NiceLabel Control Center Installation Guide

Rev-1602 ©NiceLabel 2016.

Contents

Architecture

NiceLabel Control Center uses the client-server model of computing, where the server (**Control Center** Web page) provides the resources (such as consolidated storage of files and history of printing events), and the client provides label design and printout functionality. Clients and server communicate over computer network using the TCP/IP protocol.

For full system requirements please see the chapter "System Requirements" on page 15.
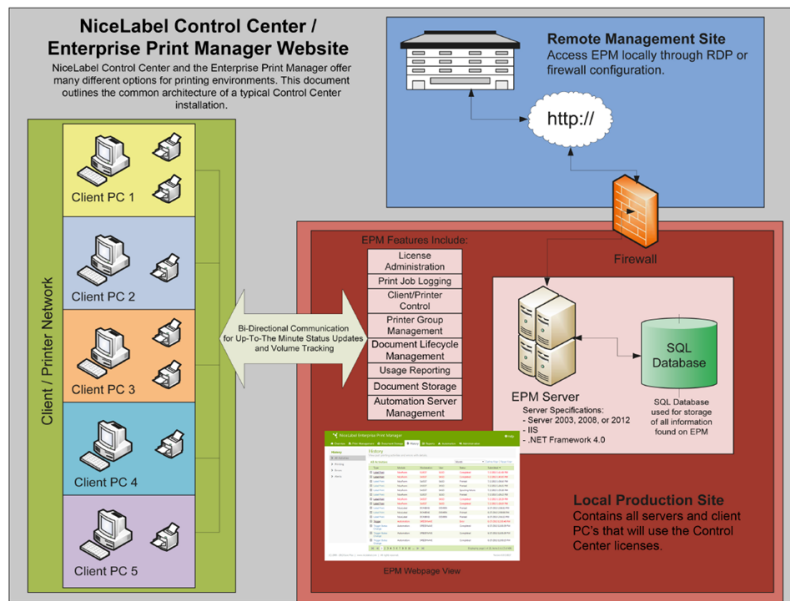
Server Components and Roles

These are the components that you have to install on the server. The first two are mandatory server components.

- **Web application.** This is the main Control Center software component that runs on Microsoft Internet Information Services (IIS) using .NET platform.

- **Database back-end.** This is the database server that runs Microsoft SQL Server and hosts the Control Center database NiceAN.

- **RemoteApp back-end (optional).** This is the Microsoft RemoteApp server that is configured to publish the NiceLabel client to Control Center users. With RemoteApp, you can make programs that are accessed remotely through Remote Desktop Services appear as if they are running on the end user's local computer.

NOTE This installation guide explains the necessary steps to configure the already installed and activated RemoteApp server to be used with NiceLabel software. It is out of the scope of this installation guide to provide the installation instructions for the RemoteApp server. Please refer to the Microsoft guides covering this topic.

Changes on Server with Web Role

Two local Windows users are installed on the server, EPM_USER and EPM_DBADMIN. When Control Center reads or writes the data from NiceAN database, it impersonates the EPM_USER and accesses the database with security context of that account. The identical EPM_USER account must be defined on the server with the database role (the same user name and password).

The following is installed on the IIS application server:

- **The application EPM.** The application EPM runs under the Default Web Site and is accessible on port **80 TCP**. To access Control Center, open the following URL in your web browser:

```
http://server/EPM
```

- **The site EPMWebDAV.** This site allows access to the files stored in the Document Storage using WebDAV technology. The site runs on port **8080 TCP**. For example, NiceLabel label and form designers will open the file from the Document Storage using WebDAV. You can access the files using the following syntax. The first one opens the file directly through WebDAV, the second one opens the file through WebDAV redirector, which is installed on the client (this is Windows feature available since Windows Vista).

```
\\server@8080\DavWWWRoot\folder\label.lbl
```

```
http://server:8080/folder/label.lbl
```

- **Two Application Pools.** The applications pools "EPMAppPool" and "EPMWebDAVAppPool" make sure the Control Center application runs isolated from other applications on this IIS server.
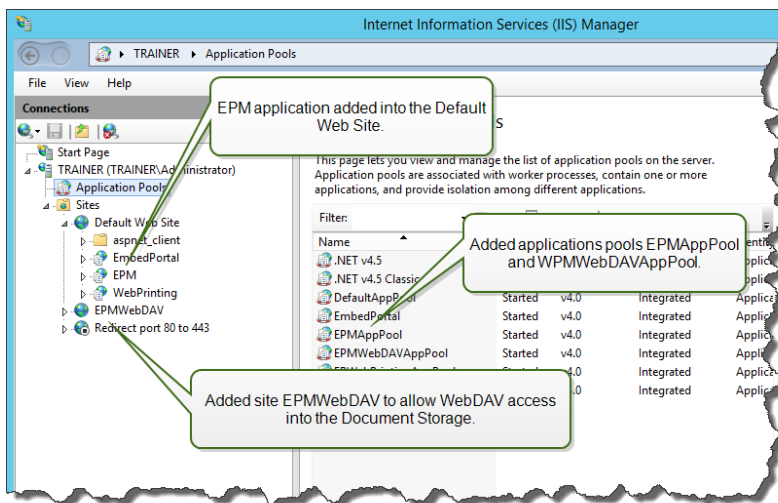

The following service is installed on the Windows system:

- **NiceLabelEPMProxyService.** This service takes care for synchronization of Document Storages between Control Centers in multi-tier landscape, it is used when running in the cluster system, and is essential part of the Control Center installation.

Changes on Server with Database Role

Two local Windows users are installed on the Windows server where SQL Server is installed, EPM_USER and EPM_DBADMIN. The same Windows users are added into "Logins" in the SQL Server. The only purpose of the two Windows users is that Control Center impersonates them when interacting with the database NiceAN. By default, the Control Center uses Windows authentication when interacting with the SQL Server.
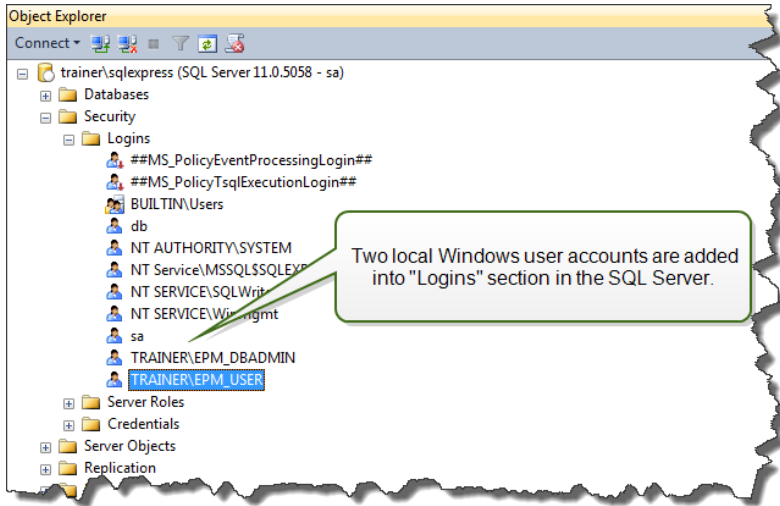
The roles and user permissions for the Windows accounts inside the SQL Server:

- **EPM_DBADMIN.** This user has granted the following roles: "Connect SQL" and "Create any database". The installer impersonates this user to create the database NiceAN and fill it with the initial data. This user also becomes owner of the database NiceAN. The user is mapped only to the database NiceAN.
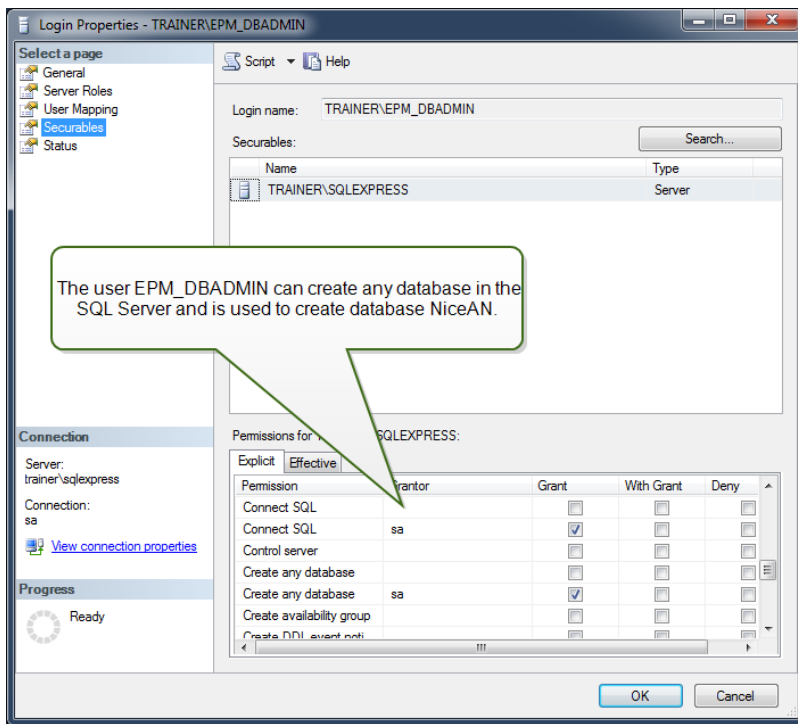
- **EPM_USER.** The Control Center application impersonates this user whenever it needs to

interact with the database NiceAN. The user is mapped only to the database NiceAN.
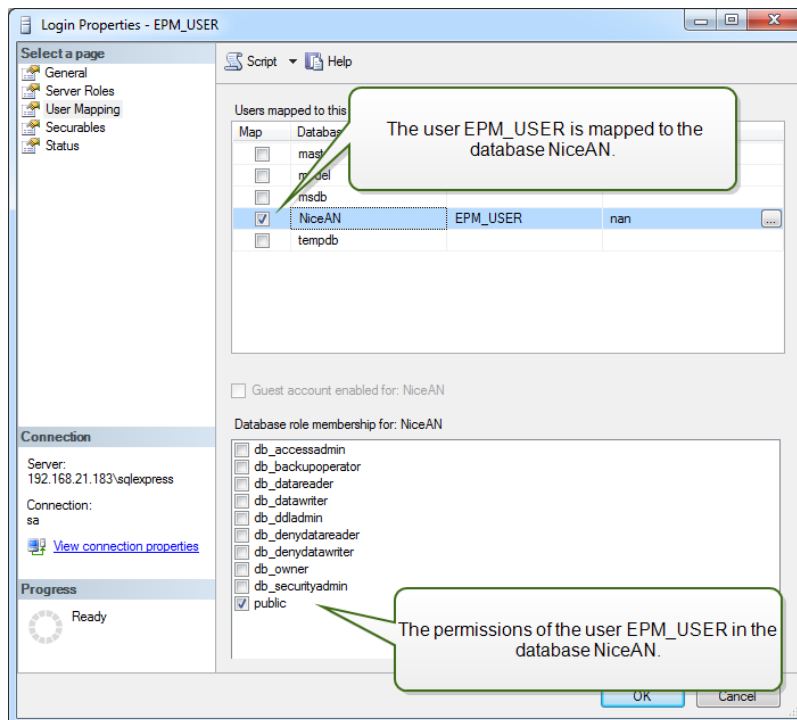
The following is installed on the SQL database server:

- NiceAN database. This database contains all data that is related to Control Center.

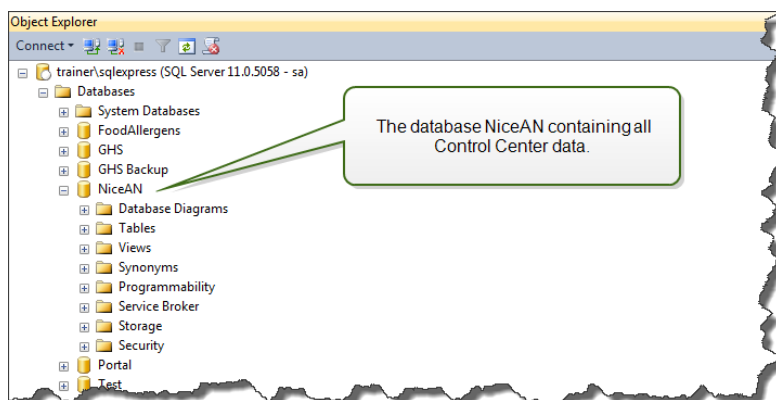> **WARNING** Local Windows user accounts cannot be created on a failover (high-availability) cluster system. If you want to install the NiceAN database into a clustered SQL Server, you will have to install the database separately from the main Control Center installation. You will be able to configure either Windows domain user account or SQL user account to connect to the SQL Server. "Installing to Multiple Servers" on page 28

Client Components

Install the below listed client components:

- **NiceLabel Designer (including NiceLabel Print).** NiceLabel Designer PowerForms product level is used for label design and runtime activities.

- **NiceLabel printer drivers.** NiceLabel Designer will use NiceLabel printer drivers to

create an optimal print job for the target printer.

- **Support for WebDAV.** "Installing Support for WebDAV" on page 59.

When enabling the Application Server technology, you do not have to install any client software on the workstation. NiceLabel program runs in its own resizable window, can be dragged between multiple monitors, has its own entry in the task bar, and has the look and feel of an installed desktop application. The application runs on a server, but displays its user interface on a client's desktop.

Single or Multiple Server Architecture

The Control Center server can be installed on a single server, which will run all roles, or the roles can be shared among multiple servers.

- **Single server.** This architecture places all of the required components on a single server. In this case, a single Windows Server machine is dedicated for NiceLabel software. No other applications are installed on this machine, so you don't have to worry about its co-existence with other software. Your single Windows Server machine would be configured with the Web role (IIS) and database role (Microsoft SQL Server). As all components are installed on the same server, you only need a local Administrator user during the installation. The privileges of this user will be used to install the software and the database.

  > NOTE To install Control Center in a single server architecture, run the installer and follow the on-screen prompts.

- **Multiple servers.** In a multiple server architecture, the application processing and data management functions are physically separated. You will have a single Windows Server machine with the Web role (IIS) and another Windows Server machine with the database role (Microsoft SQL Server). Furthermore, both application and database landscape can be configured to run in a cluster system. Database landscape is configured in the high-availability (failover) cluster, while the application landscape is configured in the load-balancing cluster.
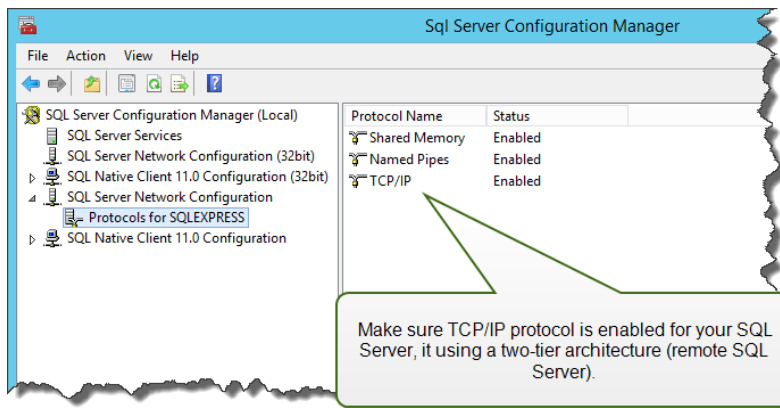
  In this case, more groundwork is necessary to prepare the systems for the installation. As more systems are involved, you have to collect the appropriate user account with permissions to install the application and the database.

  > NOTE The steps to install Control Center in the multiple-server architecture depend on the SQL Server installation. If the remote SQL Server is running in the stand-alone mode, you can use the installer and follow on-screen prompts. If the remote SQL Server is running in the high-availability cluster mode, you will have to install the database NiceAN first (using a different installer), followed by the Control Center Web application. "Installing to Multiple Servers" on page 28.

Checklists

Pre-installation Checklist

	SERVER CHECKLIST
☐	**Available access to the Windows accounts with administrative privileges and SQL system administrator**

> WARNING When installing the software to multiple servers, all servers must be managed through the same Windows domain.

To install NiceLabel software, you must have access to the user with administrative privileges:

1. On the Windows server with Internet Information Services role where you will install Control Center web site.

2. On the Windows server with Microsoft SQL Server role where you will install the Control Center database, so the users EPM_DBADMIN and EPM_USER can be added as local Windows users. The provided Windows account must be a domain user (not local Windows user), and must be member of local user group Administrators.

3. On the SQL Server, so the database NiceAN can be added to the SQL Server. The entered user must have the sysadmin server role defined on the SQL server. This must be as SQL user name, usually "sa".

> NOTE If the Windows user account you use to install Control Center has administrative privileges also on the Windows machine with SQL Server and the SQL Server itself, then you need just this one user name/password (and you do not need information from steps 2 and 3).

☐	**Internet access for the activation process**

You will need the Internet access to activate NiceLabel Control Center. You do not need to allow Internet connection to the Windows Server where you have installed Control Center. You can activate Control Center from any other computer that has Internet access.

☐	**Meeting prerequisites for the Internet Information Services (IIS) Web server**

- "Installing IIS Web Server" on page 20 for the Web Server Roles that you have to enable in the IIS.

- Make sure the Internet Information Services (IIS) has the Default Web Site enabled.

☐	**Meeting prerequisites for the Microsoft SQL Server**

- "Installing Microsoft SQL Server" on page 16 for a step-by-step instructions how to install a new SQL Server.

- The Control Center database NiceAN requires case-insensitive collation.

  Make sure to enable the SQL Server Browser service, if you use instance names. This will make the instances visible to external clients.

- Make sure to enable the TCP/IP protocol for your SQL Server, if the SQL Server will be installed on a different machine than Control Center Web page. Start **SQL Server Configuration Manager**, expand **SQL Server Network Configuration** and enable the **TCP/IP** for the your server/instance.

Make sure TCP/IP protocol is enabled for your SQL Server, it using a two-tier architecture (remote SQL Server).

- Make sure the inbound connection towards the SQL Server is enabled. Start **Windows Firewall with Advanced Security** and add a new **Inbound Rule** to allow the program sqlservr.exe accept incoming connections. You will find the program in the folder C:\Program Files\Microsoft SQL Server\MSSQL<version_number>.SQLEXPRESS\MSSQL\Binn.
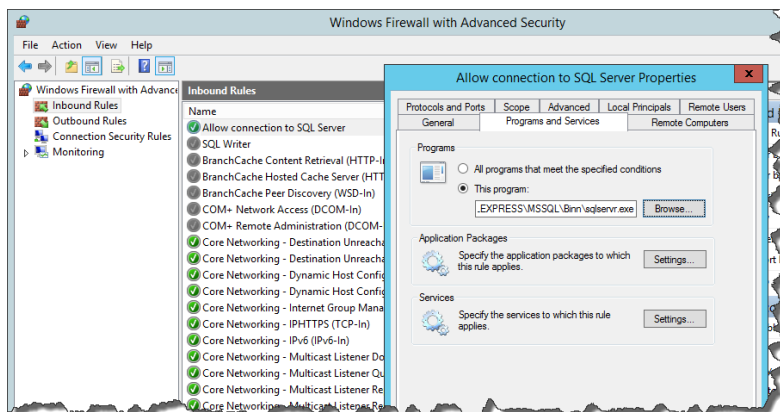

☐ **Installing Control Center on a Windows Server with enabled Remote Desktop Services (Terminal Services) role**

To ensure that an application is installed correctly to work in a multiple user environment, the Remote Desktop Server must be switched into Install mode before the applications are installed on server.

Do the following:

- On Windows Server 2012 or Windows Server 2012 R2:

  1. Open **Control Panel**.

  2. Select **Programs**.

  3. Select **Install Application on Remote Desktop Server**.
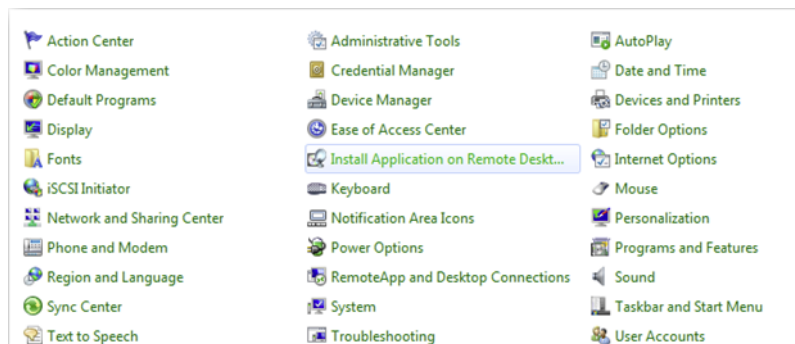
4. Browse for the installation executable, click OK and follow on-screen instructions.

- On Windows Server 2008 or Windows Server 2008 R2:

    1. Open **Control Panel**.

    2. Select **Install Application on Terminal Server**.

    3. Browse for the installation executable, click OK and follow on-screen instructions

> NOTE This tool is available only when installing the terminal server. It will automatically put terminal server into execute mode when application installation is complete.

☐ **Installing the Control Center in environment with strict Group Policy rules, where the user names and passwords must match strict rules**

During the Control Center installation the Windows users EPM_DBADMIN and EPM_USER are created on the machine with Control Center and on the machine with SQL Server hosting NiceAN database. These users have a strong password, but not strong enough for some environments.

In this case you will have to change the password or even the user name to match the company security policy. These can be changed with the add-on utility available on the installation DVD in folder \Install\Control Center\Advanced Installation. The instructions are enclosed in the PDF file.

☐ **Installing Control Center on a Microsoft SQL Server in a high-availability (failover) cluster**

The SQL Server cluster does not have any local Windows users. The standard Control Center installer cannot be used in such environment.

You will have to use another utility to install the Control Center database into the SQL Server manually. When the database has been installed you can start the standard Control Center installation. However, you have to include the information that the database is already installed on the target SQL Server, installer will skip the database installation and continue with the next step.

"Installing to Multiple Servers" on page 28.

☐ **Is port 8080 TCP still available on the Windows Server where you intend to install the Control Center**

Verify that the port 8080 TCP is not in use by some other application running on the same machine. NiceLabel Control Center will occupy port 8080 to allow WebDAV access to the Document Storage. If port is already in use, you will have to choose some other port for Document Storage Server WebDAV communication. The entered user must have the sysadmin server role defined on the SQL server.

You can run Windows command-line utility netstat.exe to see list of open ports on the machine.

Do the following:

1. Open Command Prompt window.

2. Type in the following command:

   netstat –ano

3. The following is a screen shot from the machine, where Control Center has already been installed. You can see that port 8080 is in use (it is in state LISTENING). The process with PID 4 has the port in use.
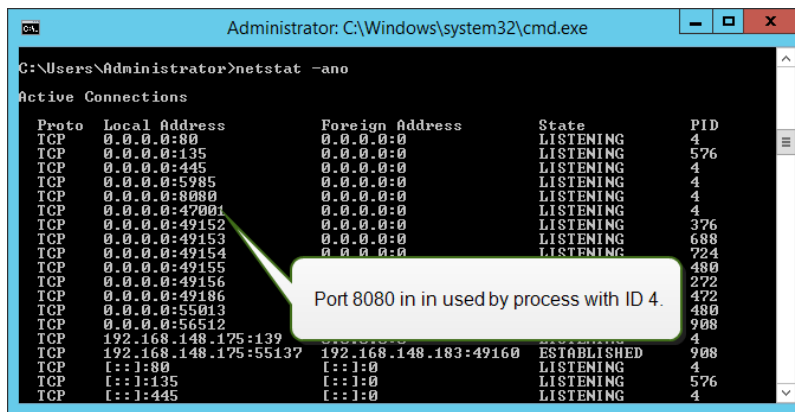
You can open a Task Manager to see which application has the process with ID opened.
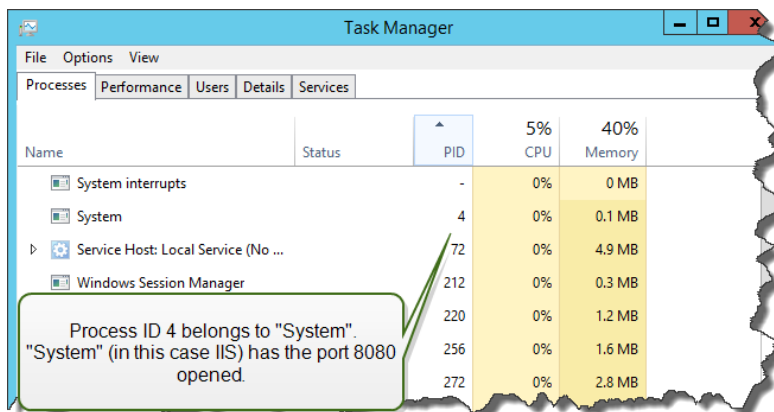
4. If you see that the port 8080 is already in use, you will have to choose another port for Control Center, so you do not disrupt the existing application.

Post-installation Checklist

	SERVER CHECKLIST (NiceLabel Control Center)
☐	**Open ports in the firewall**
	Make sure the following inbound communication is allowed:
	• **80 TCP:** Inbound connections to the Control Center. The browsers on the workstations open Control Center page. The service LabelServices from the workstation sends information for printing process/statuses to the Control Center.
	• **8080 TCP:** Inbound connection to the Document Storage (WebDAV usage). If you have chosen a different port during the installation, make sure that one is open.
☐	**Support for WebDAV to use files in the Document Storage**
	Each machine that needs to access the data inside a Document Storage must have installed WebDAV support. Some Windows operating systems have the WebDAV support already installed. For others, you have to add the support before using the NiceLabel client.
	NOTE The "client" is not only one of the NiceLabel Designer applications, but any software accessing the Document Storage, including NiceLabel Automation or even Windows Explorer.
	"Installing Support for WebDAV" on page 59.
☐	**Enable NiceAN database archiving scenario**

Configure the periodical archival of Control Center data collected in the NiceAN database. Archiving will free SQL Server resources. A default Control Center installation sets up archiving on a weekly basis.

Make sure to adjust the scheduling according to your needs.

Do the following:

1. On the computer where Control Center is installed, run the application named Control Center Archive Configuration.

   The current archiving setting are displayed.

2. Fine tune the details on when the archiving task should run, and how the old items from history should be removed.

- **Task Name:** Name of the Archive task (cannot be changed).

- **Run:** By default, the task runs on a weekly basis. In an environment with a lot of printing activity, it is recommended to change this setting to Daily.

- **At:** Time of the day when the task runs.

- **Every:** Day of the week when the task runs if Weekly or Monthly are selected.

- **Action:** Select Archive if the database should be archived and deleted or Delete if no archiving is needed and the older database records should simply be deleted.

- **Items older than (days):** Minimum age of database records (in days) to be archived or deleted.

- **Archive path:** Folder where the archive file is stored.

- **Archive file name:** Name of the archive file where the database records are archived.

- **Append Date and Time to file name:** By default, date and time are appended to each archive file. Remove this check mark if you do not need the time stamp.

3. The archiving task is defined as a task inside Windows application **Task Scheduler**. You can adjust some more detailed parameters, when you open the **Control Center Archiving** task in the "Task Scheduler Library".

Edit the "Control Center Archiving" task.
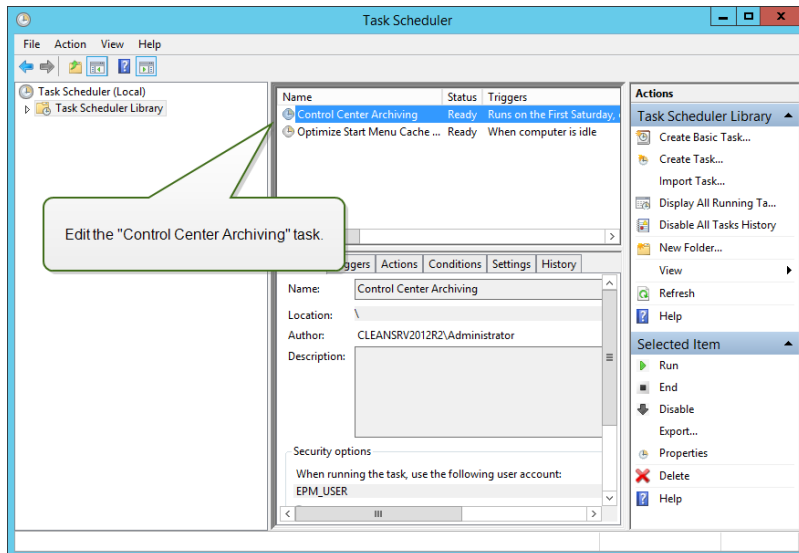
CLIENT CHECKLIST (NiceLabel Designer client)

☐ **Enable full access permissions to NiceLabel's System folder**

NiceLabel client requires full access (read, write, delete) to the System folder.

The system folder is at this location:

`%PROGRAMDATA%\NiceLabel\NiceLabel 2017\`

This is usually not an issue, because folder `%PROGAMDATA%` is writable for users by default.

☐ **Open ports in the firewall**

If you use Windows Firewall and it is running, the exceptions are added to the list of allowed incoming connections. If Windows Firewall is off, the exceptions are not added automatically. If you use another firewall, configure it manually.

- **56416 TCP:** Incoming connection from the Control Center to NiceLabel Automation service that allows remote management of Automation service.
- **6772 TCP:** NiceLabelProxyService2017. Connection for application management streams.

☐ **Support for WebDAV to use files in the Document Storage**

Each machine that need to access data inside a Document Storage repository, must have the WebDAV support installed. Some Windows operating systems have the WebDAV support already installed, for some you have to add the support before you can access the data.

> NOTE The "client" is not only the one of the NiceLabel Designer applications, but any software accessing the Document Storage, including NiceLabel Automation or even Windows Explorer.

"Installing Support for WebDAV" on page 59.

☐ **If you use proxy server, exclude local traffic from proxy**

Bypass proxy server for local addresses, or the client might not get the license from the NiceLabel Control Center, and files in Document Storage will not be available. For more information see Knowledge Base article KB163.
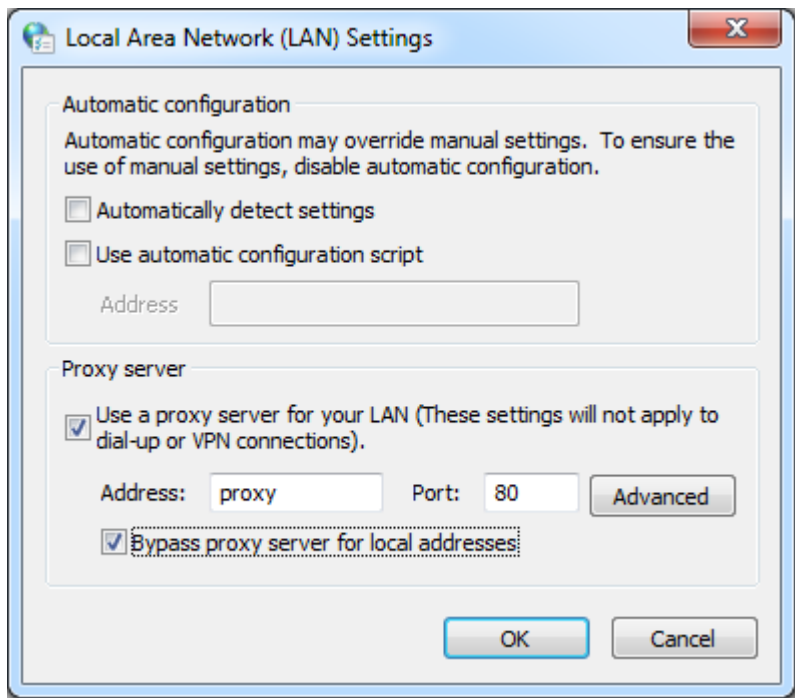
Add Control Center to the Trusted sites

Add NiceLabel Control Center to the list of Trusted Sites in your browser. This will allow Document Storage plugin to run in your browser.
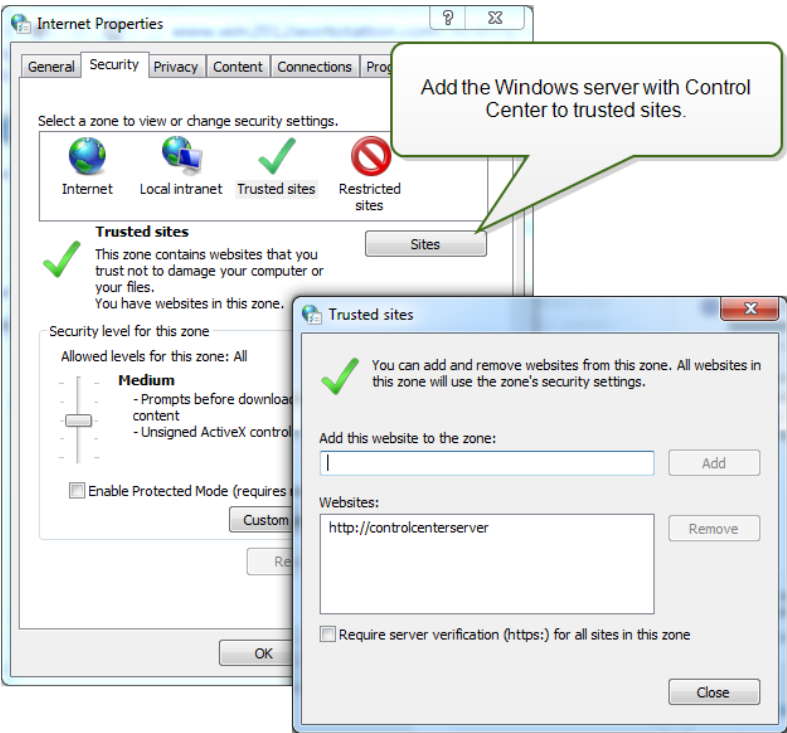
Client prerequisites for running NiceLabel clients as RemoteApp programs

To access RemoteApp programs that are deployed as .RDP files, the client computer must be running Remote Desktop Connection (RDC) 6.0 or RDC 6.1.

A supported version of the RDC client is included with Windows Server 2008 and Windows Vista and newer.

To access RemoteApp programs on Mac OS or Android OS, make sure to install the Microsoft Remote Desktop client.

System Requirements

NiceLabel 2017

- CPU: Intel or compatible x86 family processor
- Memory: 2 GB or more RAM
- Hard drive: 1 GB of available disk space
- 32-bit or 64-bit Windows operating systems: Windows Server 2008 R2, Windows 7, Windows 8, Windows 8.1, Windows Server 2012, Windows Server 2012 R2, Windows 10
- Microsoft .NET Framework Version 4.5
- Display: 1366×768 or higher resolution monitor

Additional Requirements for NiceLabel Control Center and NiceLabel PowerForms Web Components

- Database Server: Microsoft SQL Server 2005, Microsoft SQL Server 2008, Microsoft SQL Server 2012, Microsoft SQL Server 2014 (Express Edition of products listed above are also supported)
- IIS 7 or IIS 7.5 or IIS 8

Installing Windows Server Prerequisites

Installing Microsoft SQL Server

Microsoft SQL Server is database server and is a mandatory component to run NiceLabel Control Center.

Control Center stores all of its data in NiceAN database.

You can install the database on the same machine, where the Control Center web application will be installed, or on a different machine. If you have Microsoft SQL Server already up and running, skip the instructions below, but make sure to comply with the prerequisites. "Checklists" on page 8.

In this scenario the Microsoft SQL Server is installed on a single server.

Do the following:

> NOTE The instructions below are for the Express edition of the Microsoft SQL Server 2012. You have to take similar steps to install other editions of the SQL Server.

1. Run the SQL Server installer.

2. In Installation section, select **New SQL Server stand-alone installation or add features to an existing installation**.
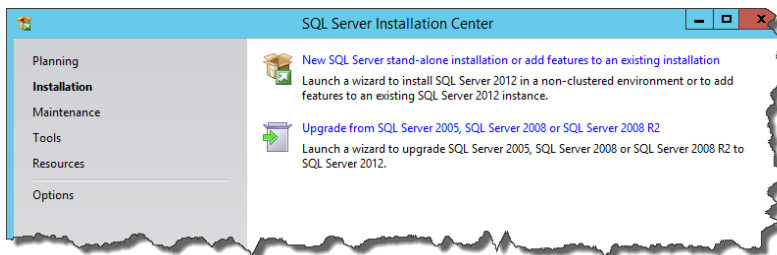

3. Accept the license terms. Click **Next**.

4. Use Microsoft Update to check for important updates. This is not mandatory step, but is highly recommended. Click **Next**.

5. In Feature Selection section, select the features for installation.

> NOTE The minimum you need is the Database Engine Services, but it is a good idea to install the Management Tools as well so you can manage the database, if needed.
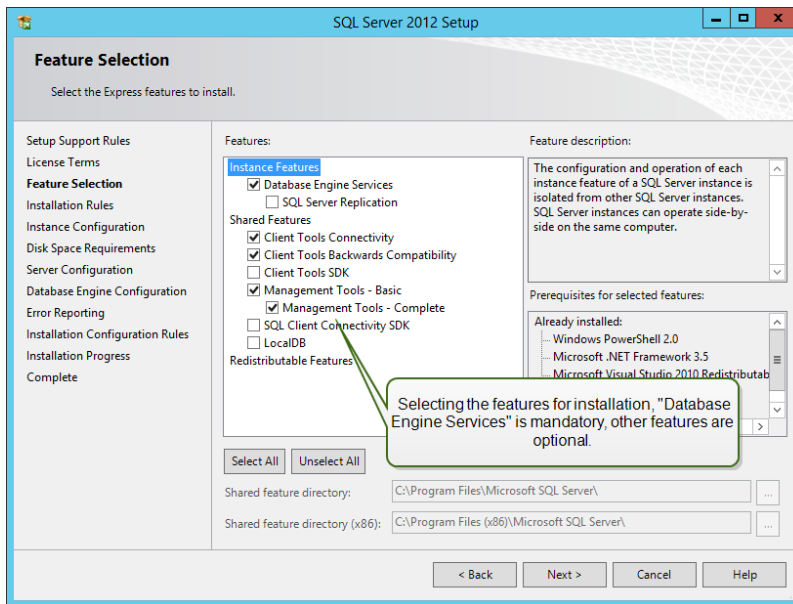
6. In Instance Configuration section, make a choice if you want to use a default instance or a named instance. An SQL Server instance is a complete SQL server – you can install many instances on a machine but you can only have 1 default instance. An SQL Server instance has its own copy of the server files, databases and security credentials. Click **Next**.

   In this example a **Named instance** SQLExpress is used.
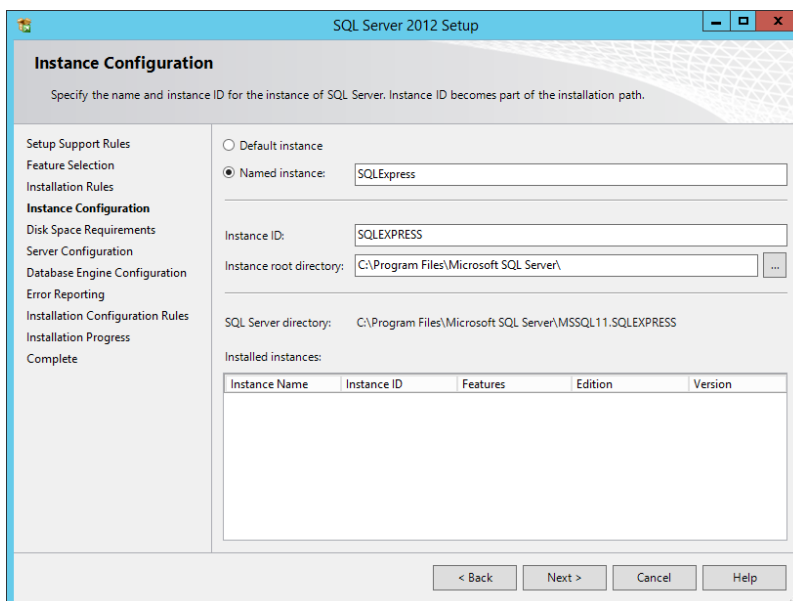
7. In Server Configuration section, leave the Startup Type for SQL Server Database Engine on automatic.

   If you want to announce the presence of your SQL Server on the network, enable the service SQL Server Browser. If not, you will have to know the NAME\INSTANCE of the server and manually enter it, whenever connecting to this SQL Server. Click **Next**.
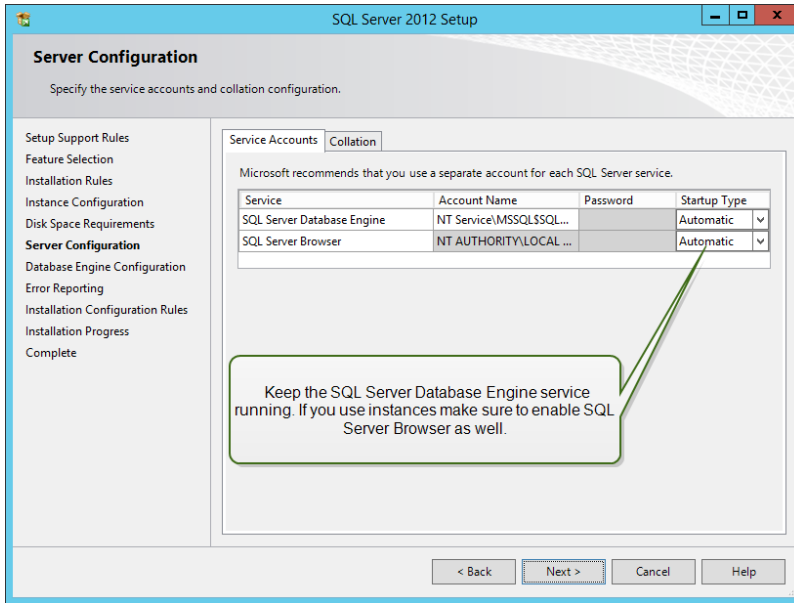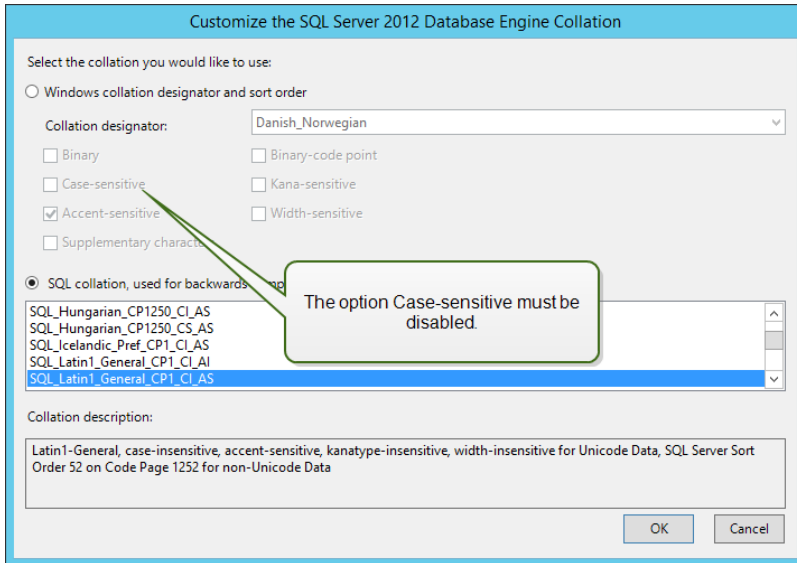
8. In **Server Configuration** section, go to **Collation** tab.

> NOTE The Control Center database NiceAN requires case-insensitive collation. Make sure case-insensitive collation is selected.
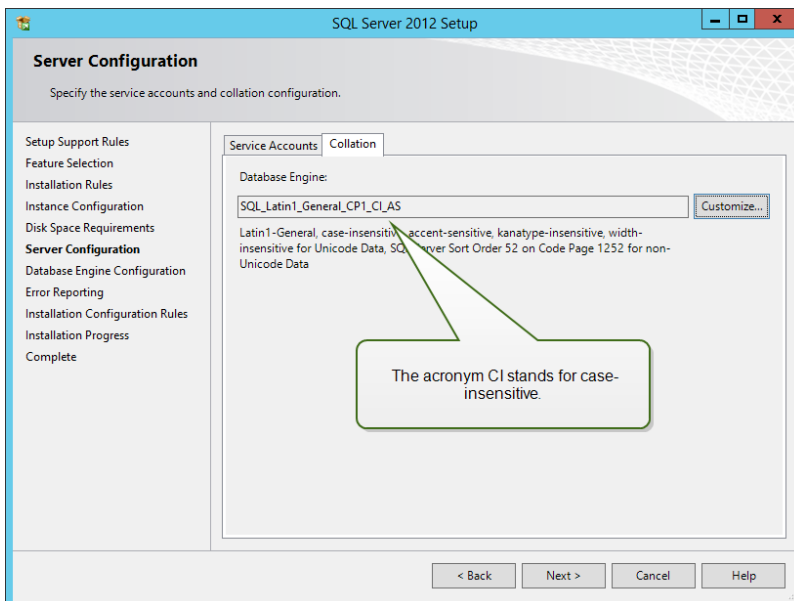
If plan to customize your collation settings, make sure the option Case-sensitive is disabled.
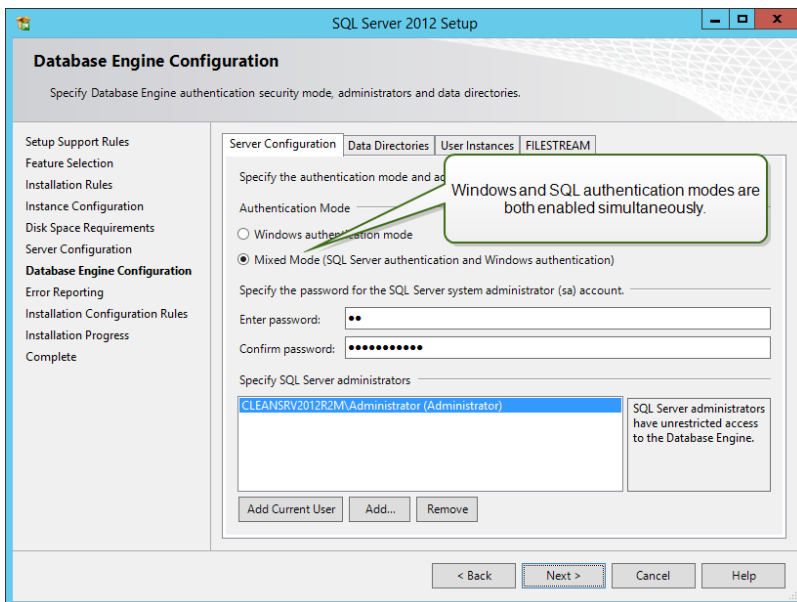
Click **Next**.

9. In Database Engine Configuration section, go to Server Configuration tab and specify the authentication mode. The Control Center needs Windows authentication mode. However, if you also plan to use NiceLabel Web Printing product for printing labels from your browser, you need Mixed mode.

   In this example, the Mixed Mode will be used. You have to specify the password for the SQL Server system administrator - `sa` user.

   In Specify SQL Server administrators, you can select Windows users that will have administrative role in the SQL Server. Depending on your version of Microsoft SQL Server, the local Windows administrator might already be configured as the SQL Server administrator. If not, define local Windows administrator as SQL Server administrator.
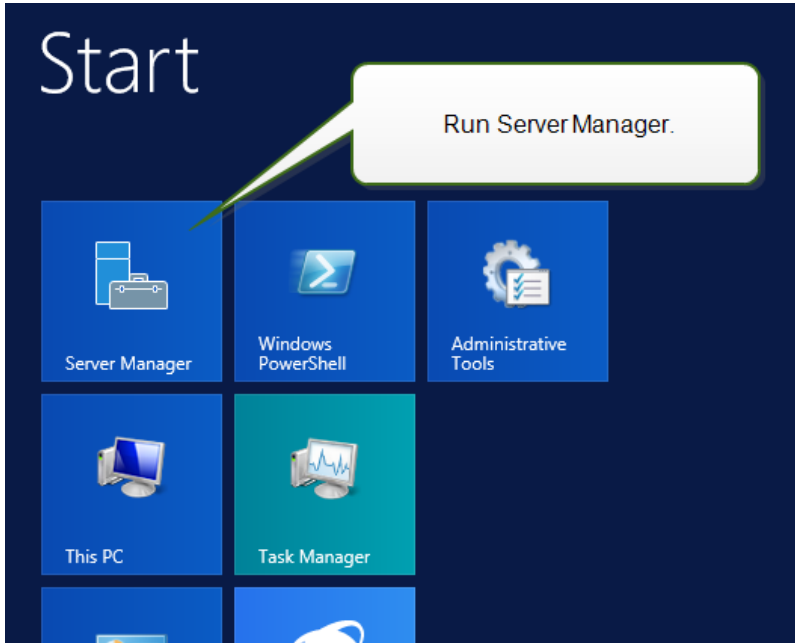

Click **Next**.

10. Click **Next**.

11. When the installation completes, click **Close**.

Installing IIS Web Server

Internet Information Services (IIS) is the Microsoft Web server and is a mandatory component to run the NiceLabel Control Center product. IIS is available with Windows Server operating systems, you just have to enable and configure it.
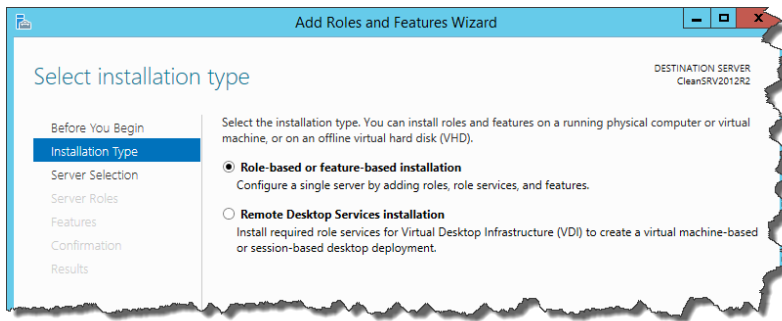
Do the following:

1. Log in to Windows Server using the user with local administrative permissions, such as local **Administrator** user account.
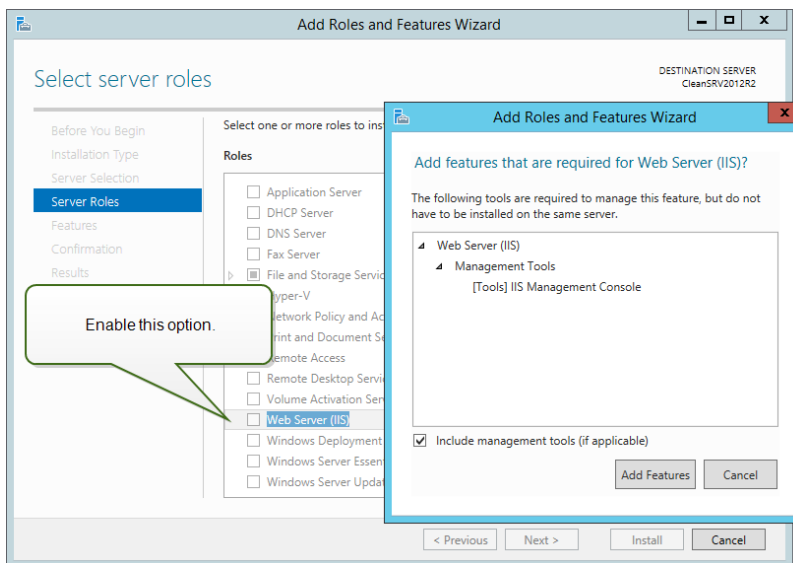
2. Start **Server Manager** from the **Start** screen.

3. Click Manage, then click **Add Roles and Features**.
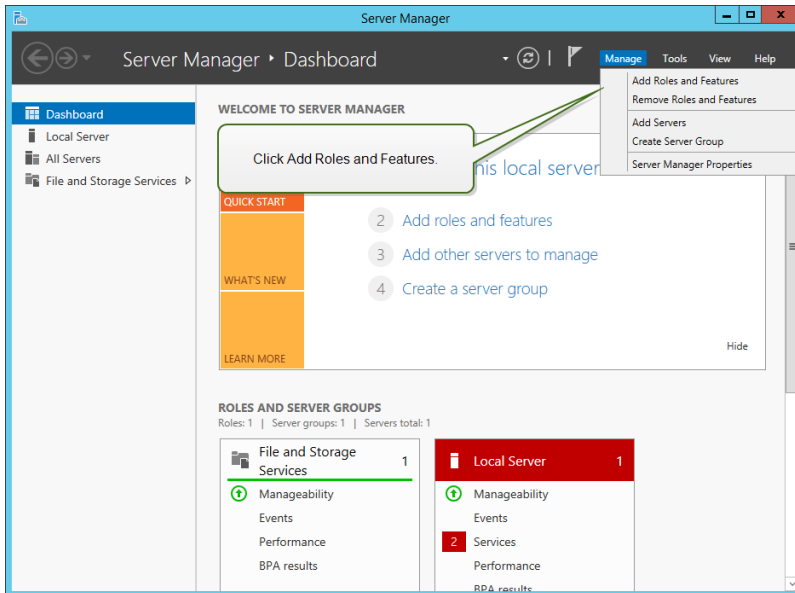
4. Select **Role-based or feature-based installation**. Click **Next**.

5. Select a local server from the server pool. Click **Next**.

6. In Server Roles step, enable the **Web Server (IIS)** option. Click **Add Features**. **Click Next**.

7. Select **Web Server Role (IIS) > Role Services**. Make sure the following role services are enabled. Click **Next**.

    In **Common HTTP Features**.

    - Default Document
    - Directory Browsing
    - HTTP Errors
    - Static Content

    In **Health and Diagnostics**:

    - HTTP Logging

    In **Performance**:

    - Static Content Compression

    In **Security**:

    - Request Filtering
    - Basic Authentication
    - Windows Authentication
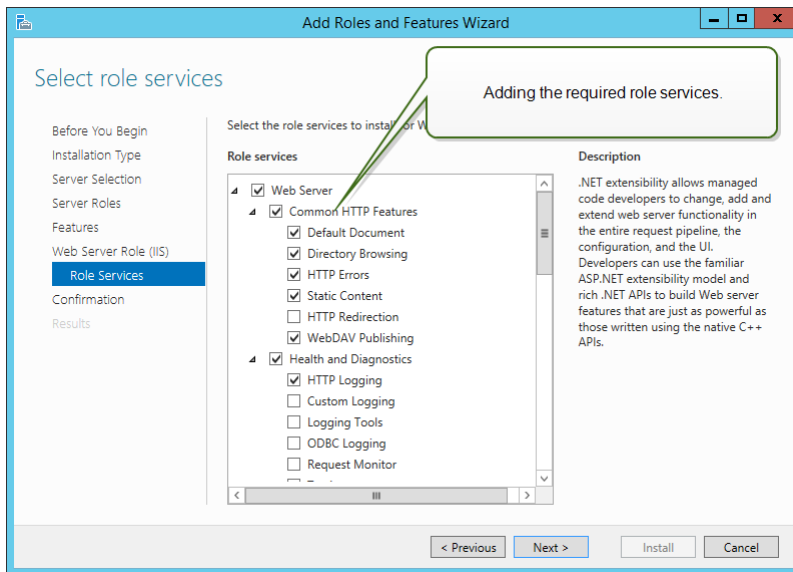
    In **Application Development**:

    - .NET Extensibility 4.5
    - ASP.NET 4.5
    - CGI

- ISAPI Extensions
- ISAPI Filters

In **Management Tools**:

- IIS Management Console

8. Click **Install**. Click **Close** when the installation completes.

If you are using Windows Server 2012 R2, you must also install the HTTP-Activation .NET feature.
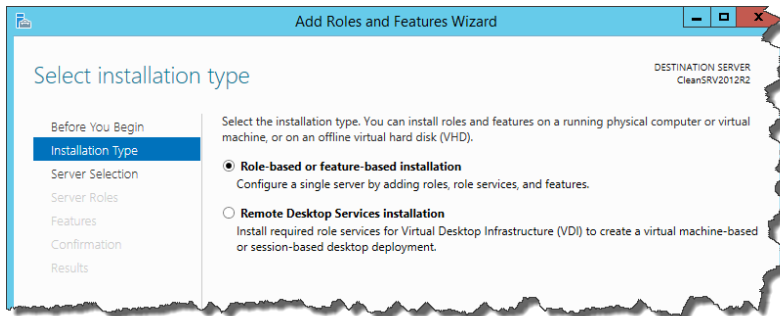
Do the following:

1. Log in to Windows Server using the user with local administrative permissions, such as local **Administrator** user account.

2. Start **Server Manager** from the **Start** screen.
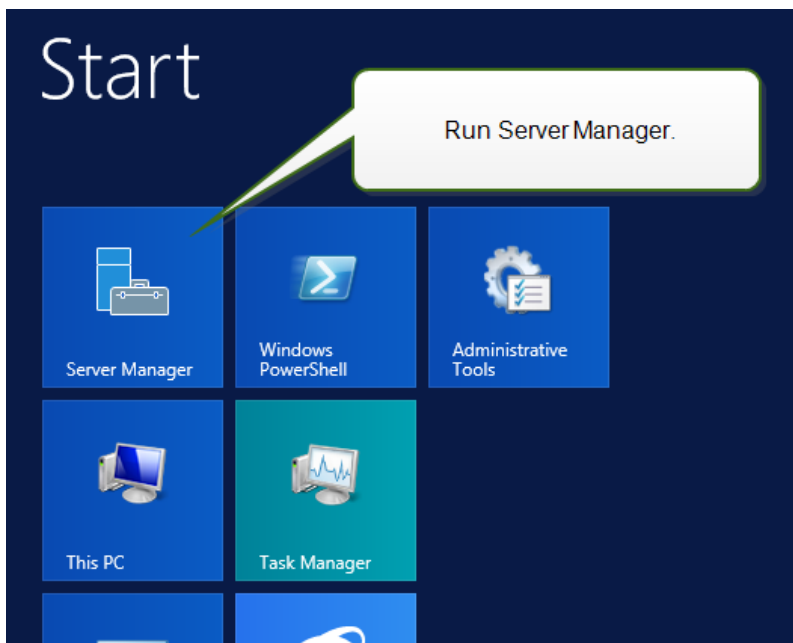
3. Click Manage, then click **Add Roles and Features**.
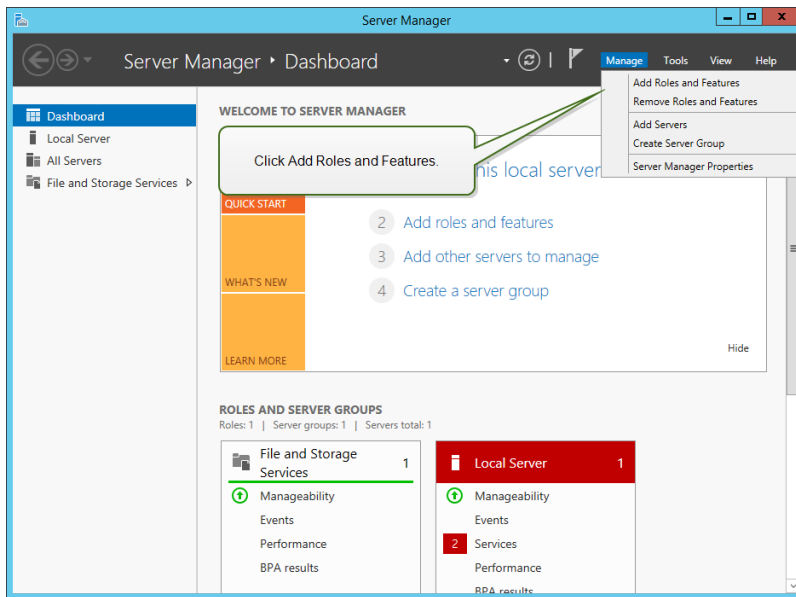
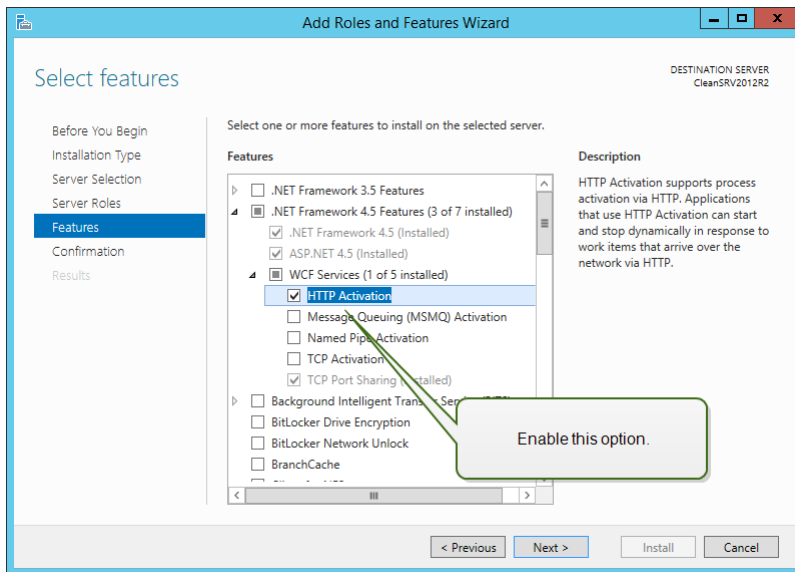4. Select **Role-based or feature-based installation**. Click **Next**.

5. Select a local server from the server pool. Click **Next**.

6. Click **Features** in the selection list on the left.

7. Expand **.NET Framework 4.5 Features**.

8. Expand **WCF Services**.

9. Enable **HTTP Activation**. Click **Next**.

10. Click **Install** and **Close**.

Installing Control Center Components

Installing to Single Server

The prerequisites required for the installation:

- Local Administrator user account during the installation. This single user account will be used to install the software, add the required Windows local users, install and configure the Microsoft SQL database.

- Make sure your Internet Information Services is configured correctly. "Installing IIS Web Server" on page 20.

- Make sure your SQL Server is configured correctly. "Installing Microsoft SQL Server" on page 16.

- Make sure you are familiar with the requirements on the pre-installation checklist. "Pre-installation Checklist" on page 8

Do the following:

1. Close all open applications before starting the installer.

2. Download the Control Center package or insert the DVD.

   > NOTE If the installation wizard does not start automatically, double-click the
   > `NiceLabelControlCenter2017.exe`.

3. installation checks the installation package content. Start the installation.

4. Select the language under which the installer will run.
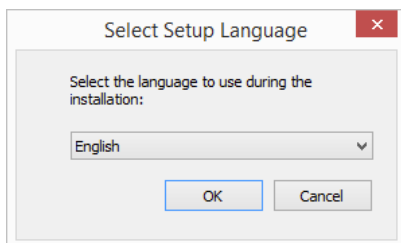
5. Accept the license agreement. Click **Next**.
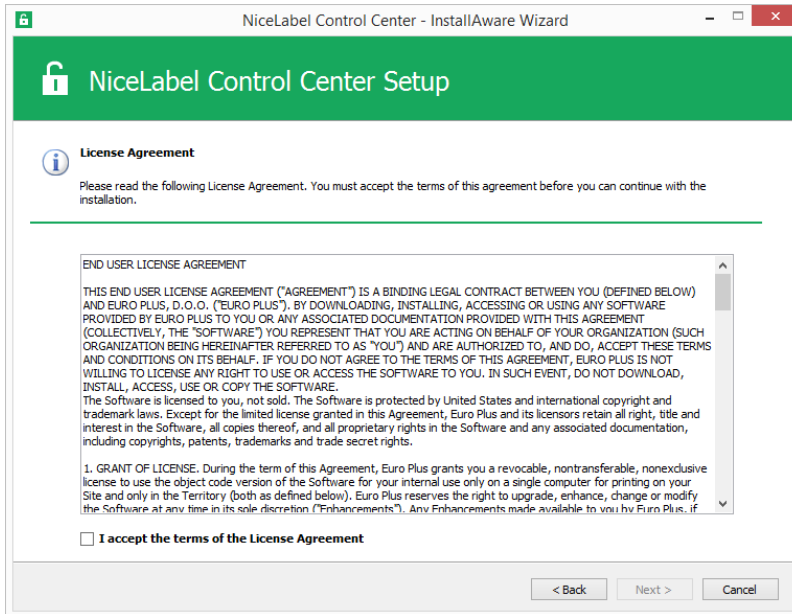
6. Read the installation notes. Click **Next**.

7. Enter the user information. Click **Next**.

8. Select the folder where Control Center files will be saved. Click **Next**.

9. Define the Start Menu folder into which shortcuts will be placed. Click **Next**.

10. Define the WebDAV site settings. You have to define the site name and port number on which the site will run. This site is the WebDAV entry point into the Document Storage for all applications that work with files in the Document Storage. This site will be installed in the IIS on the current machine.

> WARNING Make sure the entered port number is not in use by any other application on this machine. The port might be used by a site in IIS, or by some other application. "Pre-installation Checklist" on page 8.
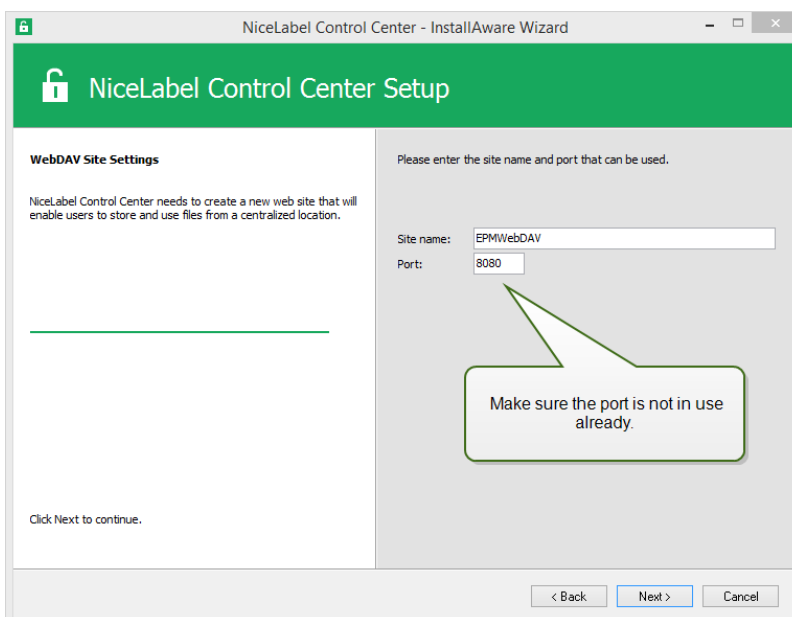
11. Select a Microsoft SQL Server, which will be used by the Control Center. This is an

infrastructure example with a single server – the local machine also performs the role of a database server. Select the local SQL Server. Click **Next**.

> NOTE The administrative account you use for Control Center install is also administrator in the local SQL Server. It has permissions to create local Windows users EPM_DBADMIN and EPM_USER and grant them access to the SQL Server. The database NiceAN is created using the EPM_DBADMIN user credentials.
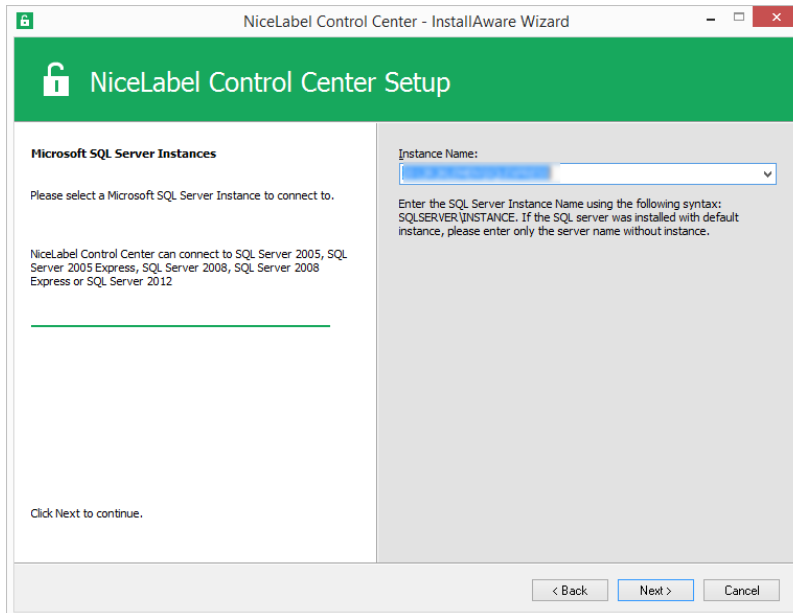
12. Define the time interval in which the old data is removed from the database. Archiving is a one way process. What you remove from the database, cannot be imported back. The archive is done into the Microsoft Access database on the machine running SQL Server. Click **Next**.

> NOTE You can fine-tune the archiving time interval and data retention at a later time in Windows Task Scheduler.
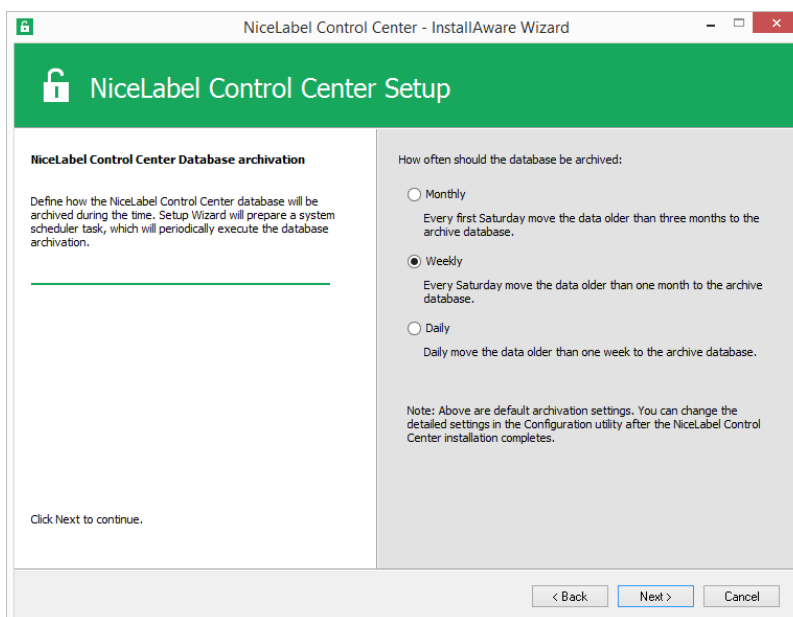
13. Click **Install**.

14. Click **Finish** button and Control Center will open in a browser.

15. Activate the Control Center. "Licensing" on page 64.

Installing to Multiple Servers

In this case, there are two available scenarios:

1. Remote SQL Server is set up as a stand-alone machine.

2. Remote SQL Server is set up in the failover cluster.

SCENARIO 1: The Remote SQL Server is a Stand-alone Machine

The prerequisites required for the installation:

- Local Administrator Windows user account for the installation on the machine with the Web role (IIS).

- Local Administrator Windows user account for the installation on the machine with the database role (Microsoft SQL Server). This is required so the installer can create two Windows users: EPM_DBADMIN and EPM_USER.

- Administrative access to the SQL Server. If the local Administrator Windows user account on the machine with the database role also has the administrative access to the SQL Server, that Administrator account will be used to install the database. If not, the installer will prompt you for the SQL user account with administrative permissions to the SQL Server. This is usually the SQL user "sa".

- Make sure your Internet Information Services is configured correctly. "Installing IIS Web Server" on page 20.

- Make sure your SQL Server is configured correctly. "Installing Microsoft SQL Server" on page 16.

- Make sure you are familiar with the requirements on the pre-installation checklist. "Pre-installation Checklist" on page 8

Do the following:

1. Close all open applications before starting the installer.

2. Insert the NiceLabel 2017 Platform DVD. An installation window should open. If the installation wizard does not start, double-click the `START.EXE` file in the main folder on the DVD.

3. Select **Install NiceLabel LMS**.

4. Select **NiceLabel Control Center**.

5. Select the language under which the installer will run.

6. Click **Next**.

7. Accept the license agreement. Click **Next**.
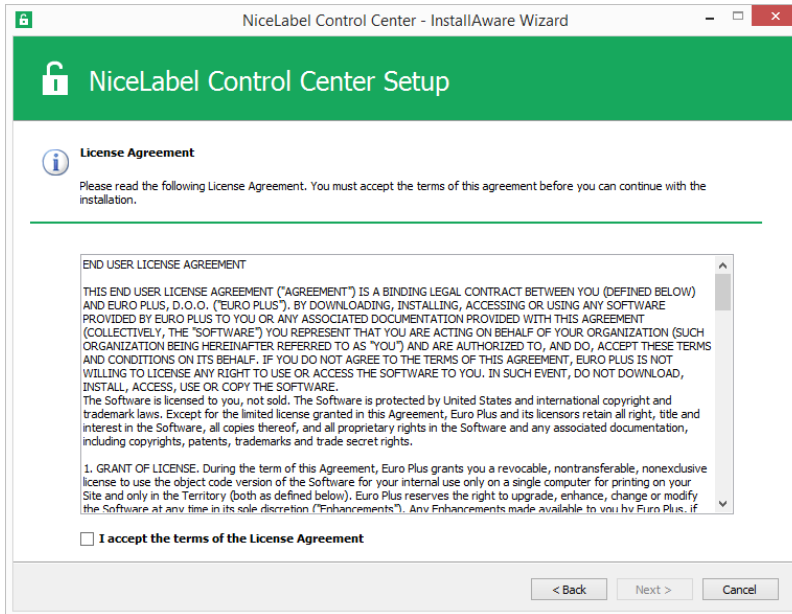
8. Read the installation notes. Click **Next**.

9. Enter the user information. Click **Next**.

10. Select the folder where Control Center files will be saved. Click **Next**.

11. Define the Start Menu folder into which shortcuts will be placed. Click **Next**.

12. Define the WebDAV site settings. You have to define the site name and port number on which the site will run. This site is the WebDAV entry point into the Document Storage for all applications that work with files in the Document Storage. This site will be installed in the IIS on the current machine.

> WARNING Make sure the entered port number is not in use by any other application on this machine. The port might be used by a site in IIS, or by some other application. "Pre-installation Checklist" on page 8.
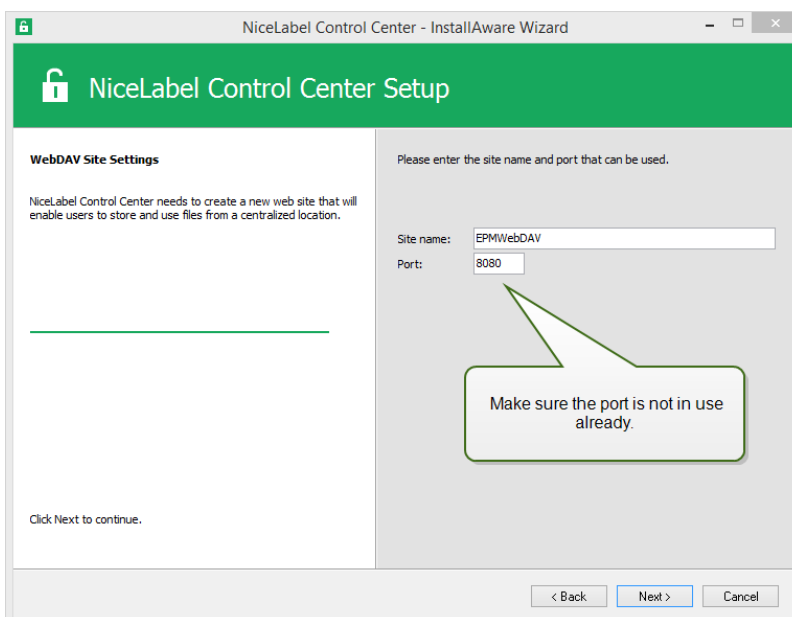
13. Select a Microsoft SQL Server which will be used by the Control Center. This is

infrastructure example with multiple servers and the SQL Server is installed on another machine. Select the appropriate Microsoft SQL Server name and enter the instance name, if it was set up with a non-default name (for example, `SERVERNAME\SQLEXPRESS`). Click **Next**.

> NOTE The administrative account you use for Control Center install is also administrator in the local SQL Server. It has permissions to create local Windows users EPM_DBADMIN and EPM_USER and grant them access in the SQL Server. The database NiceAN is then created using the EPM_DBADMIN user credentials.
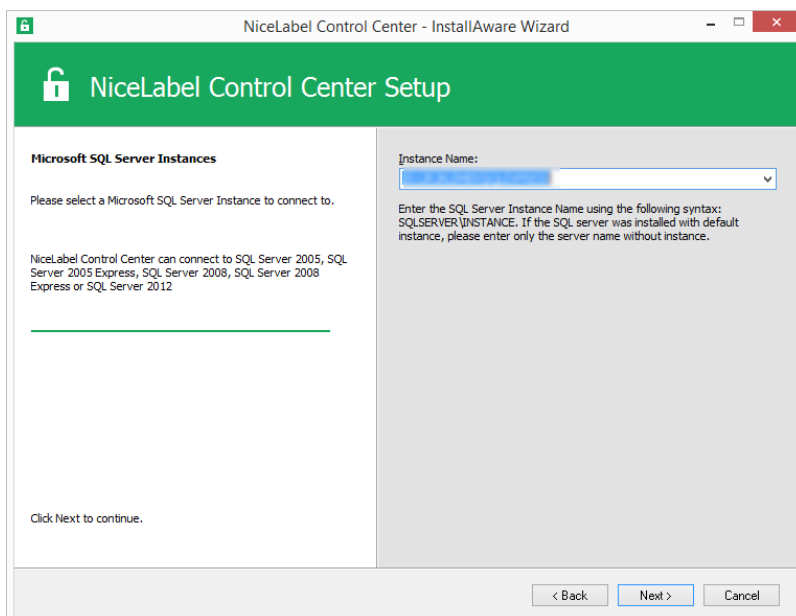
Depending on the privileges of the Windows account your are performing the installation of Control Center with, two additional wizard steps might display. If the Windows account you are currently logged in also has administrative privileges for both SQL Server and Windows system on the remote machine, you will not see the two additional steps. However, if your Windows account is just local administrator, but has no privileges on the remote machine with SQL Server, you will be prompted for additional credentials.
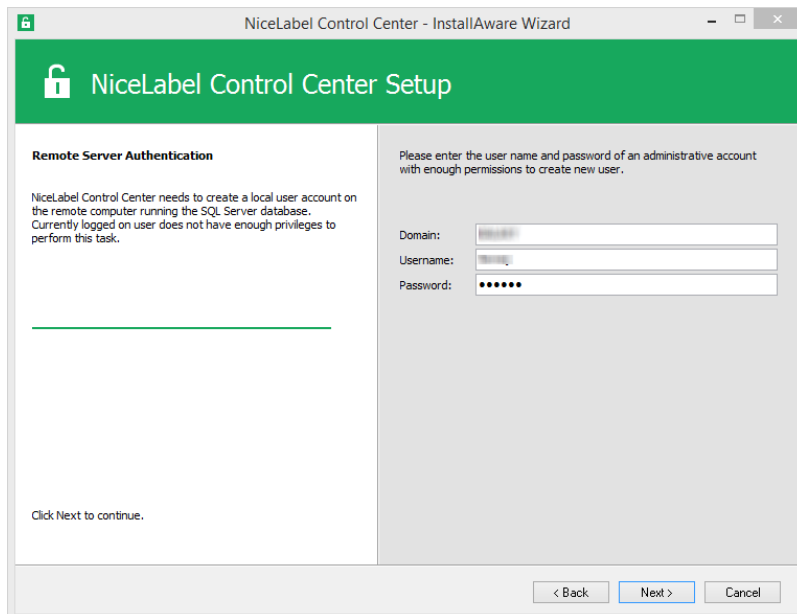
- **ADDITIONAL STEP 1.** If the currently logged-in Windows account does not have privileges to install database NiceAN into the remote SQL Server, the installer will prompt you for the SQL user name that has the "Create any database" permission in the SQL Server. Click **Next**.

> NOTE This is a SQL user name from the SQL Server, this is not Windows account from the machine where SQL Server is installed. Usually, you will use the `sa` user here.
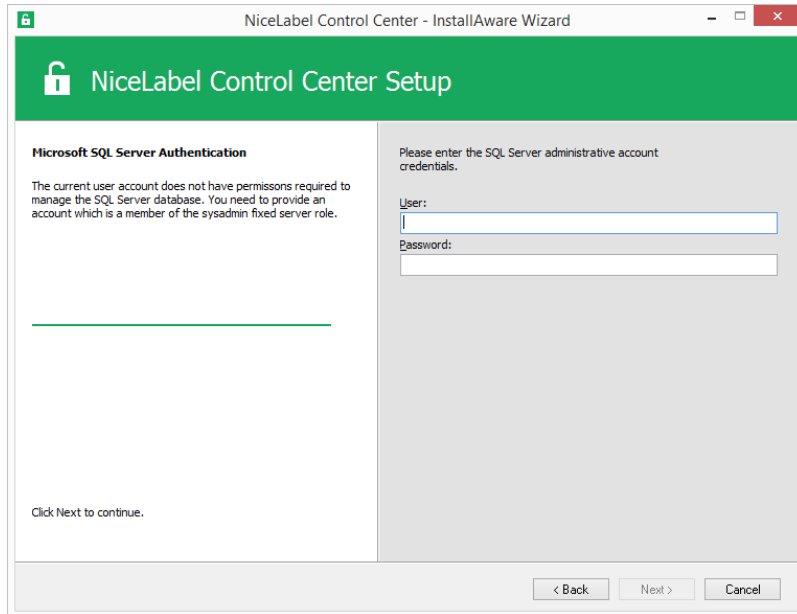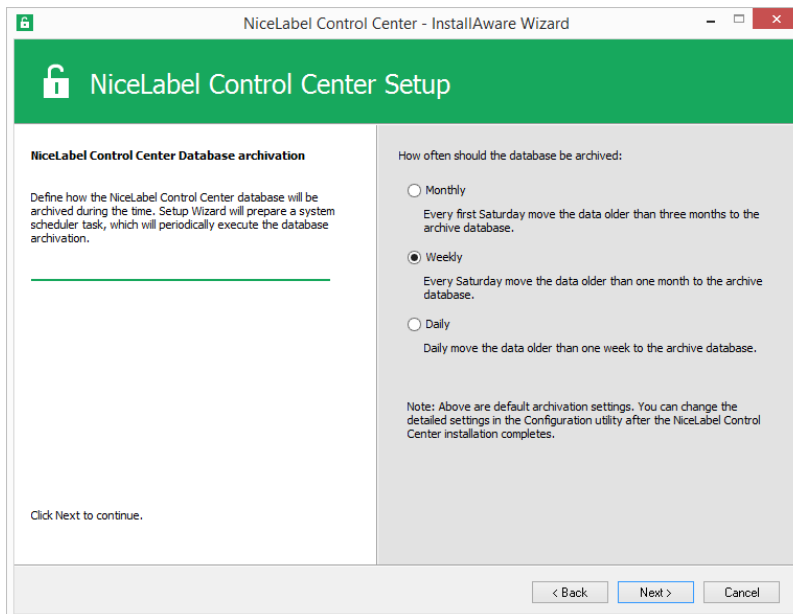
- **ADDITIONAL STEP 2.** If the currently logged-in Windows account does not have the privileges to install local Windows users EPM_DBADMIN and EPM_USER to the remote Windows machine with SQL Server, you will be prompted for the user name which has such privileges. You have to provide the domain user account that has Administrative privileges to the access the remote Windows machine. Usually, this is either a domain Administrator, or a domain user that is member of Administrators user group on the remote Windows system. Click **Next**.

> NOTE You must provide a domain user name. Local Administrator user account from the remote Windows machine cannot be used.

14. Define the time interval under which the old data is removed from the database. Archiving is a one way process. What you remove from the database, cannot be imported back. The archive is done into the Microsoft Access database on the machine running SQL Server. Click **Next**.

15. Click **Install**.

16. Click **Finish** button and Control Center will open in a browser.

17. Activate the Control Center. "Licensing" on page 64.

SCENARIO 2: The Remote SQL Server is Installed in a Failover Cluster

The prerequisites required for the installation:

- Local Administrator Windows user account for the installation on the machine with the Web role (IIS).

- Administrative account for the SQL Server so the database NiceAN can be installed. This can be a Windows user that has been set up as SQL administrator (Logins section in the SQL Server Management Studio), or this can be a SQL user account with permissions to create a database, such as the user "sa".

- Make sure your Internet Information Services is configured correctly. "Installing IIS Web Server" on page 20.

- Make sure your SQL Server is configured correctly. "Installing Microsoft SQL Server" on page 16.

- Make sure you are familiar with the requirements on the pre-installation checklist. "Pre-installation Checklist" on page 8

- Make sure you are familiar with the Control Center architecture. "Architecture" on page 3

- Make sure you are familiar with the utilities for the "Advanced Installation" in the folder "Install\Control Center" on the DVD. Read the accompanied instructions in PDF.

Install Control Center Database to the Remote SQL Server

Do the following:

1. Open a desktop on the machine where SQL Server is installed.
   or
   Open a desktop on another machine, with access to the SQL Server.

   > Windows user configured as SQL Administrator or SQL user with admin permissions on the SQL Server (usually "sa") are required to install the NiceAN database.

2. Close all open applications before starting the installer.

3. Copy folder `Install\Advanced Installation` from NiceLabel DVD to the local disk.

4. On the local disk, go to the folder `Advanced Installation\Control Center Setup Settings`.

5. Run `epmsetupsettings.exe`.

   The application **EPM Custom Setup Settings Generator** will run.

   > NOTE This application will prepare the configuration file for the main Control Center installation. The settings are saved in the file `UserData.ini`.

6. Go to **Common** section and select the folder where the utility will save the configuration. The default folder is the current folder "Control Center Setup Settings".

7. Skip the **User names and password** section, you don't have to configure anything here.

8. Go to **Database setup** section.

9. Enable the option **I would like to install database separately from EPM**.

   > NOTE Enabling this option will signal to the Control Center installer to skip the database NiceAN installation.

10. Enter the name of the SQL Server, where you will manually install the database NiceAN, in the syntax `SQLSERVER\INSTANCE`.

    The `SQLSERVER` must be name of the target server. If you want to use IP address, make sure the address can be resolved to a computer name. If unsure, add the necessary mapping to the system `HOSTS` file (located in `%systemroot%\System32\drivers\etc`).

11. Choose the authentication mode that the Control Center will use to access data in the database NiceAN.

    You can select:

    1. Windows authentication using default name of `EPM_USER`.

    2. Windows authentication using some other domain user.

    3. SQL authentication.

    In this example, the SQL authentication and user `EPM_USER` are used.
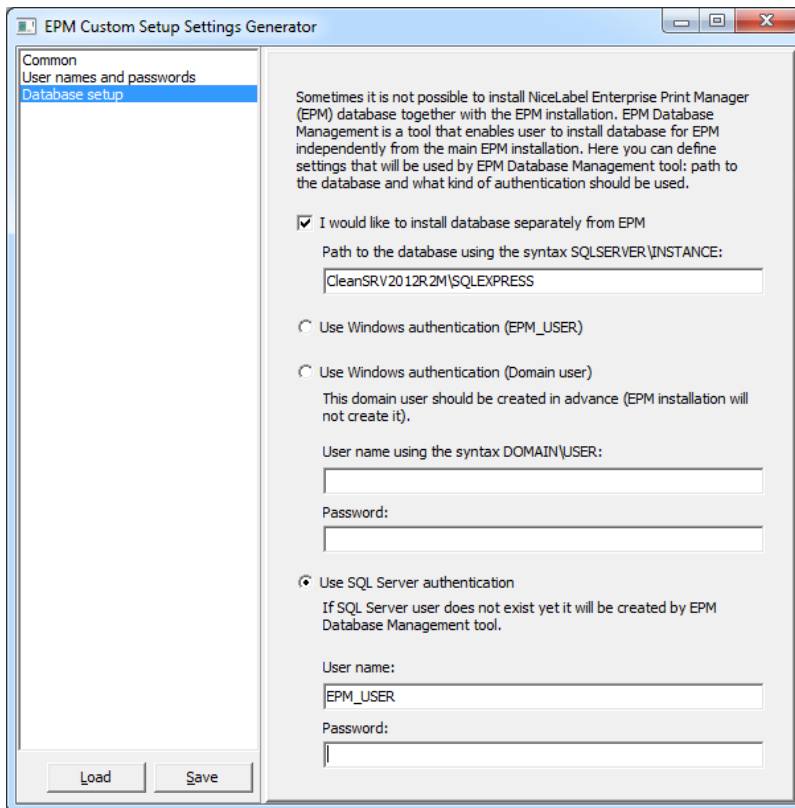
> **NOTE** The information entered here is used by the main Control Center installer to determine how to connect to the database (which user to impersonate). The instructions for creating these users follow further in this chapter.

12. Click **Save** button to save the provided data to the file `UserData.ini`.

    The .INI file contains information about where the remote SQL Server is and how to access it. This information is needed by the main Control Center installation.

    > **WARNING** Make sure to save this file. You will need it when upgrading Control Center to a newer version.

13. On the local disk, go to the folder `Advanced Installation\Control Center Database Installer`.

14. Extract the contents of the ZIP file `EPMDBInst.zip`. Make sure you retain the folder structure.

15. Run `EPMDBInstall.exe`.

    The application **EPM Database Management** will start.

16. Enter the name of the SQL server. Also provide the instance name, if necessary.

17. Configure the authentication type.

    You can use:

    - Windows authentication.
        - Leave the username/password fields empty, if the Windows user you are currently logged in with has the administrative privileges defined on the SQL Server (so it will create a database).

- Enter the username/password, if you want to use a different Windows login. Make sure you use the `DOMAIN\USER` syntax.

- SQL authentication. In this case provide a user defined in the SQL Server that has privileges to create a new database, usually the user `sa`.

18. For the database name enter **NiceAN**. This is the database name the Control Center expects.
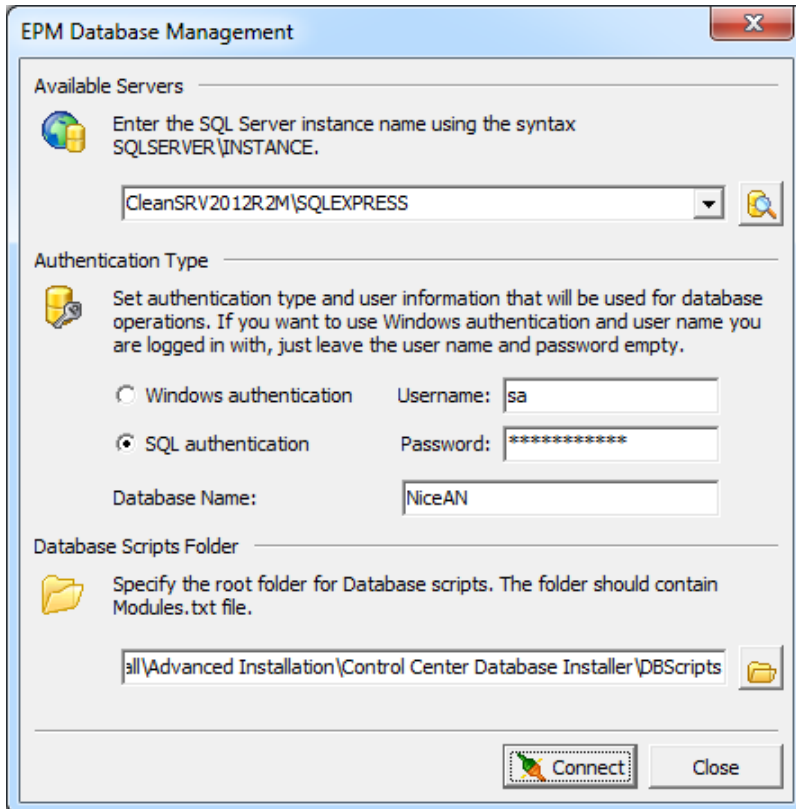

19. The database scripts are included in the `.ZIP` file. Make sure you have extracted all files in the file `EPMDBInst.zip`. If you have the sub folder `DBScripts` in some other location, browse for it.

20. Click **Connect**.

21. The connection to the SQL Server is made. If you see a connection error message, resolve the problem first.

    The usual problems are that TCP/IP protocol is not enabled for your server/instance, or the firewall blocks incoming connections. For more information, see "Pre-installation Checklist" on page 8.

    If connection to the SQL Server can be made, the window will open with the current status.

    > NOTE Make sure the user you enter as "EPM_USER" has the same user name as you have configured in the **EPM Custom Setup Settings Generator>Database setup** in the step 11.

    Do not click any button just yet, go to the following step.
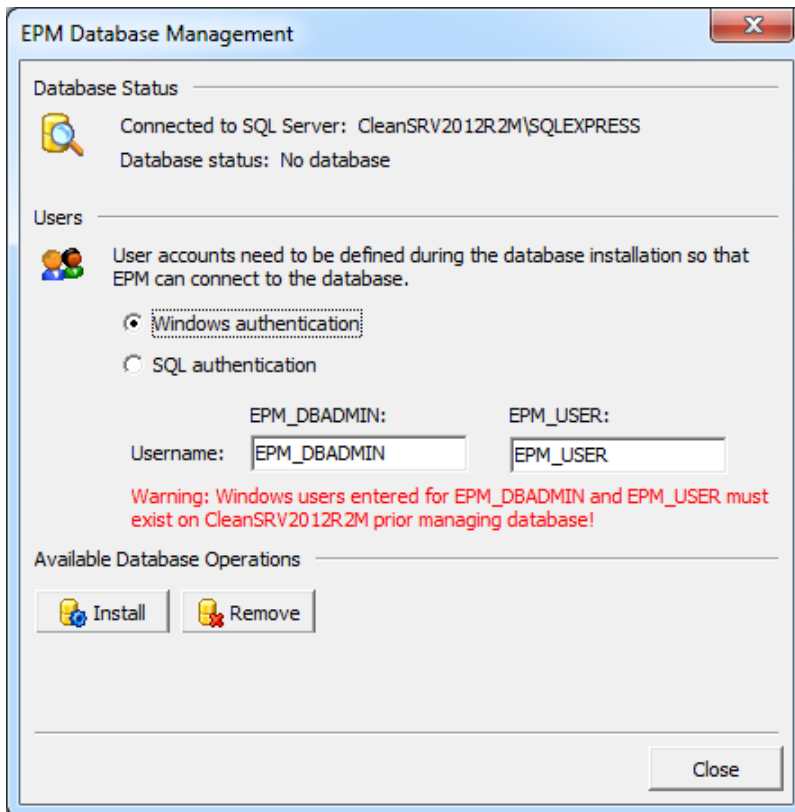
22. You have to provide the information about the two user accounts that will be later used by the Control Center to access the database NiceAN.

> NOTE The users must already be defined on the machine, before you continue with the database installation. The users must also already be added to the Logins in the Microsoft SQL Server.
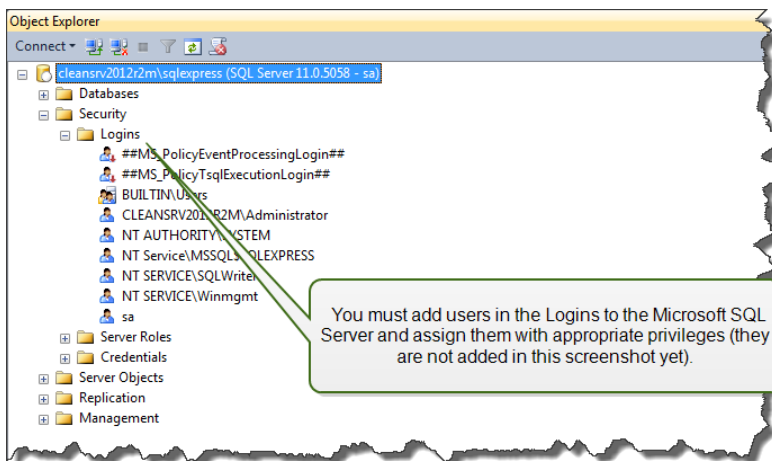
OPTION 1: Using Windows authentication. In this case, you must enter two Windows domain users that the EPM Database Management will use during the database installation. Enter the names in `DOMAIN\USER` syntax. There are no local Windows user accounts on the Windows machine in the failover cluster, to these two users must be domain users. If creating new user accounts, you can use a default naming convention (EPM_DBADMIN and EPM_USER), or choose other user names.

OPTION 2: Using SQL authentication. In this case, you must define two SQL users that the EPM Database Management will use during the database installation.

> NOTE The database NiceAN is installed using the "EPM_DBADMIN" user and is configured to be used by "EPM_USER". Make sure to assign the appropriate privileges for the user "EPM_USER". For more information, see "Architecture" on page 3

23. Click **Install**.

> NOTE When installing the database, the utility will not provide any feedback and might seem as unresponsive. Be patient and wait until the processing has finished.

24. If no problems are encountered, you will see the message "Database install operation completed successfully."

    In the Database Status section the current version of the NiceAN database is displayed.
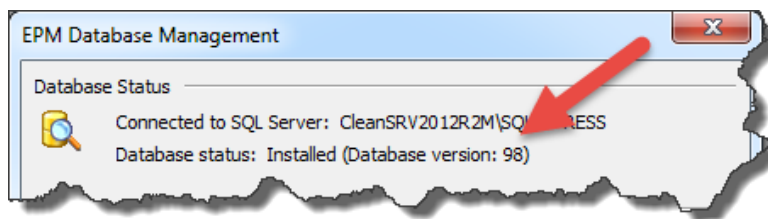
25. Close the application. The configuration will be saved to file `EPMDBInstall.ini`.

> WARNING Make sure to save this file. You will need it when upgrading Control Center to a newer version.

26. Open desktop on a Windows machine, on which you want to install Control Center Web application.

27. Copy the installer file for Control Center to a local disk. This is a file `NiceLabelControlCenter2017.exe`.

28. Copy the file `UserData.ini` next to it in the same folder. This `.INI` file has been prepared by EPM Custom Settings Generator.

29. Run the Control Center installer and follow the on-screen instructions.

30. Follow the step 5–15 from chapter "Installing to Single Server" on page 25. All database-related questions will be supressed.

31. Activate the Control Center. For more information, see "Licensing" on page 64.

Enabling HTTPS Support

If protecting the communication between Control Center and all clients (NiceLabel clients or users browsing the Control Center web page) is important, you can enable the Hypertext Transfer Protocol Secure (HTTPS). This will prevent wiretapping and man-in-the-middle attacks on the Control Center. All exchanged data will remain private also because of the bidirectional encryption of communication between a client and server. Ultimately, the communication between the user and server cannot be read and forged by any third party.

X.509 certificates are used to provide the authenticity. When the Control Center is installed, you will have to run Internet Information Services (IIS) Manager on the server and enable HTTPS support for both **Default Web Site** (under which the Control Center runs as the application) and for **EPMWebDAV** (which exposes the access to the Document Storage).

For more information about enabling HTTPS talk to the personnel responsible for informational infrastructure in your company.

> **NOTE** When enabling HTTPS support, make sure the following action is done in web.config:
> ```
> <!--uncomment line below to enable HTTPS protocol-->
> <!--<security mode="Transport" />-->
> ```

When you enable the HTTPS support, you have to access the Control Center using the `https://` prefix:

`https://server/epm`

Make sure that all products that connect to Control Center use secure web services. Do not mix HTTP and HTTPS protocols.

Identifying Document Storage in a Multi-tier Landscape

An increasing number of labeling operations have come to rely on a multi-tier configuration model as the most efficient way to stage and deploy the labeling-related files. A multi-tier approach removes all of the risks identified in case of a single system landscape, where a single server is used for development, testing, and production.

In such landscape model the new labeling solutions are created and test-driven in Development and Quality Assurance/Testing environments before they are adopted in the Production environment. Usually a three-tier landscape is adopted, or at least two tier landscape, where the roles of Development and Quality Assurance are merged in the same environment. Each environment requires a dedicated installation of the Control Center product.

When working in a multi-tiered landscape, you can configure custom names for each landscape. This makes it easier to identify to which landscape the current Document Storage belongs to.

Do the following:

1. Open the application **SQL Server Management Studio**.

2. Connect to the SQL Server hosting the database of a Control Center for which you want to define a custom name.

3. Expand the tree-view to reach **Databases > NiceAN > Tables > nan.Setting**.

4. Right-click the table **nan.Setting** and select **Edit top 200 Rows**.

5. Add a new record.

6. For the field **Setting** enter the value **"InstanceName"**.

7. For the field **Value** enter the custom name for the current landscape.

   The entered custom name in the screen shot above is "Quality Assurance Landscape".

Configuring RemoteApp Support

This chapter provides the steps necessary to enable Application Server functionality in NiceLabel Control Center.

Prerequisites:

- NiceLabel LMS Enterprise license.

- Installed RemoteApp with active license on the Windows server. Communicate the requirements with your IT manager.

  Some useful resources on the Microsoft web page:

- RemoteApp manager: https://technet.microsoft.com/en-us/library/cc755261.aspx
- Overview of RemoteApp: https://technet.microsoft.com/en-us/library/cc755055.aspx
- TS RemoteApp Step-by-Step Guide: https://technet.microsoft.com/en-us/library/cc730673(v=ws.10).aspx
- Deploying TS RemoteApp: https://technet.microsoft.com/en-us/library/ff519119(v=ws.10).aspx
- Configuring RemoteApp Programs: https://technet.microsoft.com/en-us/library/cc733174.aspx

Complete the steps described in subsections below.

Publish NiceLabel Programs

1. Go to a computer with enabled RemoteApp role.

2. Enable **Desktop Experience** feature. "Installing Support for WebDAV" on page 59.

   NiceLabel Designer must be able to connect to the Document Storage (WebDAV) on the Control Center. The Windows Server computer that runs the client programs requires this features so it can connect to the WebDAV repository.

3. Install NiceLabel Designer. For more information, "Installing the Client" on page 55.

4. Set the default directories in NiceLabel Configuration to point to the Document Storage.

   - Open `product.config`
   - Update folder names in `<Directories/>` node

5. Activate NiceLabel Designer with the same LMS license key as used in the Control Center. For more information, "Activating the Client" on page 67.

6. Start **Server Manager**.

7. In the left pane, click **Remote Desktop Services**.

8. Click **Collections**, then on the right hand side, click **TASKS** drop down and select **Create Session Collection**. Follow the wizard.
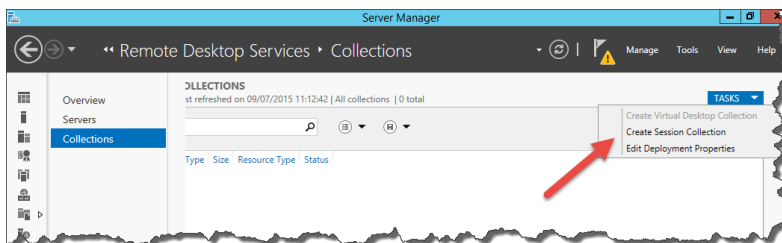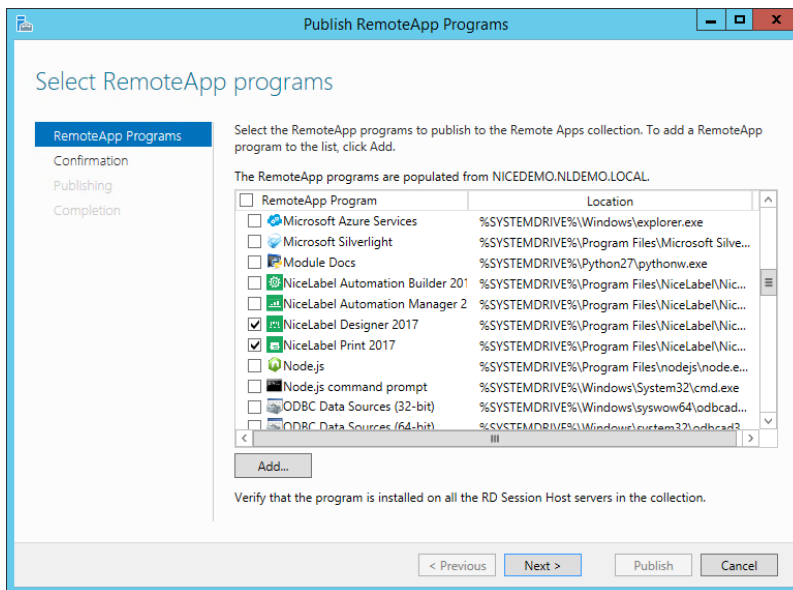

9. Back in the Server Manager, click **Publish RemoteApp Programs** to open **Publish RemoteApp Programs** window.
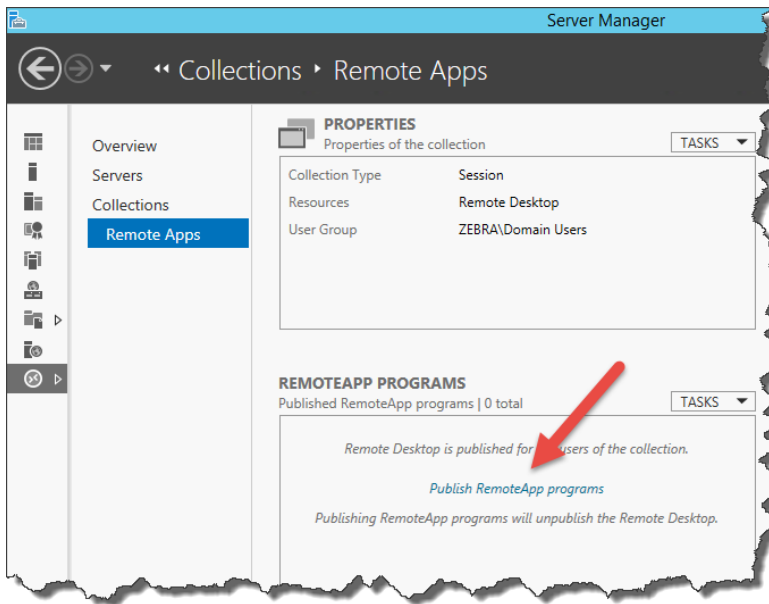
10. Click **Add..** and browse to `\\<remoteapp>\c$\Program Files\NiceLabel\NiceLabel 2017\bin.net`.
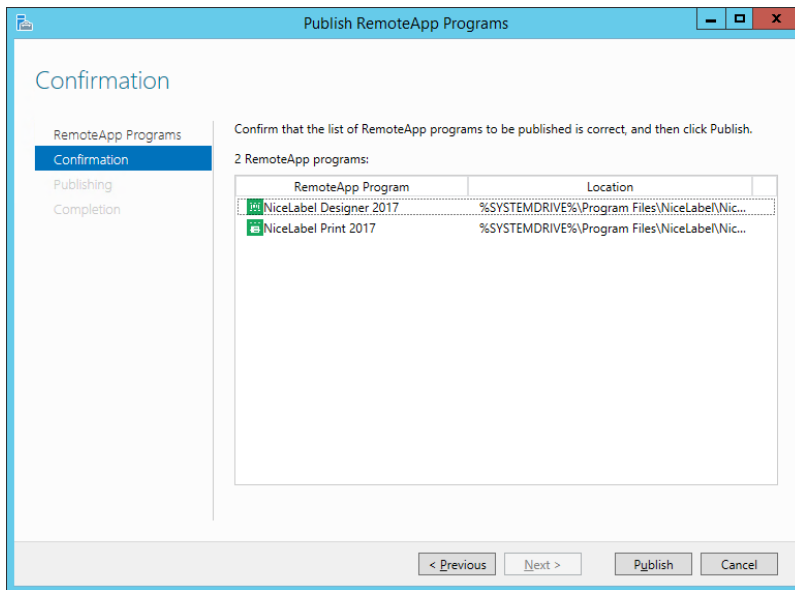
    Where you have to replace the `<remoteapp>` with the Fully Qualified Domain Name (FQDN) for your RemoteApp server.

    You must add the following RemoteApp programs from the bin.net folder: `NiceLabelDesigner.exe`, `NiceLabelPrint.exe`.
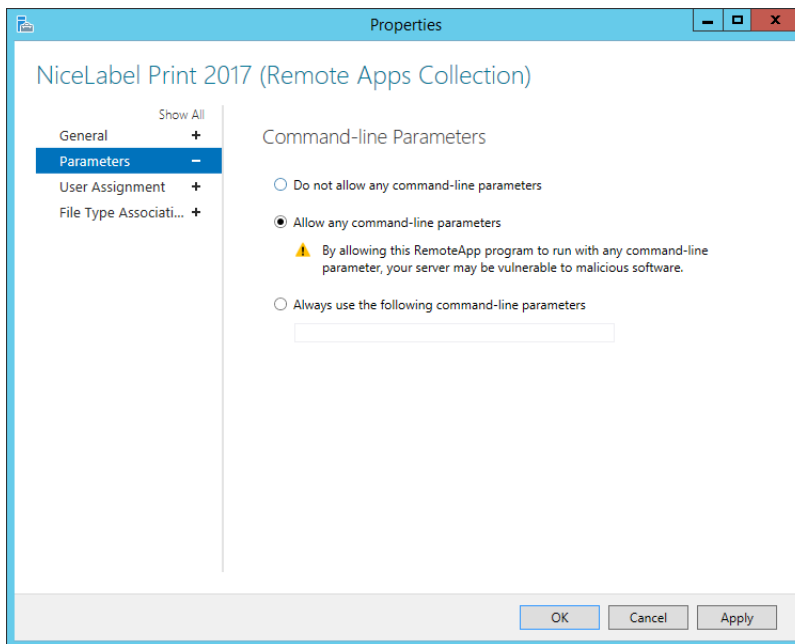

    Click **Next**.

11. You will see the four selected program listed in the window. Click **Publish**.

12. All programs have been published. Click **Close**.

13. All RemoteApp programs should now be visible in the **Server Manager**.

14. Right click each published program and select **Edit properties**.

    Select the option **Allow any command-line parameters** for each program.


15. Click **OK**.

Add the Certificate to Control Center Windows Machine

Each time the user requests a file from the Document Storage, the Control Center creates a `.RDP` file with instructions for the user's Remote Desktop Client. The `.RDP` file must be signed with the code-signing certificate, or the users will see warning messages about unknown publisher when executing the `.RDP` files.
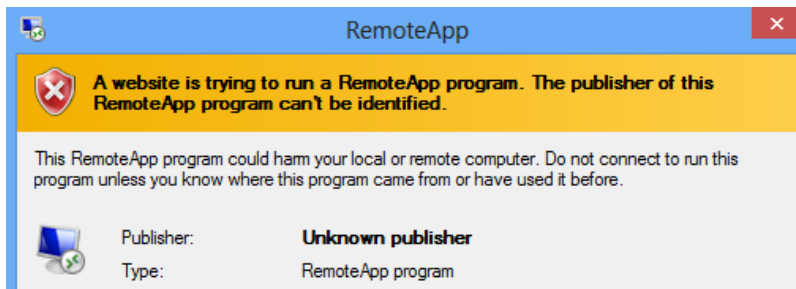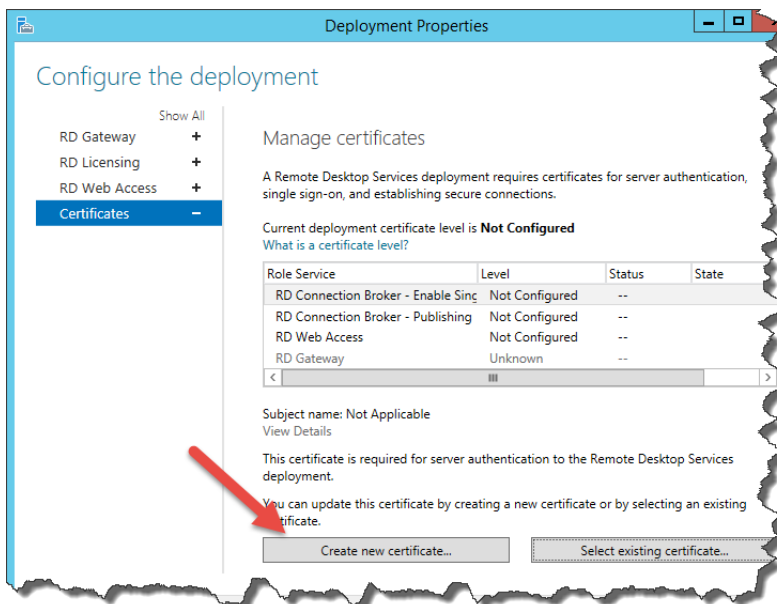
To generate the certificate, do the following:

1. Start **Server Manager**.

2. In the left pane, click **Remote Desktop Services**.

3. Click **Collections**, then on the right hand side, click **TASKS** drop down and select **Edit Deployment Properties**.
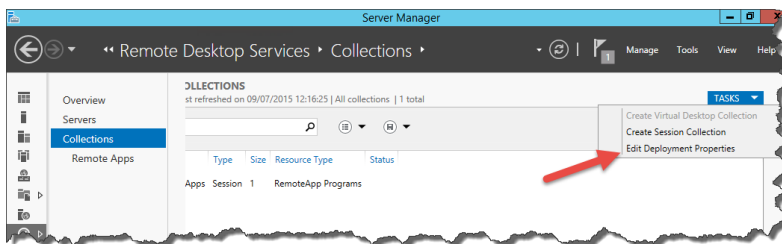
4. Click **Create new certificate** and follow the wizard. Remember the name of the certificate you have created/imported.


To allow Control Center to use the certificate, do the following.

1. Press **Windows key + R**, enter **mmc** and press **Enter**.

2. In the console, click **File** and then click **Add/Remove Snap-in**.

3. In **Add or Remove Snap-ins**, under **Available snap-ins**, double-click **Certificates**.

4. In Certificates snap-in, select **Computer account**.

5. Expand **Certificates (Local Computer) > Personal > Certificates**.

Select the certificate you have created/imported previously.

6. Right-click the certificate, select **All Tasks** and then **Manage Private Keys** to add permissions to the Control Center website so it is able to use the certificate.
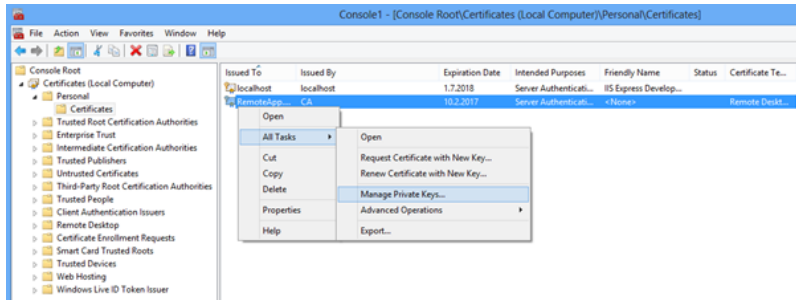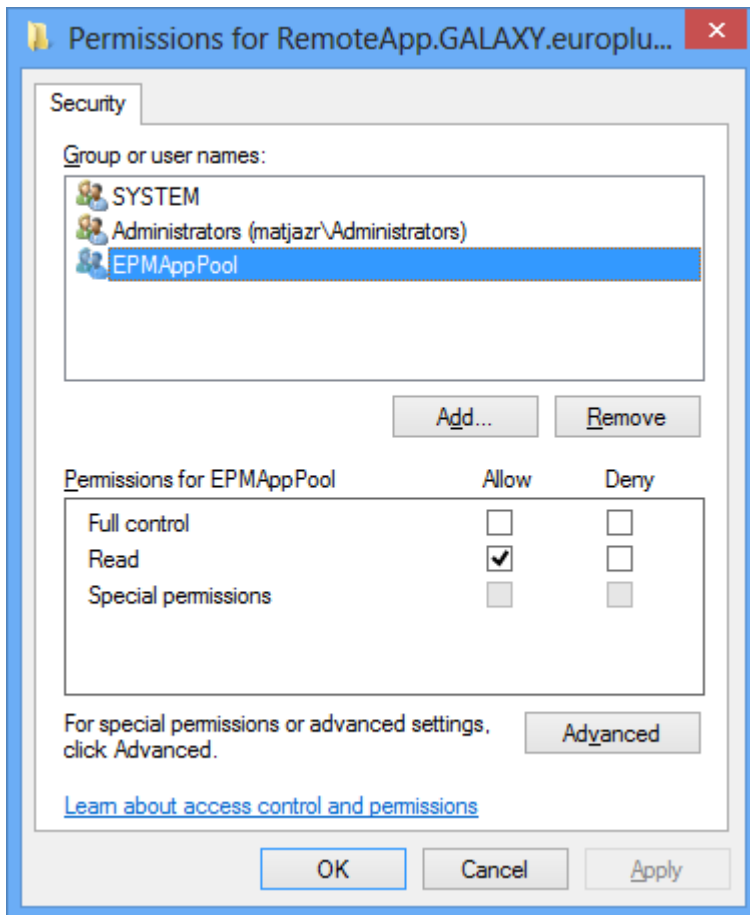

7. Click **Add…** and add the Application Pool user of the Control Center website. Enter the user name `IIS AppPool\EPMAppPool`.

   Click **Locations** and select the server name (top selection in the list).
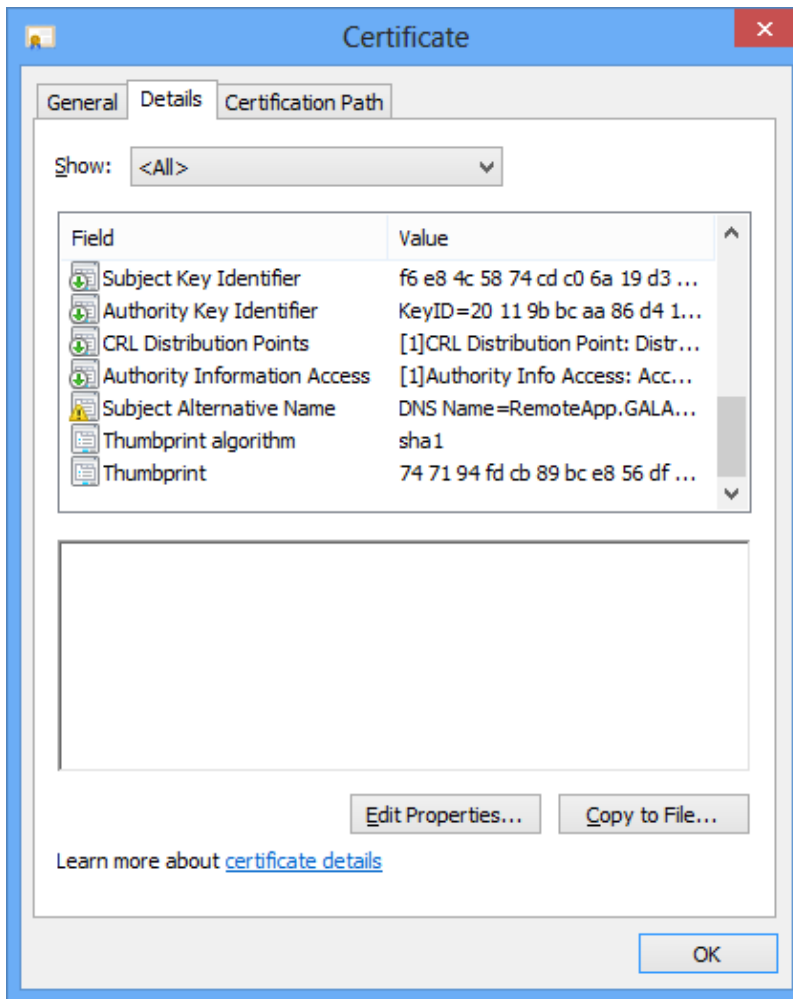
   Click **OK**.
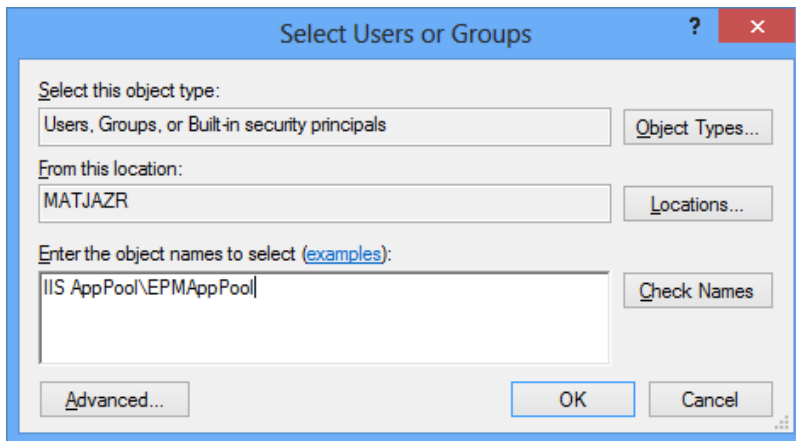
8. The user requires only Read permission in order to sign the `.RDP` files.

9. Last step is connecting Control Center with this certificate.

   In **mmc** console, double click the certificate and go to **Details** tab. Scroll down to find the **Thumbprint** field.

   Copy certificate thumbprint to clipboard and read the next section.

## Configure Control Center to work with the RemoteApp server

1. Open your Control Center and go to the **Administration** tab:

2. Go to **Application Server** section.
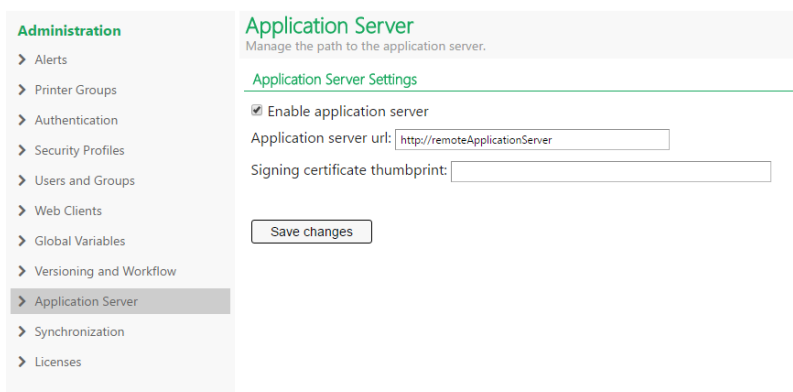
3. Enable application server and enter path to the RemoteApp server.

4. Paste the certificate thumbprint from the clipboard.

   See the previous section where to obtain the thumbprint information.

5. Click **Save changes**.

Testing if .RDP file is signed by the certificate

1. Go to the Document Storage.

2. Select a label and click the **Application Server** button in the toolbar.

3. Select Download **Edit Label Shortcut**. The `.RDP` file will download.
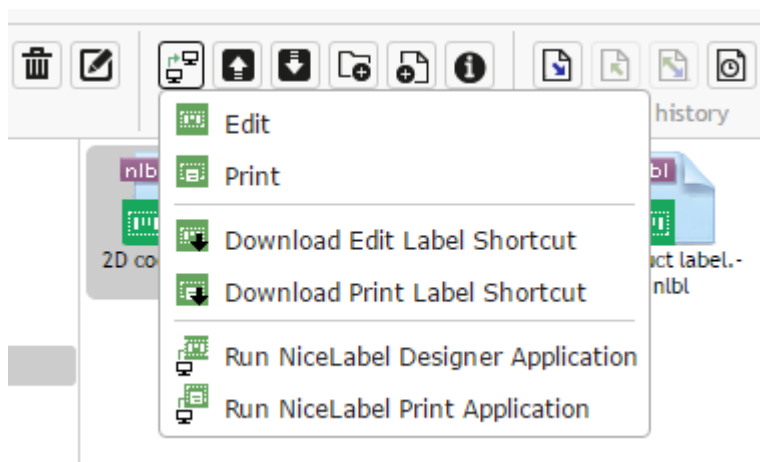
4. Open the `.RDP` file in text editor.

5. When the `.RDP` file is correctly signed it will contain additional entries "signscope" and "signature".

# Speeding the Application by Enabling Auto Start in IIS

> NOTE If you install fresh installation of Control Center to Web server machine with IIS 8.0 and above, the installer will enable the Auto Start, so you do not have to do anything. For existing installations and fresh installations to older IIS servers, you can enable the Auto Start yourself.

To optimize the use of resources, IIS does not keep all sites on an instance running at all times. In fact, the website on IIS is not loaded until needed and, by default, will eventually be unloaded after a period of inactivity. The delayed loading of websites that causes the first request to an ASP.NET site to take so much longer than others. Since the site hasn't been accessed yet, it must first be loaded by the IIS before the ASP.NET can properly respond to the request.

There is a solution for this issue. Auto-Start, introduced with IIS 7.5, allows an ASP.NET application deployed to IIS to be available immediately after the deployment.

Do the following:

1. Open Internet Information Services (IIS) Manager.

2. In the **Connections** pane, select the **Application Pools** node, revealing the Application Pools pane in the main view.

3. Select the application pool **EPMAppPool**.
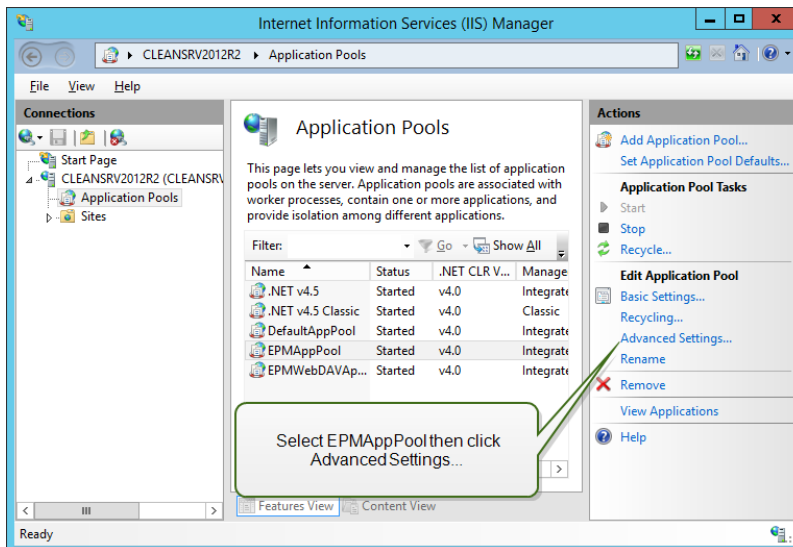
4. Click **Advanced Settings...**

5. Locate the **Start Mode** option under the General group and set it to **AlwaysRunning**.
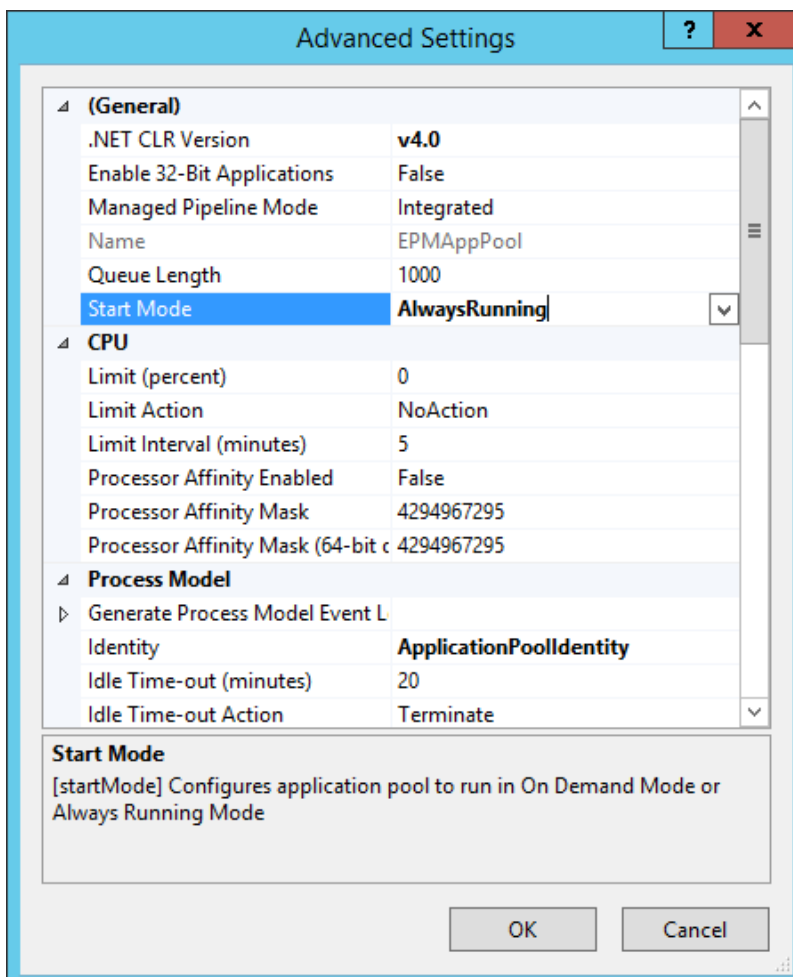
6. Click **OK**.

7. Repeat steps 4–6, this time for the application pool **EPMWebDAVAppPool**.

8. In the **Connections** pane, select the **Sites** node, revealing Sites pane in the main view.

9. Expand the **Sites** node.

10. Expand the **Default Web Site** and select the application **EPM**.
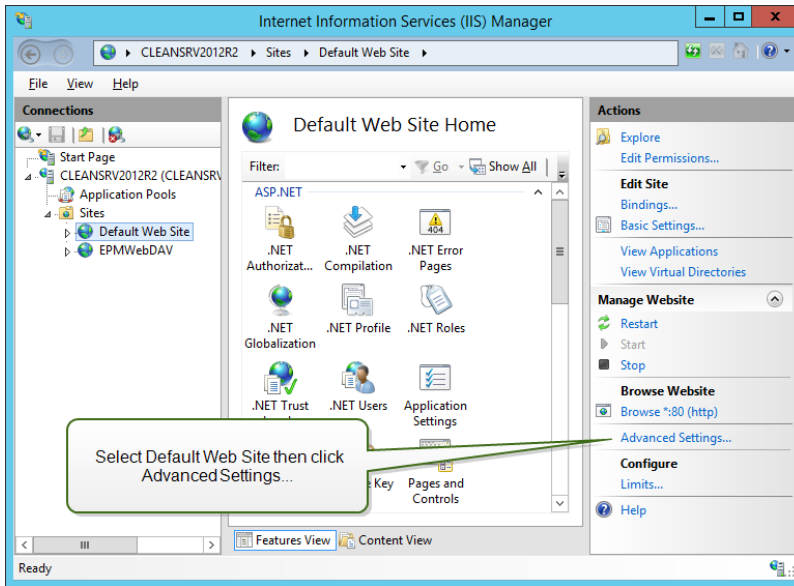
11. Click **Advanced Settings…**

12. Locate the **Preload Enabled** option under the General tab and set it to **True**.
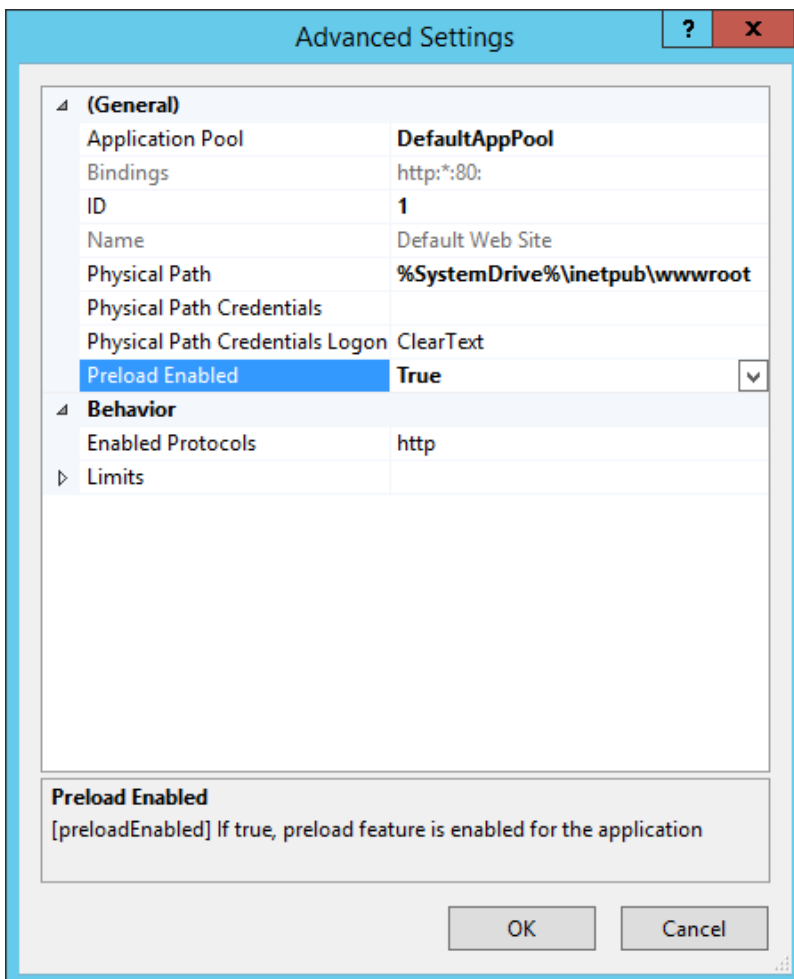
13. Click **OK**.

14. Repeat steps 10–12 for the site **EPMWebDAV**.

Install Command-line Parameters

NiceLabel installer can be controlled using command-line parameters.

> NOTE Make sure to use the upper-case syntax exactly as shown. Most of the parameters are used without the leading slash, there are two exceptions: /s (for silent install) and /l (for logging).

Parameter	Description
SKIPREQUIREMENTS	Control Center installation needs to check if all required features are installed in IIS. If some features are missing they are displayed on the screen before the installation begins. You can skip checking IIS compliance with this command-line parameter.

The following command-line switches can be used, if you want to perform a silent installation of Control Center. This is the installation mode, when user does not have to provide any information for the installation and no dialog boxes are shown to the user. But you have to provide all required information through these command-line switches.

> NOTE The switches below work only when you use the silent install switch /S.

Parameter	Description
/s	Silent install. No dialog boxes are displayed. The installer executes in the background.
/l="folder_and_file_name"	Logging the installation process in the provided file name. Make sure the user account performing the installation has the access permissions to the folder.
SELECTEDSERVER	This switch defines the SQL Server name and optional instance. `SELECTEDSERVER=ServerName\InstanceName`
WEBDAVSITENAME/ WEBDAVSITEPORT	These switches define the name and port of the WebDAV site (that provides access to the files inside the Document Storage through WebDAV protocol). `WEBDAVSITENAME=siteName WEBDAVSITEPORT=portNumber` Defaults: `WEBDAVSITENAME=EPMWebDAV WEBDAVSITEPORT=8080`

ARHMONTHLY/ ARHWEEKLY/ ARHDAILY	These switches define the time interval in which the database "housekeeping" takes place.
	
	`ARHMONTHLY=TRUE/FALSE`
	`ARHWEEKLY=TRUE/FALSE`
	`ARHDAILY=TRUE/FALSE`
	
	Defaults: `ARHMONTHLY=TRUE ARHWEEKLY=FALSE ARHDAILY=FALSE`

SQLUSER/ SQLPASSWORD	These switches define the SQL user name and password to install the NiceAN database to the SQL Server. The database user (SQLUSER) must have database creation rights. This option is to be used when you are installing Control Center under Windows user account that does not have database creation rights in the SQL Server. `SQLUSER=sa SQLPASSWORD=saPassword`
NETDOMAIN/ NETUSERNAME/ NETPASSWORD	These switches define the domain name, user name and password for the Windows user account. User (NETUSERNAME) must have Windows user creation rights (usually, this user must be member of the local Administrators group on the

Windows server where remote SQL Server is installed). This option is to be used when you are installing Control Center's database to a remote SQL Server and the user running the Control Center installer does not have permissions to create user on a remote machine.

```
NETDOMAIN=DomainName NETUSERNAME=UserName
NETPASSWORD=UserPassword
```

Example:

(user installing Control Center has Windows user creation rights on remote database server)

```
NiceLabelControlCenter2017.exe /s
SELECTEDSERVER=ServerName\InstanceName SQLUSER=sa
SQLPASSWORD=saPassword
```

Example:

(user installing Control Center does not have Windows user creation rights on remote database server so you have to specify the user with such permissions)

```
NiceLabel-ControlCenter6.exe /s
SELECTEDSERVER=ServerName\InstanceName SQLUSER=sa
SQLPASSWORD=saPassword NETDOMAIN=DomainName
NETUSERNAME=UserName NETPASSWORD=UserPassword
```

Upgrading Control Center to the Latest Version

Single-Server Architecture

If your current Control Center is installed in a single server environment, start the installer of the new version of Control Center and follow on-screen prompts. "Installing to Single Server" on page 25.

The upgrade will first remove the existing version and replace it with the latest version, keeping all the data. The NiceAN database will be upgraded automatically. No questions will be asked.

Multiple-Server Architecture with Remote SQL Server

The prerequisites required for the installation:

- You have to provide the SQL Server name and optional instance, where the current database NiceAN is installed

- If the Windows account on the Control Center machine does not have permissions to add/modify Windows users on the SQL Server Windows machine, you will need to have the user account that is member of the Administrators group on the remote machine.

If your current Control Center is installed in the multi-server environment, but you are not using SQL Server in a cluster and you have administrative access to both remote SQL Server and the remote Windows machine, simply start the installer of the new version of Control Center and follow on-screen prompts.

The upgrade will first remove the existing version and replace it with the new version, keeping all the data. The database NiceAN will be upgraded automatically.

Do the following:

1. Run the installer of the latest version.

2. Let it remove the existing version of the Control Center.

3. Select the SQL Server and instance, where the Control Center had installed the database NiceAN.
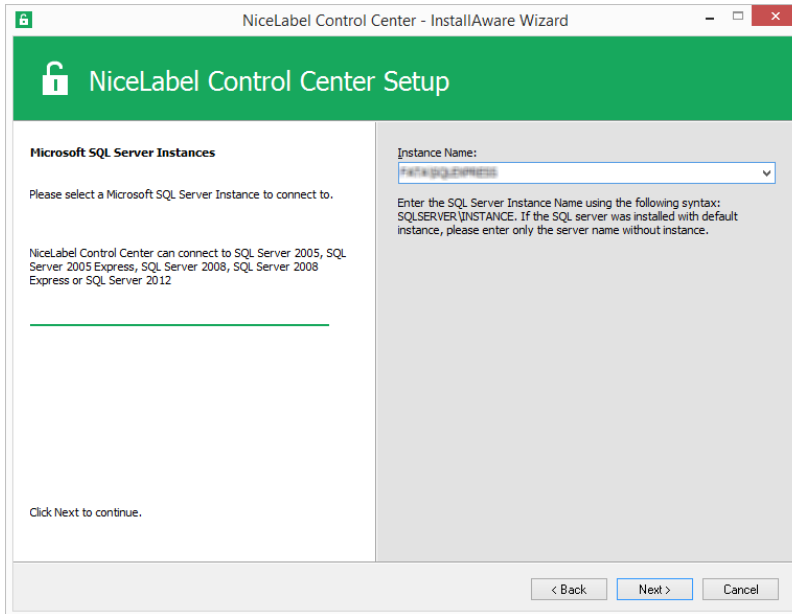
4. If the Widows account does not have the privileges to install local Windows users EPM_DBADMIN and EPM_USER to the remote Windows machine with SQL Server, you will be prompted for the user name that has such privileges. You have to provide the domain user account that has Administrative privileges to the remote Windows machine.

   Usually, this will be either a domain Administrator, or a domain user that is member of the Administrators user group on the remote Windows system. Click **Next**.

   > NOTE You must provide a domain user name. Local Administrator user account from the remote Windows machine cannot be used.
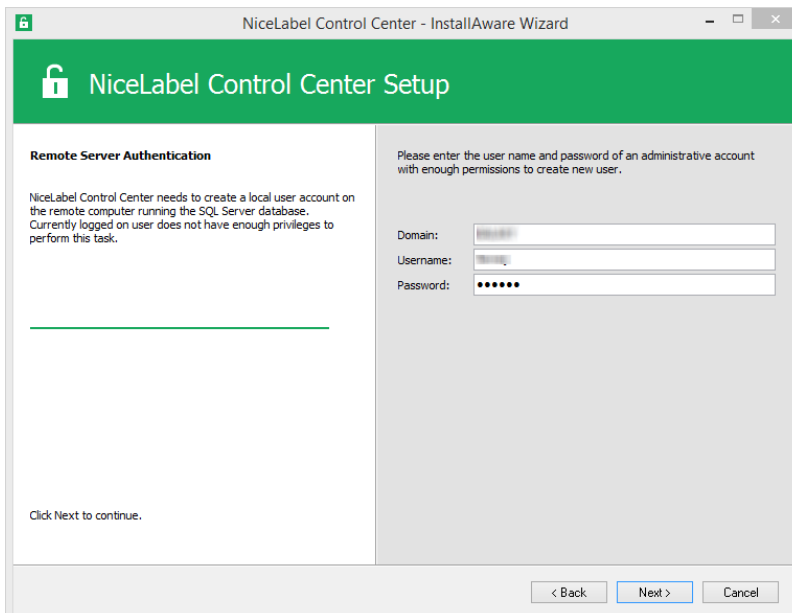
5. Click **Install**.

## Multiple-Server Architecture with Remote SQL Server in a Fail-over Cluster

The prerequisites required for the installation:

- You have to provide files `UserData.ini` and `EPMDBInstall.ini` from the existing installation of the Control Center. These two files have been provided by the utilities for the "Advanced Installation". If you did not save the files, you will have to configure the utilities again. "Installing to Multiple Servers" on page 28.

- Even if having the above mentioned configuration files, you will still have to enter the passwords for all user names used during the installation. The `EPMDBInstall` will remember user names, but not the passwords.

In this case, the database NiceAN has to be upgraded manually using the utility `EPMDBInstall`. After the upgrade, the Control Center can be installed. During the installation the database install step is skipped.

Do the following:

1. Open a desktop on the machine where the SQL Server is installed.
   or
   Open a desktop on another machine which will have access to the SQL Server (Windows user configured as the SQL Administrator or SQL user with admin permissions on the SQL Server (usually "sa") are required to install the database NiceAN).

2. Close all open applications before starting the installer.

3. From NiceLabel DVD copy the folder `\Install\Advanced Installation` to the local disk.

4. On the local disk, go to the folder `Advanced Installation\Control Center Database Installer`.

5. Extract the contents of the ZIP file `EPMDBInst.zip`. Make sure you keep the folder structure.

6. Copy the file `EPMDBInstall.ini` from the initial installation to the same folder. The settings saved in the file will re-populate the options in the utility.

7. Run `EPMDBInstall.exe`.

   The application **EPM Database Management** will run.

8. Click **Connect** to connect to the database NiceAN.

9. The user names that the Control Center will use to interact with the SQL Server have been remembered. Enter the passwords.

   Click Upgrade button to upgrade the existing database structure to the newer structure.
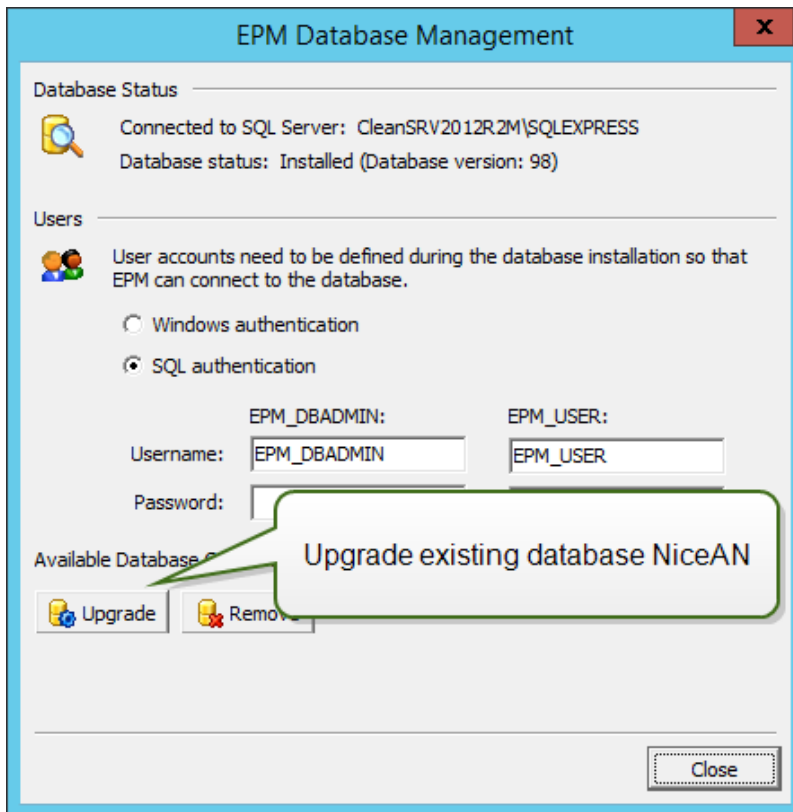
If you have troubles upgrading the database and see error messages such as `Database install operation failed.` or `Could not drop login '<username>' as the user is currently logged in`, the installer cannot upgrade the database as it is currently in use.

Do the following:

1. On the Windows machine with Control Center installed, open the Internet Information Services (IIS) Manager.

2. Select **Application Pools** pane, right-click the applications pools **EPMAppPool** and **EPMWebDAVAppPool** and stop them.

3. Expand **Sites**.

4. Select **Default Web Site**. Click **Stop** in the right-hand pane.

5. Select **EPMWebDAV**. Click **Stop** in the right-hand pane.

6. Open Command Prompt windows with administrative permissions.

7. In the command prompt type in **iisreset** and press `<Enter>`.

8. Try to upgrade the database again.

10. After the database upgrade completes, click **Close**.

11. Open desktop on the Windows machine, where you want to upgrade Control Center Web application.

12. Copy the installer file for Control Center to a local disk. This is a file named `NiceLabelControlCenter2017.exe`.

13. Copy the file `UserData.ini` next to it in the same folder. This `.INI` file has been prepared by EPM Custom Settings Generator.

> NOTE If you did not save the file `UserData.ini` the first time you installed the Control Center, run the utility epmsetupsettings.exe from Advanced Installation\Control Center Setup Settings folder and create it again. "Installing to Multiple Servers" on page 28.

14. Run the Control Center installer and follow on-screen instructions.

    You will have to confirm removal of the existing version and then the new version will be installed without asking any additional questions.

Installing the Client Components

Installing the Client

NiceLabel Designer is the label and form designer which will help you create label formats and printing applications (forms) for your Web printing users. Typically, you will install NiceLabel Designer on the workstations, not on the server.

Detailed description of NiceLabel 2017 installation procedure is available in a dedicated installation manual.

NOTE You must be logged on the computer with the administrative permissions to be able to perform the software installation.

To install the **NiceLabel Designer**, do the following:

1. To ensure a complete installation, close all open applications before installing the software.

2. Download the software package or insert the DVD into your DVD drive. Installation checks the installation package content.

3. Select installation language from the drop-down list and click **OK**.

   NOTE Language selection determines the interface language of the installed NiceLabel 2017 program.

4. NiceLabel 2017 Setup dialog window opens automatically.

   Click **Next**.

   NOTE If the installation wizard does not start automatically, double-click **NiceLabel2017.exe** in the downloaded file package or in the DVD file folders.

5. Read and accept the **End User License Agreement**. Click **Next**.

6. Enter the **License key**. Your license key is included in the email that was sent to you after completing the purchase or in the product package.
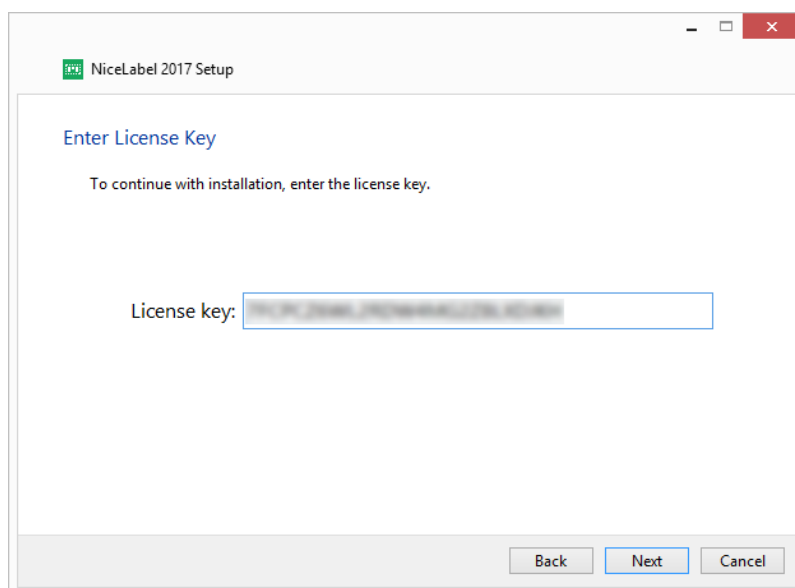
> **NOTE** Enter the same license key as the one that was used for activating the Control Center.

Click **Next**.

7. Set installation **Options**.

   Customize Installed Modules button allows you to select which module should be installed on your computer. Select all or install them individually:

   - Designer is the label and print form designing application.
   - Print is the on-demand label printing application.
   - Automation integrates printing with external software and hardware.
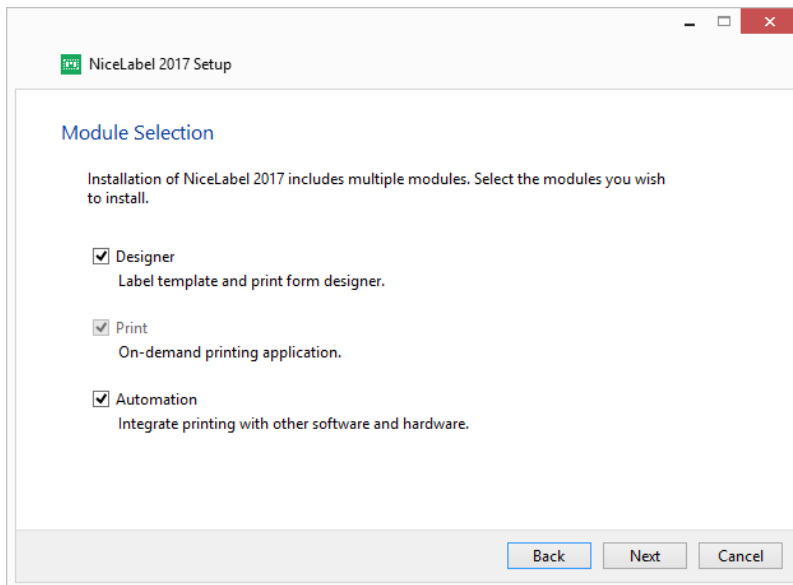
> **NOTE** Previously entered license key determines which products are going to run in trial mode and which without time limitations. It also defines which product module is going to be available for use.

> **NOTE** By default, NiceLabel modules that are determined by the entered license key are installed.

Click **Next**.
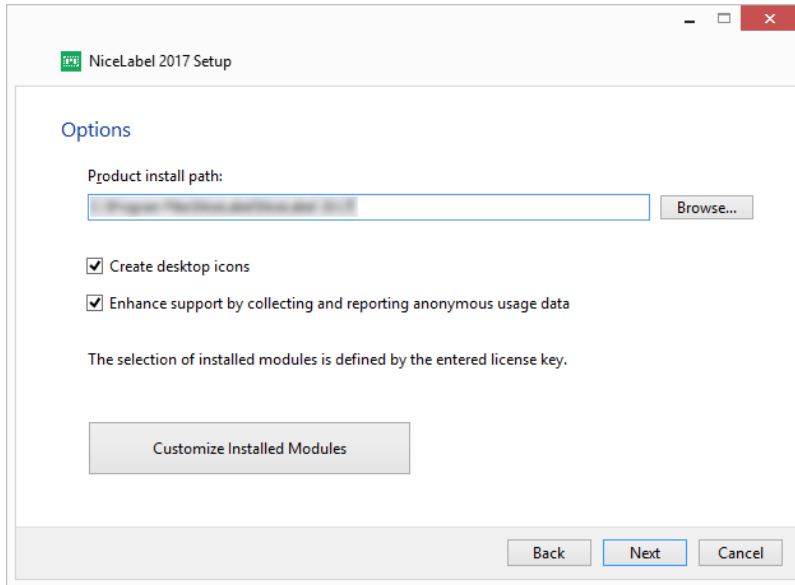
8. Click **Install** to continue.

Installation of Printer Drivers

> NOTE For detailed and printer vendor/model specific instructions on how to install the printer drivers, please refer to the document **NiceLabel Printer Drivers Installation Guide**.

There are two ways to install NiceLabel printer drivers:

- Use NiceLabel **PrnInst** application (recommended).
- Use **Windows Add** printer process (alternative option).

> NOTE Before starting with printer driver installation, make sure you are logged in as an administrator.

Printer Driver Installation Using PrnInst

Printer Installation Wizard (PrnInst) is a dedicated application for installing printer drivers on Windows based systems.
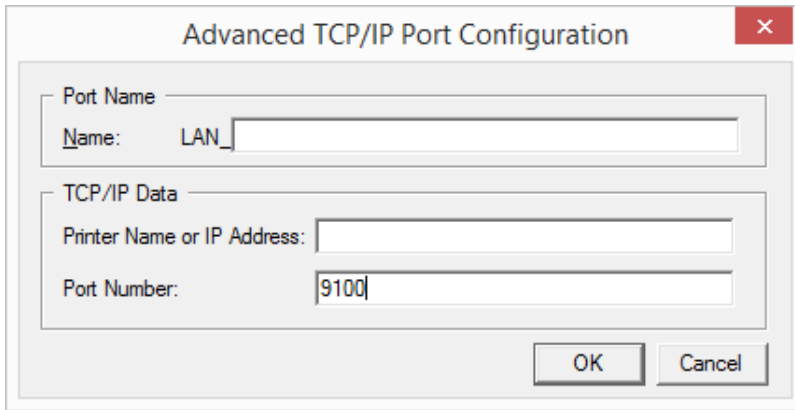
PrnInst based installation is available for the devices that are connected to LAN networks or any computer port except for USB. For printers that support plug and play installation procedure, see "Printer Driver Installation using Windows Installer" on the next page.

PrnInst versions for printers produced by multiple vendors are available at the NiceLabel download site and on installation CDs.

Download the correct printer driver to your local disk and run the downloaded self-extractable .exe file. PrnInst starts automatically. Follow the below described wizard steps to install the driver.
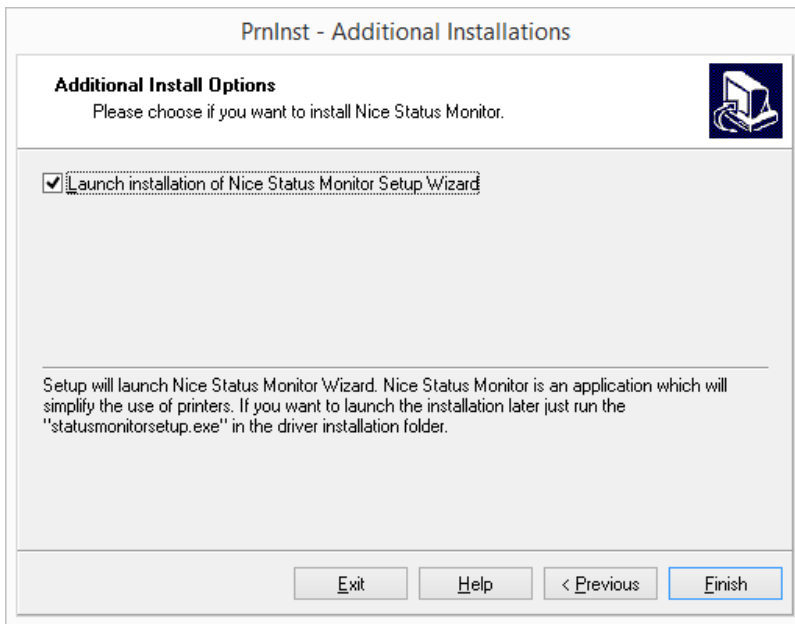
1. Unzip the installation files to a selected folder. Run the self-extractable .exe file. Welcome screen appears. Click **Next**.

2. Select **Install Printer**.

3. Accept the terms of license agreement and click **Next**.

4. Select the manufacturer and the appropriate printer model. Click **Next**.

5. **Printer Options** window appears. Select the appropriate port, add a port or delete it.

6. After clicking **Add Port**, the **Advanced TCP/IP Port Configuration** window appears. Insert the appropriate printer network settings and click **OK**.

> NOTE When using network printers, the Advanced TCP/IP port must be always installed. Only a connection established over the Advanced TCP/IP port ensures bidirectional printer data traffic between NiceLabel and printer. Such service cannot be carried over a standard TCP/IP port.

7. **Additional Install Options** window appears allowing you to install the NiceLabel **Status Monitor** (optional).

8. Click **Finish** to install the driver without installing the NiceLabel **Status Monitor** or proceed to the next step.

9. After clicking **Next** in the **Printer options** window, PrnInst offers the option to install an additional application which simplifies managing of multiple printers. This application may be added later. To install it, run **StatusMonitorSetup.exe** in the driver installation folder.

   Click **Finish.**

Printer Driver Installation using Windows Installer

Printer driver installation using Windows Installer is used on devices that are connected via one of the following ports:

- USB port
- Parallel port (LPT)

Plug and Play Driver Setup

During this procedure, Windows automatically detects the newly connected hardware using a plug and play event on both ports – USB and LPT.

Follow these steps to install a NiceLabel printer driver:

1. Connect the printer to a power outlet and turn it on.
2. Connect the printer to a computer using USB or LPT port.
3. The driver is located online and downloaded to the PC. Automatic installation follows immediately.
4. The installed printer is ready for printing.

> NOTE Check the specifications if connecting a printer to the USB 3.0 port. Certain printers do not support the USB 3.0 standard.

> NOTE Automatic printer detection is supported on USB and LPT ports only. The driver needs to be installed using PrnInst on other ports.

The **Add a printer** detection procedure differs between various operating systems. Follow the below described steps.

Windows 7 and Later

The operating system automatically checks Windows Update and installs the driver.

Printer Driver Available on Windows Update Site

The printer driver is automatically downloaded and installed.

On the latest operating systems (Windows 7 and later), a system notification message is displayed. If you click the notification message, the new **Driver Software Installation** dialog is displayed. Monitor the installation status using this dialog:

Printer Driver Unavailable on Windows Update Site – Manual Printer Driver Installation

If the printer driver is unavailable on the Windows Update site, download the printer driver to the local disk. Follow these steps to install a NiceLabel printer driver using the manual Windows **Add a printer** procedure.

1. Connect the printer to power outlet and turn it on.
2. Connect the printer to a computer.
3. Windows detects the printer.
4. Windows Update automatically checks for the printer driver online and fails. Start with manual installation.

The manual driver installation varies between various operating systems. Follow the below described steps.

Windows 7 and Later

1. Open **Control Panel** and click **Hardware and Sound > Devices and Printers > Device Manager**
2. Expand node **Other devices**. The installed printer is listed here.
3. Right click the printer and select **Update Driver Software**.
4. At the prompt **How do you want to search for driver software?** select **Browse my computer for driver software.**

Installing Support for WebDAV

WebDAV (Web-based Distributed Authoring and Versioning) is a set of extensions to HTTP protocol. It provides a framework for users to create, change and move documents on a server; typically a web server or a web share.

NiceLabel Control Center provides WebDAV access to the files inside the Document Storage. All clients that interact with the Document Storage must have enabled the WebDAV support. Usually, the "clients" are NiceLabel Designer and NiceLabel Automation.

- **Current Windows operating systems** (such as Windows 7, Windows 8/8.1 and Windows 10). The WebDAV support is already installed.
- **Windows Server operating systems** (such as Windows Server 2012 R2). You have to enable the **Desktop Experience** feature.

Enabling WebClient Service to use "Automatic" Startup Type

Windows operating system supports access to WebDAV shares using WebClient service. When this service is stopped, users will not be able to access the WebDAV shares. In Windows Vista, 7 and Windows 8 the service is enabled in Manual startup mode. In Windows Server 2008/2012 (including R2) editions, the default setup does not have web client service. You need to install Desktop experience package to add web client service.

To make sure the WebDAV support will always be available, set the WebClient service startup type to **Automatic**.

Do the following:

1. Press Windows key (or `<Ctrl>` + `<Esc>`) to open the search.
2. Type in **Services** and run the Services window.
3. Scroll down in the list and locate the service **WebClient**.
4. Double click **WebClient** to open its properties.
5. In Startup, type combo box select **Automatic**.
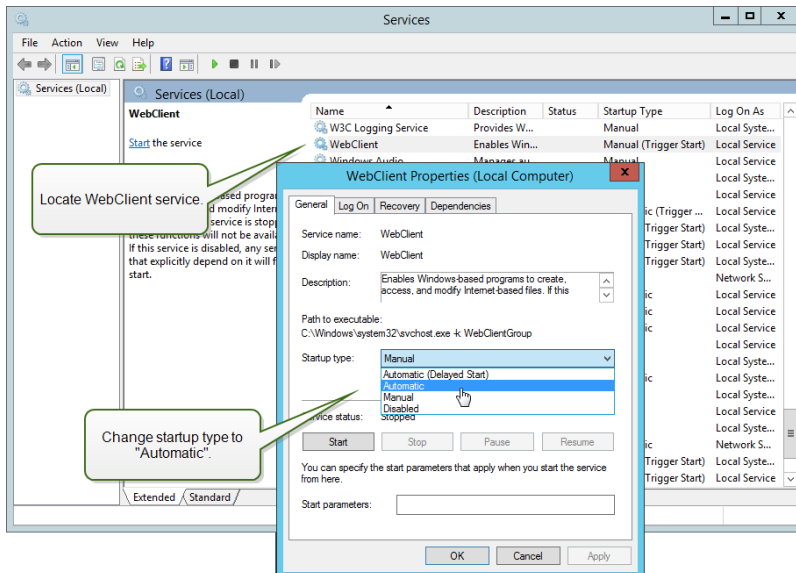
6. If the service is not running yet, click **Start** button.
7. Click **OK**.
8. Close **Services** window.

Installing Desktop Experience

To install Desktop Experience on Windows Server operating system, do the following.

> NOTE These instructions are for Windows Server 2012 R2.

1. Start **Server Manager** from the **Start** screen.
2. Click Manage, then click **Add Roles and Features**.
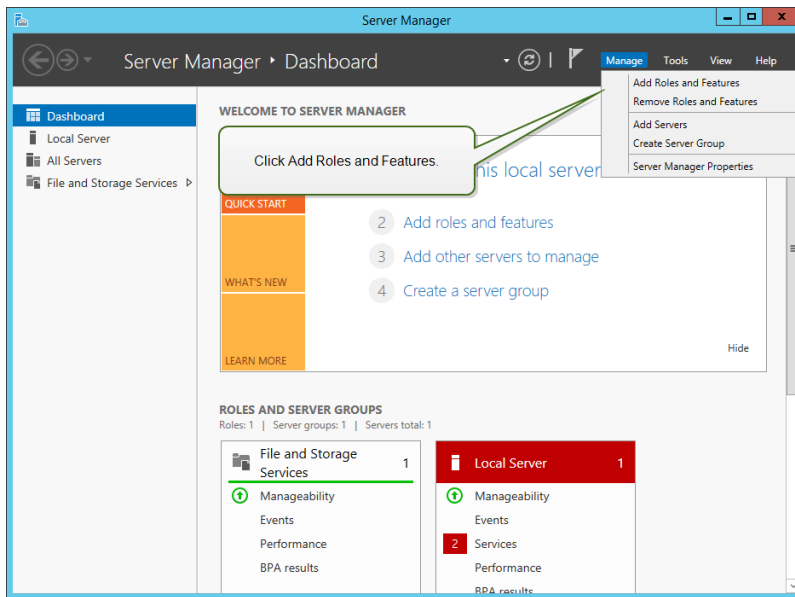
3. Select **Role-based or feature-based installation**. Click **Next**.
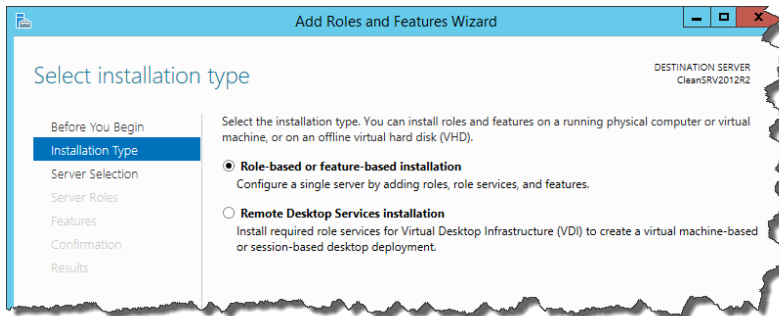
4. Select a local server from the server pool. Click **Next**.

5. The Desktop Experience feature is not a Server Role, so skip the Server Roles page by clicking **Next**.

6. In the Select Features section, expand **User Interfaces and Infrastructure** and check the **Desktop Experience** check box. Probably it will now ask you whether you also want to install the features required by Desktop Experience. Click the **Add Features** button to proceed. Now, click the **Next** button to proceed.
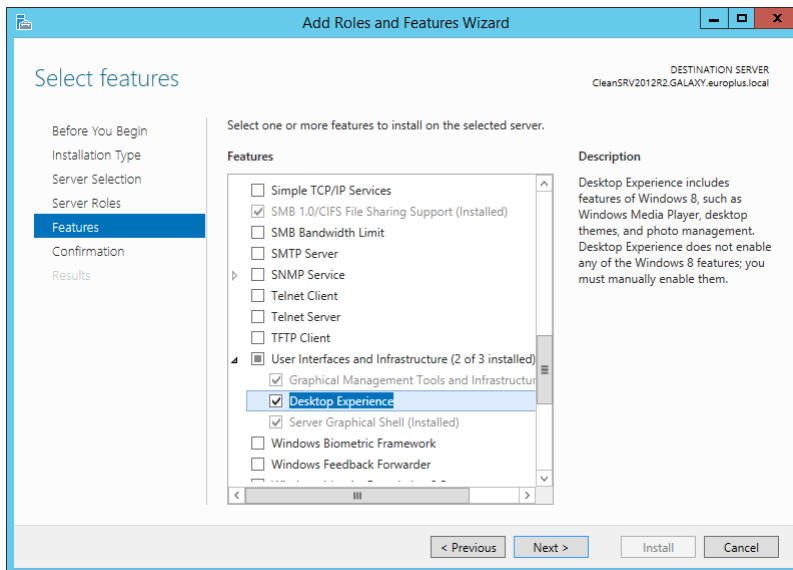
7. In the Confirmation section, optionally check the **Restart the destination server automatically if required** check box as the Desktop Experience feature will need a restart to complete. You can also manually restart the server after the wizard steps are complete.
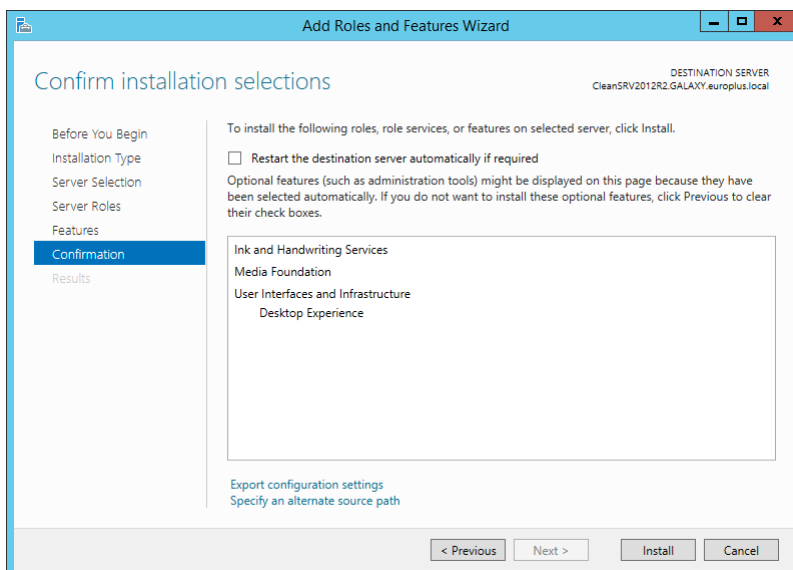
8. Wait while the features are being installed. You can also close the **Add Roles and Features Wizard** window – it will continue to run in the background.
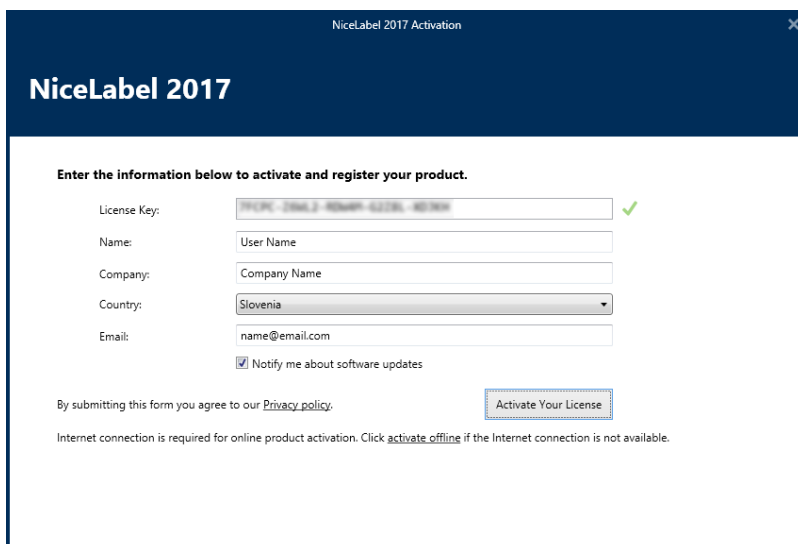
Activating and Registering the Software

To activate and register your NiceLabel 2017 license, complete the following steps:

1. Enter the license activation dialog in **File > About > Activate Your License**. Dialog window contains the following edit fields:

   - **License Key:** Enter the 25-digit key that you received after purchasing the software.

   - **Name:** Enter your name. The name is used when addressing possible support issues and also used to identify the owner of label or solution design.

   - **Company:** Company name helps identify upgrade requests and possible support

issues.

- **Country:** Defines macro location of the company HQ or its office.

- **Email:** User email used for support purposes or addressing possible issues.

- **Notify me about future software updates:** Keeps you informed about the regular updates of NiceLabel products.

2. When done with entering the required information, click **Activate Your License**. The activated NiceLabel 2017 product becomes fully functional in accordance with the provided license key.

Upgrading Client to the Latest Version

License upgrade procedure does not require any software (re)installation procedures. Continue with the current version of NiceLabel 2017 installed.

To upgrade an existing license, the following two keys are required:

- 25-digit license key of the installed edition . You received this key after purchasing your copy of NiceLabel 2017.
- 25-digit software upgrade key. This key upgrades your current edition of NiceLabel 2017.

After the upgrade, the "old" software key becomes deactivated.

> NOTE Client upgrade options and procedures are described in the dedicated NiceLabel 2017 Installation Guide.

Licensing
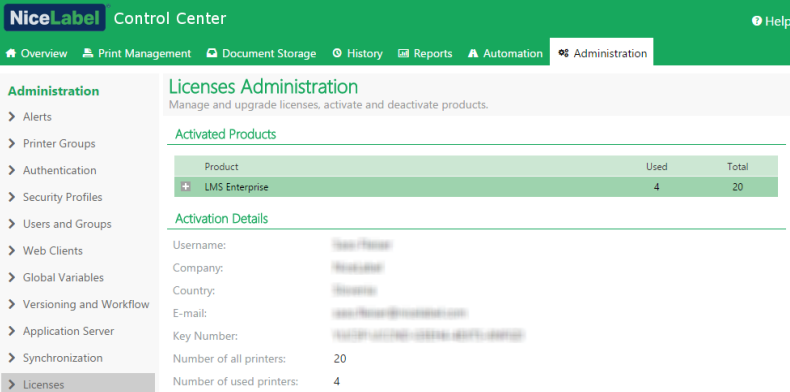
Managing Licenses

Activate the NiceLabel Designer (PowerForms product level) by entering the LMS Pro or LMS Enterprise license which has been previously used to activate the Control Center. When the Designer is linked to the Control Center, it starts reporting events to it. This means that the information about all printing events from the linked clients is reported to a central point – the Control Center.

PowerFoms client is usually linked to available Control Center(s) after its activation. Links to Control Centers can be added or changed at any time after the client activation. See section "Activating the Client" on page 67 for details.

NOTE The license unit for NiceLabel multi-user products is a printer seat. Each unique printer that you use for label printing consumes one license.

You can see the license details under the **Administration tab > Licenses**. All printers in use are listed after clicking the **Plus** icon.

NOTE After installing the Control Center, activate the LMS license to start working with it. Control Center will become unlocked and will display the parts of its user interface according to the activated LMS license key.

Activate New Product

Before you start the product activation, get familiar with the following terms:

- **Key Number.** Sequence of 25 characters provided with the software. This is your license key.
- **Registration Number.** Unique number generated during the activation process. Registration number validates the entered key number.
- **Activation Code.** Code generated by the online activation server. Activation code makes the software on your computer active.

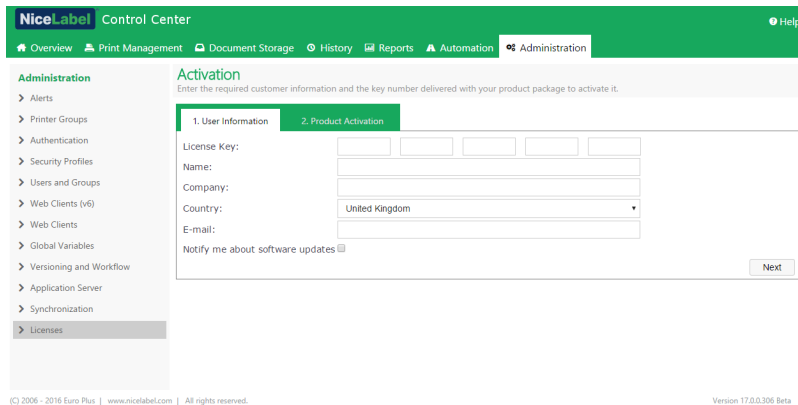To activate the LMS Pro or Enterprise license in the Control Center server, do the following:

1. Open a browser on a computer with access to the Internet.

2. Type in the URL to the Control Center.

   ```
   http://server/name
   ```

   Server in the URL is the name of your computer with installed Control Center.

3. Go to **Administration tab > Licenses**.

4. Click the **Activate new product** link.

5. On the Activation page, enter the required customer information and the **Key Number** that was provided in the product package.

6. Click **Next**.

7. **Registration Number** is generated automatically. If the computer has an Internet connection, complete the activation by clicking the **Finish** button.

Deactivate Product

Deactivating a license allows you to move the software from one server to another.

To deactivate the LMS Pro or Enterprise license in the Control Center server, do the following:

1. Open a browser on a computer with access to the internet.

2. Enter the Control Center URL.

   ```
   http://server/name
   ```

   Server in the URL is the name of your computer with installed Control Center.

3. Go to **Administration tab > Licenses**.

4. Click the **Deactivate product** link.

5. The license has been deactivated.

Upgrade

The upgrade of existing LMS license for Control Center allows you to:

- **Upgrade license.** This type of upgrade expands the range of available application functionalities.

- **Add licenses.** This type of upgrade increases the available number of licenses (connected printers).

To upgrade your existing Control Center license, do the following:

1. Open a browser on a computer that as access to the internet.

2. Type in the URL to the Control Center.

   ```
   http://server/name
   ```
   Where server is the name of your computer, where you have installed Control Center.

3. Go to the **Administration** tab. Choose **Licenses** subsection.

4. Click the **Upgrade** link.

5. Select one of the upgrade types. The selection defines whether you are upgrading the existing license only or adding a license pack.

- In case of selected **Upgrade License** enter the **Upgrade Key Number**.
- In case of selected **Add licenses**, enter the **License Pack Key number**.

4. If the computer has an Internet connection, complete the activation by clicking the **Automatic Activation** button. *Activation Code* will be generated and your upgraded product license will be activated.

Activating Without Access to the Internet

If there is no Internet connection available to activate the license online, open the Activation Web page on another computer with Internet access. Activate the license manually to receive the **Activation Code**, and enter this code into Control Center to complete the activation.

Complete the following steps to activate the license offline:

1. Copy **Key Number** and **Key Number** from the Control Center licensing page.

2. Copy the **Activation Web page** address.

> NOTE **Activation Web page** address is provided on-screen on the bottom of the page.

3. Use a computer with Internet access and open the provided **Activation Web page**.

4. Enter **Key Number** and **Registration Number**. Enter other user information when prompted.

5. Click **ACTIVATE** to retrieve the **Activation Code**. Copy the code.

6. Go back to the computer where the **Product Activation** page is still open.

7. Enter the **Activation Code**.

8. Click **Finish** to complete the activation process.

Activating the Client

You have to activate the **NiceLabel Designer** (PowerForms product level) on each workstation.
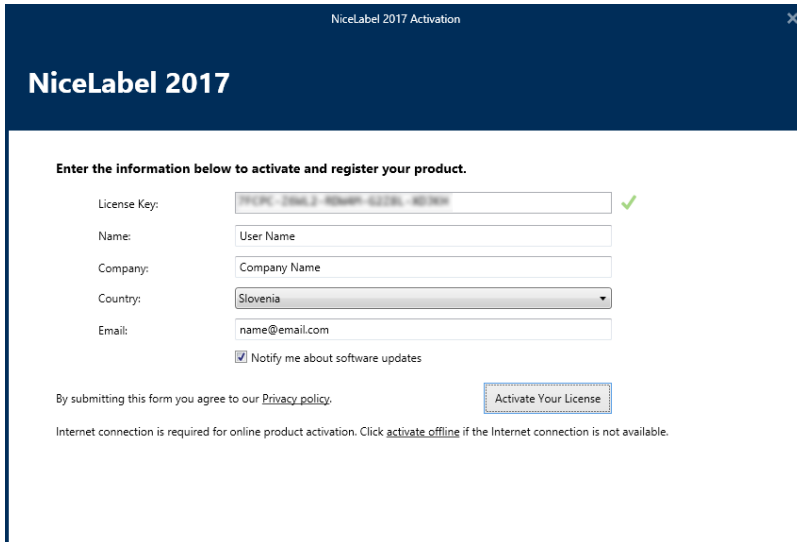
> NOTE If you do not complete the activation process, the client will initially run in trial mode. After 30 days, it is going to switch into limited demo mode. When inactive, Designer does not send any event updates to the Control Center.

To activate theNiceLabel Designer, do the following:

1. Make sure that your Control Center license has already been activated.

2. Run NiceLabel Designer. The initial trial dialog window opens:
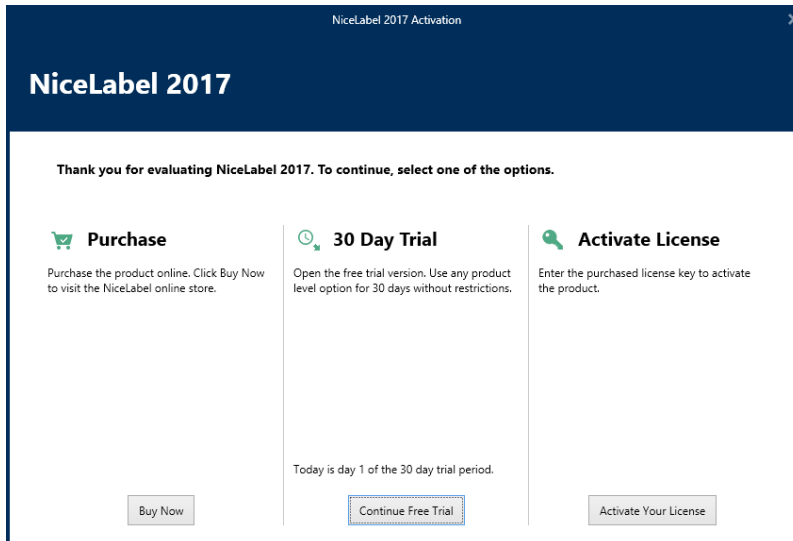
3. Click **Activate Your License** under the **Activate License** group to activate the purchased license. License activation dialog opens. Fill in the below listed fields:

   - **License Key:** Enter the 25-digit LMS license key from Control Center.

   - **Name:** Enter your name. The name is used when addressing possible support issues and also used to identify the owner of label or solution design.

   - **Company:** Company name helps identify upgrade requests and possible support issues.

   - **Country:** Defines macro location of the company HQ or its office.

   - **Email:** User email used for support purposes or addressing possible issues.

   - **Notify me about future software updates:** Keeps you informed about the regular updates of NiceLabel 2017 products.
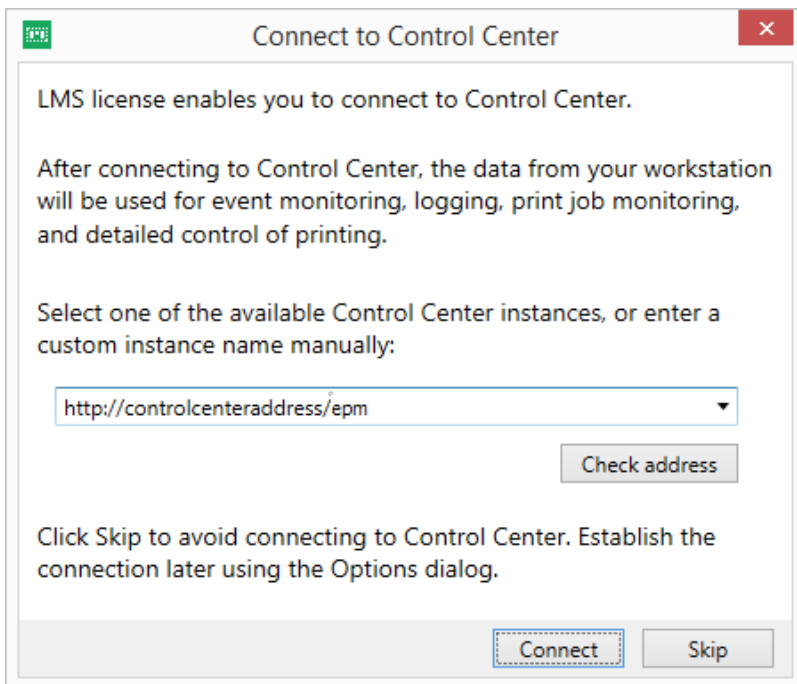
4. When done with entering the required information, click **Activate Your License**. The activated NiceLabel 2017 product (PowerForms) becomes fully functional in accordance with the provided license key.

5. The entered license key allows you to link Designer with Control Center. The Control Center address field is already populated with its address.

Click **Connect**.

Support

Online Self-help

You can find the latest builds, updates, workarounds for problems and Frequently Asked Questions (FAQ) on the product web site at www.nicelabel.com.

For more information please refer to:

- Knowledge base: http://www.nicelabel.com/support/knowledge-base
- NiceLabel Support: http://www.nicelabel.com/support/technical-support
- NiceLabel Tutorials: http://www.nicelabel.com/learning-center/tutorials
- NiceLabel Forums: http://forums.nicelabel.com/

> NOTE If you have a Service Maintenance Agreement (SMA), please contact the premium support as specified in the agreement.

Troubleshooting

☐ **Software does not install**

When the installer does not complete successfully despite following all rules for the prerequisites, enable the install log file and send it to the regional Technical Support team.

To create the install log, do the following:

1. Press Windows key + R and type in `cmd`.

2. In Command Prompt window, go to current user's temporary folder. Type in:

   `cd %temp%`

3. In Command Prompt window, create an empty text file `lblinstall.log`. Type in:

   `type nul > lblinstall.log`

4. Run the installation again. When the error displays again, close the installer.

5. Contact the regional Technical Support team and provide the `lblinstall.log` file.

Contacting Technical Support

At some point, when you encounter a problem that you cannot solve by yourself, you may need to contact your support representative for additional assistance

http://www.nicelabel.com/support/technical-support

> NOTE If you have a Service Maintenance Agreement (SMA), please contact the premium support as specified in the agreement.

Before contacting support it would be very helpful, if you collected information about the problem, the computer and operating system, you are running NiceLabel software on. You can use the following checklist.

	Checklist
☐	What happened? Write down exactly the error message that you get or make a screen shot of the error.
☐	When was the error discovered for the first time?
☐	What did you expect to happen?

☐	Have you discovered the problem earlier?
☐	Can the error be reproduced?
☐	How often did the error occur?
☐	Have you tried to use NiceLabel software this way earlier?
☐	If your problem is coming and going, please describe circumstances and under what conditions the error appears.
☐	Which version of NiceLabel software are you using?
☐	Which version of NiceLabel was used to design the label?
☐	Can you provide the files that you were using when the issue occurred (data files, configuration files, label files, etc.)?
☐	Which printer are you using?
☐	Which version of printer driver are you using?
☐	Which operating system are you using? In which language?
☐	Are you using firewall? Are all the required ports open?
☐	Which version of Microsoft .NET framework is installed?

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