



GWAVA Inc.

GWAVA® Retain™

For GroupWise®

Exalead® Install Guide

For Retain 2.6

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Overview

Exalead is an extremely robust indexing system which has the ability to completely scale to the largest email archiving operations. The system requirements will vary depending on the size of the system being archived. The minimums listed are for a bare installation, and minimum use for the data directory and hard drive space. Medium size systems will vary somewhere between the minimum and recommended settings, though the recommended settings will guarantee quick response and performance from the indexing service. In general, the index service will perform better with ample ram, and multiple processor cores tied to the number of hard disks in the system due to disk I/O. SATA disks are not recommended due to disk I/O use and requirements. Exalead should be installed and run on a dedicated server for best performance. Exalead should not be run on the same machine as the Retain Server.

All systems should have clocks synchronized via a NTP server, as time stamps are used and must be consistent.

Licensing

Exalead is not a standard feature of the Retain system, but does improve the scalability and adds robust searching and management of the Retain archive. **Exalead requires a separate purchase and license in addition to Retain licensing. Please contact your Retain sales representative for more information and for download and access.**

Minimum System Hardware Requirements

- 2 HD disks with appropriate space for indexing needs.
(Exalead indexing will consume about 40% of total archived mail space.)
- 16 GB of available ram
- Dual core processor

Recommended System Requirements

- 4-8 core system
- 32 GB Ram
- 8 SCSI or SAS Hard Disks, (or 1 per processor core), to maximize disk I/O performance while indexing. RAID 5 is fine.

Linux System Requirements

- 64-bit Suse Linux Enterprise Server 10, or 11.
 - Sun Java 1.5
 - **EXT-3 File system** (Reiser file system will NOT work.)
 - The following packages **must** be installed:
 - compat-libstdc++
 - Gtk 32-bit library
 - Hard limit of file descriptors must be increased. Add the following line to
/etc/security/limits.conf
- ```
* soft nofile 65537
* hard nofile 65537
```

## Windows System Requirements

- MS Windows 2003 Server
- MS Windows 2008 Server
- Sun Java 1.5
- All OS versions must have all available service packs installed.

All systems require 100 open ports for Exalead to use, starting at the 'base port' specified in the installation. See below.

The installation also requires an internet connection.

## Exalead installation

Exalead Installation is essentially identical between both MS Windows and Linux platforms. The Install first checks for Java 1.5, and then prompts automatic (Linux) or manual (Windows) download and installation of Java 1.5 if it is not found. If Java is found, the install then proceeds to download and install and create a basic configuration for Exalead. The installation requires a live internet connection. After the install completes, there is no need to perform further configuration of Exalead in order for it to work with Retain; all pertinent configuration is performed in the installation and with the schema control by the Retain Server.

During the install, several variables must be provided for your system. Defaults are shown between brackets and can be applied simply by pressing <Enter> when prompted. However, the DNS or IP connection address must be manually specified for the system to function. The different variables required, and defaults, are:

- Executable installation folder                      C:\exabin -or- /opt/beginfinite/exabin
- Data directory installation folder                  C:\exadata -or- /opt/beginfinite/retain/exadata

The exabin and exadata directory settings MUST be different directories; they cannot be set to the same directory, or the install will fail.

- Hostname or IP Address                              --MUST be the Hostname or IP Address of the server—  
(Hostname or IP Address cannot be 127.0.0.1)
- Base port (default is port 10000)                  Exalead uses 100 ports, starting with this port
- Exalead server instance name                      reatainex
- Base Port                                                  10000
- Number of used CPUs                                2 (Defaults to the maximum detected on the server)
- Build Type                                               buildsearch
- Number of 'slices'                                   2 (minimum of 2 or number of available HD disks)
- Exalead Console Password                          exalead

The install finally displays your settings and asks for confirmation then proceeds to finish the install and start Exalead. In Linux, Exalead is automatically set to run in runlevels 3 and 5. In MS Windows, Exalead runs as a service.

## Linux Install

Download the Retain install package and extract it to its own folder. Enter the folder and locate the ExaleadInstall.sh file.

Add the execute permission to ExaleadInstall.sh

```
chmod +x ExaleadInstall.sh
```

Run the Exalead installation program on the target install server.

```
./ExaleadInstall.sh
```

The install first checks for Java 1.5. If Java is not found to be present in the system, the installer will download and begin the Java installation. If Java is already installed, the Exalead installation will continue to install.

```
exalead:~/Desktop/Retain200Alpha6a/exalead # ./ExaleadInstall.sh
Installing java ...
Java does NOT appear to be installed in /opt/beginfinite/retain/java.

64 bit os detected.

Choose one of these options:
1) Download Java from the Internet (must have live Internet connection)
2) Exit Installer
Choose (1-2): 1
Downloading Java...
--2010-03-03 18:08:55-- http://download.gwava.com/download.php?product=jvm&version=alin64
Resolving download.gwava.com... 209.90.108.26
Connecting to download.gwava.com|209.90.108.26|:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: http://download.gwava.com/jvm/jdk-1_5_0_22-linux-amd64.bin [following]
--2010-03-03 18:08:55-- http://download.gwava.com/jvm/jdk-1_5_0_22-linux-amd64.bin
Connecting to download.gwava.com|209.90.108.26|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 44191305 (42M) [application/octet-stream]
Saving to: `jdk-1_5_0_22-linux-amd64.bin'

2% [] 1,121,482 679K/s
```

If Sun Java has not been installed, the install will automatically download and install the JDK. The server MUST have internet access for this installation to work. Work through the license agreement, specify the JAVA\_HOME variable, and complete the Java install.

The Exalead install must be restarted after Java installation. Re-run the Exalead installation.

```
./ExaleadInstall.sh
```

```
exalead:~/Desktop/Retain200Alpha6a/exalead # ./ExaleadInstall.sh
64 bit os detected.
--2010-03-04 02:40:36-- http://download.gwava.com/download.php?product=retain&v
ersion=exalin64
Resolving download.gwava.com... 209.90.108.26
Connecting to download.gwava.com|209.90.108.26|:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: http://download.gwava.com/exalead/cloudview-oem-linux64-tag-5.0.3.1261
4.tar.gz [following]
--2010-03-04 02:40:36-- http://download.gwava.com/exalead/cloudview-oem-linux64
-tag-5.0.3.12614.tar.gz
Connecting to download.gwava.com|209.90.108.26|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 358535174 (342M) [application/x-gzip]
Saving to: `cloudview-oem-linux64-tag-5.0.3.12614.tar.gz'

 2% [>] 10,058,125 730K/s eta 7m 58s
```

Exalead source and installation files will be downloaded to the target server. After the download finishes, the install will begin.

```
Executable file directory [/opt/beginfinite/retain/exabin]:
```

Default is shown. This is where Exalead will store its executable binary files.

```
Index data directory [/opt/beginfinite/retain/exadata]:
DNS or IP Address of index server []: 192.168.1.106
```

Exalead will also ask where it should store the data files for the index. This should be a location that can be backed-up.

The exabin and exadata directory settings MUST be different directories; they cannot be set to the same directory, or the install will fail.

Exalead will also require you to specify the IP address or DNS name of the target server. There is no default. This MUST be an address that the Retain Server can contact the Exalead server through, or the system will not work. Verify the selected address will work then specify the IP address or DNS Hostname and continue. This setting cannot be 127.0.0.1.

```
Instance name [retainex]:
basePort [10000]:
```

The instance name is what Exalead reports as its name to the Retain Server.

Exalead requires 100 ports to use. The base port is the port Exalead starts with, and then advances +100 ports as required. ie. By default, Exalead will use ports 10000-10100. Make sure these ports are open,

or, change them according to your system. If changed from default, keep track of the base port, as it must be entered into the Retain Server configuration.

```
basePort [10000]:
CPUS to use for analyzers [2]: 2
```

You will also be asked how many CPUs to utilize from the host system. This should be changed to the total number of processor cores in the host system, and a MINIMUM of 2 to support the minimum number of 'slices' for the system.

```
CPUS to use for analyzers [2]: 2
The buildtype should be left as buildsearch unless you consult with support, as this is the normal operational mode. purebuild greatly enhances indexing speed, but disables ALL searching. It can be a useful option when first priming your index.
buildtype [buildsearch]:
```

Enter the initial buildtype. The default, and what should be used in all but immediate setup, is the 'buildsearch' setting. It is highly recommended to leave this setting as default: buildsearch.

If a large system is being migrated to Exalead, the search function of Exalead may be disabled to allow the index to be built faster; the 'purebuild' option. *Note: if the 'purebuild' option is selected, the setting must be changed to 'buildsearch' for searching to work.*

```
Short version: Leave this at 2 unless directed by support. Long version: must be between 2 and 8, while constrained by Min(CPU,Disk).
Slices [2]:
```

The 'slices' setting basically represents the number of working threads Exalead will run, and has a minimum number of 2. The 'Slices' setting should be set to the number of hard drive disks installed in the system. The number of slices cannot be lower than '2', and cannot exceed the total number of available CPUs. I.e., if the system has two quad core processors and five SCSI disks, the slices setting should be set to '5'. Exalead will then split data job queues into 5 processing 'slices' which will do equal amounts of importing work.

```
Slices [2]:
Used for access to Exalead consoles
Administrator password [exalead]:
```

Set the access password for the Exalead. This password will be used for the admin password to access the Exalead Configuration Console, (the admin console).

```

Install Executables to: /opt/beginfinite/retain/exabin
Install data directory to: /opt/beginfinite/retain/exadata
Use this host name: 192.168.1.106
Use this base port: 10000
Use this instance: retainex
Use these many cpus: 2
Use this buildtype: buildsearch
Use these many slices: 2
Use this password: exalead

Confirm your selections (yes or no) [yes]: █

```

Verify your settings, or change them, then continue.

```

Installation successfull
You must first launch the product using /opt/beginfinite/retain/exadata/bin/cv
nit.sh
To complete the product setup, the configuration can be generated using : /opt/b
eginfinite/retain/exadata/bin/postinstall
retain-exalead 0:off 1:off 2:off 3:on 4:off 5:on 6:off
Exalead is installed and will run automatically on reboot. Starting right now...
.
Wait 5 minutes, and then try accessing http://ipaddress:127.0.0.1:10001/api-ui
Starting Exalead CloudView daemonexa: license expires in 10 days
done
exalead:~/Desktop/Retain200Alpha6a/exalead # █

```

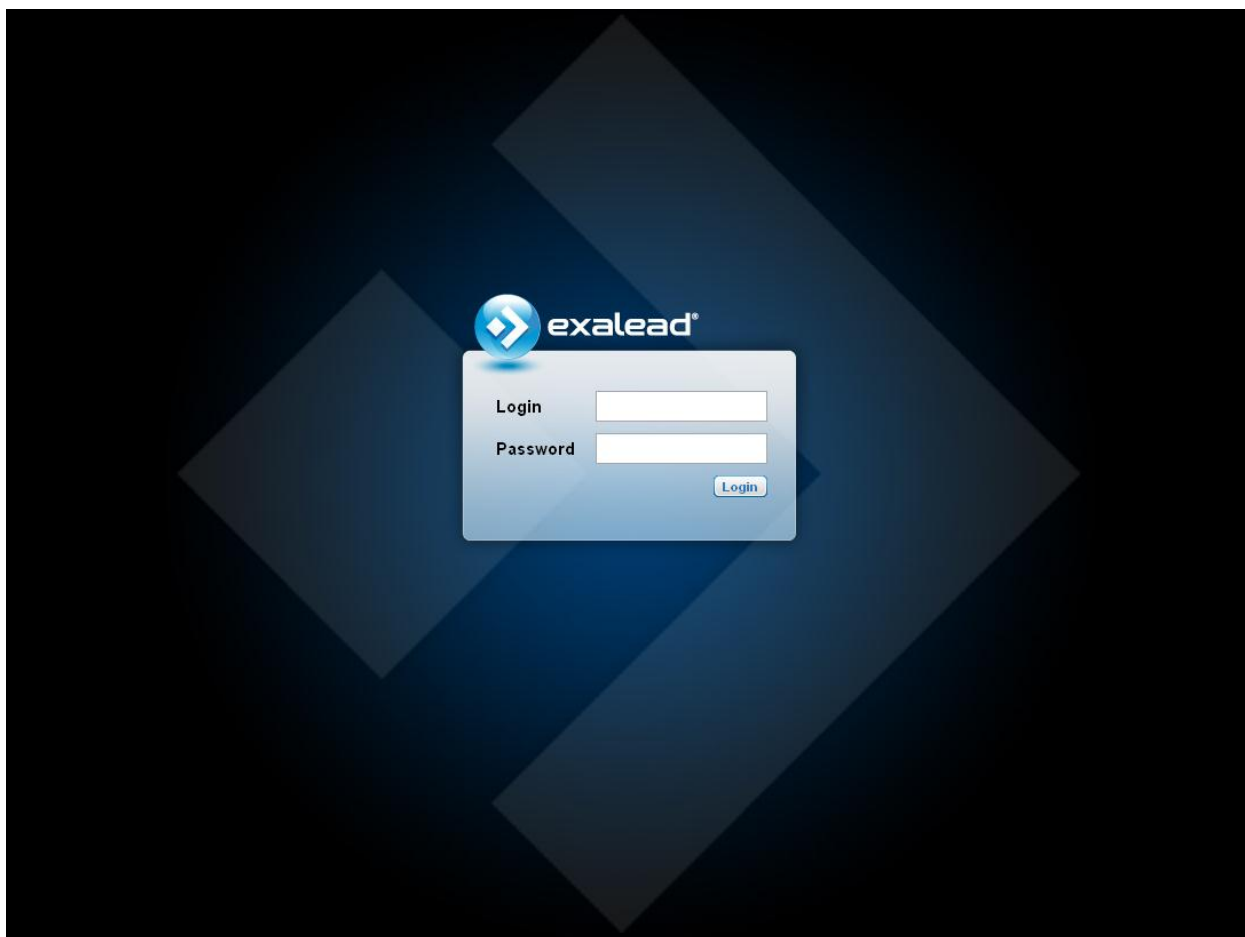
Exalead will then complete the install and set the system to run on runlevels 3 and 5 by default.

If you wish to check for a successful installation, wait several minutes then open a browser and access: <http://<your server IP address or DNS>:<chosen base port +1>/admin> . The admin console should be secured, whether by restricting access to the port to only the Admin computer, or through other network security measures appropriate for the system. Again, the admin console access port is the specified base port +1.

Login: admin

Password: (whatever was specified in setup, default: Exalead)





After logging into Exalead, you should view a management configuration page for the Exalead server. In almost every instance, configuration and installation of Exalead for Retain Server has been completed. No further configuration is needed. However, there are endless configuration options. GWAVA inc. and Retain 2 does not require any further configuration.

admin

About

Logout

Users

Help

Save Changes

Cancel Changes

Apply Changes

Home

Hide

Collect

Connectors

Process

Analysis

Build Groups

Store

Index Schemas

Access

Search Logics

Security Sources

User Interaction

Search UI

Search API

Deployment

Roles

Hosts Status

Logs

Global Logs

Process Logs

Log Level

Wizards

Add a Field

Languages

Home

Fullscreen

This home page is the single entry point to configure, operate, and monitor Exalead CloudView.

Operations Overview

Previously Applied Configurations

Overview of the product workflow, process operations and status.

Connectors

| Name    | Status | Type    | Actions        |
|---------|--------|---------|----------------|
| default |        | PushAPI | Scratch Source |

Build Groups

Build Group

bg0

Scratch

Repush from Cache

Force Indexing

Overall status

slice "0" idle,slice "1" idle,slice "2" idle,slice "3" idle,slice "4" idle,slice "5" idle

Push API tasks count since last restart

8423; New8423; Replace0; Delete0; Update0

Tasks in queue

Empty

Number of documents

8423

Task Queue Details

Slice Details

Processes

Host

192.168.100.204

| Processes      | PID  | Status  | Last Start Date     | Actions |
|----------------|------|---------|---------------------|---------|
| analyzer-bg0-0 | 7269 | started | 2010/06/01 12:38:13 |         |
| analyzer-bg0-1 | 7211 | started | 2010/06/01 12:38:13 |         |
| analyzer-bg0-2 | 7242 | started | 2010/06/01 12:38:13 |         |
| analyzer-bg0-3 | 7182 | started | 2010/06/01 12:38:13 |         |
| analyzer-bg0-4 | 7230 | started | 2010/06/01 12:38:13 |         |
| analyzer-bg0-5 | 7251 | started | 2010/06/01 12:38:13 |         |
| analyzer-bg0-6 | 7244 | started | 2010/06/01 12:38:13 |         |
| analyzer-bg0-7 | 7162 | started | 2010/06/01 12:38:13 |         |
| convert-c0     | 7229 | started | 2010/06/01 12:38:13 |         |

2010/06/03-12:12:21 - Job 206158430208 (file=48 offset0) is imported for buildGroup bg0

2010/06/03-12:13:51 Welcome to the Administration Console.

## Windows Install

Download the Retain install package and extract it to its own folder. Enter the 'exalead' folder.

In the 'exalead' directory, locate and run the 'ExaleadInstall.bat' file.



The install first checks for Java 1.5. If Java is not found to be present in the system, the installer will prompt you to manually download the Java installation files and install Java 1.5. If Java is already installed, the Exalead installation will continue to install.

To download Java 1.5, browse to

<http://download.gwava.com/download.php?product=jvm&version=win64> or to the link specified by the installer.

A screenshot of a Windows command prompt window. The title bar reads 'C:\WINDOWS\system32\cmd.exe'. The text inside the window says: 'File Not Found', '"Determined heuristically that JAVA\_HOME is "', '"JAVA\_HOME variable is not set. Go to control panel, system, advanced, environmental variables, and set it to point to your jdk"', '"If you have not downloaded Java yet, please do so from http://download.gwava.com/download.php?product=jvm&version=win32"', and 'Press any key to continue . . . ='.

```
C:\WINDOWS\system32\cmd.exe
File Not Found
"Determined heuristically that JAVA_HOME is "
"JAVA_HOME variable is not set. Go to control panel, system, advanced, environmental variables, and set it to point to your jdk"
"If you have not downloaded Java yet, please do so from http://download.gwava.com/download.php?product=jvm&version=win32"
Press any key to continue . . . =
```

Save, and run the install. The server MUST have internet access for this installation to work. After the installation has completed, specify the JAVA\_HOME variable.

The JAVA\_HOME variable is found under **Start | Control panel | System**. Select the **Advanced** tab and then select the '**Environment Variables**' button near the bottom. JAVA\_HOME should be listed in your System variables table and point to your Java 1.5 installation directory. If it is incorrect, correct the information. If it is missing, select 'New' and add the path. Syntax as follows:

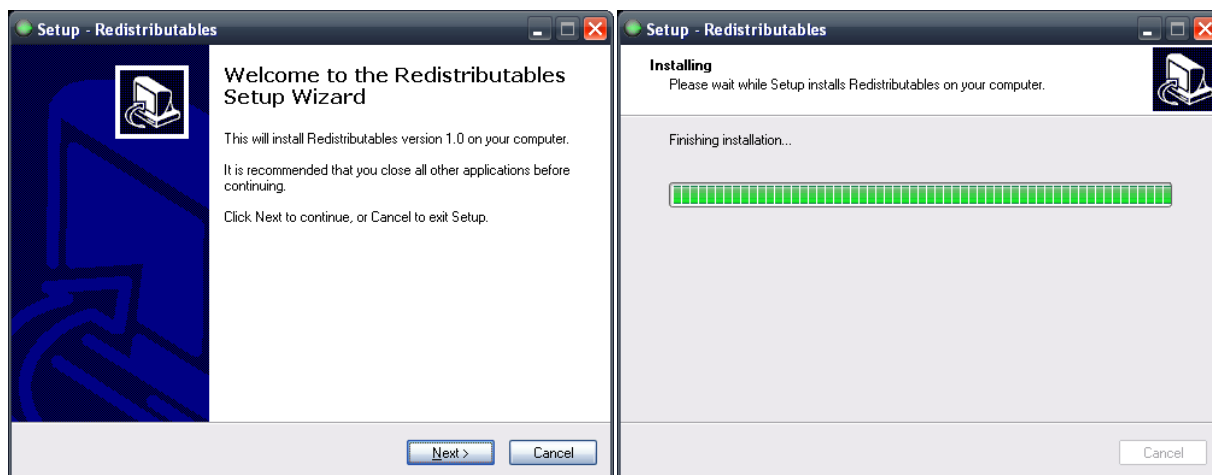
|                |                                                                             |
|----------------|-----------------------------------------------------------------------------|
| Variable Name  | JAVA_HOME                                                                   |
| Variable Value | <Path to Java installation directory> ie. C:\Program Files\Java\jdk1.5.0_22 |

After Java has been installed, re-run the ExaleadInstall.bat file to initiate the installation.

A screenshot of a Windows command prompt window. The title bar reads 'C:\ Wget http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip'. The text inside the window shows the progress of a Wget download: '--11:33:59-- http://download.gwava.com/download.php?product=retain&version=exawin32', '=> \'download.php?product=retain&version=exawin32\'', 'Resolving download.gwava.com... done.', 'Connecting to download.gwava.com[209.90.108.261]:80... connected.', 'HTTP request sent, awaiting response... 302 Found', 'Location: http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip [following]', '--11:33:59-- http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip', '=> \'cloudview-oem-windows32-tag-5.0.3.12614.zip\'', 'Connecting to download.gwava.com[209.90.108.261]:80... connected.', 'HTTP request sent, awaiting response... 200 OK', 'Length: 244,116,862 [application/zip]', '100%[=====>] 244,116,862 697.22K/s ETA 00:00', '11:39:41 <697.22 KB/s> - \'cloudview-oem-windows32-tag-5.0.3.12614.zip\' saved [244116862/244116862]', and 'Press any key to continue . . .'.

```
C:\ Wget http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip
--11:33:59-- http://download.gwava.com/download.php?product=retain&version=exawin32
=> 'download.php?product=retain&version=exawin32'
Resolving download.gwava.com... done.
Connecting to download.gwava.com[209.90.108.261]:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip [following]
--11:33:59-- http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip
=> 'cloudview-oem-windows32-tag-5.0.3.12614.zip'
Connecting to download.gwava.com[209.90.108.261]:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 244,116,862 [application/zip]
100%[=====>] 244,116,862 697.22K/s ETA 00:00
11:39:41 <697.22 KB/s> - 'cloudview-oem-windows32-tag-5.0.3.12614.zip' saved [244116862/244116862]
Press any key to continue . . .
```

Exalead requires C++ SP1 Redistributable to be installed. The Exalead install will download and automatically run the installation file. When the installation dialog opens, select next and allow the install to complete.



Exalead will then continue to install through the console. Defaults for the required variables are shown between the brackets of the install prompts. Pressing <enter> on a blank option will accept defaults, or custom settings may be specified.

```
C:\> Wget http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip

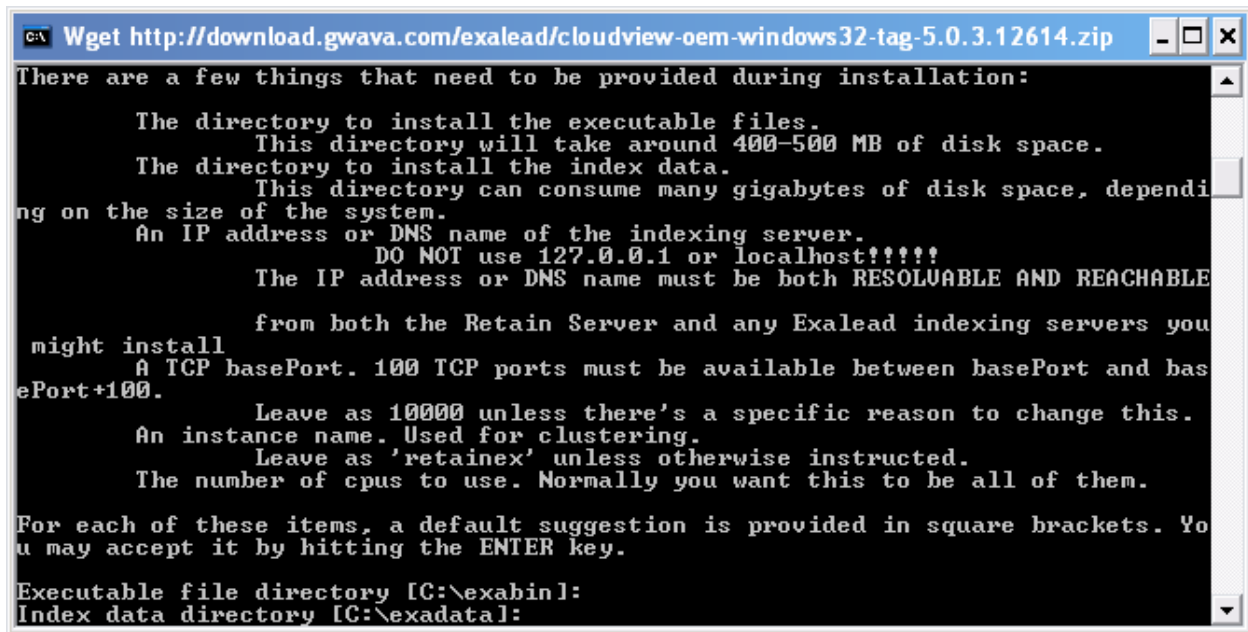
There are a few things that need to be provided during installation:

 The directory to install the executable files.
 This directory will take around 400-500 MB of disk space.
 The directory to install the index data.
 This directory can consume many gigabytes of disk space, depending
on the size of the system.
 An IP address or DNS name of the indexing server.
 DO NOT use 127.0.0.1 or localhost!!!!
 The IP address or DNS name must be both RESOLVABLE AND REACHABLE
from both the Retain Server and any Exalead indexing servers you
might install
 A TCP basePort. 100 TCP ports must be available between basePort and basePort+100.
 Leave as 10000 unless there's a specific reason to change this.
 An instance name. Used for clustering.
 Leave as 'retainex' unless otherwise instructed.
 The number of cpus to use. Normally you want this to be all of them.

For each of these items, a default suggestion is provided in square brackets. You
may accept it by hitting the ENTER key.

Executable file directory [C:\exabin]:
```

Default is shown. This is where Exalead will store its executable binary files.



```
C:\ Wget http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip
There are a few things that need to be provided during installation:

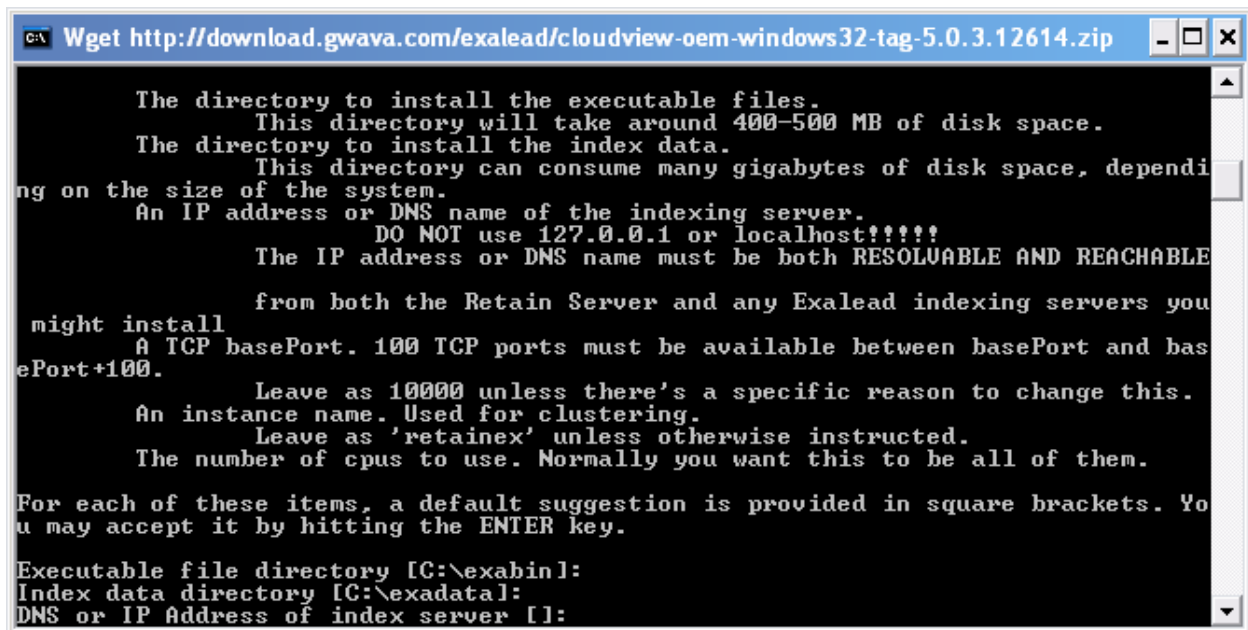
 The directory to install the executable files.
 This directory will take around 400-500 MB of disk space.
 The directory to install the index data.
 This directory can consume many gigabytes of disk space, depending on the size of the system.
 An IP address or DNS name of the indexing server.
 DO NOT use 127.0.0.1 or localhost!!!!
 The IP address or DNS name must be both RESOLVABLE AND REACHABLE from both the Retain Server and any Exalead indexing servers you might install
 A TCP basePort. 100 TCP ports must be available between basePort and basePort+100.
 Leave as 10000 unless there's a specific reason to change this.
 An instance name. Used for clustering.
 Leave as 'retainex' unless otherwise instructed.
 The number of cpus to use. Normally you want this to be all of them.

For each of these items, a default suggestion is provided in square brackets. You may accept it by hitting the ENTER key.

Executable file directory [C:\exabin]:
Index data directory [C:\exadata]:
```

Exalead will also ask where it should store the data files for the index. This should be a location that can be backed-up.

The exabin and exadata directory settings MUST be different directories; they cannot be set to the same directory, or the install will fail.



```
C:\ Wget http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip

 The directory to install the executable files.
 This directory will take around 400-500 MB of disk space.
 The directory to install the index data.
 This directory can consume many gigabytes of disk space, depending on the size of the system.
 An IP address or DNS name of the indexing server.
 DO NOT use 127.0.0.1 or localhost!!!!
 The IP address or DNS name must be both RESOLVABLE AND REACHABLE from both the Retain Server and any Exalead indexing servers you might install
 A TCP basePort. 100 TCP ports must be available between basePort and basePort+100.
 Leave as 10000 unless there's a specific reason to change this.
 An instance name. Used for clustering.
 Leave as 'retainex' unless otherwise instructed.
 The number of cpus to use. Normally you want this to be all of them.

For each of these items, a default suggestion is provided in square brackets. You may accept it by hitting the ENTER key.

Executable file directory [C:\exabin]:
Index data directory [C:\exadata]:
DNS or IP Address of index server []:
```

Exalead will also require you to specify the IP address or DNS name of the target server. There is no default. This MUST be an address that the Retain Server can contact the Exalead server through, or the system will not work. Verify the selected address will work then specify the IP address or DNS Hostname and continue. This setting cannot be 127.0.0.1.

```
C:\ Wget http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip

An IP address or DNS name of the indexing server.
 DO NOT use 127.0.0.1 or localhost!!!!
 The IP address or DNS name must be both RESOLVABLE AND REACHABLE
 from both the Retain Server and any Exalead indexing servers you
might install
 A TCP basePort. 100 TCP ports must be available between basePort and basePort+100.
 Leave as 10000 unless there's a specific reason to change this.
 An instance name. Used for clustering.
 Leave as 'retainex' unless otherwise instructed.
 The number of cpus to use. Normally you want this to be all of them.

For each of these items, a default suggestion is provided in square brackets. You may accept it by hitting the ENTER key.

Executable file directory [C:\exabin]:
Index data directory [C:\exadata]:
DNS or IP Address of index server []:

DNS or IP Address of index server []:
DNS or IP Address of index server []: 192.168.1.102
 Fine, but be careful that the Retain Server can reach this address
Instance name [retainex]:
```

The instance name is what Exalead reports as it's name to the Retain Server.

```
C:\ Wget http://download.gwava.com/exalead/cloudview_with_sdk-5.1.6.19145-windows-x86...

 from both the Retain Server and any Exalead indexing servers you
might install
 A TCP basePort. 100 TCP ports must be available between basePort and basePort+100.
 Leave as 10000 unless there's a specific reason to change this.
 An instance name. Used for clustering.
 Leave as 'retainex' unless otherwise instructed.
 The number of cpus to use for the analyzers. Normally you want this to be all of them.
 The buildType, which can affect your initial indexing run speed
 An administrator password for securing the Exalead console and ensuring data integrity.

For each of these items, a default suggestion is provided in square brackets. You may accept it by hitting the ENTER key.

Executable file directory [C:\exabin]:
Index data directory [C:\exadata]:
You must choose an IP address accessible to Retain and all Exalead nodes!
DNS or IP Address of index server []: 192.168.1.102
 Fine, but be careful that the Retain Server can reach this address
Instance name [retainex]:
basePort [10000]:
CPUS to use for analyzers [1]: 2
```

Exalead requires 100 ports to use. The base port is the port Exalead starts with, and then advances +100 ports as required. ie. By default, Exalead will use ports 10000-10100. Make sure these ports are open, or, change them according to your system. If changed from default, keep track of the base port, as it must be entered into the Retain Server configuration.

```
C:\ Wget http://download.gwava.com/exalead/cloudview_with_sdk-5.1.6.19145-windows-x86...
from both the Retain Server and any Exalead indexing servers you
might install
A TCP basePort. 100 TCP ports must be available between basePort and basePort+100.
Leave as 10000 unless there's a specific reason to change this.
An instance name. Used for clustering.
Leave as 'retainex' unless otherwise instructed.
The number of cpus to use for the analyzers. Normally you want this to be all of them.
The buildType, which can affect your initial indexing run speed
An administrator password for securing the Exalead console and ensuring data integrity.

For each of these items, a default suggestion is provided in square brackets. You may accept it by hitting the ENTER key.

Executable file directory [C:\exabin]:
Index data directory [C:\exadata]:
You must choose an IP address accessible to Retain and all Exalead nodes!
DNS or IP Address of index server [1: 192.168.1.102
Fine, but be careful that the Retain Server can reach this address
Instance name [retainex]:
basePort [10000]:
CPUS to use for analyzers [1]: 2_
```

You will also be asked how many CPUs to utilize from the host system. This should be changed to the total number of processor cores in the host system, and a MINIMUM of 2 to support the minimum number of 'slices' for the system.

```
C:\ Wget http://download.gwava.com/exalead/cloudview_with_sdk-5.1.6.19145-windows-x86...
Leave as 10000 unless there's a specific reason to change this.
An instance name. Used for clustering.
Leave as 'retainex' unless otherwise instructed.
The number of cpus to use for the analyzers. Normally you want this to be all of them.
The buildType, which can affect your initial indexing run speed
An administrator password for securing the Exalead console and ensuring data integrity.

For each of these items, a default suggestion is provided in square brackets. You may accept it by hitting the ENTER key.

Executable file directory [C:\exabin]:
Index data directory [C:\exadata]:
You must choose an IP address accessible to Retain and all Exalead nodes!
DNS or IP Address of index server [1: 192.168.1.102
Fine, but be careful that the Retain Server can reach this address
Instance name [retainex]:
basePort [10000]:
CPUS to use for analyzers [1]: 2
The buildtype should be left as buildsearch unless you consult with support, as this is the normal operational mode. purebuild greatly enhances indexing speed, but disables ALL searching. It can be a useful option when first priming your index.
buildtype [buildsearch]:
```

Enter the initial buildtype. The default, and what should be used in all but immediate setup, is the 'buildsearch' setting. It is *highly recommended* to leave this setting as default: buildsearch.

If a large system is being migrated to Exalead, the search function of Exalead may be disabled to allow the index to be built faster; the 'purebuild' option. *Note: If 'purebuild' is selected, the setting much be switched in the configuration files to 'buildsearch' for searching to work.*



```
C:\ Wget http://download.gwava.com/exalead/cloudview_with_sdk-5.1.6.19145-windows-x86...
The number of cpus to use for the analyzers. Normally you want this to be all of them.
The buildType, which can affect your initial indexing run speed
An administrator password for securing the Exalead console and ensuring data integrity.

For each of these items, a default suggestion is provided in square brackets. You may accept it by hitting the ENTER key.

Executable file directory [C:\exabin]:
Index data directory [C:\exadata]:
You must choose an IP address accessible to Retain and all Exalead nodes!
DNS or IP Address of index server [1]: 192.168.1.102
 Fine, but be careful that the Retain Server can reach this address
Instance name [retainex]:
basePort [10000]:
CPUS to use for analyzers [1]: 2
The buildtype should be left as buildsearch unless you consult with support, as this is the normal operational mode. purebuild greatly enhances indexing speed, but disables ALL searching. It can be a useful option when first priming your index.
buildtype [buildsearch]:
Short version: Leave this at 2 unless directed by support. Long version: must be between 2 and 8, while constrained by Min(CPU,Disk).
Slices [2]:
```

The 'slices' setting basically represents the number of working threads Exalead will run, and has a minimum number of 2. The 'Slices' setting should be set to the number of hard drive disks installed in the system. The number of slices cannot be lower than '2', and cannot exceed the total number of available CPUs. I.e., if the system has two quad core processors and five SCSI disks, the slices setting should be set to '5'. Exalead will then split data job queues into 5 processing 'slices' which will do equal amounts of importing work.

```
C:\WINDOWS\system32\cmd.exe
The buildType, which can affect your initial indexing run speed
An administrator password for securing the Exalead console and ensuring data integrity.

For each of these items, a default suggestion is provided in square brackets. You may accept it by hitting the ENTER key.

Executable file directory [C:\exabin]:
Index data directory [C:\exadata]:
You must choose an IP address accessible to Retain and all Exalead nodes!
DNS or IP Address of index server [1]: 192.168.1.102
 Fine, but be careful that the Retain Server can reach this address
Instance name [retainex]:
basePort [10000]:
CPUS to use for analyzers [2]:
The buildtype should be left as buildsearch unless you consult with support, as this is the normal operational mode. purebuild greatly enhances indexing speed, but disables ALL searching. It can be a useful option when first priming your index.
buildtype [buildsearch]:
Short version: Leave this at 2 unless directed by support. Long version: must be between 2 and 8, while constrained by Min(CPU,Disk).
Slices [2]:
Used for access to Exalead consoles
Administrator password [exalead]:
```

Set the access password for the Exalead. This password will be used for the admin password to access the Exalead Configuration Console, (the api-ui).



```
C:\WINDOWS\system32\cmd.exe

Instance name [retainex]:
basePort [10000]:
CPUS to use for analyzers [2]:
The buildtype should be left as buildsearch unless you consult with support, as this is the normal operational mode. purebuild greatly enhances indexing speed, but disables ALL searching. It can be a useful option when first priming your index.
buildtype [buildsearch]:
Short version: Leave this at 2 unless directed by support. Long version: must be between 2 and 8, while constrained by Min(CPU,Disk).
Slices [2]:
Used for access to Exalead consoles
Administrator password [exalead]:

Install Executables to: C:\exabin
Install data directory to: C:\exadata
Use this host name: 192.168.1.102
Use this base port: 10000
Use this instance: retainex
Use these many cpus: 2
Use this buildtype: buildsearch
Use these many slices: 2
Use this password: exalead

Confirm your selections <yes or no> [yes]:
```

Verify your settings, or change them, then continue.

```
C:\ Wget http://download.gwava.com/exalead/cloudview-oem-windows32-tag-5.0.3.12614.zip

</applyPreActions>
<applyRestartProcesses>
</applyRestartProcesses>
<applyPostActions>
</applyPostActions>
<warnings>
</warnings>
<applyPostRestartProcesses>
</applyPostRestartProcesses>
<manualActions>
</manualActions>
</ApplyConfigurationResponse>
Executing : C:\exadata\bin\exa.exe -b C:\exabin\exabin\mercury.bin com.exalead.mercury.util.windows.registerService -name "Exalead CloudView OEM - retainex" -command "C:\exadata\bin\cvd.exe"
exa.exe: license expires in 9 days

Installation successfull
You must first launch the product using C:\exadata\bin\cvinit.bat
To complete the product setup, the configuration can be generated using : C:\exadata\bin\postinstall.exe
Exalead is installed and will run automatically on reboot. Will start after you hit a key to continue....
Wait 5 minutes, and then try accessing http://ipaddress:127.0.0.1:10001/api-ui
Press any key to continue . . .
```

Exalead will then complete the install and set to run as a system service.

The Windows system should be restarted after installation.

If you wish to check for a successful installation, wait several minutes then open a browser and access: <http://<your server IP address or DNS>:<chosen base port +1>/admin> . The API-UI should be secured, whether by restricting access to the port to only the Admin computer, or through other network security measures appropriate for the system. Again, the API-UI access port is the specified base port +1.

Login: admin

Password: (whatever was specified in setup, default: Exalead)



After logging into Exalead, you should view a management configuration page for the Exalead server. In almost every instance, configuration and installation of Exalead for Retain Server has been completed. No further configuration is needed. However, there are endless configuration options. GWAVA inc. and Retain 2 does not require any further configuration.

The screenshot displays the Exalead CloudView administration console. The interface includes a top navigation bar with the Exalead logo, user information (admin), and links for About, Logout, Users, and Help. A left sidebar contains a menu with categories like Home, Collect, Process, Store, Access, User Interaction, Deployment, Logs, and Wizards. The main content area is titled 'Home' and provides an overview of the product workflow, process operations, and status. It includes sections for Connectors, Build Groups, Overall status, Push API tasks count, Tasks in queue, Number of documents, and a list of Processes. The Processes table shows details for various analyzer and convert processes, including their PID, status, last start date, and available actions.

**Connectors**

| Name    | Status | Type    | Actions        |
|---------|--------|---------|----------------|
| default |        | PushAPI | Scratch Source |

**Build Groups**

Build Group: **bg0** [Scratch] [Repush from Cache] [Force Indexing]

**Overall status**  
 slice "0" idle, slice "1" idle, slice "2" idle, slice "3" idle, slice "4" idle, slice "5" idle  
**Push API tasks count since last restart** 8423; New:8423; Replace:0; Delete:0; Update:0  
**Tasks in queue** Empty  
**Number of documents** 8423  
 ▶ Task Queue Details  
 ▶ Slice Details

**Processes**

Host: **192.168.100.204**

| Processes      | PID  | Status  | Last Start Date     | Actions |
|----------------|------|---------|---------------------|---------|
| analyzer-bg0-0 | 7269 | started | 2010/06/01 12:38:13 | ▶ ↺ ⏏ ⏏ |
| analyzer-bg0-1 | 7211 | started | 2010/06/01 12:38:13 | ▶ ↺ ⏏ ⏏ |
| analyzer-bg0-2 | 7242 | started | 2010/06/01 12:38:13 | ▶ ↺ ⏏ ⏏ |
| analyzer-bg0-3 | 7182 | started | 2010/06/01 12:38:13 | ▶ ↺ ⏏ ⏏ |
| analyzer-bg0-4 | 7230 | started | 2010/06/01 12:38:13 | ▶ ↺ ⏏ ⏏ |
| analyzer-bg0-5 | 7251 | started | 2010/06/01 12:38:13 | ▶ ↺ ⏏ ⏏ |
| analyzer-bg0-6 | 7244 | started | 2010/06/01 12:38:13 | ▶ ↺ ⏏ ⏏ |
| analyzer-bg0-7 | 7162 | started | 2010/06/01 12:38:13 | ▶ ↺ ⏏ ⏏ |
| convert-c0     | 7229 | started | 2010/06/01 12:38:13 | ▶ ↺ ⏏ ⏏ |

2010/06/03-12:12:21 - Job 206158430208 (file=48 offset0) is imported for buildGroup bg0  
 2010/06/03-12:13:51 Welcome to the Administration Console.