UVcentral 2.0 Installation Instructions

UVcentral consists of a server application and one or more agents deployed throughout the network. This document describes how to install and configure the UVcentral server and agents.

UVexplorer

UVexplorer is a single-user Windows desktop application that can be used to discover, monitor, and document your network. UVcentral is a multi-user web version of UVexplorer that is designed for more complex environments. UVexplorer is simpler to install and experiment with than UVcentral, so it is recommended that you start by downloading and installing UVexplorer. You can request a free UVexplorer license here. Your license key and download instructions will be emailed to you. Within UVexplorer you can learn to configure and run network discoveries as well as view device details and network maps. Then, once you are comfortable with UVexplorer, you can proceed to install and configure UVcentral.

UVcentral + UVexplorer

UVcentral runs on a server, with agents being installed on one or more nodes throughout the network. Agents collect device inventory, network connectivity, and monitoring data, and post the collected data to the UVcentral server. Although UVexplorer is a standalone product, it can also be installed and used as a UVcentral agent. In other words, UVexplorer is the agent software used with UVcentral. The advantage of using UVexplorer as a UVcentral agent is that the UVexplorer user interface lets you observe all activity occurring on the agent, which can be extremely useful in troubleshooting situations.

When you install UVexplorer, you can indicate whether it is being used as a standalone product or as a UVcentral agent. When being used as a UVcentral agent, UVexplorer does not require a license key, which means you can install as many agents as you want on your network at no additional cost (i.e., you must purchase a license for your UVcentral server, but not for the agents.)

The following sections explain how to install the UVcentral server, and also how to install UVexplorer as a UVcentral agent.

Installing and Configuring UVcentral Server

This section describes how to install the UVcentral server software on a centralized server.

Docker Installation

The easiest way to install the UVcentral server is to use Docker. The Docker image for the UVcentral server is available at the link below. Follow the instructions on that page to install, configure, and run UVcentral server through Docker.

https://hub.docker.com/r/uvnetworks/uvcentral

Manual Installation

If you do not want to use Docker, you can follow the instructions below to manually install, configure, and run the UVcentral server.

1. Base Requirements
   - ➢ A 64-bit version of Microsoft Windows
     - i. Microsoft Windows Server 2019
     - ii. Microsoft Windows Server 2016
     - iii. Windows 10
   - ➢ .NET Framework 4.5.2 or later
   - ➢

Version	CPU	RAM	Disk Space
UVC 2500	2 CPU cores	16 GB RAM	32 GB Disk Space
UVC 5000	4 CPU cores	32 GB RAM	64 GB Disk Space
UVC XL1	8 CPU cores	64 GB RAM	128 GB Disk Space
UVC XL5	8 CPU cores (per server)	64 GB RAM (per server)	128 GB Disk Space (per server)

   - ➢ MongoDB
     - i. UVcentral can use an existing MongoDB installation, if you have one. Otherwise, you can download MongoDB Community Server at the following URL:
     - ii. https://www.mongodb.com/download-center#community
     - iii. After running the MongoDB Community Server installer, create the \data\db folder where MongoDB stores its files
     - iv. Start MongoDB (i.e., mongod)
2. Run all subsequent commands in a Windows CMD shell that was run AS ADMINISTRATOR
3. Download UvxServer.zip at the following URL:

➢ https://s3-us-west-1.amazonaws.com/uvexplorer/UvxServer.zip

4. Unzip UvxServer.zip. This will create a folder named "UvxServer" which contains all of the UVcentral server files.

5. Configure UVcentral with the URL of your MongoDB server. The default is mongodb://localhost. If you are running UVcentral and MongoDB on the same machine, the default will suffice. If MongoDB is running on a different machine, you will need to provide the URL of your MongoDB server (e.g., mongodb://db.acme.com:12345) by running the following commands

   ➢ `cd UvxServer\UvxAdmin`
   ➢ `UvxAdmin config-db <mongodb-url>`

6. Initialize the UVcentral database. This will create a database named "uvexplorer" within your MongoDB database. UVcentral stores all of its data in the "uvexplorer" database. When initializing its database, UVcentral creates an administrative user account, and you will need to provide the following information: 1) Admin account username (e.g., "admin"), 2) Admin account password (e.g., "admin"), 3) Admin's first name (e.g., "Susan"), 4) Admin's last name (e.g., "Roberts"), and 5) Admin's email address (e.g., "susan@acme.com"). Run the following commands to initialize the database

   ➢ `cd UvxServer\UvxAdmin`
   ➢ `UvxAdmin init-db <admin-username> <admin-password> <admin-firstname> <admin-lastname> <admin-email>`
   ➢ EXAMPLE: `UvxAdmin init-db admin admin Susan Roberts susan@acme.com`

7. Configure UVcentral's network settings. The UVcentral server consists of three different programs: 1) IdentityServer, 2) UvExplorerServer, and 3) UvExplorerClient. Each of these programs runs as a Windows service. Each of them also acts as a web server, and receives incoming HTTP or HTTPS connections on a particular hostname and TCP port number. You can configure the hostname and port number used by each program, but the default values are:

Program Name	Default Hostname	Default Port Number
IdentityServer	localhost	5001
UvExplorerServer	localhost	41922
UvExplorerClient	localhost	5189

By default, UVcentral uses HTTP, and the web console can only be accessed from the same machine that is running UVcentral (i.e., localhost). In order to access the web console from remote machines, you must specify a different hostname. Optionally, you can also specify different port numbers if you don't like the defaults.

To modify the HTTP configuration, run the following commands:

- ➢ `cd UvxServer\UvxAdmin`
- ➢ `UvxAdmin config-net http <host-name>`
  `<identity-server-port> <uvx-server-port> <uvx-client-port>`
- ➢ **EXAMPLE:** `UvxAdmin config-net http server.acme.com 6000 6001`
  `6002`

Alternatively, you can configure UVcentral to use HTTPS instead of HTTP. In order to use HTTPS, you must specify the name and location of the Windows certificate store that contains a certificate for the specified hostname. To do this, run the following commands:

- ➢ `cd UvxServer\UvxAdmin`
- ➢ `UvxAdmin config-net https <cert-store-name>`
  `<cert-store-location> <host-name> <identity-server-port>`
  `<uvx-server-port> <uvx-client-port>`
- ➢ **EXAMPLE:** `UvxAdmin config-net https My LocalMachine`
  `server.acme.com 6000 6001 6002`

Typically, the <cert-store-name> will be "My", which refers to the certificates stored in the "Personal\Certificates" area of the certificate store. However, other values are allowed.

Valid values for <cert-store-location> are "LocalMachine" and "CurrentUser". "LocalMachine" refers to the machine-wide certificate store. "CurrentUser" refers to the current user's personal certificate store.

8. Install the UVcentral services. Run the following commands:
   - ➢ `cd UvxServer`
   - ➢ `InstallUvxServer.bat`
9. Start the UVcentral services. Run the following commands:
   - ➢ `cd UvxServer`
   - ➢ `StartUvxServer.bat`
10. Open the web console. Open the following URL in a web browser. (<host-name> and <uvx-client-port> are the values you specified when configuring UVcentral's HTTP/HTTPS settings; defaults are "localhost" and "5189".)
    NOTE: When accessing the web console, the URL you type into your web browser must use the exact <host-name> you specified in step 7 above. You cannot use localhost as the host name unless that is the host name you specified in step 7. Even if you are running your browser on the same machine as the UVcentral server, localhost will not work unless that is the host name you specified.
    - ➢ `http://<host-name>:<uvx-client-port>/`
    - ➢ **EXAMPLE:** `http://server.acme.com:5189/`
    - ➢ Replace "http" with "https" if you're using HTTPS
11. Login using the <admin-username> and <admin-password> that you specified when initializing the UVcentral database.

12. Activate your UVcentral license. To do this, click the "Account" link in the top-left corner of the web console, and select the Manage License tab. In the Manage License tab, click the "Activate License" button. This will start the license activation wizard that will step you through the license activation process. If you need to request a trial license key, go to https://uvexplorer.com/uvcentral and click the "Trial" button.

Installing and Configuring UVcentral Agents

After your UVcentral server is up and running, you can install one or more agents on your network to discover your network and post discovery results to your UVcentral server. As described previously, UVexplorer is the agent software used with UVcentral. This section describes how to download and install UVexplorer as a UVcentral agent. The high-level steps for doing this are:

1. Create a new agent configuration in the UVcentral web console.
2. Install UVexplorer on the agent machine.
3. Activate UVexplorer and bind it to the agent configuration created in Step #1.
4. After UVexplorer is bound to the UVcentral agent, the agent's configuration can then be modified either through the UVcentral web console or through the UVexplorer desktop console.
5. The results of all network discoveries and monitor policies run by the UVexplorer agent will be uploaded into the UVcentral server. UVcentral will aggregate all the data posted by all agents on the network, and allow the data to be viewed through the UVcentral web console.

A more detailed description of how to perform these steps follows.

1. Create a new agent configuration in the UVcentral web console

To learn how to do this, read the section named "Configuring Agents" in the UVcentral User Manual.

2. Install UVexplorer on the agent machine

Download the UVexplorer installer here:
https://s3-us-west-1.amazonaws.com/uvexplorer/UVexplorerSetup_2.0_Pro.msi

3. Activate UVexplorer and bind it to the agent configuration created in Step #1

1. Click the "Enter Product Key to Activate License" link on UVexplorer's Start Page. This will start the license activation wizard. (Since you are using UVexplorer as a UVcentral agent, you will not need a UVexplorer license key.)

2. In the license activation wizard, select the "UVcentral Discovery Agent Activation" option, and click Next.
3. Enter the URL of your UVcentral server, which is the same URL you use to access UVcentral's web console (e.g., `http://server.acme.com:5189`). Also enter your UVcentral user name and password, and click Next.
4. The wizard will then let you select the agent configuration on the UVcentral server to which you want to bind this UVexplorer agent. Select the desired agent, and click Activate.
5. You will then be asked if you want to upload the local UVexplorer configuration to the UVcentral server.
   If you say <u>YES</u>, the local UVexplorer configuration will be copied up to the UVcentral server. *<u>Beware, this will overwrite whatever configuration is already on the server.</u>* This option is useful if you have previously configured the agent locally through the UVexplorer desktop console, and you want to upload this configuration to the UVcentral server.
   If you say <u>NO</u>, the agent configuration on the UVcentral server will be copied down to UVexplorer. *<u>Beware, this will overwrite the local UVexplorer configuration.</u>* This option is useful if you have previously configured the agent on the UVcentral server through its web console, and you want to download this configuration to UVexplorer.
6. At this point the activation process is complete. You might be prompted to restart UVexplorer. If so, please restart UVexplorer.

4. After UVexplorer is bound to the UVcentral agent, the agent's configuration can then be modified either through the UVcentral web console or through the UVexplorer desktop console.

1. If you modify the agent's configuration through the UVcentral web console:
   a. The UVexplorer agent will periodically poll the UVcentral server for any configuration changes, and automatically update its local configuration accordingly.
   b. By default, the agent will poll the server every 2 minutes. This polling interval can be adjusted by changing the agent's "Configuration Update Interval" setting in the UVcentral web console.
   c. If you want to immediately download the configuration changes from the server into UVexplorer, you can click the "Get Config" button in the top-right corner of UVexplorer's main window.
2. If you modify the agent's configuration through the UVexplorer desktop console:
   a. Changes made through the UVexplorer desktop console will not be automatically copied up to the UVcentral server.
   b. When you want to upload the configuration changes to the UVcentral server, click the "Push Config" button in the top-right corner of UVexplorer's main window.

5. The results of all network discoveries and monitor policies run by the UVexplorer agent will be uploaded into the UVcentral server. UVcentral will aggregate all the data posted by all agents on the network, and allow the data to be viewed through the UVcentral web console.

UVcentral / PRTG Integration

UVcentral can export device details and network maps into Paessler's PRTG Network Monitor monitoring platform. To learn how to use UVcentral and PRTG together, read the section named "Exporting to PRTG Network Monitor" in the UVcentral User Manual.

If you want to export device details and network maps from UVcentral into PRTG, you will need to install a copy of UVexplorer on your PRTG server machine. UVexplorer includes the integration components that allow UVcentral and PRTG to work together. When you install UVexplorer on your PRTG server machine, the UVcentral / PRTG integration will work even if you do not activate UVexplorer with a license key. However, if you want full use of UVexplorer's features on the PRTG server machine, you will need to activate UVexplorer with a license key. A free license key can be obtained here.