

## **CloudNine™ LAW and Explore**

Installation Checklist and Guide

CloudNine™ LAW, Version 7.12

### CloudNine™ LAW and Explore Installation Guide

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Version: 7.12

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## **CloudNine™ LAW and Explore**

**Installation Guide** 

**Installing CloudNine LAW** 

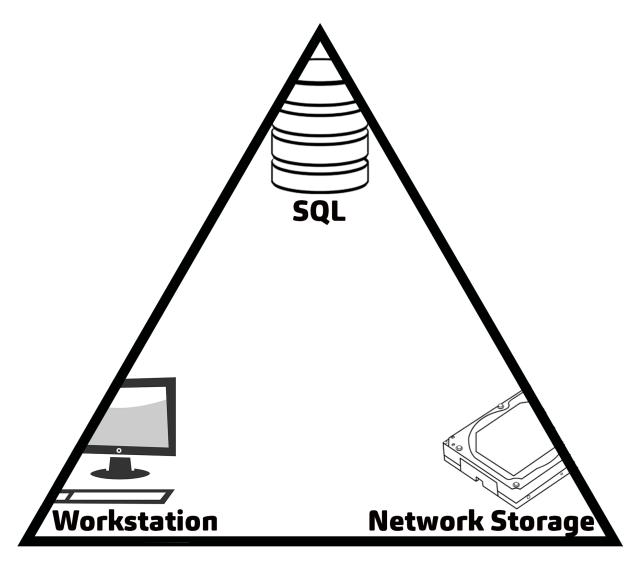
Chapter

1

### Installing CloudNine LAW

### General Overview

LAW is an on premise eDiscovery processing platform. Currently there are two import engines. The **LAW Turbo** multi-threaded engine and the classic **ED Loader** single threaded engine. Both are Windows based applications and can be installed on any supported instance of Windows.



# LAN

LAW works within a **LAN** (Local Area Network) environment. This environment can be within one workstation (typically called an all-in-one) or a large network of servers.

The standard build out would be

- **Database Server** This is the primary SQL server. This server will host all LAW databases which are cases created from LAW.
- **License Server** LAW accesses a Licenses Manger to check licenses in and out. This licenses manager can be its own server or you can use your SQL server.
- **Workstation server(s)** The LAW application software is installed on these server. MS Office or other native applications may also be installed for additional productions capabilities.
- **Network Storage** You network storage will house two parts of data: the **Source data** and the **Case data** commonly call the **Case Shell.**

For LAW to work, the account that it is set up on must have full read/write/modify permissions to SQL, the workstations, and network storage (source data and case data).

The user also needs full read/write/modify permissions to the workstation, and network storage (source data and case data)

System Requirements

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#### B CloudNine™ LAW

### References

Click on the top left to open the table of Contents

**Link to the answer center**: <a href="https://answercenter.ediscovery.co/litigation/ac/lawdc/welcome-to-law.html">https://answercenter.ediscovery.co/litigation/ac/lawdc/welcome-to-law.html</a>

**Fields's descriptions**: <a href="http://answercenter.ediscovery.co/litigation/ac/lawdc/system-export-fields.html">http://answercenter.ediscovery.co/litigation/ac/lawdc/system-export-fields.html</a>

### LAW User Guide:

http://answercenter.ediscovery.co/litigation/ac/law\_documentation/LAWUserGuide.pdf

#### LAW Administration Guide:

http://answercenter.ediscovery.co/litigation/ac/law\_documentation/LAWAdminGuide.pdf

LAW License Types: https://answercenter.ediscovery.co/litigation/ac/lawdc/license-types.html

**LAW License Matrix**: <a href="https://answercenter.ediscovery.co/litigation/ac/lawdc/law-license-matrix.html">https://answercenter.ediscovery.co/litigation/ac/lawdc/law-license-matrix.html</a>

## **CloudNine™ LAW and Explore**

**Installation Guide** 

**High-Level Checklist** 

Chapter

2

### **High-Level Checklist**

Storage Network should be set up first	Answer Center Link	Has this been completed
10/100/1000 Mbps. Gigabit recommended.		
Network File Storage should be 3-4 times the size of the intended source data		
Create a System Account that will need full read, write, and modify access to	System Requirements	
Network Storage, SQL, Source Data, and Workstations	Source Data, and	
MS Domain network required		

Setting up you SQL Server		Has this been
	Link	completed
How large should your SQL server be?		
- Do you know how many SQL cores you need?	How Large Should My SQL :	
- Do you know how much RAM you need?	3	
- SQL Server Hard drive space	System Requirements	
Install the OS of your choice		
- Microsoft Windows 10 or 11		
- Microsoft Windows Server 2016 (version 1809)	Contain Demoisses ante	
- Microsoft Windows Server 2019 (version 1903)	System Requirements	
- Microsoft Windows Server 2022		
Install SQL of your choice		
- Microsoft SQL Server 2016		
- Microsoft SQL Server 2017	System Requirements	
- Microsoft SQL Server 2019	Installation Steps	
- Microsoft SQL Server 2023		
Install Microsoft SQL Server Management Studio		
Add System Account into SQL with Full Access	Step 2: Add SQL use Account	
	SQL Server User Account Op	
Enable Named Pipes Protocol	Enable Named Pipes Protoco	
Ports Needed for LAW activity		
- Outgoing:	System Requirements	
- ms-sql-s -> 1433 (TCP/UDP)	Opening Windows Firewall P	

Setting up you SQL Server	Answer Center	Has this been
	Link	completed
- www, http -> 80 (TCP)		
- https -> 443 (TCP/UDP)		
- microsoft-ds -> 445 (TCP/UDP)		
- smtp -> 25 (TCP) * Configurable via Tools->Options->Notifications		
- Sentinel RMS Server (3rd party) -> 5093 (UDP)	_	
- Ports needed for LAWtsi		
- Outgoing:		
- ms-sql-s -> 1433 (TCP/UDP)		
- www, http -> 80 (TCP)		
- microsoft-ds -> 445 (TCP/UDP)		
- Sentinel RMS Server (3rd party) -> 5093 (UDP)		
- Note: This interfaces with 3rd party TWAIN drivers which may use various network communication methods to access devices. Ports would have to be determined by the vendor.		
Ports LAW Management Console		
- Outgoing:		
- ms-sql-s -> 1433 (TCP/UDP)		
- microsoft-ds -> 445 (TCP/UDP)	System Requirements	
- UDP -> 8401 (UDP) * Configurable via Tools-		
> Options	Opening Windows Firewall P	
- Incoming:		
- UDP -> 8401 (UDP) * Configurable via Tools- >Options		
Configuring your SQL Server max memory		
allocation.		
- Open the SQL Instance through the SQL Server		
Management Studio.		
- Then right click on the Instance name and select		
Properties.		
- Then select the Memory tab.	Suggestions for configuring	
- The Maximum server memory (in MB): should be	1	
The Maximum Server interiory (in MD), Should be		
approximately 80% of your servers' available memory		

Utility		
LAW ED Loader/Turbo*	Link in Answer Center	Has this been completed
Hardware Specs		
- Computer/Processing - 8core		
- Memory (RAM) = 16gb (Workstations in the Turbo Pool or are running the Turbo Service will need 32gb of RAM)	System Requirements	
- Hard Drive - 100gb of SSD		
- Display - 1080p		
Install the OS of your choice		
- Microsoft Windows 10 or 11		
- Microsoft Windows Server 2016 (version 1809)	System Requirements	
- Microsoft Windows Server 2019 (version 1903)		
- Microsoft Windows Server 2022		
Microsoft Office		
- Microsoft Office 2010		
- Microsoft Office 2013		
- Microsoft Office 2016	System Requirements	
- Microsoft Office 365 (Local Install)		
- Microsoft Office 2019		
*NOTE if you are using ED Loader your Office installation must be 32bit. If you are using Turbo Import you can install 64-bit Office.		
Create an Outlook dummy account	Configuring Outlook for ED Loader	
Install All Microsoft Language Packs or the ones that you want to work with	LAW Workstation Considersations	

LAW ED Loader/Turbo*	Link in Answer Center	Has this been
LAW ED Eddder Turbo		completed
Chrome or other browser programs. Set up		Sompieted
printer settings		
Solidworks eDrawings 2013		
IrfanView and all plugins		
Adobe Reader (32bit) and other PDF software	System Requirements	
(like Foxit). Set up Printer settings on both		
Turn off Microsoft 'File Block Settings' in office products		
Turn off the caching of thumbnails in hidden thumbs.db files	Turn off the Caching of Thumbnails	
If using Remote Desktop: Turn off the Local Printers		
ABBYY Fine Reader Engine	ABBYY Engine	
Lotus Notes 8.5 or 9 (once installed open it	System Requirements	
and selected to turn off popups)		
Show hidden files and file extensions	Show Hidden Files and File Extensions	
Lower User Account Control Settings to 'Never Notify'	Lower User Account Control Settings	
Install LAW	LAW Installer	
Setting up LAW with LAW Configuration. Set	LAW Configuration Utility	
up NIST, File Type Management and select the		
machines that will run the LAW service for		
Turbo Import and Imager to work.		
Open LAW Management Console	Open LMC	
Encryption and TLS Protocols	Encryption and TLS Protocols	
Antivirus Best Practices and Recommendations	Antivirus Best Practies and Recomme	
LAW FIPS Compliance and Configuration	LAW FIPS Compliance and Configura	
Set up your Queries and Grid Views	Grid View Profiles	
Set up your LAW case preferences	Set Up Preferences	

<sup>\*</sup>Note if you are setting up Turbo make sure you see that workstations in the Turbo Pool need more RAM.

## **CloudNine™ LAW and Explore**

**Installation Guide** 

**Detailed Checklist** 

Chapter

3

### **Detailed Checklist**

### System Requirements

### **Recommended System Specs**

Your needs will vary depending on the volume of source data being processed. The following are our <u>recommended</u> specifications for running **LAW**:

### Current Version is **LAW 7.12**

Create a System/Network Account	For the LAW program to work, the account that it is set up on must have full read/write/modify permissions to SQL, the workstations, and network storage (source data and case data).  The User only needs full read/write/modify permissions the workstation, and network storage (source data and case data)
Processor	8-core @ 2.5+ GHz
ED Loader Memory (RAM)	16+ GB
Turbo Pool Workstations Memory (RAM)	32+ GB  It's recommended systems have 4 GB of RAM per processing core.  Note: "Ideal" processing requirements may call for a higher allocation of core/RAM resources.
Workstation Hard Drive	Solid State Drive w/ 100 GB+ free space  CloudNine LAW uses temporary storage. When working with large files, a significant amount of drive space may be used.
SQL Server Hard Drive	Solid State Drive w/ 1TB+ free space  It's recommended that you consult your DB Admin from here
Network File Storage (Case Databases/Images/Text/ Native Documents)	When importing electronic documents, the storage size requirements of your data can vary greatly based on the sources being used. Data can inflate up to 3-4 times its original size.

Display	1080p monitor resolution
Network	10/100/1000 Mbps. Gigabit recommended.  MS Domain network required  Applicable only if using a network server to host <b>Case Files</b> and their associated documents.
Supported Operating Systems	<ul> <li>Microsoft Windows 10 or 11</li> <li>Microsoft Windows Server 2016 (version 1809)</li> <li>Microsoft Windows Server 2019 (version 1903)</li> <li>Microsoft Windows Server 2022</li> </ul>
	Only 64-bit versions of Microsoft Windows are supported.  Both of CloudNine™ LAW engines Turbo and ED Loader uses the list of time zones from the user's operating system.
Supported SQL Database Software	<ul> <li>Microsoft SQL Server 2016</li> <li>Microsoft SQL Server 2017</li> <li>Microsoft SQL Server 2019</li> <li>Microsoft SQL Server 2022</li> <li>Express versions of the SQL Server versions listed above are supported for smaller Case Files as they have a limit of 10 GB per database.</li> </ul>
Supported Scanner Hardware	<ul> <li>Scanners with ISIS drivers (<u>Supported Scanners</u>)</li> <li>Scanners with TWAIN drivers via <b>LAWtsi</b> (Touch Screen Interface)</li> </ul>
Antivirus Software	Antivirus is not required, but highly recommended to protect you from damage caused by viruses embedded within your processed documents.
.NET Framework	3.5 and 4.8 or higher

ABBYY OCR engine	The ABBYY OCR engine installer can be found here: <b>ABBYY ENGINE</b>

All in One System Requirements (An all in one box usually has LAW and SQL on the same box)	Depending on intended use, the all-in-one could be smaller. Please call customer support for more information.
Processor and RAM	16 Cores and 64GB of RAM
Operating Systems and SQL	Windows 10, 11 or Server 2019
Hard Drive Space	1tb of SSD

### **Native Applications**

There are several native applications that can be used with **LAW**. Native applications are used for viewing documents, **E-Printing**, and **TIFF Conversion**. The following applications are supported:

Adobe Acrobat	Adobe Reader
	Adobe Acrobat Pro X
	Adobe Acrobat Reader X
	Adobe Acrobat Standard XI
	Adobe Acrobat Pro XI
	Adobe Acrobat Reader XI
	Adobe DC (Standard or Pro)
	• (non 64 bit)
Avantstar Quick View Plus	Avantstar Quick View Plus 13 Professional
	Avantstar Quick View Plus 17
	Avantstar Quick View Plus 2020
	See Avantstar's license agreement prior to using this application with <b>LAW</b> .

Corel Word Perfect	Corel Word Perfect 12
Lotus/IBM Notes	• Lotus Notes 8.5
	• IBM Notes 9
	Lotus/IBM Notes must be installed in Single-User mode.
Microsoft Office	Microsoft Office 2010
	Microsoft Office 2013
	Microsoft Office 2016
	Microsoft Office 365 (Local Install)
	Microsoft Office 2019
	For Turbo Import, the 64-bit Office Suite may be used for ingestion and Batch Tiffing (LAW 7.5+)  ED Loader and PST reconstitution work-flows require 32-bit Office.
Microsoft Project	Microsoft Project 2003
	Microsoft Project 2007
	Microsoft Project 2010
	Microsoft Project 2013
	Microsoft Project 2016
	Microsoft Project 2019
	Only 32-bit versions are supported.

### 20 CloudNine™ LAW

Microsoft Visio	Microsoft Visio 2003
	Microsoft Visio 2007
	Microsoft Visio 2010
	Microsoft Visio 2013
	Microsoft Visio 2016
	Microsoft Visio 2019
	Only 32-bit versions are supported.
Oracle AutoView	Oracle AutoView 19
	Oracle AutoView 20
	Oracle AutoView 21
SOLIDWORKS eDrawing	SOLIDWORKS eDrawings Viewer 2013
	32-bit version only
Web Browser	Microsoft Edge
Touch Screen	Able to work with 17 Inch monitor with a Magic Touch touch screen.
	Only for the TSI
Demo Version	Evaluation versions of LAWtsi Scan are allowed to run 25 times and are limited to 50 documents per case. Cases over 50 documents cannot be opened by a demo version of LAWtsi.
	Only for the TSI

### **Required LAW Ports**

The required port exceptions for LAW are listed below

A Knowledge Based Article on this subject can be found here: <u>How do I move cases to a different environment?</u> (cloudnine.com)

• UDP -> 8401 (UDP) \* Configurable via Tools->Options

Incoming:

### Database Installation and Configuration

CloudNine™ LAW requires separate database software to be installed and configured properly. To Help with setting up SQL we provide these pages



SQL Express

SQL Considerations for LAW

Configuring LAW and SQL

Troubleshooting SQL Configuration

#### SQL 2017 & 2022 Setup

The images on the left section describes an example of a known, working setup of SQL Server 2017.

The images on the right section describe an example of a known working setup of SQL Server 2022.

How Large Should my SQL Serve be?? Installation Steps Step 1: Install SQL Server 2017

Step 2: Add SQL use Account for LAW

### **How Large Should my SQL Server be??**

Microsoft can't recommend more than 1 core and 2gb of RAM on the SQL machine, because they do not know what applications you are running on SQL. LAW has alot of network traffic with SQL and for that reason we have created this equation to help right size your SQL Server.

### **Calculating LAW SQL Cores**

At minimum – the **Total Number of SQL Cores** should = The # number of total LAW instances\* that can communicate or interact with SQL ÷ 3

(\*Some LAW components are single threaded and others are muti-threaded. If you are using ED Loader, use the number of concurrent licenses you have as the number of instances. If you are using Turbo add concurrent licenses and how many cores are available in your Turbo pool.)

Add one core for the OS

### **Calculating LAW SQL RAM**

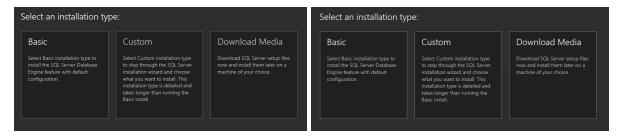
- At minimum the Total amount of SQL RAM should = The # number of LAW instances\* that can communicate or interact with SQL × 4
  - Note when RAM starts to go over 100GB it is more of a bell curve and must be adjusted by each environment.

### **Installation Steps**

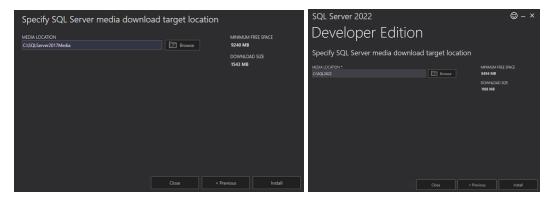


SQL Server 2017 and 2022 with an installation of Microsoft SQL Server Management Studio 17 & SQL Server Management Studio (SSMS) 20.2.1

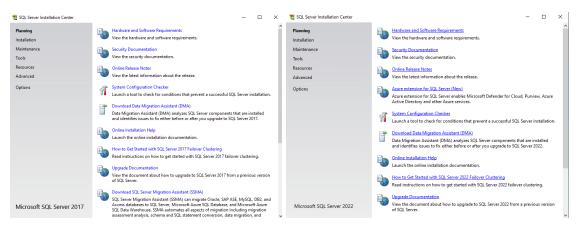
- 1. Download the installer file for SQL Server 2017 or SQL Server 2022 from the Microsoft website.
- 2. Run the installation file. The SQL Server 2017 or SQL Server 2022 installation window opens.



- 3. Select **Custom** then follow prompts to continue.
- 4. Specify SQL Server media download target location will open in a new window. Browse to the location that you would like to save your SQL files.



- 5. After setting the installation path, then select **Install**.
- 6. In SQL Server Installation Setup dialog box select the **Installation** tab.

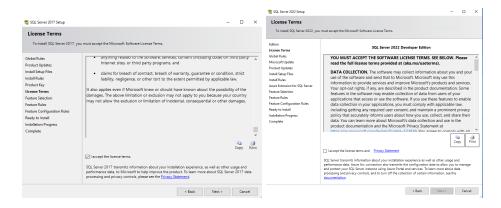


7. Select <u>Install SQL Server Management Tools</u> to download and install SQL Server Management Studio 17.6+ or SQL Server Management Studio (SSMS) 20.2.1

Microsoft SQL Server Management Studio or SSMS is a software application that is used for configuring, managing, and administering all components within Microsoft SQL Server. The tool includes both script editors and graphical tools which work with objects and features of the server.

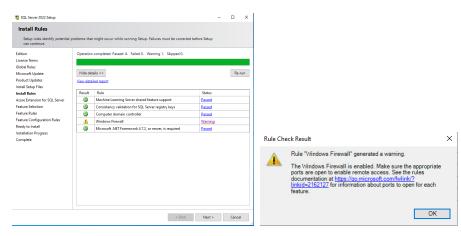
(https://en.wikipedia.org/wiki/SQL\_Server\_Management\_Studio)

- 8. Select New SQL Server Standalone installation or add features to an existing installation.
- 9. The SQL Server 2017 Setup window with License Terms will open next.

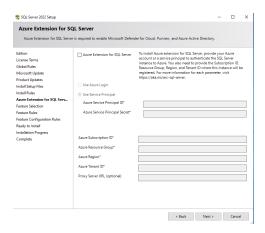


- 10. If you accept the license terms then select **Next**.
- 11. SQL Server 2022 you can select if you want to have the program check for updates. Make your selection and then select **Next**.
- 12. Installing SQL Server 2022 may give you a warning about the Windows Firewall ports that need to be enabled. We suggest opening ports 1433 and 1434 after installation.

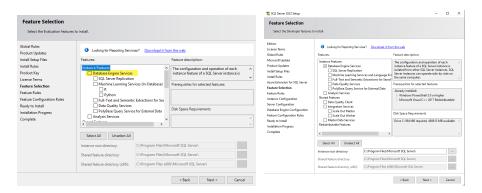
Steps to do so can be found here Opening Windows Firewall Ports for SQL



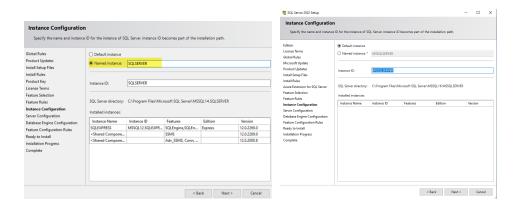
13. SQL Server 2022, for our purposes we do not need to connect to Azure. Please see your DB Admin for your company's needs.



- 13. Feature Selection window will open in a new window.
- SQL Server 2017 Setup both **Database Engine Services** and **Client Tools Connectivity** are required.
- SQL Server 2022 Setup only needs Database Engine Services.
- Please refer to your SQL database administrator for other features that you may need.



- 14. Select or deselect options according to your SQL database administrator's guidelines, then select **Next**.
- 15. The Instance Configuration window will open. Select Named instance, if you would like to change the instance name. The default is **SQLSERVER** for SQL 2017 and **MSSQLSERVER** for SQL 2022

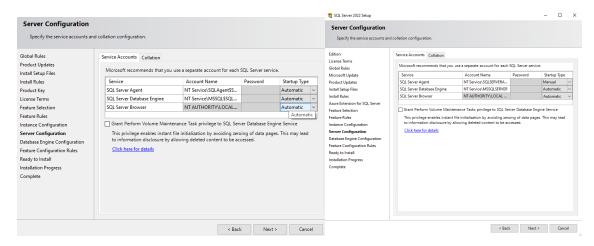


Make sure to document your installs so that server instances can easily be reproduced.

- Computer/server name where SQL is installed
- SQL system administrator password
- SQL Instance name

If you write your password down, it is recommended to keep it in a secure location, possibly off-site.

- 16. Select **Next** after making any necessary changes.
- 17. The SQL Server 2017 Setup: Server Configuration window will open. The services will vary depending on options chosen during Feature Selection.



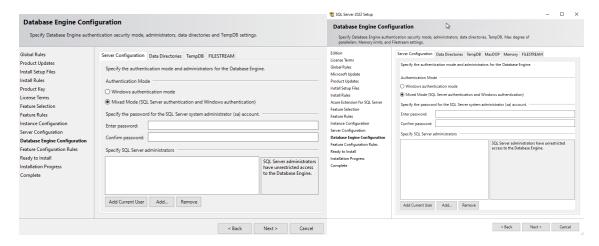
18. SQL Server Browser service, under Startup Type, needs to be set to **Automatic**.

Some Services are not needed by LAW and/or Explore

You can install the SQL Server Agent if you intend to run jobs on the server or do maintenance tasks such as automated backups. However, this function is best handled by a SQL DBA.

The other services (SQL Server Analysis and SQL Server Reporting Services) are unnecessary for LAW/CloudNine™ Explore and consume valuable resources on your server.

- It is best to locate your databases (.mdf and .ldf) and your tempdb on separate physical disks; preferably NOT a USB-connected disk. This makes it easier to troubleshoot disk access problems, should they occur.
- We do not recommend the use of NTFS data file encryption or compression on SQL server databases and log files.
  - 19. Set a System Admin Password.
  - 20. Click Next.
  - 21. In Database Engine Configuration dialog box, select Mixed Mode (SQL Server authentication and Windows authentication).



- 22. In the Enter password and Confirm password fields, type the SQL System administrator password you want to use. Recommended: write the password down in a secure location.
- 23. Under Specify SQL Server administrators, click **Add Current User**. Add other users as necessary, and then click **Next** and then **Install**
- 24. When the installation is complete the Complete window will open.
- 25. Select Close.

## Step 2: Add SQL use Account for LAW

- 1. Start SQL Server Management Studio.
- 2. Login to the new SQL Server instance.
- 3. Expand Security, right click Logins, and then click New User or New Login....
- 4. In Login name type LAW\_User.
- 5. Select SQL Server authentication.
- 6. In the Password and Confirm password fields type (Contact customer support for password assistance.).
- 7. Deselect Enforce password expiration, Enforce password policy, and User must change password at next login.
- 8. In the left panel of the dialog box, click Select Server Roles and then select **dbcreator**. The Public role should already be checked.
- 9. Click OK.
- 10. Close Microsoft SQL Management Studio.

You can use a custom login and password for SQL Server Authentication.

### **SQL Express**

Standard Microsoft SQL Server is recommended, but Express may be used in environments with System Requirements for more details small cases (Express has a limit of 10GB per database). See the on requirements for proper setup.

Other SQL Express limitations

- 1GB maximum memory used by the database engine.
- 10GB maximum database size
- 1MB maximum buffer cache
- CPU the lesser of one (1) socket or four (4) cores (number of SQL user connections NOT limited) If you believe that you are going to exceed any of these limitations, then you should build your SQL server to work with a full SQL installation.

Some more limitations are listed here: Main Limitations of SQL Server Express Editions - SQLNetHub

Proper installation and configuration of SQL Server should be discussed with your SQL database administrator.

The following instructions provide sample values to setup a configuration of SQL Server (Express) with Tools. Use this as a starting point when discussing a production oriented SQL Server configuration with your SQL database administrator.

#### **Installation Tasks**

- Instance name: can use default -- for example, SQLEXPRESS
- Features: Database Engine Services and Management Tools Basic
- Account Name: NT AUTHORITY\ NETWORK SERVICE
- Password = leave blank (default)
- Database Engine Configuration dialog box: **Mixed Mode** (SQL Server authentication and Windows authentication)
- SQL Administrator password: select a password of your choice.
- User accounts: Add Current User. Or add at least one Windows login or domain user account.

#### SQL Considerations for LAW

The Answer Center provides the minimum and recommended versions of SQL for use with your specific version of CloudNine™ LAW. It is recommended to consult the installing SQL.

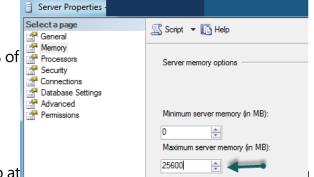
Suggestions for configuring your instance of SQL for use with LAW

Opening Windows Firewall Ports for SQL

Opening Windows Firewall Ports for SQL

### Suggestions for configuring your instance of SQL for use with LAW

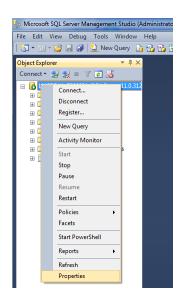
 SQL Server max memory allocation is uncapped by default. This should be capped at approximately 80% of the physical memory allocated to the machine. For example, a server with 32 GB of physical RAM



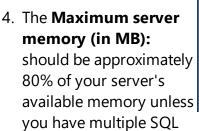
 should be capped in SQL Server Management Studio at 25600 MB.

### **Configuring you SQL Server max memory allocation**

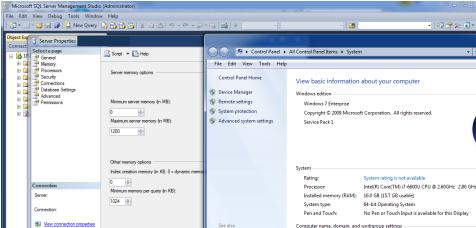
- 1. Open the SQL Instance through the SQL Server Management Studio.
- 2. Then right click on the Instance name and select Properties.



3. Select the Memory tab.



instances on the same server.



- Leave the "auto create statistics" and "auto update statistics" options on for all user databases. Only in very rare cases should these be turned off, and if they are turned off, then you must manually update the statistics yourself. Please see Microsoft's website for more information.
- Do not use the "auto shrink" database option, as it can waste SQL Server resources unnecessarily and contribute to index fragmentation. Instead, if you need to shrink a database, do so manually. For more information please see Microsoft's website on Considerations for the "autogrow" and "autoshrink" settings.
- Do not rely on AUTOGROWTH to automatically manage the size of your databases. Instead, proactively monitor and alter database size as circumstances dictate. Only use AUTOGROWTH to deal with unexpected growth For more information please see Microsoft's website on Considerations for the "autogrow" and "autoshrink" settings.

### **Suggestions for SQL maintenance**

- Set up daily full backups of your databases. You can use a job to schedule your backups as long as you have SQL Agent service running.
- Perform full backups during periods of low user activity to minimize the impact of backups on
- Periodically perform "test backup restores" to ensure that your backups are good and can be restored.
- Store backups off site and in a secure location.

### **Enable Named Pipes Protocol**

- 1. Open SQL Server Configuration Manager
- 2. Under SQL Server Network Configuration > Protocols for MSSQLSERVER
- 3. Find Named Pipes, right click and enable.
- 4. Restart the SQL service.

### **Opening Windows Firewall Ports for SQL**

### **Enable TCP/IP**

- 1. Open **SQL Server Configuration Manager**.
- 2. In the left pane, expand **SQL Server Network Configuration**.
- 3. Click Protocols for <SQL Server instance name>.
- 4. In the right pane, right-click **TCP/IP** and select **Enable**.
- 5. A warning dialog displays with the message **Any changes made will be saved; however, they will not take effect until the service is stopped and restarted**. Click **OK**.
- 6. In the left pane, click **SQL Server Services**.
- 7. In the right pane, right-click **SQL Server < SQL Server instance name >** and select **Restart**.

### Open port 1433

- 1. Open Windows Defender Firewall with Advanced Security.
- 2. Click Inbound Rules.
- 3. Under **Actions**, click **New Rule**.
- 4. Select **Port** and click **Next**.
- 5. Select **TCP**.
- 6. Select **Specific local ports**, enter **1433**, and click **Next**.
- 7. Select **Allow connection** and click **Next**.
- 8. Accept all defaults Domain and Private and click **Next**.
- 9. Enter a **Name** for the rule.
- 10. (Optional) Enter a **Description** for the rule.
- 11. Click Finish.

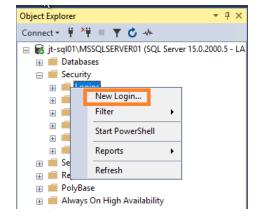
### Open port 1434

- 12. Open Windows Defender Firewall with Advanced Security.
- 13. Click **Inbound Rules**.
- 14. Under **Actions**, click **New Rule**.
- 15. Select **Port** and click **Next**.
- 16. Select **UDP**
- 17. Select **Specific local ports**, enter **1434**, and click **Next**.
- 18. Select **Allow connection** and click **Next**.
- 19. Accept all defaults Domain and Private and click **Next.**
- 20. Enter a **Name** for the rule.
- 21. (Optional) Enter a **Description** for the rule.
- 22. Click Finish.

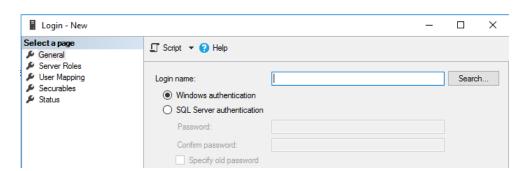
### **Manually Add System Account into SQL with Full Access**

Add the System/Network Account into SQL and with Full Read, Write and Modify access.

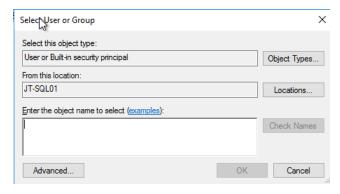
Open SQL Management Studio, expand the Security folder and Right Click on Logins > "New Login"



On the new login screen choose 'Search'

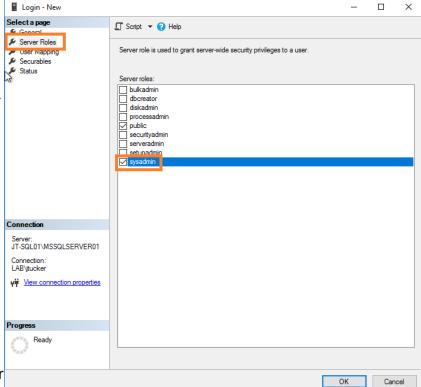


On the search screen ensure you are searching for the Entire Directory, type in the username, check Names, then choose ok.



After you click OK, Click Server Roles and check 'sysadmin' then ok

Use this method when using SQL Server for other applications in addition to CloudNine™ LAW. This option helps to prevent users of SQL Server from accessing and modifying any other existing databases yet provides additional security for your databases. To create a custom SQL user account: · Setup a SQL Server user with create/modify permissions. · The username and password will be referenced when accessing SQL (Database management, NIST storage, File Type Database Management, and for case list storage). User: (Custom SQL



login following SQL Guidelines) Pwd: (Custom password following SQL Guidelines) When using this option, the security mode for SQL Server must be set to SQL Server and Windows for mixed-mode authentication.

### Configuring LAW and SQL

SQL Server User Account Options

Create a SQL Server Authentication Custom Login

Adding SQL Server Authentication Custom Login to Existing Databases

## SQL Server User Account Options

There are three methods of specifying user accounts for use with SQL Server. It is strongly recommended that the same login is used for configuring the LAW Environment, NIST, and File Type Management databases.

### Create a Global Default User for CloudNine™ LAW

Use this method when using SQL Server for other applications in addition to CloudNine™ LAW. This option helps to prevent users of SQL Server from accessing and modifying any other existing databases.

### To create a generic global user account using this method:

- Setup a SQL Server user with create/modify permissions.
- The user name and password should be:

**User:** LAW\_User

**Pwd:** (Contact customer support for assistance.)

When using the default user, the security mode for SQL Server must be set to SQL Server and Windows or mixed-mode authentication.

### **Create SQL Server** Authentication custom login Integrated Security for CloudNine™ LAW

Use this method when using SQL Server for other applications in addition to CloudNine™ LAW. This option helps to prevent users of SQL Server from accessing and modifying any other existing databases yet provides additional security for your databases.

### To create a custom SQL user account:

- Setup a SQL Server user with create/modify permissions.
- The user name and password will be referenced whenever accessing SQL (Database management, NIST storage, File Type Database Management, and for caselist storage).

**User: (Custom SQL login** following SQL Guidelines)

Pwd: (Custom password following SQL Guidelines)

## Create Individual Users with

This method allows a user to create SQL Server cases without adding a special user to SQL Server as long as the current user has database create permissions on the specified SQL Server. Windows integrated security may be used when accessing/creating SQL Server cases.

If using this method, each user must be set-up on the SQL Server to allow access to the case.

#### To enable this feature:

 Select the Use Windows NT integrated security option when specifying the database backend for newly created cases.

Create a Global Default User for CloudNine™ LAW	Create SQL Server Authentication custom login for CloudNine™ LAW	Create Individual Users with Integrated Security
	When using this option, the security mode for SQL Server must be set to <b>SQL Server and Windows</b> for <b>mixed-mode</b> authentication.	

# Create a SQL Server Authentication Custom Login

How to create a SQL Server Authenticated custom SQL login for CloudNine LAW using a custom name and/ or password.

The option for the custom SQL Server Authenticated login is only available for use with LAW 7.1 and higher. It is not supported on workstations that are using earlier versions of LAW.

- Start SQL Server Management Studio. This is located in Start > All Programs > Microsoft SQL Server > SQL Server Management Studio.
- Windows 10: SMicrosoft SQL Server > **SQL Server Management Studio**.
- 2. Login to the SQL Server instance.
- 3. Expand **Security**, right click **Logins**, and then select **New User**.
- 4. In **Login name** type (the desired login name).
- 5. Select **SQL Server authentication**.
- 6. In the **Password** and **Confirm password** fields type the desired password. (Please make a note of this password in a secure place as LAW customer support does not have a means to reset this password if forgotten or misplaced).
- Select/deselect password options based on your company policy: Enforce password policy, Enforce Password expiration, and User must change password at next login.

✓ Enforce password policy
✓ Enforce password expiration
✓ User must change password at next login

If opting to leave **Enforce password policy, Enforce Password expiration**, and **User must change password at next login** selected; when the password is changed then you will need to also update each LAW case and database through LAW that uses that password. See **Adding SQL Server Authentication custom login** for more information about updating the passwords.

- 8. In the left panel of the dialog box, click **Select Server Roles** and then select **dbcreator**. The Public role should already be selected by default.
- 9. Click OK.
- 10. Close Microsoft SQL Management Studio.

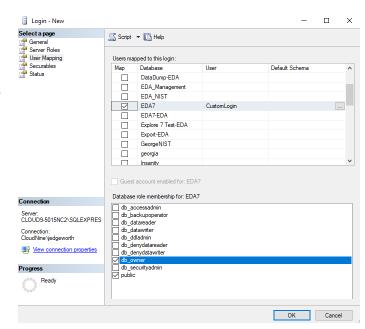
# Adding SQL Server Authentication Custom Login to Existing Databases

The Custom SQL Server Authenticated login is available for all newly created databases by simply using the login and password during case creation. For existing cases, the case will need to be mapped to the custom login in SQL.

- Start SQL Server Management Studio. This is located in Start > All Programs > Microsoft SQL Server > SQL Server Management Studio.
- Windows 10: Nicrosoft SQL Server > **SQL Server Management Studio**.
- 2. Login to the SQL Server instance as a SQL administrator (or on an account with elevated privileges).
- 3. Expand Security, expand Logins.
- 4. Right click on the newly created custom login, and then select **Properties.**
- 5. Select **User Mapping**.
- 6. Select the box for the database and then select **db\_owner** for each database that the new login is to be provisioned.

The database role, **db\_owner**, needs to be selected following the selection of each database. Selecting multiple databases and then selecting the role db\_owner will only add db\_owner to the last database selected.

If using the SQL SA custom login in the LAW Configuration Utility, then consider adding, under User Mapping, the following databases as well:



#### **Troubleshooting SQL Configuration**

After configuring SQL, you may need to confirm that the services are running or make needed changes.

- 1. Go to Windows Start, and Select **Microsoft SQL Server** (Version #) and expand the selection.
- 2. Select SQL Server (Version #) Configuration Manager.
- 3. The SQL Server Configuration Manager opens in a new window.
- 4. Select **SQL Server Services**.
- 5. Confirm that both SQL Server and SQL Server Browser are running and the Start Mode is set to Automatic.
- 6. If the Start Mode is NOT set to Automatic:
  - a. Right click on the name (SQL Server or SQL Server Browser).
  - b. Select **Start**.
- 7. If SQL Server or SQL Server Browser are not running:
  - a. Right click on the name (SQL Server or SQL Server Browser) and select Properties.
  - b. A new window opens for the Properties of the selected service.
  - c. Select the Service tab.
  - d. Select Start Mode.
  - e. Choose Automatic from the drop-down menu.
  - f. Click OK.
- 8. Expand **SQL Server Network Configuration**.
- 9. Select **Protocols** for (SQL or SQLExpress depending on your SQL).
- 10. TCP/IP should be Enabled. If not, right click on TCP/IP and select **Enable**.

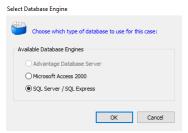


1. On the File menu click **New Case**.

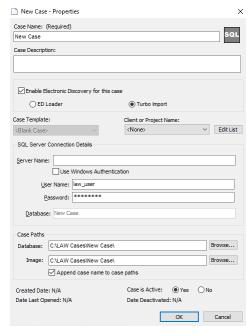
Or

On the main form toolbar click **New Case**.

2. The Select Database Engine dialog box appears.



- 3. Select **SQL Server/ SQL Express**
- 4. Click **OK**.
- 5. **New Case Properties** opens in a new window.



- 6. Type the SQL instance name and select an authentication mode for the new case.
- If you are installing a full version of SQL, then you would only have the name of your SQL Instance in the screenshot above. It would not include\SQLExpress.
- 7. Continue the case creation process Creating a New Case.

### Licensing

#### Licenses

To authenticate your **LAW** installation, you will need a software **License**. There are several **Licenses** available for purchase, each providing access to different bundles of features and functions found within **LAW**. Each of these **Licenses** comes with a set number of **Seats**, which are the total number of users who access them at any given time.

For an overview of the different features and functionality that come bundled with each **License**, read more about **License Types**.

#### **License Server**

All software **Licenses** must be hosted on a **License Server**, which can only be assigned, monitored and managed through the **License Manager** utility. The **License Manager** utility is also used to activate software **Licenses** (known as **Product Keys**) on the **License Server**, and track their available **Seats**. Any computer or virtual machine with the **Sentinel RMS License Manager** installed may be assigned as a **License Server** through the **License Manager** utility. The current version of the **License Manager** can be found inside of the LAW install. i.e. to install the **License Manager** you just need to install LAW. However, you do not need to set up LAW to work on the **License Server**.

For instructions on installing the **Sentinel RMS License Manager**, refer to the topic.

For instructions on activating **Licenses** within the **License Manager** utility after a fresh **LAW** installation, read the License Server topic.

For advanced help with the **License Manager** utility, please **contact customer support**. They will direct you to an appropriate set of instructions for your needs.

It is best practice to have the license server be a separate computer from the computer(s) where LAW is used. The SQL server makes for a great location for the license manager.

## **Licensing Styles**

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LAW can use two different styles of licenses, but can only use one style at a time:

#### Software Key Licensing

With software key licensing, licenses are bundled into software product keys, which are hosted on the license server. Software product keys are activated and managed on the license server using the License Manager. Licenses in activated software product keys can be monitored in both the License Manager and the LAW Profile Manager.

#### Undocked Keys Licensing

If you have a need to use LAW off-site or in an internet restricted area, you can undock a license and borrow it. For more information see this page: Undocked Keys

A software product key contains the specific LAW licenses and license seats assigned to the key. For more information about CloudNine<sup> $\dagger$ </sup> LAW, see <u>License Types</u>.

## **LAW Profile Manager**

Once your **Licenses** have been activated on the **License Server**, you can access their available **Seats** by selecting a **License Profile** from within the **LAW Profile Manager**,
which opens every time **LAW** is launched <u>unless</u> the **Prompt for profile when starting LAW** is <u>disabled</u>.
Custom **License Profiles** are configurable by an
administrator, and determine which **Seats** are to be
occupied by a given instance of **LAW**.



For more information on using or configuring custom **License Profiles** within the **LAW Profile Manager**, please see this page or **contact customer support**.

Please note that machine specifics of the computer/server hosting the license is used in generating the authorization for licensing. If you are planning to make changes to your license server that would affect the machine's unique identifiers, then please contact LAW **customer support** to assist with the license transfer prior to making the changes to avoid any disruption of service.



Currently virtual machines set to auto migration in cluster environments are not supported because auto migration will change the machine unique identifiers and will invalidate the license keys. For cluster environments it is recommend that you turn off auto migration on the virtual license server, to avoid any disruption of service.

#### License Server

To successfully launch **LAW**, you will need **LAW Licenses**. They can be checked out of the **Licenses Manager**. To set up a **License Manger** you will need

- To install the **Sentinel RMS License Manager.** For instructions on installing the **Sentinel RMS License Manager**, refer to the Sentinel Installer topic.
- Access to any License Server hosting an available LAW License. The License Manager utility
  is used to designate License Servers, activate your software Licenses (also known as Product
  Keys) and track the available Seats for those Licenses.



The **License Manager** can also exist on the **SQL** server. This way you don't have to allocate resources on a separate **License Server**.



If you are putting the **License Manager** on a virtual machine, you will want to make the **IP static** 

#### Sentinel Installer

The **Sentinel RMS License Manager** is installed through an executable package known as the **Sentinel Installer**. You can obtain this installer from the link below:

NOTE: Starting with LAW and Explore 7.10, the licensing manager was updated to work with the Thales Cloud licensing system.



If you are installing LAW or Explore 7.9 or lower, then you will need Sentinel RMS license Manager 8.6.0.

If you are installing LAW or Explore 7.10 or higher, then you will need Thales's Sentinel RMS 10.2.0

Both can be found in the Software Download Center



**Official CloudNine™ Software Download Center** 

A Knowledge Based Article on this subject can be found here: <u>Installing the Sentinel RMS</u> <u>License Manager (cloudnine.com)</u>

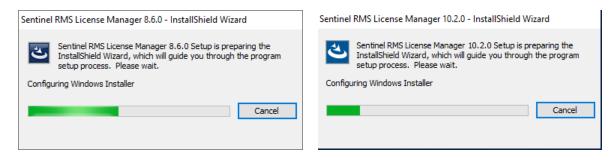
Once you've downloaded the **Sentinel Installer** or the **Thales Sentinel Installer**, you are ready to begin installing the **Sentinel RMS License Server**. The instructions below will guide you through the installation process:

**NOTICE**: These instructions cover the installation of the **Sentinel RMS License Manager** on the local machine, allowing this machine to be used as a **License Server**.



NOTE: Images for installing SafeNet Sentinel 8.6.0 are on the left and Thales Sentinel 10.2.0 are on the right

1. Start by running the **Sentinel Installer** "setup.exe" for either installer. Click **Yes** when prompted to allow the app to make changes to your device. The **InstallShield Wizard** will begin configuring the necessary prerequisites.

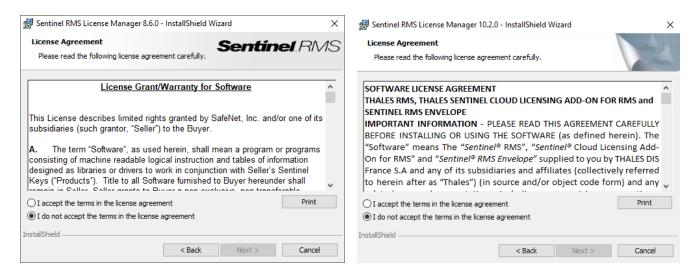


2. Once the necessary prerequisites have been configured, the **InstallShield Wizard** will bring you to the **Welcome** screen. Click **Next** to proceed.

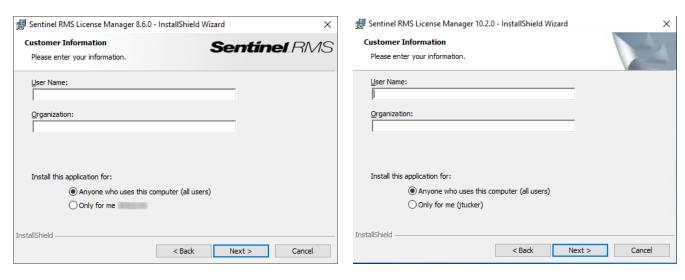


3. At the **License Agreement** screen, please read through the **License Grant/Warranty**. If you agree to these terms, then select the radio button stating **I accept the terms in the license agreement**, and click **Next** to proceed.

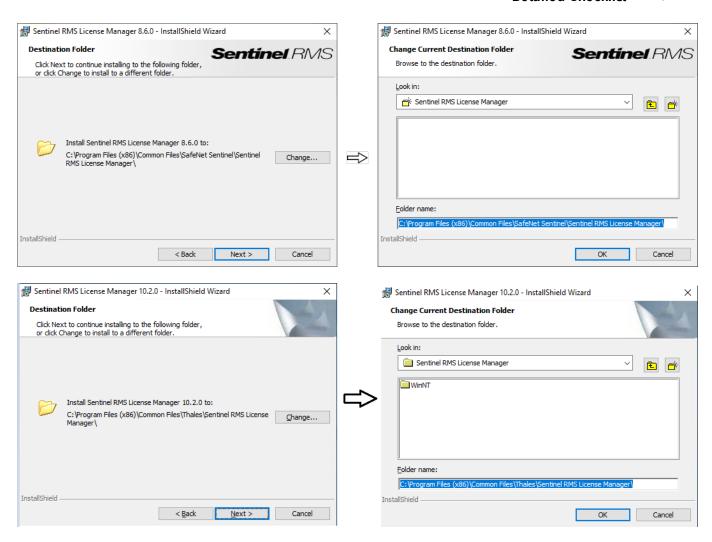
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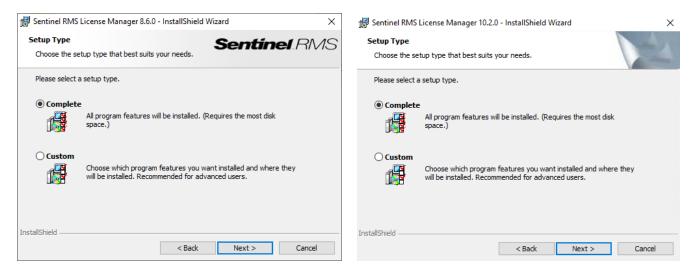
4. At the **Customer Information** screen, you can change the **User Name** and/or enter an **Organization** if desired, but leave the **Install this application for** option with the default **Anyone who uses this computer** radio button selected. Click **Next** to proceed.



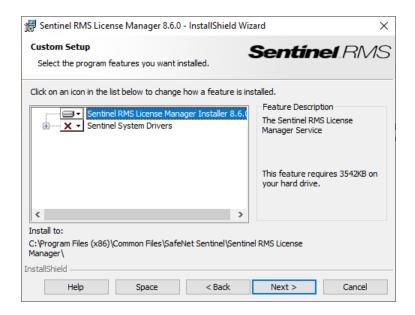
5. At the **Destination Folder** screen, review the install location shown before proceeding. You can change this location by clicking the **Change...** button on the right. This will open the **Change destination folder** window, allowing you to determine a new root folder (on this computer) to use as the install location. If you choose a new folder, be sure to click **OK** to apply those changes. When you're satisfied with the location shown, click **Next** to proceed.



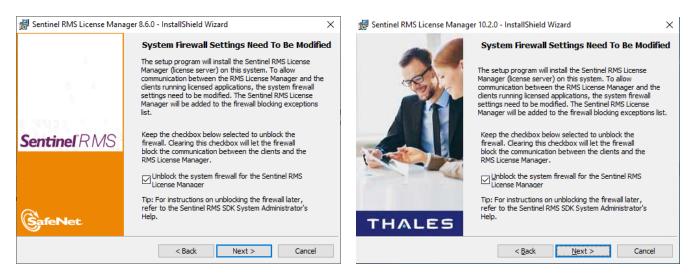
6. At the **Setup Type** screen, determine whether you would like a **Complete** or **Custom** install, and select the appropriate radio button. A **Complete** install is recommended. Once you've made your selection, click **Next** to proceed.



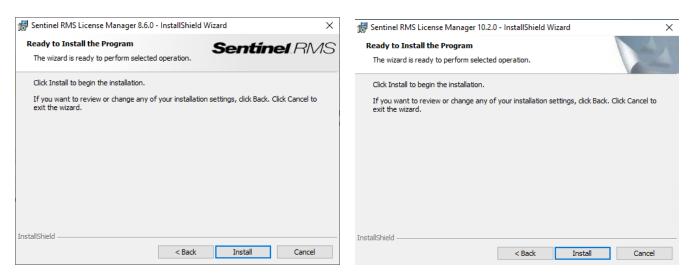
7. Skip this step if you selected the **Complete** installation on the **Setup Type** screen. Otherwise, at the **Custom Setup** screen, decide which features/programs you want to install by clicking the icons on their left and selecting **This feature will be installed on local hard drive** from the drop-down menu. Any feature/program with an X will <u>not</u> be installed. When you're satisfied with the features/programs you've selected, click **Next** to proceed. This screen does not exist for Thales Sentinel 10.2.0



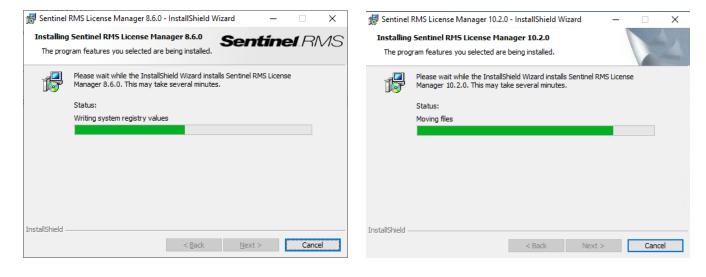
8. At the **Firewall Settings** screen, review the necessary information regarding system firewalls. It's recommended to leave the **Unblock the system firewall for the Sentinel RMS License Manager** option enabled. Click **Next** to proceed.



9. At the **Ready to Install** screen, you have one last chance to go **Back** to any of the previous screens and change the installation settings. Otherwise, click **Install** to begin the installation process.

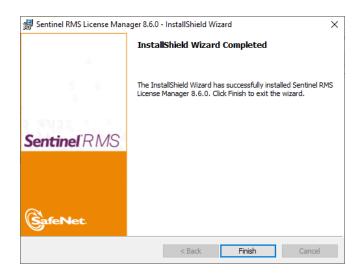


10. You will be brought to the **Installing Sentinel RMS License Manager** screen, where the installation progress is displayed. This process may take several minutes.



11. Once the installation finishes, you will arrive at the **Completed** screen. Click **Finish** to exit the **InstallShield Wizard**.

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12. You have now finished installing the **Sentinel RMS License Manager**! At this point, you should assign this machine as a **License Server** and activate your **LAW Licenses** on it, which can be done through the **License Manager** utility from any **LAW** workstation. Instructions covering this procedure can be found in the **License Server** topic.



#### LAW Installer for License Manager UI

Though **Thales Sentinel Software** isn't owned by CloudNine, the UI for **License Server** application is and it is built into the **LAW** application.

For this part, you just need to **install LAW** on the licenses server, but you do not need to set it up.

The installers for **LAW** can be found here: **Download Center** 



Once you've downloaded the **LAW Installer**, you are ready to begin installing **LAW**. The instructions below will guide you through the installation process:



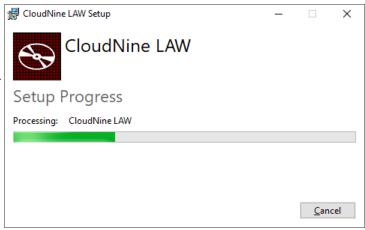
These instructions cover the installation of **LAW** and/or **Explore** on the local machine. You can install them both at once, or separately as desired.

1. Start by running the **LAW Installer** as an administrator (right-click > Run as administrator). Click **Yes** when prompted to allow the app to make changes to your device.

 You will first be greeted by the End User License Agreement. If you agree to these terms, then check the box stating I agree to the license terms and conditions, and click Install to proceed.



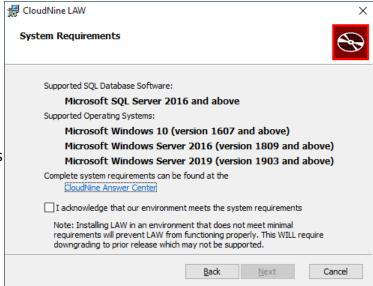
 The LAW Installer now displays the Setup Progress screen, which will remain in place for the duration of the installation. It will start automatically installing the necessary prerequisites.



 Once the necessary prerequisites are installed, the **Setup Wizard** will open in a separate window, and you will be brought to the **Welcome** screen. Click **Next** to proceed.



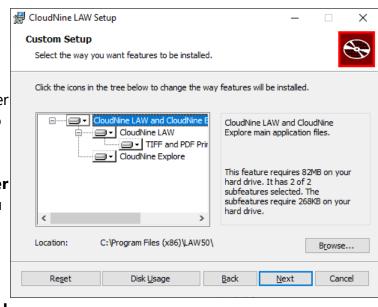
5. At the **System Requirements** screen, review the information. If the system you are installing on meets the listed requirements, select **I acknowledge that our environment meets the system requirements** and click **Next** to proceed. Please note if your system does not meet the system requirements you should click **Cancel** and discontinue the installation.



6. If you are following these steps to install LAW for the Licenses Manger then you will only need to install LAW. You do not need the TIFF and PDF Printer and Explore can be left out. You can also then jump to step 11.

**If you are building** an all in one you will need the **LAW TIFF and PDF Printer** for LAW and **CloudNine Explore** if you are installing for Explore.

At the **Custom Setup** screen, decide which features/programs you want to install by clicking the icons on their left and selecting **Will be installed on local** 



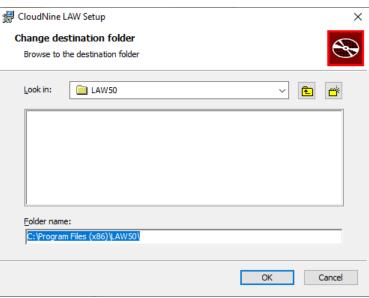
**hard drive** from the drop-down menu. Any feature/program with an X will <u>not</u> be installed.

By default, LAW and the TIFF Printer Drivers are enabled for installation. CloudNine™ Explore is not enabled for installation by default.

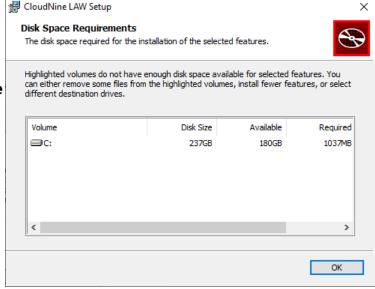
The features available for installation are as follows:

Feature	Description	Select for the use of
CloudNine	Installs LAW50.exe and related folders, system files, templates, and utilities.	Needed to Install LAW
™ LAW		Needed to Install a Licenses Server
CloudNine ™ Explore	Provides advanced prefiltering functionality. This feature requires additional licensing to run.	Needed to Install Explore
TIFF / PDF Printer Drivers	A driver for batch printing, and for batch- and single-TIFF conversion. Supports text extraction during TIFF conversion. Installation is recommended.	Needed if you want to use the native batch imager in LAW
	Also includes the LAW Image Driver 300 DPI Printer. This is used to convert documents to TIFF at a resolution of 300 dots per inch.	

7. You can change the install location for all programs/features selected within the **Custom Setup** screen by clicking the **Browse...** button to the far right of the **Location** shown near the bottom. This will open the **Change destination** folder window, allowing you to determine a new root folder (on this computer) to use as the install location. If you choose a new folder, be sure to click **OK** to apply those changes.



8. You can also determine the hard drive space is **Required/Available** for these programs/features from the Custom **Setup** screen by clicking the **Disk Usage** button at the bottom-left. This will open the **Disk Space Requirements** window, indicating these details for all available **Volumes**. When you're done reviewing the information, click **OK** to close this window.



Cancel

9. When you're satisfied with the features/programs and install location shown in the **Custom Setup** screen, click **Next** to proceed.

☆ CloudNine LAW

Configure CloudNine Explore Service

User Account

User name:

Password:

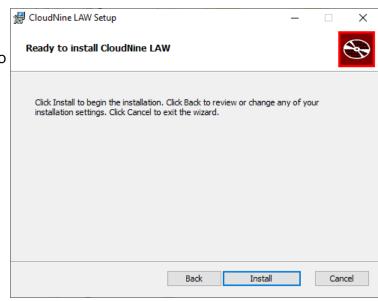
Confirm Password:

Specify the account that the CloudNine Explore service will run as:

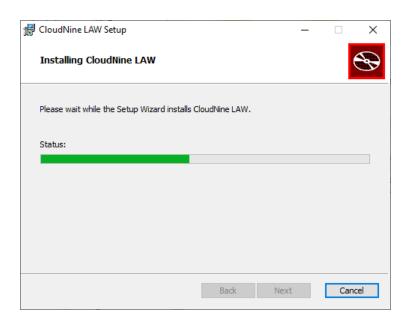
Note: This user account should have access to any network resources used by CloudNine Explore and must be in the form DOMAIN\Username.

Back

- 10. Skip this step if you're <u>not</u> installing **Explore** 
  - At the Configure CloudNine Explore
     Service screen, either enter a
    - Microsoft Windows account (User name and Password) that the Explore Service will the run on.
      - Enter or create an account in a group that will allow the access rights below.
      - Full read/write/modify access to share/location (source data and case folders), SQL, & any workstations.
      - o Add this account to SQL with db\_owner role.
      - User Names should be in this format (without angled brackets or quotations): <"network domain"\"network user name">
    - o Local System Account option from the Run As drop-down
      - The current Windows user must have access permissions to the SQL Server, or you will be unable to connect
- 11. At the **Ready to install CloudNine LAW** screen, you have one last chance to go **Back** to any of the previous screens and change the installation settings.
  Otherwise, click **Install** to begin the installation process.

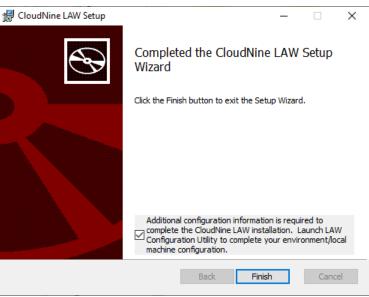


12. You will be brought to the **Installing CloudNine LAW** screen, where the installation progress is displayed. This process may take several minutes.



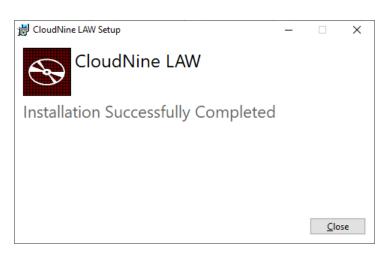
13. If you are following these steps to install LAW for the Licenses Manger then UNCHECK 'Additional configuration information is required to complete the CloudNine LAW installation.' and click finish If you are following these steps to build an all-in-one then once the installation finishes, you will arrive at the Completed screen. If a License Server has been assigned, and your License has already been activated, then you are ready to continue to the LAW

Configuration Utility, leave the option



on your screen checked. If your LAW license has not been activated on your license Server uncheck this option before continuing. Click **Finish** to exit the **Setup Wizard**.

14. The **LAW Installer** will now indicate that the installation was **Successfully Completed**. Click **Close** to exit the **LAW Installer**.



- 15. You have now finished installing **LAW**! There are some additional steps we recommend you take to ensure a fully functioning **LAW** experience:
  - 1) Setting up the **License Manager** and activate your **LAW Licenses** here:
  - 2) **If you are building an all-in-one** then you will need to configure your **Environment** and/or **Local Machine** through the **LAW Configuration Utility**. Instructions can be found in the LAW Configuration Utility topic.
  - 3) **If you are building a LAW workstation**, have your system administrator grant all users who will be running **LAW** full read/write/modify permissions to the root directory (install location) for **LAW**. This ensures that their program settings/options are saved properly.
  - 4) If you are building a LAW workstation have your system administrator adjust the Properties of Law50.exe within the root directory (install location) of LAW to enable the Run this program as an administrator option under the Compatibility tab. This will prevent several known Windows related usability issues from occurring.

If you would like to create desktop shortcuts for LAW and CloudNine™ Explore, you can create desktop shortcuts from the LAW and Early Data Analyzer .exe files. The **Law50.exe** file is located in the **...\Program Files (x86)\Law50** directory, and the **LAW.EdAnalyzer.exe** file is located in the **...\Program Files (x86)\Law50\EDAnalyzer64** directory.

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#### License Manager

The current version of the **License Manager** can be found inside of the LAW install. i.e. to install the **License Manager** install LAW. However, you do not need to set up LAW to work on the **License Server**.

The **Sentinel RMS License Manager** <u>must be installed</u> on any computer operating as a **License Server**, which may also be a **LAW** workstation if desired.



Once the **Sentinel RMS License Manager** has been installed on the intended **License Server**, you are ready to activate your **LAW Licenses** on it. The instructions below will guide you through this process:

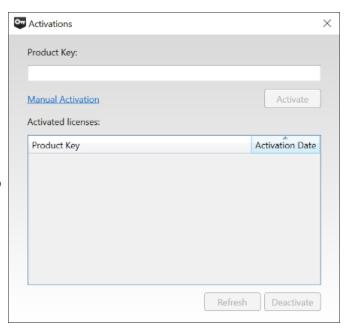


- 1. From any computer with **LAW** installed, launch the **License Manager** utility by clicking on **Start** (Windows Key) > **CloudNine LAW** > **License Manager** from the Windows Taskbar.
- 2. Since the **License Server** has yet to be assigned, the **Set License Server** window will automatically open. From here, enter one of the following into the box provided:



- a. The word "localhost" (without quotations) to assign <u>this</u> <u>computer</u> as the **License Server**. Click **OK** to continue.
- b. The name or network IP address of the computer assigned as the **License Server**. Click **OK** to continue.

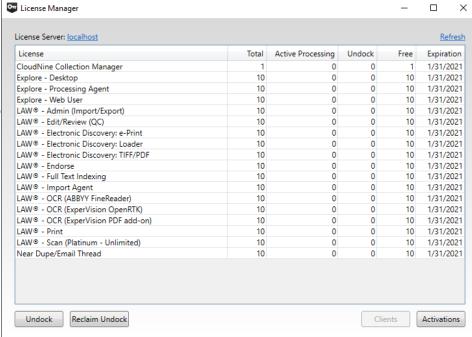
- 3. With a **License Server** now assigned, click on the **Activations** button at the bottom-right to open the **Activations** window. From here, enter your **Product Key** (EID) into the appropriate box at the top, and then click **Activate**.
  - Please <u>Contact Customer Support</u>. to help with a <u>Manual Activation</u> if you do not have an internet connection.



4. Wait for the process to complete. When finished, a **License Manager** dialog will appear, informing you of a successful activation. Click **OK** to close it.



- 5. The **Activations** window will automatically close, and your software **Licenses** will now appear listed in the main License **Manager** utility window. The following information is presented:
  - i. The **License Types** that are available, listed under the **License** column.

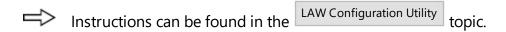


ii. The total number of **Seats** provided

for each **License Type**, listed under the **Total** column.

- iii. The number of available **Seats** remaining for each **License Type**, listed under the **Free** column.
- iv. The date that each License Type will expire, listed under the Expiration column. If multiple copies of the same **License Type** are activated, then this column will display the expiration date that comes first.

- 6. Repeat steps **3** and **4** for each additional **Product Key** (EID) that requires activation on this License Server. When you're finished activating your Licenses, you can safely close the **License Manager** utility.
- 7. It is recommended that you now configure your **Environment** and **Local Machine** for **LAW** through the **LAW Configuration Utility**.





#### The **Client** button will show you

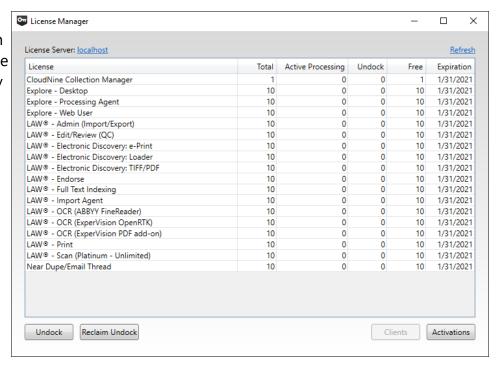
**Active Processing** jobs all licenses that are currently in use by any workstation accessing software licenses from the license server at the point in time that the License Manager was opened or last refreshed.

**Undock** column references all licenses that are currently undocked by any workstation accessing the software licenses from the license server at the point in time that the License Manager was opened or last refreshed.

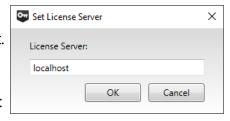
#### Viewing License Servers

You can change the current **License Server** being viewed/managed within the **License Manager** utility by following these instructions:

From any computer with LAW installed, launch the License Manager utility by clicking on Start (Windows Key) > CloudNine LAW > License Manager from the Windows Taskbar.



2. The current **License Server** is displayed as a link in the top-left. Click on this link to open the **Set License Server** window. Depending on which **License Server** you are trying to view/manage, enter one of the following into the box provided:



- a. The word "localhost" (without quotations) if <u>this machine</u> is the desired **License Server**. Click **OK** to confirm.
- b. The machine name or network IP address of the desired **License Server**. Click **OK** to confirm.
- 3. You are now ready to view or manage your available **Licenses** from this **License Server**.

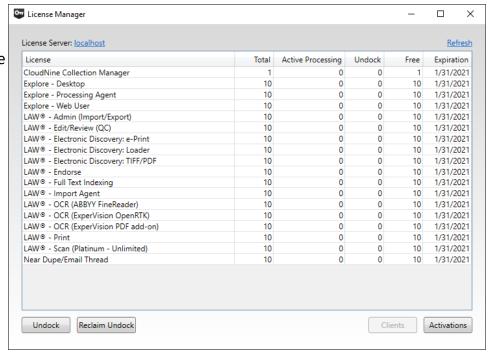
#### Adding or Renewing Licenses

Please contact your sales representative to discuss any additions or renewals to your software **Licenses**.

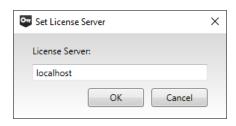
You can add new **Licenses** to a **Product Key** you've already been provided, or renew that key once it has expired, through the **Activations** window of the **License Manager** utility.

Once you've made the necessary purchases, follow the instructions below:

From any computer with LAW installed, launch the License Manager utility by clicking on Start (Windows Key) > CloudNine LAW > License Manager from the Windows Taskbar.



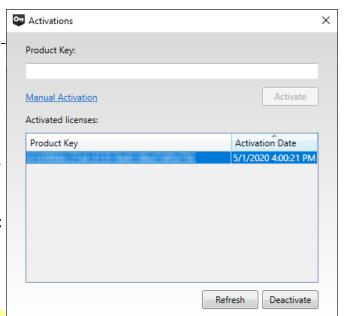
2. Ensure that the correct **License Server** is displayed (link in the top-left). This server should be hosting the **Product Key** (EID) you are trying to renew or update. You can change servers by clicking the link, which opens the **Set License Server** window. From there, enter one of the following into the box provided:



- a) The word "localhost" (without quotations) if <u>this machine</u> is the correct **License Server**. Click **OK** to confirm.
- b) The machine name or network IP address of the correct **License Server**. Click **OK** to confirm.
- Click on the **Activations** button at the bottomright to open the **Activations** window. From here, do one of the following:
  - a) Adding Licenses: Enter your Product
    Key (EID) into the Product Key box at the
    top, and then click Activate at the bottomright.
  - b) Renewing Licenses: Select your Product Key (EID) from within the Activated licenses list, and then click the Refresh button at the bottom-right.



In order for the "Refresh" button to work, all licenses must be checked in.



4. Wait for the process to complete. When finished, an appropriate dialog window will appear, informing you of a successful addition or renewal. Click **OK** to close it.



5. You can now safely close the **Activations** window and the **License Manager** utility.



The **License Manager** displays the LAW and/or CloudNine™ Explore license information from the activated software product key(s). If more than one software product key is activated on the license server, the **License Manager** displays the combined license information from each of the software product keys currently activated on the license server.

When multiple EIDs are activated on the same license server with overlapping features, the overlapping features will display the expiration date of the EID that expires first.



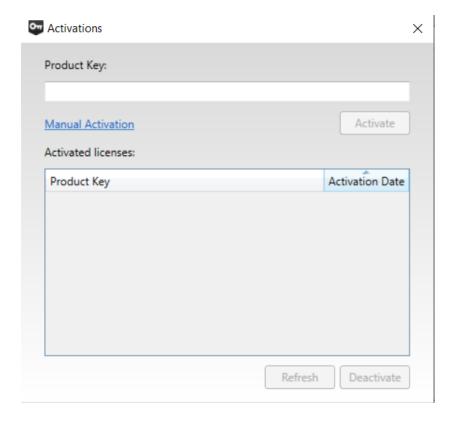
- For example, a perpetual EID contains 1 Tiff, 1 Admin, 1 ED Loader, and 1 OCR and is activated on the license server with an expiration date of NEVER. A burst license for 2 Tiff licenses, 1 Edit, and 1 OCR licenses that Expires on 6/18/2018 is activated on the same license server. The license manager will display the 3 Tff and 2 OCR licenses combined with an expiration date of 6/18/2018.
- Deactivating the burst license or the perpetual license from the license server to activate on a different server, will remove all overlapping licenses. For example, deactivating the burst license will remove all Tiff and OCR licenses in addition to the 1 Edit license, leaving the 1 Admin and 1 ED Loader on the license server. The current process is to deactivate the remaining license (perpetual EID) and activate it again

#### Manually Activating a Software Key

If you need to activate a software product key, but do not currently have an Internet connection on the license server where the License Manager is installed, you can manually activate the software product key.

Contact the LAW Customer Support to manually activate a software product key. Provide the software product key and the machine ID for the license server. Customer Support will generate and send you a license file for activating the software product key on the license server. You can locate the machine ID in the Manual Activation dialog box.

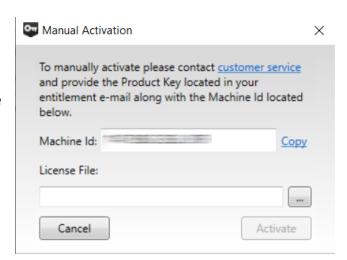
- Open the License Manager on the license server by selecting Windows Start > All Programs > CloudNine LAW > License Manager.
- 2. Click **Activations**. The **Activations** dialog box displays.



3. Click the **Manual Activation** link. The **Manual Activation** dialog box displays.

The **Machine Id** box displays the machine ID for the license server.

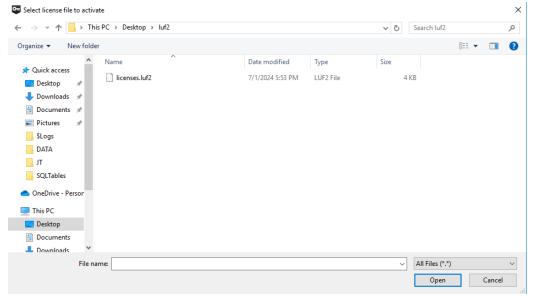
If you need to copy the machine ID, click the **Copy** link.



4. Have your software product key and your machine ID ready, and then contact LAW Customer Support at 713-462-6464 ext.12.

The Customer Support team will generate and provide you with a license file.

- 5. Save the license file to the license server where you will be activating the software product key.
- 6. In the **Manual Activation** dialog box, click the ellipsis button, ..., next to the **License File** box.
- 7. Clicking the ellipsis button opens the **Select license file to activate** dialog box.



- 8. Navigate to and click the license file.
- 9. Click **Open**. The license file and path are added to the **License File** field.
- 10. Click **Activate**. A "License(s) activated" message displays.
- 11. Click **OK**.

The **License Manager** displays the LAW and/or CloudNine<sup>™</sup> Explore license information from the activated software product key. If more than one software product key is activated on the license server, the **License Manager** displays the combined license information from each of the software product keys currently activated on the license server.

View the License Information for Another License Server



## **To View the License Information for Another License**

## <u>Server</u>

The License Server field in the License Manager dialog box indicates which license server license information is currently being displayed in the License Manager dialog box. The License Server field in the License Manager dialog box does not determine which license server is being used by LAW and CloudNine™ Explore.

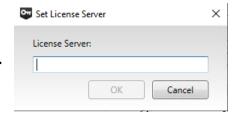
The Environment Licensing tab in the LAW Configuration Utility determines which license server is used for CloudNine LAW.

1. Open the **License Manager** on the license server.

To open the License Manager, click Start menu > All Programs > CloudNine LAW > License Manager.

2. Click the **License Server** field link.

Clicking the **License Server** field link opens the **Set License Server** dialog box.



- 3. In the **License Server** field, enter the machine name or IP address of the license server containing the software product key information you want to view.
- 4. Click OK.

If you entered a valid license server, clicking **OK** opens the *License server successfully set* message.

5. Click OK.

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The license server you entered is displayed in the **License Server** field, and the license information for the software product key(s) currently activated on the license server is displayed in the **License Manager** dialog box.

# To View the List of Activated Software Product Keys

There are two places you can view the list of activated software product keys on a license server:

- **License Manager.** The Activated licenses list in the Activations dialog box displays every software product key currently activated on the license server and the date and time each software product key was activated.
- **DataStore.xml file.** When software product keys are activated in the License Manager, all activated software product keys on the license server and the local dates and times the software product keys were activated are stored in the DataStore.xml file in the following directory on the license server:

#### C:\ProgramData\LexisNexis\Litigation License Manager

The DataStore.xml file is automatically updated with the latest software product key activation information from the License Manager.

Update or Refresh a Product Key



If changes have been made to your software product key, such adding additional licenses or renewing the software product key, you can update your software product key by clicking the Refresh button in the Activations dialog box. When the Refresh button is clicked, the License Manager contacts the CloudNine servers over the Internet to get the latest updates for your software product key(s). An active Internet connection is required to update software product keys using the Refresh button.



For the "Refresh" button to work, all licenses must be checked in.

1. Open the **License Manager** on the license server.

To open the License Manager, click Start menu > All Programs > CloudNine LAW > License Manager.

2. Click Activations.

Clicking **Activations** opens the **Activations** dialog box.

- 3. In the **Activated licenses** list, click the software product key you want to update.
- 4. Click **Refresh**.

When the software product key update is completed, the message *License successfully refreshed*. is displayed.

- 5. Click **OK** to close the message.
- 6. In the **Activations** dialog box, click the close button, which is to return to the **License Manager** dialog box.
- 7. In the **License Manager** dialog box, click the **Refresh** link above the **Expiration** column to display the latest license information.

# To Refresh the License List in the License Manager

The license information displayed in the License Manager dialog box is automatically refreshed each time you open the dialog box or when you leave and return to the dialog box, such as when you activate a software product key.

You can also refresh the license information currently displayed in the License Manager dialog box by clicking the Refresh link located above the Expiration column.

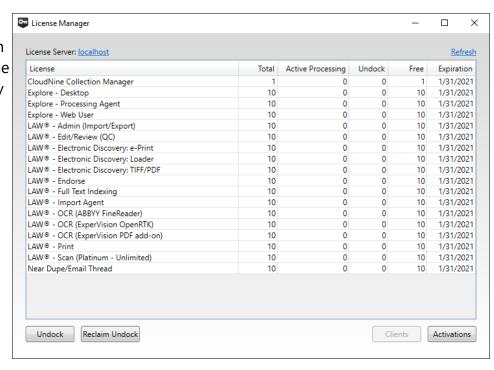


In rare cases you may need to deactivate all software licenses and reactivate to have an accurate license count/ expiration date.

#### Deactivating Licenses

You can deactivate **Licenses** from a **Product Key** through the **Activations** window of the **License Manager** utility:

From any computer with LAW installed, launch the License Manager utility by clicking on Start (Windows Key) > CloudNine LAW > License Manager from the Windows Taskbar.



Ensure that the correct **License Server** is displayed (link in the top-left). This server should be hosting the **Product Key** (EID) you are trying to deactivate. You can change servers by clicking the link, which opens the **Set License Server** window. From there, enter one of the following into the box provided:

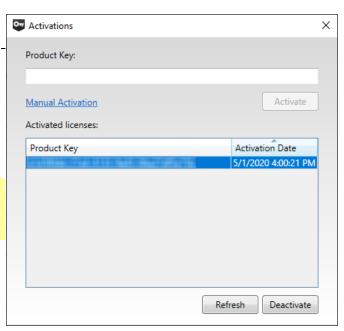


- a) The word "localhost" (without quotations) if <u>this machine</u> is the correct **License Server**. Click **OK** to confirm.
- b) The machine name or network IP address of the correct **License Server**. Click **OK** to confirm.

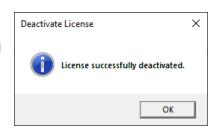
Click on the **Activations** button at the bottom-right to open the **Activations** window. From here, select the unwanted **Product Key** (EID) from within the **Activated licenses** list, and then click the **Deactivate** button at the bottom-right.



For the "Deactivate" button to work, all licenses must be checked in.



3. Wait for the process to complete. The **Deactivate License** dialog window will appear, informing you of a successful deactivation. Click **OK** to close it.



4. You can now safely close the **Activations** window and the **License Manager** utility.

#### **Undock License**

The purpose of an undocked license key is to temporarily hold licenses checked out from the license server, so that licenses can be used on a second computer. A typical use of undock keys is to furnish a laptop with the licenses necessary to conduct on-site discovery operations.

Undocked software licenses are generated from the License Manager, where you specify what licenses to checkout and for how long. When the licenses are ready to be returned to the original license server,

#### CloudNine™ LAW

the licenses are reclaimed from the License Manager using the Reclaim Undocked menu selection. For License Manager. more information about the License Manager, see



If an undocked license expires, it will still need to be reclaimed before continued use on the workstation resumes.



In version 6.18+ there is an option for undocking LAW and Near Dupe/Analytics using software licensing. CloudNine™ Explore, CloudNine™ Explore Web, Turbo Import, Turbo Imager temporary licenses, and ELA licensing are currently not available for undock software licenses.

For more information see LAW Licensing

## How to create a software undock license.

Undocked software licenses can be created in two ways.

• Undocked keys can be purchased from CloudNine allowing you to activate licenses that can then be taken where ever you need to go. This solution does not need to start on an existing environment.



Currently purchasing an undocked key from CloudNine is the only solution for Near Dupe/Analytics using software licensing. CloudNine™ Explore, CloudNine™ Explore Web, Turbo Import, temporary licenses, and ELA licensing are currently not available for undocked software licenses.

• Undocked Softkey software licenses are generated from the License Manager, where you specify which licenses to checkout and for how long. When the licenses are ready to be returned to the original license server, the licenses are reclaimed from the License Manager using the **Reclaim Undock** menu selection.

## **Undock Soft Key**

To undock a soft key to a computer/server/workstation that will house the undocked license that computer/server/workstation must first be on the same network that that currently exist on. This new or second server must be able to see the first server that is holding the license manager you want to borrow from

### Important Considerations before creating software undocked licenses notes.

1. The computer that goes to the License Manager to create the undock license must be the one to be used off-site.

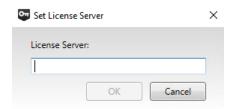


- 2. Once the undock license is generated it cannot be moved to another computer; the only option is to reclaim it (returning it to the license server).
- 3. It is recommended to Reclaim Undocked licenses prior to checking out new undocked licenses and after completing off-site work.
- 1. Open the **License Manager** on the computer that will be used off-site.

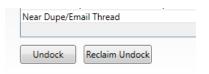
### Windows 10

To open the License Manager, click Windows Icon CloudNine LAW > License Manager.

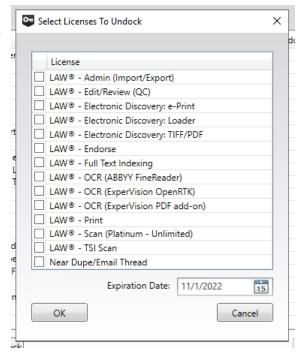
2. Enter in the name of the server with your current **License Manager.** The License Manager on your second server will then open and display the licenses that are currently on that first license server you want to borrow from.



2. Select the **Undock** button.



3. The Select Licenses to Undock window will then open in a new window.



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- 4. Select all the desired licenses that the workstation will need for the off-site project.
  - Only one of each license can be selected. The licenses are checked out to that workstation only. The workstation with the undocked licenses does not function as a license server and does not share the licenses that are undocked.
- 5. **Expiration Date**: enter the date that you would like the undocked licenses to automatically expire or select the calendar icon and choose the date. The date must be past the current date.

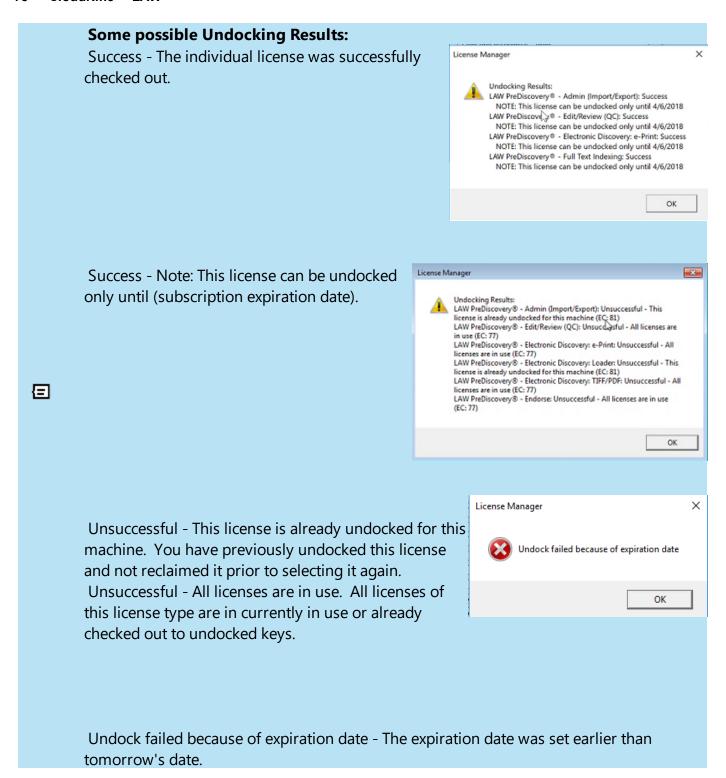
### Some points to remember when selecting the expiration date:

- •The license must be checked out for longer than one day. For example, if today is April 13th then the license(s) must be checked out until the 14th of April at the earliest.
- •The licenses are not valid after the subscription expiration.
- •If you have multiple subscription expiration dates then each undocked license will have an expiration based on that license's expiration date.
- 6. Select OK to check out the selected licenses.
- 7. The Licenses undocked successfully window will open if all of the selected licenses were successfully checked out.



8. LAW will now open with the set of licenses that were checked out

L	icense Inform	ation	
	Active Key Server Name:	(Lass) Parts	
	Serial No.	<software (undocked,="" 2="" 2025)="" 5="" :="" expires:="" license=""></software>	
	Licenses		- -
	Admin (Im	port/Export)	
	CD Publish	ing w/Full Text	
	Electronic [	Discovery: Loader	
	Electronic [	Discovery: e-Print	
	Electronic [	Discovery: TIFF/PDF	
	Endorse		
	Full Text Inc	dexing	
	✓ OCR (ABBY	Y FineReader)	
	OCR (Exper	Vision OpenRTK)	
	OCR (Ex	perVision PDF add-on)	
	Print		
	QC / Edit /	Review	
	Scan (Gold	- Token Based)	
	Scan (Platin	num - Unlimited)	
			ОК



- 8. To return the undocked licenses to the license server see below.
- 9. To view licenses currently undocked go to open the original license manager and click on **Clients**.

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If an undocked license expires, it will still need to be reclaimed before continued use on the workstation resumes.

Undocked licenses can only be reclaimed from the workstation that created the undocked license.

## Using a software undock license.

After creating an undocked license, from the computer that will be using the undocked license(s), launch CloudNine™ LAW.

LAW will open to the main screen of LAW, the features checked out to the undocked license will be available for use.

If you are needing additional features, you will need to either reclaim your undocked licenses and undocked all features again, or undocked additional features.

All undocked licenses will Expire at midnight on the day that they were set to expire. The undocked licenses must be reclaimed before using licenses from the license server or temporary licenses.

When going to Help> About CloudNine™ LAW> Licenses> the undocked licenses will be displayed and the earliest expiration date if you have multiple undocked licenses with multiple expiration dates.

## How to reclaim a software undock license

A Knowledge Based Article on this subject can be found here: <u>How do I undock and reclaim software license keys? (cloudnine.com)</u>

To return the undocked licenses to the license server, you must log into the License Manager from the computer that undocked the licenses.

1. Open the License Manager on the license server.

#### Windows 10

To open the License Manager, click Windows Icon

Nanager. > CloudNine LAW > License

Manager.

- 2.Select **Reclaim Undocked**.
- 3. The licenses that were undocked using this workstation will be available under Free.
  - If an undocked license expires, it will still need to be reclaimed before continued use on the workstation resumes.
  - If you don't want to use the Undocking workflow, you can install the Licenses

    Manager anywhere you would like. Then use the LAW Configuration Utility to point the workstation to that Licenses Server

#### LAW Profile Manager

The LAW Profile Manager is the utility used for managing licenses. The licensing type you are using for LAW determines which functionality is available in the LAW Profile Manager.

All licenses are maintained in a software product key on the license server. A license server is where a software product key is activated.

You can use the LAW Profile Manager to perform the following tasks:

- Connect to a license server for CloudNine™ LAW
- Add, edit, and delete custom license profiles for LAW
- Monitor usage and availability of licenses



• Click **Start**, point to **All Programs**, point to **CloudNine LAW**, and then click **Profile Manager**.

# To Create or Change a Password

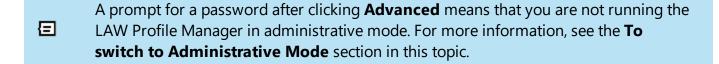
To create a password for the first time on a computer:

- 1. Click Start, point to All Programs, point to CloudNine LAW, and then click Profile Manager.
- 2. Click **Advanced**.
  - A prompt to enter an administrative password appears. The password is stored at a workstation level, meaning each computer on which LAW is launched, whether running locally or in a client/server configuration, will prompt for a password when executed initially.
- 3. In the **Enter Admin Password** dialog box, type a case-sensitive password that is at least 6 characters long and then type it again to confirm.
- 4. Click OK.

### To change the password on a computer:

1. Click **Start**, point to **All Programs**, point to **CloudNine LAW**, and then click **Profile Manager**.

- 2. Click Advanced.
  - If you are not in administrative mode, the **Enter Password** dialog box appears.
- 3. Type the current administrative password and then click **OK**.
- 4. On the **Tools** menu, click **Change Administrative Password**.
  - Clicking Change Administrative Password opens the Change Admin Password dialog box.
- 5. In the **Enter new password** field, type a case-sensitive password that is at least 6 characters long, and then type it again in the **Confirm Password** field.
- 6. Click OK.



# To Use a Temporary License in CloudNine LAW

When a temporary license is in use, the **LAW Profile Manager** dialog box is not displayed when starting the LAW application.

• To active a Temporary licenses, use the Licenses Manager just like you would with any other licenses.

# To Connect to a License Server

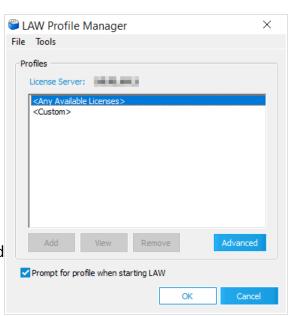
- 1. Setting the license server in Configure Environment in the LAW Configuration Utility needs to be done prior to launching LAW.
  - If a valid license server computer name has been entered, the LAW Profile Manager dialog box opens.
  - If a license key is not found on the specified server, a message will appear stating that the key was not found and will ask to try another server. If this happens click **Yes**, and then follow the prompts to change the license server.



## To Select Licenses by Using a License Profile

Each time you start LAW, instead of selecting licenses singly, you can load a license profile.

- 1. Start the LAW Profile Manager.
- 2. Check out licenses by means of a license profile by selecting one of the following:
  - <Any Available Licenses> Checks out one of each available license. These licenses will not be available to other workstations using the same license key.
  - <Custom> You can check out specific licenses based on their tasks. For example, if you need to scan documents, you can select just the Scan license. Click OK to open the list of licenses.
  - User defined. Any user-defined license profile is listed below the two system profiles. To create a userdefined license profile, see the next section in topic call To Create Custom Profiles.



- 3. Select the licenses needed for the session and then click **OK**.
  - Only the selected licenses are checked out and available on that workstation. If one or more license modules cannot be checked out, a message box appears stating which licenses could not be acquired.

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## **To Create Custom Profiles**

- 1. Start the LAW Profile Manager.
- Click Add.
  - If the Add button is grayed out, switch to administrative mode to enable it. On the File menu, click Switch to Administrative Mode and then enter and confirm the password, click OK twice and then click Add.
- 3. In the **Add New Profile** dialog box type the name of the new profile and a description.

- 4. Select the licenses to include in the profile.
- 5. To set this profile as the default profile for the current user, select **Default Profile**.
- 6. Click OK.
  - The new license profile is displayed in the **LAW Profile Manager** dialog box. If selected as the default profile, it is automatically highlighted.
- 7. To automatically check out licenses and bypass the LAW Profile Manager, select the profile as the default profile. Then deselect **Prompt for profile when starting LAW** in the **LAW Profile Manager** dialog box.



To re-enable the setting that automatically opens the LAW Profile Manager, set Prompt=1 in the profman.ini file in *<application path>\ProfMan*. The section in the INI file containing this setting is in the following format: [*<user name>*].

# To Hide the System Profiles

Hiding a profile can be useful to safeguard against inadvertently selecting the wrong profile. For example, the LAW Profile Manager populates the Profiles area with two system profiles **<Any Available Licenses>**, and **<Custom>**. To prevent users from checking out more licenses than needed, these profiles may be hidden.

- 1. Start the LAW Profile Manager.
- 2. Click **File**, and then click **Switch to Administrative Mode**. Enter the administrative password, click **OK**, and then **OK** again.
- 3. Right-click the system profile to hide and then click **Hide System Profile**.

# To Restore the System Profiles

• Right-click anywhere in the **Profile** area and then click **Restore Hidden Profiles**.



## **About Administrate Mode**

You must switch the LAW Profile Manager to administrative mode before you can perform several administrative functions, such as working with licenses and working with profiles.

One way to switch to administrative mode is to start the LAW Profile Manager, and then, on the **File** menu, click **Switch to Administrative Mode** and then type the administrator password. Alternatively, there are many features that require you to provide the administrator password before continuing. Switching to administrative mode enables you to:

- Add, edit, and delete profiles.
- Refresh licenses to add any newly purchased licenses to the software product key.
- Enter the advanced view of the LAW Profile Manager.
- Hide/restore system profiles.



## **To Switch to Administrative Mode**

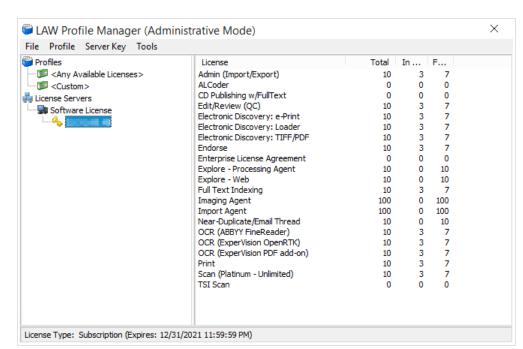
- 1. Click **Start**, point to **All Programs**, point to **CloudNine LAW**, and then click **Profile Manager**.
  - The **LAW Profile Manager** dialog box appears.
- Click File and then click Switch to Administrative Mode. The Enter Password dialog box appears.
- 3. Type the administrative password and then click **OK**.
  - Clicking **OK** opens the Successfully switched to administrative mode message.
- 4. Click OK.



## To Configure Administrative Details

 Click File and then click Switch to Administrative Mode. The Enter Password dialog box appears.

- 3. Type the administrative password and then click **OK**.
  - Clicking **OK** opens the Successfully switched to administrative mode. message.
- 4. Click OK.
- 5. Click **Advanced**.
  - The LAW Profile
     Manager searches for the license servers.
  - The LAW Profile
     Manager
     (Administrative
     Mode) dialog box
     appears.



6. Use the following menu commands to configure the administrative mode of the LAW Profile Manager:

Use the	When you want to
File menu	<ul><li>Refresh the view of profiles.</li><li>Refresh the view of available license servers.</li></ul>
Profile menu	<ul><li>Add, edit, and delete profiles.</li><li>Set a profile as the default.</li></ul>
Server Key menu	<ul> <li>Change the license server.</li> <li>Refresh the view of license counts when new licenses have been purchased and added to the existing software product key.</li> </ul>

# Use the When you want to

The **Server Key** menu is enabled when you click **Software License**, a license server, or a license key under **License Servers** in the LAW Profile Manager tree view.

### **Tools** menu

- Change the administrative password.
- Disable or enable automatic refresh of the view of network server keys. This
  option is controlled by the Enable LAW license server enumeration
  setting, which is enabled by default.

### **Profiles** tree

- Add, edit, and delete custom profiles.
- View details about all profiles stored on the current computer, as well as the
  two default license selection methods (<Any Available License> and
  <Custom>). When a profile is selected, the right pane will display the name,
  description, and licenses stored in that particular profile.

### License Servers tree

View details about the current license server.

**Software License** is displayed under **License Servers** and the license server's computer name is displayed under **Software License**.

The LAW Profile Manager columns provide the following information:

- License. Lists each type of LAW license.
   Licenses that do not exist on the product key are listed, but 0 is displayed in the Total, In Use, and Free columns for the license.
- **Total.** Displays the total number license seats for each type of license.
- In Use. Displays the number of license seats in use for each type of license.
- Free. Displays the number of available license seats for each type of license.

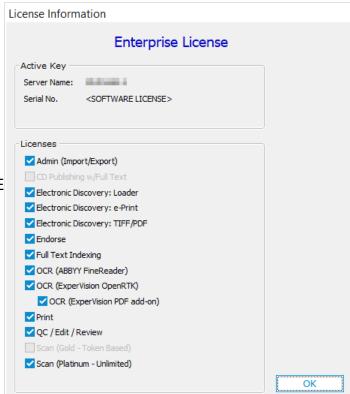
## **To Acquire or Release Licenses From CloudNine LAW**

To avoid closing LAW and launching the LAW Profile Manager, to change the selection of license modules, licenses can be checked out and released from within the LAW application.

- In LAW on the Help menu, click About CloudNine LAW, and then click Licenses.
  - The License Information dialog box appears.
  - In the Active Key area, the Server Name field displays the license server name. The Serial No. field displays SOFTWARE LICENSE for software key licensing and the product key expiration date(s) (if applicable).
  - The Licenses area displays the LAW licenses.
     When a license's check box is selected, it means the license is currently checked out. If a license name is grayed out, the product key does not contain this license.
- 2. Perform one of the following:
  - To acquire a license, select the license's check box. A message box will appear indicating whether license acquisition was successful.
  - To release a license, clear the license's check box. No message box will appear.



- At least one license must remain checked out while LAW is running.
- If the OCR license is released, OCR Add-on (PDF) will be automatically released because it also depends on the OCR license.



The following sections provide the steps required to install CloudNine™ LAW, TIFF printer drivers, and Sentinel RMS License Manager. If you are installing CloudNine™ LAW, these instructions assume that you are installing on a computer that meets or exceeds the CloudNine™ LAW.

The LAW installer can be downloaded from CloudNine. CloudNine's software download site is <u>HERE</u>

By default, LAW and Explore are installed in the ...\Program Files(x86)\LAW50\ directory.

#### LAW Installer

The installers for **LAW** and **Explore** are packaged into a single executable file known as the **LAW Installer**. You can obtain this installer from the link below:



**Official CloudNine™ Software Download Center** 

A Knowledge Based Article on this subject can be found here: <a href="Installing LAW (cloudnine.com">Installing LAW (cloudnine.com</a>)

Once you've downloaded the **LAW Installer**, you are ready to begin installing **LAW**. The instructions below will guide you through the installation process:



These instructions cover the installation of **LAW** and/or **Explore** on the local machine. You can install them both at once, or separately as desired.

- 1. Start by running the **LAW Installer** <u>as an administrator</u> (right-click > Run as administrator). Click **Yes** when prompted to allow the app to make changes to your device.
- You will first be greeted by the End User License Agreement. If you agree to these terms, then check the box stating I agree to the license terms and conditions, and click Install to proceed.



3. The **LAW Installer** now displays the **Setup Progress** screen, which will remain in place for the duration of the installation. It will start automatically installing the necessary prerequisites.



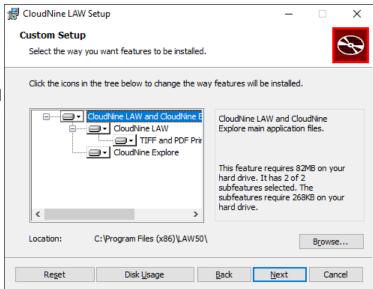
 Once the necessary prerequisites have been installed, the **Setup Wizard** will open in a separate window, and you will be brought to the **Welcome** screen. Click **Next** to proceed.



5. At the **System Requirements** screen, review the information. If the system you are installing on meets the listed requirements, select **I acknowledge that our environment meets the system requirements** and click **Next** to proceed. Please note if your system does not meet the system requirements you should click **Cancel** and discontinue the installation.



6. At the **Custom Setup** screen, decide which features/programs you want to install by clicking the icons on their left and selecting **Will be installed on local hard drive** from the drop-down menu. Any feature/program with an X will not be installed.



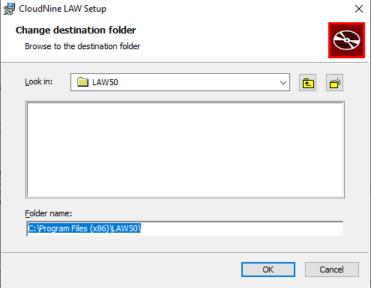
By default, LAW and the TIFF Printer Drivers are enabled for installation.

CloudNine™ Explore is not enabled for installation by default.

The features available for installation are as follows:

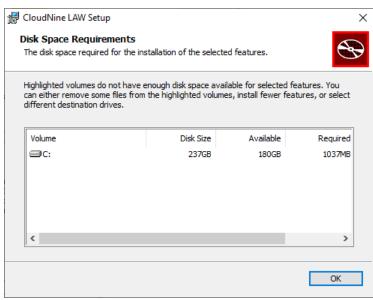
Feature	Description	Select for the use of
CloudNine	Installs LAW50.exe and related folders, system files, templates, and utilities.	Needed to Install LAW
™ LAW		Needed to Install a Licenses Server
CloudNine ™ Explore	Provides advanced prefiltering functionality. This feature requires additional licensing to run.	Needed to Install Explore
TIFF / PDF Printer Drivers	A driver for batch printing, and for batch- and single-TIFF conversion. Supports text extraction during TIFF conversion. Installation is recommended.	Needed if you want to use the native batch imager in LAW
	Also includes the LAW Image Driver 300 DPI Printer. This is used to convert documents to TIFF at a resolution of 300 dots per inch.	

7. You can change the install location for all programs/features selected within the **Custom Setup** screen by clicking the **Browse...** button to the far right of the **Location** shown near the bottom. This will open the **Change destination folder** window, allowing you to determine a new root folder (on this computer) to use as the install location. If you choose a new folder, be sure to click **OK** to apply those changes.

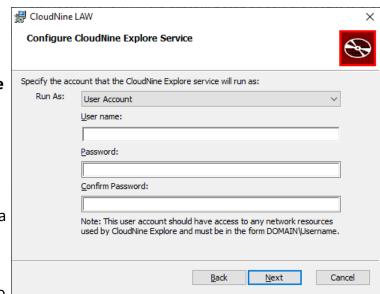


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8. You can also determine how much hard drive space is Required/Available for these programs/features from the Custom Setup screen by clicking the Disk Usage button at the bottom-left. This will open the Disk Space Requirements window, indicating these details for all available Volumes. When you're done reviewing the information, click OK to close this window.

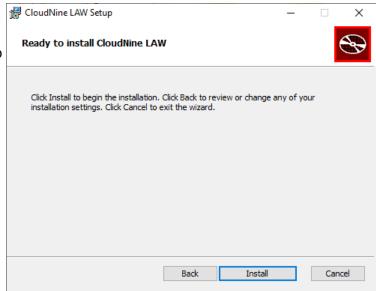


- 9. When you're satisfied with the features/programs and install location shown in the **Custom Setup** screen, click **Next** to proceed.
- 10. Skip this step if you're <u>not</u> installing **Explore** 
  - At the Configure CloudNine Explore
     Service screen, either enter a
    - Microsoft Windows account (User name and Password) that the Explore Service will run on.
      - Enter or create an account into a group that will not hinder the access rights below.
      - Full read/write/modify access to share/location (source data and case folders), SQL, & any workstations.
      - Add this account to SQL with db\_owner role.

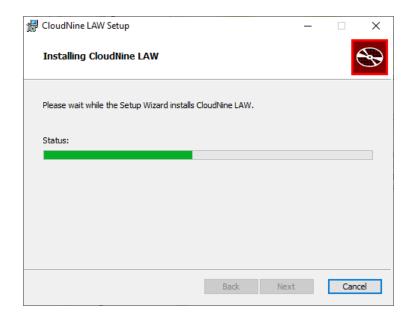


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- User Names should be in this format (without angled brackets or quotations): <"network domain"\"network user name">
- o Local System Account option from the Run As drop-down
  - Then the current Windows user must have access permissions to the SQL Server, or you will be unable to connect
- 11. At the **Ready to install CloudNine LAW** screen, you have one last chance to go **Back** to any of the previous screens and change the installation settings.
  Otherwise, click **Install** to begin the installation process.



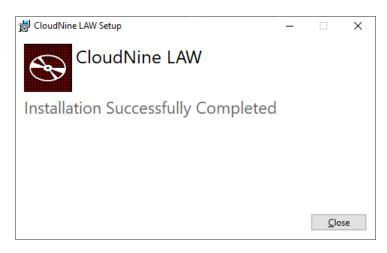
12. You will be brought to the **Installing CloudNine LAW** screen, where the installation progress is displayed. This process may take several minutes.



13. Once the installation finishes, you will arrive at the **Completed** screen. If a **License Server** has been assigned, and your **License** has already been activated, you are ready to continue to the **LAW Configuration Utility.** Leave the option on your screen checked. Otherwise, you will need to activate your **License** on a **License Server** before you can correctly configure **LAW.** Uncheck this option before continuing. Click **Finish** to exit the **Setup Wizard**.



14. The **LAW Installer** will now indicate that the installation was **Successfully Completed**. Click **Close** to exit the **LAW Installer**.



15. You have now finished installing **LAW**! There are some additional steps we recommend you take to ensure a fully functioning **LAW** experience:

- 1) Activate your **LAW Licenses** through the **License Manager** utility if you haven't already done so. Instructions for doing so can be found in the topic.
- 2) Configure your **Environment** and/or **Local Machine** through the **LAW Configuration** LAW Configuration Utility **Utility**. Instructions can be found in the
- 3) Have your system administrator grant all users who will be running **LAW** full read/write/modify permissions to the root directory (install location) for **LAW**. This ensures that their program settings/options are saved properly.
- 4) Have your system administrator adjust the **Properties** of **Law50.exe** within the root directory (install location) of **LAW** to enable the **Run this program as an administrator** option under the **Compatibility** tab. This will prevent several known Windows related usability issues from occurring.

If you would like to create desktop shortcuts for LAW and CloudNine™ Explore, you can create desktop shortcuts from the LAW and Early Data Analyzer .exe files. The **Law50.exe** file is located in the ...\Program Files (x86)\Law50 directory, and the LAW.EdAnalyzer.exe file is located in the ... \Program Files (x86)\Law50\EDAnalyzer64 directory.

#### Silent Installations

**Sentinel RMS License Manager** is installed separately from **LAW**. When configuring **LAW**, you will need to make sure you have access to your **License Server** and that you have a valid **LAW** License.



## Performing a Silent Install

When you need to install the full version of **CloudNine™ LAW**, including **CloudNine™ Explore**, on numerous machines, you can save time by running **Silent Installations** of **LAW** and **Explore**. **Silent Installations** install applications without prompting for input during the installation.

- 1. Open a Command Prompt window by typing "cmd" in the Windows Search box and then selecting Run as administrator.
- 2. Determine which version of **LAW** you wish to install, and note the name of the associated installation executable. This name becomes the <installation executable> portion of the command line.
  - i. For example, the installer for **LAW 7.4** is named "law\_full\_7.4.58.exe" (without quotations).

- 3. Determine which features you want to install. Features are added as a comma-delimited list (no spaces, and feature names are case-sensitive), becoming the **<feature list>** portion of the command line.
  - i. For example, to install all available features, your **<feature list>** would be "LawApplication,LAWPrinterDrivers,ExploreApplication" (without quotations).

Features available for installation:

- LawApplication Installs the CloudNine™ LAW application.
- LAWPrinterDrivers Installs the TIFF Print Drivers.
- ExploreApplication Installs the CloudNine™ Explore application and service.
- 4. Enter the following in the Command Prompt window, replacing the **<installation executable>** and **<feature list>** with the values you determined in **Steps 2-3**:

<installation executable> /s /qn ADDLOCAL=<feature list>

5. Press ENTER in the Command Prompt window to run the silent installation on the machine.

### **LAW Configuration Utility**

The **LAW Configuration Utility** is used to establish access to various resources and services that **LAW** requires to operate properly.

There are two different sets of configurations provided within this utility:

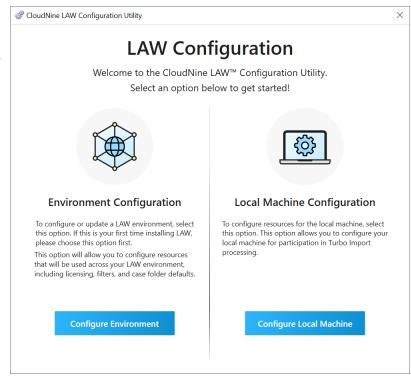
- **Environment** Establishes the database and **Licensing** resources to be used by <u>all</u> **LAW** workstations. Must be run <u>at least once</u> on any computer in a shared or local environment.
- Local Machine Provides database access to individual LAW workstations, and allows each
  workstation to participate in shared Turbo Import processing (Agent services). Must be run
  locally on <u>each</u> computer.

Once you've successfully installed **LAW**, and your software **Licenses** have been activated on a **License Server**, then you are ready to begin configuring **LAW**:

- 1. Launch the **LAW Configuration Utility** by clicking on **Start** (Windows Key) > **CloudNine LAW** > **LAW Configuration Utility** from the Windows Taskbar.
- 2. At the main **Welcome** screen, choose one of the following options based on your current situation:
  - If this computer is <u>not</u> part of a shared environment, or is the first computer in a shared environment on which **LAW** is being configured (after installing/upgrading), then click on **Configure Environment** in the bottom-left. Proceed to the

Configure Environment topic.

 If the shared or local environment has already been configured, and/or this



workstation needs to participate in **Turbo Import** processing, then click on **Configure Local Machine** in the bottom-right. Proceed to the

#### **Configure Environment**

This section of the **LAW Configuration Utility** covers the necessary database and **Licensing** configuration that affects <u>all</u> workstations running **LAW** in a shared or local environment.

At any time during configuration, you can use the **Back** and/or **Next** buttons at the bottom-right of the utility to either return to a previous step, or proceed to the next one.

Each step is named after the section it references, and provides it's own set of instructions. You can return to this page for future reference if any changes need to be made to your **LAW Environment**.



- 1. Management DB Configuration:
  - A. Enter the SQL Server Name with the SQL Server Instance Name (ex: SQL\name) to be used by all LAW workstations, along with user credentials (User Name and Password) for this server. A database will be created for LAW on this SQL Server.
    - The SQL Server Name can be either the server's machine name with instance name or IP address.
- 🧬 CloudNine LAW Configuration Utility Environment Management Database **Management DB** The LAW Management database is used to host shared settings for your LAW Case List Migration environment. Database configuration is required before using the application. SOL Server Name\* **Default Paths** Enter Server Name. Licensing SQL Database Name\* LAW5\_Management File Type DB Use Windows Authentication NIST User Name\* Review law user Password\* ⚠ Database Connection Has Not Been Tested Test Connection Cancel Back
- ii. The **SQL Database Name** shown is the name of the database being created on that server, defaulting to "LAW5\_Management".
- iii. You can select **Use Windows Authentication** to automatically apply your current Windows login information as the user credentials instead (no input necessary).

iv. If not selected, then SQL authentication is used and a **User Name** and **Password** needs to be provided. The user name law\_user and associated password is provided by default.



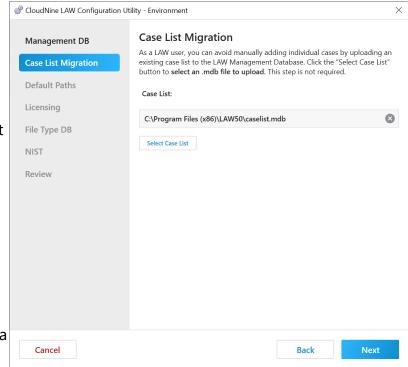
If desired, you can use SQL authenticated custom logins. See

Adding SQL Server custom logins to existing databases for more information.

- ₪
- If you use the Local System Account to run the law\_user (SQL Login) for the Management and File Type databases. Running the Local System Account in tandem with Windows Accounts for Management and File Type database logins may prevent LAW from correctly processing documents.
- B. Click **Test Connection** to ensure that the server details are correct. If the test fails, a prompt will appear indicating any issues.
- C. When you see **Connection Test Succeeded**, you are ready to proceed. Click **Next** to continue.
- 2. Case List Migration Configuration:

The **Case List** (MDB file) is used to record the name and file path for all **Case Files** that have been opened or created in **LAW**. This list can be migrated from previous **LAW** installations, and will be stored on your SQL Server Database.

- A. Perform one of the following, depending on the needs of your current **LAW Environment**:
  - If you have a Case List from a previous installation of LAW that you would like to use in
    - this **Environment**, then click on **Select Case List** to navigate to the desired MDB file and select it.
  - 2) If you don't already have a **Case List**, or wish to use a new one for this **Environment**, you can leave the default MDB file as selected, then click next to skip the process.

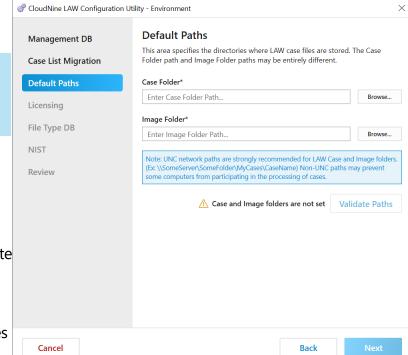


B. With your Case List now selected, you are ready to proceed. Click Next to continue.

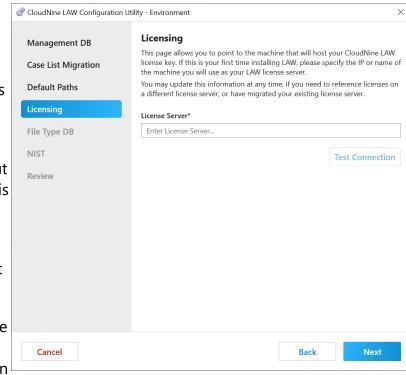
3. **Default Paths** Configuration:

NOTICE: It's recommended to use UNC paths for all shared network locations.

- A. Enter a **Case Folder**network/local path for **LAW** to
  use as its **Case File** storage
  location. You can also click **Browse...** on the right to navigate
  to a location and select it via a
  File Explorer.
  - i. For shared network drives
    (i.e. a mapped drive),
    ensure that the path
    - selected is identically mapped for all workstations running **LAW**. These locations are not recommended for **Turbo Import** cases.
- B. Enter an **Image Folder** network/local path for **LAW** to use as its image file storage location. You can also click **Browse...** on the right to navigate to a location and select it via a File Explorer.
- C. Click **Validate Paths** to ensure that shared network locations can be accessed correctly. This step is not necessary for local paths.
- D. When you are ready to proceed, click **Next** to continue.



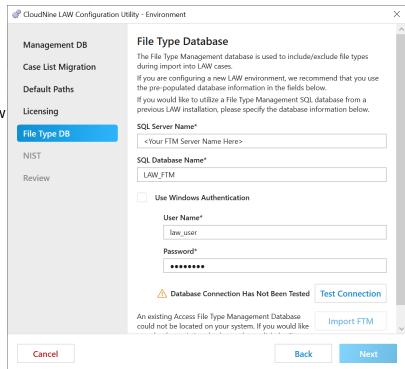
- 4. **Licensing** Configuration:
  - A. Enter one of the following, depending on which computer is being used as your **License** Server:
    - The word "localhost" (without quotations) if <u>this computer</u> is your **License Server**.
    - 2) The name or network IP address of the computer that is your **License Server**.
  - B. Click **Test Connection** to ensure proper connection with your **License Server**. If the connection fails, a prompt will appear indicating any issues.
  - C. When you see **Connection Test Succeeded**, you are ready to proceed. Click **Next** to continue.



5. File Type DB Configuration:

You can import a **File Type Management** database from a previous **LAW** installation, or a new one will be created automatically.

- A. Perform one of the following, depending on the needs of your current **LAW Environment**:
  - If you're <u>not</u> using a previous FTM database, then leave the SQL Server Name and user credentials (User Name and Password) exactly as they appear. This information should automatically match



what was entered on the **Management DB** step. A new **FTM** database will be created automatically using **SQL Database Name** displayed. You can change this name if desired, or leave it at the default "LAW\_FTM". Ignore the **FTM not loaded** warning message.

**NOTICE**: If you accidentally changed any of the SQL Server details, you may be required to click **Test Connection** again to ensure proper connection with the SQL Server before being able to proceed.

- 2) If you <u>are</u> using a previous FTM database, then enter the SQL Server Name and user credentials (User Name and Password) for the server on which the database is located, along with the SQL Database Name of that FTM database. Click Test Connection to ensure that the FTM is loaded properly (as will be indicated). You can also click Import FTM instead to navigate to the desired FTM database file and select it.
- B. When you are ready to proceed, click **Next** to continue.

### 6. **NIST** Configuration:

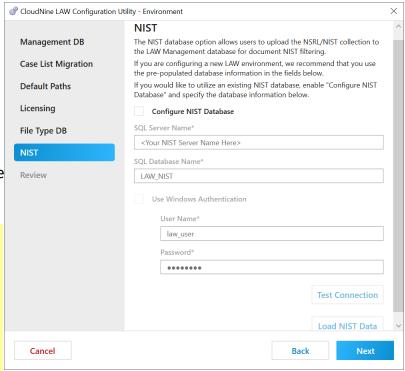
This step is <u>optional</u>, and only needs to be completed if **NIST** filtering will be applied when importing documents. You can import a **NIST** database from a previous **LAW** installation, or create a new one here.

Ď.

Starting with LAW 7.12 we can convert the RDSv3 formatted NIST list, in a SQL database. It is recommended that you use the Modern RDS (minimal). It is optional to add Android RDS, iOS RDS.

When you are loading a NIST database, keep it in the .ZIP format and navigate to the folder.

You will also want 200gb of free space on the C drive available to convert and load the NIST list.

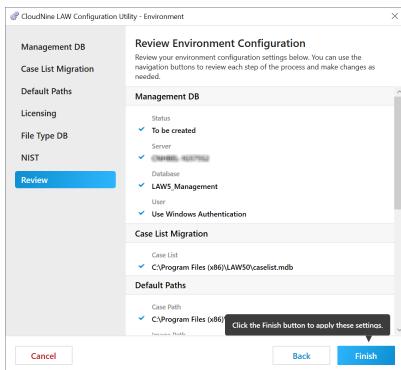


- A. Enable the **Configure NIST Database** option by checking the box on the left.
- B. Perform one of the following, depending on the needs of your current **LAW Environment**:
  - 1) If you're <u>not</u> using a previous **NIST** database, then leave the **SQL Server Name** and user credentials (**User Name** and **Password**) exactly as they appear. This information should automatically match what was entered on the **Management DB** step. Click **Load NIST Data** and follow the instructions in the **Load NIST Data** window to download and apply the appropriate **NIST** files. A new **NIST** database will be created with these files, using **SQL Database Name** displayed. You can change this name if desired, or leave it at the default "LAW\_NIST".
  - 2) If you <u>are</u> using a previous **NIST** database, then enter the **SQL Server Name** and user credentials (**User Name** and **Password**) for the server on which the database is located, along with the **SQL Database Name** of that **NIST** database.

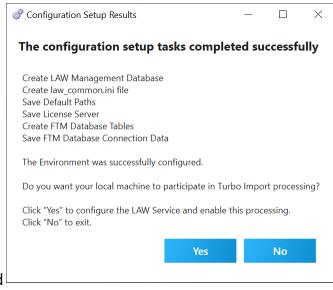
- C. Click **Test Connection** to ensure that the **NIST** database files are properly loaded. If the test fails, a prompt will appear indicating any issues.
- D. When you see **NIST is loaded**, you are ready to proceed. Click **Next** to continue.

### 7. **Review** Settings:

- A. Take this chance to review all the configuration settings being applied to your LAW Environment. If something needs changed, you can go Back to any previous step and make the necessary corrections.
- B. If everything looks good, click **Finish** to apply these settings, and create the necessary databases on your SQL Server.



- 8. Configuration **Results**:
  - A. Click one of the following, depending on whether or not you plan to use <u>this</u> <u>computer</u> for **Turbo Import** document processing:
    - If YES to Turbo Import setup on this computer, continue to
       Configure Local Machine: Service
    - 2) If NO, then the LAW Configuration Utility closes, and you are now finished configuring LAW!



### Configure Local Machine

This section of the **LAW Configuration Utility** covers the necessary database and **Turbo Import** service accessibility for <u>each</u> workstation running **LAW** in a shared or local environment.

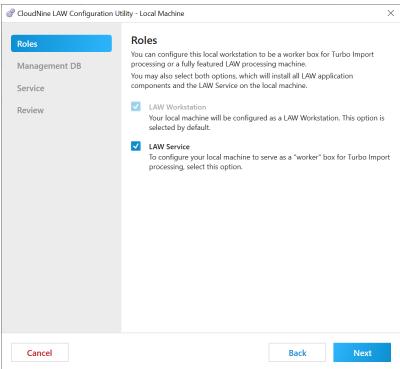
At any time during configuration, you can use the **Back** and/or **Next** buttons at the bottom-right of the utility to either return to a previous step, or proceed to the next one.

Each step is named after the section it references, and provides it's own set of instructions. You can return to this page for future reference if any changes need to be made to your **LAW Local Machine**.



### 1. Roles Configuration:

- Determine which of the available Roles this computer should have when running LAW. It is recommended to leave both options selected.
  - LAW Workstation. If selected, this local machine will be configured as a LAW Workstation. This option is selected by default. This selection is required in order for LAW to open on this machine.



ii. **LAW Service**. If selected, this local machine can serve as a "worker" box for Turbo Import processing. This is the button to allow a workstation to run Turbo jobs.



To utilize Turbo Import at least one installation of CloudNine<sup>™</sup> LAW should have LAW Service (Windows Service) also installed and active/running. If there are no instances of LAW Service configured within your environment then Turbo Import will be in a Work Pending state indefinitely.

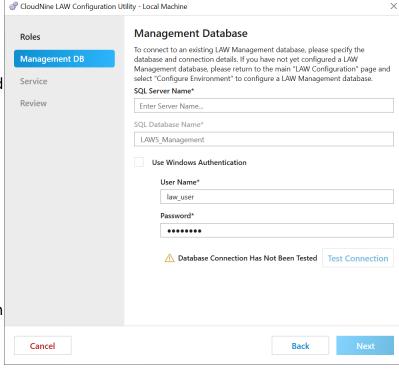
When you are ready to proceed, click Next to continue.

## 2. **Management DB** Configuration:

- Enter the SQL Server Name and user credentials (User Name and Password) for the SQL Server that was selected while configuring your LAW Environment.

**Configure Environment** 

instead.



ii. If selected, windows authentication is enabled and the current windows login will be used to connect to the database. The windows login must be listed under SQL security logins and have the necessary permissions to that database.

iii. If not selected, then SQL authentication is used and a **User Name** and **Password** needs to be provided. The user name law\_user and associated password is provided by default.



If desired, you can use SQL authenticated custom logins. See <u>Adding SQL Server</u> <u>custom logins to existing databases</u> for more information.

- Click **Test Connection** to ensure that the server details are correct. If the test fails, a prompt will appear indicating any issues.
- When you see Connection Test Succeeded, you are ready to proceed. Click Next to continue.



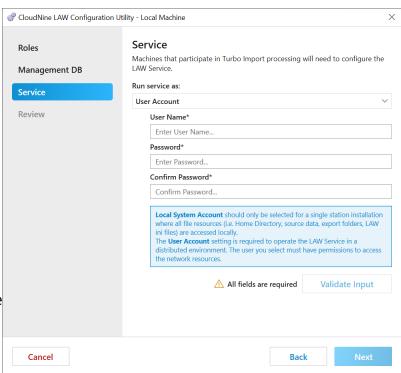
If you use the Local System Account to run the LAW Service, then you should use law\_user (SQL Login) for the Management and File Type databases. Running the Local

System Account in tandem with Windows Accounts for Management and File Type database logins may prevent LAW from correctly processing documents.

3. **Service** Configuration:

If you didn't select to have this **Local Machine** as part of the **LAW Turbo Pool**, then this page will be skipped during the configuration.

- Perform one of the following, depending on where the **Default** Paths for your LAW
   Environment are located:
  - If the paths point to a <u>shared</u> <u>network</u> device, then enter the user credentials or Microsoft Windows Account (**User Name** and **Password**) used to access that device. Click

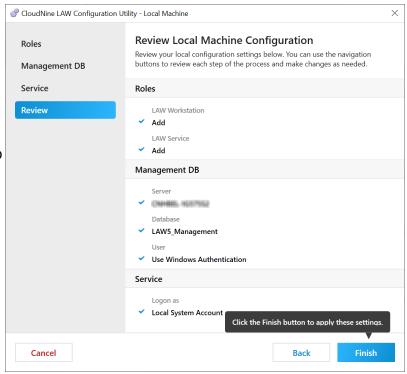


**Validate Input** to ensure a proper connection.

- o If you need to create a Windows Account
- o Enter or create an account into a group that will not hinder the access rights below.
- Full read/write/modify access to share/location (source data and case folders), SQL, & any workstations.
- o Add this account to SQL with db owner role.
- If the paths point to a location on this computer (local), then instead select Local System Account from the Run service as drop-down menu at the top.
  - Then the current Windows user must have access permissions to the SQL Server, or you will be unable to connect
- When you are ready to proceed, click Next to continue.

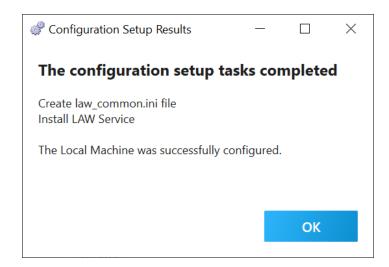
#### 4. **Review** Settings:

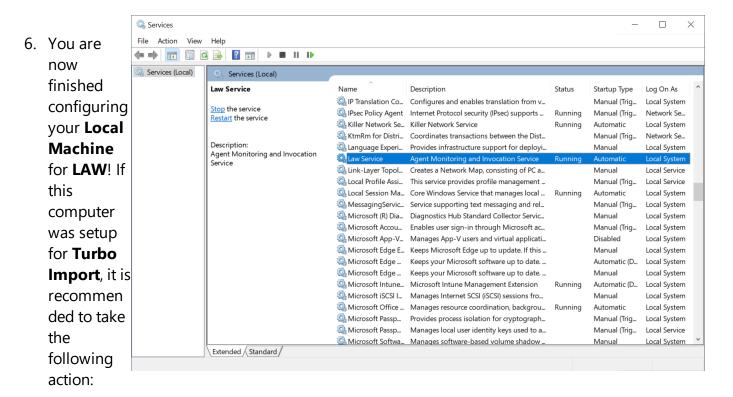
- Take this chance to review all the configuration settings being applied to your Local Machine.
   If something needs changed, you can go Back to any previous step and make the necessary corrections.
- If everything looks good click
   Finish to apply these settings.



#### 5. Configuration **Results**:

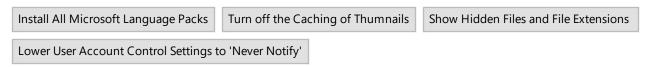
 Click OK to close the LAW Configuration Utility.



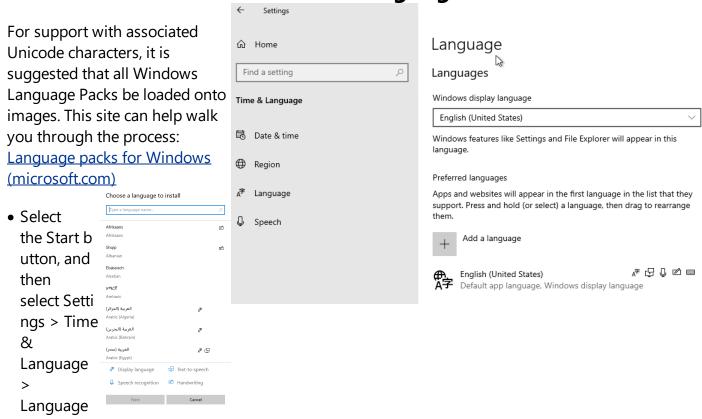


 Check this computer's Windows Services to ensure that the LAW Service is running properly.

#### **LAW Workstation Considersations**



#### **Install All Microsoft Windows Language Packs** -



- Under Preferred languages, select Add a language.
- Under Choose a language to install, select or type the name of the language that you want to download and install, and then select Next.
- Under Install language features, select the features that you want to use in the language that you selected to download, and then select Install.

# <u>Turn off the Caching of Thumbnails in Hidden thumbs.db</u> <u>files:</u>

If you enable this policy setting,

File Explorer does not create, read

from, or write to thumbs, db files,

If you disable or do not configure

Extended Standard

**Detailed Checklist** 

Not configur

Not configur

Allow only per user or approved shell extensions

Turn off the display of snippets in Content view mode

Start File Explorer with ribbon minimized

Do not track Shall chartcute durin

file) when browsing folders, you can use a GPO.

47 setting(s)

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- 1. Run the local GPO editor (gpedit.msc) or create a domain GPO using the apmc.msc console.
- 2. Go to the following Group Policy section User Configuration -> Administrative Templates -> Windows Components -> File Explorer.
- 3. This section has three options that allow you to manage the creating of the thumbs.db file by File Explorer:
  - Turn off the display of thumbnails and only display icons on network folders (prevents thumbs.db file from being created on shared network folder)
  - Turn off caching of thumbnails in hidden thumbs.db files
  - Turn off the display of thumbnails and only display icons
- 4. Enable all three policies by changing their values to 'Enabled';

It remains to link the Group Policy to users (if you use domain GPOs) and update it on domain computers. To apply the policy settings immediately, run the command: gpupdate /force

#### **Show Hidden Files and File Extensions**

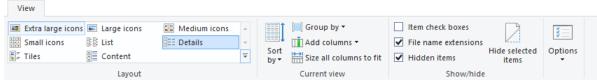
This will vary by Operating System. For Windows 10

hidden

cache

thumbnail

(Thumbs.db



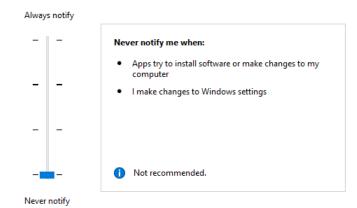
you can access this by opening an Explore Window > Click View and you will see 'File name extensions' and 'Hidden items'. Turn these options on.

### **Lower User Account Control Settings to 'Never Notify'**

1. Go to Start screen. 2. Type **Change User Account Control settings.** Select **Settings** on the right then Change
user **account** control **settings** when it
appears on the left. 3. Select
the **setting** you want then select OK.

Choose when to be notified about changes to your computer

User Account Control helps prevent potentially harmful programs from making changes to your computer. [Fell me more about User Account Control settings]



#### **Advanced Configuration**

#### **Encryption and TLS Protocols**

As of version 7.3, LAW supports TLS 1.2 encryption protocols for Windows 10 systems.

- For information on enabling TLS on your environment systems, we recommend you work with your Administrator.
- LAW is compatible with systems running TLS 1.2 encryption; TLS 1.0 may be disabled on these systems.
- For instructions on enabling/disabling TLS 1.2 and 1.0, please reference <a href="https://docs.microsoft.com/en-us/windows-server/security/tls/tls-registry-settings">https://docs.microsoft.com/en-us/windows-server/security/tls/tls-registry-settings</a>.

#### **LAW FIPS Compliance and Configuration**

Effective starting with version 7.5.X, CloudNine LAW is certified for FIPS encrypted Windows 10 operating systems.

Administrators can enable FIPS via either local system registry; or Group Policy.

When enabled, the operating system will ensure that only FIPS validated hashing and encryption modules are used by the operating system (including .NET libraries).

For more information on the FIPS encryption and usage with Windows 10, the STIG guidelines are listed here for reference: <a href="https://www.stigviewer.com/stig/windows\_10/">https://www.stigviewer.com/stig/windows\_10/</a>.

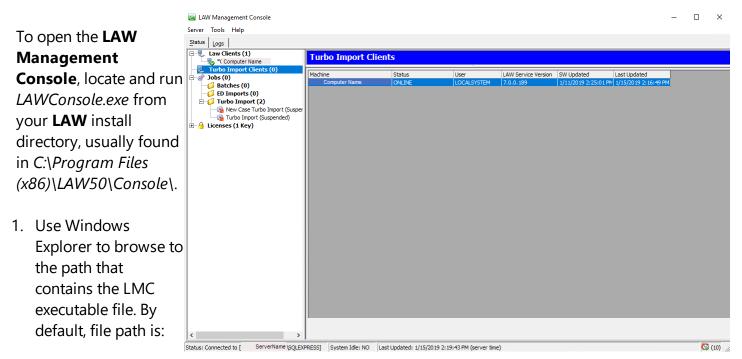
Users can also reference the STIG guidelines for enabling FiPS encryption: <a href="https://www.stigviewer.com/stig/windows\_10/2019-01-04/finding/V-63811">https://www.stigviewer.com/stig/windows\_10/2019-01-04/finding/V-63811</a>.

#### **Antivirus Best Practices and Recommendations**

With any eDiscovery processing tool, an anti-virus scanning utility can alter files and interrupt chain of custody and hashing values.

#### **Opening/Closing the LAW Management Console**

### With the LAWConsole.exe



#### C:\Program Files (x86)\Law50\Console\

2. Double click **LAWConsole.exe**.

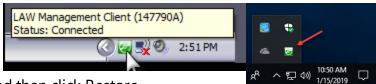
The LAW Management Console screen appears.

3. The LMC is configured through the LAW Configuration Utility. It will use the same SQL server that is configured as the Management Database 9.

Once opened, the **LMC** will continue to run in the background, even if the window itself is closed. To re-open or fully close the **LMC**, use the **LAW Management Client** icon in your system tray.



1. Mouse over the LMC icon located in the Windows notification area.



2. Click the LMC icon or right click the icon and then click Restore.

The LMC starts.

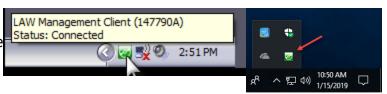
Windows 10/Windows Server

- If necessary, log on to an instance of SQL Server.
- If the LMC icon is not visible in the Windows notification area, see the previous section in this topic **To start the LMC for the first time**.

### LMC in the Notification Area

You can use the LMC icon in the Windows notification area to restore the LMC, stop the LMC, or perform a quick check of its connection status to SQL Server.

 Mouse over the LMC icon located in the Windows notification area.



2. Perform the following tasks as needed:

Windows 10/Windows Server

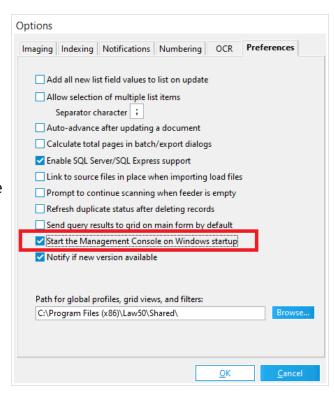
Task	Steps
Restore the LMC.	• Click the LMC icon.
	Or
	• Right-click the LMC icon and then select <b>Restore</b> .
Stop the LMC.	Right-click the LMC icon and then click <b>Quit</b> .
Stop the Livie.	Or
	• Press ALT+F4 while the LMC is in focus.
Check the connection	Mouse over the LMC icon to view the tool tip.

status of the LMC to SQL Server.

## **To Configure LMC to Start with Windows**

- Start CloudNine™ LAW.
- From the main window, on the **Tools** menu, click **Options**, and then click **Preferences**.
- 3. Select the **Start the Management Console on Windows Startup** check box.
- 4. Click **OK**. Click **Yes** if you are prompted to start the LMC.

The LMC starts. Every time you restart Windows, the LMC will also start automatically but run minimized. You can then restore the LMC by selecting its icon in the Windows notification area.



Best Practices for insulating against unwanted AV impacts in processing include:

- Separate the Processing Network and other Review and Business Networks (e.g., separate LAN or vLAN).
- Only run virus scanning after processing is completed (e.g., when moving processing volumes to new locations for Production or Review Loading).
- If on-demand virus scanning is a compliance requirement, then scan only the file shares with extracted ESI.
- These paths should be excluded to avoid impacts to processing speed and reliability:
  - Installation directory
  - Local User Log Directory
  - Local User Data store Directory
  - Local Computer Data store Directory
  - LAW Case Directory
  - LAW Worker Temp Directory

#### Source data location

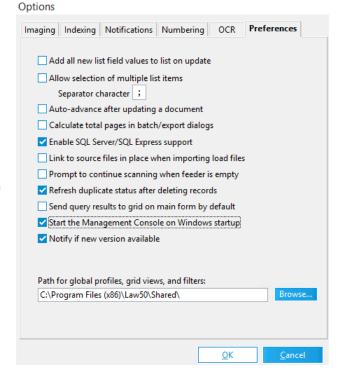
Additionally, users may reference the EDRM recommended practices regarding virus protection here: <a href="https://www.edrm.net/resources/frameworks-and-standards/edrm-model/edrm-stages-standards/edrm-processing-standards-guide-version-2/">https://www.edrm.net/resources/frameworks-and-standards/edrm-model/edrm-stages-standards/edrm-processing-standards-guide-version-2/</a>.

#### Set up your LAW case preferences

**Tools** > **Options...**, navigating to the **Preferences** tab within the **Options** window

It is highly suggested to turn on

- "Refresh duplicate status after deleting records"
- "Start the Management Console on Windows startup"



#### Virtual Machine and SQL Server Setups

# Virtual Workstation and SQL Server Setup for CloudNine LAW

# CloudNine™ LAW Server Workstations (Phyical, VM, Cloud, where ever you want to install LAW)

The number of LAW workstations should reflect the number of users that you want to have access to LAW at the same time. If you would like assistance in determining this, please consult with your Account Manager.

# CloudNine™ LAW Turbo Server Workstations (Phyical, VM, Cloud, where ever you want to install LAW)

The number of LAW Turbo Servers needs to cover the number of Turbo Import, Turbo Imager and Turbo OCR agents that you wish to run. For Turbo OCR you will need the ABBYY engine installed on each Turbo workstation and have a free ABBYY license for each workstation in the pool.

When it comes to Turbo Import and Turbo Imager, 1 Turbo worker = 1 agent = 1 CPU core of a VM workstation.



Turbo OCR is on the workstation level. The ABBYY engine will use 1 license and all cores available. If you would like assistance in determining this, please consult with your Account Manager

The ratio of agent and RAM is a 1 to 4. i.e. for each core that Turbo is going to use, you should have 4gb or RAM. Also note if you have 4 agents of Turbo, an 8 cores workstation is great.

#### **CloudNine™ LAW SQL Server Recommendations**

To avoid competition for resources, we recommend using separate SQL servers for LAW as follows: The equation below is to help build out or right size your LAW SQL server.

<u>SQL Infrastructure</u> – right sizing SQL, remember to add 1 core for the OS

#### Calculating LAW SQL Cores

- At minimum the **Total Number of SQL Cores** should = The # of total LAW instances\* that can be communicating or interacting with SQL ÷ 3
  - Some LAW components work at the CPU core-level and others at thread-level...these would be added together)

Calculating LAW SQL RAM – Note when RAM starts to go over 100gb it is more of a bell curve and must be adjusted by each environment.

• At minimum – the **Total amount of SQL RAM** should = The # of total LAW instances\* that can be communicating or interacting with SQL × 4

A base bones SQL server would be 4 cores and 16gb or RAM

#### Multi-Instance User Scenarios

As part of the enhancements that were added in LAW 7.4, you can now run multiple instances of LAW on a single workstation.

With multiple instances, a small litigation team can balance workflows and productions in parallel without requiring multiple machines for each process. For example, an attorney would be able to log into a virtual or physical machine and perform document review and searching while an analyst is tiffing on that same virtual or physical machine. Another example would be an analyst running productions while another user is importing.



System Requirements that are outlines in this answer center are for one user on the workstation. If you want to allow multi-users on the same workstation, then you will need to increase resources.

Taking advantage of multi-instance scenarios can result in an infrastructure cost savings:

LAW 7.3: Tiff, Import, Export, and Index at the same time -Requires 4 individual machines

LAW 7.4: Tiff, Import, Export, and Index at the same time -Requires 1 machine with multiple user instances

The following sections provide a breakdown of how various LAW processes work in multi-instance scenarios.

#### **ED Loader**

ED Loader is limited to one instance per virtual or physical machine. When ED Loader is already running and a user tries to open a second instance, the user will be notified that an ED Loader instance is already running.

#### **TURBO IMPORT**

Turbo Import already supported multiple logins prior to the LAW 7.4 release. You can run as many instances up to the available cores on a virtual or physical machine.

#### **OCR**

Multiple OCR batch processes cannot be run. If an instance of LAW is running OCR via Batch Processing, a second instance will be prompted to create a distributed batch job, which will be queued and automatically processed when the first instance is done or another LAW machine (different virtual or physical machine) becomes available.

#### **INDEXING**

Multiple LAW instances can not index the same case, but they can index different cases in parallel. The total number of index workers across all instances of LAW on a system is limited to the number of available cores. This is further limited by the "Index Workers" case setting.

#### **BATCH PROCESSING**

Only one instance across multiple user sessions can perform batch processing. If an instance of LAW is batch processing, a second instance will be prompted to create a distributed batch job, which will be queued and automatically processed when the first instance is done or another LAW machine (different virtual or physical machine) becomes available.

#### **SCAN**

Only one instance of LAW can be connected to any scanner on a system at a given time. A user can disconnect from a scanner to allow other users on the system to use it. If a scanner is disconnected, the next time LAW is launched, the scanner will not be connected automatically.

#### **TURBO EXPORT**

Turbo Export is limited to one instance per virtual or physical machine. When Turbo Export is already running and a user tries to start a new Turbo Export, they will be informed that Turbo Export is already running.

#### Law Management Console (LMC)

One instance of LMC is allowed per machine. If a user attempt to launch a second LMC on the same system, they will be shown a message indicating the user that is currently running LMC on the machine.

#### **ADMINISTRATION**

Multiple instances of LAW can generate reports, view documents, and perform administrative tasks.