

Reference Manual for OpenVPN<sup>®</sup> on EN<sup>™</sup> Routers Document 1

## Installing Software for the OpenVPN<sup>®</sup> Certificate Authority

One of the principal features of routers is their support of virtual private networks (VPNs). This document discusses installation of software for  $OpenVPN^{^{(R)}}$  certificate authority.<sup>1</sup>

**Caution:** It is recommended that separate machines be used for generating certificates and for hosting a VPN endpoint port, as an extra layer of security. Develop the certificate authority and generate certificates on a management console, not on an EN<sup>TM</sup> router. Then use the EN<sup>TM</sup> router's management system to load the certificates onto the router.

See the following:

- Section 1.1, *Software Installation for OpenVPN<sup>®</sup> Certificate Authorization*, on page 1
- Section 1.2, More Information, on page 3

## 1.1 Software Installation for OpenVPN<sup>®</sup> Certificate Authorization

Use the following steps to download and install the OpenVPN<sup>®</sup> certificate authority software that is appropriate for the operating system (Windows, Unix, or other) on the console managing the EN<sup>m</sup> Router. (The steps are written for use on a Windows system.)

**Note:** For an overview of the process, see *https://openvpn.net/* and study information for setting up  $OpenVPN^{\mathbb{R}}$ .

Configuring IPsec VPNs in the EN-1000<sup>™</sup> Configuring IPsec VPNs in the EN-2000<sup>™</sup> The EN-4000<sup>™</sup> in IPsec Virtual Private Networks

<sup>1.</sup> OpenVPN<sup>®</sup> uses transport layer security (TLS, successor to secure socket layers, SSL). For information about VPNs that use IP security (IPsec), see one of the following documents:

- 1 On your computer's management screen, open the directory C:\Program Files\, and create a subdirectory named **\OpenVPN**.
  - The \OpenVPN subdirectory is created.
- 2 Go to *https://openvpn.net/community-downloads/*, and download the installation file for your system. For example, to download the certificate authority routine for Windows, select *openvpn-install-2.4.7-1603.exe* (or the latest installation software for a Windows system).

**Note:** In Windows, save the .exe file in the subdirectory C:\Program Files\OpenVPN.

- **3** Select (in Windows, double-click) the downloaded .exe file to run the installation procedure.
  - A box opens to show the components to include in the installation.

**Note:** Be sure to select **EasyRSA Certificate Management Scripts**, as shown in Figure 1-1.

PENVPN	Choose Components Choose which features of OpenVPN 2.4.7-I603 you w install.	vant to
Select the components to ins service if it is running. All DL	stall/upgrade. Stop any OpenVPN processes or the Op Ls are installed locally.	enVPN
Select components to install:	OpenVPN User-Space Components	^
	OpenVPN Service  TAP Virtual Ethernet Adapter  OpenVPN GUI	
	OpenVPN Service OpenVPN Service OpenVPN GUI OpenVPN GUI EasyRSA 2 Certificate Management Scripts	• •

Figure 1-1. Select EasyRSA Certificate Management Scripts

The \OpenVPN directory system is created, including files and subdirectories needed for configuring and developing the certificate authority (Figure 1-2).

**Note:** The program files for certificate authority development and certificate generation are placed into the \easy-rsa subdirectory.

OpenVPN ^	□ Name	Date modified	Туре	Size
bin	bin	2019-04-11 16:20	File folder	
config	config	2019-04-11 16:19	Filefolder	
doc	doc	2019-04-11 16:20	File folder	
easy-rsa	easy-rsa	2019-04-12 17:01	File folder	
kevs	log	2019-04-11 16:19	File folder	
log	sample-config	2019-04-11 16:19	File folder	
iog	😡 icon.ico	2019-02-19 09:57	Icon	22 K
sample-config	😡 openvpn-install-2.4.7-1603.exe	2019-04-10 14:54	Application	3,892 K
Realtek	😡 Uninstall.exe	2019-04-12 13:52	Application	152 K

## Figure 1-2. OpenVPN Directory

## 1.2 More Information

For a list of documents for OpenVPN<sup>®</sup> connections over EN routers, see the *Reference Manual for OpenVPN<sup>®</sup> on EN<sup>TM</sup> Routers*.