



**U-perimeter Install and
Maintenance Guide**

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- U-perimeter: 1.0
- UVAP: Beta

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U-perimeter Install and Maintenance Guide

for system administrators, v1.0

Overview

U-perimeter is a software solution utilizing AI based video analytics technology for protecting perimeters in CCTV and IP video surveillance systems. It is integrated seamlessly with Milestone XProtect video management system.

This document contains the step-by-step installation process.

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1. Prerequisites

1.1. U-perimeter server

1.1.1. Hardware requirements

1.1.1.1. Minimum configuration:

For up to 5 cameras in FHD resolution with 4fps

- CPU: Intel Xeon E3-1230V6,
- RAM: 16GB,
- 1 GPU: NVIDIA GeForce GTX 1080,
- SSD: 250GB

1.1.1.2. Recommended configuration:

For up to 20 cameras with FHD resolution or 5 cameras with 4K resolution with 4fps

- CPU: Intel Xeon E3-1230V6,
- RAM: 16GB,
- 1 GPU: NVIDIA GeForce RTX 2080,
- SSD: 250GB

IMPORTANT! Trial version of the U-perimeter Milestone Plugin supports up to 5 cameras.

1.1.2. Software requirements

U-perimeter server runs on Ubuntu Linux 18.04 LTS. Please note GeForce series GPUs do not support virtualization environments, so they need to be installed on bare metal. To install Ubuntu Linux 18.04 LTS on the node, follow the [Ubuntu installation tutorial](#).

1.1.2.1. Required Packages

There are no extra packages required to run the installer. It will install every dependency for itself.

1.2. U-perimeter Milestone Plugin

1.2.1. Hardware requirements

U-perimeter Milestone Plugin has no specific hardware requirements. Please visit [Milestone product system requirements web page](#) for Milestone's Hardware requirements.

1.2.2. Software requirements

1.2.2.1. Milestone XProtect

U-Perimeter v1.0 is designed for **Milestone XProtect 2020 R1 Corporate edition**. Please visit [Milestone's web page](#) for download details. The system requirements are available [here](#).

1.2.2.1.1. Install XProtect Corporate (example)



Name	Version	Size
XProtect Corporate		
DLNA installer	2020 R1 (20.1b)	77.05 MB
ReadMe for XProtect VMS products	2020 R1 (20.1b)	4.37 KB
XProtect VMS Products	2020 R1 (20.1b)	1.72 GB

1. Download the XProtect Corporate from Milestone's web page (<https://www.milestonesys.com/support/resources/download-software/?prod=3&type=11&ver=1677&lang=27>).
2. Go to the 'Downloads' folder and run 'Milestone XProtect VMS Products 2020 R1b System Installer.exe'
3. Use the default language (English) and click 'Continue'.
4. Accept the license agreement and click 'Continue'.
5. Browse your valid license and click 'Continue'.
6. Choose the 'Single computer' option for the installation type.

7. Leave all components on 'Enabled' status and click 'Continue'.
8. Leave empty the Encryption checkbox and click 'Continue'.
9. Choose 'Configure servers individually' option.
10. Leave empty the Encryption checkboxes and click 'Continue'.
11. Leave all fields on default and click to 'Continue'.
12. Leave empty the Encryption checkbox (yes, again) and click 'Continue'.
13. Leave all fields on default and click 'Install'.

1.2.2.2. Milestone ONVIF Bridge

Version: [Milestone ONVIF Bridge 2020 R1 \(20.1b\)](#)

Language: English

Name: ONVIF Bridge

Version: 2020 R1 (20.1b)

Size: 98.19 MB

Install Milestone ONVIF Bridge (example)

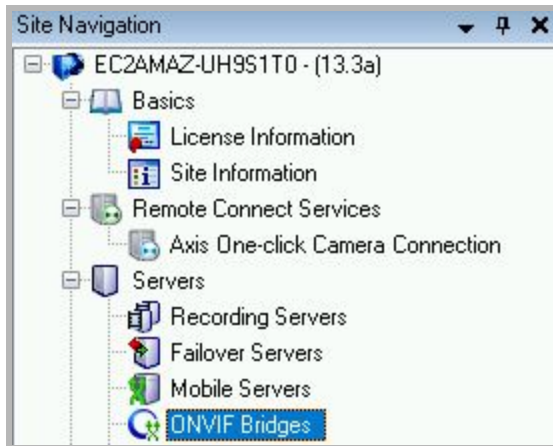
1. Download [ONVIF Bridge](#).



Name	Version	Size
Milestone ONVIF Bridge	2020 R1 (20.1b)	98.19 MB

2. Go to the 'Downloads' folder and double click the VideoOS.ONVIF.Installer.exe
3. Use the default language (English) and click 'Continue'.
4. Accept the license agreement and click 'Continue'.
5. Choose the 'Typical' option for the installation type.
6. Leave all fields on default (This predefined account) and click 'Continue'.
7. Leave all fields on default (http://localhost) and click 'Continue'.

8. Leave all fields on default (C:\Program Files\Milestone + English) and click 'Install'.
9. If the installation has been finished successfully, you should see the icon in the taskbar and the 'Servers > Onvif bridges' in the Management Client.



1.3. License

1.3.1. Milestone XProtect License

Please visit [Milestone's web page](#) for more information about Milestone licenses. Note that U-perimeter is designed for [specific editions and versions of Milestone](#).

Trial License

1. Go to [this webpage](#).
2. Choose 'Try XProtect® Corporate free for 30 days' option.
3. Fill the form with correct data.
4. The Milestone Support (sales@milestonesys.com) will send a valid license.

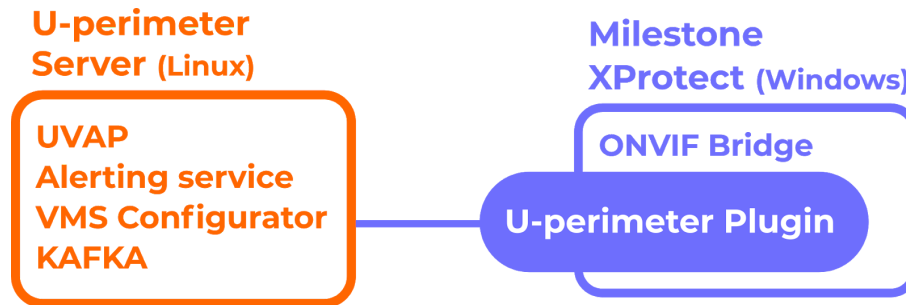
1.3.2 U-perimeter license

1. U-perimeter license can be obtained from Ultinous, after the install process has finished you will get a message containing the information that's required for the license request.
2. Send an email to support@ultinous.com with the subject "U-perimeter server - License request " and the ID that is printed out.
3. You will get a .tar.gz file which will contain a .key and a .txt file.
 - a. Extract them with this command: `"tar -xzf <your file name>.tar.gz --directory /etc/uvap/mgr/"`

- b. Rename the .txt and .key files to license.txt and license.key respectively

2. U-perimeter Install Guide

Note: This install guide expects brand new systems without any pre-installed components not mentioned in the [Prerequisites](#) section.



You must obtain two installers that are necessary to set up the U-perimeter software:

1. U-perimeter Milestone Plugin windows installer (MSI)
2. U-perimeter Server installer (install script for Linux)

These are available from the the following sources:

- A) Contact Ultinous sales representatives in email: sales@ultinous.com
- B) Submit a request through: Ultinous Support Center (customer portal): <http://support.ultinous.com>
- C) You can also download the U-perimeter Milestone Plugin through the [Milestone Marketplace](#) portal. Please note that in this case, you are still required to obtain the U-perimeter Server directly through Ultinous customer service.

2.1. U-perimeter server

U-perimeter server side consists of multiple components:

1. Kafka server with Zookeeper
2. UVAP (Ultinous Video Analysis Platform) Server
3. UVAP configurator service

4. UVAP configurator web server
5. UVAP alerting service

These components run in docker containers managed by docker compose.

On a newly installed Ubuntu all these components and their dependencies can be installed with a single install script (`bash uvap_installer.run`).

2.1.1 Determine the U-perimeter server's IP address

The installer will ask for an **external IP address or fully qualified domain name of this U-perimeter server** which will be used for the kafka broker and the UVAP configurator/ui for external usage (i.e. the milestone server).

Make sure that your license files are in their place as specified in [here](#).

After installation you will have to issue `systemctl start uperimeter.service` to start the service or you can issue a `systemctl enable uperimeter.service` to enable auto start upon reboot.

The system will use these ports, so make sure to allow them through your firewall:

- Kafka broker: 9092
- Nginx for the UVAP configurator ui: 80
- Uvap configurator: 8080

The configuration files can be found in the `/etc/uvap` and the components use the `/var/local/lib/uvap` directory for data storage. These directories and its descendants cannot be symbolic links.

2.2. U-perimeter Milestone Plugin

Before install, please check if all the hardware and software [requirements](#) are met, each prerequisite software is installed.

2.2.1. Required information

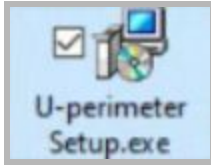
In order to install U-perimeter Milestone Plugin the following information is needed:

- [U-perimeter Configurator UI location](#)
(`<U-perimeter server's IP address>:80` by default)

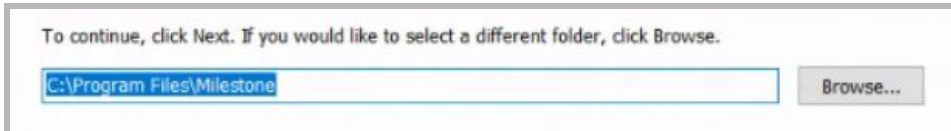
This information is determined during [U-perimeter Server installation](#).

2.2.2. Installation steps

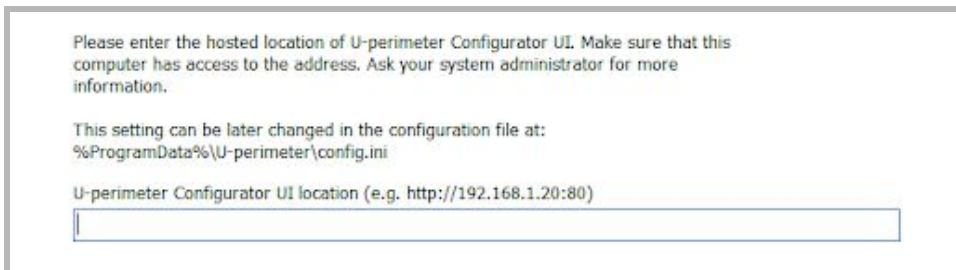
1. Stop each service of Milestone Xprotect.
2. Run the installer.



3. Read and accept the Terms and Conditions if you agree, then click Next.
4. Check the path of the Milestone products' install folder. Make sure that the U-perimeter plugin will be installed in the same folder, then click Next.

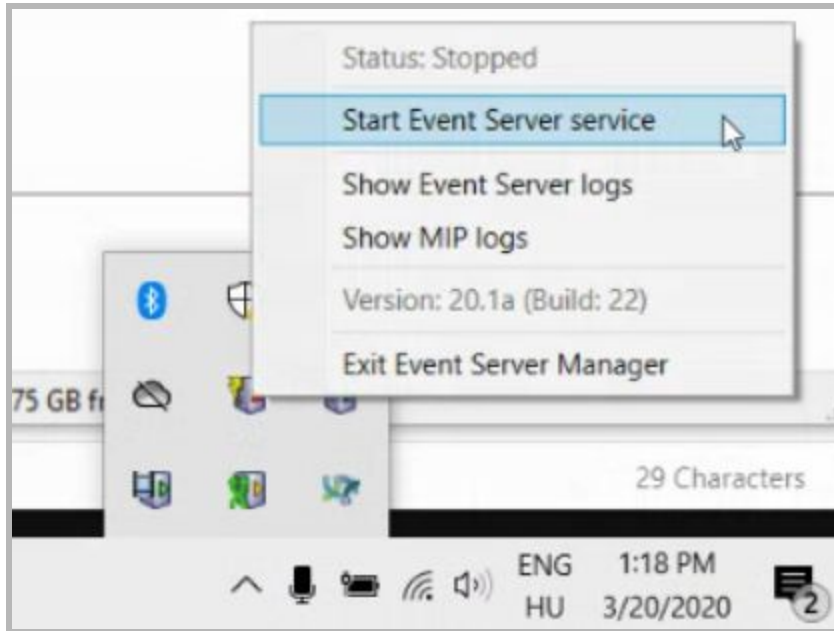


5. Set the [U-perimeter Configurator UI location](#) with "**http://**" prefix (If this location changes later it can be updated in the config file at %ProgramData%\Uperimeter\config.ini directly). Click Next.



6. If the installation was successful proceed by clicking Finish.

7. The installation is complete. All services can be restarted.



2.2.3 After installation

Before proceeding to the configuration please make sure that

- U-perimeter server is installed and running
- Milestone Xprotect is up and running

After the successful installation U-perimeter can be configured. Please make sure that the configurator person receives the following information:

- Kafka broker location
(`<U-perimeter server's IP address>:9092` by default)
- Milestone Xprotect server's network address (the IP address of the machine where you have installed Milestone Xprotect)
- ONVIF Bridge server's network address (the IP address of the machine where you have installed ONVIF Bridge - it is often the same as Milestone Xprotect server address)

3. Support and troubleshooting

Please contact your integrator or request support directly from Ultinous through one of the following options:

1. Email: support@ultinous.com
2. Ultinous Support Center (customer portal): <http://support.ultinous.com>.