

C4

Installation Guide

Version: C4 2015

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1 **Technical specification**

The technical specifications define the technical parameters of HW equipment concerning the server and workstations.

1.1 Technical requirements for the C4 Server platform

Configuration for small installations:

- Minimal processor: 1 GHz processor or faster
- Minimal hard disk space: 60 GB
- Minimal RAM: 2 GB
- Operating system: Windows 7 or Windows 8, 32 or 64-bit (excluding Starter and Home editions)
- Database: MS SQL 2008, MS SQL 2012, MS SQL 2014 (Express edition or Standard edition)

Configuration for medium-sized installations:

- Minimal processor: 2 GHz processor or faster
- Minimal hard disk space: 60 GB
- Minimal RAM: 4 GB
- Operating system: Windows Server 2008, Windows Server 2012, 32 or 64-bit
- Database: MS SQL 2008, MS SQL 2012, MS SQL 2014 (Standard edition)

Configuration for larger installations:

- Minimal processor: 2 x 2 Ghz 32-bit (x86) or 64-bit (x64)
- Minimal hard disk space: 2 x 60 GB in RAID1 configuration
- Minimal RAM: 8 GB
- Operating system: Windows Server 2008, Windows Server 2012, 32 or 64-bit
- Database: MS SQL 2008, MS SQL 2012, MS SQL 2014 (Standard edition)

Note

To use MS SQL Standard edition with C4, at least 3 CAL licenses are required:

- one CAL license for Internet Information Services
- one CAL license for C4 system services
- at least one CAL license for C4 application user

1.2 Technical requirements for C4 Client PC

Any PC meeting the requirements for running Windows XP Professional SP 2 or later:

- Minimal processor: Pentium 1.5 Ghz
- Minimal hard disk space: 20 GB
- Minimal RAM: 1 GB
- Additional: Connection available to C4 server

Note

If camera system video is displayed on the C4 client station, hardware requirements of the camera system for video viewing are to be considered as well.

2 Installation Procedure

C4 Information System is installed on a server. C4 client application installations are created during this installation.

The entire C4 installation consists of the following actions:

1. Starting the C4 Setup installation menu
2. Installation of Internet Information Services (IIS)
3. Installation of the MS SQL Server database
4. Installation of C4 Server
5. Installation of required drivers
6. Installation of client(s)
7. License Activation

2.1 Prior to Installation

Be sure to read this installation manual before installation. During the actual process of installation, you will need:

- C4 system DVD.
- Installation DVD of the operating system for the computer that will serve as the C4 server.

You are advised to collect the following information:

- HW (MAC) address of the network card of the server
- Server IP address

During installation, you will create two system accounts that are required for the services that are part of the C4 application. These services use these system accounts to enable the proper functionality as expected from the application. Please consult the security policies applicable for your situation regarding the creation and use of user accounts by the network manager. The installation requires the use of a windows user with local administrator rights.

Approximate installation time:

Internet Information Services (IIS): 4 minutes

SQL express: 15 minutes (other editions may also qualify)

C4 server installation: 10 minutes

Drivers: 2 minutes per driver

C4 client installation: 2 minutes

2.2 Installation menu

When you insert the installation DVD to the computer's drive, the C4 installation menu will automatically appear.



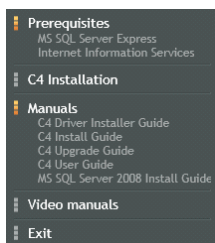
Figure 1 - Splash menu

The installation menu will automatically start under the following conditions:

1. The Autorun functionality in the operating system must be enabled.
If Autorun is disabled, the installation menu must be run manually by double-clicking Setup.exe located in the installation DVD root directory.
2. If Microsoft .Net Framework 4.0 is not yet installed, it will be installed automatically before the installation menu starts.

The installation menu includes the following options:

- Prerequisites - Installation of prerequisites (IIS, MS SQL Server 2008 Express)
- C4 Installation - Installation of the C4 server
- Manuals - view the available manuals
- Videos - view video manuals (if available)
- Exit - exit the installation



**Figure 2 -
Installation menu
options**

This documentation describes the procedure of the C4 Server installation, including the prerequisites for a new computer.

2.3 Installation of prerequisites

As soon as the installation menu successfully starts, install the prerequisites in the following order:

1. Internet Information Services.

The IIS service is used by the C4 client to communicate with the C4 server.

2. Microsoft SQL Server 2008 Express

MS SQL 2008 installation is a necessary part for installing the C4 system server components. It is used to store C4 system configuration and to store all information related to devices.

C4 server installation requires an account with SQL Server administrative access rights.

The installation runs automatically without any user intervention.

2.4 C4 Server Installation

1. After all prerequisites have been successfully installed, select the C4 Server installation option in the installation menu by clicking **C4 Installation**.

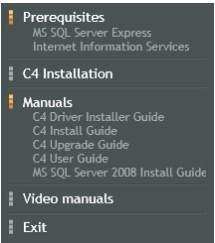


Figure 3 -
Installation menu
options

2. Within the C4 installation windows, continue by clicking **Next**.



Figure 4 - Setup wizard welcome screen

3. If you agree with the license conditions in the License Agreement, accept them. Click **I accept the terms in the License Agreement** and continue by clicking **Next**.

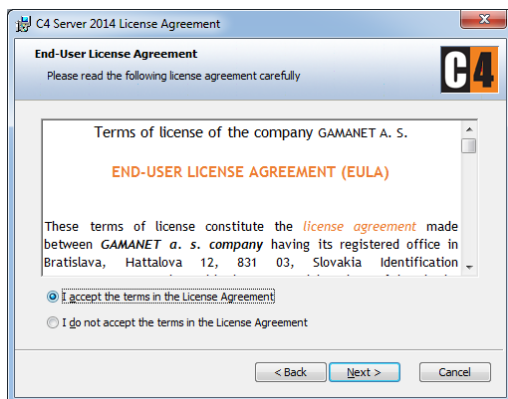


Figure 5 - End-User License Agreement

4. Select the installation type. **Typical** installation installs all necessary C4 server components on the computer.

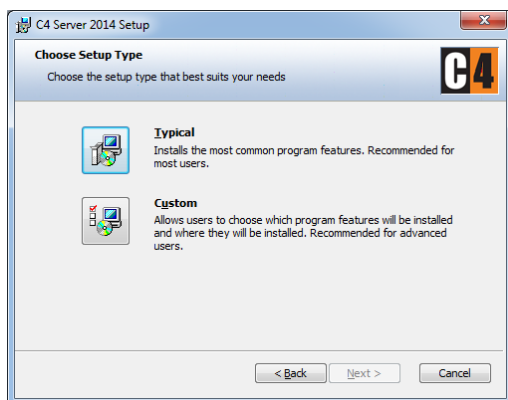


Figure 6 - Installation type

Custom installation enables to install C4 system components individually. This selection should be performed by a person certified to implement the C4 system.

5. Insert the server name with the installed SQL database and click **Test**

connection to check C4 system connection to that server.

The preset value for this field is the address of the locally installed MS SQL Express server. The address is `localhost\SQLEXPRESS`, where `localhost` designates a connection type, `.` designates a local computer and `\SQLEXPRESS` designates an instance.

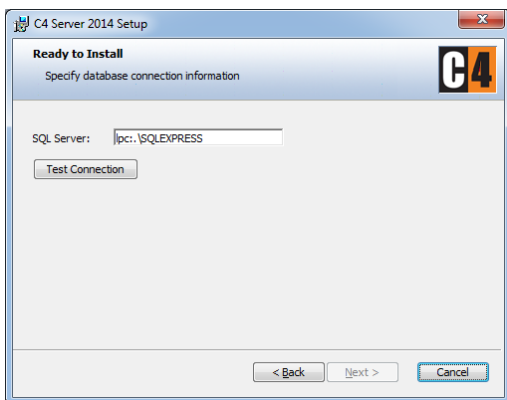


Figure 7 - SQL Connection string

Note:

In case of MS SQL 2008 Standard edition, enter the default instance as `localhost` without specifying the instance name.

6. If the connection was successful, a notice appears on the screen.
Continue by clicking **OK**.

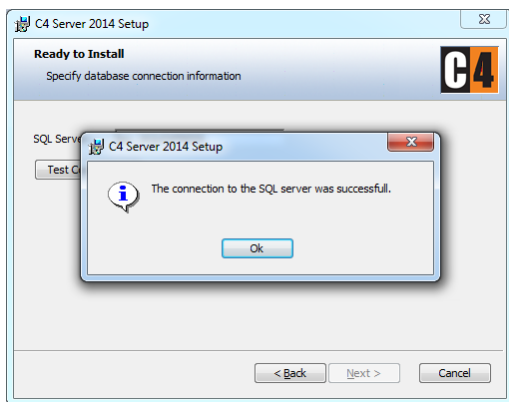


Figure 8 - Successful connection to the SQL database server

7. Leave default values in the *User*, *Password* and *Web server Name* fields and click **Next** to continue.

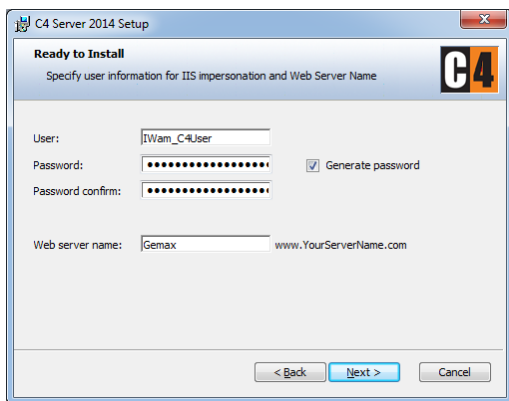


Figure 9 - Installation settings

8. Leave default values in the *User* and *Password* fields.

HW address is the network card number (MAC address) of the computer, on which the installation was performed. If you want to find your HW address, the method for doing so is described in Annex 1.

The following fields contain symbolic names that can be changed after installation.

- The *Installation* is the name of the installation
- The *Device Manager* is the name of the device manager instance.

Enter the data and click **Next** to continue.

C4 Server 2014 Setup

Ready to Install
Specify user information for services

User: C4System

Password: ☒ Generate password

Password confirm:

HW Address: 00-0C-29-28-DF-66

Installation name: Gemax

Device Manager name: Gemax DM

< Back Next > Cancel

Figure 10 - Installation settings

9. In the next windows, click **Install**.

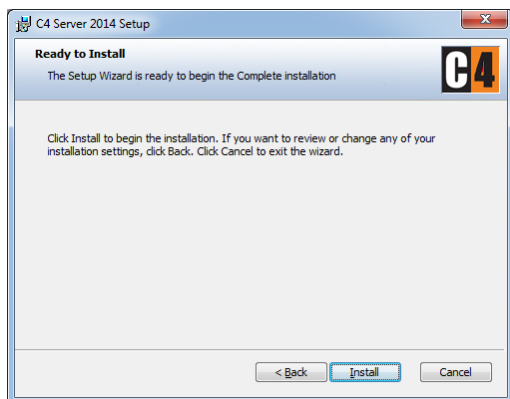


Figure 11 - Ready to install

10. During the installation, it is possible to return to the Installation menu and view manuals and video.

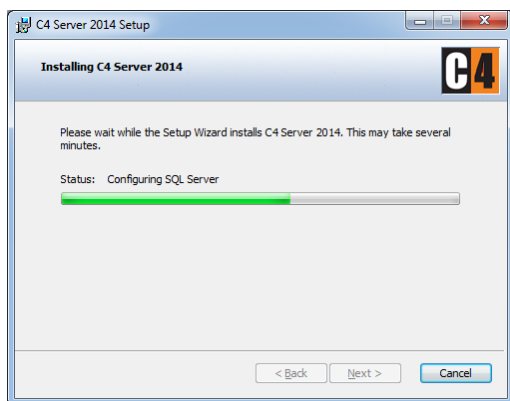


Figure 12 - Installation progress

11. To end the installation, click **Finish**.

If **Install drivers now** is selected, Driver installer will automatically start after the server installation has completed. If you want to install client components to the server, keep the **Launch C4 Client** box checked. After finishing the installation, C4 client installation starts automatically. If both

options are selected, Driver installer starts first and after it has finished, client application installation will start automatically.

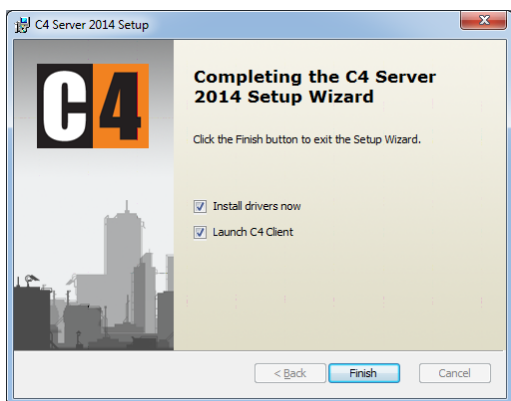


Figure 13 - Installation finished successfully

2.5 C4 System Driver Installation

Driver installation is a necessary part of C4 system installation. The drivers are used by the C4 server to communicate with individual devices.

Driver installation methods procedures can be found in ***C4 Driver Installer Guide***.

2.6 Installation of Clients

Prior to the installation, Microsoft .NET Framework 4.0 must be installed on the computer where the client application of C4 will be installed (requires administrator rights).

Then it is possible to install the C4 client under the account of a normal user.

1. Open the internet browser.
2. Enter the address you received during server installation into the address bar. The address is

<http://xxx.xxx.xxx.xxx/c4iis/client>

where xxx.xxx.xxx.xxx is the C4 server IP address.

Tip:

Instead of server IP address, enter the server name as [http://
SERVER_NAME/c4iis/client](http://SERVER_NAME/c4iis/client)

In this case it is necessary to fill in DNS server address in client station network settings.

3. A window appears, which enables the installation of C4 client.
4. Continue to custom installation by clicking **Install**.

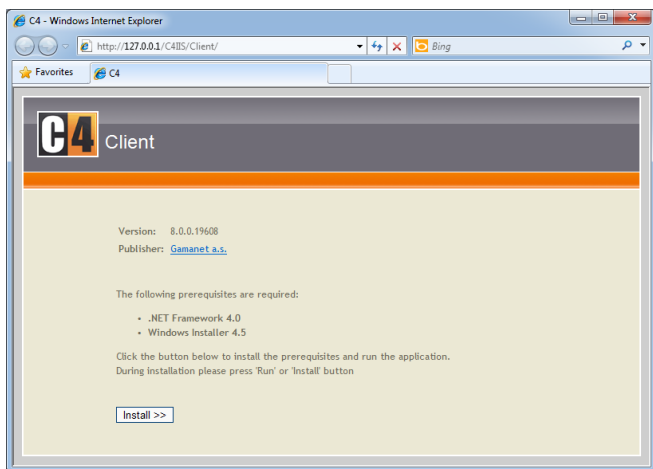


Figure 14 - Client installation window

Note:

If nothing happens, try the following actions:

- Check whether the server is accessible from the client computer.
- Check whether the user of the client computer has enabled access to the server (the user may have denied permissions).

5. If the following window appears, accept another conditions by checking I have read and accept the license terms and click Install to start the installation of the package. If multiple windows with conditions to accept appear, accept them by checking the field and install the package by clicking ***Install***.

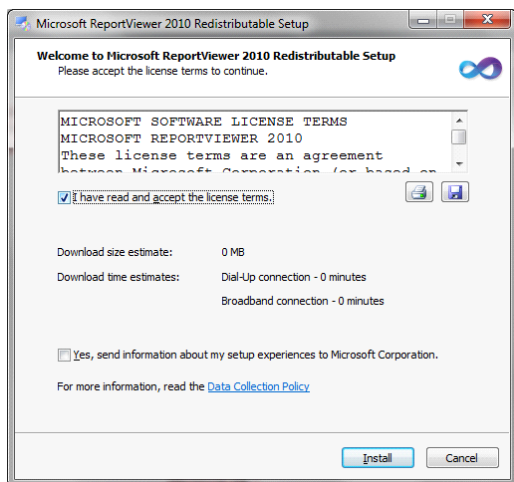


Figure 15 - ReportViewer setup

Warning:

It is required for installation to have Administrator rights to enable installation of system components.

6. After successful system component installation, a window with the option to launch the C4 client installation appears. Start the installation by clicking **Install**.

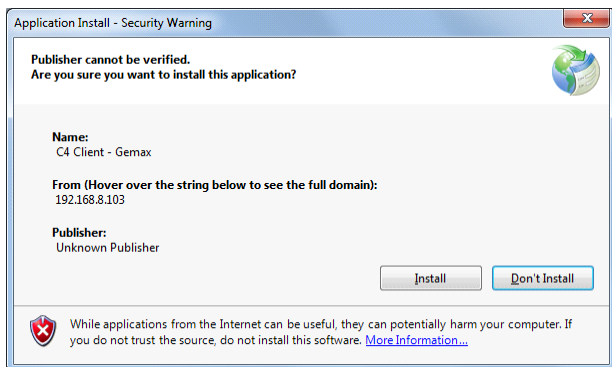


Figure 16 - Client installation

Note:

If Internet Explorer is not the default browser, an error message appears stating that the system cannot launch c4client.application. In that case, you need to manually start Internet Explorer, enter

<http://xxx.xxx.xxx.xxx/c4iis/client/c4client.application>

and continue with the client installation according to manual.

7. C4 client parts are installed.

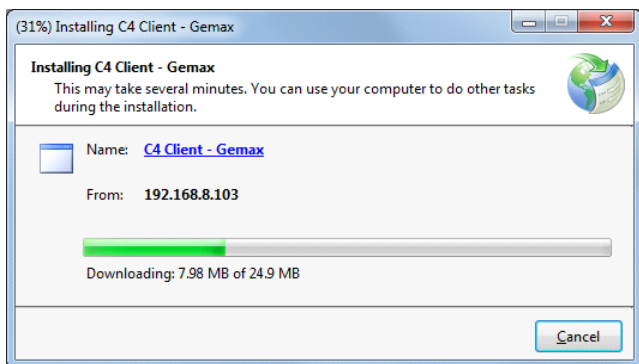


Figure 17 - Client installation progress

8. After successful installation, a login window appears. Fill in your login name and password into the respective fields. The system contains one standard predefined account with a login name and a password:
- support/support

Warning:

For security reasons, after finishing the installation you should change the password for this account.

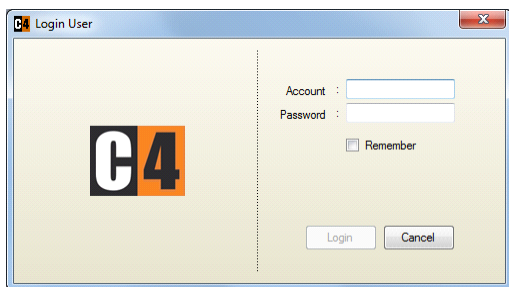


Figure 18 - Login window

2.7 License activation

If you perform a new system installation, it is necessary to enter a license key. It contains information about application edition, number of connected devices, license validity duration and other information.

License management is realized through C4 client.

1. After successful login, the C4 application window appears. Information about an invalid license is displayed in the bottom right corner of the window.

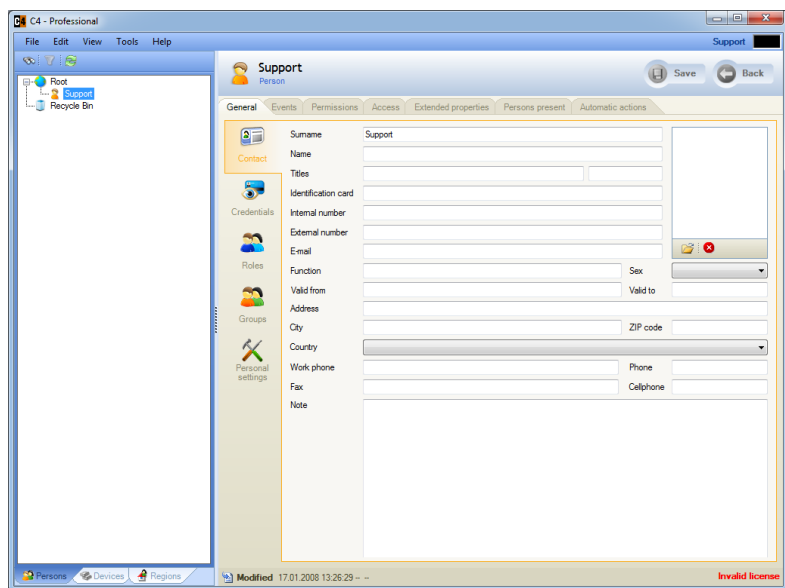


Figure 19 - Client application

You can obtain a license in the form of an activation key from your C4 system provider, based on an order.

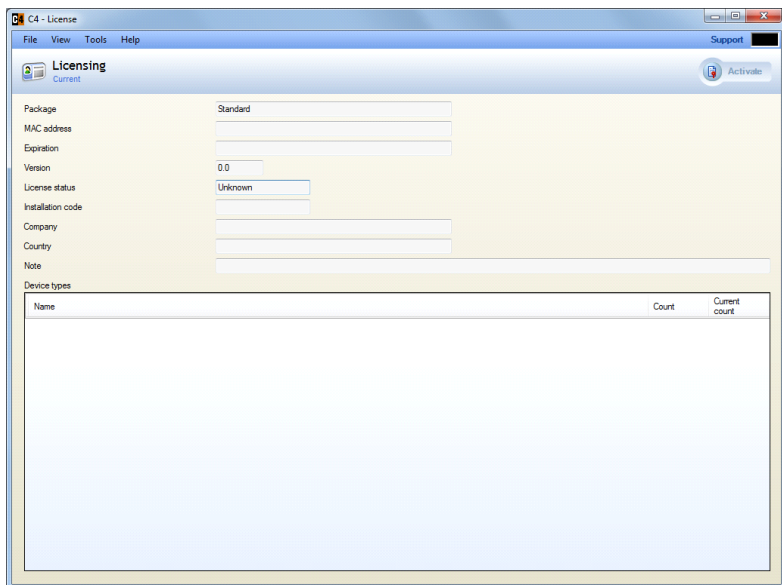
Warning:

The order must include the hardware address of the C4 server network card that has been defined during installation.

Note:

The license management window can be opened via application menu. In the *Help* click **License**.

2. After obtaining the activation key form your C4 supplier, click **Activate**.



The screenshot shows a window titled "C4 - License" with a menu bar (File, View, Tools, Help) and a "Support" button. The main area is labeled "Licensing" and "Current". It contains several input fields: Package (Standard), MAC address, Expiration, Version (0.0), License status (Unknown), Installation code, Company, Country, and Note. There is also an "Activate" button in the top right. Below these fields is a "Device types" table with columns for Name, Count, and Current count.

Name	Count	Current count
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Figure 20 - License panel

3. Enter the path to the file with the activation key. Click **Next**.

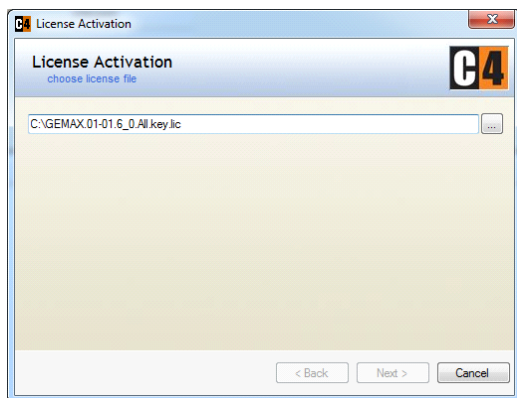


Figure 21 - License file path

4. If the verification of the license file is successful, activate the key by clicking **Next**.

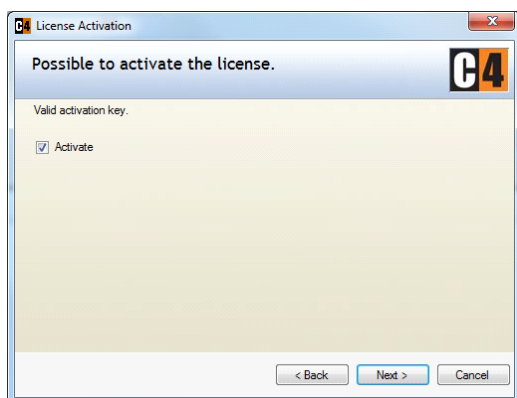


Figure 22 - License file validity check

5. Finish the license activation by clicking **Next**.



Figure 23 - Successfull license key activation

6. The license is active immediately after completion of a successful activation.

In order to use the full functionality of the C4 system, you must restart the C4 client application.

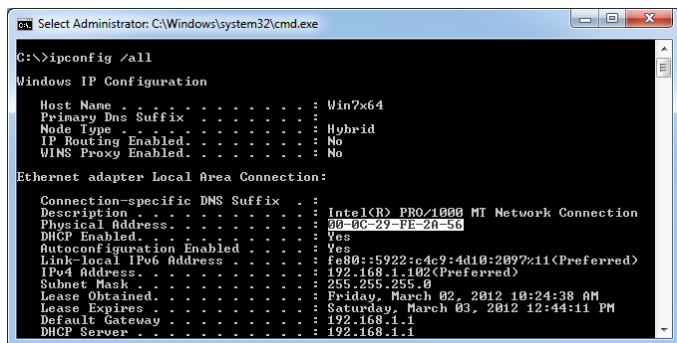
Note

See the product web page to view the C4 system licensing method.

3 Annex 1 - Getting the HW Address of the Network Card

The computer's HW address can be found by clicking Run in the Start menu and typing "cmd".

A window appears. Type ipconfig/all and press Enter. The system will display a list of all HW addresses in the computer.



```
C:\>ipconfig /all

Windows IP Configuration

Host Name . . . . . : Win7x64
Primary Dns Suffix . . . . . :
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Ethernet adapter Local Area Connection:

   Connection-specific DNS Suffix  . : 
   Description . . . . . : Intel(R) PRO/1000 MT Network Connection
   Physical Address. . . . . : 00-0C-29-FE-2A-56
   DHCP Enabled. . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
   Link-local IPv6 Address . . . . . : fe80::5922:c4c9:4d10:2097%11(Preferred)
   IPv4 Address. . . . . : 192.168.1.102(Preferred)
   Subnet Mask . . . . . : 255.255.255.0
   Lease Obtained. . . . . : Friday, March 02, 2012 10:24:38 AM
   Lease Expires . . . . . : Saturday, March 03, 2012 12:44:11 PM
   Default Gateway . . . . . : 192.168.1.1
   DHCP Server . . . . . : 192.168.1.1
```

Figure 24 - List of the available MAC addresses

4 Annex 2 - C4 Server Services Overview

The figure displays all parts of a correctly installed C4 server. The parts are run as services on the server. These include:

- Message Broker (installation)
- Device Manager (device manager)
- Replication Manager (data import from external systems).

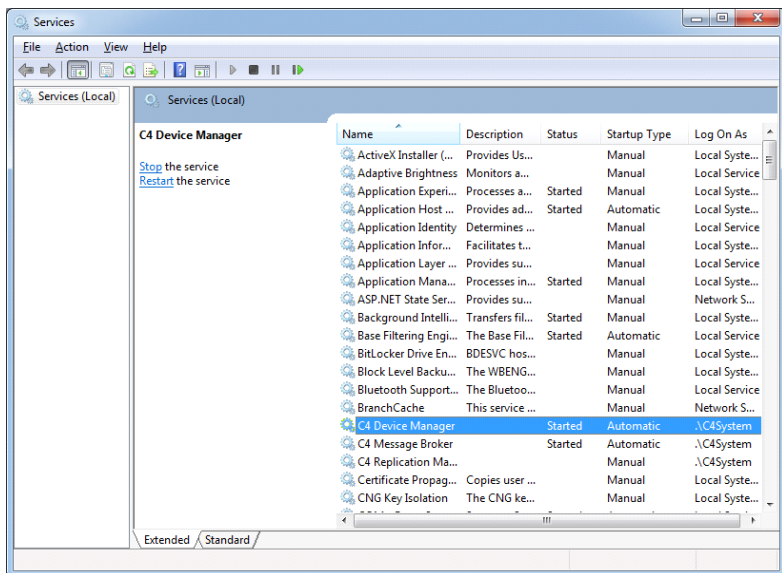


Figure 25 - Server services

5 Annex 3 - Additional Recommendations and Information

This annex contains additional information about the functionality of the C4 system.

1. Communication between the C4 Server and the C4 client

The server-client communication is done via Web Services, which typically uses port 80, or, in case of a secure communication, port 443.

If necessary, the user can set a defined port by Internet Information Services (IIS) Manager.

2. Restricting the SQL database

The size of the SQL database is restricted to 10 GB when using the Express edition. In case of larger installations, we recommend using SQL Standard, that has no restriction on data size (except for the physical drive limitations).