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KATUN[®]

INFINITE USER MANAGEMENT

INSTALLATION GUIDE

VERSION 7.0.1

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1. About Infinite User Management

Print Audit Infinite User Management is a leading edge set of tools that will improve document based workflow in the office. The web-based architecture allows you to easily install the solution, and get started quickly within the simplified management and reporting tools. The Infinite User Management intelligent print management tools reduce the cost of document output, increase document security, and provide flexible cost recovery methods. The fully integrated, next generation Secure and Pull printing capabilities allow employees to release their secure print jobs from any smartphone or web-enabled computer.

What's New in Infinite User Management?

This version of Infinite User Management introduces these new features:

- **Web-based architecture** - Provides simplified web-based management tools that an Administrator can access and configure from any web-enabled computer on the network.
- **Powerful new reporting feature** - Generate reports to determine printing habits, potential cost savings, potential print workflow issues, etc. Use the report content to streamline the print process and improve the economics of your printing environment.
- **Fully Integrated Secure Print Release and Print Queues** - Enable Secure Hold on specific print queues to hold the job in a queue until the user is ready to release the print job. This feature prevents users from leaving unclaimed documents at the printer. Users can release their print jobs at a device their smartphone, tablet or web-enabled computer.
- **Release Codes** - When a user sends a print job to a secure print queue, you can configure the queue to hold the print job until the user enters a Release Code. The Release Code can be predefined, auto-generated upon print, or entered by the user when the job is submitted to the queue.
- **Google Cloud Print Integration** - Infinite User Management creates a gateway between physical printers and the Google Cloud. Google Cloud Print creates a cloud-based print server that lets users print from any Cloud-Print-aware application (Chromebooks or Android phones for example) or any Windows application on any device in the network cloud to any printer.
- **Associated Network Card Readers** - Configure a secure queue with the IP address and port of a specific network card reader. When the user swipes their card, all of their jobs sent to the secure queue are released at the same time.
- **Field Level Save** - Rather than completing all items in a form, and then saving after making all changes, Infinite User Management offers field-level save to ensure precise control of all settings.

Infinite User Management Components

Infinite User Management is client-server software that is comprised of the following components. During the installation, you can either install all components or choose only certain components to install.

- **Administration & Reporting** - The Administration and Reporting Tools are required for every server install. The installer will not prompt you to create a database if Administration and Reporting is not selected.

Important: If distributing components across multiple computers, you only need to install the Administration and Reporting Tools on one server.

- **Administration & Reporting Tools** - The main web site where you can configure the product. Minimum memory usage is 150MB. This usage will grow depending on activity (specifically viewing large reports), and can use several hundred MB.
- **Windows Task Service** - The service responsible for running all scheduled tasks, running reports and cleanup tasks. Expect a minimum memory usage from 50 MB to several hundred MB when running large reports. This service is installed automatically when the Administration & Reporting tools are selected to install.
- **Database** - Requires Microsoft SQL Server or Microsoft SQL Express. If using Microsoft SQL Server, it must be installed before running the installer. Alternatively, the installer will install Microsoft SQL Express if the option is chosen during the install.
- **Secure Print and Client Services** - The web services component responsible for handling Client communication and securing jobs. Expect a minimum memory usage from 150MB to several hundred MB, depending on the number of users. For load sharing in large organizations, Print Audit recommends distributing the Client and Secure Services on more than one computer.
 - **Release Windows Service** - Responsible for releasing held jobs, monitoring network card readers and cleaning up expired secure jobs. Expect a minimum memory usage from 50MB to several hundred MB, depending on size and activity of released jobs. This service is always installed with the Client and Secure Services.
- **Client** - The Client software is required to track printing and/or if you are configuring Secure Print Release.

Licensing

Infinite User Management offers four license types:

- **Suite license** - Enables all features and functionality.
- **Analysis license** - Supports all features with the exception of secure printing, tracking with popups and rules.
- **Infinite Device Management license** - Allows local device reporting, but does not track jobs or allow most functionality.
- **Trial license** - Infinite User Management is enabled for 5 users for 15 days only. At the end of the 15 days, the software is considered 'unlicensed' and all functionality is disabled.

Important: After you install the software, you are required to provide a license key before you can access the Administration & Reporting tools. You can either enter an Analysis or Suite license key that you have already purchased, or you can request

a trial license. If requesting a trial license, you must have an internet connection available to contact Print Audit and receive the trial key.

Licensing is applied per-user rather than per device. You can secure an unlimited number of devices; however, only the max number of licensed users will be tracked and allowed to release from secure queues unless the license has been configured to track unlicensed users. A user requires a license if they want to secure a job, track printing from a job, or login to the website. An Administrator can set a user account to 'Inactive' at which point their license seat is freed up for another user.

If licenses are exceeded, the user is denied login and jobs will not be tracked. A notification email will be sent to Administrators (if notifications are configured) once per day to indicate that a user is trying to activate but is denied due to the license restriction.

Activate a License

To view license status or to activate a license, do the following:

1. Select **Administration** from the ribbon.
2. Select **Settings** → **Licensing**.
3. The General and Status sections list details about the current license, including validity, expiry, allowed users, and the number of users licensed.
4. To activate the software online, you require the activation key and the company name. Click **Activate**, enter the key and the correct Company name for which it was purchased and then click **Activate** again.
5. If you cannot access the internet to activate the software, you must request a license file, plus the activation key. Click **Activate via File**. Provide the Host name and MAC address listed in this screen to Print Audit or to the dealer/reseller of your choice. When you receive the files, enter the Activation key and enter the company name. Click **Browse** and navigate to the location of the provided license file, and then click **Activate**.

Additional Resources

In addition to this documentation portal, the following resources are also available:

- [Print Audit Discussion Forum](#)
- [Print Audit e-Guides](#)
- [Print Audit Technical Support](#)

System Requirements

Before you install Infinite User Management ensure that the server and client computers you plan to use meet the minimum operating and network requirements outlined below.

Server and Admin Tools

You can install the Infinite User Management server components on computers running Microsoft Windows 7 or later.

A full server installation requires at least 5GB of free space, to support the Infinite User Management software, SQL Express, .Net 4.5.2 and IIS. By default, all secured jobs and logs are also stored on this server.

- .NET 4.5.2 is required, and will be installed if absent.
- IIS is required and will be installed if absent. See "IIS Web Server Support" below below for details.

Client Requirements and Memory Usage

You can install the Infinite User Management Client Popup software on computers running Microsoft Windows 7 or later.

A full client installation will require approximately 10-20 MB of disk space.

The Client is comprised of two components: the Desktop Client and the Client Service.

- The Desktop Client required between 5MB - 20MB, also depending on activity.
- Client Service requires between 3MB - 10MB depending on activity.

No additional software is needed.

IIS Web Server Support

Infinite User Management uses Internet Information Services (IIS) to communicate with devices and internally between Infinite User Management components. The installation requires either the full version of IIS and the installer will determine if you have an existing IIS installation or not. If not, the installer will create a new site and application pool using IIS.

Networking Requirements

Infinite User Management uses standard HTTP/SSL communication via ports 80/443 for web services by default. If these ports are unavailable, Infinite User Management will use 6320/6231. However, you can change the communication ports if there is a conflict in your organization.

Infinite User Management uses TCP/IP networking protocol.

Important: No network traffic is created until a print job is initiated. When securing jobs the size of the raw job can be anywhere from 2k to 400MB, depending on the size of the document. Once a print job has been sent to the printer, 10 to 20 KB of bidirectional network traffic is created per print job, regardless of the print job size

Database Requirements

Infinite User Management requires Microsoft SQL Server or Microsoft SQL Express. If using the full version, Microsoft SQL Server must be installed before running the installer. Alternatively, the installer will install Microsoft SQL Express if the option is chosen during the install.

Note: Approximately 1MB of disk space per 2000 print jobs will be used.

The SQL Server database can run on the same computer where the server components are installed, or on an external SQL Server infrastructure. The installer will install SQL 2012 Express if Express is selected and not detected on the computer.

Infinite User Management supports Microsoft® SQL Server® 2008 R2 (Workgroup, Standard, Enterprise) or later.

Web Browser Support

You can connect to the Infinite User Management Administrative Tools via web browser. The following browsers are supported:

- Firefox 52 ESR and later
- Internet Explorer 11 and later

2. Installation Overview

Users installing Infinite User Management must have Administrator rights, or you must use third-party tools that can install software in a locked down environment. Installing Infinite User Management across a network requires knowledge of the network design, user rights and technologies available in your organization.

Important: Print Audit supplies various tools to aid in the rollout of Infinite User Management software but these tools are meant to complement your organization's current desktop software rollout procedures. If you do not have an established way to rollout software in your organization, we strongly advise that you develop a software rollout plan for all desktop software before attempting to roll out Infinite User Management Client software.

Infinite User Management provides an installation wizard to guide you through the server, client, and optional component installs. There are several different types of deployment, and each method requires some planning prior to running the installation wizard.

Deployment Type	Description
"Simple Install" on the next page	All components will be installed on a single server. Refer to "Infinite User Management Components" on page 4.
"Step by Step Install" on page 13 (Custom)	Choose specific components to distribute across multiple network servers.
"Installing Client Software" on page 16	Install only the client software on the selected computer. The Client Services must already be installed on a network server before you can run this deployment type. For instructions to install the client software silently across the network on multiple clients, refer to "Client Silent Rollout" on page 17.
Migrate from PA6 to Infinite User Management	Infinite User Management may be installed over an existing Print Audit 6 installation and the data can be migrated using the Print Audit Infinite Database Migration Tool. Please contact Print Audit Support to request the Migration Guidelines document and Migration Tool.

Prerequisites

- Before installing Infinite User Management, verify the "System Requirements" on page 6.
- Install Infinite User Management directly on the system hosting the printer(s) (i.e. the print server).
- Confirm that all printers are configured correctly and are in working order before installing the software.

Note: Refer to the Release Notes for potentially important installation information not contained in this document.

Installation Workflow

Perform the step-by-step installation workflow as follows:

1. Confirm "System Requirements" on page 6
2. Install Infinite User Management server components using the "Simple Install" below or "Step by Step Install" on page 13.
3. Perform "Initial Configuration" on page 19.

Important: If you require multiple print servers to load balance or distribute printing within your organization, refer to the online help for further information before proceeding.

4. Roll out [Client Software](#).
5. [Test client, printing, and remote access](#).

Prepare the Network and Database

Although the Infinite User Management installation routine is very simple, you must perform some planning prior to install:

- Determine the installation destination for each of the [components](#). As a general guideline only, if you have 500 users or less, you can likely install all components on one computer ([Simple install](#)). Otherwise, you may need to install the Administration & Reporting Tools and Database on one computer, and install the PAI Client and Secure Services on another computer ([Step by Step install](#)).
- Before you deploy Infinite User Management on the network, ensure that you have Administrator privileges on all machines that must be installed and configured. In addition, you must have the 'sa' password or have an admin account on the authentication system you will use (LDAP, Windows Peer to Peer, Windows NT).
- Infinite User Management uses ports 80/443 when handling Client communication and securing jobs. If the installer detects that these ports are already in use, 6320/6321 are used instead. Alternatively, you can choose other available ports as needed. Ensure you confirm the existing port assignments on your network to prevent conflicts prior to installing Infinite User Management.
- If using an existing SQL Server database, you must have an Administrator login account to access the database.

Simple Install

Select this install type within the installer to place all Infinite User Management components on the same server.

Note: You can download the installer from the Print Audit website.

Simple Install Components

The Simple Installation type installs all Infinite User Management components on the same server, including:

- **SQL Express** - Installs the SQL 2012 Express software (if an existing 'PAINFINITE' instance is not found) and creates a new database instance named 'PAINFINITE' by default.
- **Administration & Reporting Tools** - These tools are the primary site you will access to manage and configure the installation.
- **Client & Secure Services** - These services are required to implement secure print release and to support the Infinite User Management Client that you will later deploy to client workstations.
- **Client software** - This software can be deployed on all client workstations from which you want to track printing or implement secure print release.
- **Internet Information Services (IIS)** - Web server that serves requested HTML pages . If not detected on the computer, the full version of IIS is installed and a new site and application pool using IIS is created on the computer.

Install Procedure

Click 'Next' between each step below to advance through the installation wizard. When installation of the files is complete, the configuration wizard will launch a browser to walk you through initial configuration.

Tip: If you have previously created an Infinite User Management database, you have the option of connecting to the database during the install. Ensure you have the correct credentials to connect to the database if you intend to use the existing database.

1. Confirm that your computer meets the "System Requirements" on page 6
2. Launch the installer.
3. Accept the license agreement.
4. Choose '**Simple**' as the install type.
5. Browse to the folder where you want to install the software.
6. Confirm the installation folder and the installation details and then click '**Install**'.
 - If Infinite User Management detects an existing Infinite User Management database, the Server and Database details are automatically completed. If you prefer to create a new database, enter a name for the SQL server database that will be created. By default, the database name is 'PAINFINITE'.

- To create a new database, you must have the sa password for the server or your login must be a SQL Administrator. Enter the name of the database you want to create. Check the 'Overwrite if already exists' option to delete the existing information (if found) with the new database. You must enter the correct password for the SQL server account. If you don't know the password, you can enter a new password, and enable 'Reset account password' to reset it. However, if you do so, other Print Audit applications using this database will no longer be able to connect using the old password. Click 'Create' to continue.
 - If the database was created successfully, you will see a message indicating it is done. Click the **Done** button to close the window.
 - If there was a problem (i.e. the same database name was used previously), go back and fix the problem before continuing.
- 7. If Infinite User Management successfully connects to the existing database, click **Save** to proceed.
- 8. At the 'Installation Finished' message, click **Finish** to close the installer. The configuration automatically launches a window in your default web browser to begin initial configuration.

Initial Configuration

Depending on the components you chose to install, a web browser may be displayed to guide you through basic configuration. You will need your license key (if purchased) or you can request a trial license.

Note: If the Configuration Wizard Welcome screen is not displayed, you can access it by going to the following URL: <http://<servername>/Setup/NetworkSetup>

Refer to "Initial Configuration" on page 19 for help as you work through the initial product configuration.

Step by Step Install

Select this install type within the installer to distribute the Infinite User Management components on network servers.

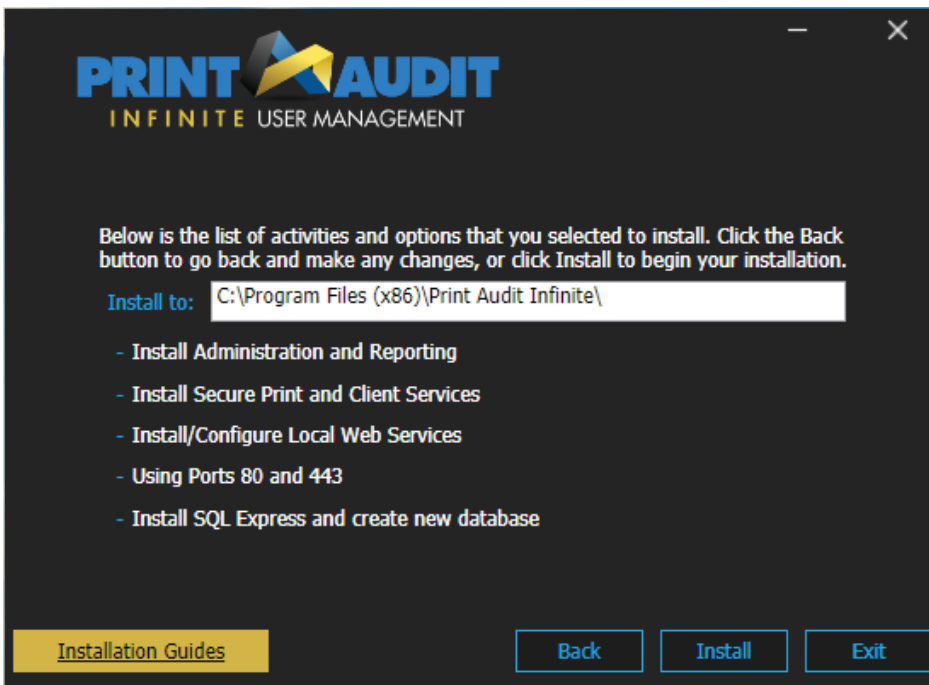
For example, if you are installing the server software on a separate computer than the database, or if you need to install more than one print server, follow the Step by Step install to choose specific components only.

Install Steps

Click 'Next' between each step below to advance through the installation wizard. When installation of the files is complete, the configuration wizard will launch a browser to walk you through initial configuration.

1. Launch the installer.
2. Accept the license agreement.
3. Choose **Step by Step** as the install type.
4. Browse to the folder where you want to install the software.
5. Confirm the default installation folder or click the ... button to select a different location for the files.
6. Choose the option(s) you want to install:
 - a. **Administration and Reporting** - These tools provide the management and configuration interface for Infinite User Management and should be installed on only one server in the environment. If you choose this option, you must also install Secure Print and Client Services by default.
 - b. **Secure Print and Client Services** - These services are required to implement secure print release and to support the Infinite User Management Client software that you will later deploy to client workstations.
 - c. **Client** - This software can be deployed on all client workstations from which you want to track printing or implement secure print release. If you choose this option, ensure all previous versions of the client are already removed from the current computer. Note that you can perform a silent client rollout using the simple 'paiclientinstall.ms'i file supplied in the 'Redist' folder in the Infinite User Management installation path. See [Installing Client Software](#) for instructions.
7. If you selected 'Administration and Reporting' or 'Secure Print and Client Services', Internet Information Services (IIS) is required. IIS is automatically installed if not detected on the server.
8. Identify the database. If you've already installed Infinite User Management in your environment, you can select 'Use an Existing Database'. Otherwise if this is your first time installing, select 'Create a New Database'. This option will install the SQL 2012 Express software (if an existing database instance called 'PAINFINITE' is not detected) and creates a new database. By default, the database name is 'PAINFINITE'.

9. Review the list of items that will be installed at the 'Install to' path. Click **Install** to complete the wizard.



Note: Depending on your selections, the installation may take a few minutes to extract the files and update the database. The installer displays an 'Updating' message while it is working.

- a. If you elected to connect to an existing database, verify the access credentials and then click **Save** to continue the installation.
 - b. To create a new database, you must have the sa password for the server or your login must be a SQL Administrator. Enter the name of the database you want to create. Check the 'Overwrite if already exists' option to delete the existing information (if found) with the new database. You must enter the correct password for the SQL server account. If you don't know the password, you can enter a new password, and enable 'Reset account password' to reset it. However, if you do so, other Print Audit applications using this database will no longer be able to connect using the old password. Click 'Create' to continue.
 - If the database was created successfully, you will see a message indicating it is done. Click the **Done** button to close the window.
 - If there was a problem (i.e. the same database name was used previously), go back and fix the problem before continuing.
10. At the 'Installation Complete' message, you can click on the link provided to launch the PAI Web Administration Tool and perform initial configuration immediately, or you can click **Done** to close the installation wizard and complete the configuration at a later time.

Initial Configuration

Depending on the components you chose to install, a web browser may be displayed to guide you through basic configuration. You will need your license key (if purchased) or you can request a trial license.

Note: If the Configuration Wizard Welcome screen is not displayed, you can access it by going to the following URL: <http://<servername>/Setup/NetworkSetup>.

Refer to "Initial Configuration" on page 19 for help as you work through the initial product configuration.

3. Installing Client Software

There are several methods available to install the Infinite User Management Client software:

- [Install the Client on a Single Computer](#) - As instructed below, you can run the Client installer on a single client computer. You must have already installed the Client Services on another computer and can connect to it via <computername>/Services. If you are installing the Client on the same machine as the Print Audit services, you can choose the [Simple method](#) install which includes the client software in the install.
- [Silent Client Rollout](#) - When you install the Infinite User Management services, the installer automatically places a "Redist" folder in the installation path. The msi file in this folder can be used via GPO or another existing install solution to silently distribute the file to multiple client computers.

Important: If the installer detects Client software already installed on the computer, the installer behaves differently depending on the version detected. Refer to "Install the Client Over an Existing version" below for details.

Install the Client on a Single Computer

Ensure all previous versions of the client are already removed from the current computer before performing this install.

1. Launch the installer.
2. Accept the license agreement.
3. Browse to the folder where you want to install the software.
4. Confirm the installation folder and the installation details and then click '**Install**'.
5. In the Services URL field, enter the fully qualified address where the Client Services option is already installed. The client will use this name or URL to communicate with the Client web services to track and secure jobs. By default the URL is equivalent to "https://<COMPUTERNAME>/Services". Alternatively, if Client Services are communicating on a port other than the default 443, enter '<Computername>:<sslport>' substituting the configured port number for 'sslport'.
6. Confirm that you want to complete the install.
7. Click **Exit** to close the install wizard.

Install the Client Over an Existing version

If the Client is already installed on the target computers, the Client installer behaves differently depending on the version:

- **PA6 and Secure Client** - If an install of PA6 or Secure is already installed on the computer, the Client installer will automatically remove the old versions and prompt the user for a reboot. Note that they may be prompted twice if both PA6 and Secure are installed. If the Client is installed silently, the computer will reboot automatically with no prompts. The SuppressReboots package.ini option will not

stop the reboot in this case.

- **Older Version of Infinite User Management Client** - The installer will update the computer to the latest version. If it is run silently it will update the ServicesUrl if defined in the package.ini, other than this and SuppressReboots other properties are ignored.
- **Newer version of Infinite User Management Client** - When installed silently, there is no change. If not installed silently, the user will be informed that it is not possible downgrade to the older version. You must uninstall the old software first, and then run the installer again.
- **Same version of Infinite User Management Client** - If not silent, will display a Repair/Remove option. If silent, nothing will happen unless REINSTALL=ALL and REINSTALLMODE=vomus are defined on the command-line, if so a Repair will take place.

Note: The Client Status/Deployment tool includes an option for “Run Repair if same version installed”. It creates a property in package.ini called SameVersionRepair. If detected, the Client Status/Deployment tool will automatically run a repair if the same version is detected; otherwise there is no impact.

Client Silent Rollout

You can perform a silent client rollout using the simple 'paiclientinstall.msi' file supplied in the 'Redis' folder in the Infinite User Management installation path.

- If using msixexec, you can set installation parameters via the command line. If running from the command line, property names must be formatted in all caps.
- If using a different install solution, you can also specify these parameters in a file named 'package.ini'. When running the client install silently, the installer will look for the 'package.ini' file and use the parameters in that file. The parameters must be defined within a [Properties] section in the ini file. For example:

```
[Properties]
ServicesUrl=https://SomeComuter/Services
```

Silent Parameters

- **ServicesUrl** - The URL the Client will point to for Client Services after it is installed.
- **InstallDir** - The directory the Client will install to on the client computers. If not provided, the Client will install to the default Program Files folder. This option only impacts new Infinite User Management installs and does not affect upgrades.
- **SuppressReboots** - All reboots will be suppressed, unless older Clients are installed. A value of 1 will Suppress all reboots, 0 will not. If not provided defaults to 0. See the section on existing client installs for more information.
- **SuppressAddRemove** - If set to 1, no information will be created in Add/Remove programs for the Client. If 0 will install normally. If not present defaults to 0. This option only impacts new Infinite User Management installs and does not affect upgrades.
- **SuppressShortcuts** - If set to 1, no Windows Start Menu shortcuts will be created for the Client and supporting tools. If 0, shortcuts will be created normally. If not present defaults to 0. This option only impacts new Infinite User Management installs and does not affect upgrades.

3. Installing Client Software

- **IgnoreDisconnected** - If set to 1, and the Client has not been installed, a local settings file is created that instructs the Client to ignore jobs when unable to connect to the Client Services instead of disallow. If set to 0, the Client will disallow jobs and display a message to the user printing. This setting only applies until the Client connects at least once to Client Services, at which point it uses whatever option an Admin has defined.

4. Initial Configuration

After the install script is complete, you can click the link within the installer or you can navigate to <http://<servername>/Setup/NetworkSetup>, where <servername> is the name of the server where you installed the software.

Configure Initial Settings

Click 'Next' to advance between screens.

1. The first step in initial configuration is to select your network type that will be used for authentication. The option you choose determine how users are both authenticated and imported.
 - **Active Directory** - Choose this network type if your organization is using an Active Directory domain and the web server is on the domain.
 - **Windows Peer to Peer** - Choose this network type if your organization does not have a domain or if you want to use the web server's local users only.

Note: You must have a local login on the web server to continue. If you want your users to use automatic Client authentication they must have logins on the web server where the user name and password are identical to the login they are using on the Client desktop.

- **Windows NT Domain** - Choose this network type if you have an older style Windows NT domain and this web server is a member of the domain.
2. You can proceed in trial mode or you can enter an activation key to fully license the software. Trial mode allows you to proceed with only 5 users; however, this option allows you to evaluate the software for 15 days. You can purchase and [activate the full license](#) at that later time if necessary.
 3. Enter the credentials that will be used to connect to the selected network type. Infinite User Management will create a full access account based on these credentials.

The Administration Tool launches and is now ready for further configuration. Refer to the Getting Started topic within the Online help for information about how to proceed.

5. Testing the Installation & Initial Configuration

Testing the installation is a simple process:

1. Login to the Administration tool. Browse to <http://<servername>/Authentication/Login>. Enter your credentials to continue.
2. Print a job.
3. Confirm within the Job Accounting tab that the job was tracked.
4. Run a report and ensure the reported information is accurate.