OnCommand® Insight 7.3

Installation Guide for Linux

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doccomments@netapp.com

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OnCommand Insight overview

OnCommand Insight enables you to simplify operational management of complex private and hybrid cloud and virtual IT environments. Insight is a single solution to enable cross-domain, multi-vendor resource management and analysis across networks, storage, and servers in physical and virtual environments.

Insight can help you optimize your current infrastructure, allowing you to right-size operations to meet business demands. It simplifies the process of determining what and when to buy. It also reduces risk during complex technology migrations, such as moving to a hybrid cloud, by identifying which workloads are candidates for cloud migration. With Insight, you can manage the IT infrastructure as an end-to-end service by integrating the resources into the company’s entire IT service delivery chain.

Insight architecture

A typical installation of OnCommand Insight includes data acquisition and data warehousing with reports, all easily accessible from a web-based UI. For more secure environments, acquisition can be done through a remote acquisition unit.

The major components of the Insight architecture are shown in the following diagram:

OnCommand Insight Server
The OnCommand Insight Server contains the main data repository and analysis components. The server is continuously building an end-to-end topology of the environment, analyzing the environment, and generating alerts when an incident or violation is detected.

Acquisition
The Insight collection engine is built on one or more acquisition units. Each Insight server contains a local acquisition unit and can support remote acquisition units. Each unit is a service running on the network that accesses (through modules called data sources) and
collects data from devices in the data center. Information collected by the acquisition units is then sent to the server for analysis.

The collection engine is designed to be highly modular and easily patched.

**Integration API**

An API allows the collection of data from external agents. Integration data can be viewed in the web UI using queries and widgets. Dashboards can contain ‘native’ Insight data and integration data. You can apply filtering, roll-ups, and grouping to the data in these dashboards.

**Ethernet monitor**

Insight uses an Ethernet monitoring unit (EMU) to inspect Ethernet NAS traffic flow between the storage, network switches, and clients. This enables administrators to easily identify the heaviest NFSv3 workloads contributing to Internal Volume activities.

**Web UI**

The HTML5 web-based user interface for Insight enables you to set up data sources and your monitoring environment, including policies, thresholds and alerts. You then use the web UI Asset Dashboard and asset pages to identify and research potential problems. You can create custom dashboards with a variety of widgets, each of which provides extensive flexibility in displaying, analyzing, and charting your data.

**Anomaly Detection**

Anomalies are performance change events in application infrastructure that do not conform to previously observed and expected patterns. Anomaly detection targets the infrastructure servicing an application, identifying changes in processing patterns and behaviors. These cyclical processing patterns include historical "ebbs and flows" in a workloads performance during hours of business operation and non-business operation.

**Data Warehouse**

The OnCommand Insight Data Warehouse is a centralized repository that stores data from multiple Insight servers and transforms data into a common, multidimensional data model for querying and analysis.

The OnCommand Insight Data Warehouse enables access to an open database consisting of several data marts that let you generate custom capacity and performance reports such as chargeback reports, trending reports with historical data, consumption analyses, and forecasting reports.

The Data Warehouse consolidates and prepares data for reporting for one or multiple installations of Insight. The data includes history, trending, inventory, chargeback, show back and data presentations to support long-term planning of the data center’s infrastructure.

**Cognos**

Cognos is the reporting engine for Insight, an IBM business intelligence tool that enables you to view pre-defined reports or create custom reports. Insight reporting generates reports from the Data Warehouse data.

**Note:** If you install Insight on a Linux server, you can only use Cognos if the Data Warehouse is installed on a Windows server. For information about installing the Data Warehouse on Windows, refer to the *OnCommand Insight Installation Guide for Microsoft Windows.*
How Insight is used by administrators, managers, and planners

OnCommand Insight supplies information that is vital for storage administrators, managers, and storage architects to perform troubleshooting and analysis.

Experienced storage administrators use OnCommand Insight along with their network storage knowledge to accomplish these typical tasks:

• Manage the SAN and NAS environment.
• Work with SAN engineers on network concerns.
• Evaluate, test, and integrate new storage technologies into the environment.
• Troubleshoot performance issues, alerts, policy breaches, violations, and vulnerabilities.

Managers and network planners use OnCommand Insight to perform these business tasks:

• Capacity planning
• Develop project budgets and timelines.
• Evaluate and revise project plans to meet changing project demands.
• Manage project planning and expenses.
• Purchase hardware and software.
• Provide business reports for capacity management, charge back billing, right sizing, and service level agreements.
## Installation prerequisites

Before you install OnCommand Insight, you must download the current software version, acquire the appropriate license, and set up your environment.

Before installing OnCommand Insight, ensure that you have the following:

- OnCommand Insight software files in the downloaded installation package for the current version
- A license to operate the downloaded OnCommand Insight version
- The minimum hardware and software environment
  The current product might consume additional hardware resources (due to enhanced OnCommand Insight product functionality) that were not consumed with earlier versions of the OnCommand Insight product.
- A deployment plan that includes the hardware and network configurations for the OnCommand Insight Server, Data Warehouse and Reporting, and remote acquisition units
- Java 8 for the OnCommand Insight Java UI

## Planning the deployment

To ensure a successful deployment, you must consider certain system elements before you install OnCommand Insight.

### About this task

Planning your Insight deployment includes considering these system elements:

- Insight architecture
- Your network components to be monitored
- Insight installation prerequisites and server requirements
- Insight web browser requirements

## Data source support information

As part of your configuration planning, you should ensure that the devices in your environment can be monitored by Insight. To do so, you can check the Data source support matrix for details about operating systems, specific devices, and protocols. Some data sources might not be available on all operating systems.

### Location of the most up-to-date version of the Data Source Support Matrix

The OnCommand Insight Data Source Support Matrix is updated with each service pack release. The latest version of the document can be found at the NetApp Support Site: mysupport.netapp.com/NOW/products/interoperability/.

## Device identification and data source planning

As part of your deployment planning, you should collect information about the devices in your environment.

You need the following software, connectivity, and information about each device in your environment:
• IP address or hostname resolvable by the OCI server
• Login name and password
• Type of access to the device, for example, controller and management station
  
  Note: Read-only access will be sufficient for most devices, but some devices require administrator permissions.

• Port connectivity to the device depending on data source port requirements
• For switches, SNMP read-only community string (user ID or password to give access to the switches)
• Any third-party software required on the device, for example, Solutions Enabler.
• See the "Vendor-specific data source reference" in the web UI Help or in the OnCommand Insight Configuration and Administration Guide for more information on data source permissions and requirements.

**Network traffic generated by OnCommand Insight**

The network traffic that OnCommand Insight generates, the amount of processed data traversing the network, and the load that OnCommand Insight places on devices differ based on many factors.

The traffic, data, and load differ across environments based on the following factors:

• The raw data
• Configuration of devices
• Deployment topology of OnCommand Insight
• Different inventory and performance data source polling intervals, which can be reduced to allow for slow devices to be discovered or bandwidth to be conserved

The raw configuration data that OnCommand Insight collects can vary significantly.

The following example illustrates how the configuration data can vary and how traffic, data, and load are affected by many configuration factors. For example, you might have two arrays each having 1,000 disks:

• Array 1: Has 1,000 SATA disks all 1 TB in size. All 1,000 disks are in one storage pool, and there are 1,000 LUNs, all presented (mapped and masked) to the same 32 nodes in an ESX cluster.

• Array 2: Has 400 2-TB data disks, 560 600-GB FC disks, and 40 SSD. There are 3 storage pools, but 320 of the FC disks are used in traditional RAID groups. The LUNs carved on the RAID groups use a traditional masking type (symmaskdb), while the thin provisioned, pool-based LUNs use a newer masking type (symaccess). There are 600 LUNs presented to 150 different hosts. There are 200 BCVs (full block replica volumes of 200 of the 600 LUNs). There are also 200 R2 volumes, remote replica volumes of volumes that exist on an array in a different site.

These arrays each have 1,000 disks and 1,000 logical volumes. They might be physically identical in the amount of rack space they consume in the data center, and they might even be running the same firmware, but the second array is much more complex in its configuration than the first array.

**Uninstalling MariaDB**

You must uninstall MariaDB on the Insight or Data Warehouse servers before you install OnCommand Insight or the Data Warehouse; otherwise, you can not proceed with the installation. MySQL is not compatible with MariaDB. If you attempt an installation on either server without
removing MariaDB, the installation terminates with an error message instructing you to uninstall MariaDB.

**Before you begin**
You must have sudo privileges.

**Steps**
1. Log in to the Insight server.
2. Obtain a list of MariaDB components:
   ```bash
   rpm -qa | grep mariadb
   ```
3. Type the following for each MariaDB component that is installed on the server:
   ```bash
   yum remove component_name
   ```

**Insight Server requirements**
A dedicated server is recommended. Do not install Insight on a server that has any other applications installed. Both physical and virtual servers are supported, provided that the product requirements are met.

You must have sudo permissions to install the OnCommand Insight Server software.

Some Insight components may require dependent packages during installation. Ensure YUM repository is accessible prior to installing Insight.

**Important:** Sizing for OnCommand Insight has multiple dependencies, such as data source type and size, number of assets in your environment, polling intervals, and more. The following sizing examples are guidelines only; they represent some of the environments in which Insight has been tested. Changing any of these or other factors in the environment can change the sizing requirements for Insight. These guidelines include disk space for up to 90 days of performance archive data.

It is recommended to contact your Sales Engineer for detailed sizing guidance before installing or upgrading Insight.

**Examples:**

<table>
<thead>
<tr>
<th>Environment factors:</th>
<th>Disk space, CPUs, and Memory tested:</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 storage arrays</td>
<td>250 GB disk space</td>
</tr>
<tr>
<td>4,000 Volumes</td>
<td>8 cores</td>
</tr>
<tr>
<td>4,000 VMs</td>
<td>32 GB RAM</td>
</tr>
<tr>
<td>4,000 switch ports</td>
<td></td>
</tr>
<tr>
<td>160 storage arrays</td>
<td>1 TB of disk space</td>
</tr>
<tr>
<td>40,000 Volumes</td>
<td>12 cores</td>
</tr>
<tr>
<td>8,000 VMs</td>
<td>48 GB RAM</td>
</tr>
<tr>
<td>8,000 switch ports</td>
<td></td>
</tr>
</tbody>
</table>

**Requirements:**
<table>
<thead>
<tr>
<th>Component</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system</td>
<td>A computer running a licensed version of Red Hat Enterprise Linux 7.3, 7.4, 7.5, or 7.6; CentOS 7.2, 7.5, or 7.6; or Oracle Enterprise Linux 7.5 or 7.6, that is running no other application-level software. A licensed version ensures that dependencies required by the installation are resolved automatically by the operating system. You must uninstall MariaDB before installing Insight. <strong>Note:</strong> Uninstalling MariaDB also removes the Postfix Mail Transport Agent. A dedicated server is recommended.</td>
</tr>
<tr>
<td>Virtual machine (VM)</td>
<td>This component can run in a virtual environment, provided that the CPU and memory resources for your instance are reserved.</td>
</tr>
</tbody>
</table>
| Memory and CPU       | 24 - 256 GB RAM  
8 - 32 cores                                                                                                                                                                                                                                    |
| Available disk space | 100 GB - 3 TB install disk space  
50 GB - 1 TB performance archive disk space  
The following partition breakdowns are recommended for an example 500 GB environment:  
- /opt directory – 50 GB  
- /var/log directory – 100 GB  
- /var/lib directory – 350 GB  
It is a best practice to mount /opt and /var on separate disks from the root file system (/). SSD disks are recommended for the Insight installation space. |
### Component | Required
--- | ---
Network | Ethernet connection and ports:
• 100 Mbps or 1 Gbps Ethernet connection with dedicated (static) IP address and IP connectivity to all components in the SAN, including FC devices and remote acquisition units.
• Port requirements for the OnCommand Insight Server process are 80, 443, 1090 through 1100, 3873, 8083, 4444 through 4446, 5445, 5455, 4712 through 4714, 5500, and 5501.
• Port requirements for the acquisition process are 12123 and 5679.
• Port requirement for MySQL is 3306.
• Port requirements for Elasticsearch are 9200 and 9310
Ports 443 and 3306 require external access through any firewall that is present.
Permissions | Sudo permissions are required on the OnCommand Insight Server.
Remote connectivity | Internet connectivity to allow WebEx access or a remote desktop connection to facilitate installation and post-installation support.
Accessibility | HTTPS, HTTP, or FTP access to the Internet is highly recommended.
HTTP or HTTPS servers | Apache HTTP servers or other HTTP and HTTPS servers should not compete for the same ports (80 and 443) as the OnCommand Insight server and should not start automatically. If they must listen to port 80 or 443, then you must configure the OnCommand Insight server to use other ports.

---

**Data Warehouse server requirements**

The Data Warehouse server must run on a computer that is compatible with established hardware and software requirements. You must ensure that Apache web server or reporting software is not already installed on this machine.

**Important:** Sizing for OnCommand Insight has multiple dependencies, such as number of assets in your environment, amount of historical data retained, and more. The following data warehouse sizing examples are guidelines only; they represent some of the environments in which Insight has been tested. Changing any of these or other factors in the environment can change the sizing requirements for Insight.

It is recommended to contact your Sales Engineer for detailed sizing guidance before installing or upgrading Insight.

**Examples:**
Environment factors:

<table>
<thead>
<tr>
<th>Disk space, CPUs, and Memory tested:</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 GB hard disk</td>
</tr>
<tr>
<td>8 cores</td>
</tr>
<tr>
<td>32 GB RAM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>18 storage arrays</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,400 VMs</td>
</tr>
<tr>
<td>4,500 switch ports</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>110 storage arrays</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,500 VMs</td>
</tr>
<tr>
<td>14,500 switch ports</td>
</tr>
</tbody>
</table>

Requirements:

<table>
<thead>
<tr>
<th>Component</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system</td>
<td>A computer running a licensed version of Red Hat Enterprise Linux 7.3, 7.4, 7.5, or 7.6; CentOS 7.2, 7.5, or 7.6; or Oracle Enterprise Linux 7.5 or 7.6, that is running no other application-level software.</td>
</tr>
<tr>
<td>Virtual machine (VM)</td>
<td>This component can run in a virtual environment, provided that the CPU and memory resources for your instance are reserved.</td>
</tr>
<tr>
<td>CPU</td>
<td>8 - 40 CPU cores</td>
</tr>
<tr>
<td>Memory</td>
<td>32 GB - 2 TB RAM</td>
</tr>
<tr>
<td>Available Disk Space</td>
<td>200 GB - 512 GB disk space</td>
</tr>
<tr>
<td>Network</td>
<td>• 100 Mbps or 1 Gbps Ethernet connection</td>
</tr>
<tr>
<td></td>
<td>• Static IP address</td>
</tr>
<tr>
<td></td>
<td>• For the OnCommand Insight DWH server process, ports 80, 443, 1098, 1099, 3873, 8083, and 4444 through 4446</td>
</tr>
<tr>
<td></td>
<td>• For MySQL, port 3306</td>
</tr>
</tbody>
</table>

Remote Acquisition Unit server requirements

You must install a Remote Acquisition Unit (RAU) to acquire information from SAN devices that are behind a firewall, at a remote site, on a private network, or in different network segments. Before you install the RAU, you should ensure that your environment meets RAU operating system, CPU, memory, and disk space requirements.

<table>
<thead>
<tr>
<th>Component</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system</td>
<td>A computer running a licensed version of Red Hat Enterprise Linux 7.3, 7.4, 7.5, or 7.6; CentOS 7.2, 7.5, or 7.6; or Oracle Enterprise Linux 7.5 or 7.6, that is running no other application-level software. A dedicated server is recommended.</td>
</tr>
<tr>
<td>CPU</td>
<td>4 CPU cores</td>
</tr>
<tr>
<td>Memory</td>
<td>16 GB RAM</td>
</tr>
<tr>
<td>Available disk space</td>
<td>40 GB</td>
</tr>
</tbody>
</table>
### Component | Requirement
--- | ---
Network | 100 Mbps /1 Gbps Ethernet connection, static IP address, IP connectivity to all FC devices, and a required port to the OnCommand Insight server (80 or 443).
Permissions | Sudo permissions on the RAU server

### Anomaly detection requirements

The anomaly detection software requires a specific operating system, amounts of memory, CPU cores, and disk space. You must adhere to certain requirements to successfully install the anomaly detection software.

<table>
<thead>
<tr>
<th>Component</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating system</td>
<td>A computer running a licensed version of Red Hat Enterprise Linux 7.3, 7.4, 7.5, or 7.6; CentOS 7.2, 7.5, or 7.6; or Oracle Enterprise Linux 7.5 or 7.6, that is running no other application-level software. A licensed version ensures that dependencies required for the installation are resolved automatically by the operating system. A dedicated server is recommended.</td>
</tr>
<tr>
<td>Virtual machine (VM)</td>
<td>Anomaly Detection can run in a virtual environment, provided that the CPU and memory resources for your instance are reserved.</td>
</tr>
<tr>
<td>CPU and Memory</td>
<td>An 8 core, 64 GB memory server.</td>
</tr>
<tr>
<td>Available disk space</td>
<td>The server requires 200 GB of free disk space partitioned as follows:</td>
</tr>
<tr>
<td></td>
<td>• 150 GB in /var/lib</td>
</tr>
<tr>
<td></td>
<td>• 25 GB in /var/log</td>
</tr>
<tr>
<td></td>
<td>• 25 GB in /opt</td>
</tr>
<tr>
<td></td>
<td>Software installation requires the following disk space:</td>
</tr>
<tr>
<td></td>
<td>• 5 GB in /var/lib</td>
</tr>
<tr>
<td></td>
<td>• 25 GB in /var/log</td>
</tr>
<tr>
<td></td>
<td>• 25 GB in /opt</td>
</tr>
<tr>
<td></td>
<td>It is a best practice to mount /opt and /var on separate disks from the root file system (/).</td>
</tr>
<tr>
<td>Permissions</td>
<td>Sudo permissions are required to install the anomaly detection software.</td>
</tr>
<tr>
<td>Network</td>
<td>The Insight server on which you want to install the anomaly detection software must reside on the same network, or at least in the same site or Data Center, as the server that is running the anomaly detection engine. The anomaly detection software does not support configuration in a Wide-Area Network (WAN). TCP ports 8080 and 9200 must be open on the VM.</td>
</tr>
</tbody>
</table>
## Ethernet Monitoring Unit requirements

The Ethernet Monitoring Unit is a hardware server dedicated to monitoring NFS traffic in an OnCommand Insight environment. The minimum system requirements for Ethernet Monitoring Units and the supported NICs are listed below.

### Server requirements

<table>
<thead>
<tr>
<th>Component</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware</td>
<td>Rack-mounted chassis with redundant power supplies</td>
</tr>
<tr>
<td>Operating system</td>
<td>A computer running a licensed version of Red Hat Enterprise Linux 7.3, 7.4, 7.5, or 7.6; CentOS 7.2, 7.5, or 7.6; or Oracle Enterprise Linux 7.5 or 7.6, that is running no other application-level software.</td>
</tr>
<tr>
<td>CPU</td>
<td>Two 2.2 GHz 8-core hyper-threading CPUs</td>
</tr>
<tr>
<td>Memory</td>
<td>32 GB huge pages memory (set at boot time)</td>
</tr>
<tr>
<td>Available disk space</td>
<td>240 GB hard drive</td>
</tr>
<tr>
<td>Network</td>
<td>2 - 10GbE NICs for monitoring NFS traffic (from supported list)</td>
</tr>
<tr>
<td></td>
<td>2 - Short Range 10GbE Gigabit Interface Converter (GBIC)</td>
</tr>
<tr>
<td></td>
<td>1 - 1GbE interface for management with the OnCommand Insight server</td>
</tr>
<tr>
<td>Permissions</td>
<td>Sudo permissions on the Server.</td>
</tr>
</tbody>
</table>

### Supported network interface cards

The Network Interface Cards (NICs) that are supported for monitoring NFS traffic are listed in the table below.

---

**Important:** You must discuss and validate all sizing recommendations with a NetApp representative.
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Common Linux ethernet driver</th>
<th>Model designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cisco</td>
<td>Enic</td>
<td>UCS Virtual Interface Card</td>
</tr>
<tr>
<td>Intel</td>
<td>e1000</td>
<td>82540, 82545, 82546</td>
</tr>
<tr>
<td>Intel</td>
<td>e1000e</td>
<td>82571, 82572, 82573, 82574, 82583, ICH8, ICH9, ICH10, PCH1, PCH2, I217, I218</td>
</tr>
<tr>
<td>Intel</td>
<td>igb</td>
<td>82575, 82576, 82580, I210, I211, I350, I354, DH89xx</td>
</tr>
<tr>
<td>Intel</td>
<td>ixgbe</td>
<td>82598, 82599, X540, X550</td>
</tr>
<tr>
<td>Intel</td>
<td>i40e</td>
<td>X710, XL710, X722</td>
</tr>
<tr>
<td>Intel</td>
<td>fm10k</td>
<td>FM10420</td>
</tr>
<tr>
<td>Qlogic</td>
<td>bnx2x</td>
<td>578xx</td>
</tr>
</tbody>
</table>

Configuring Linux huge pages support for Ethernet monitoring

The Ethernet Monitoring Unit requires Linux huge pages for memory. Huge pages should be allocated at boot time.

Before you begin

You must have `sudo` permission on the Ethernet Monitoring Unit (EMU) host. (The ability to perform `sudo` `su` is recommended.)

About this task

You should enable the kernel boot option `hugepages=$NumberOfPages` using the following formula: `$NumberOfPages=128*InterfaceCount` where `InterfaceCount` is the number of interfaces that the EMU will be monitoring.

Steps

1. Use the following commands to enable hugepages
   ```
   $ sudo echo "vm.nr_hugepages=128" >> /etc/sysctl.conf
   $ sudo sysctl -p
   $ sudo reboot
   ```
2. Use the following command to verify that the change has taken effect:
   ```
   sudo cat /proc/sys/vm.nr_hugepages
   ```
   This system displays the number of pages the kernel was able to allocate.

Insight Java UI requirements

Because the OnCommand Insight Java UI Client operates in a Java run-time environment on your computer, it is important that you ensure that your environment meets specific operating system, CPU, and memory requirements.

To access the Java UI Client, you must install the Java run-time environment (JRE) on your computer.

For OnCommand Insight 7.3.2 and later, the 64-bit version of the Java Runtime Environment (JRE) is required to run the Insight Java client.
### Component | Requirement
--- | ---
Operating system | Any Java 8-enabled machine. The Java-based client supports Windows, Macintosh, and Linux platforms.
CPU | 1.8 GHz or faster is required.
Memory | 2 GB or more is recommended. If you are monitoring the performance of complex data centers (over 50,000 switch ports), the server requires more memory. This is applicable only if the Perform license is installed.

### Browsers supported by OnCommand Insight

The browser-based OnCommand Insight web UI can operate on several different browsers.

Insight supports newer, non-beta releases of the following browsers:

- Mozilla Firefox
- Google Chrome
- Microsoft Internet Explorer 11

For a full list of browser versions qualified for OnCommand Insight, please see the [NetApp Interoperability Matrix Tool](NetApp Interoperability Matrix Tool).
Insight installation instructions

Installation requires installing several OnCommand Insight components, Insight Server, Data Warehouse, and Anomaly Detection.

The installation includes the following major tasks:

• Downloading the OnCommand Insight installer
• Installing OnCommand Insight server
• Installing licenses
• Optionally, installing DWH and Reporting (must be installed on a separate machine or virtual machine. Reporting requires Microsoft Windows.)
• Optionally, installing a remote acquisition unit (RAU), which acquires information from your device resources that reside behind a firewall, are located at a remote site, or are on a private network
• Optionally, installing the anomaly detection engine (must be installed on a separate machine or virtual machine.)
• Optionally, installing the ethernet monitoring unit, which must be installed on a separate machine running Linux.

After installation, you must configure Insight to acquire information about your environment. The tasks required are described in the OnCommand Insight Configuration and Administration Guide.

Downloading the OnCommand Insight installer

You can download the OnCommand Insight installer from the NetApp Support Site.

Before you begin

You must have a login to the NetApp Support Site at mysupport.netapp.com. Additionally, you must have an unzip utility with which to open the installation .ZIP files.

Steps

1. Log in to the server on which you want to install OnCommand Insight.
2. Download the installation file from the NetApp Support site.

Installing the OnCommand Insight Server

OnCommand Insight Server is installed by using the command line.

Before you begin

You must have completed all of the installation prerequisites.

Steps

1. Log in to the Insight server using an account with sudo privileges.
2. Navigate to the directory on the server where the installation files are located and type the following command:

```
unzip oci-<version>-linux-x86_64.zip
```

Ensure that you check the version number of the installation file; the version number might be different than the one shown in the command.

3. You can view syntax, command arguments, and parameter usage for `oci-install.sh`:
```
sudo ./oci-<version>-linux-x86_64/oci-install.sh --help
```

4. Run the installation script:
```
sudo ./oci-<version>-linux-x86_64/oci-install.sh
```

5. Read the License Agreement, accept it, and follow the prompts.

6. If you are using the Insight consumption licensing model, you must enable sending of usage information to NetApp. Enter `Y` at this prompt.

**Result**

After you answer all the prompts, the installation begins and should take approximately 10 minutes, depending on the applications installed.

### Installing OnCommand Insight Data Warehouse

The installation is self-contained and includes the elements required to run and operate OnCommand Insight Data Warehouse (DWH).

**Before you begin**

You must have completed all of the installation prerequisites.

**About this task**

Data Warehouse has Cognos reporting capabilities. If you install Insight on a Linux server, you can use these capabilities, however, only if you install the Data Warehouse on a Windows server. For information about installing the Data Warehouse on Windows and Cognos reporting capabilities, refer to the *OnCommand Insight Installation Guide for Microsoft Windows*.

**Steps**

1. Log in to the Data Warehouse server using an account with sudo privileges.

2. Navigate to the directory on the server where the installation files are located and type the following command:

```
unzip oci-dwh-<version>-linux-x86_64.zip
```

Ensure that you check the version number of the installation file; the version number might be different than the one shown in the command.

3. You can view syntax, command arguments, and parameter usage for `oci-install.sh` before you begin the installation:
```
sudo ./oci-dwh-<version>-linux-x86_64/oci-install.sh --help
```

4. Run the installation script:
Installing a Remote Acquisition Unit

You can install one or more Remote Acquisition Units (RAUs) in your OnCommand Insight environment. Acquisition units run in the network that accesses (through modules called data sources) and collect data from different devices in the data center.

Before you begin

You must have completed all of the installation prerequisites.

At least one port must be open and available between the RAU server and the OnCommand Insight Server to forward change information to the server. If you are unsure about this, validate it by opening a Web browser on the RAU computer and directing it to the OnCommand Insight server:

https://< OnCommand Insight Server hostname >:< acquisition_port >

The acquisition port defaults to 443, but it might have changed during the server installation. If the connection is successful, you see a OnCommand Insight response page, indicating an open and available port between the RAU and the OnCommand Insight server.

For environments using Network Address Translation or Port Address Translation (NAT/PAT: i.e, any translation of IP addresses), Insight only supports insertion of an RAU between NAT and the Device.

- Supported: OnCommand Insight -> NAT -> RAU -> Device
- Unsupported: OnCommand Insight -> RAU -> NAT -> Device

Steps

1. Log in to the RAU server using an account with sudo privileges.

2. Navigate to the directory on the server where the installation files are located and type the following command:

   unzip oci-rau-<version>-linux-x86_64.zip

3. You can view syntax, command arguments, and parameter usage for oci-install.sh:

   sudo ./oci-rau-<version>-linux-x86_64/oci-install.sh --help

4. Run the installation script:

   sudo ./oci-rau-<version>-linux-x86_64/oci-install.sh

5. Read the License Agreement, accept it, and then follow the prompts.

   After you answer all the prompts, the installation begins and should take approximately 10 minutes, depending on the applications installed.
Validating the remote acquisition unit installation

To validate proper installation of the Remote Acquisition Unit, you can view the status of the Remote Acquisition Units connected to your server.

**Steps**

1. On the Insight toolbar, click **Admin**.
2. Click **Acquisition Units**.
3. Verify that the new Remote Acquisition Unit was registered correctly and that it has a Connected status.
   
   If it does not, you must contact technical support.

Installing the anomaly detection software

OnCommand Insight contains software that applies machine-learning anomaly detection to your Insight data. You can install this software separately from other OnCommand Insight components.

**Before you begin**

You must have completed all of the installation prerequisites.

**Steps**

1. Log in to the anomaly detection server using an account with sudo privileges.
2. Copy the `.zip` file that contains the anomaly detection software to the Linux server.
3. Extract the files to the `oci-prelert-<version>-linux-x86_64` directory.
4. Navigate to the directory where the installer is located:
   
   ```
   cd oci-prelert-<version>-linux-x86_64
   ```
5. Install the anomaly detection software:
   
   ```
   sudo ./oci-prelert-install.sh
   ```
   
   During the installation, you are prompted to enter the server name or IP address of the OnCommand Insight server, and the user name and password for an account with Administrator privileges.
   
   You can remove the anomaly detection software using the following command:
   
   ```
   sudo /usr/bin/oci-prelert-uninstall.sh
   ```

**Result**

The software is automatically registered with the instance of OnCommand Insight that is specified in the installation. The software can communicate only with the OnCommand Insight instance that it is registered with, and only one instance of the software can be registered with an OnCommand Insight server.

If you restart either the server that is running the anomaly detection software or the Insight server, the anomaly detection process restarts automatically.

**Note:** If you install the anomaly detection software via command line by providing parameters, as opposed to letting install prompt you for parameters, it will fail to register with the Insight server unless you provide the following parameter:
Installing an Ethernet Monitoring Unit

“Ethernet monitoring units (EMUs) inspect network packets in your environment, to enable troubleshooting of performance in terms of network traffic from the hosts to the storage resources.

Before you begin
You must have completed all of the installation prerequisites.

Steps
1. Log in to the EMU server using an account with sudo privileges.
2. Navigate to the directory on the server where the installation files are located and type the following command:

    ```
    unzip oci-ethernet-<version>-linux-x86_64.zip
    ```

    Where `<version>` is the version number specified in the filename you downloaded.
3. You can view syntax, command arguments, and parameter usage for `oci-install.sh`:

    ```
    sudo ./oci-ethernet-<version>-linux-x86_64/oci-install.sh --help
    ```
4. Run the installation script:

    ```
    sudo ./oci-ethernet-<version>-linux-x86_64/oci-install.sh
    ```
5. Read the License Agreement and accept it.
6. Answer each of the prompts:

   - **OnCommand Insight Server Name or IP Address** - hostname or IP address to identify the OnCommand Insight Server. The EMU uses this name/IP to open a communications link with the server. If you specify a hostname, make sure it can be resolved through DNS.
   - **Acquisition Unit Name** - unique name that identifies the EMU.
   - **OnCommand Insight Secured Remote Acquisition Port (HTTPS)** - Port used by the EMU to send environment change information to the OnCommand Insight server. This setting should match the value entered when installing the OnCommand Insight server and must be the same on all EMUs.
   - **Ethernet PAS output directory** - Enter the folder for PAS output.
   - **Ethernet PAS interfaces to monitor** - Enter the interfaces whose traffic you wish to monitor.
   - **Enable jumbo packets** - If the customer environment uses jumbo packets, EMU creates large packet buffers to read those packets. Otherwise, EMU uses the available memory pool for standard Ethernet packets.

After you answer all the prompts, the installation begins and should take approximately 10 minutes, depending on the applications installed.
Checking the installation

After you complete the installation, the installation directory is located in /opt/netapp/oci. You can open Insight in a supported browser to check the installation. You might also want to check the Insight log files.

When you first open Insight, the license setup page opens. After you enter the license information, you must set up the data sources. See the OnCommand Insight Configuration and Administration Guide for information about entering data source definitions and setting up Insight users and notifications.

If you have experienced installation problems, contact technical support and provide the requested information.

Verifying that new Insight components are installed

After installation, you should verify the existence of the new components on your server.

Steps

1. To display a list of services that are currently operating on the server you are logged in to, type:
   
   sudo oci-service.sh status all

2. Depending on the server you are logged in to, check for the following Insight services in the list and ensure they have a status of “running”:
   - Insight server: wildfly, acquisition, mysql, elasticsearch
   - Data Warehouse server: wildfly, mysql
   - Remote Acquisition server: acquisition

Result

If these components are not listed, contact technical support.

Insight logs

Insight supplies many log files to assist you with research and troubleshooting. The available logs are listed in the log directory. You might want to use a log monitoring tool, such as BareTail, to display all of the logs at one time.

The log files are located in the /var/log/netapp/oci/wildfly/ directory. Acquisition logs are located in the /var/log/netapp/oci/acq directory. The data files are located in /var/lib/netapp/oci.

Accessing the web UI

After you install OnCommand Insight, you must install your licenses and then set up Insight to monitor your environment. To do this, you use a web browser to access the Insight web UI.

Steps

1. Do one of the following:
   - Open Insight on the Insight server:
     
     https://fqdn
   - Open Insight from any other location:
The port number is either 443 or another port configured when the Insight server was installed. The port number defaults to 443 if you do not specify it in the URL.

The OnCommand Insight dialog box displays:

2. Enter your user name and password and click **Login**.

   If the licenses have been installed, the data source setup page displays.

   **Note:** An Insight browser session that is inactive for 30 minutes is timed out and you are logged out of the system.

**Installing your Insight licenses**

After you receive the license file containing the Insight license keys from NetApp, you can use the setup features to install all of your licenses at the same time.

**About this task**

Insight license keys are stored in a `.txt` or `.lcn` file.

**Steps**

1. Open the license file in a text editor and copy the text.
2. Open Insight in your browser.
3. On the Insight toolbar, click **Admin**.
4. Click **Setup**.
5. Click the **Licenses** tab.
6. Click **Update License**.
7. Copy the license key text into the **License** text box.
8. Select the **Update (most common)** operation.
9. Click **Save**.
10. If you are using the Insight consumption licensing model, you must check the box to **Enable sending usage information to NetApp** in the **Send usage information** section. Proxy must be properly configured and enabled for your environment.

**After you finish**

After installing the licenses, you can perform these configuration tasks:

- Configure data sources.
- Create OnCommand Insight user accounts.

**OnCommand Insight licenses**

OnCommand Insight operates with licenses that enable specific features on the Insight Server.

**Discover**

Discover is the basic Insight license that supports inventory. You must have a Discover license to use OnCommand Insight, and the Discover license must be paired with at least one of the Assure, Perform, or Plan licenses.

**Assure**

An Assure license provides support for assurance functionality, including global and SAN path policy, and violation management. An Assure license also enables you to view and manage vulnerabilities.

**Perform**

A Perform license supports performance monitoring on asset pages, dashboard widgets, queries, and so on, as well as managing performance policies and violations.

**Plan**

A Plan license supports planning functions, including resource usage and allocation.

**Host Utilization pack**

A Host Utilization license supports file system utilization on hosts and virtual machines.

**Report Authoring**

A Report Authoring license supports additional authors for reporting. This license requires the Plan license.

OnCommand Insight modules are licensed for annual term or perpetual:

- By terabyte of monitored capacity for Discover, Assure, Plan, Perform modules
- By number of hosts for Host Utilization pack
- By number of additional units of Cognos pro-authors required for Report Authoring

License keys are a set of unique strings that are generated for each customer. You can obtain license keys from your OnCommand Insight representative.

Your installed licenses control the following options that are available in the software:

**Discover**

- Acquire and manage inventory (Foundation)
- Monitor changes and manage inventory policies

**Assure**

- View and manage SAN path policies and violations
- View and manage vulnerabilities
- View and manage tasks and migrations
Plan

View and manage requests
View and manage pending tasks
View and manage reservation violations
View and manage port balance violations

Perform

Monitor performance data, including data in dashboard widgets, asset pages, and queries
View and manage performance policies and violations

The following tables provide details of the features that are available with and without the Perform license for admin users and non-admin users.

<table>
<thead>
<tr>
<th>Feature (admin)</th>
<th>With Perform license</th>
<th>Without Perform license</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application</td>
<td>Yes</td>
<td>No performance data or charts; no anomaly detection-related widgets</td>
</tr>
<tr>
<td>Virtual machine</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Hypervisor</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Host</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Datastore</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>VMDK</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Internal volume</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Volume</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Storage pool</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Disk</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Storage</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Storage node</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Fabric</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Switch port</td>
<td>Yes</td>
<td>No performance data or charts; “Port Errors” shows “N/A”</td>
</tr>
<tr>
<td>Storage port</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>NPV port</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Switch</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>NPV switch</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Qtrees</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Quota</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Path</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Zone</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Zone member</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Generic device</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Tape</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Feature (admin)</td>
<td>With Perform license</td>
<td>Without Perform license</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>Masking</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>ISCSI sessions</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>ICSI network portals</td>
<td>Yes</td>
<td>No performance data or charts</td>
</tr>
<tr>
<td>Search</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Admin</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Dashboard</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Widgets</td>
<td>Yes</td>
<td>Partially available (only asset, query, and admin widgets are available)</td>
</tr>
<tr>
<td>Violations dashboard</td>
<td>Yes</td>
<td>Hidden</td>
</tr>
<tr>
<td>Assets dashboard</td>
<td>Yes</td>
<td>Partially available (storage IOPS and VM IOPS widgets are hidden)</td>
</tr>
<tr>
<td>Manage performance policies</td>
<td>Yes</td>
<td>Hidden</td>
</tr>
<tr>
<td>Manage annotations</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Manage annotation rules</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Manage applications</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Queries</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Manage business entities</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feature</th>
<th>User - with Perform license</th>
<th>Guest - with Perform license</th>
<th>User - without Perform license</th>
<th>Guest - without Perform license</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets dashboard</td>
<td>Yes</td>
<td>Yes</td>
<td>Partially available (storage IOPS and VM IOPS widgets are hidden)</td>
<td>Partially available (storage IOPS and VM IOPS widgets are hidden)</td>
</tr>
<tr>
<td>Custom dashboard</td>
<td>View only (no create, edit, or save options)</td>
<td>View only (no create, edit, or save options)</td>
<td>View only (no create, edit, or save options)</td>
<td>View only (no create, edit, or save options)</td>
</tr>
<tr>
<td>Manage performance policies</td>
<td>Yes</td>
<td>Hidden</td>
<td>Hidden</td>
<td>Hidden</td>
</tr>
<tr>
<td>Manage annotations</td>
<td>Yes</td>
<td>Hidden</td>
<td>Yes</td>
<td>Hidden</td>
</tr>
<tr>
<td>Manage applications</td>
<td>Yes</td>
<td>Hidden</td>
<td>Yes</td>
<td>Hidden</td>
</tr>
<tr>
<td>Manage business entities</td>
<td>Yes</td>
<td>Hidden</td>
<td>Yes</td>
<td>Hidden</td>
</tr>
<tr>
<td>Queries</td>
<td>Yes</td>
<td>View and edit only (no save option)</td>
<td>Yes</td>
<td>View and edit only (no save option)</td>
</tr>
</tbody>
</table>
Troubleshooting installations

OnCommand Insight installations are generally managed through the installation wizards. However, customers might experience problems during upgrades or with conflicts due to computer environments.

You should also be certain that you install all of the necessary OnCommand Insight licenses for installing the software.

Missing licenses

Different licenses are required for different OnCommand Insight functionality. What you see displayed in OnCommand Insight is controlled by your installed licenses. Refer to the OnCommand Insight licenses section for information on functionality controlled by each license.

Refer to the OnCommand Insight licenses section for information on functionality controlled by each license.

Submitting an online technical support request

If you have problems with the Insight installation, as a registered support customer, you can submit an online technical support request.

Before you begin

Using your corporate email address, you must register as a support customer to obtain online support services. Registration is performed through the support site (http://support.netapp.com).

About this task

To assist customer support in solving the installation problem, you should gather as much information as possible, including these items:

- Insight serial number
- Description of the problem
- All Insight log files
- Screen capture of any error messages

Steps

1. Create a .zip file of the information you gathered to create a troubleshooting package.
2. Log in to the support site at mysupport.netapp.com and select Technical Assistance.
3. Click Open a Case.
4. Follow the instructions to your package of data.

After you finish

You can use Check Case Status on the Technical Assistance page to follow your request.
Upgrading Insight

When a new version of OnCommand Insight is available, you might want to upgrade to take advantage of new features and fixes to issues. You must upgrade the Insight server and Data Warehouse (DWH) separately.

**Important:** You should not store any automatic or manual backups in Insight installation directories, because the entire installation folder is overwritten during the upgrade process. If you have stored backup files in any of those directories, you must move your backups to a different location before you perform any upgrade or uninstall process.

Newer versions of Insight have greater disk space, memory and CPU requirements. Before upgrading to the latest version of Insight, review the Installation requirements. It is strongly recommended to contact your Sales Engineer for detailed sizing guidance before installing or upgrading Insight.

It is Best Practice to perform a security backup and a database backup before upgrading Insight software.

Upgrading Insight Server software

You can check for OnCommand Insight server updates after you log into the server.

**Steps**

1. On the Insight toolbar, click the **Help** icon.
2. Select **Check for updates**.
3. Click **OK** if the **Version is up to date** message displays.
4. If a newer version is detected, click the **download here** link in the message box.
5. In the **Download** page, click **download**. Note the download directory location.
6. Log in to the Insight server using an account with sudo privileges.
7. Navigate to the download directory and type the following command:
   
   ```bash
   unzip oci-<version>-linux-x86_64.zip
   ```
   
   Ensure that you have the correct the version number of the installation file.
8. You can view syntax, command arguments, and parameter usage for **oci-install.sh**:
   
   ```bash
   sudo ./oci-<version>-linux-x86_64/oci-install.sh --help
   ```
9. Run the installation script:
   
   ```bash
   sudo ./oci-<version>-linux-x86_64/oci-install.sh
   ```
10. Accept the License Agreement and follow the prompts.

Upgrading from an earlier version of Insight to 7.2 or later

To upgrade from an earlier version of OnCommand Insight to 7.2 or later, you must migrate your Windows installation to Linux.
Migrating from Windows to Linux

To use Insight on Linux when you have an existing Windows installation, you must perform a migration. You must perform this procedure on both the Insight server and Data Warehouse components.

Steps

1. Back up your current Insight installation on your server.
   Refer to the OnCommand Insight Configuration and Administration Guide for information about how to back up the OCI database.

2. Install Insight for Linux.

3. Restore the database for your previous version.
   Refer to the OnCommand Insight Configuration and Administration Guide for information about how to restore the OCI database.

4. Uninstall your previous version of Insight for Windows.

Upgrading Insight to a version later than 7.2

You can upgrade OnCommand Insight to a version later than 7.2 (for example, 7.2.x).

About this task

Normally, an upgrade must be performed on all of the Insight servers (Insight server, Data Warehouse server, remote acquisition unit, ethernet monitoring unit), with the exception of the server running the anomaly detection software. You should always consult the Release Notes for the upgrade requirements for a new release of OnCommand Insight.

Steps

1. Log in to the server where you want to install Insight.

2. Download the installation file from the NetApp Support Site.

3. Navigate to the download directory and type the following command:
   
   `unzip oci-<version>-linux-x86_64.zip`

   Ensure that you check the version number of the installation file; the version number might be different than the one shown in the command.

4. Run the installation script.
   
   `sudo ./oci-<version>-linux-x86_64/oci-install.sh`

5. Accept the license agreement and follow the prompts.
   The installer prompts you to backup the database. If you decide to create a backup, Insight stores the backup in `/var/log/netapp/oci/backup`.

Related tasks

Download the OnCommand Insight installer on page 18
Upgrading Data Warehouse software

After upgrading the Insight server software, you must upgrade your data warehouse software.

Steps

1. Log in to the Data Warehouse (DWH) server using an account with sudo privileges.
2. Download the Insight DWH software from the NetApp support site.
3. Navigate to the download directory and type the following command:
   
   ```bash
   unzip oci-dwh-<version>-linux-x86_64.zip
   ```
   
   Ensure that you have the correct version number of the installation file.
4. You can view syntax, command arguments, and parameter usage for `oci-install.sh`:
   
   ```bash
   sudo ./oci-dwh-<version>-linux-x86_64/oci-install.sh --help
   ```
5. Run the installation script:
   
   ```bash
   sudo ./oci-dwh-<version>-linux-x86_64/oci-install.sh
   ```
6. Accept the License Agreement and follow the prompts.

Upgrading Remote Acquisition Unit software

After upgrading the Insight server software, you must upgrade your remote acquisition software.

Steps

1. Log in to the Remote Acquisition Unit (RAU) server using an account with sudo privileges.
2. Download the Insight RAU software from the NetApp support site.
3. Navigate to the download directory and type the following command:
   
   ```bash
   unzip oci-rau-<version>-linux-x86_64.zip
   ```
   
   Ensure that you have the correct version number of the installation file.
4. You can view syntax, command arguments, and parameter usage for `oci-install.sh`:
   
   ```bash
   sudo ./oci-rau-<version>-linux-x86_64/oci-install.sh --help
   ```
5. Run the installation script:
   
   ```bash
   sudo ./oci-rau-<version>-linux-x86_64/oci-install.sh
   ```
6. Accept the License Agreement and follow the prompts.

Upgrading Ethernet Monitoring Unit software

After upgrading the Insight server software, you must upgrade your ethernet monitoring software.

Steps

1. Log in to the Ethernet Monitoring Unit (EMU) server using an account with sudo privileges.
2. Download the Insight EMU software from the NetApp support site.

3. Navigate to the download directory and type the following command:
   
   ```bash
   unzip oci-ethernet-<version>-linux-x86_64.zip
   ```
   
   Ensure that you have the correct version number of the installation file.

4. You can view syntax, command arguments, and parameter usage for `oci-install.sh`:
   
   ```bash
   sudo ./oci-ethernet-<version>-linux-x86_64/oci-install.sh --help
   ```

5. Run the installation script:
   
   ```bash
   sudo ./oci-ethernet-<version>-linux-x86_64/oci-install.sh
   ```

6. Accept the License Agreement and follow the prompts.

## Upgrading the anomaly detection engine

Newer releases of OnCommand Insight may contain a new release of the anomaly detection engine software. In order to preserve anomaly detection configuration data and anomaly score data following an upgrade of the software, you must follow these instructions. Refer to the release notes to determine whether your anomaly detection needs to be upgraded.

### Before you begin

- The system must be running OnCommand Insight 7.2 or later.
- The system must be running version 1.4.x or later of the anomaly detection software.

### About this task

**Attention:** Failure to execute the steps of this task in sequential order might result in the loss of the anomaly detection configuration data and anomaly score data stored on the Insight server.

### Steps

1. Back up the existing version of OnCommand Insight to preserve the anomaly detection registrations, application monitoring, anomaly history, and so on.

2. Shut down the OnCommand Insight server.
   
   **Attention:** Failure to shut down the OnCommand Insight server before uninstalling the anomaly detection software results in the loss of the anomaly detection configuration data and anomaly score data stored on the Insight server.

3. Uninstall the anomaly detection software:
   
   ```bash
   sudo /usr/bin/oci-prelert-uninstall.sh
   ```
   
   The system displays a “failure to unregister” message. You can ignore this message.

4. Install the newer version of OnCommand Insight by using the upgrade process.
   
   See the OnCommand Insight Installation Guide for instructions.

5. Restart the OnCommand Insight server.
   
   The system reports that applications are “failing to monitor”. You can ignore these failures.

6. Navigate to the directory where the installer is located:
   
   ```bash
   cd oci-prelert-<version>-linux-x86_64
   ```
7. Install the anomaly detection software:
   
   ```
   sudo ./oci-prealert-install.sh
   ```
   
   The anomaly detection software is successfully registered with the OnCommand Insight server.
Uninstalling OnCommand Insight

You can uninstall the OnCommand Insight components if needed. You must uninstall the OnCommand Insight components separately.
Each component is uninstalled separately.

Uninstalling the OnCommand Insight Server

You can uninstall the OnCommand Insight server if needed.

Before you begin

Best practice: before uninstalling Insight, back up the OnCommand Insight database.

Steps

1. Log in to the OnCommand Insight server using an account with sudo privileges.
2. Ensure that any OnCommand Insight windows are closed.
3. You can view syntax, command arguments, and parameter usage for oci-uninstall.sh by entering the following command:
   
   ```shell
   sudo /usr/bin/oci-uninstall.sh --help
   ```

   A normal uninstall does not remove the Insight license or any daily backups. To remove the entire installation, use the --purge option with the oci-install.sh command.

4. Type the following command:
   
   ```shell
   sudo /usr/bin/oci-uninstall.sh
   ```

Uninstalling Data Warehouse

You can uninstall Data Warehouse if needed.

Before you begin

Back up the current version of the OnCommand Insight Data Warehouse (DWH) database.

About this task

Uninstalling the OnCommand Insight Data Warehouse permanently deletes all previously collected data.

Steps

1. Log in to the Data Warehouse server using an account with sudo privileges.
2. Ensure that any OnCommand Insight windows are closed.
3. You can view syntax, command arguments, and parameter usage for uninstall.sh by entering the following command:
   
   ```shell
   sudo /usr/bin/oci-uninstall.sh --help
   ```

4. Type the following command:
Uninstalling a Remote Acquisition Unit

You can uninstall a Remote Acquisition Unit when you no longer need it.

Steps
1. Log in to the Remote Acquisition Unit server using an account with sudo privileges.
2. Ensure that any OnCommand Insight windows are closed.
3. You can view syntax, command arguments, and parameter usage for `uninstall.sh` by entering the following command:
   ```bash
   sudo /usr/bin/oci-uninstall.sh --help
   ```
4. Type the following command:
   ```bash
   sudo /usr/bin/oci-uninstall.sh
   ```
   The uninstall script runs. Follow any prompts.

Uninstalling an Ethernet Monitoring Unit

You can uninstall an Ethernet Monitoring Unit when you no longer need it.

Steps
1. Log in to the Ethernet Monitoring Unit server using an account with sudo privileges.
2. Ensure that any OnCommand Insight windows are closed.
3. You can view syntax, command arguments, and parameter usage for `uninstall.sh` by entering the following command:
   ```bash
   sudo /usr/bin/oci-uninstall.sh --help
   ```
4. Type the following command:
   ```bash
   sudo /usr/bin/oci-uninstall.sh
   ```
   The uninstall script runs. Follow any prompts.
5. After uninstall is complete, restart the server.

Uninstalling the anomaly detection engine

You can uninstall the anomaly detection engine when you no longer need it.

Steps
1. Log in to the server where you installed the anomaly detection engine software, using an account with sudo privileges.
2. Ensure that any OnCommand Insight windows are closed.
3. You can view syntax, command arguments, and parameter usage for `uninstall.sh` by entering the following command:
   ```bash
   sudo /usr/bin/oci-prelert-uninstall.sh --help
   ```
4. Type the following command:

```
sudo /usr/bin/oci-prelert-uninstall.sh
```

The uninstall script runs. Follow any prompts.
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- Support telephone: +1 (888) 463-8277
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