Concordance® Desktop
Installation Guide

- **Preliminary Planning**
- **Installing Concordance**

Concordance® Desktop

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Concordance® Desktop 1.09.00.90

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Installing

Preliminary Planning

Preliminary planning for implementing any software application is important for achieving the best setup results, the first time. We recommend that you take some time to review this section to plan how your organization will be using Concordance Desktop so your administrative tasks are minimized for initial setup and your long-term maintenance of the application is streamlined into routine updates and adjustments, rather than reworking any database design and system security later.

Preparing for Concordance Desktop

Preparing for Concordance Desktop on a Server

Preliminary planning for implementing any software application is important to achieve the best set-up results, the first time. We recommend that you take some time to review this section and plan how your organization will be using Concordance Desktop on a network server. Planning ahead helps ensure that administrative tasks are minimized for initial setup and your long-term maintenance of the application. When implemented properly, your administrative tasks should then be streamlined into routine updates and adjustments, rather than reworking any database design, server setup, and system security later.

Best practices for planning

Before installing Concordance Desktop on a network server, please review the best practices below, to ensure your organization has reviewed all planning phases.

Best practices for planning: Concordance Desktop Server	
Data Hosting	
	Concordance Desktop server ASPs hosting client data should take advantage of Microsoft® Active Directory® to first set up users and then add those users to Concordance Desktop. Active Directory includes password policies and organizational features for managing users. *Must set the Active Directory password to never expire
	Large firms and organizations should also take advantage of Active Directory and set up Concordance Desktop User Management *If using existing Active Directory, in Concordance Desktop, clear the 'Logon required' check box on the Field rights tab in the Security dialog box for each database

Best practices for planning: Concordance Desktop Server	
	Smaller firms and organizations can use the Concordance Desktop Admin Console to set up users and apply settings
Network Directory Setup	
	Ensure Concordance Desktop Server users have full network access to the database directory
	Have preset folder templates for each client and matter
	Have a clear separation between billable and non-billable data
Receiving Data and Images	
	Verify that file formats are recognized by Concordance Desktop
	Export databases to new Concordance Desktop databases to update and verify existing structures to comply with your internal guidelines
Database Design	
	Create default database structure templates for different types of discovery
	Implement field name conventions for consistency
	Create an Admin tag folder
	Verify that you used UNC paths in the Data Entry Attributes dialog box (Edit > Validation)
	Use UNC path with your hyperlinks
	Create smaller databases and use concatenation
	Use document-level text files
	Add administration fields
	Add EDITTRAIL and CREATEDATE fields
Server Setup and User Management	
General	Implement server and database firewalls when possible
Users	Use the Concordance Desktop Admin Console, User Management, and Microsoft Active Directory

Best practices for planning: Concordance Desktop Server

	Ensure Active Directory and Concordance Desktop user names match, and do not include any special characters such as %, &, #, etc.
	Implement your network password policies, and set Active Directory passwords to never expire
Admin Console	Setup user accounts
	Set up administration user accounts
	Set up administration users alerts for emails. Alerts will be sent to every administrator who has an email address entered in their user account. *Note that to send out notifications from the server, an e-mail client (such as Microsoft Outlook) must be installed and setup on the server.*

Managing Clients and Users

	Inform users of training options, immediately
	Create e-mail templates for users that include their logon information and pertinent project or software instructions to get them started
	Always communicate turn-around times, as they change
	Remember to educate, rather than dictate

Ongoing Maintenance

	Schedule maintenance windows to ensure that all users are out of the database and the database is taken offline
	Always take databases offline when loading any data or while performing administrative work

Backups and Data Recovery

	Always back up your FYI.db file
	Ensure your internal guidelines are in place for back up and data retrieval
	Implement archiving and data destruction policies

Updating Considerations

Best practices for planning: Concordance Desktop Server

	Best Practice is to always be on the most recent version of Concordance Desktop
	Ensure your internal guidelines are in place for back up and data retrieval
Quality Control	
	Have well-defined checklists and procedures in a centrally available location
	Ensure that hand-off processes are well-defined

Data hosting

There are two main scenarios that involve data hosting:

Concordance Server ASPs

Concordance Desktop Server ASPs provide setup, security, and maintenance services. However, when speaking with Concordance Desktop Server ASPs, it is best practice to confirm that they have certified Concordance Desktop and Concordance Desktop Server members on staff to ensure your matter is setup properly and as soon as you need.

In-House Concordance Server Installations

For firms and organizations with the necessary technology infrastructure, data hosting in-house allows for direct control of data and productions. Data hosting, requires a mature organization with an experienced technical team that can overcome the liability risks involved and can meet the financial investment required to ensure exceptional hardware purchases and setup, dependable power to support services, and tight physical security to protect data.

Network directory setup

Most organizations have network directory design guidelines already in place to store information in a consistent and logical manner. We have some recommendations for you to consider while you review your own or to consider implementing for new cases:

Folder Hierarchy and Naming Conventions

The following is an example of folder naming conventions and directory hierarchy for storing documents, backup files, productions, etc. This is especially useful for Hosting as it separates billable data from non-billable data. The Uploads folder gives a staging area for quality control of data received from clients. From the Uploads folder, data can then be moved to its appropriate final resting place. Moving is helpful for billing, troubleshooting such as repairing Native File links if they are disrupted. Retaining a folder template is useful when new data arrives or when moving a database to a new directory location as this will help to keep organization consistent.

```
FYI
  _Template
    Billable
      DCB
        Database
          Date
      Images
        Database
          Date
      Natives
        Database
          Date
      Saved_Productions
        Prod_Date_Initials
    Non-Billable
      Authority_Lists
      Backups
        DBName_Date_Initials
      DBA_Docs
      Load_Files
        DBName_Date_Initials
      OCR_Text_Files
        DBName_Date_Initials
      Query_Files
        DBName_Date_Initials
      Security
        Updated_SEC_CSV_Files
      Staging_Database
        DBName_Date_Initials
    Uploads
      Database
        Date
```

Databases for Billable versus Non-billable Tasks

Concordance Desktop Server ASPs hosting data for clients will have additional database design needs to construct databases to manage billable versus non-billable tasks.

Uploads for billable tasks:

- Images
- Native files
- Databases
- Productions
- Authority lists
- Backups
- Query files
- Security

Uploads for non-billable tasks:

- Staging
- Load files
- OCR files
- Database administration documents

Working with Concordance Desktop

When working with a Concordance Desktop database server, you want to ensure that you have a strong understanding of Concordance Desktop and its viewer. There are various aspects that must be taken into consideration during the preplanning phase.

Receiving Data

When you receive data from a client, data processing vendor, or third party, you should always review all files and databases to ensure they have the proper formats for Concordance Desktop.

We recommend having your OCR separated into individual document-level text files. When importing these text files Concordance Desktop automatically overflows any text that exceeds the 12 million character capacity of a paragraph field into the next available field.

Database Design

Designing databases for reviewers and clients is a necessary planning phase that ensures consistency in structure, naming conventions, user permissions, and more. The

more forethought you apply to designing database templates, the easier it is for you and other administrators to identify any irregularities that may occur.

Database design does differ slightly when created for review teams. We recommend that you construct smaller databases containing fewer documents per database to improve speed for tasks, like reindexing. Smaller databases also provide reviewers with less down time when you are administrating maintenance updates.

Structuring Databases

Consistency is key when it comes to field naming conventions, types of fields included, and the order of fields included in Concordance Desktop databases. When fields are the same name and type, it is less confusing for reviewers and other administrators. With naming convention guidelines in place, administrators can be assured that every database has, for example, a BEGNO field as the beginning Bates number for records.

Checklist: Structuring Databases
☐ Did you create default database structure templates for different types of discovery?
☐ In every template, did you include administration fields: TAGHISTORY, EDITTRAIL, LOADDATE, CREATEDATE, PRODBEG1, PRODEND1, ADMIN fields, and so on?
☐ Have you verified that all fields that need to be full-text searchable are designated as paragraph fields in the database?

```
BEGNO        =    00010002
ENDNO        =    00010002
DOCTYPE      :    File Note
DOCTITLE     :    MMC Writing Attendance Note 20 mins.
AUTHOR       :    Goniff;JA, Elmer, Chris, MMC
AUTHORORG    :    MMC
PAGES        =            1
OCR1         :    *** 00010002 ***
```

*Reviewers will then know that all fields in the Browse view that have a colon sign are full-text searchable, and those with an equal sign are for relational searching.

Concatenation

Concatenation allows you to join up to 128 databases for the purpose of search and review. When database are concatenated, clicking on the primary database opens all databases listed in the concatenated file set for all reviewers each time.

When using concatenation only those databases that have been registered on the Concordance Desktop server, are available in the list of databases that can be chosen for concatenation. When sending the concatenated files to users via a shortcut (.fyi) file, you only need to create a shortcut file for the primary database for distribution.

The shortcut file will include all of the necessary links to all the databases in the concatenated file set. Please beware that the size of concatenated file sets may cause latency issues when reviewers view records and process updates.

System requirements

Please review the current system requirements for setup considerations and suggestions for your processor and RAM. Review each section in advance before making expensive hardware and network decisions that may not be in line with CloudNine recommendations.

📝 When setting up permissions, make sure all users have full network access to each database directory they need to work with.

Please keep informed of Concordance Desktop release updates and how they impact your system, by checking our Concordance Desktop Release Notes.

System Requirements: Concordance Desktop Server

The minimum system requirements for Concordance Desktop Server are:

Hardware and Software	Minimum	Recommended
Processor (CPU)	Dual 3GHz Xeon® or Pentium HT (hyper-threaded) processors or higher	Dual 3GHz Xeon® or Pentium HT (hyper-threaded) processors or higher
Memory (RAM)	8GB	16GB
Hard Drive (Installation)	40GB of disk space or higher	40GB or disk space or higher
Supported Operating Systems (both 32- & 64-bit, all service packs)	Microsoft® Windows Server 2016	Microsoft® Windows Server 2016
File Storage (Images\Text\Native Documents)	250GB	1TB A disk caching, fault tolerant RAID 1+0 array controller is recommended for speed and data integrity.
Network	Gigabit	Gigabit
Software Required for Proper Operation	• Microsoft Outlook 2013 or higher (32 bit) • .NET Framework 3.5 AND 4.7 or higher	• Microsoft Outlook 2013 or higher (32 bit) • .NET Framework 3.5 AND 4.7 or higher

- Internet Protocol v4 (IPv4) • Internet Protocol v4 (IPv4)
*IPv6 is not supported

In addition to the above, the server also requires two open ports in the firewall for inbound and outbound traffic. By default, reviewers use Port 443 because it's generally already open on most firewalls and is typically used for SSL packets, so beware of packet monitoring protocols. The default Admin Console Port is 10001 for administrators, since it's typically not used by other services.

📝 Performance is directly affected by clock speed and can be improved by selecting an SSD for your server.

Calculating User Capacity

User capacity of the Concordance Desktop Server is metered by the hardware. Based on the number of users that need to be supported, you can combine multiple CPU servers to have the proper user capacity available.

- A Pentium CPU supports 25 users.
- A Xeon or Pentium Hyper Threaded (HT) CPU supports 50 users.
- Multiply CPU capacity for dual and quad CPU servers.

Additional Concordance Desktop Server considerations:

- Server capacity is also limited by bandwidth on your LAN and Internet connections and by file server speed.
- The Concordance Desktop Server requires a minimum of 1 GB of available hard disk space for installation of software, generated logs and temporary files, plus additional space for databases.
- We recommend storing databases directly on the Concordance Desktop Server for highest performance and system reliability.
- Indexing, reindexing, and packing may require extra disk space.
- Performance may be affected by indexing, overloading of available Internet or LAN bandwidth, or in situations where databases are not stored directly on the Concordance Desktop Server.
- If performance is an issue, add processors with a higher clock speed, an SSD, or additional bandwidth.

For additional information about system recommendations and software compatibility, see System recommendations.

System Requirements: Concordance Desktop Workstation

Hardware and Software	Minimum	Recommended
Processor (CPU)	AMD A6 or Intel i3 or Pentium HT (hyper-threaded) processors or higher	AMD Ryzen or Intel i7 or Pentium HT (hyper-threaded) processors or higher
Memory (RAM)	4GB	8GB
Hard Drive (Installation)	16GB available HD space	16GB available HD space
Supported Operating Systems (both 32- & 64-bit, all service packs)	Microsoft® Windows 10 (32 or 64-bit)	Microsoft® Windows 10 (64-bit)
File Storage (Images\Text\Native Documents)	N/A	N/A
Network	Gigabit	Gigabit
Software Required for Proper Operation	.NET Framework 3.5 AND 4.7 or higher, TLS 1.2, IPV4	.NET Framework 3.5 AND 4.7 or higher, TLS 1.2, IPV4

You cannot access Concordance Desktop databases on a machine that has IPV6 enabled. If you plan to run Concordance Desktop mobile, you need to ensure that your machine does not have IPV6 enabled. If it does, you need to disable IPV6 and use IPV4. Note that by default, Windows 10 (and later) automatically enables IPV6. For more information regarding the disabling of IPV6, please see the Microsoft article on IPV6 configuration guidance.

Server setup and user management

Your server infrastructure and set-up design are critical to ensuring that Concordance Desktop works in a seamless fashion, and that data processing is running at optimal levels. Planning your strategy in advance saves you frustration, time, and possibly even money in the future. The steps you take now in carefully implementing the product, server database locations, and network directories help ensure your success in using it.

You need to pre-plan:

- Port access and service protocols
- Server placement
- Server firewalls and monitoring services
- User management

Plan your integration of Concordance Desktop server to ensure it coincides with your organization's network policies and procedures and re-examine them for how they impact Concordance Desktop server requirements. If user restrictions are necessary at the database level to prevent some users from seeing a database to select it, or to limit their

field rights and menu access in specific databases, you may want to plan for using the User Management feature to setup those restrictions on a database by database basis.

For information about setting up you users, see About setting up and managing users.

For information about setting up database restrictions, see Restricting user rights to a database.

For information about user groups, see About clients, matters and user groups.

For information about clients and matters, see About clients, matters and user groups.

Identifying administrative tasks

Identifying which administrators need access to the Concordance Desktop Admin Console is key to ensuring that ongoing maintenance gets performed.

Checklist: Identifying Administrative Tasks
☐ Did you set up an administrator user ID and password in Microsoft Windows Services for Concordance Desktop to access servers where data resides?
☐ Do you know which administrators on your team need access to the Concordance Desktop Admin Console?   *Each user should have an individual user name and password.
☐ Additionally, have you identified which administrators on your team need access to Concordance Desktop administrative menu items?
☐ Have you determined if there are varying levels of rights being granted to administrators?
☐ Do you know which administrators will be in charge of Concordance Desktop database processing (Zap, Pack, Index, Reindex), and for what clients, matters, and databases in the Concordance Desktop Admin Console?
☐ Have you decided which administrators should receive e-mail alerts when a process fails to run, etc.?
☐ Have you determined which administrators are responsible for ensuring that packets are not dropped?
☐ Did you decide which administrators are responsible for resolving severe errors?

External authentication or Concordance Desktop user management

One of the primary distinctions to make in advance is whether you are using external authentication to manage your users or are simply using Concordance Desktop user management. The server can authenticate users using Microsoft Active Directory while also allowing you to setup field and menu restrictions for each database with Concordance Desktop user management.

- If you are installing the server on the DMZ (demilitarized zone), you should use the external authentication to set up users, in addition to setting Concordance Desktop user management in each database.

- If you are installing the server on a LAN (local area network), you can simply use Concordance Desktop Admin Console to setup users and then use the User Management feature to set field and menu restrictions on a database by database basis. In Concordance Desktop, all users are assigned access to all databases and have full rights to fields and menus.

For more information about authentication, see About setting up user authentication.

Adding users and providing access

Most Concordance Desktop Server ASPs and organizations are managing hundreds of users simultaneously and they all need access to multiple matters and databases in remote locations. Designing a user matrix that identifies each user's database access needs may be helpful to reference when setting up and managing users.

Concordance Desktop provides two options for setting user access to databases; you can use the User Management feature to grant users different read/write access to fields and menus within a database, or use the Admin Console (under the Management tab) to grant read/write access to fields and menus across all databases. User management settings, user roles or groups, and user role templates can be modified based on individual needs, and affect what a user can access in Concordance Desktop. You can also control which databases and matters are viewable and accessible to each user based on client and matter organization within the Admin Console (under the Management tab). Understanding what key settings need to be retained in order for users to access the server and underlying databases helps you minimize problem solving later.

⚠ If your organization uses Concordance Desktop to add users, be sure to only use single-byte characters when creating user names and passwords to be used in Concordance Desktop.

For more information about user management, see About setting up user management.

For more information about clients, matters and user groups, see About clients, matters and user groups.

Synchronizing databases

Synchronizing updates the user lists - adding new users and removing deleted users.

Databases can be synchronized automatically in the Admin Console by clicking the Synchronize now button on the Management tab in the Admin Console. Jobs can also be scheduled to synchronize databases.

📝 A database administrator needs to be specified before a database can be automatically synchronized.

Passwords

Concordance Desktop uses the authentication logon name to determine a user's Concordance Desktop database rights, field rights, and menu settings. Check the Concordance Desktop database in the Admin Console and add user names and rights as needed.

Best Practices for new databases

If you need to restrict access on a database by database basis, first add the users in the Admin Console and then restrict field-specific rights and limit their menu access from the User Management screen.

For more information about adding users to a Concordance Desktop database, see Setting up users.

Be sure to only use single-byte characters when creating user names, passwords, and database names in Concordance Desktop.

📝 The Concordance Desktop server does not support user, user group, database, matter, and client names, or passwords that contain Unicode characters, such as Chinese or Japanese characters. Currently, only single-byte characters, such as English characters, are supported.

Be sure not to use special characters when creating

⚠ Concordance Desktop does not support the use of special characters, such as %, &, #, etc. in user IDs, user groups, database names, matter names, and client names.

When adding domain users to Concordance Desktop, it is important to follow these steps:

1. Add all of the domain user names to the Concordance Desktop database and assign database rights and access.

For more information about adding users to a Concordance Desktop database, see Setting up and managing users.

2. Add the users to the domain server.

3. Insert the domain users under the Users folder on the Management tab in the Concordance Desktop Admin Console.

For more information about inserting domain users, see Updating the Users list.

If both the LDAP and Auxiliary server options are set, both server names are displayed when using the Insert Domain Users option.

Best practices for server setup

Concordance Desktop Server is server class software and requires a powerful, designated server to ensure that performance is optimal. Some IT departments may try to host Concordance Desktop Server on a virtual machine as opposed to a designated server in an effort to save money without allocating enough system resources. Unlike Concordance Desktop (where processing is performed on individual workstations), all processing for .FYI users is done on the Concordance Desktop Server. When implementing Concordance Desktop Server, we recommend that you invest in the best server your organization can afford, that meets or exceeds what is stated in the system requirements.

Concordance Desktop Server is not a web server and cannot work through a proxy server. Concordance Desktop Server must have an open connection through a named port.

When planning your server setup, there are a few things to consider beforehand. We recommend that you reference the Best Practices for Server Setup when planning your server configuration.

Please also refer to the Concordance Desktop Server recommendations in the System Requirements.

Best Practices for Server Setup: Concordance Desktop Server	
Concordance Desktop Server Security	
Standard	24-hour Surveillance
	Fingerprint/Retina scan access

Best Practices for Server Setup: Concordance Desktop Server	
Best Practice	Hardware Firewall
	Network/Server Monitoring
	24-hour Surveillance
	Fingerprint/Retina scan access
Concordance Desktop Server Backups	
Standard	Incremental secure backups
Best Practice	Data Mirroring/Clustering
	Disaster Recovery Plan
	Offsite Data Recovery
Server Support	
Required Staff	CCSA
	CCFA
	Project Manager
	Network Administrator
	Technical Support
Best Practice	24/7 Technical Support
	CCST
	Paralegals
	Print Job Clerks
	Project Managers
	Law Firm Experience, Previous Vendor Experience, and EDD/Processing Experience
	Database Administrators
	Active Directory Administrators
	Certified DBAs, Very Technically Savvy, Detail Oriented, and have Network Administration Experience

Best Practices for Server Setup: Concordance Desktop Server

Concordance Desktop Server Setup

Standard	Be sure to have the recommended minimum hardware resources
Best Practice	Create a separate Microsoft Windows account for Concordance Desktop Server that has network rights to run services
	Store active databases on the Concordance Desktop Server itself or on a SAN or NAS server box that is attached to the Concordance Desktop Server to eliminate as much network latency as possible.
	If you are using a SAN or NAS server box for databases, the server should be on the same LAN, in the same location as the Concordance Desktop Server, and connected to the Concordance Desktop Server with Gigabit-speed Ethernet switches and cables.
	Be sure your Concordance Desktop Server is not on a Web server.
	Store the TIFF image files associated with your databases on the Concordance Desktop Server or on a SAN or NAS server box that is attached to the Concordance Desktop Server to eliminate as much document and production latency as possible.
	If you are using a SAN or NAS server box for TIFF image files, the server should be on the same LAN, in the same location as the Concordance Desktop Server, and connected to the Concordance Desktop Server with Gigabit-speed Ethernet switches and cables.

Concordance Desktop Shortcut (.fyi) File Setup

Standard	Provide the shortcut (.fyi) file to the client to allow them greater control over their data
Best Practice	Make sure that clients/users are using the latest version of Concordance Desktop.
	We recommend that you do NOT allow access to the following menu items: • File > Modify • File > Reindex • File > Index • File > Administration • File > Begin Program • File > Edit Program

<table>
<tr><td colspan="2">**Best Practices for Server Setup: Concordance Desktop Server**</td></tr>
<tr><td></td><td>• Edit > Validation
• Edit > Delete and undelete</td></tr>
</table>

Concordance Desktop server security

The Concordance Desktop server uses a variety of security methods to ensure data integrity, security, and high performance. Please read this section carefully, prior to implementing security for the computer you will be using as your Concordance Desktop server.

Concordance Server Connections

An installation of Concordance Desktop connects to the computer, registered as the Concordance Desktop server, using an SSL encrypted connection. This connection is fully compatible with firewalls that monitor and verify SSL traffic. Unlike a standard Web server connection, the Concordance Desktop server connection is kept open for the entire session for both efficiency and functionality. The connection is kept open to send progress messages, to update interactive search results and progress meters, and to perform other operations that would not be possible with repeated and unnecessary connections and disconnections.

Encryption

Data passed between the Concordance Desktop server and clients is both compressed and SSL encrypted for high speed and security. Concordance Desktop uses both RSA public and private key encryption. All data is transmitted using RSA 128-bit encryption. The initial handshake conversation is encrypted using 1024 bits. This is the same SSL encryption used by web servers for tasks such as online banking. We recommend that you install the server on SSL Port 443, as it is fully SSL compliant.

Ports

Administrators can log on to the Concordance Desktop Admin Console using an administrator user name and password. Firewalls are not required, but can be used to maintain security when exposing the Concordance Desktop server to public IP ranges. Using firewalls determines which IP ranges are allowed access to the Concordance Desktop server.

Setting Port Addresses:

- End-user traffic for shortcut (.fyi) files via the Concordance Desktop server – Default Port is 443

- Administration traffic on the Concordance Desktop server via the Admin Console – Default Port is 10001

We recommend that you periodically check your ports to ensure they are open to inbound/outbound traffic.

For more information about modifying port addresses, see Adjusting port settings.

DMZ or LAN?

The Concordance Desktop server can reside on your LAN or in your DMZ as your data security policy dictates.

- If you are using external authentication, user log-ons and passwords in Concordance Desktop must be identical to the DMZ in order for reviewers to access databases on the computer registered as the Concordance Desktop server.

- If you are only applying Concordance Desktop user management, we recommend that you register the server license on a computer on your LAN because the DMZ generally requires opening a connection from the server to the LAN, which can create a security risk.

We also recommend using NAT (Network Address Translation) to open an inbound port to the server, and setting the server to use SSL Port 443, as it is fully SSL compliant.

Authentication Types

Microsoft Windows NT, Microsoft Active Directory, and PDC secure login can be used by Concordance Desktop, making user administration easy and fully integrated with your existing network policies. Concordance Desktop will use NT, PDC, and Active Directory authentication, passing all login and passwords to your existing domain server for verification and enforcement of password policies including expiration, length, mix of alphanumerics, and all other policy restrictions used by your organization.

Concordance Desktop with Active Directory, Windows NT, or PDC can be used to verify users' credentials. Logins are checked with Windows Security Controller. Setting this up helps ensure conformation with password policies.

Supported Authentication Types	
Internal Types	**Description**

Supported Authentication Types

Concordance Desktop	Uses the .sec file to authenticate users. Highly recommend always implementing a user login and password to connect.

External Types	Description
External by Domain	Allows for authentication against an NT Domain Controller (without Active Directory).
External by NT Server	Allows for authentication against a stand-alone server (Member server).
External by Active Directory LDAP	Uses the Microsoft Windows Active Directory to authenticate users. Authentication by Lightweight Directory Access Protocol (Active Directory).

For more information about external authentication and how it relates to users, see About setting up user authentication.

Using Microsoft Active Directory

If you are using external authentication, you will need to first set up users in Active Directory and then add the user's name in the Security Console of the Concordance Desktop database, before specifying Concordance Desktop .FYI users in the Concordance Desktop Admin Console. When using external authentication, it is important that user names match in the Active Directory and the Concordance Desktop database.

We also recommend registering databases in the Concordance Desktop Admin Console as a means of adding users to the Concordance Desktop Server. User accounts are enabled in the Concordance Desktop Admin Console on the Management tab.

For more information about setting up users in the Active Directory refer to Microsoft's web site and search on "active directory."

File Storage Considerations

File size and storage considerations are additional planning elements when setting up the Concordance Desktop Server.

You need to ensure the following:

- The server hosting Concordance Desktop databases can access other servers easily
- That Concordance Desktop server can access files easily
- Databases and images are local to the Concordance Desktop server
- There are no latency issues arising from databases or image files that are too big

You can choose to store databases and images in two ways:

- **LAN** For this setup, we recommend you store databases and images on the same server/computer that you have registered as the Concordance Desktop server, to reduce any latency issues in accessing files.
- **Network Accessible Storage** You can choose to store databases on one network device and images on another, and have the Concordance Desktop server point to these locations to access them. Latency differentiations are minor if database size is kept smaller and all images are processed as single TIFs.

For more information about database design, see Preparing for Concordance Desktop.

Ongoing maintenance

As an administrator you are busy managing multiple cases, various software programs and databases, and all in various network locations. We recommend that you take some additional time to plan a maintenance schedule based on the following tasks and processes, and any others that are distinct to your organization or client needs.

Typical database management for Concordance Desktop Server and companion products include:

- Directory and sub-directory folder design to store multiple databases for multiple case reviews within your organization
- Backup schedules for each client and matter, and each database, including multiple database and/or concatenated databases
- Full index updates on databases performed during off hours (weekends or holidays) or offline if multiple databases can be updated while staff continues work in other databases
- Reindex updates when records are added or modified
- Loading data into Concordance Desktop databases offline
- Subsequent data and image loads
- Packing databases and dictionary files after removing records within the database.
- De-duplication
- Modifying or adding database fields, which then requires a full index
- Creating or removing users and adjusting security settings and permissions
- Tracking metrics
- Running productions
- Monitoring and extending user sessions
- Updating product versions in accordance with system requirements
- Archiving data according to your organization's internal guidelines or client's needs

For more information about backups and data recovery, see About backups and data recovery.

For more information about automating tasks in the Concordance Desktop Admin Console, see About scheduling jobs.

Scheduling administrative tasks

Planning in advance what jobs need to be scheduled for ongoing maintenance helps you determine the schedules you need to manage these tasks for multiple Concordance Desktop databases and all your users and clients. By setting up a standard maintenance schedule, you can inform your users in advance to ensure that they set up their review times around these schedules. You want to make sure that all users are out of the database and the database is taken offline when performing administrative tasks.

The Jobs tab in the Concordance Desktop Admin Console assists with management tasks, like reindexing and packing. All scheduled tasks on the Jobs tab are processed on the Concordance Desktop Server.

💡 You can find your database indexing time by reviewing the Log tab in the Concordance Desktop Admin Console.

For more information about automating tasks in the Concordance Desktop Admin Console, see About scheduling jobs.

Exclusive Administrative Tasks

Some database management tasks require that all users are logged out of the database. The administrator is the only user allowed in the database when the following processes are occurring in Concordance Desktop:

- File > Modify
- File > Index
- File > Administration > Pack > Database
- File > Administration > Zap
- File > Administration > TRK Maintenance Tool

The following database management tasks in Concordance Desktop do not require the database to be taken offline, but they should be taken offline to ensure validity of all data:

- File > Reindex
- File > Administration > Pack > Dictionary
- Documents > Import

- Documents > Export
- Creating productions (Tools > Production > Production... or Tools > Production > Native File Production)

-

<u>**Indexing and Reindexing Databases**</u>

Actively changed databases need frequent updating to keep the index and dictionary entries current. An *index* is the exclusive process of creating the database dictionary and index for the purpose of enabling full-text searching. A "reindex" simply updates the existing database dictionary and its corresponding index. A reindex is not an exclusive task. Concordance Desktop administrators are responsible for ensuring that all data is reviewed and proper backups are made before indexing/reindexing the database with updates. These processes are done from the File menu in Concordance Desktop, by selecting Index or Reindex.

One way to verify whether a database requires reindexing is to check the File menu in Concordance Desktop. If there is a check mark next to Reindex on the File menu, then the database dictionary is not current with additions or changes. You can also verify reindexing status on the Databases task pane at the bottom of the Current Database panel. If the active database dictionary needs updating, the panel displays *Needs Reindexing*. Lastly, you can query on any documents that have changed under the Search menu.

There will be times when you need to perform full index updates to include modifications to the dictionary, stopwords list, and punctuation settings. This is an exclusive process and only the Concordance Desktop database administrator can access the database at the time during the process. To perform a full index, open the database, and on the File menu, click Index. Reference the following Indexing and Reindexing Checklist to ensure you have completed all necessary tasks prior to performing these processes.

Checklist: Indexing and Reindexing	
Reindexing	
☐	Did you select the Allow exclusive indexing check box on the Indexing tab in the Preferences dialog box (Tools > Preferences) in Concordance Desktop to prevent reviewers from searching during a reindex?
☐	Did you pack the dictionary to optimize reindexing speeds up to 6*x*?
☐	Did you set up the ReindexingDaemon_V10.*xx*.cpl under the Windows Task Scheduler to automate this task?
Indexing	
☐	Have you planned your indexing processes to run when it does not impact regular work hours?

Checklist: Indexing and Reindexing

☐ Have you considered performing a full index for individual databases locally on dedicated admin machines?

*Indexing and reindexing on a separate machine will not impact Concordance Desktop Server performance.

☐ Did you send a broadcast message to alert reviewers of when indexing will occur and the timeframe for when the system may be available again?

*You can do this by sending broadcast announcements from the Connections tab in the Concordance Desktop Admin Console.

☐ Did you ensure that all reviewers are logged out of Concordance Desktop and .FYI by checking the Status column on the Connections tab in the Concordance Desktop Admin Console?

*Processing can take hours and impacts access to the system and work activity. You can schedule these tasks on the Jobs tab in the Concordance Desktop Admin Console.

Backups and data recovery

Most Concordance Desktop Server ASPs and large firms and organizations should already have backup and data retrieval planning outlined and implemented, as well as disaster recovery protocols. Determining backup schedules for Concordance Desktop Server depends on the number of databases and users you have to manage. If you have numerous users accessing databases and running tasks, you may want to consider scheduling backups twice daily. If you only have a few databases with a handful of users accessing them, you may be able to set backup schedules to once a week.

⚠ Do not perform live backups if you are using backup software that locks files, even briefly. This has been known to cause read/write functions to the database files to fail, and can cause file synchronization or corruption issues. Check with your IT group and/or backup solution provider to verify that no file locking occurs before scheduling any backups on Concordance Desktop Server and Concordance Desktop files that are in use.

⚠ Be aware that anti-virus, firewall, and backup software can often interfere with network traffic and the locking of files, and in effect could cause Concordance Desktop Server software to crash.

For more information about backups and data recovery, see About backups and data recovery.

Updating considerations

Whether you are updating Concordance Desktop, or third-party products on the server that hosts the Concordance Desktop server, you need to back up your FYI.db files first.

Often administrators run patches on their servers and reboot without stopping and starting the Concordance Desktop services and backing up the FYI.db file. Doing so is a common cause for file corruption of the FYI.db file – the very file you do not want to rebuild. If you reboot the server while the Concordance Desktop services are still running, it appears as a server crash to the services.

Updating Guidelines:

- **Back up the Concordance Desktop server FYI.db File** - Always back up your FYI.db file before performing any updates to any products or services running on the server/computer that hosts the Concordance Desktop server.

  For more information about backups, see About backups and data recovery.

- **Concordance Desktop earlier versions** - Due to the new simplified installation and the new database format, there is no upgrade process from a previous version of Concordance Desktop, Concordance Desktop Viewer and FYI server to Concordance Desktop. If you want to open existing databases in Concordance Desktop, you need to migrate those databases to the new format. Once migrated, the databases can no longer be opened in Concordance, they can only be opened in Concordance Desktop. Therefore, we recommend backing up your databases prior to migrating them to Concordance Desktop. Please see Migrating databases for more details.

- **Tagging** - Before migrating existing Concordance 10.x databases to Concordance Desktop, ensure that any legacy issues with tagging are resolved in the databases, or you will import those issues into Concordance Desktop. Once you migrate a database for use in Concordance Desktop, the database can no longer be opened in the previous version of Concordance, Concordance Desktop Viewer or Concordance Desktop server.

⚠ Always back up the Concordance Desktop server FYI.db file before performing updates to the server/computer, or updates to any third-party products on the server that hosts the Concordance Desktop server. You need to shut down services for Concordance Desktop while you perform updates, otherwise you risk corruption to the FYI.db file, as the Concordance Desktop server reads a server reboot as a system crash.

Moving existing Concordance Desktop databases to other servers

If you need to move existing Concordance Desktop databases to another server, and need to ensure that all path information for those databases and imagebases are preserved, we recommend that you hire a consultant.

You can consider creating an alias in your host file on your server, such as \\myserver.1\. This would then redirect all paths to \\myserver.2\. See your local network administrator for more information concerning your host files.

Moving an existing Concordance 10.x database to another folder

If you plan to migrate an existing Concordance 10.x database to Concordance Desktop, but also want to move it to another folder, first move the database to its new location and open it in Concordance 10.x. Doing so ensures that the notes DCB is properly linked to the parent DCB. Once these two steps are done, you can migrate the Concordance 10.x database to Concordance Desktop.

Moving imagebases

Concordance Desktop viewer

If you receive an error message stating that Concordance Desktop is unable to open the corresponding document, you need to edit your folder paths. The folder path listed in the message box is the path stored in the Concordance Desktop imagebase. That path points to where your files are located, so the viewer can open and display the document. You need to change the path to the directory location where your documents actually reside. See, Renaming file paths and folders.

Use caution when resetting folder paths as there is no undo function and changes are permanent. We recommend backing up the .cib file before performing this process or other imagebase management tasks.

Licensing and Product Activation

While all functionality is installed with every installation of Concordance Desktop, it is the licensing that determines what level of functionality is available to the users. Every installation of Concordance Desktop is capable of being licensed as a server (on a networked computer) or a stand-alone setup (on a single computer); and every installation can be used as a work station for a Concordance Desktop Administrator or Reviewer.

There are five basic types of licenses; two are application licenses (server and mobile) that designate the computer as a server for multiple users across a network, or as a server for one user on their individual computer, and the remainder are user licenses that when added to a server can be used to perform administrator or reviewer tasks.

Application licenses

Application licenses are applied to only one computer, and allow for that computer to be used as a Concordance Desktop database server. Once an application license is activated

on a computer, it is tied to that computer and cannot be used or moved to another computer.

There are two different types of application licenses:

Application license	Description and functionality
Server	Used to activate server functionality on a networked server or workstation computer.
Mobile	Used to activate server functionality, and enable all Concordance Desktop user functionality on a single computer, for use by only one user.

Server license overview

A "Server" license is required to activate a Concordance Desktop installation as a Concordance Desktop database server, on a Local Area Network (LAN) or Wide Area Network (WAN). It is a "non-concurrent" license, meaning it can be used to activate only one server. If you need to setup multiple Concordance Desktop database servers, you will need a separate Server license for each computer you are going to use as a Concordance Desktop server.

A Concordance Desktop Server license is most beneficial for small to medium sized firms that have a network environment, and/or the need for multiple users to work on the same case. It allows for multiple users to open and work on the same database at the same time. All Concordance Desktop databases created on a Server licensed computer are "owned" by that server, meaning that all setup is stored on that server and all access to those databases is controlled by the licenses added to that server.

📝 At least one server license must be purchased and activated on a computer (server or workstation) in order to allow for Concordance Desktop databases to be created on that computer.

Mobile license overview

A "Mobile" license is required to activate Concordance Desktop server functionality, and enable all user functionality on a single computer, for use by only one user. It is a "non-concurrent" license, meaning it can be used to Activate and enable Concordance Desktop functionality on only one computer. Usually, this is a computer that does not attach to a network.

A Mobile license is most beneficial for:

- Small firms having only a few or less users who handle every aspect of the review process themselves, and who have no need to share their databases with others in the firm
- Firms that have no network LAN or WAN setup, or have no need to work with Concordance Desktop databases on a network

- Firms that may or may not be on a network, but in which each user prefers to have all information pertinent to their case on one computer; maybe a computer that they can take with them to court

Users with a Mobile licensed Concordance Desktop installation still have the capability to access databases on a network if they need to, but the databases they create on their own computer stay on their computer, and are not readily accessible by others. Note that at any point in time, a mobile licensed installation of Concordance Desktop can be changed to a Concordance Desktop database server by simply purchasing and activating a Server license on the current Mobile licensed computer, and of course attaching the computer to a network. This makes it convenient for those who prefer to have their own databases to work with and then after their case is over, would like to move the database to an archive server for safe keeping.

The main difference between a Server and Mobile license is that a Mobile license turns on ALL functionality (Server, Administration and Full Reviewer) for a single user on a single computer, whereas a Server license turns on only Server functionality on a network computer (server or workstation).

Distinctions between Mobile and Server installations:

Mobile versus Server		
Differences	**Mobile**	**Server**
RAM used for processing searches, indexing databases	End-user machines	Server
Set IP address restrictions for connections	—	√
Load data	√	√
Reset Concordance Desktop password for all user's databases	√	√
Broadcast messages to online users	√	√
Kill user sessions	—	√
Set Job Schedules	√	√
Track Usage History	√	√
Send Watchdog Notifications	√	√
Can take databases offline	√	√
Can accept connections from other users	—	√

Mobile versus Server		
A database can be opened by multiple users at the same time	—	√

User licenses

User licenses work a bit different than application licenses. They are used to access different functionality in Concordance Desktop. A single User license, for the most part can be used by multiple people, as long as they do not attempt to all use the same license at the same time. User licenses are added to a Concordance Desktop database server through the Administration Console, and are available for use by any user who has the proper log in credentials to access the Concordance Desktop server and/or a database on that server.

There are three different types of user licenses:

User license	Description and functionality
Administration	Enables any user who has Concordance Desktop installed on their computer, to perform administration functions as well as Full Reviewer functions.
Full Reviewer	Enables any user who has Concordance Desktop installed on their computer, to perform Full Reviewer functions, as well as basic Data Reviewer functions.
Data Reviewer	Enables any user who has Concordance Desktop installed on their computer, to perform Data Reviewer functions.

User licenses are based on availability, meaning how many licenses are available for a specific type of user on a Concordance Desktop server, when that type of user attempts to log into that Concordance Desktop server. If a license is not available, the user is granted the next access level down from the one to which they are assigned on that server. For example, if an administrative user attempts to log into a Concordance Desktop database server and there are no Administration licenses available at that time, that user is granted access using the next license down, which is a Full Reviewer license. If a Full Reviewer license isn't available at the time, then they are granted access using the Data Reviewer license. If a Data Reviewer license is not available at the time, then the user is unable to gain access to the server or it's databases until a license is available. This holds true for all user licenses.

Administrator license overview

An Administrator license provides access to the Concordance Desktop databases, and all database and user administration features. Administrator users can create and maintain Concordance Desktop databases, users, user settings, user groups, matters, and clients. In addition they have access to the same features as a Full Reviewer, meaning they can also review documents in browse view or in the viewer (which displays a PDF image of the actual document), markup documents in the viewer, search, categorize records, and create folders, tags and issues. Administrator licenses are "concurrent" meaning, one license can be used by multiple users, but not at the same time.

Full Reviewer license overview

A Full Reviewer license provides access to the Concordance Desktop databases for review purposes. Full Reviewers can review documents in browse view or in the viewer (which displays a PDF image of the actual document), markup documents in the viewer, search, categorize records, and create folders, tags and issues. Full Reviewer licenses are "concurrent" meaning, one license can be used by multiple users, but not at the same time.

Data Reviewer license overview

A Data Reviewer license provides access to the Concordance Desktop databases for review purposes. Data Reviewers can perform the same tasks as Full Reviewers, with the exception of viewing and marking up documents in the viewer. They can review documents (in browse view only), search , categorize records, and create folders, tags and issues. Data Reviewer licenses are "concurrent" meaning, one license can be used by multiple users, but not at the same time.

Additional Recommendations

Using the server functionality on a network server, requires proficiency with Internet addressing, ports, firewalls, and potentially with local area network (LAN) topologies and security settings. These issues can be complex even for experts. Your IT staff or Internet service providers are best suited to assist you with the security and network settings specific to your company.

Concordance Desktop is optimized to perform at the highest levels; however, it cannot overcome slow Internet connections, slow file servers, or simple overloading. The Concordance Desktop Administration Console can monitor server performance to help identify bottlenecks and server saturation. Interpreting the information and correcting certain issues may require the assistance of an IT professional.

Network connection speed, network traffic, database and imagebase size, and other items may be a factor when evaluating performance. Please review the following recommendations for enhancing performance.

Indexing speed recommendations

> We recommend giving Concordance Desktop as much memory as possible. Concordance Desktop allocates memory to internal disk buffering during indexing. Any program that decreases the amount of available memory, or performs background processing, could severely impact indexing performance. The larger the database: the greater the impact.

You can control the amount of cache, but be careful when allocating memory to the cache. Windows has virtual memory that is stored on the hard drive when it is not being used. If Concordance Desktop allocates a cache that forces too much swapping to disk, indexing will actually run slower.

Indexing speed can be greatly improved by the following:

- Using a disk-caching hard disk controller
- Adding a faster hard disk
- Using a faster computer
- Indexing on a Windows NTFS formatted hard drive
- Indexing individual databases on separate computers

The highest performance is obtained by combining some or all of these options. There are many recommendations on this subject. All but one has the effect of lowering the workstation's disk activity. We also recommend indexing individual databases on separate computers.

Lower workstation disk activity by:

- Adding more cache RAM to your workstation and allocating this RAM to the Indexing cache (up to 2GB maximum per).
- You should leave 128MB unallocated and available for the Microsoft Windows operating system.
- Get a faster processor for the workstation
- Get a caching disk controller on the workstation
- Use a level 1+0 RAID array with your disk caching controller

Implementing these suggestions will result in a significant boost in indexing performance. Index cache and processor speed have the greatest impact.

Web Servers

The Concordance Desktop server does not require a Web server, such as Microsoft Internet Information Server (IIS) or Apache. Concordance Desktop is a native software application which runs directly on your server. It is optimized specifically for serving Concordance Desktop and viewer data. It does not serve any other kind of data. Remote users connect directly to the server from a Concordance Desktop installation.

The Concordance Desktop server is compatible with Web servers for data hosting, and will run on a computer that is also running Web, FTP, mail, and other Internet servers. However, we strongly recommend, for highest performance, that the server/computer that you plan to register as a Concordance Desktop server be installed by itself on a dedicated server/computer.

Memory and RAM

All processing for Concordance Desktop shortcut (.fyi) files occurs on the Concordance Desktop server. Concordance Desktop allows you to allocate a specific amount of RAM for indexing databases.

Concordance Desktop allows you to allocate a specific amount of memory for the purpose of indexing databases. You can allocate up to 2GB per process in the Indexing cache field on the Indexing tab in the Preferences (Tools > Preferences) dialog box in Concordance Desktop. To determine the minimum amount of RAM you can allocate for indexing take (Total RAM) – (O/S RAM).

For more information about calculating the indexing and dictionary cache, see Adjusting indexing settings and Adjusting dictionary cache settings.

Latency and Bandwidth

As administrators, how you monitor and manage SSL packets and set up your firewalls affects reviewer bandwidth for sending and receiving information from your in-house network to remote users. If users are experiencing latency issues, you will need to run a trace route for any dropped packets and check your firewalls to see if there's any delay in sending and receiving information, and then fix any issues within your network.

The FYI.db File

All information from the Concordance Desktop Admin Console is stored in the FYI.db file, which can be found in the same directory as the Concordance Desktop Program Data folder (ProgramData\CloudNine\Concordance Desktop). This file includes information that is tracked for registered databases, users, licenses, settings, etc. The backup of this file is critically important to ensure the security of the information that is being stored.

Installing Concordance Desktop

Before installing Concordance Desktop

Here are some tips and information to consider prior to installing Concordance Desktop:

- You do not need to uninstall your existing Concordance, viewer and FYI Server applications prior to installing Concordance Desktop. However, any databases created in Concordance 10.x that you want to open in Concordance Desktop will need to be migrated to the Concordance Desktop. Once a database has been migrated, you can no longer open it in the previous Concordance and FYI Server applications. Therefore, you may want to make a backup of the database prior to conversion.

- Concordance Desktop must be installed at its default location; you cannot use a customized location.

- Databases created in Concordance 9.x and below will need to be converted to Concordance 10.x databases (10.21 for E-Document databases) prior to migrating them to Concordance Desktop.

- Make sure that you regularly back up your server data and strongly caution users to regularly back up their data on their workstations. Do not install Concordance Desktop until your data has been backed up.

- Do not perform live backups if you are using backup software that locks files, even briefly. Doing so can cause read/write functions to the database files to fail, and can also cause file synchronization or corruption issues. Check with your IT group and/or backup solution provider to verify that no file locking occurs before scheduling any backups on Concordance Desktop databases.

- Be aware that anti-virus, firewall, and backup software can often interfere with network traffic and the locking of files, and in effect, could cause the Concordance Desktop application to crash.

- The default install directory for the Concordance Desktop application data files is *C:\ProgramData\LexisNexis\Concordance Desktop*

- If you choose to uninstall FYI Server, note that the CPL and Database folders associated with that previous version are not removed. If you want to remove the folders, make sure that you back up the folders first, and then manually delete them.

⚠ Before installing Concordance Desktop, check to ensure that the Microsoft .NET 3.5 and 4.0 Frameworks are installed and enabled.

Before installing Concordance Desktop, be sure to review the following information about Concordance Desktop licensing, system requirements, installation changes, and database compatibilities.

Licensing

Application licenses are applied to only one computer, and allow for that computer to be used as a Concordance Desktop database server. Once an application license is activated on a computer, it is tied to that computer and cannot be used or moved to another computer. There are two kinds of application licenses; server and mobile.

User licenses work a bit different than application licenses. They are used to access different functionality in Concordance Desktop. A single User license, for the most part can be used by multiple people, as long as they do not attempt to all use the same license at the same time. User licenses are added to a Concordance Desktop database server through the Administration Console, and are available for use by any user who has the proper log in credentials to access the Concordance Desktop server and/or a database on that server.

For more information on licensing, see About Licensing and Product Activation.

For more information on obtaining licenses, please contact Concordance Desktop Sales by e-mail at Sales@cloudnine.com.

Database compatibility

Due to the major database structure changes required by the Unicode Standard, all databases need to be migrated to Concordance Desktop prior to opening those databases in Concordance Desktop.

Since there is no backwards compatibility to older database versions in Concordance Desktop, version 8.x and 9.x databases must first be converted to Concordance 10.x format. When opening a 10.x database, regardless if it was a converted 8.x or 9.x database or one created in 10.x, you are prompted to migrate it to Concordance Desktop. If you choose not to migrate the database, it cannot be opened in Concordance Desktop.

For more information about migrating databases, see Migrating databases.

⚠ Concordance Desktop databases are not compatible with Concordance 10.x or lower, and any version of FYI Server and FYI Reviewer

Installing Concordance Desktop

The Concordance Desktop application can be installed on any Windows 7, Window 10, Windows Server 2008 R2, Windows Server 2012, or Windows Server 2012 R2 computer (for networks, this could be a server or a workstation) that will either be used as a Concordance Desktop database server, or as a reviewer's computer. To install, you simply download the application setup file, install it on a computer or server, and then if you want to use that installation as a Concordance Desktop database server, activate the server functionality with a Server license. Reviewer computers do not have to be activated. There Concordance Desktop functionality is controlled by the available user licenses on the Concordance Desktop server, and their user account access level on that server. On a single computer that is not on a network, the process is the same, except that you have to activate the installation with a Mobile license, which activates the installation as a Mobile, and enables all functionality for a single user on that computer.

In a network environment, at least one computer should be designated as a Concordance Desktop database server, and be activated with a Server license. All other Concordance Desktop installations on the network (LAN or WAN) can then be used as reviewer computers. Depending on the user licenses that get added to the Concordance Desktop server, the users of the computers on which Concordance Desktop is installed, can open and work with the databases on that server. For Concordance Desktop installation on a single (non-networked) computer, a Mobile license must be activated in Concordance Desktop, to enable all Concordance Desktop functionality for a single user on that computer.

⚠ Before installing Concordance Desktop, check to ensure that the Microsoft .NET 3.5 and 4.0 Frameworks are installed and enabled.

📝 Concordance Desktop must be installed at its default location on the C drive.

To install Concordance Desktop:

1. Download the installation file and save it to the computer, a network server, a flash drive, or an external usb drive.

2. Open the folder where you downloaded and saved the install file.

3. Right-click on the **Concordance Desktop_Install.exe** file and select **Run as administrator**.

4. You are asked if you want to allow the program to makes changes, click **Yes** to launch the installer. The welcome window opens.
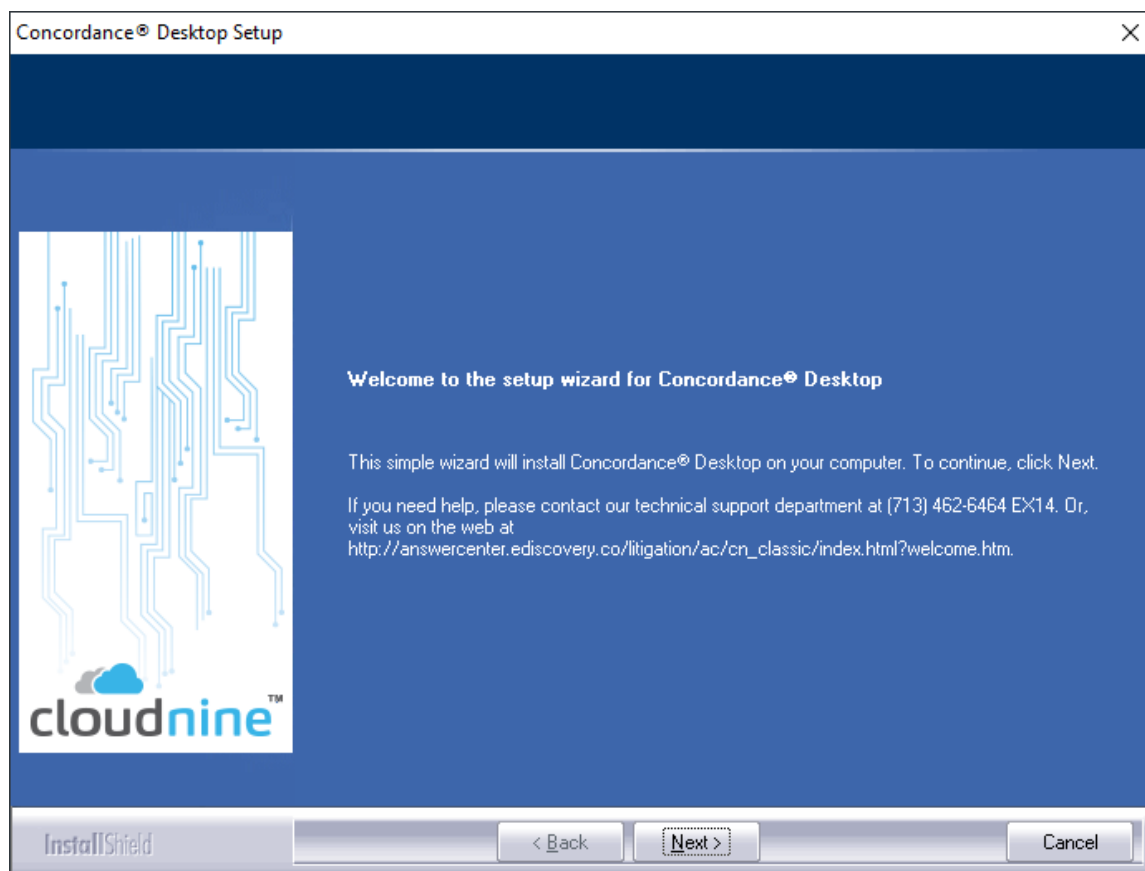
5. Click **Next**. The **License Agreement** window opens.
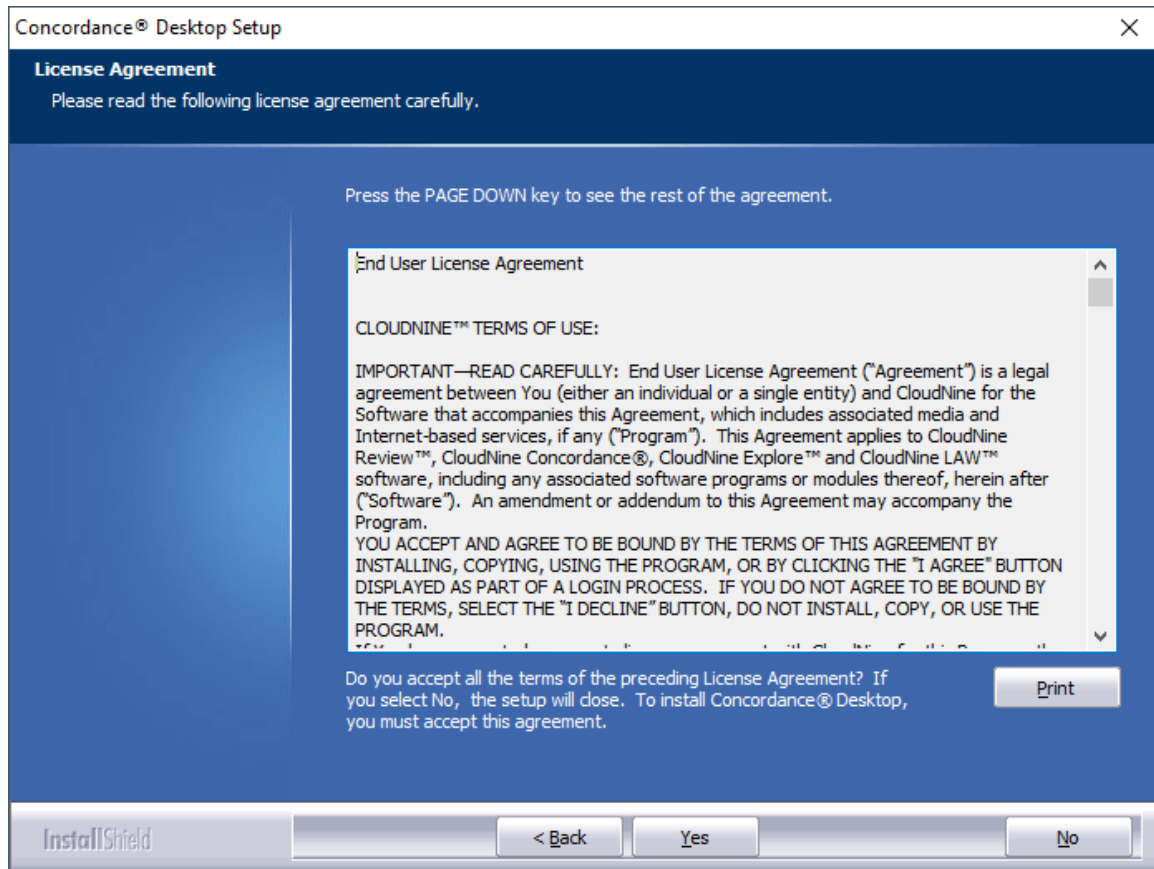
6. If you would like to print the License Agreement, click the **Print**. Click **Yes** to continue with installation. The **Start Copying Files** window opens.
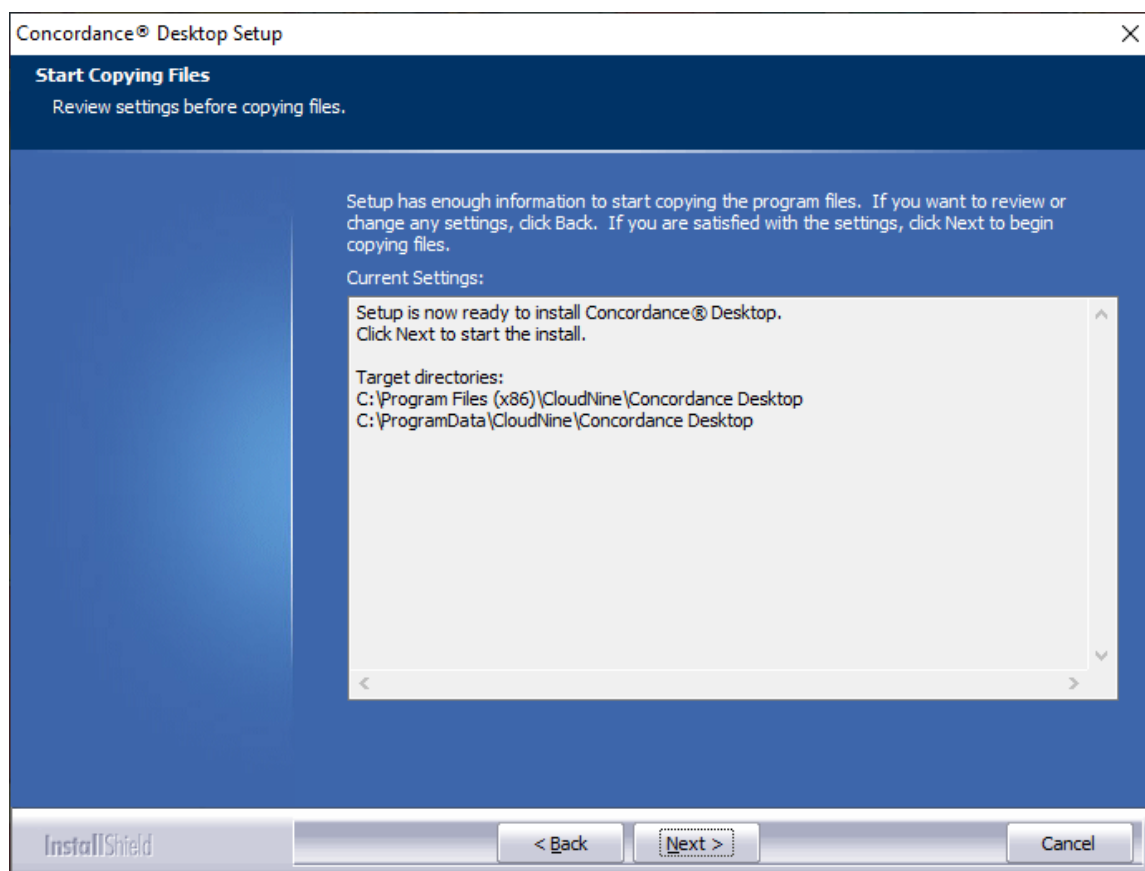
7. Click **Next**. The **Ready to Install the Program** window opens.
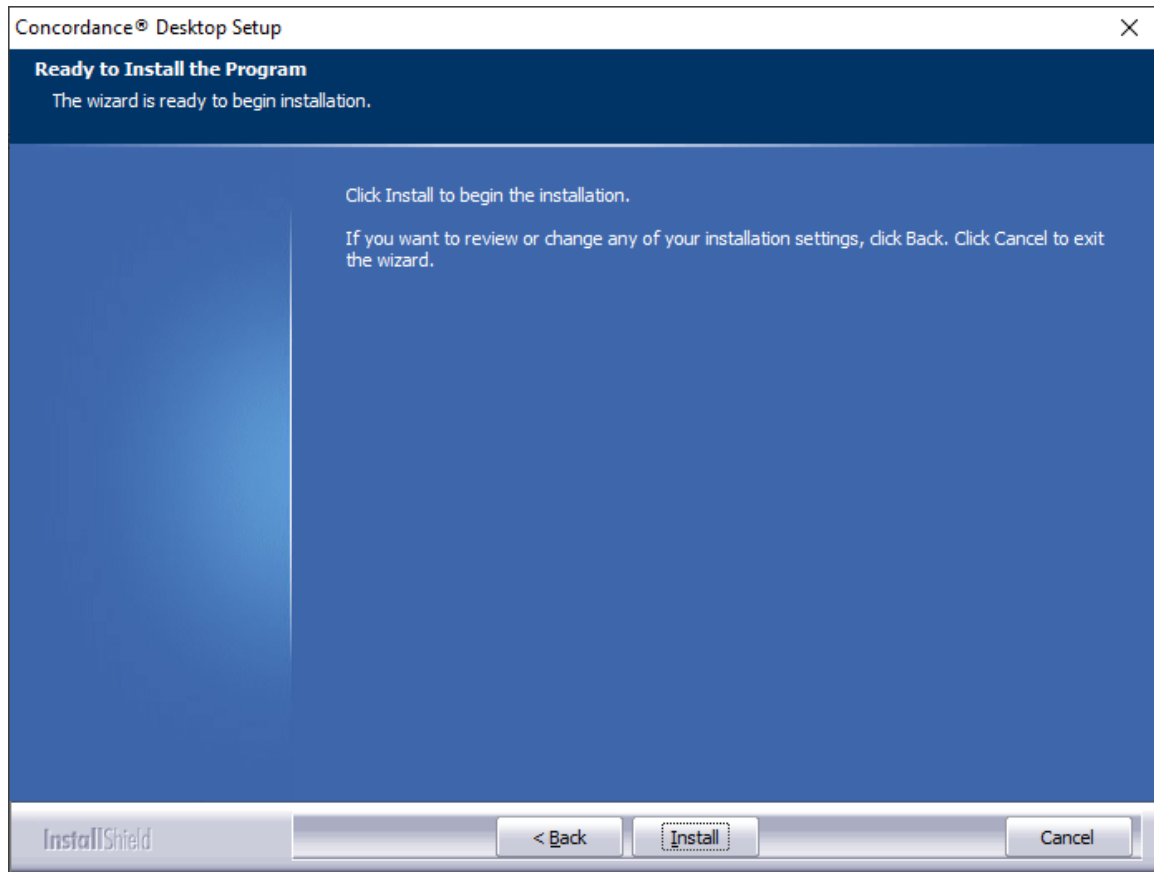
8. Click **Install**. The installation begins. A progress bar displays the status.
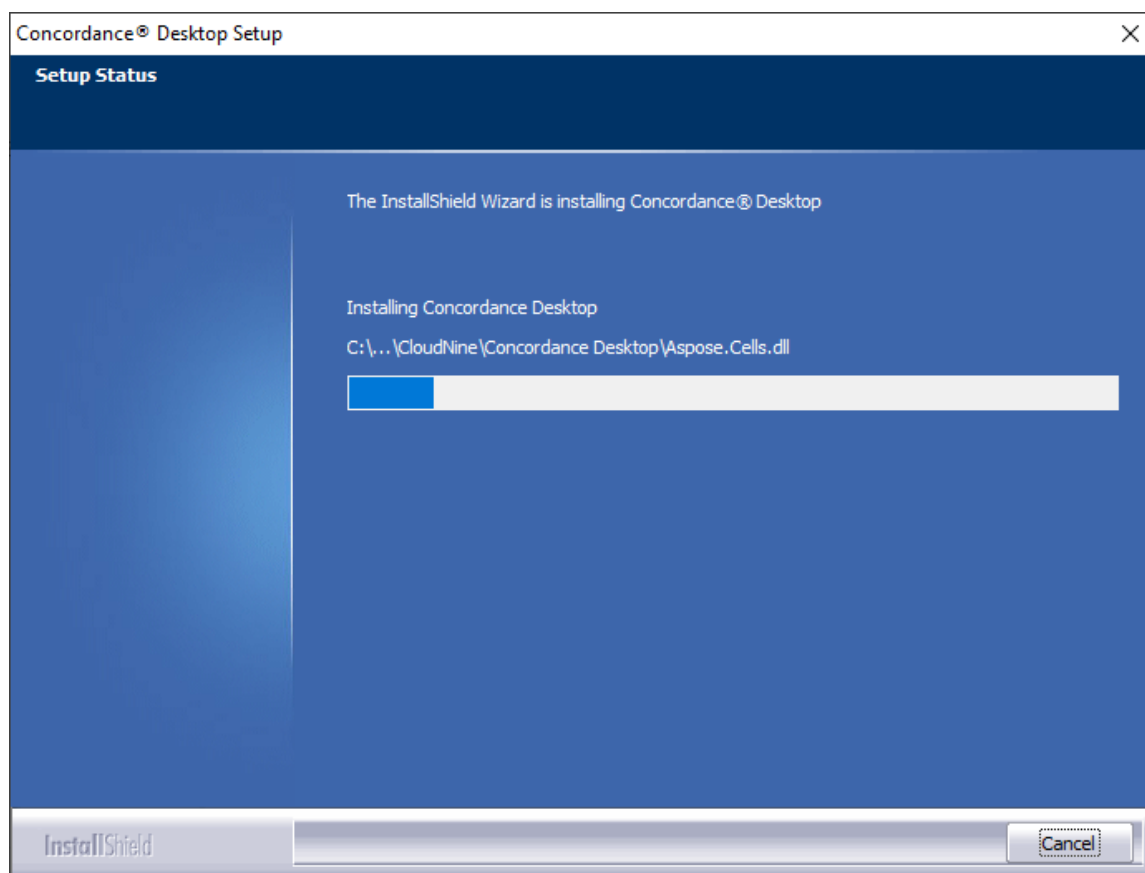
9. When the installation finishes, the **Setup is now complete** window opens.
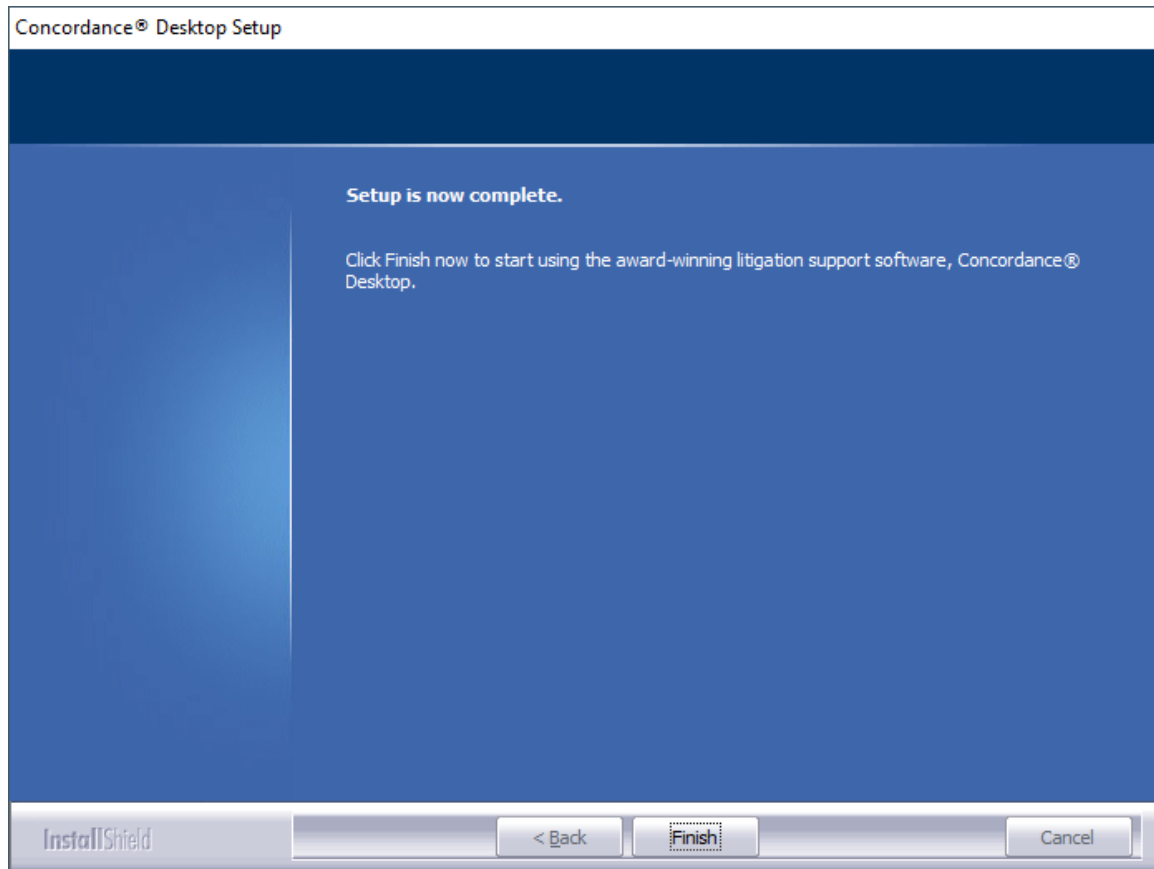
10. Click **Finish**.

If you just installed Concordance Desktop on a server or network computer you intend to use as a Concordance Desktop database server, you need to activate the server functionality on the computer using a Server license. If this installation was on a network computer to be used by a reviewer, no activation is required. For more details regarding activation and licensing, please see the "About Licensing and Activation" topic.

⊟ **To set up a dedicated service account**

It is best practice to use a dedicated service account, instead of a local system account, to run Concordance Desktop Services to view data in the database, plan to use mapped drives or work remotely. You will want to add and use a dedicated service account with administrative rights to access the network directory where the databases reside. If you do not have a valid service account set up that has rights to this directory structure, you will not be able to connect to your images or native files if they are stored on a separate server.

The dedicated service account can also be the same account as the administrator account used to access the Concordance Desktop Administration Console, or you can make separate accounts for stronger security.

To set up a dedicated service account, you need to set up a Microsoft Windows user account with Log on as a Service rights. The dedicated service account should be set up before installing Concordance Desktop. If you did not set up the dedicated service account before installation, you can change the logon information for the Concordance Admin Server and Concordance Server services in the Services Manager.

⊟ **To change the Concordance Desktop Server service logon information in Services Manager**

1. Open the **services.msc** file.

    Opening the services.msc file opens the Services dialog box.

    You can also open the Services dialog box from the Control Panel dialog box. From the Start menu, click Control Panel, double-click Administrative Tools, and double-click Services to open the Services dialog box.

2. Right-click **Concordance Admin Server** in the **Name** column and click **Properties**.

    Clicking Properties opens the Concordance Admin Properties (Local Computer) dialog box.
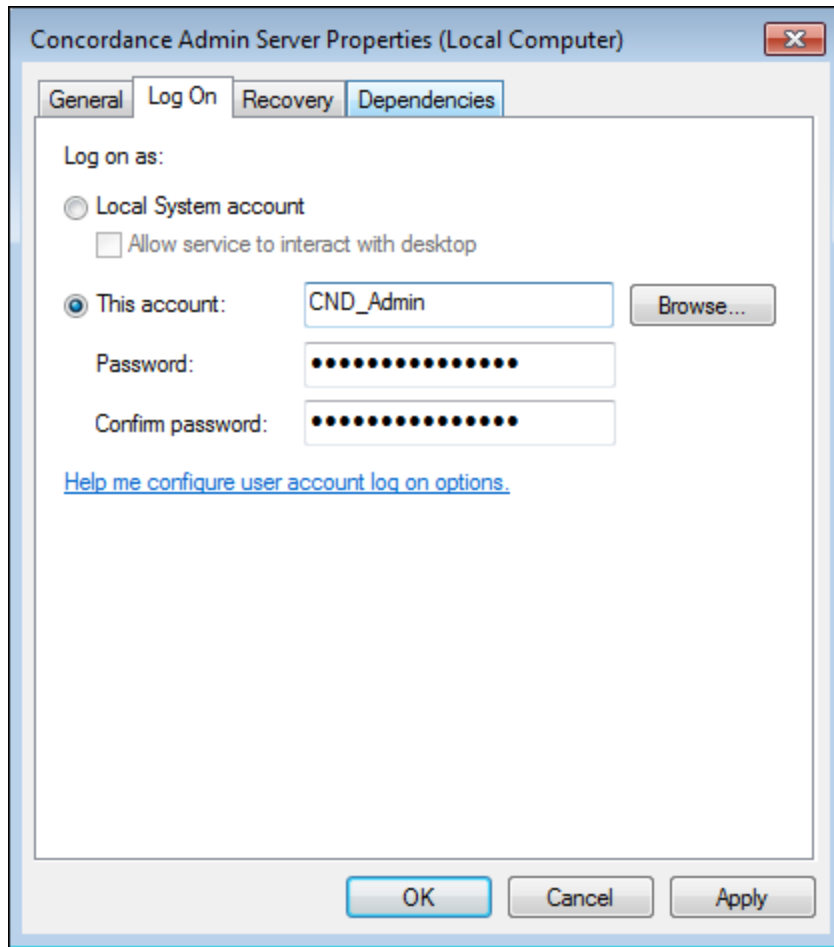
3. Click the **Log On** tab.

4. Click the **This account** option.

5. Add the Microsoft Windows user account with Log on as a Service rights to **the This account** field.

6. Type the user account's Microsoft Windows password in the **Password** and **Confirm password** fields.

7. Click **OK**.

8. Repeat steps 2-8 for the **Concordance Server service**.

9. Stop and restart both the **Concordance Admin Server** and **Concordance Server** services.

Activating/Resetting a Server or Mobile license

Application licenses are applied to only one computer, and allow for that computer to be used as a Concordance Desktop database server. Once an application license is activated on a computer, it is tied to that computer and cannot be used or moved to another computer.

There are two different types of application licenses:

Application license	Description and functionality
Server	Used to activate server functionality on a networked server or workstation computer.
Mobile	Used to activate server functionality, and enable all Concordance Desktop user functionality on a single computer, for use by only one user.

To activate a Server or Mobile license:

1. Open the email with your server or mobile license, and copy (CTRL + C) the license key, including the semi-colon at the end.

2. Right-click on the **Concordance Desktop** icon on the desktop and select **Run as administrator**.

3. In the User Account Control dialog box, click **Yes**.

   Concordance Desktop opens.

4. From the **Help** menu, click **Activate Concordance Desktop**.

5. In the **License Key** field, paste (CTRL + Z) the license key.

6. Click **Activate**.

7. A dialog opens asking for the port numbers for the server and the Admin Console.

   The defaults are 10001 for the server and 443 for the Admin Console. If you have FYI Server installed, you may need to change the defaults, as FYI Server also uses 10001 and 443 as the defaults for that products server and Administration Console. Change the defaults if necessary.

⚠ If you 'Cancel' the activation at this point in time, the Admin service is not created. Your license key will be activated, but you will not be able to run the Admin Console or perform administrative tasks on the Concordance Desktop server. Run the Concordance Desktop installer and select "Repair" to remedy the issue.

8. Click **OK**.

<u>**To reset a Server or Mobile license:**</u>

1. Right-click on the **Concordance Desktop** icon on your desktop and select **Run as administrator**.

2. In the User Account Control dialog box, click **Yes**.

   Concordance Desktop opens.

3. From the **Help** menu, click **Activate Concordance Desktop**.

⚠ Before proceeding to step 4, ensure that the Admin Console is not open in Concordance Desktop. If it is left open during a reset, it can cause issues with licensing.

4. Click the **Reset...** button.

   If you do not see the Reset... button, you did not select to run Concordance Desktop as an administrator (see step 1). You will need to close the application and start again.

5. A dialog box opens asking if you are sure you want to reset now. Click **Yes**.

   The license key is reset.

Installing language packs

To display characters in Unicode within Concordance Desktop, the appropriate language packs need to be installed on the computer. Please go to the Microsoft web site to find out how to install language packs for your version of the Windows operating system.

The Microsoft Windows Windows 7 operating system uses Language Interface Packs (LIPs). These can be downloaded from the Windows Update Web site or the installation media. Once you have installed at least one LIP, you can add or remove more LIPs from the Control Panel.

To install language packs on a Windows 7 operating system:

1. In the Control Panel, click **Change keyboards or other input methods**.

2. Click the **Keyboards and Languages** tab.

3. Under **Display Language**, click **Install/uninstall languages** and follow the prompts.

   For more information about installing LIPs, go to the Windows Help and How-to Web page at: https://support.microsoft.com/en-us/help/14236/language-packs.

Registry key locations

The registry settings are stored in the same places relative to the new key names:

Registry key locations for Concordance Desktop are:
- HKEY_CURRENT_USER\Software\LexisNexis\Concordance Desktop (32-bit)
- HKEY_LOCAL_MACHINE\Software\Wow6432Node\LexisNexis\Concordance Desktop\Settings (64-bit)

Concordance Desktop also has a Registry value for the snapshot path:

- HKEY_CURRENT_USER\Software\LexisNexis\Concordance Desktop\Settings\AutoSave

  It holds the path to the snapshot for the current user, which is:

  <drive>:\Documents and Settings\<username>\My Documents\Concordance Desktop\autosave.snp

Performing silent installs

When you need to install and activate Concordance Desktop on numerous machines, you can save time by running silent installations of Concordance Desktop on each machine.

Silent installations use a *setup.iss* InstallShield® Silent response file to run an installation. Silent installations install applications without prompting you for input during the installation.

To install Concordance Desktop using a silent installation, you will first need to create a setup.iss file. This setup.iss file only needs to be created once. When you are creating the setup.iss file, you will be running a normal Concordance Desktop installation on a machine and will be recording each step and setting of the installation process for the setup.iss file. After the setup.iss file is created, this file can be used any time you want to run a silent Concordance Desktop installation on a machine.

To create a setup.iss file for installing Concordance Desktop:

1. Click **Start**, and then click **Run**.

2. Type **cmd** in the **Open** field and click **OK** to open the **cmd.exe** command prompt.

3. Do one of the following:

- Type the path to the **Concordance Desktop_Install**.exe file followed by **-r** and press **Enter**.

  For example: w:\concordance desktop_install.exe -r

- Run the **Concordance Desktop_Install.exe** directly on the workstation and complete all of the installation and activation steps.

When the installation is complete, the setup.iss file is created in the \WINDOWS subdirectory.

The setup.iss file contains a record of the actions you performed for each installation dialog box.

Best practice is to store the setup.iss, and the Concordance Desktop installation together in a network folder that you can access from each machine on which you will be running a silent install.

4. Create a network folder and add the following files to the folder:

- **setup.iss**
- **Concordance Desktop_Install.exe**

To install Concordance Desktop using a setup.iss file:

1. Click **Start**, and then click **Run**.

2. Type **cmd** in the **Open** field and click **OK** to open the **cmd.exe** command prompt.

3. Type **[path to the Concordance Desktop_Install.exe file] -s -f1[path to the setup.iss files]** and press Enter to silently install Concordance Desktop.

   For example: w:\concordance desktop_install.exe -s -f1w:\setup.iss

   The -s parameter tells InstallShield that you are running a silent operation, and the -f1 parameter indicates where the setup.iss file is located. Note that there is a space between the -s and -f1 parameters, but there is no space between -f1 and the path to the setup.iss file.

   Silent installation programs do not display error or status messages, such as Setup is now complete, during the installation. By default, silent installation status and error information is recorded in the setup.log file. The setup.log file is automatically created in the same directory where the setup.iss file is located.

   If the setup completes, the setup.log file should contain the following information:

   [InstallShield Silent]
   Version=v7.00
   File=Log File
   [ResponseResult]
   ResultCode=0

```
[Application]
Name=Concordance Desktop
Company=CloudNine
Lang=0009|
```

Result codes indicate whether an installation was successful or there were errors during the installation. A 0 in the ResultCode field indicates the installation was successful.

For more information about the setup.log file, including a list of result codes and their definitions, see the "Checking for Errors Using the Setup.log File" Help topic in following Web site: http://helpnet.flexerasoftware.com

Click the Search button in the Flexera Software Web site and search for *setup.log* to view the Help topic and other relevant Help topics.

Customizing the start-up view

In Concordance Desktop, there are four settings you can define to customize what you will see when you open Concordance Desktop:

- Initial browse path
- Default database view
- Most recently used list
- Workspace tab display

To customize the Concordance start-up view

1. On the **Tools** menu, click **Preferences** to open the **General** tab in Preferences dialog box.

2. In the **Initial Browse Path** field, click the ellipsis (...) button and browse to the folder you want to be the initial folder that opens when browsing for a file or opening a new database.

   For example, entering *C:\Concordance Databases* opens this folder when opening a database in the Databases task pane.

3. In the **Default** view field, select **Browse** or **Table**.

   The view you select is displayed when you open a database in Concordance Desktop.

4. In the **Number of MRU items** field, type or scroll to the number of files to list in the most recently used (MRU) file list.

Your MRU list is displayed in the File menu and the Recent panel in the Databases task pane. The maximum number of files you can display is 9.

📝 If a user's MRU list in the File menu or Databases task pane is blank, your company may have a policy preventing the user's computer from writing to the MRU registry key:

HKEY_CURRENT_USER\Software\LexisNexis\Concordance Desktop\Recent File List

By default, the Workspace tab is displayed and contains links to the CloudNine Web site. You can customize your Workspace tab to display internal or external Web pages simply by adding a link to an external HTML web page or to a locally stored .HTM or .HTML file with information you'd like to publish for user reference.

5. In the **Workspace** section, the **Enable workspace** check box is selected by default. To continue displaying the **Workspace** tab in Concordance Desktop, leave the **Enable workspace** check box selected. If you do not want to display the **Workspace** tab, clear the check box.

6. If you want the **Workspace** tab settings to apply to all users in all databases, in the **Apply to** field, choose **<All databases, all users>**. If you only want the **Workspace** tab settings to only apply to the local user, choose **<local user only>**.

7. To add a link to an external HTML Web page, in the **URL** field, enter the Web site URL. Be sure to include http:// or https:// in the URL. For example: https://ediscovery.co/software/concordance/.

    To add a link to an internal internal .HTM file located on your server, in the URL field, enter the full UNC path. For example: J:\CloudNine\Internal_Links.htm OR \ \MyServer\MyFolder\myhtm.htm.

8. In the **Attachments** section, if the attachment fields were not set up during the database creation process, to specify the fields to use with the Find Attachments feature, do one of the following:

    *   To set a field to a range of attachments, select the **Attach Range** option, and then select the field that contains the attachment range data.

    *   To set up the beginning and ending attachment fields, select the **Fields** option, and then from the **Beg Attach** and **End Attach** list select the fields that contain the attachment data for the beginning attachment number and ending attachment number.

    💡 When using the Find Attachments feature, it is best practice to setup the fields as paragraph type fields to increase the performance and make sure to index/reindex the databases. For more information about the Find Attachments feature, see Finding attachments.

9. Click **OK** to save your changes.

    Your changes will not go into effect until you restart Concordance Desktop.

    For more information about the other Concordance Desktop Preferences dialog box settings, see Defining preferences.

Upgrading shortcut (.fyi) files

If you are using database shortcut (.fyi) files for users to connect to Concordance 10.x databases that you will be migrating and registering on a Concordance Desktop server, the shortcut (.fyi) files need to be recreated and redistributed to the users, after migrating/registering the databases on the Concordance Desktop server.

To create a new shortcut (.fyi) file, see Working with shortcut (.fyi) files in the Answer Center, or the Administrator's Guide.

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