

# Veritas eDiscovery Platform™

## Utility Node Guide

### 8.3

VERITAS™

# Veritas eDiscovery Platform™: Utility Node Guide

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Veritas Technologies LLC  
500 East Middlefield Road  
Mountain View, CA 94043  
<http://www.Veritas.com>

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# Preface

## About this guide

A utility node is defined to be any machine that has software required to run any combination of IGC, Retriever or Stellent software. Workload distribution to utility machines can improve performance and scalability.

This document describes how to install and configure Utility Nodes.

## Product documentation

The table below lists the end-user documentation that is available for the Veritas eDiscovery Platform product.

*Veritas eDiscovery Platform documentation set*

Document	Comments
<b>Installation and Configuration</b>	
Installation Guide	Describes prerequisites, and how to perform a full install of the Veritas eDiscovery platform.
Upgrade Overview Guide	Provides critical upgrade information, by version, useful prior to upgrading an appliance to the current product release
Upgrade Guide	Describes prerequisites and upgrade information for the current customers with a previous version of the Veritas eDiscovery platform.
Utility Node Guide	For customers using utility nodes, describes how to install and configure appliances as utility nodes for use with an existing eDiscovery Platform software setup.
Native Viewer Installation Guide	Describes how to install and configure the Brava Client for native document rendering and redaction for use during analysis and review in Veritas eDiscovery

Document	Comments
	Platform. This document includes instructions on deploying the Veritas Native Viewer as a managed installation.
Distributed Architecture Deployment Guide	Provides installation and configuration information for the Review and Processing Scalability feature in a distributed architecture deployment
<b>Getting Started</b>	
Navigation Reference Card	Provides a mapping of review changes from 8.x compared to 7.x and the user interface changes from 7.x compared to 6.x
Administrator's QuickStart Guide	Describes basic appliance and case configuration
Reviewer QuickStart Guide	A reviewer's reference to getting started using the <i>Analysis &amp; Review</i> module
Tagging Reference Card	Describes how tag sets and filter type impact filter counts
<b>User and Administration</b>	
Legal Hold Guide	Describes how to set up and configure an appliance for Legal Holds, and use the Legal Hold module as an administrator.
Identification and Collection Guide	Describes how to prepare and collect data for processing, using the Identification and Collection module
Case Administration Guide	Describes case setup, processing, and management, plus pre-processing navigation, tips, and recommendations. Includes processing exceptions reference and associated reports, plus file handling information for multiple languages, and supported file types and file type mapping.
System Administration Guide	Includes system backup, restore, and support features, configuration, and anti-virus scanning guidelines for use with Veritas eDiscovery Platform
Load File Import Guide	Describes how to import load file sources into Veritas eDiscovery Platform
User Guide	Describes how to perform searches, analysis, and review, including detailed information and syntax examples for performing advanced searches

Document	Comments
Export and Production Guide	Describes how to use, produce, and troubleshoot exports
Transparent Predictive Coding User Guide	Describes how to use the Predictive Coding feature to train the system to predict results from control set data and tag settings.
Audio Search Guide	Describes how to use the Audio Search feature to process, analyze, search and export search media content
<b>Reference and Support</b>	
Audio Processing	A quick reference card for processing multimedia sources
Audio Search	A quick reference card for performing multimedia search tasks
Legal Hold	A quick reference card of how to create and manage holds and notifications
Collection	A quick reference card of how to collect data in Veritas eDiscovery Platform
OnSite Collection	A quick reference for performing OnSite collection tasks
Review and Redaction	Reviewer's reference card of all redaction functions
Keyboard Shortcuts	A quick reference card listing all supported shortcuts
Production	Administrator's reference card for production exports
<b>Online Help</b>	
Includes all the above documentation (excluding Installation and Configuration) to enable search across all topics. To access this information from within the eDiscovery Platform user interface, click <b>Help</b> .	
<b>Release</b>	
Release Notes	Provides latest updated information specific to the current product release

For the latest product information: <https://www.veritas.com/product/a-to-z.html>

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For information about our support offerings and how to contact Technical Support, visit our website:

<https://www.veritas.com/support>

You can manage your Veritas account information at the following URL:

<https://my.veritas.com>

If you have questions regarding an existing support agreement, please email the support agreement administration team for your region as follows:

Worldwide (except Japan): [CustomerCare@veritas.com](mailto:CustomerCare@veritas.com)

Japan: [CustomerCare\\_Japan@veritas.com](mailto:CustomerCare_Japan@veritas.com)

## Documentation

Make sure that you have the current version of the documentation. The latest documentation is available from:

- Documentation link at the bottom of any page in the eDiscovery Platform landing page.
- Veritas Products Web site: <https://www.veritas.com/product/a-to-z>

## Documentation Feedback

Your feedback is important to us. Suggest improvements or report errors or omissions to the documentation. Include the document title, document version, chapter title, and section title of the text on which you are reporting. Send feedback to:

[eDiscovery.InfoDev@veritas.com](mailto:eDiscovery.InfoDev@veritas.com)

You can also see documentation information or ask a question on the Veritas community site: <https://vox.veritas.com/>

# Introduction and Prerequisites

## Veritas eDiscovery Platform Versions Covered

This guide addresses utility node installation for version 8.3.

For information on how to install utility nodes on earlier versions (including a list of specific versions covered), refer to the *Veritas Utility Node Guide 7x/8x*.

## Upgrading From Earlier Versions

- Veritas eDiscovery supports direct upgrade paths from 7.1.5 versions of utility nodes to version 8.3.
- The 8.3 installer makes upgrades easier to perform. It uninstalls older versions of the software from your existing utility node and then proceeds to install the 8.3 software from the same installation program.

# Version Compatibility of Utility Node Components

*Utility Node and Appliance Compatibility*

Appliance	Utility Node Version	Comment
8.3	V8.3	V7.1.4 and previous versions of utility nodes are <b>NOT</b> compatible with 8.3 appliance

## Utility Node Prerequisites

The utility node machine must meet the following minimum hardware and software requirements:

### Hardware

Minimum CPUs	Minimum Memory	Required Drives	Minimum Disk Space
4 CPUs	4 GB	C: drive	10 GB disk space on C: drive
		D: drive  <b>Note:</b> As of v6.6, both the C: and D: drives are required for retriever support).	500 GB disk space on D: drive  <b>Note:</b> To avoid running out of temporary disk space, it is strongly recommended to have at least 500 GB disk space.

### Software

- Install and activate a supported Windows Operating System. The utility node runs on the following supported operating systems:
  - Windows Server 2008 R2 SP1 64-bit (Standard or Enterprise Edition)
  - Windows Server 2012 R2 (Standard or Data Center Edition)
- .Net Version
  - Utility node installation software requires .Net Framework 4.0

- Before you begin the Utility Node install, it is recommended that you install .Net Framework 4.0.

**Note:** If a supported version of .NET Framework is not detected on your system, the installer installs .NET Framework 4.0 automatically.

- Microsoft Office 2013 32-bit (the 64-bit version is **NOT** supported)
  - Microsoft Office 2013, Word, Excel, PowerPoint, and Outlook are installed, activated and the system has been rebooted.
  - Microsoft Office 2013 requires an activation key
  - Automatic install of updates should be turned off
  - No trial versions of Office professional should be installed on the box (Consult Microsoft support website if a trial version is automatically installed)
- Windows Firewall can be on or off (previous versions required this off)
- The utility node should **NOT** be a server running the eDiscovery Platform software for cases.
- Confirm that the eDiscovery server is running Veritas eDiscovery Platform version 8.3.

## User Account / Security Requirements

### Shared Directories Permissions & Access

- Confirm user account and security policies to allow for shared directories on the Utility Node.
- The default for these directories is `D:\CWShared`.

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**Note:** By default, the installer sets up the `D:\CWShared` folder to be shared with the **Everyone** group. This is to enable the folder to be shared by the *EsaApplicationService* on the Clearwell server. If your security requirements necessitate restricting the shared permissions, you can grant the *EsaApplicationService* account read/write access to the directory.

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- The Utility Node shared directory must be accessible to both the user account running services on the utility node and the user account running the *EsaApplicationService* on the Clearwell server.  
This can be accomplished in either of two ways:
  - Configure a single Windows domain account to be used by the *EsaApplicationService* on the Clearwell server with read-write access to the Clearwell Shared directory and its subdirectories on the utility node.
  - Create a local user account on the utility node with the same name and password as the local user account used by the Clearwell services on the Clearwell server.

### Image Helper Service

Introduced in version 8.0, the platform leverages the Document Image Helper (also referred to as Document Converter) service to expedite document conversion and handling of typical Microsoft Office documents in native view. The Image Helper service can be deployed in a variety of Veritas eDiscovery Platform topologies. This guide discusses the Document Image Helper service user account requirements and enabling steps for a basic utility node deployment (one appliances and one or more utility nodes).

It is important that the user account for the Image Helper service (*ESALmageHelper*) have the correct privilege levels and access permissions.

The utility node installation workflow also requires a post-installation step to enable the service on the appliance where the utility node(s) are being deployed.

### Image Helper (*ESImageHelper*) Service User Account

Please ensure the following:

1. The user account for the service has the “Log On As” service right and is not an account that manages any other eDiscovery Platform services or IGC services.
2. At a minimum, the user account must be a domain user account and have UNC access (versus a drive letter) to read and write to the Veritas eDiscovery Platform appliance. For example,  
`\\<appliance-IPaddress>\d$\<dir>\<dir>\...`

### Enabling Document Image Helper

After successfully completing the utility node install, you must activate the Document Image Helper service for the appliance. This task is done using the support feature Imaging Tools and is performed from the **System > Support Features** tab on the utility node.

**IMPORTANT:** Ensure that the Image Helper service (*ESImageHelper*) service on the utility node(s) is online and running before enabling it with the support feature on the appliance.

**Note:** The Resource Manager does not manage the Document Image Helper service.

## Uninstall Trial or Previous Versions of Office Programs

You may encounter licensing errors if you install a full version of Microsoft Office 2013 on top of a trial version. In order to avoid this issue, uninstall any trial version of Microsoft Office.

To uninstall Microsoft Office 2010, see

<https://support.office.com/en-us/article/Uninstall-Office-2010-90635a1d-aec8-4653-b358-67e1b766fc4d>.

## Utility Node Deployment Performance Improvement

The following guidelines should be used in determining how many Utility Nodes to deploy.

In addition to IGC conversions, utility nodes can be used to perform Stellent conversions during HTML caching and text or metadata extraction during export.

## Utility Node Considerations:

- Highest Impact With Multiple Office Document Conversions
  - Approximately linear improvement – For example, the eDiscovery Platform server, plus two utility servers completes in approximately one-third time of a single eDiscovery Platform server.
- Not Only Office Document-to-XDL Conversions
  - Production exports are distributed for better performance when generating TIFF files.
- For one appliance, 4-6 utility nodes are recommended. If Utility Nodes are shared by multiple appliances, then more Utility Nodes are recommended to distribute the workload.

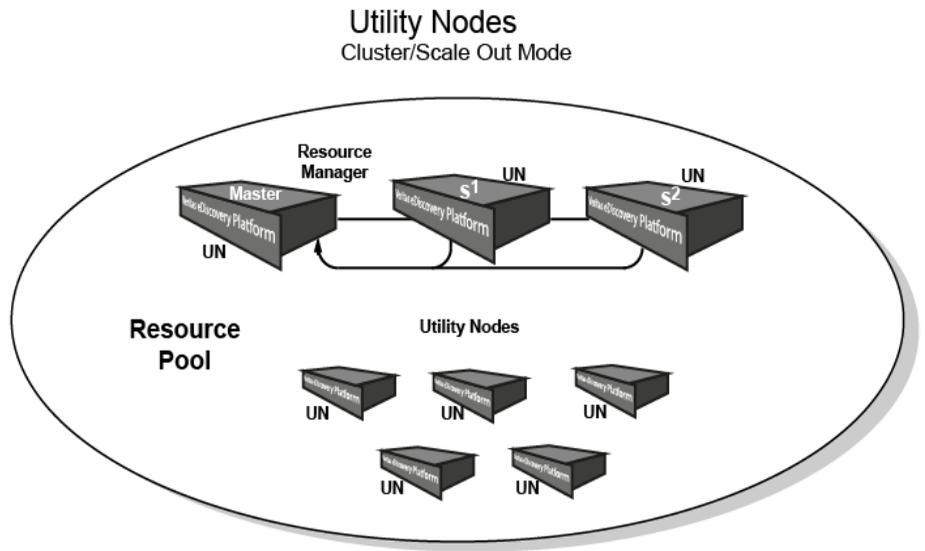
## Retriever Considerations:

- Retriever Utility Nodes improves the performance of PST and NSF retrievals. This is true for search, cache, productions, or exports; especially when the data spans multiple PSTs or NSFs.
- When Retriever Utility Nodes are used, each PST and NSF file is assigned to a particular Retriever node. This means that all retrievals for a particular PST or NSF file would happen on the same utility node.
- Performance improvement may vary, depending on how many utility nodes are configured and how many utility nodes are actually used for any single job that requires retrievals. For example, if all messages from a particular PST or NSF file are being exported, performance improvement will be negligible.

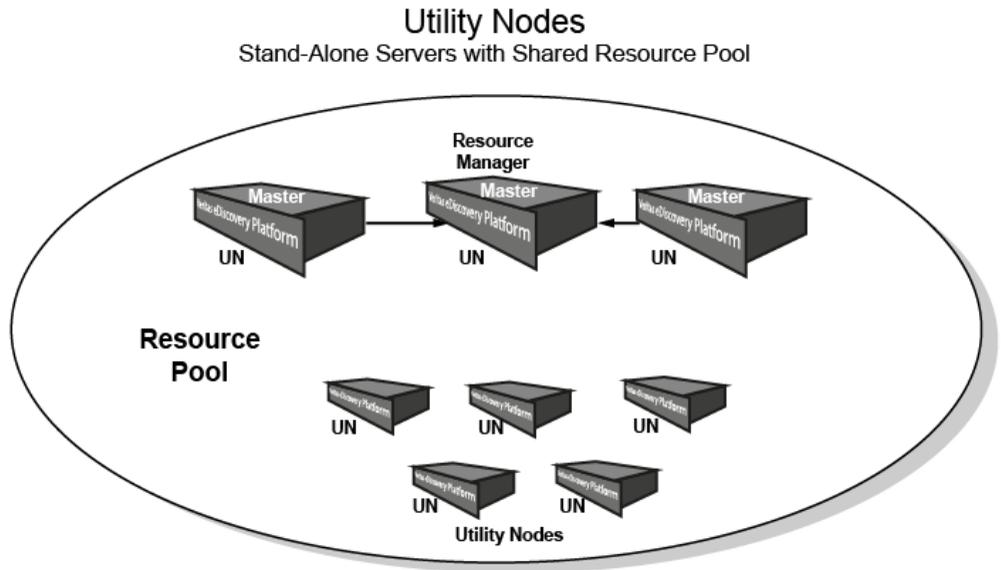
# Utility Node Configuration Options

## Configuration Modes

Starting with eDiscovery Platform 7.0, if you have additional appliances that you want to use as utility nodes (in addition to and apart from the eDiscovery Platform master appliance), you can configure them to operate in a cluster, or “Scale Out” mode.



Alternatively, you can choose the traditional configuration which uses stand-alone servers with a shared resource pool of utility nodes. Both options use a resource pool, and have a master appliance designated as the Resource Manager.



## Resource Manager (RM) Rules and Functionality

The requirements must be met when configuring your appliances for your particular deployment option:

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**Note:** The Resource Manager manages the Retriever service. It does not manage IGC, Stellent or the Image Helper services.

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### For Scale Out Mode:

- When adding utility nodes, the Master and cluster appliances will act as utility nodes.
- All utility nodes must be running Veritas eDiscovery Platform 8.3.
- The RM runs only on the cluster Master appliance. (This cannot be changed.)
- The RM runs off the cluster Master by default (in Scale Out mode only).

## For Stand-Alone Servers:

- All utility nodes must be running Veritas eDiscovery Platform 8.3.
- The RM runs on every appliance (by default)
- Use the Utility Node Resource Management support feature (Veritas eDiscovery Platform user interface) to point to another RM.

To designate an appliance as the Resource Manager (after configuring utility nodes for your desired setup), see Resource Manager Registration on page 33.

# Installation

## Installing the Utility Node

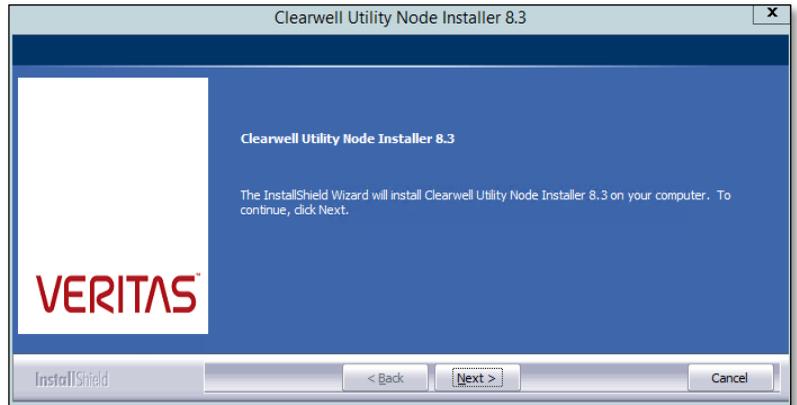
1. Confirm that the utility node meets the hardware and software requirements specified in Utility Node Prerequisites on page 10.
2. If the Utility Node was previously installed on a Veritas eDiscovery Platform server, you must uninstall it. Follow these steps:
  - Go to **Add/Remove Programs** and uninstall the previous version of the Utility Node installer. This will uninstall IGC. Reboot the system.
  - Ensure Microsoft Office 2013 (32-bit) is installed and activated.
3. Log in as the user running the IGC service account on the primary node.
4. Download the Utility Node installation package from the Veritas FileConnect download service site located at: <https://Veritas.flexnetoperations.com/>.
5. Run **InstallClearwell.bat** to launch the installer.
6. If a previous version of IGC was installed and step 2 was skipped, you will be prompted to uninstall the old version first and the install will abort. Click **OK**.

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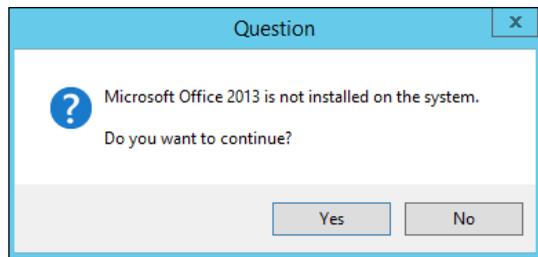
**Note:** To uninstall follow instructions in step 2.

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7. If there is not a previous version on the server, or if it has been removed (as described in step 6), the following screen appears.



Microsoft Office Professional Plus 2013 is required component for the Utility Node installation. If Microsoft Office Professional Plus 2013 is not installed on the appliance, or if it is not found in the default location, the following dialog appears.

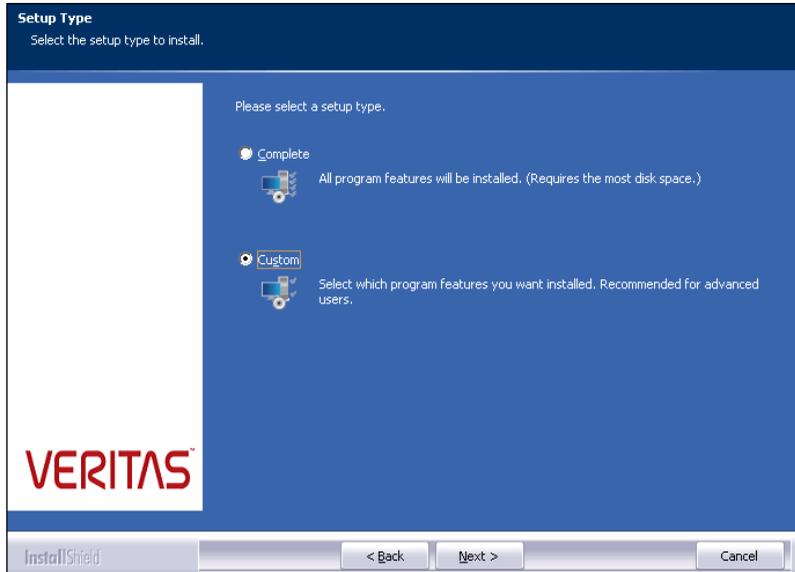


To confirm that Microsoft Office Professional Plus 2013 is installed, click **Yes**, and continue to step 12.

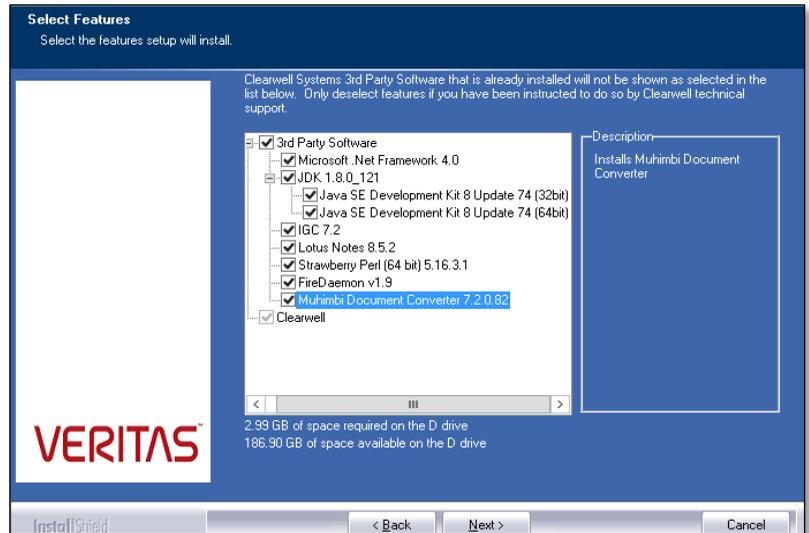
If Microsoft Office Professional Plus 2013 is not installed, click **No** and skip to step 13.

8. After clicking “**Yes**”, enter the customized location for Microsoft Office Professional Plus 2013 on the Choose Destination Location screen. Click **Next**. Skip to step 12.
9. If you clicked “**No**”, you can choose whether or not to continue with the installation. Click **Yes** to continue.

10. If you chose to continue, and there is **no Office version** installed on the appliance, a dialog appears notifying you that the Microsoft Office 2013 required components are not installed and the install will abort. If a previous version of Microsoft Office is found, the install will not proceed. Click **OK**, and **Next** to continue.
11. The Select Type screen displays. Choose **Custom**.



12. The Select Features screen displays what will be installed. All items that are not already installed will be selected by default.



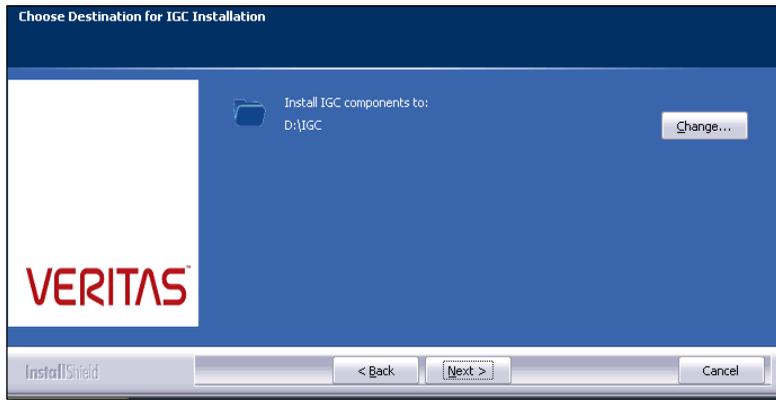
Available options include: Microsoft .Net Framework 4.0, JDK 1.8.1\_21, IGC 7.2, Lotus Notes 8.5.2, Strawberry Perl (64-bit) 5.16.3.1, and FireDaemon v1.9, and Muhimbi Document Converter 7.2.0.82. Clearwell Services are included by default and the Clearwell Services option will always be installed with every utility node, even those that are only used for IGC.

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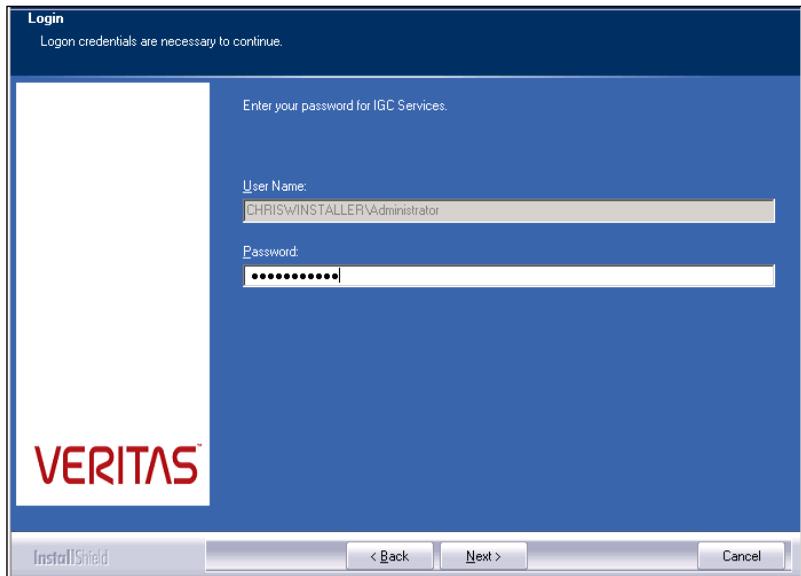
**Note:** Veritas strongly recommends having more than 10 GB of free space on the drive after installation completes.

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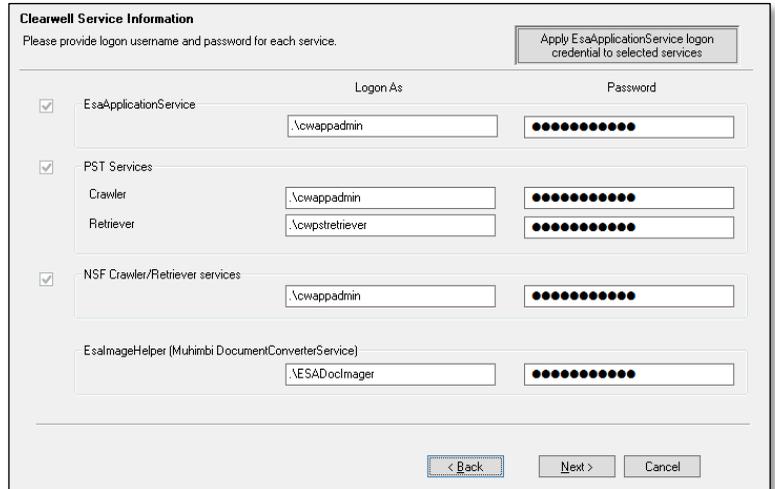
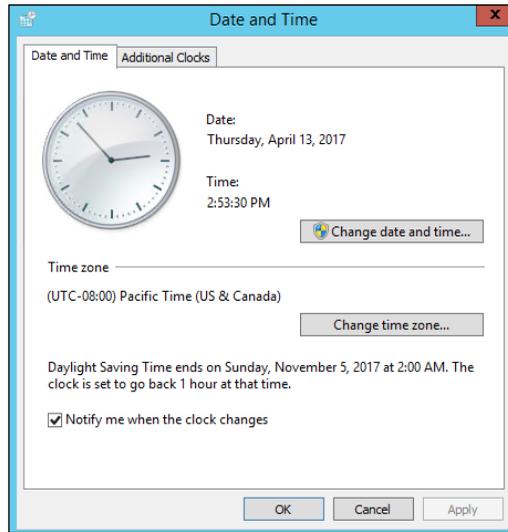
- The default location for the IGC installation is *D:\IGC*. Click **Next**.



- Ensure that you are logged in to the appliance under the user account you want to use for IGC, and enter the password (see *Veritas IGC Administration Reference* for details). Click **Next**.



- The current date and time is shown. Click to change the date/time, and/or change the time zone. Click **OK**.



If Clearwell services are to be installed, the Clearwell Service Information screen allows you to enter the logon credentials for all of the service user accounts.

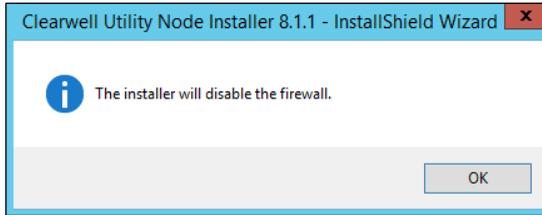
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Note: Be sure that the Muhimbi Document Converter Service (*ESImageHelper*) user account is properly set up. See Image Helper Service on page 12 for details.

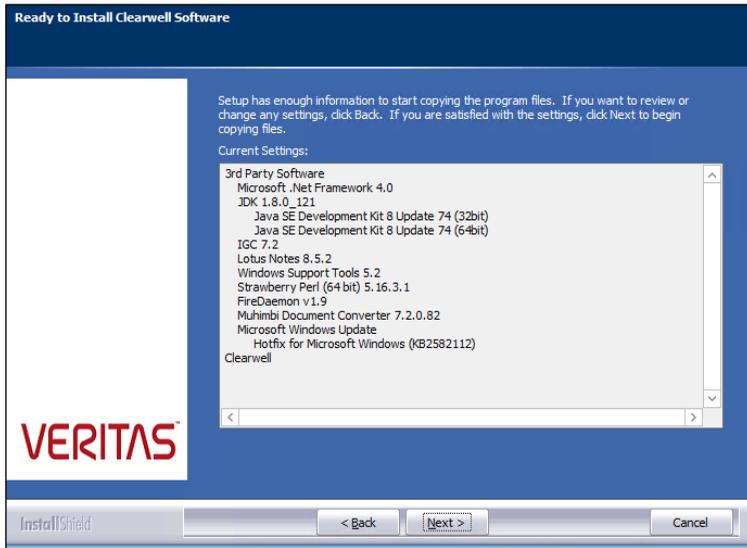
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Click **Next**.

16. If the Firewall is enabled it will be disabled by the installer. Click **OK**.



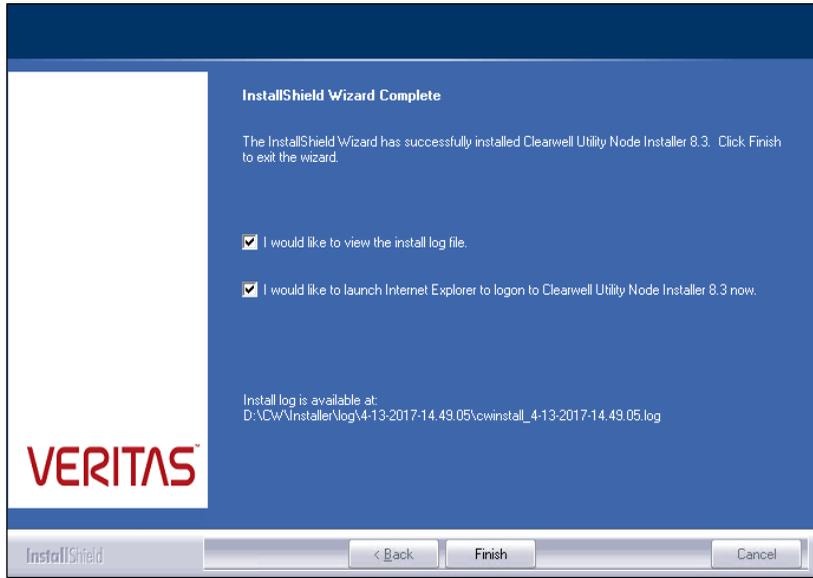
17. Click **Next** to begin the installation.



18. If older versions of the utility nodes (for example, v 7.1.4) are installed, the installer uninstalls the old version and then proceeds with the 8.3 utility node install.
19. The installation program will create a *CWShared* folder in the same drive where IGC is installed. For example, if IGC is installed on the D: drive (*D:\IGC*), a default shared directory will be created as *D:\CWShared*.

20. This directory must be shared, and must be accessible for read/write access by the local Service account, as well as the account that is running the *esaApplicationService* on the Veritas eDiscovery Platform appliance.

21. Once installation is complete, click **Finish**.



22. Reboot the system to ensure new versions of the files have been copied.
23. Go to the services to verify that IGC, Retriever, and *EsaApplicationService* were installed successfully. These are the services to check:
- *EsaApplicationService*
  - *EsaPstRetrieverService*
  - *EsaNsfRetrieverService*
  - *EsaIGCBravaLicenseService*
  - *EsaIGCJobProcessor*
  - *EsaImageHelper*
24. The Utility Node installer automatically configures Microsoft Outlook so that it is set NOT to reply to read receipts.
- To verify that this Microsoft Outlook option is correctly configured, click on the **File** menu > select **Options** link and navigate to **Mail** tab on the left-hand side. Scroll down to the **Tracking** section and select the option to **Never send a read receipt**. Click **OK** to confirm and save the changes. Exit Outlook.

# Utility Node Configuration

The Utility Node can be configured to run any of the following services that participate in the Veritas eDiscovery Platform workflows:

- Retriever (PST and NSF Data)
- IGC (Imaging)
- Stellent (Text Extraction)
- Image Helper – ESA Image Helper (Muhimbi Document Conversion)

Introduced in version 8.1, the Utility Node architecture, including the management of the Retriever, IGC, Stellent and Image Helper services has been improved and optimized. These improvements require a few changes in the Utility Node configuration workflow. While Utility Nodes and services are still configured with property settings from the Support Features tab, you will use different support feature properties depending on the function of the Utility Node.

The Utility Node properties are:

- *Utility Node Resource Management*-- configures the Retriever (managed by the Resource Manager) and the Resource Manager.  
**IMPORTANT:** Ensure that the *EsaApplicationService* on the utility nodes is online and running before adding the utility node to the Resource Manager.
- *Imaging Tools Management* -- configures IGC, Stellent and Image Helper services.

## Configuring Retriever Utility Nodes

### To configure retriever utility nodes

1. Log on to the master node, and from the top navigation bar, click **System > Support Features**.
2. Choose the **Utility Node Resource Management** support feature.
3. For the selected Utility Node Resource Management feature, select another appliance (if different than the current appliance) where you want to configure the installed utility nodes.

The screenshot shows the Veritas eDiscovery Platform interface. The top navigation bar includes 'System' and 'Support Features'. The main content area is titled 'Utility Node Resource Management' and contains the following configuration steps:

- Step 1:** Choose a support feature: Utility Node Resource Management (Provides various tools for Resource Management of Utility Nodes)
- Step 2 (optional):** Choose an Appliance: test.local
- Step 3:** Please enter the following parameters. "\*" denotes parameter is required.
  - Mode: ADD\_UTILITY\_NODE
  - Utility Node: ALL
  - Resource Type: ALL
  - Utility Type - RETRIEVER:
  - Hour-range to be used for Statistics Mode: 1
  - Utility Node(s) To Add/Remove:
  - Resource Manager Host Name:
  - Save output to file as TXT?

A 'Submit' button is located at the bottom left of the form.

4. Enter the following parameters ("\*" denotes that the parameter is required):
  - **Mode (required)** – Select an action to perform from the drop-down menu:
    - **ADD\_UTILITY\_NODE** – Use the **Utility Type** and **Utility Node To Add/Remove** fields to add a utility node to the resource pool
    - **REMOVE\_UTILITY\_NODE** – Use the **Utility Type** and **Utility Node To Add/Remove** fields to remove a utility node from the resource pool
    - **RESOURCE\_LIST** – Use the **Utility Node** and **Resource Type** fields to display a list of configured resources
    - **CONFIGURE\_RESOURCE\_MANAGER** – Use the **Resource Manager Name to register with** field to define a new resource manager for this appliance
    - **VIEW\_RETRIEVER\_SOURCE\_MAPPINGS** – Displays PST and NSF files assigned to various retriever nodes.
  - **Utility Node** – Select a Utility Node on which to perform the selected action.

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**Note:** Actions that will use this field are **RESOURCE\_LIST** and **STATISTICS**.

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- **Resource Type (required)** – Select a specific Resource Type on which to perform the selected action.

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**Note:** Actions that will use this field are **RESOURCE\_LIST** and **STATISTICS**.

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- To configure nodes for Retrievals, select the **Utility Type - Retriever** check box.

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**Note:** Actions that will use this field are **ADD\_UPLITY\_NODE**, **REMOVE\_UPLITY\_NODE** and **STATISTICS**.

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- **Hour-range to be used for Statistics Mode** – Select a value ranging from 1-24 to designate how many hours back from current time to calculate statistics.
  - For the **Utility Node(s) to Add/Remove**, enter utility nodes separated by a comma (,), semicolon (;), or whitespace (.). Supported formats include: Hostname, FQDN, or IP.
5. Click **Submit**.

# Image Helper, IGC and Stellant Service Management

To activate IGC, Image Helper and Stellant services on the appliance, you configure the **Imaging Tools Management** support feature.

**IMPORTANT:**

## Image Helper Utility Node

- The Image Helper service on the utility node(s) must be online and running before enabling it with the support feature on the appliance.

## IGC Utility Node

The eDiscovery platform integrates a subset of IGC (Informative Graphics Corporation) products for viewing image and text content. The integrated IGC capabilities are mainly used for the review, export and production workflows. One use of the utility node can be to optimize and parallelize IGC conversions and workloads.

## IGC Components

- Programs: Brava! Enterprise and IGC Writer
- Services: IGCBravaLicenseService and IGCJobProcessorService

## Prerequisites

Check the following before you configure services on the appliance:

### Account

- Ensure that the IGC services on the utility node(s) are online and running before enabling it with the support feature on the appliance.
- The user account for the services has the “Log On As” service right

### Network Access

- The services (EsaApplicationService : FireDaemon, IGCBravaLicenseService, IGCJobProcessorService) have access to the UNC export path.

- The user account must be a domain user account and have UNC access (versus a drive letter) to full access (read, write and modify) to the Veritas eDiscovery Platform appliance and to any configured external export locations.

For example,

`\\<appliance-IPaddress>\<d$>\<dir>\<dir>\...`

---

**Note:** To determine if the eDiscovery server is configured for external exports, see [Verify External Export Setup](#).

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### To configure IGC, Image Helper and Stellent services on the appliance

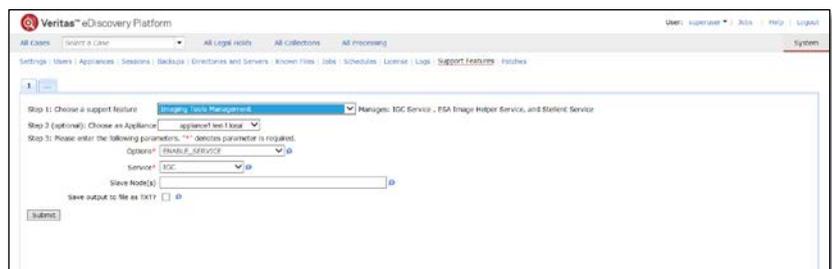
The steps below describe each of the required options for the services: IGC, Image Helper and Stellent.

---

**Note:** This example shows you how to enable the Image Helper and add a slave node. This is a basic configuration where there is one appliance and one utility node.

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1. From the **System > Support Features** screen, choose the **Imaging Tools Management** support feature.



2. Select an appliance where you want to enable the service. In this example, **appliance1.test-1.local** is selected.
3. Select an option and service from the drop-down menu.

- **Options (required)**

- **ENABLE\_SERVICE** – Enable service temporarily. Applies only to appliances
- **SERVICE\_STATS** –View current statistics of service
- **CUMULATIVE\_STATS** –Gets cumulative statistics of service
- **CAPACITY\_LOG** – Shows the capacity (consumption rate) of the service
- **ADD\_SLAVE\_SERVICE\_NODE** –Adds slave service nodes to the cluster

- **LIST\_SLAVE\_SERVICE\_NODE** –Lists the slave service nodes associated with the cluster
  - **RESTART\_ALL\_SERVICES** –Restarts service on all nodes
  - **REMOVE\_SLAVE\_SERVICE\_NODE** –Removes service from all slave nodes.
  - **DISABLE\_SERVICE** – Disables service. Applies only to appliances
  - **Service (required)**
    - **IGC** – IGC service
    - **ESA\_IMAGE\_HELPER**– ESA Image Helper service
    - **STELLENT**– Stellent service
4. **Enter Slave Node(s)** – Enter utility node(s) to add or remove from the configuration. In the example, **utility1.test-1.local** is selected.
- Notes:**
- Enter the Fully Qualified Domain Name (FQDN) or IP address of the utility node(s).
  - Multiple utility nodes can be specified using comma, semicolon or whitespace(s)
  - Actions that accept multiple values for this field are:  
**ADD\_SLAVE\_SERVICE\_NODE** and **REMOVE\_SLAVE\_SERVICE\_NODE**
  - Actions that only work with a single value in this field are:  
**SERVICE\_STATS** and **RESTART\_SERVICE**.
5. Select the **Save output file as TXT** check box if you want redirect your output to be in a unique text file format
6. Click **Submit**.

## Resource Manager Registration

To designate an appliance as the Resource Manager, you can use the Utility Node Resource Management support feature to register the appliance.

**IMPORTANT:** Ensure that the *EsaApplicationService* on the utility nodes is online and running before adding the utility node to the Resource Manager.

### To register an appliance as the Resource Manager

1. From the **System > Support Features** screen, choose the **Utility Node Resource Management** support feature.
2. Enter the name of the resource manager with which this appliance will be registered.

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**Note:** A service restart is required for this change to take effect. Supported formats include: Hostname, FQDN, or IP. Enter *localhost* to set the resource manager back to the current appliance. Actions that will use this field:  
CONFIGURE\_RESOURCE\_MANAGER

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3. Select the **Save output file as TXT** check box if you want redirect your output to be in a unique text file format.
4. Click **Submit**.

## Verify External Export Setup

Use the following procedure to verify if your eDiscovery server is configured for external exports.

### To check external export configuration

1. Go to **System > Support Features**, and select **Property Browser**.
2. For **Pattern to match**, enter the property: `esa.export.joboutput.external`
3. Click **Submit**.
4. Evaluate the output:

**Local:** If the property has ever been set and removed, the property browser utility displays `esa.export.joboutput.external = .` The blank space means that exports are local.

**External:** If `esa.export.joboutput.external = \\sharename\external\exportlocation` than exports are stored external to the eDiscovery server.