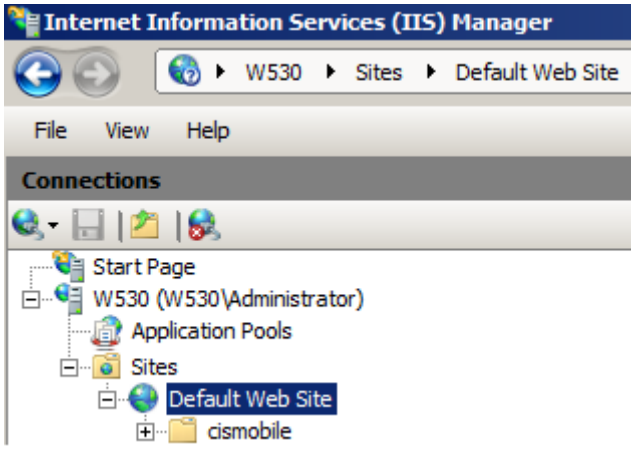
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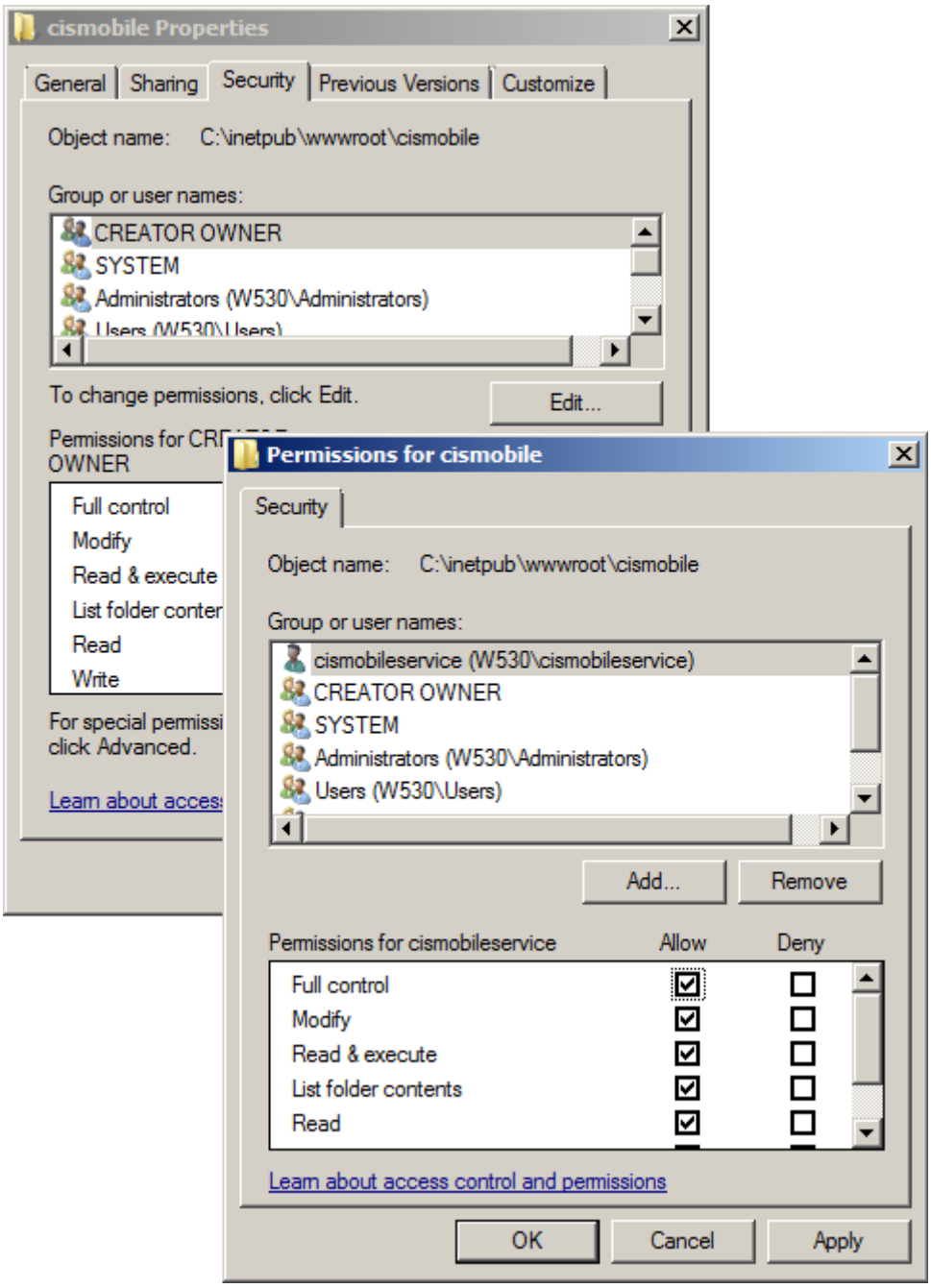

*Alternatively you can use any other folder as IIS folder for CIS mobile. In this case you define the „CIS mobile“ application separately, not within the „Default Web Site“.*

*You can also choose a different application name instead of „cismobile“, e.g. „cis“. If you change the folder name you will need a new license from Synactive, since the license file „programs\license.txt“ depends on the folder name.*

Now our new „cismobile“ folder is shown in IIS Manager:



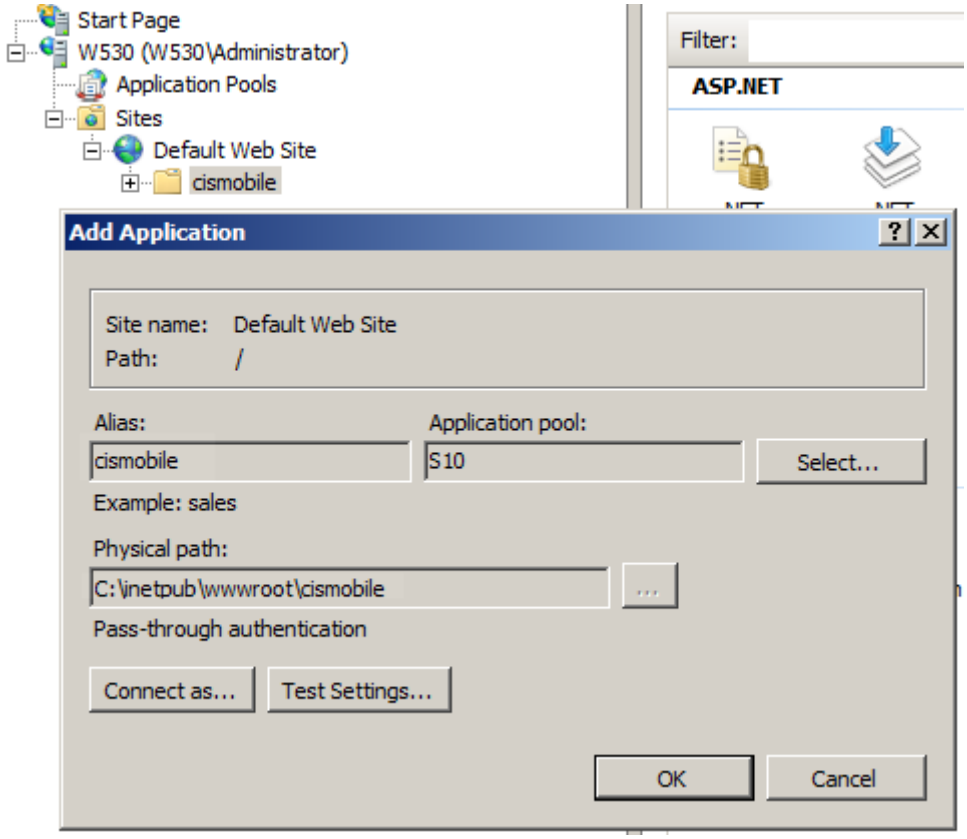

Grant full access rights for this folder to the service user „cismobileservice“, including all subfolders.




**Please observe:** The access rights are needed for the „cismobile“ folder that we just have created, e.g. „C:\inetpub\wwwroot\cismobile“ and not for the „cismobile“ folder in the installation directory (unzipped installation files).

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With a right mouse click on the „cismobile“ folder we convert the folder into an IIS application. In the IIS popup you only need to specify the application pool that we created before, e.g. „cismobile“ (In the screenshot the application pool name is „S10“)




Click on „OK“. You may test the settings with the „Test Settings button.

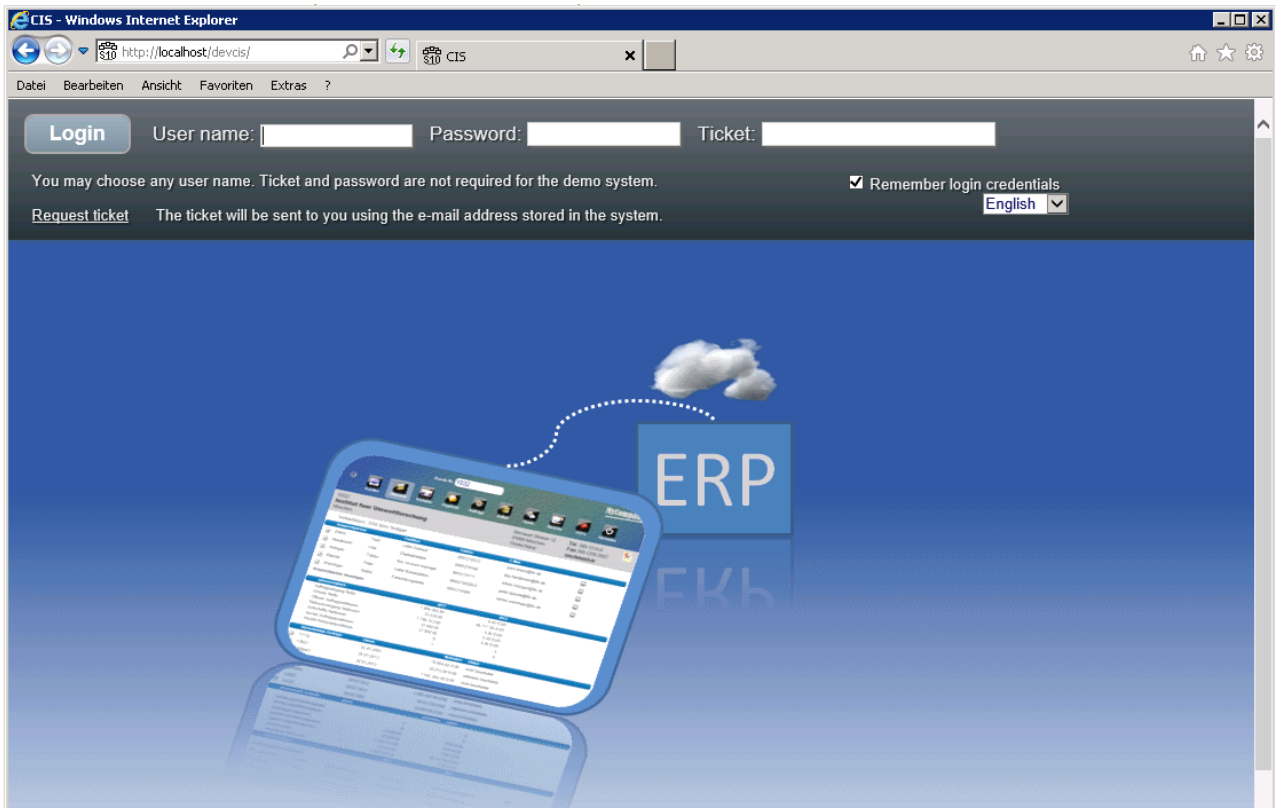
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Test after step 5

Enter the URL

http://localhost/cismobile

in a browser (IE10, Chrome,...). You obtain the CIS mobile login screen:

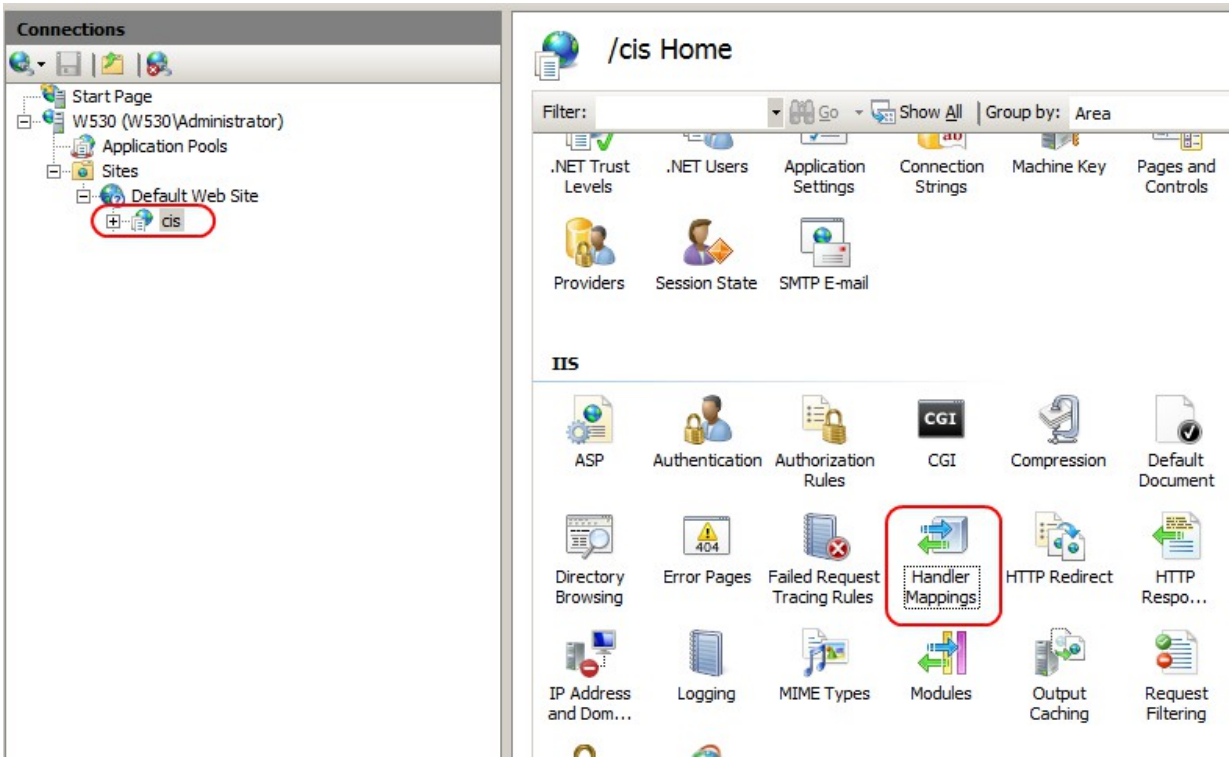



The login does not work yet; we first need to carry out step 6.

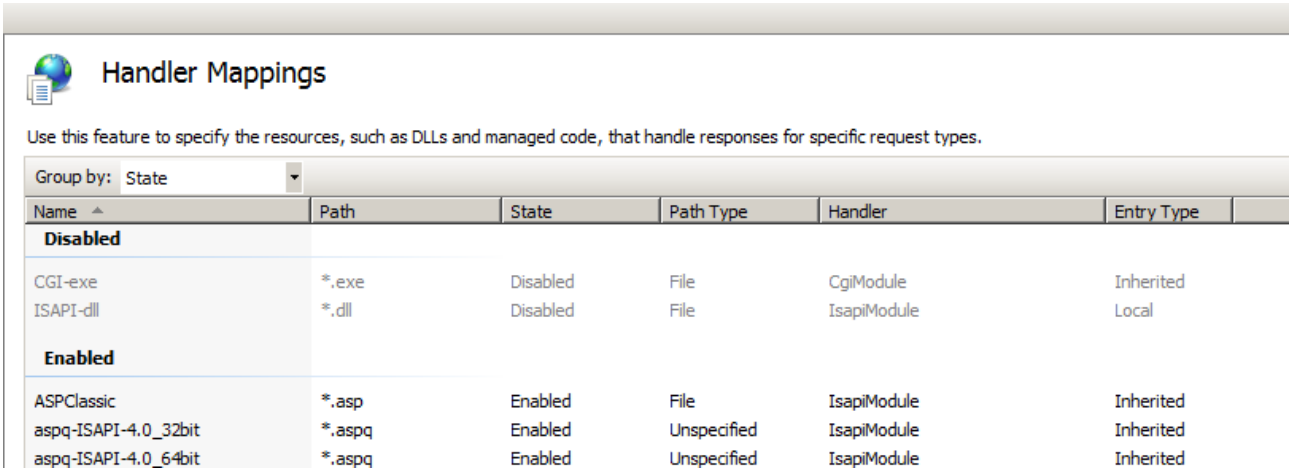
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## *Step 6: Define the IIS handler mappings for „cismobile“ (ISAP-dll)*

In IIS Manager click on „cismobile“ and then on „Handler Mappings“::

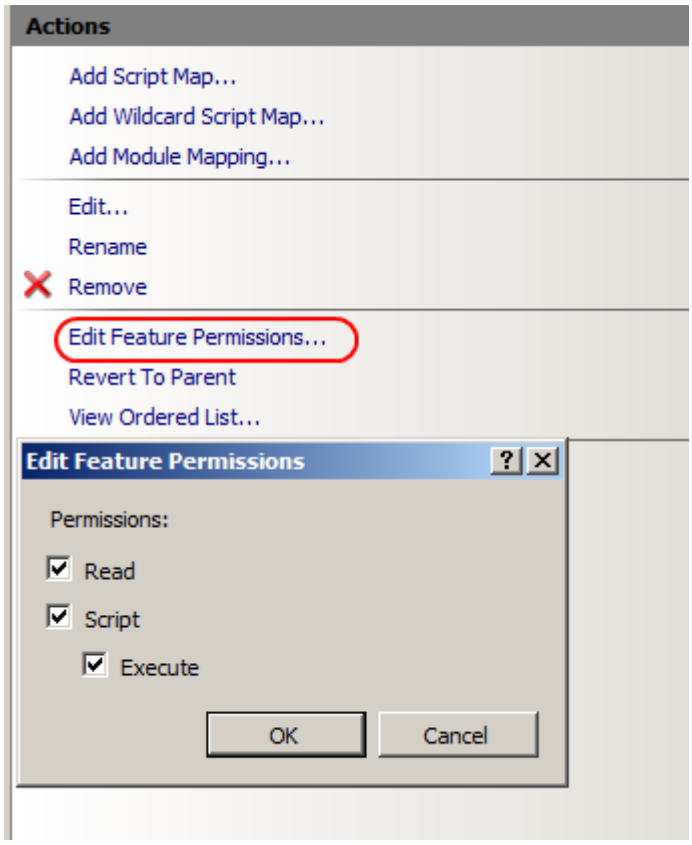



It nay be that the „ISAPI-dll“ entry in „Handler Mappings“ is still in „Disabled“ state:

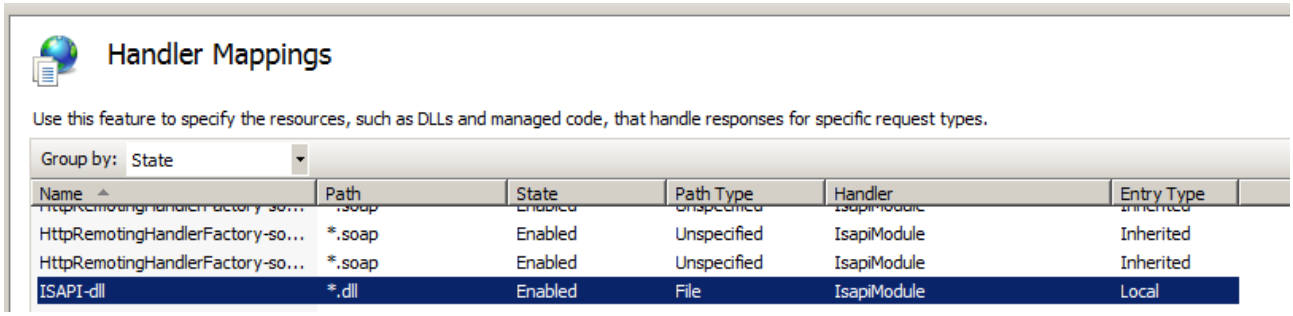



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In this case, right click on „ISAPI.dll“ and then „Edit Feature Permissions“. Tick „Read“ „Script“ and „Execute“ and then click „OK“:

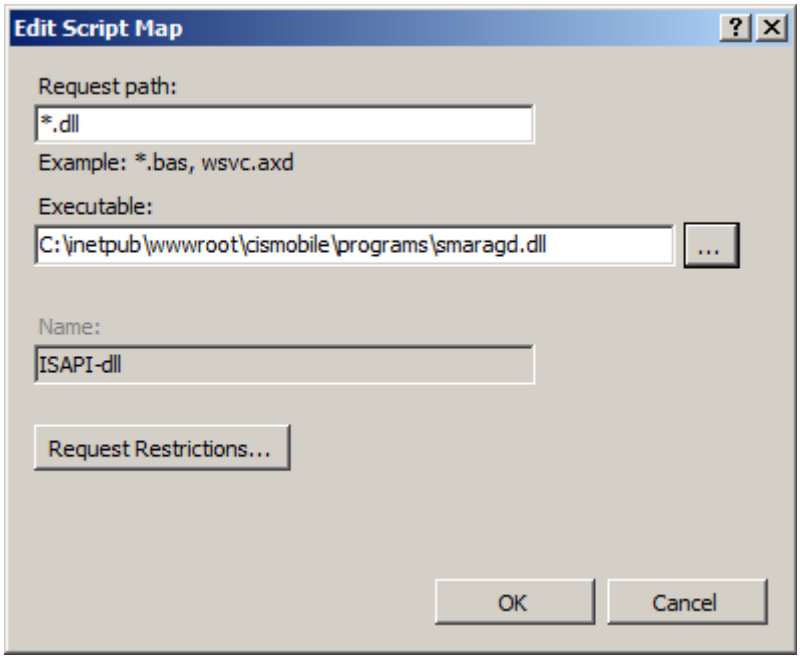



ISAP-dll is now „Enabled“. Double click on this line:




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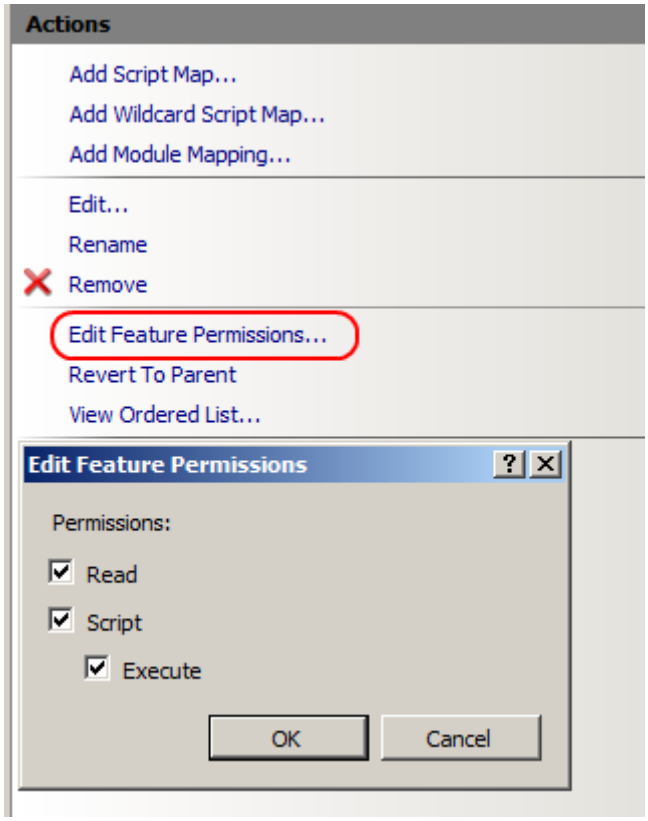
A popup screen is shown where you can enter the path of a dll. Enter the ddl „programs/smaragd.dll“ in the cismobile path:

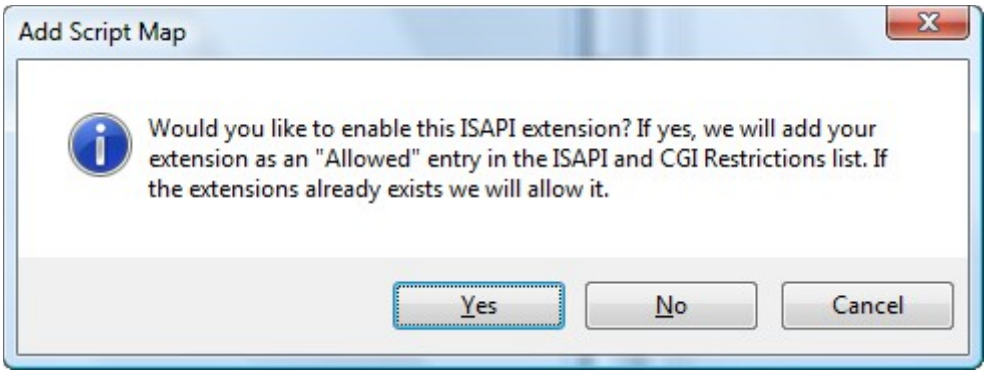



You may select the dll with the select button in order to avoid any typos.

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With „Edit Feature permissions“ you enable „Read“ „Script“ and „Execute“ access:




Click „OK“ and then „Yes“ in the next popup screen.

## Test after Step 6

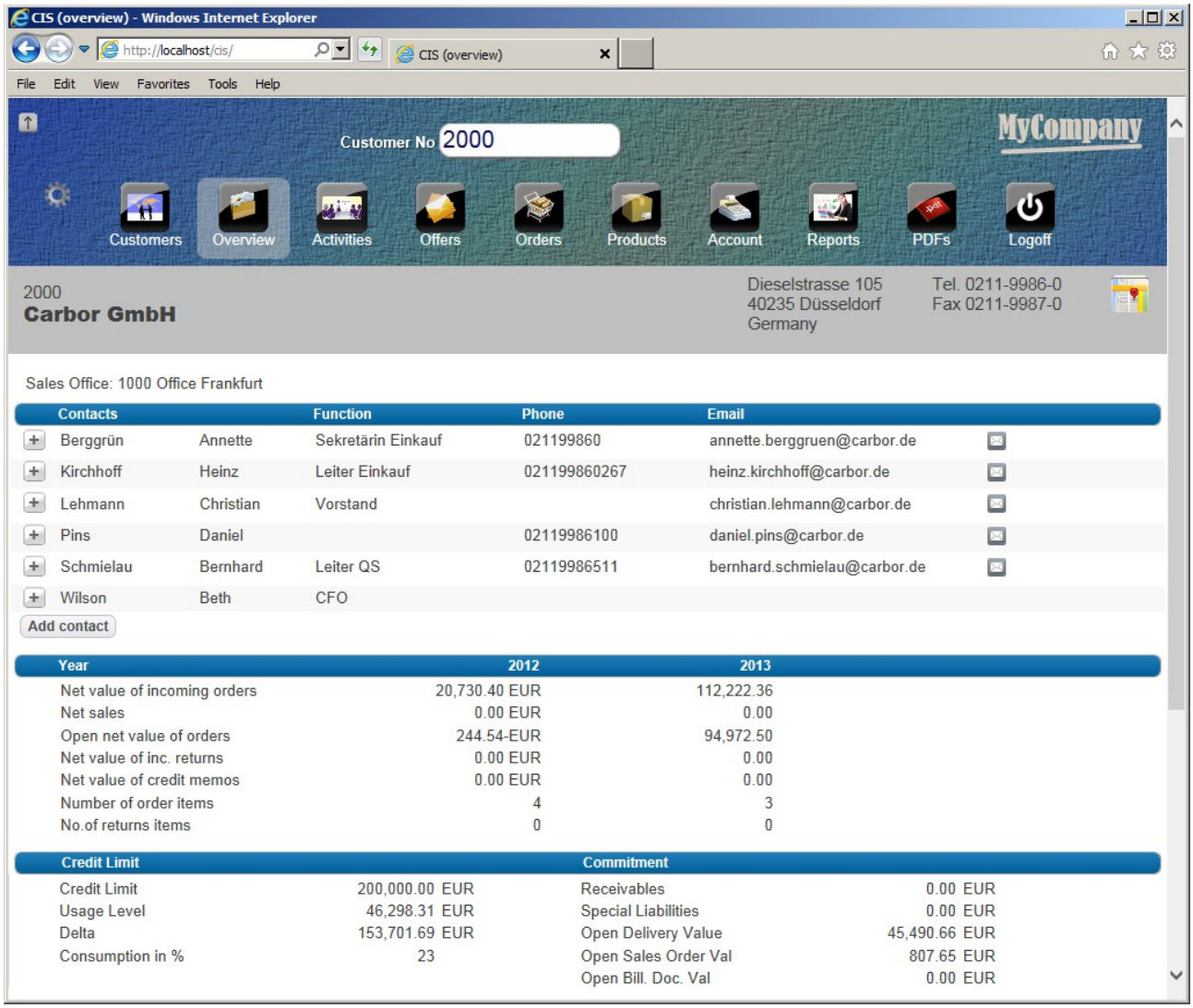
Enter the URL

http://localhost/cismobile

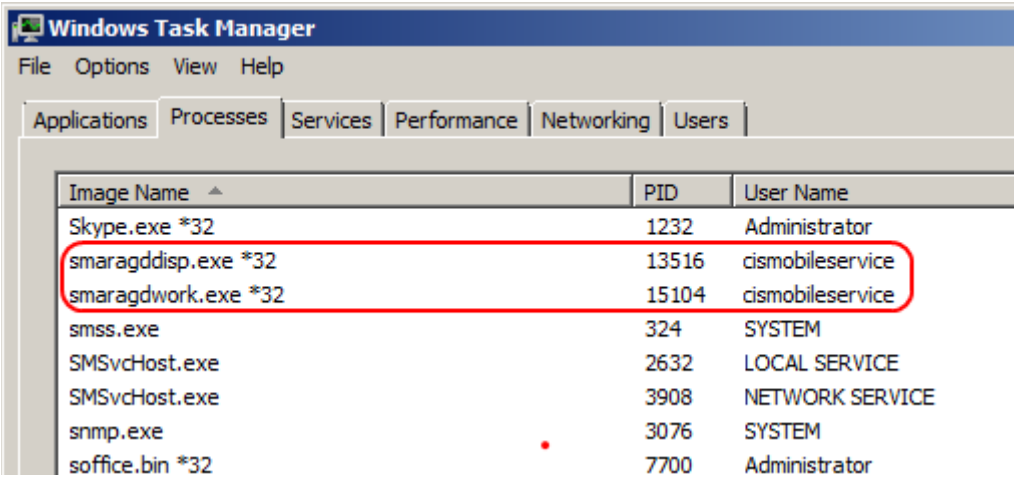
in your browser. The CIS mobile login screen is shown. Enter any user name and click on „login“. CIS mobile is started and you can execute a couple of test steps in the application.

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The data connection is still to the Synactive SAP system on s10mobile.com, since we have not yet configured the connection to your own SAP system. This will be done in the following steps.



In  Windows task manager you can see two new processes, „smaragddisp.exe“ and „smaragdwork.exe“, that run under the user account „cismobileservice“:




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## *Step 7: Import the CIS mobile function modules into your SAP*

CIS mobile uses the following ABAP function modules:

- /GUIXT/SELECT_INTERFACE
- /GUIXT/CIS_INTERFACE
- /GUIXT/CISADDON_INTERFACE

We use the namespace /GUIXT“ since it is reserved for Synactive GmbH extensions in the SAP system.

Use the SAP transport system to import the ABAP functions. The import will also add the a „Repair license“

**00662488550777447853**

for the namespace /GUIXT/ so that you are able to change the functions. This will be necessary for the add-on function module /GUIXT/CISADDON_INTERFACE if you want to implement your own add-ons.

You will probably import the functions into a development system so that a further transport to Q and P systems is made possible.

All SAP transport data are contained in the installation file, subfolder „SAP Transport“. The correction number is „ECCK900...“ e.g. „ECK900040“.

Copy the SAP Transport files into the central SAP transport folder TRANSDIR:

**UNIX**

```
TRANSDIR=/usr/sap/trans/
```

**Windows**

If you use a central transport server with ALIAS SAPTRANSHOST, this is

```
TRANSDIR=\\$(SAPTRANSHOST)\sapmnt\trans\
```

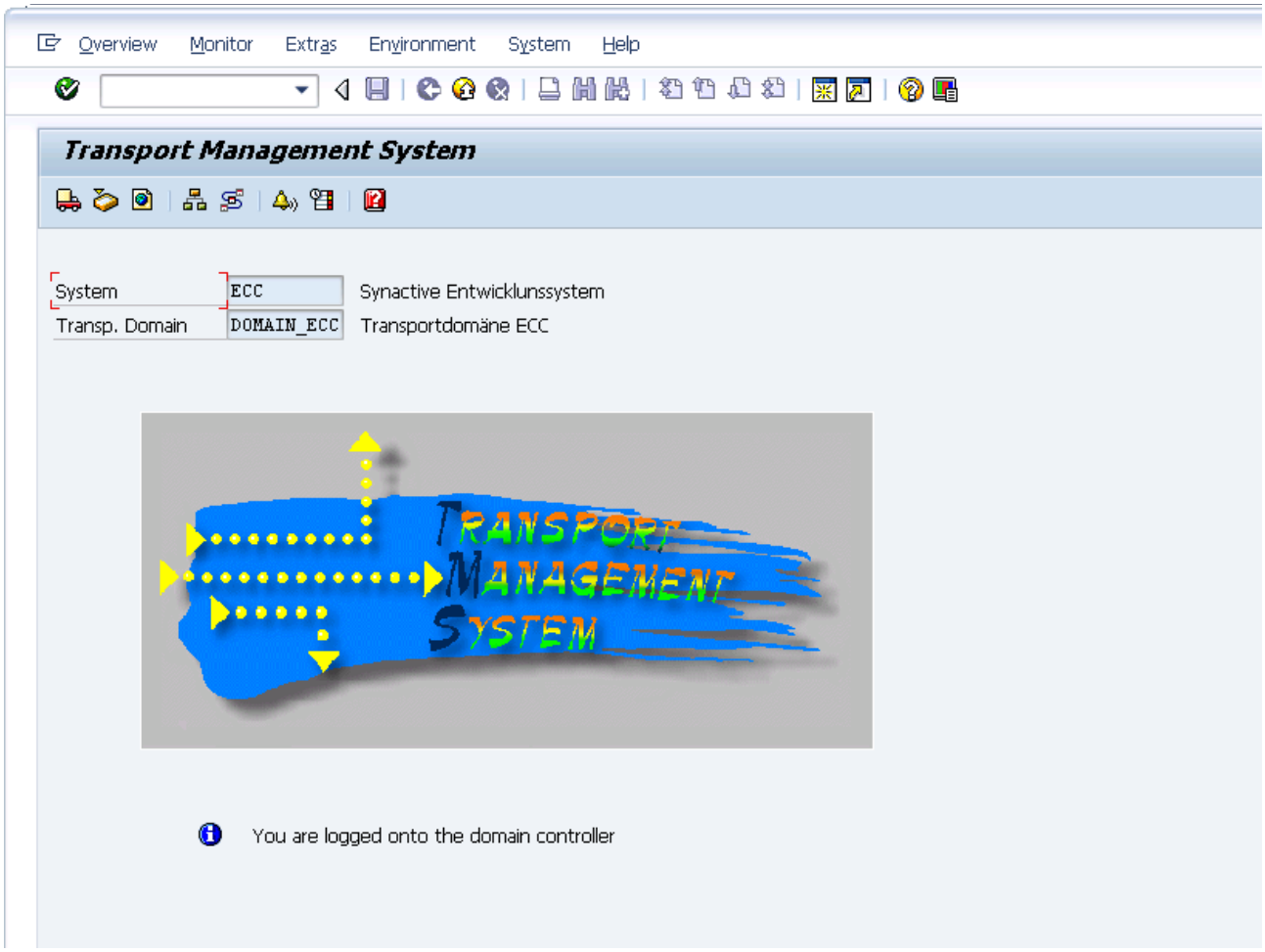
otherwise it is

```
TRANSDIR=\\<Transporthost>\sapmnt\trans
```

Copy the transport files in /cofiles/ und /data/ into the corresponding subfolders of the /trans/ directory (one file in each subfolder).

Then logon to your SAP development system and call up transaction **STMS:**

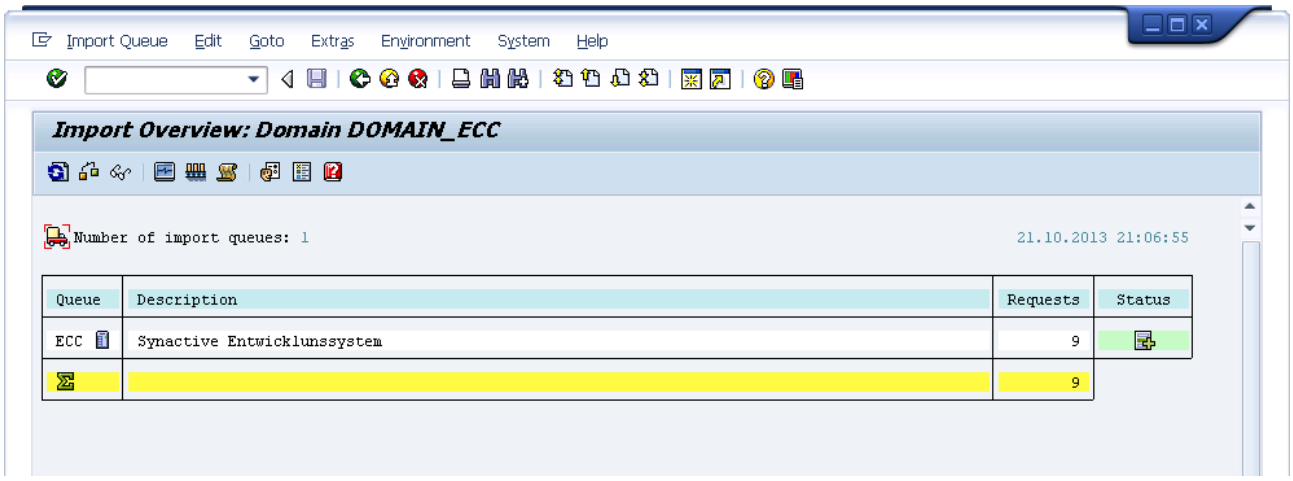
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Instead of „ECC“ the system name of your development system will be shown here.

Press F5 or click the „Import overview“ button left hand side in the toolbar.

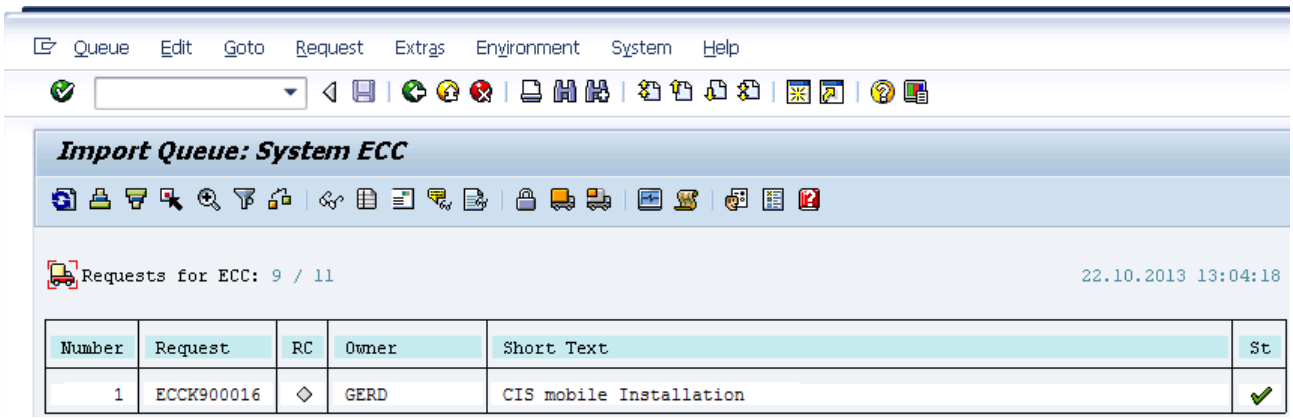
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Doubleclick on your system. Then in the menu

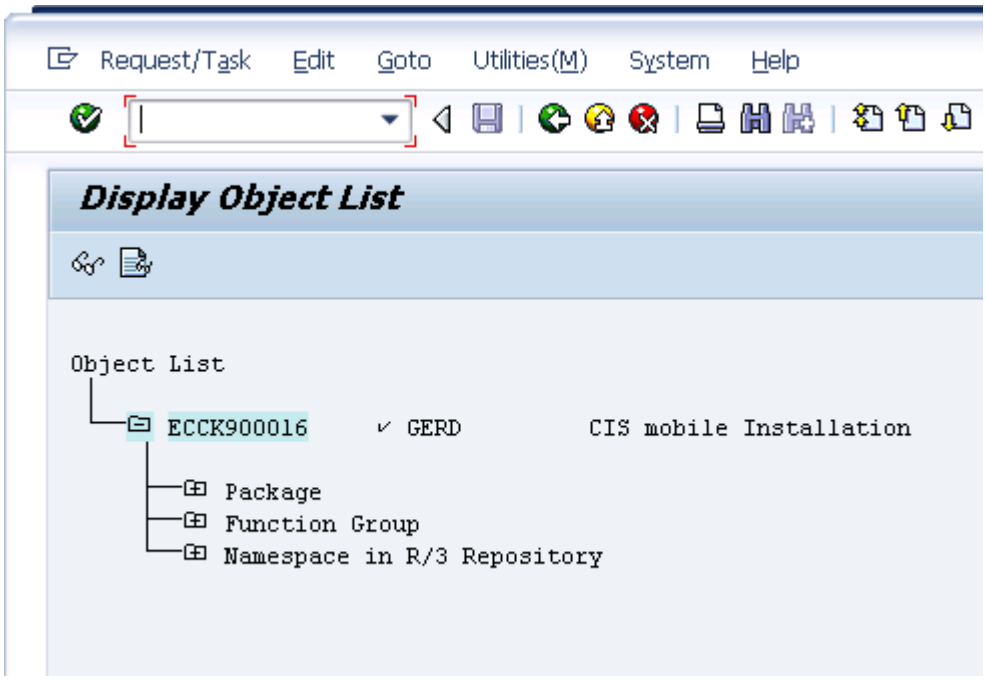
→ Extras
→ Other Requests
→ Add

and select the CIS mobile transport request:



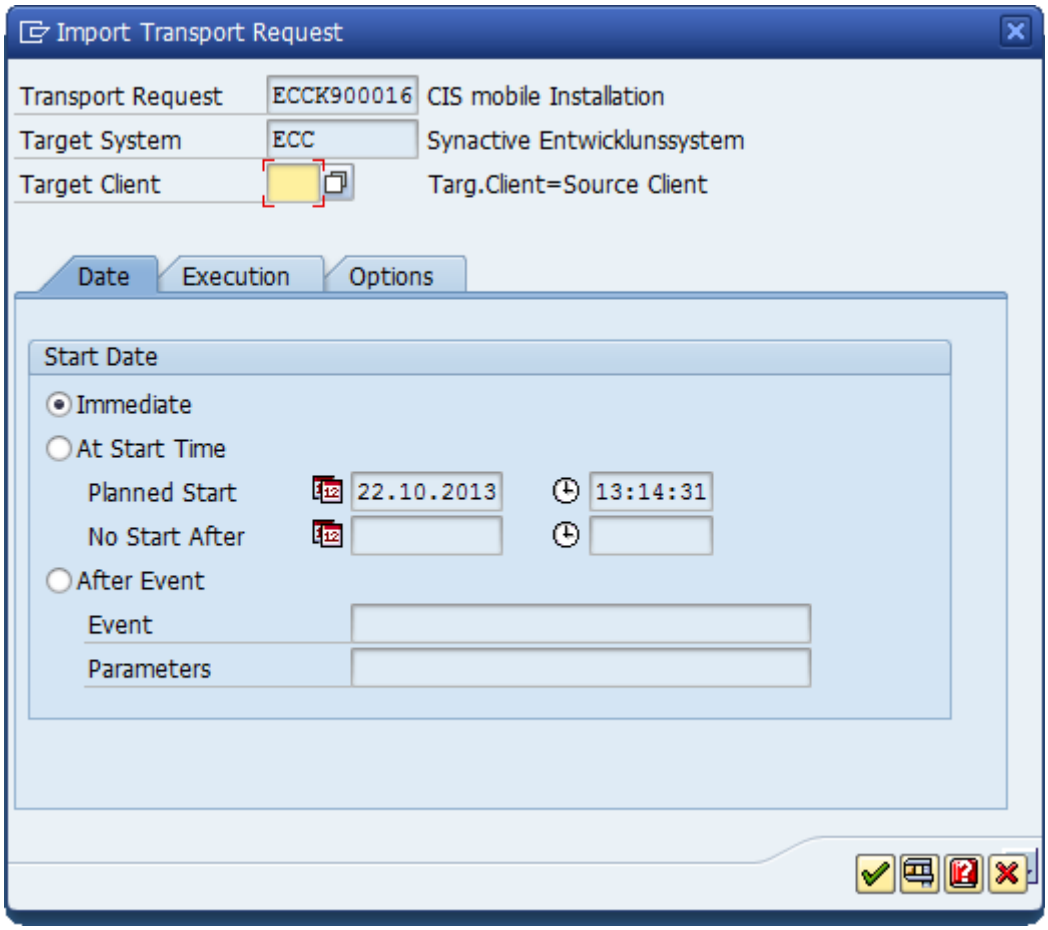

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Transport object list:




Continue with Cltrl+F11 or button „Import Transport Request“:

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The source client is client 800. All transported objects are client independent.

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The SAP transport system will now check the component version in source and target system. If they are different, it displays an error message.

Since all CIS mobile objects are independent of SAP components, we avoid the error message by ticking the checkbox

(X) Ignore non-matching component versions

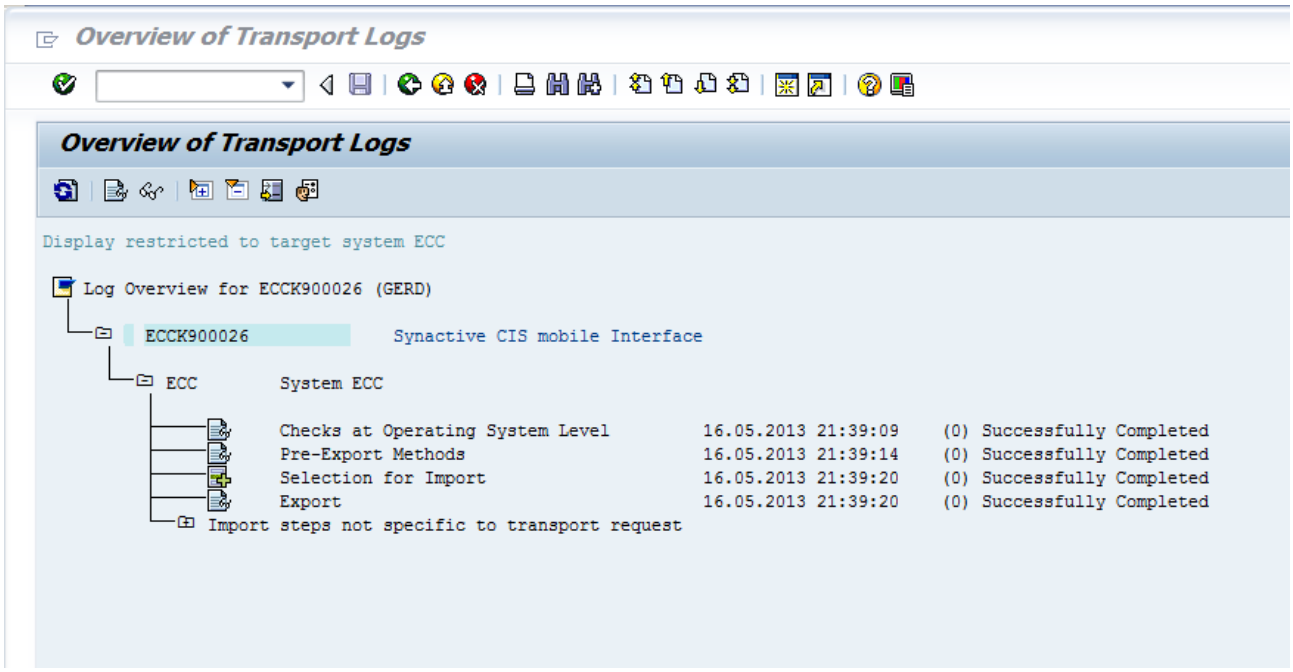
if available. For details see

http://help.sap.com/saphelp_nw70ehp2/helpdata/en/5c/d21880fe3c11d2b461006094b9ea64/content.htm

Press „Enter“ to start the transport.

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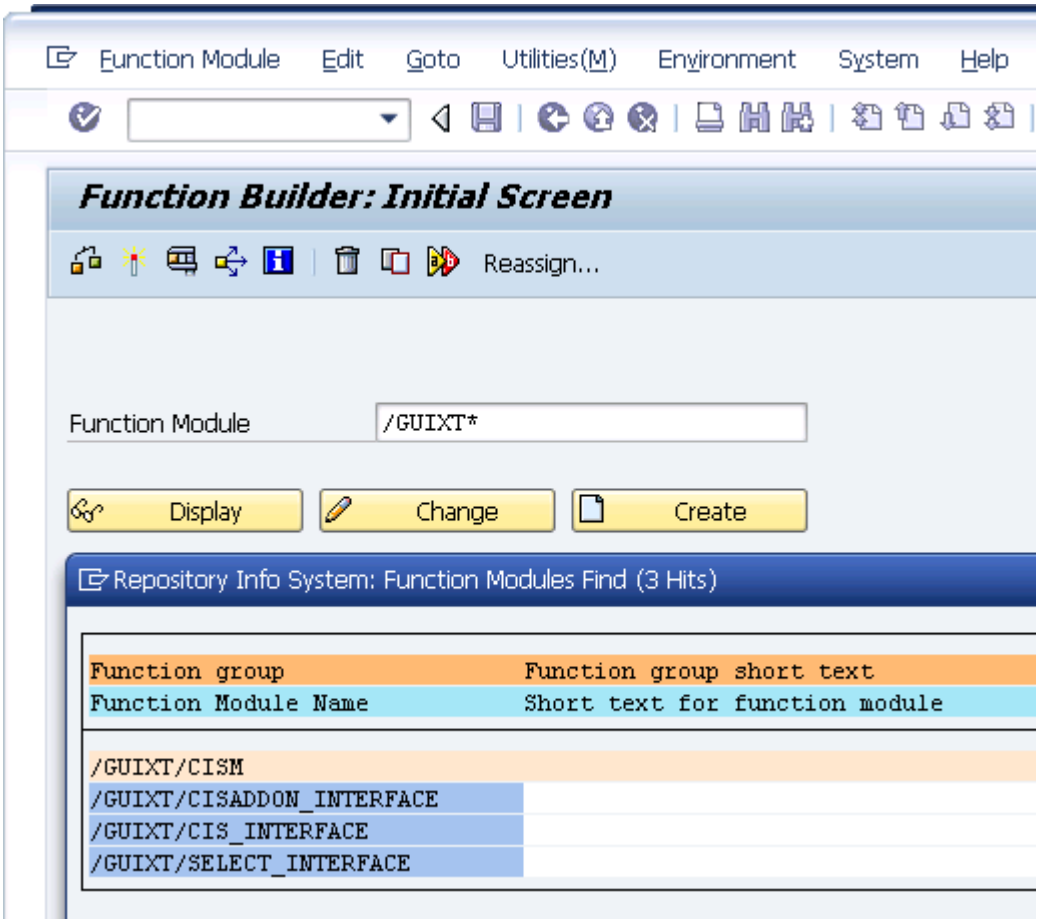
After completion a transport protocol is shown. Example:




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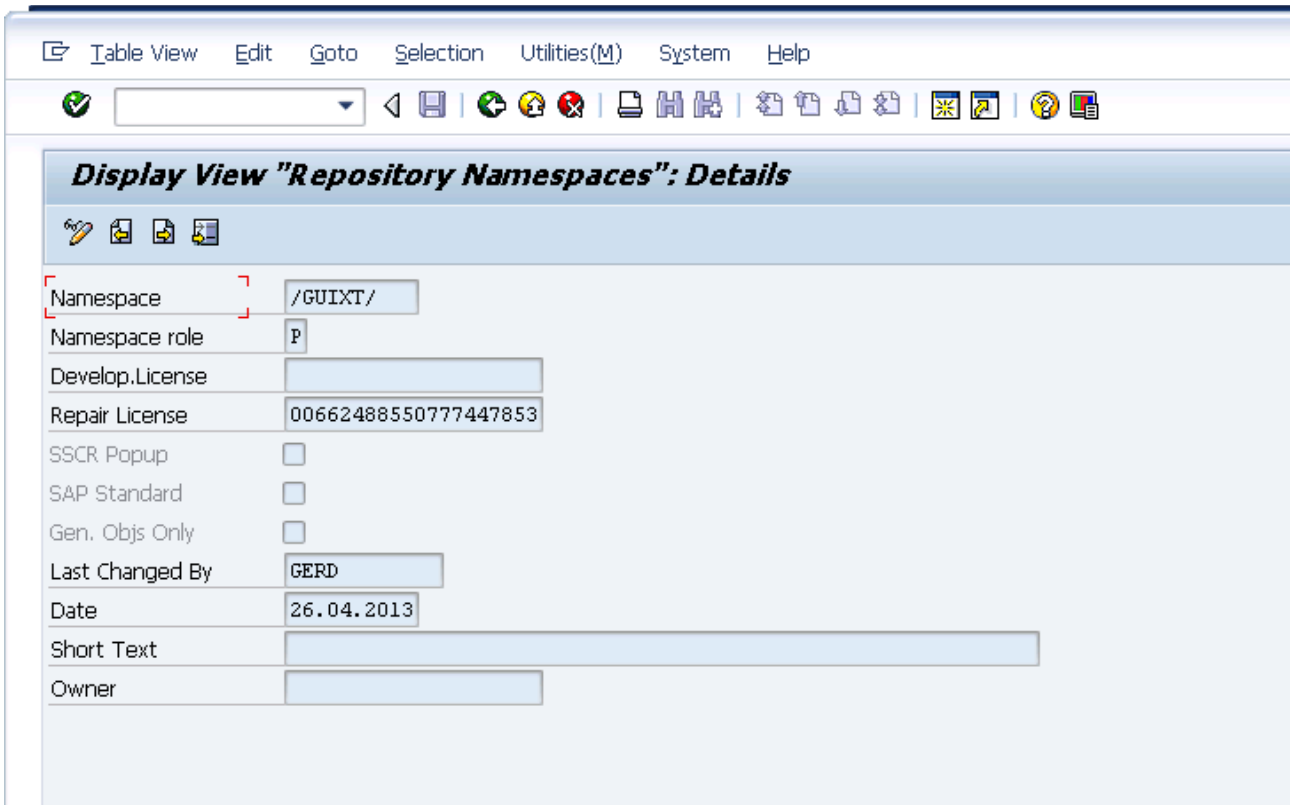
## Test after step 7

The three CIS mobile ABAP function modules can be displayed in transaction SE37:




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In transaction SE03 you can display the namespace /GUIXT/ with the imported repair license. Click on Administration → Display/Change Namespace and select /GUIXT/:

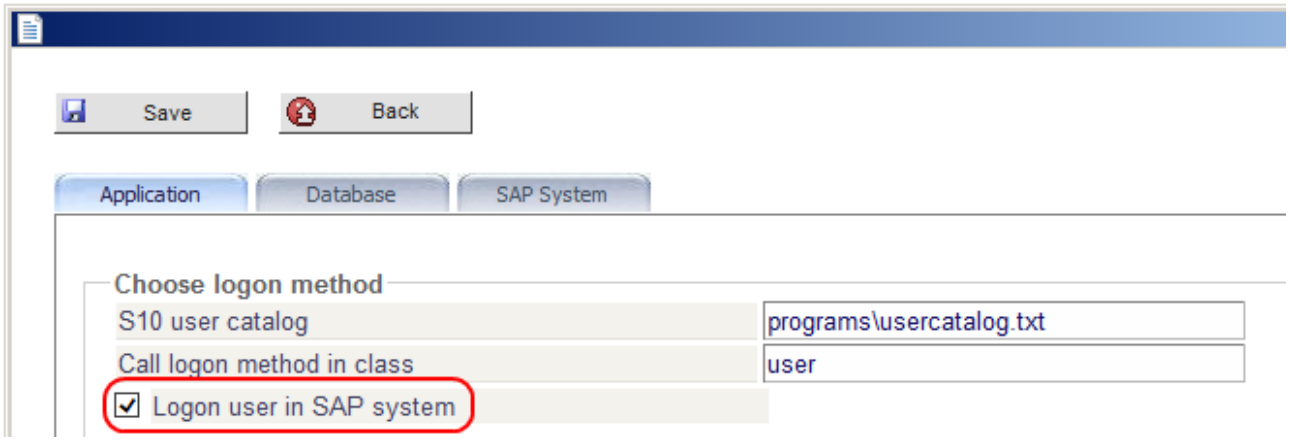



If the namespace role is „P“ (Producer), please change it to „C“ (Recipient) and save the namespace attributes.

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## *Step 8: Run CIS mobile with your own SAP system*

Start the S10 Repository and enter the CIS mobile path in IIS as project directory. Click on „Properties“ and tick the checkbox „Logon user in SAP system“.




*„Save“ the attributes.*

*With this option the user that logs on to CIS mobile will automatically be logged on to the SAP system. Without the option CIS mobile is in demo mode and always uses the SAP user „s10connect“.*

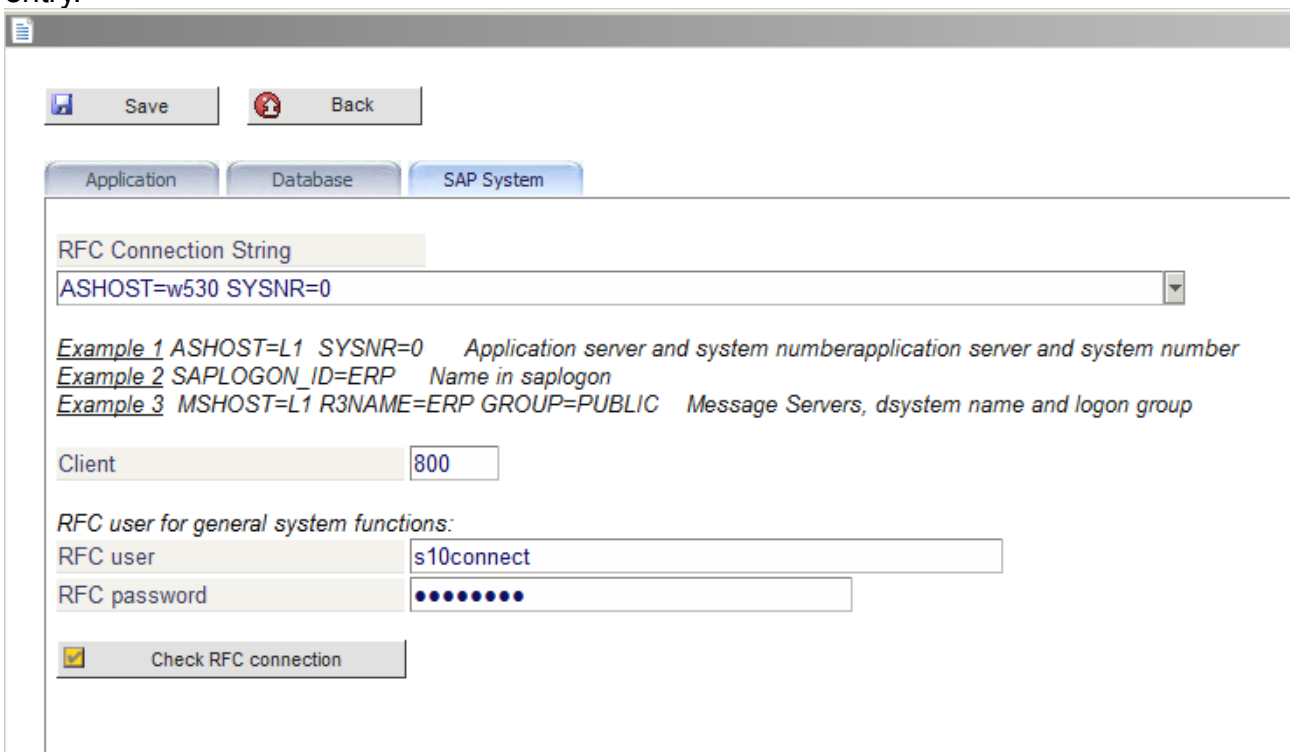
*In demo mode you may enter any CIS mobile user name and password, but with the option activated, valid SAP user credentials need to be entered.*

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Next click on „SAP System“ and enter the RFC connection data for your own SAP system and the client you want to deal with.

You may use any of the variants „Example 1“ to „Example 3“ in order to define the access to your SAP system. In some cases a saprouter string is needed, e.g. MSHOST=/H/host1/H/host2/H/host3. Please see the SAP documentation for details.

In this screen user and password do not need to be specified unless you want to run CIS mobile in demo mode. For demo mode, the given user will be logged on and the corresponding user profile defines the SAP authorizations for data access. A „dialog“ user is required since CIS mobile uses a SAP GUI connection for certain functions, e.g. order entry.




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# Test after step 8

Enter the URL

http://localhost/cismobile

in your browser and login with the following data:.

User: Your SAP user name
Password: Your SAP password
Ticket: cismobiletrialversion2013

The ticket is predefined for testing purposes. You can change it later on via the ticket administration in CIS mobile.

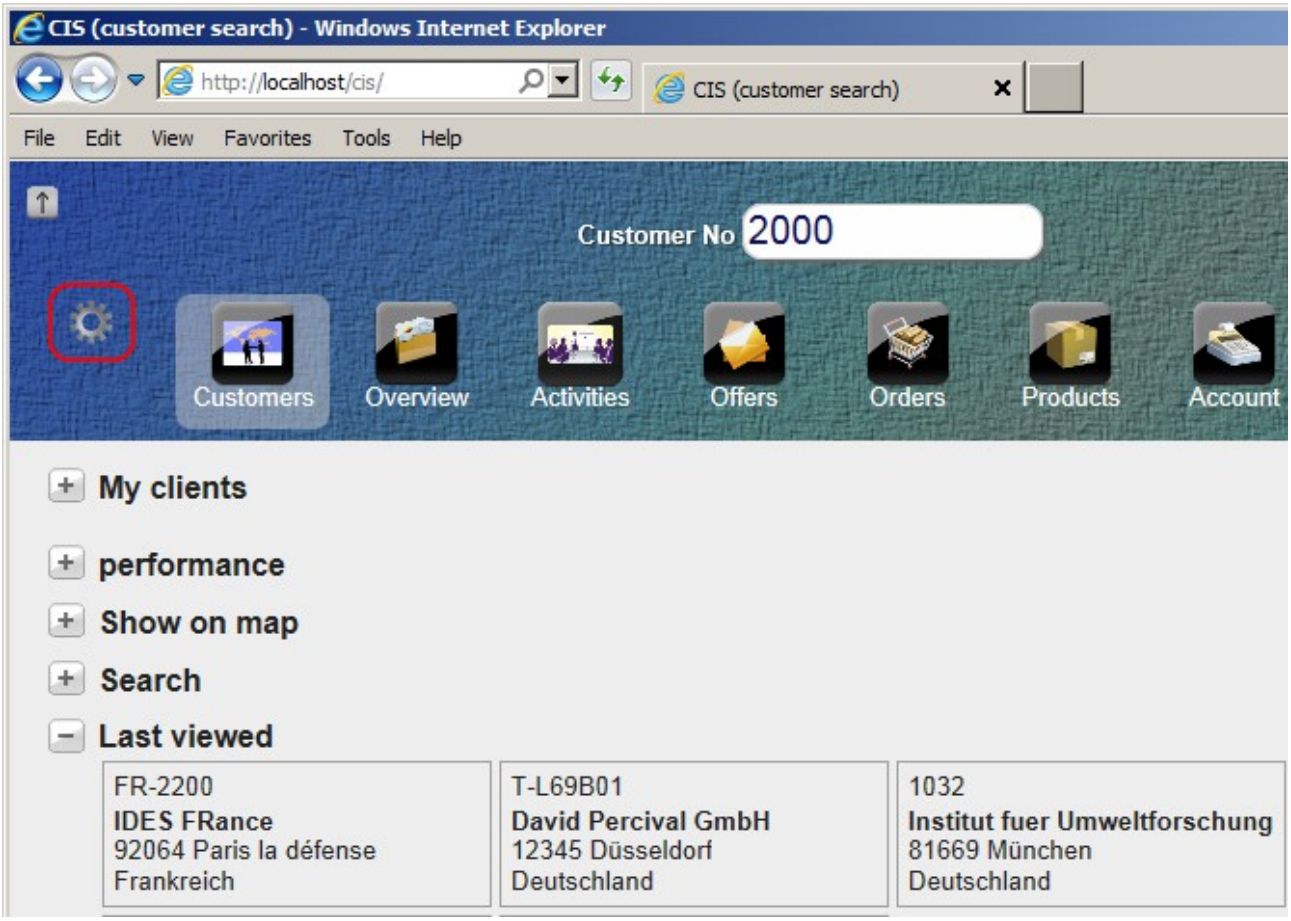
Click the login button. The CIS mobile system connects to your SAP system. You can enter a valid customer number and the customer address will be displayed.

A few configuration data are needed in order to use the main CIS functions such as displaying contacts, visits, orders, reports.

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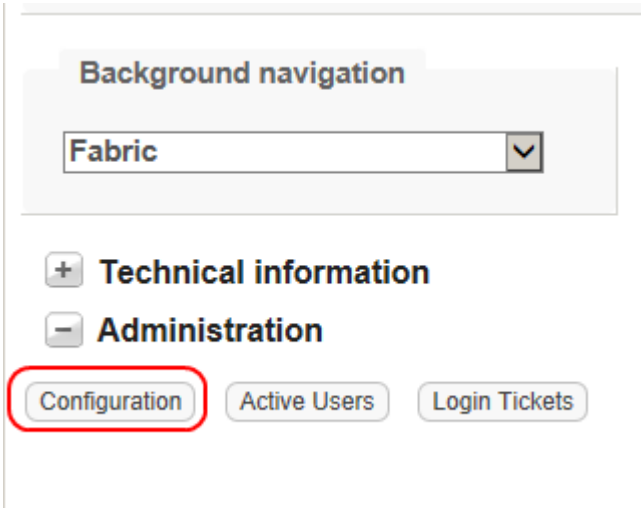
## *Step 9: Configure SAP GUI connection and organizational data*

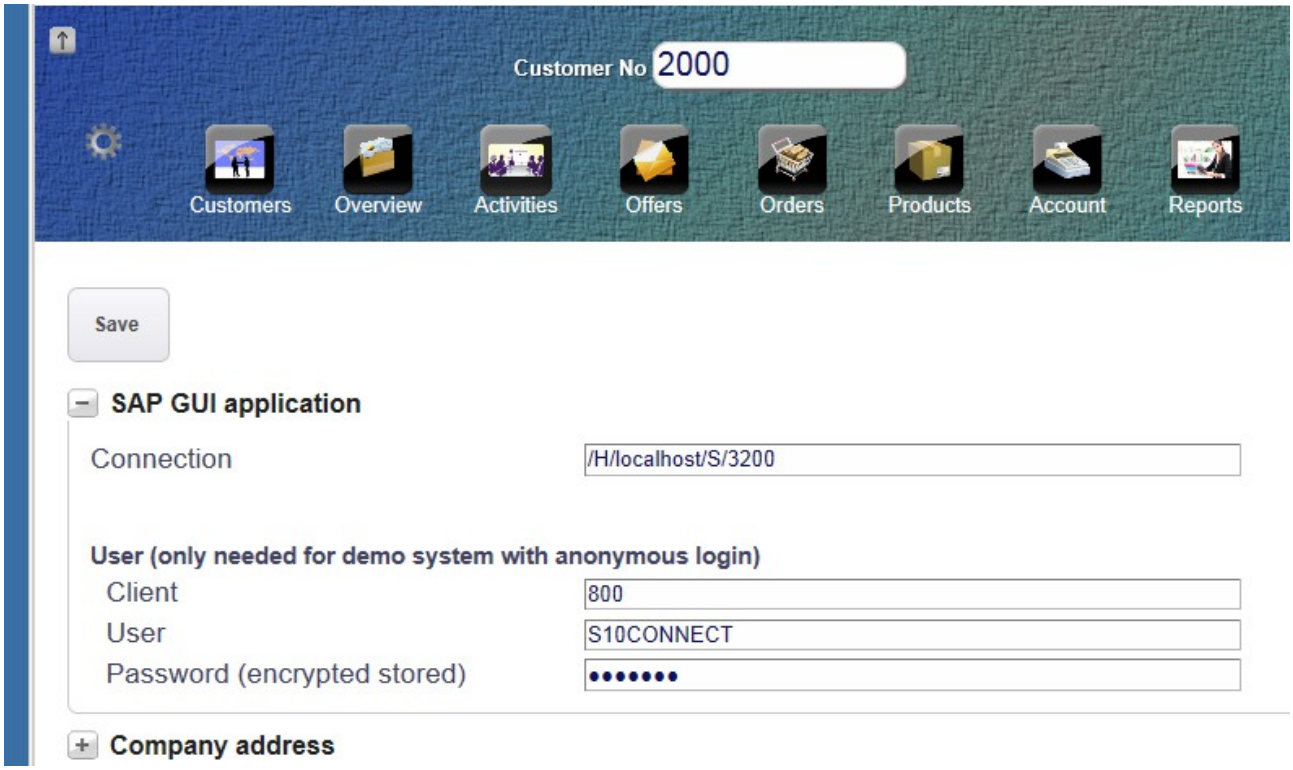
Click the „Settings“ icon in CIS mobile:




Then [+] Administration and the „Configuration“ button:

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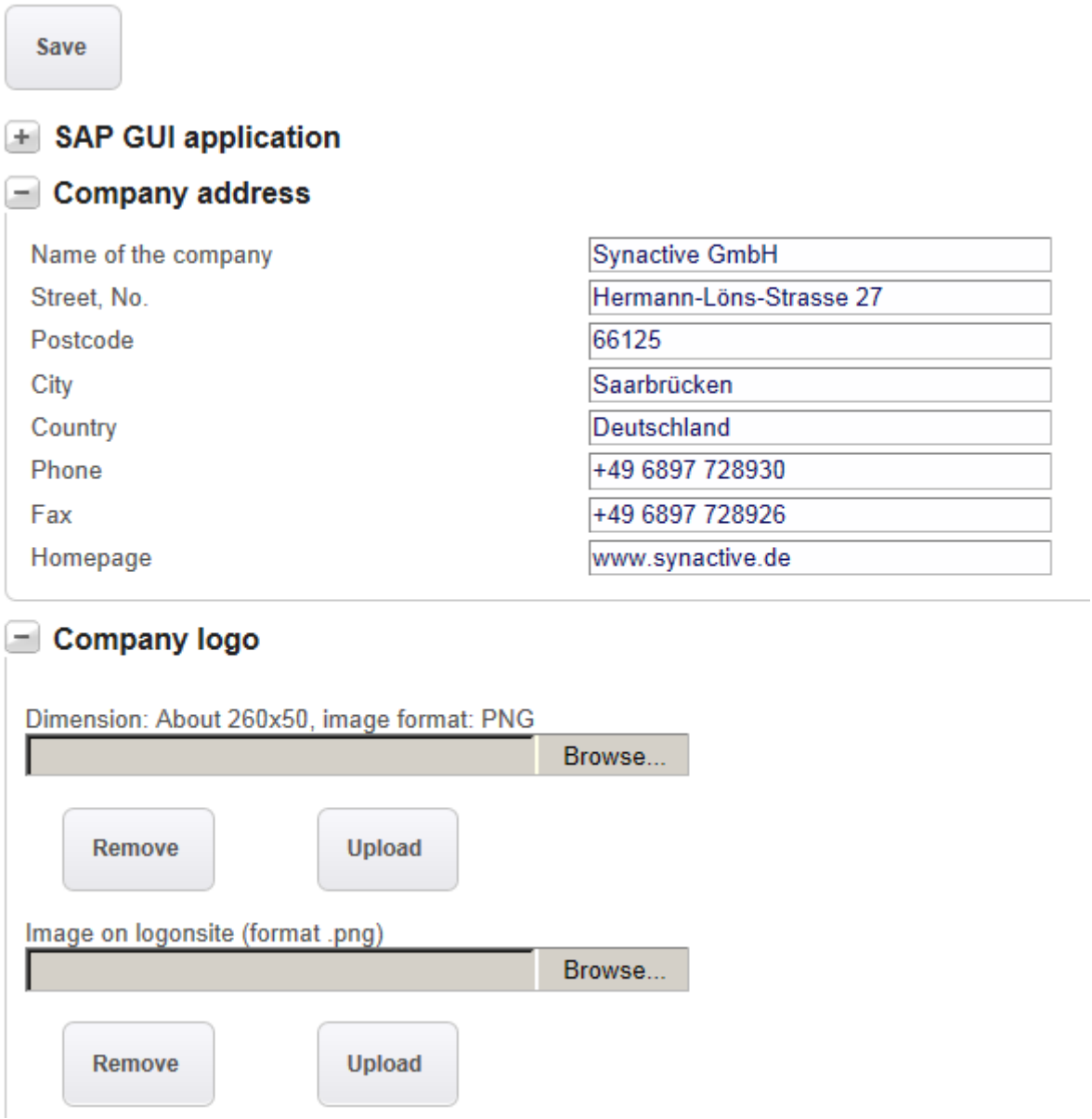

Open the SAP GUI options and enter the SAP GUI connection string to you system.

Since SAP GUI does not use the same connection string format as RFC, it is necessary to define the connection here in addition to the RFC connection in S10 repository.

**It is important that the RFC connection and the SAP GUI connection address the same SAP system.**

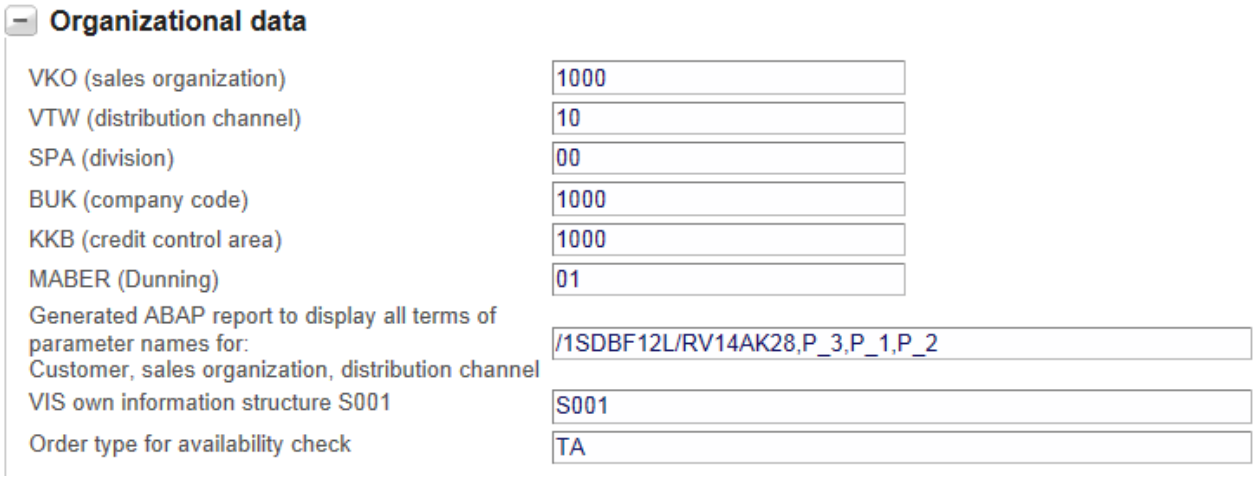
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The company name and address is needed during PDF generation, the company logo is shown in the upper right corner in CIS mobile, and the login screen image can be defined as well:



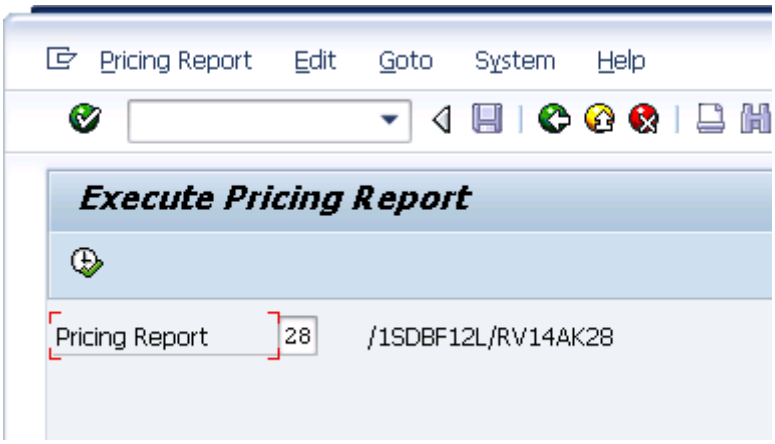

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You may default values for a couple of organizational data such as Sales Area. CIS mobile reads the user parameters of the logged in user and replaces the default values with the user parameters, if set.



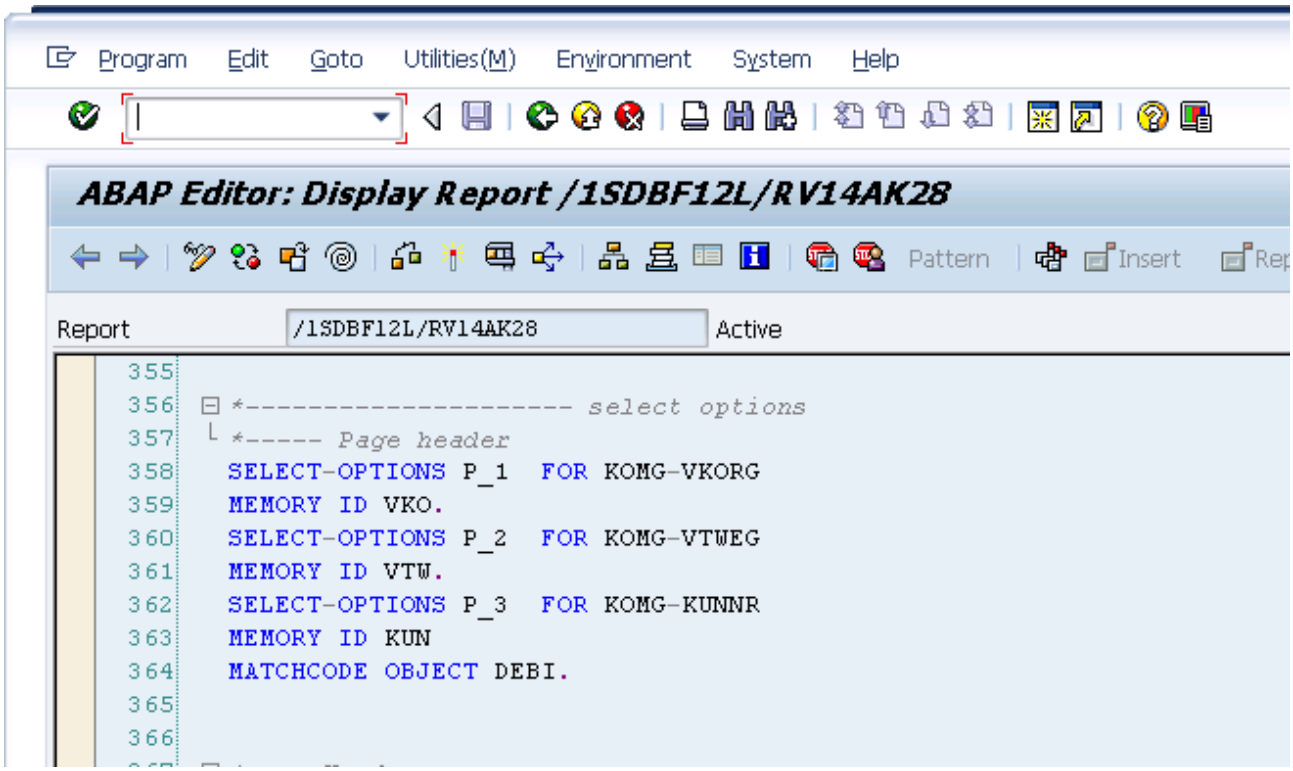

The pricing conditions are read by CIS mobile using a standard ABAP report. Since the name of the ABAP report and its parameters are generated by SAP depending on the system configuration, you need to specify the program name and parameter names.

Use the SAP transaction V/LD to display the name of the ABAP report:

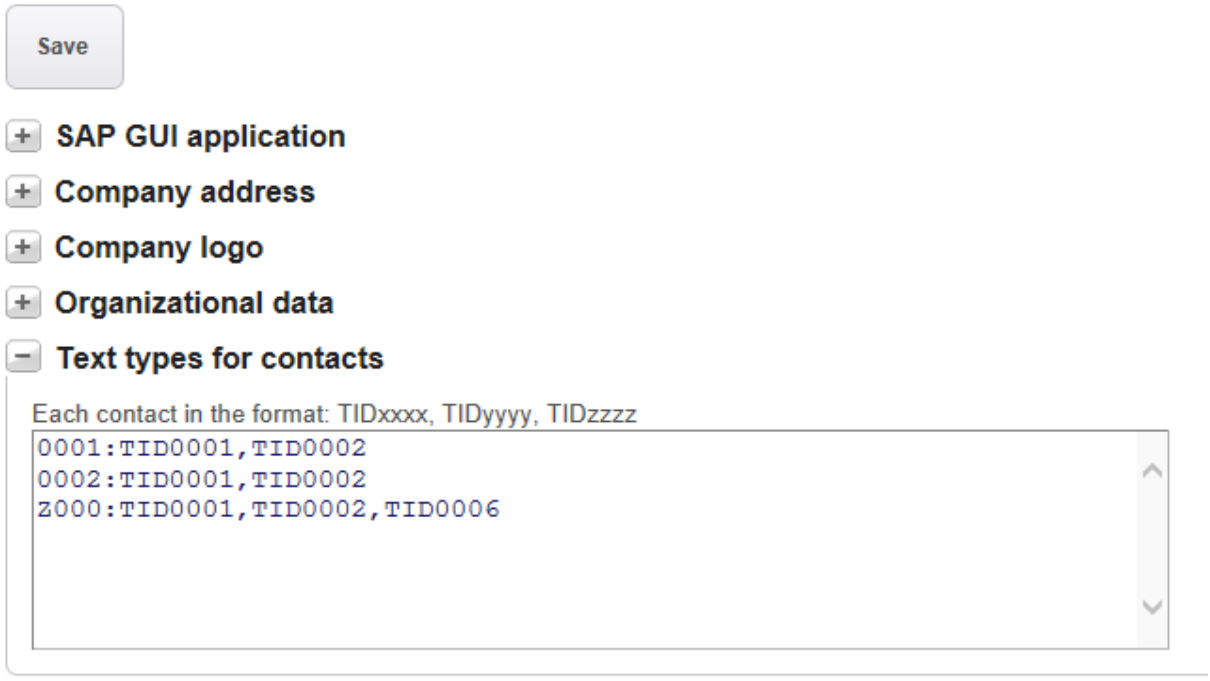



The parameter names for customer number, sales organization and distribution channel need to be entered as well. In the example above these are P_3,P_1,P_2 . In your system it could be P_2,P_1,P_3, for example. Look into the ABAP source code or press F1 on the selection fields of the ABAP report in order to obtain the correct names:

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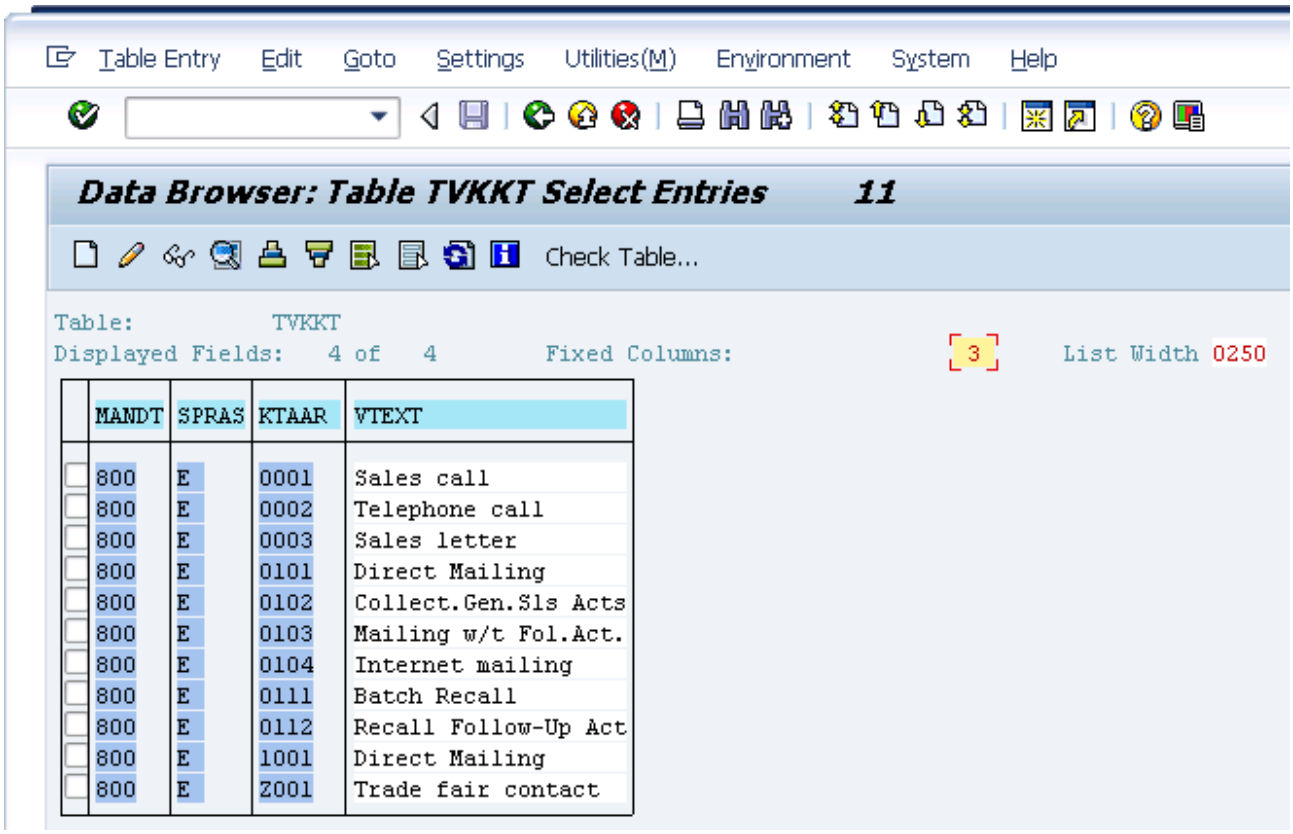



With „**Text types for contacts**“ you define the SAP text types that are to be maintained via CIS mobile, depending on the contact type.



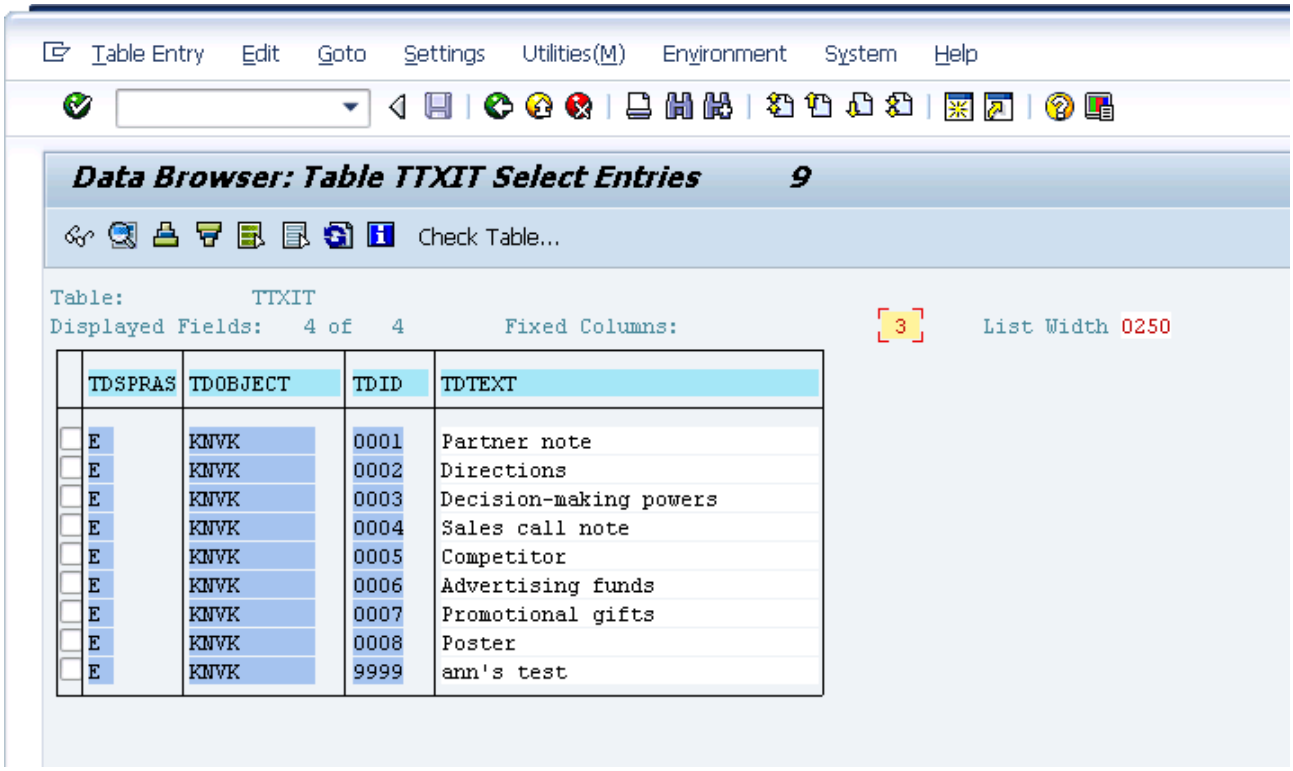

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All possible contact types can be found in SAP customizing table TVKKT:




| MANDT | SPRAS | KTAAR | VTEXT |
|---|---|---|---|
| 800 | E | 0001 | Sales call |
| 800 | E | 0002 | Telephone call |
| 800 | E | 0003 | Sales letter |
| 800 | E | 0101 | Direct Mailing |
| 800 | E | 0102 | Collect.Gen.Sls Acts |
| 800 | E | 0103 | Mailing w/t Fol.Act. |
| 800 | E | 0104 | Internet mailing |
| 800 | E | 0111 | Batch Recall |
| 800 | E | 0112 | Recall Follow-Up Act |
| 800 | E | 1001 | Direct Mailing |
| 800 | E | Z001 | Trade fair contact |

The text types are in table TTXIT, objekc „KNVK“:




| TDSPRAS | TDOBJECT | TDID | TDTEXT |
|---|---|---|---|
| E | KNVK | 0001 | Partner note |
| E | KNVK | 0002 | Directions |
| E | KNVK | 0003 | Decision-making powers |
| E | KNVK | 0004 | Sales call note |
| E | KNVK | 0005 | Competitor |
| E | KNVK | 0006 | Advertising funds |
| E | KNVK | 0007 | Promotional gifts |
| E | KNVK | 0008 | Poster |
| E | KNVK | 9999 | ann's test |

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Finally, define the users that you want to be allowed to change the CIS configuration, entering one or more user names as „CIS administrators“. If you don't do this all users will be allowed to change the configuration.




If you have inadvertently locked yourself out from the CIS administration, e.g. by a typo in the administrator list, you can edit the text file cismobile/config/config.ini on the server directly (line „Administrators“).

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## Step 10: Increase Windows resources for background services

The IIS service runs in the so-called „non-interactive desktop“. Since CIS mobile uses SAP GUI functions that require a certain amount of Windows resources (window handles etc.), the default amount of such resources is not sufficient for a large number of simultaneous CIS mobile sessions. To be more precise,: the standard Windows settings for the non-interactive desktop does not allow more than 7 simultaneous CIS mobile sessions if they use SAP GUI based functions.

It is not difficult to increase these resources, but since direct registry changes are required you need to be careful not to change other entries.

With „regedit“ you open

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\SubSystems]

This key contains a string variable "Windows" which is rather long. Change the third number in

SharedSection=1024,20480,796 (maybe the figures are slightly different in your system).

Into

SharedSection=1024,20480, 20480

which means that you assign the same amount of resources to the non-interactive desktop as for the interactive desktop. The value 20480 (around 20MB) is sufficient for around 200 parallel CIS mobile sessions.

For details see

http://support.microsoft.com/kb/947246/en-us

or

http://www.techarp.com/showarticle.aspx?artno=238&pgno=1

→ It is necessary to restart the server for the change to become active.

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# 4. Further configuration and enhancements

You can configure and enhance your CIS mobile application in many ways. Please refer to the documentation in www.synactive.com for details.

We recommend that you start with the following chapters:

- Configuring product images
- Defining „My customers“
- Configuring the ticket system
- Creating your own reports

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