

# FortiADC 4200F Series

FADC-4200F, FADC-4200F-DC

QuickStart Guide

# Product Registration

Thank you for purchasing a Fortinet FortiADC. To access:

- Cloud Management ▪ FortiGuard Updates ▪ Firmware Upgrades
- Technical Support ▪ Warranty Coverage

Please register your Fortinet FortiADC:

Vous devez enregistrer le produit:

Debe registrar el producto:

登録のお願い:

请马上注册:

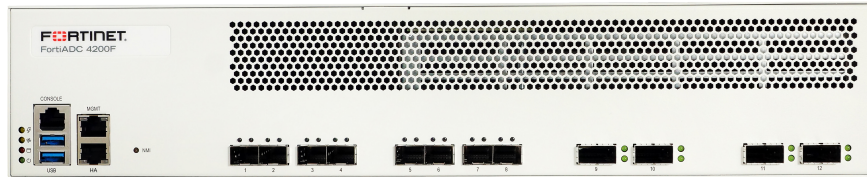
<http://support.fortinet.com>



September 29, 2022

Copyright© 2021 Fortinet, Inc. All rights reserved. Fortinet®, FortiGate®, FortiCare® and FortiGuard®, and certain other marks are registered trademarks of Fortinet, Inc., in the U.S. and other jurisdictions, and other Fortinet names herein may also be registered and/or common law trademarks of Fortinet. All other product or company names may be trademarks of their respective owners. Performance and other metrics contained herein were attained in internal lab tests under ideal conditions, and actual performance and other results may vary. Network variables, different network environments and other conditions may affect performance results. Nothing herein represents any binding commitment by Fortinet, and Fortinet disclaims all warranties, whether express or implied, except to the extent Fortinet enters a binding written contract, signed by Fortinet's General Counsel, with a purchaser that expressly warrants that the identified product will perform according to certain expressly-identified performance metrics and, in such event, only the specific performance metrics expressly identified in such binding written contract shall be binding on Fortinet. For absolute clarity, any such warranty will be limited to performance in the same ideal conditions as in Fortinet's internal lab tests. In no event does Fortinet make any commitment related to future deliverables, features or development, and circumstances may change such that any forward-looking statements herein are not accurate. Fortinet disclaims in full any covenants, representations, and guarantees pursuant hereto, whether express or implied. Fortinet reserves the right to change, modify, transfer, or otherwise revise this publication without notice, and the most current version of the publication shall be applicable.

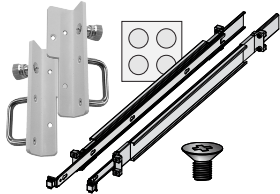
# Contents - FortiADC 4200F



FortiADC 4200F



QuickStart Guide



1x Accessory Kit  
(2x Rails, 2x Rail Screws, 4x Rubber Feet,  
2x Rackmount Ears)



1x Ethernet Cable



1x Console Cable  
(DB9 to RJ45)



2x AC Power Cables  
(AC Models only)



2x DC Connectors  
(DC Models only)

## Optional SFP Transceiver Modules (Not included)

*FN-TRAN-QSFP+SR, 40 GE QSFP+ transceiver module, short range for all systems with QSFP+ slots.*

*FN-TRAN-QSFP+LR, 40 GE QSFP+ transceiver module, long range for all systems with QSFP+ slots.*

*FN-TRAN-SFP+SR, 10 GE SFP+ transceiver module, short range for all systems with SFP/SFP+ slots.*

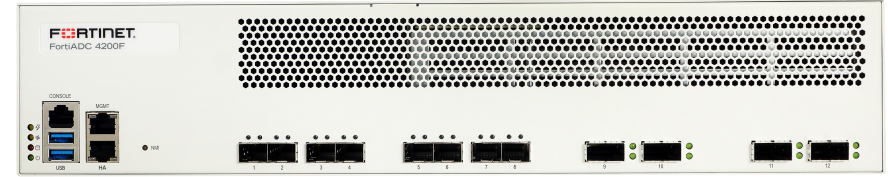
*FN-TRAN-SFP+LR, 10 GE SFP+ transceiver module, long range for all systems with SFP/SFP+ slots.*

*SP-CABLE-FS-QSFP+1, 40 GE QSFP+, Passive Direct Attach Cable, 1 meter*

*SP-CABLE-FS-QSFP+3, 40 GE QSFP+, Passive Direct Attach Cable, 3 meters*

*SP-CABLE-FS-QSFP+5, 40 GE QSFP+, Passive Direct Attach Cable, 5 meters*

# Front Panel - FAD 4200F



## 1 System LED Indicators

### Power Supply Alarm

- Amber:** Power supply failure
- Off:** Normal operation

### Power Supply Fan Alarm

- Amber:** Fan failure
- Off:** Normal operation

### Hard Disk Alarm

- Flashing Red:** Data activity
- Off:** Normal operation

### System Power Indicator

- Green:** Power on
- Off:** Power off

## 2 CONSOLE (RJ45) port for serial port management

USB (USB A x2) USB 3.0 server port

## 3 Management Port (RJ45) GE device management, default IP is 192.168.1.99

HA (RJ45) GE high availability port

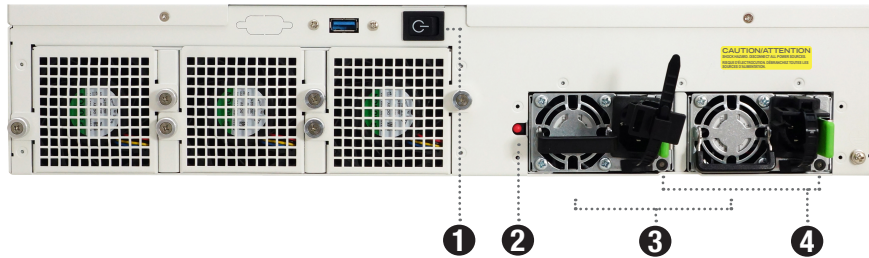
## 4 Ports 1 to 8 (SFP+) 10 GE SFP+ / GE SFP slots

- Green:** Link established at 10 or 1 Gbps
- Flashing Green:** Transmitting data
- Off:** No link established

## 5 Ports 9 to 12 (QSFP) 40 GE / GE SFP slots

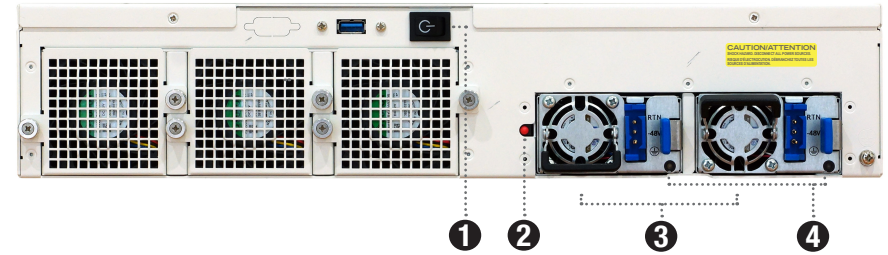
- Green:** Link established at 40 or 1 Gbps
- Flashing Green:** Transmitting data
- Off:** No link established

## Rear Panel FADC-4200F-AC



- ❶ **Power Switch** turns the power ON/OFF
- ❷ **Power Alarm Button** resets a power supply error
- ❸ **Redundant Power Supplies (x2)** 100 to 240V AC, 7-3.5A, 50/60Hz
- ❹ **AC Power Supply Indicator**
  - **Green:** PSU operating normally
  - ✖ **Flashing Green (1 sec):** AC input but in Active-Standby mode
  - **Amber:** AC input power failure; second power supply operating normally
  - **Off:** No AC input

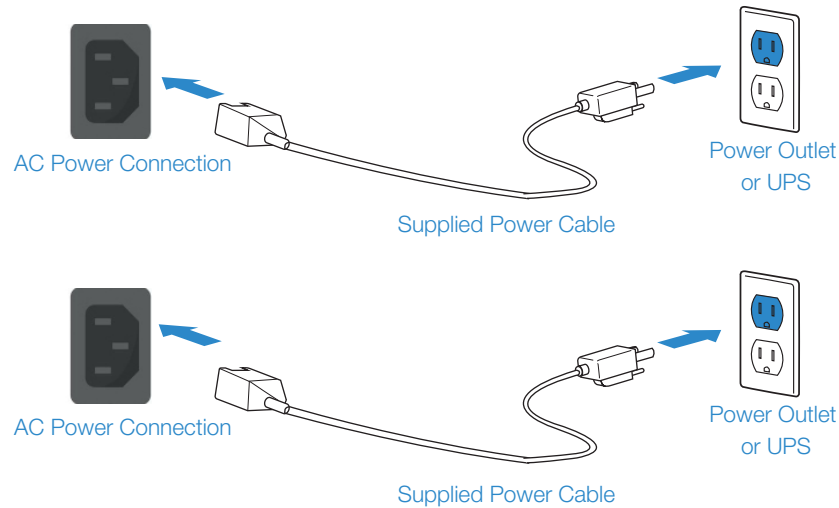
## Rear Panel FADC-4200F-DC



- ❶ **Power Switch** turns the power ON/OFF
- ❷ **Power Alarm Button** resets a power supply error
- ❸ **Redundant Power Supplies (x2)** -48V DC to -60V DC, 20A
- ❹ **DC Power Supply Indicator**
  - **Green:** PSU operating normally
  - ✖ **Flashing Green (1 sec):** DC power present but in Active-Standby mode
  - **Amber:** DC input power failure; second power supply operating normally
  - ✖ **Flashing Amber:** PSU warning event
  - **Off:** No DC input



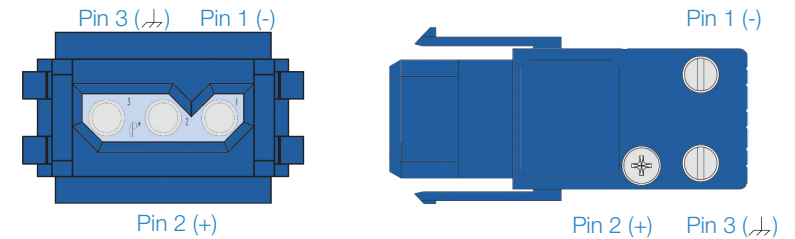
## AC Installation



Plug in your device to a [power outlet](#) using the provided [AC power cables](#).

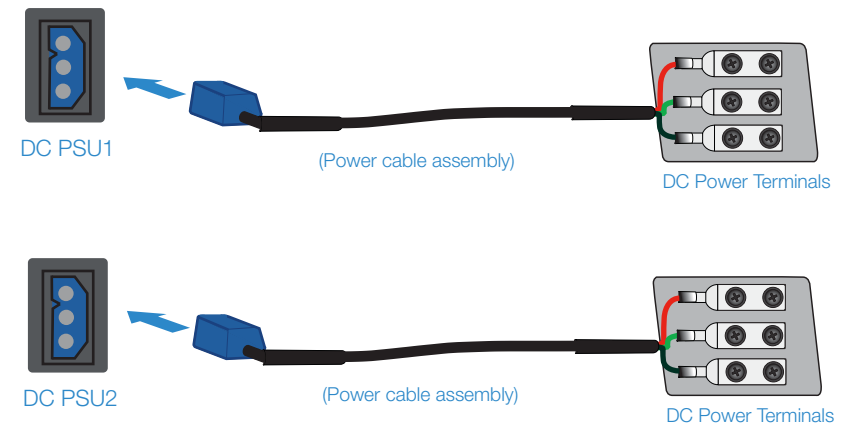
**Note:** We recommend connecting your FortiADC to an [uninterruptible power supply \(UPS\)](#) in case of a power outage

## DC Cable Installation



Assemble the power cables using the [supplied power connector](#).

**Note:** Pin 1 is Negative. Pin 2 is Positive. Pin 3 is Ground. Cables and terminal lugs are not included. The wires are rated between 24-10 AWG.



Plug in your device to a [power outlet](#) using the provided [DC power cables](#).

**Note:** We recommend connecting your FortiADC to an [uninterruptible power supply \(UPS\)](#) in case of a power outage

# Rack Installation

The supplied equipment is designed for standard 19inch racks. The rails provided are specially designed for this model.

## Rack Stability

Ensure the rack is stable before installing the slide rails and appliance.

- Check that the leveling jacks on the bottom of the rack are fully extended to the floor with the full weight of the rack resting on the jacks
- For single rack installation, stabilizers should be attached to the rack; for multiple rack installations, the racks should be coupled together

## Appliance Installation

- To avoid personal injury or equipment damage, use a lifting device
- Do not pick up the appliance by the front handles
- Each inner rail has a system lock out tab to prevent the appliance from sliding out, ensure that it is locked when installing the appliance
- Prevent Electrostatic discharge (ESD) damage by wearing antistatic devices
- Do not place heavy objects on the appliance

## What You Will Need

- Philips screwdriver, level & tape measure
- Rack-provided cage nuts and screws
- A lifting device or additional support
- ESD antistatic gear

## Support

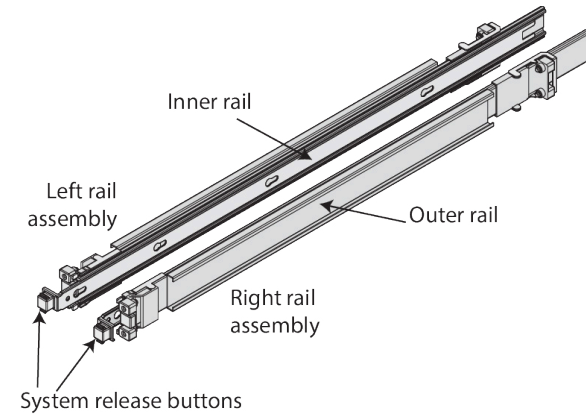
For video support on installing these slide rails, please visit:

<https://video.fortinet.com>

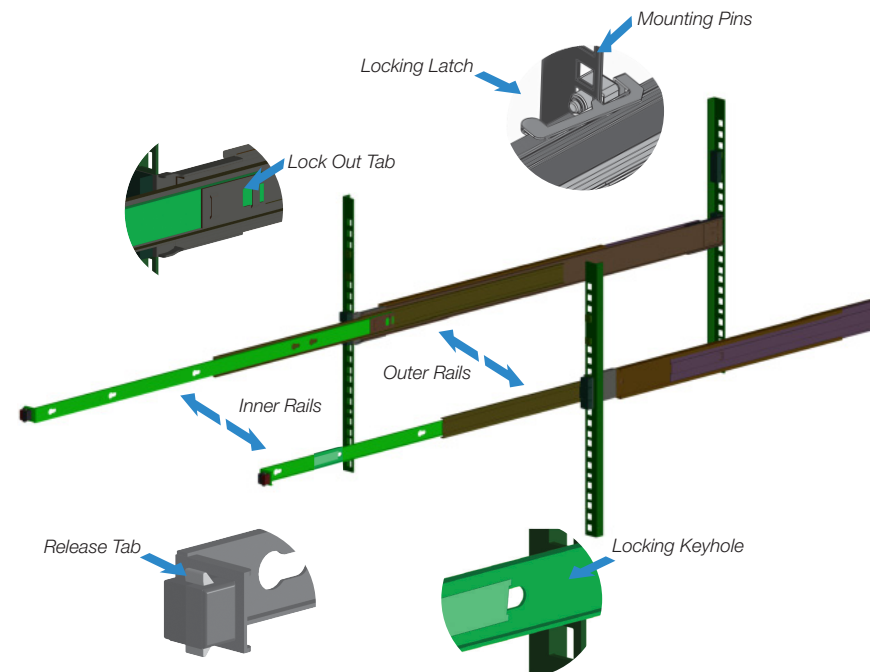
For additional support, please visit:

<http://support.fortinet.com>

## Rail Assembly

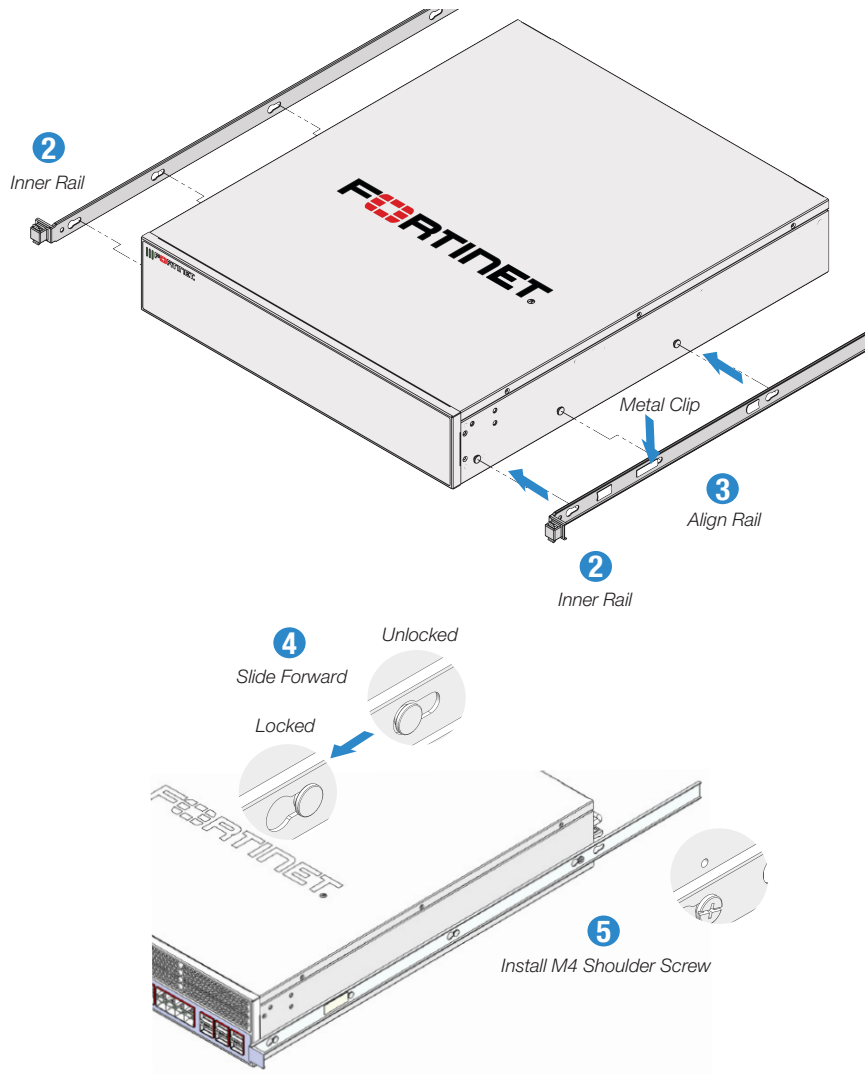


- The rail kit includes a left and a right rail assembly
- Each rail assembly includes an inner rail, a middle rail, and an outer rail
- The inner rail has locking keyholes used to secure the rail to the appliance
- The inner rail rear end has a lock out tab which slides into the middle rail
- The middle rail is in the outer rail and used to guide the inner rail into the outer rail
- The outer rail has front and rear mounting pins that push into to the rack holes
- The outer rail also has front and rear locking latches to secure the rail to the rack



## Attach the Inner Rails to the Appliance

1. Detach the inner rail from the rail assembly by pressing the lock out tab
2. Place an inner rail against a side of the appliance
3. Align the inner rail keyholes with the appliance pins
4. Slide the rail towards the front of the appliance until the metal clip locks into place
5. For inner rails with 5 keyholes and a chassis with 3 pins and a thread hole, use the provided M4 shoulder screw to secure the rail to the appliance
6. Repeat steps 1 to 5 for the remaining inner rail



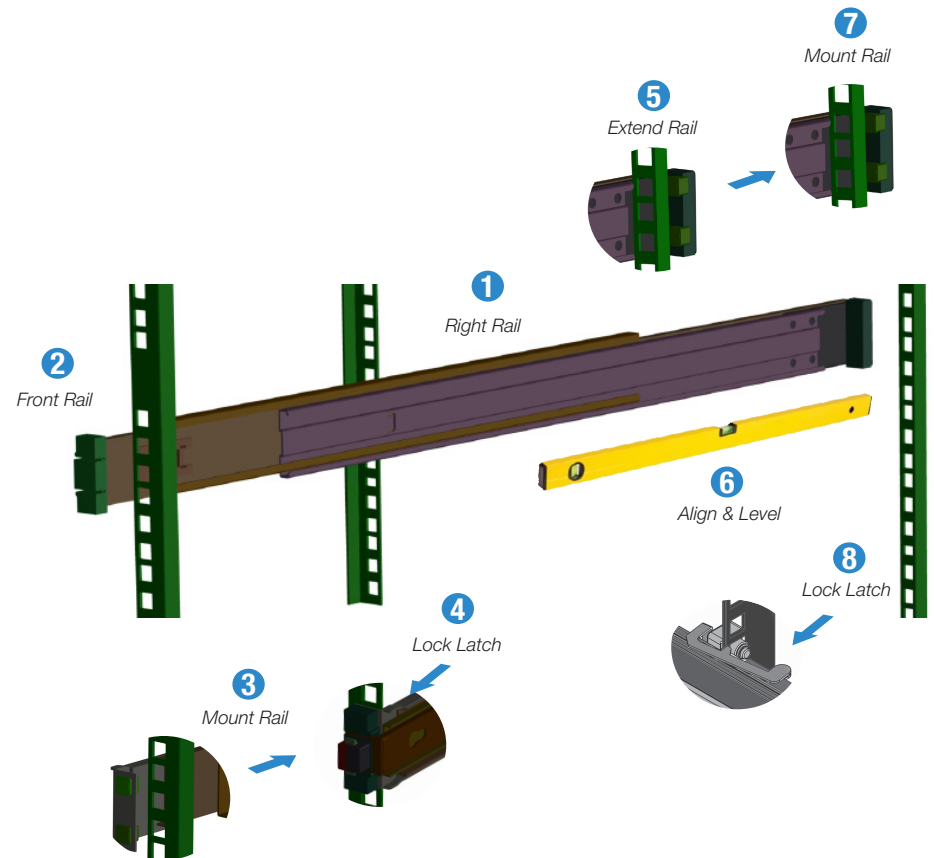
## Attach the Outer Rails to the Rack

### Front Outer Rail

1. Place an outer rail against a side of the rack
2. Align the front outer rail with the front of the rack
3. Push the front outer rail mounting pins into the rack post holes
4. Lock the locking latch to safely secure the front outer rail to the post

### Rear Outer Rail

5. Extend the rear outer rail just past the rack post
6. Level the rail and align the mounting pins
7. Push the rear mounting pins into the rack post holes
8. Lock the locking latch to safely secure the rear outer rail to the post
9. Repeat steps 1 to 8 for the remaining outer rail



## Install the Appliance

### Safety Precautions

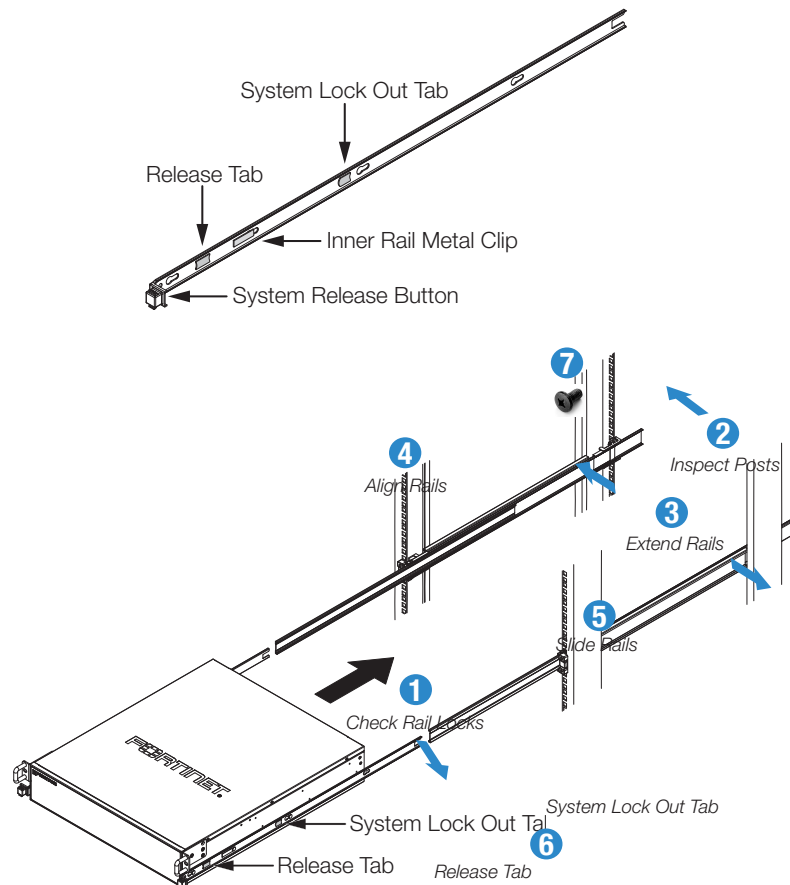
1. Check that the inner rails are secured to the appliance
2. Inspect that the rack posts and outer rails are secured and level

### Rail Installation

3. Slide the middle outer rails forward until they fully extend and lock into place
4. Using a lifting device, lift the appliance and align the inner rails with the middle rails
5. Slide the appliance and inner rails into the middle rails until there is a stop

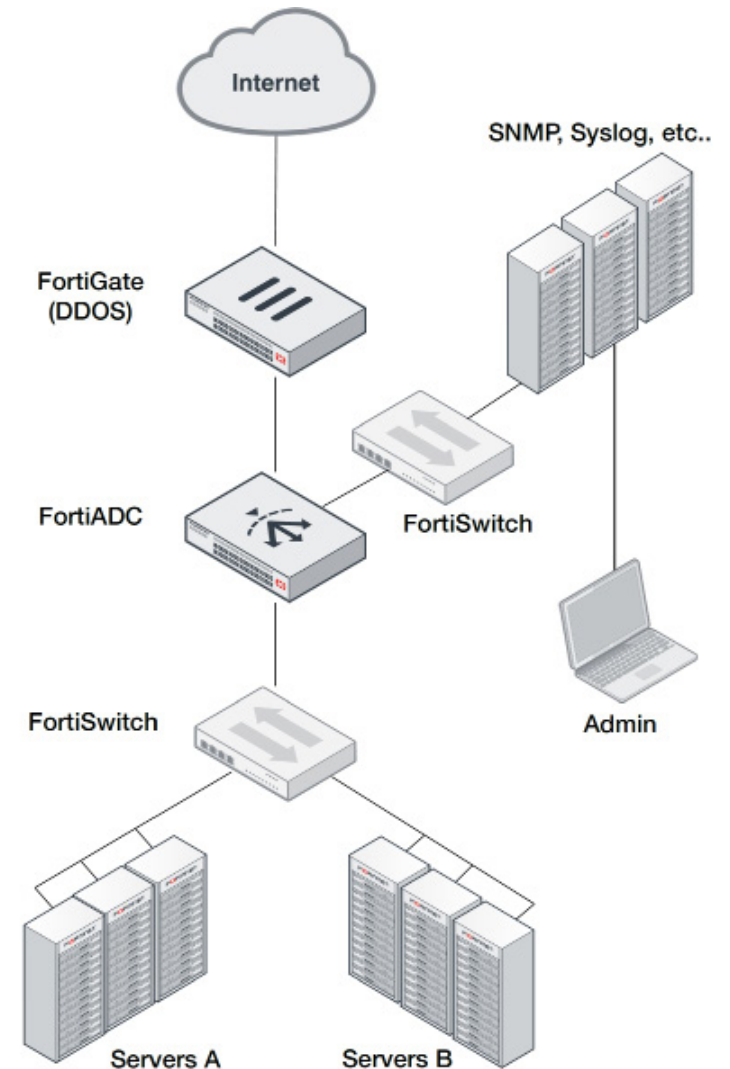
### System Lock

6. Apply even pressure and slide the release tabs outward while sliding the appliance all the way into the rack until the system release tabs click and lock into position
7. Use four rack screws (not provided) to secure the appliance to the rack



## Deployment

Fully integrate with Fortinet's Security Fabric to optimize network visibility, load balancing, and user authentication with your new FortiADC.



# Setup Options

Set up your device locally using the GUI or CLI. Choose an option to complete your setup, then configure your device.



Local Setup

## A GUI

An [easy-to-use GUI](#), compatible with most web browsers. To minimize scrolling, the screen resolution should be at least 1280 x 1024 pixels.

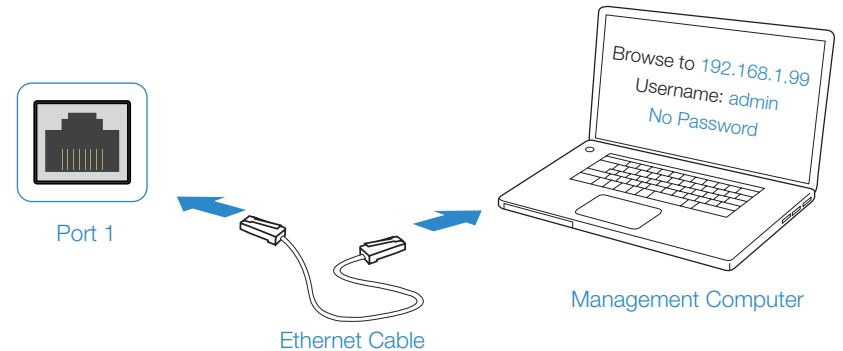


Local Setup

## B Command Line Interface (CLI)

An alternate configuration tool from the web-based manager that uses a [terminal emulation](#) application to [type commands](#) or upload batches of commands from a text file or [configuration script](#).

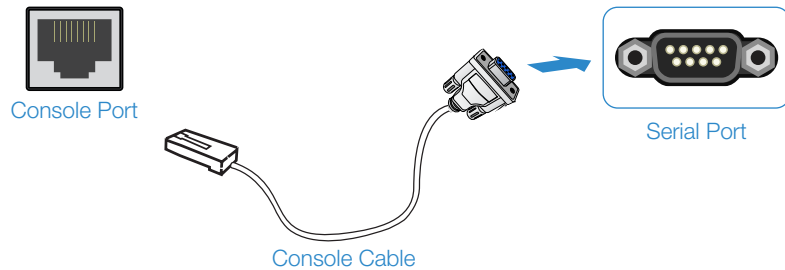
## A GUI



1. Connect [Port 1](#) to the [Management Computer](#) using the supplied [Ethernet cable](#)
2. Enable [DHCP](#) or set the Management Computer's [IP](#) and [subnet](#) to:

**Static IP Address:** [192.168.1.1](#)  
**Subnet Mask:** [255.255.255.0](#)

3. Visit [192.168.1.99](#) in a web browser
4. Log in with username [admin](#) and [no password](#)
5. You can now configure your FortiADC



1. Connect the [Console Port](#) with a [console cable](#) to the [Serial Port](#) on the [Management Computer](#)
2. Start a [terminal program](#) on the [Management Computer](#) and select an available [COM Port](#) using the following default settings:

**Baud rate:** 9600  
**Data bits:** 8  
**Parity:** None  
**Stop bits:** 1  
**Flow control:** None

3. Log in using username [admin](#) and [no password](#)
4. You can now configure your FortiADC

## Basic Settings

Please refer to the admin guide found on [docs.fortinet.com](https://docs.fortinet.com) for detailed instruction on configuring your FortiADC.

### Basic Network Settings

1. Once you have installed your FortiADC and configured your management interface, we recommend setting the following:

- ✓ [Administrative password](#)
- ✓ [System time and date](#)
- ✓ [Network interfaces](#)
- ✓ [DNS](#)

2. Test the [connectivity](#) between devices
3. [Register](#) your product, if you haven't already
4. Install your [license](#) and update the [firmware](#)
5. Configure a basic [load balancing policy](#)
6. [Test the deployment](#) with a load to verify the system behavior
7. [Back up](#) your configuration to have as a restore point

# Resources

Refer to the following resources to continue your FortiADC setup.

## Fortinet Customer Service & Support

Create a support account, register and manage your products, download updates, firmware images and release notes, and create technical support tickets.

<https://support.fortinet.com>

## Fortinet Document Library

Up-to-date versions of Fortinet publications for the entire family of Fortinet products.

<https://docs.fortinet.com>

## Training Services

Course descriptions, availability, schedules, and location of training programs in your area.

<https://www.fortinet.com/support-and-training/training.html>

## Technical Discussion Forums

Communicate with other customers and Fortinet partners about Fortinet products, services, and configuration issues.

<https://support.fortinet.com/forum>

## FortiGuard Threat Research and Response

Up-to-date information on vulnerabilities and threats, includes a virus scanner, IP signature look-up, and web filtering tools.

<https://fortiguard.com>

## Cautions and Warnings

### Environmental Specifications

Ambient operating temperature: 0°C to 40°C

Rack Mount Instructions - The following or similar rack-mount instructions are included with the installation instructions:

Instructions de montage en rack - Les instructions de montage en rack suivantes ou similaires sont incluses avec les instructions d'installation:

**Elevated Operating Ambient** - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T<sub>ma</sub>) specified by the manufacturer.

**Température ambiante élevée** - S'il est installé dans un rack fermé ou à unités multiples, la température ambiante de fonctionnement de l'environnement du rack peut être supérieure à la température ambiante de la pièce. Par conséquent, il est important d'installer le matériel dans un environnement respectant la température ambiante maximale (T<sub>ma</sub>) stipulée par le fabricant.

**Reduced Air Flow** - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.

**Ventilation réduite** - Installation de l'équipement dans un rack doit être telle que la quantité de flux d'air nécessaire au bon fonctionnement de l'équipement n'est pas compromise.

**Mechanical Loading** - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

**Chargement Mécanique** - Montage de l'équipement dans le rack doit être telle qu'une situation dangereuse n'est pas liée à un chargement mécanique inégal.

**Circuit Overloading** - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

**Surtenison** - Il convient de prendre l'ensemble des précautions nécessaires lors du branchement de l'équipement au circuit d'alimentation et être particulièrement attentif aux effets de la suralimentation sur le dispositif assurant une protection contre les courts-circuits et le câblage. Ainsi, il est recommandé de tenir compte du numéro d'identification de l'équipement.

**Reliable Earthing** - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

**Fiabilité de la mise à la terre** - Fiabilité de la mise à la terre de l'équipement monté en rack doit être maintenue. Une attention particulière devrait être accordée aux connexions d'alimentation autres que les connexions directes au circuit de dérivation (par exemple de l'utilisation de bandes de puissance).

*Refer to specific Product Model Data Sheet for Environmental Specifications (Operating Temperature, Storage Temperature, Humidity, and Altitude)*

*Référez à la Fiche Technique de ce produit pour les caractéristiques environnementales (Température de fonctionnement, température de stockage, humidité et l'altitude).*

### Safety

**Moving parts** — Hazardous moving parts. Keep away from moving fan blades.

**Pièces mobiles** — Pièces mobiles dangereuses. Se tenir éloigné des lames mobiles du ventilateur.

**Warning:** Equipment intended for installation in Restricted Access Location.

**Avertissement:** Le matériel est conçu pour être installé dans un endroit où l'accès est restreint.

**Warning:** A readily accessible disconnect device shall be incorporated in the building installation wiring.

**Avertissement:** Un dispositif de déconnexion facilement accessible doit être incorporé dans l'installation électrique du bâtiment.

**Warning:** A UL Listed external disconnect device, i.e. circuit breaker or other, with over current protection suitable for local code (rated 25A recommended) shall be installed with this equipment

**Avertissement:** Un dispositif de déconnexion externe homologué UL, exemple d'un disjoncteur ou autre, avec des protections de surintensité appropriées (nominal 25A recommandé) à l'installation de ce matériel.

**Battery** — Risk of explosion if the battery is replaced by an incorrect type. Do not dispose of batteries in a fire. They may explode. Dispose of used batteries according to your local regulations. **IMPORTANT:** Switzerland: Annex 4.10 of SR814.013 applies to batteries.

**Batterie** — Risque d'explosion si la batterie est remplacée par un type incorrect. Ne jetez pas les batteries au feu. Ils peuvent exploser. Jetez les piles usagées conformément aux réglementations locales. **IMPORTANT:** Suisse: l'annexe 4.10 de SR814.013 s'appliquent aux batteries.

警告

本電池如果更換不正確會有爆炸的危險

請依製造商說明書處理用過之電池

### CAUTION:

There is a danger of explosion if a battery is incorrect replaced. Replace only with the same or equivalent type.

Dispose batteries of according to the manufacturer's instructions.

Disposing a battery into fire, a hot oven, mechanically crushing, or cutting it can result in an explosion.

Leaving a battery in an extremely hot environment can result in leakage of flammable liquid, gas, or an explosion.

If a battery is subjected to extremely low air pressure, it may result in leakage of flammable liquid, gas, or an explosion.

### WARNUNG:

Lithium-Batterie Achtung: Explosionsgefahr bei fehlerhafter Batteriewechsel. Ersetzen Sie nur den gleichen oder gleichwertigen Typ. Batterien gemäß den Anweisungen des Herstellers entsorgen.

Beseitigung einer BATTERIE in Feuer oder einen heißen Ofen oder mechanisches Zerkleinern oder Schneiden einer BATTERIE, die zu einer EXPLOSION führen kann

Verlassen einer BATTERIE in einer extrem hohen Umgebungstemperatur, die zu einer EXPLOSION oder zum Austreten von brennbarer Flüssigkeit oder Gas führen kann

Eine BATTERIE, die einem extrem niedrigen Luftdruck ausgesetzt ist, der zu einer EXPLOSION oder zum Austreten von brennbarer Flüssigkeit oder Gas führen kann.

CAUTION: Shock Hazard. Disconnect all power sources.  
ATTENTION: Risque d'électrocution. Débranchez toutes les sources d'alimentation.

**Caution:** Slide/rail mounted equipment is not to be used as a shelf or a work space.

**Attention:** Un équipement monté sur bâti ne doit pas être utilisé sur une étagère ou dans un espace de travail.

**Warning:** Stability hazard.  
**Aviso:** Perigo de estabilidade.

The rack may tip over causing serious personal injury.  
O rack pode tombar causando ferimentos graves.

Before extending the rack to the installation position, read the installation instructions.  
Antes de estender o rack para a posição de instalação, leia as instruções de instalação.

Do not put any load on the slide-rail mounted equipment in the installation position.  
Não coloque nenhuma carga no equipamento montado em trilho deslizante na posição de instalação.

Do not put any load on the slide-rail mounted equipment in the installation position.  
Não coloque nenhuma carga no equipamento montado em trilho deslizante na posição de instalação.

Do not leave the slide-rail mounted equipment in the installation position.  
Não deixe o equipamento montado em trilho deslizante na posição de instalação.

## Regulatory Compliance

### Federal Communication Commission (FCC) – USA

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:  
(1) this device may not cause harmful interference, and  
(2) this device must accept any interference received; including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

WARNING: Any changes or modifications to this product not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

### Industry Canada Equipment Standard for Digital Equipment (ICES) – Canada

CAN ICES-003 (A) / NMB-003 (A)

This digital apparatus does not exceed the Class A limits for radio noise emissions from digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications.

Cet appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

### European Conformity (CE) - EU

This is a Class A product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.



### Voluntary Control Council for Interference (VCCI) – Japan

この装置は、クラスA機器です。この装置を住宅環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。  
V C C I – A

### Product Safety Electrical Appliance & Material (PSE) – Japan

日本では電気用品安全法(PSE)の規定により、同梱している電源コードは本製品の専用電源コードとして利用し、他の製品に使用しないでください。

### Bureau of Standards Metrology and Inspection (BSMI) – Taiwan

The presence conditions of the restricted substance (BSMI RoHS table) are available at the link below:  
限用物質含有情況表 (RoHS Table) 請到以下 網址下載:  
<https://www.fortinet.com/bsmi>

警告： 為避免電磁干擾，本產品不應安裝或使用於住宅環境。

請仔細閱讀以下說明  
本設備勿置於潮濕處。  
連接至電源前，請先檢查電壓。  
當設備不用時，請將所有電源線拔除，避免電壓不穩而造成傷害。  
勿將任何液體潑入設備中，避免線路短路。  
基於安全理由，只有受到專業訓練的從業人員，才可以打開本設備。  
請勿自行調整或修理已通電的設備，以確保您的安全。  
如不小心受傷，請立刻找急救人員給予您適當的救護，千萬別因傷勢輕微而忽略自己的傷勢。

請依照台灣法規處置電池。  
若不正確替換電池可能導致爆炸危險。替換電池時，請使用設備生產商推薦使用的電池。  
請勿拆卸、刺穿或以其他方式損壞電池。

雷射設備非用戶維修設備，請與生產商聯繫維修事宜。

注意：要斷開電源，請將所有電源線從本機上拔下

英屬蓋曼群島商防特網股份有限公司台灣分公司  
地址：台北市內湖區行愛路176號2樓  
電話：(02) 27961666

### China

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。这种情况下，可能需要用户对其采取切实可行的措施。



## Fortinet Product License Agreement / EULA and Warranty Terms

### Product License Agreement

The parties to this agreement are you (the end-customer) and Fortinet, Inc. ("Fortinet"). CAREFULLY READ THE FOLLOWING LEGAL AGREEMENT (THE OR THIS "AGREEMENT" OR "EULA"). USE OR INSTALLATION OF FORTINET PRODUCT(S) AND ANY UPDATES THERETO, INCLUDING HARDWARE APPLIANCE PRODUCTS, SOFTWARE AND FIRMWARE INCLUDED THEREIN BY FORTINET, AND STAND-ALONE SOFTWARE PRODUCTS SOLD BY FORTINET (TOGETHER, THE "PRODUCTS") CONSTITUTES ACCEPTANCE BY YOU OF THE TERMS IN THIS AGREEMENT, AS AMENDED OR UPDATED FROM TIME TO TIME IN FORTINET'S DISCRETION BY FORTINET PUBLISHING AN AMENDED OR UPDATED VERSION. FORTINET SHALL NOT BE BOUND BY ANY ADDITIONAL AND/OR CONFLICTING PROVISIONS IN ANY ORDER, RELEASE, ACCEPTANCE OR OTHER WRITTEN CORRESPONDENCE OR OTHER WRITTEN OR VERBAL COMMUNICATION UNLESS EXPRESSLY AGREED TO IN A WRITING SIGNED BY THE GENERAL COUNSEL OF FORTINET. IF YOU DO NOT AGREE TO ALL OF THE TERMS OF THIS AGREEMENT, DO NOT START THE INSTALLATION PROCESS OR USE THE PRODUCTS. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, YOU SHOULD IMMEDIATELY, AND IN NO EVENT LATER THAN FIVE (5) CALENDAR DAYS AFTER YOUR RECEIPT OF THE PRODUCT, IMMEDIATELY NOTIFY FORTINET LEGAL.Legal@FORTINET.COM OF REQUESTED EULA CHANGES.

#### 1. License Grant.

This is a license agreement between you and Fortinet, not a sales agreement. The term "Software", as used throughout this Agreement, includes all Fortinet and third party firmware and software provided to you with, or incorporated into, Fortinet appliances and any stand-alone software provided to you by Fortinet, with the exception of any open source software contained in Fortinet's Products which is discussed in detail in section 15 below, and the term "Software" includes any accompanying documentation, any updates and enhancements of the software or firmware provided to you by Fortinet, at its option. Fortinet grants to you a non-transferable (except as provided in section 5 ("Transfer") and section 15 ("Open Source Software") below), non-exclusive, revocable (in the event of your failure to comply with these terms, in the event of termination, or in the event Fortinet is not properly paid for the applicable Product) license to use the Software solely for your internal business purposes provided, (i) (a) agreed by Fortinet in writing, (b) you are authorized by Fortinet in writing to provide managed service provider services ("MSSP") to your end-customers, and (c) you pay for an MSSP license, then you may use the Software and/or Software embedded in Fortinet Hardware to provide those services, subject to the other restrictions in this Agreement), in accordance with the terms set forth in this Agreement and subject to any further restrictions in Fortinet documentation (including license term restrictions), and solely on the Fortinet appliance, or, in the case of blades, CPUs, platform, devices or databases, on the single blade, CPU, platform, device or database on which Fortinet installed the Software, or, for stand-alone Software, solely on a single computer running a validly-licensed copy of the operating system for which the Software was designed unless and except set forth in the published documentation otherwise. For clarity, notwithstanding anything to the contrary, all licenses of Software to be installed on blades, CPUs, platforms, devices or databases are licensed per blade, solely for one blade and not for multiple blades that may be installed in a chassis, per CPU, per platform, per device, or per database basis, up to the blade, CPU, platform, device, database number defined in the license and as applicable in and accordance with the documentation. The Software is "in use" on any appliances, blades, CPUs, platforms, devices, or databases when it is loaded into temporary memory (i.e. RAM), accessed, downloaded, installed, or used on an appliance, blade, CPU, platform, device, or database. You agree that, except for the limited, specific license rights granted in this section 1, you receive no license rights to the Software.

#### 2. Limitation on Use.

You are prohibited from and may not attempt to, and, if you are a corporation, you are responsible to prevent your employees and contractors from attempting to: (a) modify, translate, reverse engineer, decompile, disassemble, create derivative works based on, sublicense, or distribute the Software; (b) rent or lease any rights in the Software in any form to any third party or make the Software available or accessible to third parties in any other manner (except as expressly permitted for MSSP partners); (c) transfer assign or sublicense right to any other person or entity (except as provided in section 5); (d) remove any proprietary notice, labels, or marks on the Software, Products, and containers; (e) use the Software to determine, or disclose the results of, any benchmarking or performance measurements; (f) interfere with a platform for use of the Software; (g) use the Software on a device not owned and controlled by you; (h) use automated means to access online portions of the platform for the Software; (i) use the Software for third-party training, commercial time-sharing or service bureau use or (except as expressly set forth in this Agreement) use the Software to provide services to third parties; (j) share non-public features or content of the software with any third party; (k) access the software in order to build a competitive product or service, to build a product using similar ideas, features, functions or graphics of the software, or to copy any ideas, features, functions or graphics of the software; or, (l) engage in web scraping or data scraping on or related to the software, including without limitation, collection of information through any software that simulates human activity or any bot or web crawler.

#### 3. Proprietary Rights.

All rights (including copyrights, trade secret, patent and other intellectual property rights), title, interest in and to the Software and any Product, and any copy thereof remain with Fortinet. You acknowledge that no title or other intellectual property rights in the Software or other Products is transferred to you and you will not acquire any rights to the Software or other Products except for the specific limited license as expressly set forth in section 1 ("License Grant") above. You expressly agree and acknowledge that Fortinet owns, retains, and shall retain all intellectual property rights in and to, and you have no intellectual property rights in and to, the Products and the Software other than the License Grant. You agree to keep confidential all Fortinet confidential information and only to use such information for the purposes for which Fortinet disclosed it.

#### 4. Term and Termination.

The term of the license is the shorter of (a) the term as set forth in the ordering documents, other Fortinet documentation, or per Fortinet practices or policies (such as with evaluation or beta licenses or subscription or other term licenses) and (b) for the duration of Fortinet's copyright in the Software. Fortinet may terminate this Agreement, and the licenses and other rights herein, immediately without notice if you breach or fail to comply with any of the terms and conditions of this Agreement or for other reasons as stated in Fortinet's other documentation. You agree that, upon such termination, you will cease using the Software and any Product and either destroy all copies of the Fortinet documentation or return all materials to Fortinet.

#### 5. Transfer.

If you are a Fortinet contracted and authorized reseller or distributor of Products, you may transfer (not rent or lease unless specifically agreed to in writing by Fortinet) the Software to one end user on a permanent basis, provided that: (i) you ensure that your customer and the end user receives a copy of this Agreement, is bound by its terms and conditions, and, by selling the Product or Software, you hereby agree to enforce the terms in this Agreement against such end user; (ii) you at all times comply with all applicable United States export control laws and regulations, and (iii) you agree to refund any fees paid to you by an end user who purchased Product(s) from you but does not agree to the terms contained in this Agreement and therefore wishes to return the Product(s) as provided for in this Agreement. Further, if you are a non-authorized reseller of Products and Services, you are not authorized to sell Product(s), Software or Services, but, regardless, by selling Product(s), Software or Services, you hereby agree you are bound by the restrictions and obligations herein and are bound to: (i) ensure that your customer and the end user receive a copy of this Agreement and are bound in full by all restrictions and obligations herein (i) enforce the restrictions and obligations in this Agreement against such customer and/or end user, (ii) comply with all applicable United States export control laws and regulations and all other applicable laws, and (iv) refund any fees paid to you by a customer and/or end user who purchased Product(s) from you but does not agree to the restrictions and obligations contained in this Agreement and therefore wishes to return the Product(s) as provided for in this Agreement. Notwithstanding anything to the contrary, distributors, resellers and other Fortinet partners (a) are not agents of Fortinet and (b) are not authorized to bind Fortinet in any way. Fortinet's license, warranty, and support is only available for Products that you purchased directly from an authorized Fortinet channel partner. Products not purchased from an authorized Fortinet channel partner are not eligible, will not be supported, and may be blocked from registration.

#### 6. Limited Warranty.

Fortinet provides this limited warranty for its product only to the single end-user person or entity that originally purchased the Product from Fortinet or its authorized reseller or distributor and paid for such Product. The warranty is only valid for Products which are properly registered on Fortinet's Support Website, <https://support.fortinet.com>, or such other website as provided by Fortinet, or for which the warranty otherwise starts according to Fortinet's policies, and any support is only valid for products properly purchased through authorized distributors and resellers. The warranty periods discussed below will start according to Fortinet's policies posted at <http://www.fortinet.com/aboutus/legal.html> or such other website as provided by Fortinet. It is the Fortinet distributor's and reseller's responsibility to make clear to the end user the date the product was originally shipped from Fortinet, and it is the end user's responsibility to understand the original ship date from the party from which the end user purchased the product. All warranty claims must be submitted in writing to Fortinet before the expiration of the warranty term or such claims are waived in full. Fortinet provides no warranty for any beta, donation or evaluation Products. Fortinet warrants that the hardware portion of the Products ("Hardware") will be free from material defects in workmanship as compared to the functional specifications for the period set forth as follows and applicable to the Product type ("Hardware Warranty Period"): (a) a three hundred sixty-five (365) day limited warranty for the Hardware products; (b) for FortiAP, the warranty herein shall last from the start of the warranty period as discussed above until five (5) years following the product announced end-of-life date Hardware; (c) for FortiSwitch Hardware appliance products other than the FortiSwitch-5000 series, the warranty herein shall last from the start of the warranty period as discussed above until five (5) years following the product announced end-of-life date Hardware. Fortinet's sole obligation shall be to repair or offer replacement Hardware for the defective Hardware at no charge to the original owner. This obligation is exclusive of transport fees, labor, de-installation, installation, reconfiguration, or return shipment and handling fees and costs, and Fortinet shall have no obligation related thereto. Such repair or replacement will be rendered by Fortinet at an authorized Fortinet service facility as determined by Fortinet. The replacement Hardware need not be new or of an identical make, model, or part; Fortinet may, in its discretion, replace the defective Hardware (or any part thereof) with any reconditioned Product that Fortinet reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. The Hardware Warranty Period for the repaired or replacement Hardware shall be for the greater of the remaining Hardware Warranty Period or ninety days from the delivery of the repaired or replacement Hardware. If Fortinet determines in its reasonable discretion that a material defect is incapable of correction or that it is not practical to repair or replace defective Hardware, the price paid by the original purchaser for the defective Hardware will be refunded by Fortinet upon return to Fortinet of the defective Hardware. All Hardware (or part thereof) that is replaced by Fortinet, or for which the purchase price is refunded, shall become the property of Fortinet upon replacement or refund. Fortinet warrants that Software as initially shipped by Fortinet will substantially conform to Fortinet's then-current functional specifications for the Software, as set forth in the applicable documentation for a period of ninety (90) days ("Software Warranty Period"). If the Software is properly installed on approved Hardware and operated as contemplated in its documentation, Fortinet's sole obligation shall be to repair or offer replacement Software for the non-conforming Software with software that substantially conforms to Fortinet's functional specifications. This obligation is exclusive of transport fees, labor, de-installation, installation, reconfiguration, or return shipment and handling fees and costs, and Fortinet shall have no obligation related thereto. Except as otherwise agreed by Fortinet in writing, the warranty replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by Fortinet for the Software. The Software Warranty Period shall extend for an additional ninety (90) days after any warranty replacement software is delivered. If Fortinet determines in its reasonable discretion that a material non-conformance is incapable of correction or that it is not practical to repair or replace the non-conforming Software, the price paid by the original licensee for the non-conforming Software will be refunded by Fortinet; provided that the non-conforming Software (and all copies thereof) is first returned to Fortinet. The license granted respecting any Software for which a refund is given

automatically terminates immediately upon refund. For purpose of the above hardware and software warranties, the term "functional specifications" means solely those specifications authorized and published by Fortinet that expressly state in such specifications that they are the functional specifications referred to in this section 6 of this Agreement, and, in the event no such specifications are provided to you with the Software or Hardware, there shall be no warranty on any Software respecting any Software for which a refund is given automatically terminates immediately upon refund. For purpose of the above hardware and software warranties, the term "functional specifications" means solely those specifications authorized and published by Fortinet that expressly state in such specifications that they are the functional specifications referred to in this section 6 of this Agreement, and, in the event no such specifications are provided to you with the Software or Hardware, there shall be no warranty on any Software.

#### 7. Disclaimer of Other Warranties and Restrictions.

EXCEPT FOR THE LIMITED WARRANTY SPECIFIED IN SECTION 6 ABOVE, THE PRODUCT AND SOFTWARE ARE PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY, IMPLIED OR EXPRESS WARRANTY OF MERCHANTABILITY, OR WARRANTY FOR FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT. IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO NINETY (90) DAYS FROM THE DATE OF ORIGINAL SHIPMENT FROM FORTINET. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT. NOTWITHSTANDING ANYTHING TO THE CONTRARY, THE HARDWARE WARRANTY PERIOD DISCUSSED ABOVE DOES NOT APPLY TO CERTAIN FORTINET PRODUCTS, INCLUDING FORTITOKEN WHICH HAS A 365 DAY WARRANTY FROM THE DATE OF SHIPMENT FROM FORTINET'S FACILITIES, AND THE SOFTWARE WARRANTY DOES NOT APPLY TO CERTAIN FORTINET PRODUCTS. YOU HEREBY ACKNOWLEDGE AND AGREE THAT NO VENDOR CAN ASSURE COMPLETE SECURITY AND NOTHING HEREIN OR ELSEWHERE SHALL BE DEEMED TO IMPLY A SECURITY GUARANTEE OR ASSURANCE, AND FORTINET DISCLAIMS LIABILITY REGARDING YOUR WEB BROWSER'S REQUIREMENTS OR ANY THIRD PARTY DEVICE OR APPLIANCE USED TO OPERATE THE SOFTWARE.

The warranty in Section 6 above does not apply if the Software, Product or any other equipment upon which the Software is authorized to be used (a) has been altered, except by Fortinet or its authorized representative, (b) has not been installed, operated, repaired, updated to the latest version, or maintained in accordance with instructions supplied by Fortinet, (c) has been subjected to abnormal physical or electrical stress, misuse, negligence, or accident; (d) is licensed for beta, evaluation, donation, testing or demonstration purposes or for which Fortinet does not charge a purchase price or license fee; or (e) is procured from a non-authorized reseller or non-authorized distributor. In the case of beta, testing, evaluation, donation or free Software or Product, the end user acknowledges and agrees that such Software or Product may contain bugs or errors and could cause system failures, data loss and other issues, and the end user agrees that such Software or Product is provided "as-is" without any warranty whatsoever, and Fortinet disclaims any warranty or liability whatsoever. An end user's use of evaluation or beta Software or Product is limited to thirty (30) days from original shipment unless otherwise agreed in writing by Fortinet. For clarity, notwithstanding anything to the contrary, all sales are final and no provision in this EULA entitles you to return Products, other than as expressly set forth herein.

#### 8. Governing Law.

Any disputes arising out of this Agreement or Fortinet's limited warranty shall be governed by the laws of the state of California, without regard to the conflict of laws principles. In the event of any disputes arising out of this Agreement or Fortinet's limited warranty, the parties submit to the jurisdiction of the federal and state courts located in Santa Clara County, California, as applicable, and agree that any controversy or claim arising out of or relating to this Agreement shall be determined in the federal and state courts located in Santa Clara County, California, as applicable.

#### 9. Limitation of Liability.

TO THE MAXIMUM EXTENT PERMITTED BY LAW AND NOTWITHSTANDING ANYTHING TO THE CONTRARY, FORTINET IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY, INFRINGEMENT OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT OR SERVICE OR ANY DAMAGES OF ANY KIND WHATSOEVER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF PROFIT, LOSS OF OPPORTUNITY, LOSS OR DAMAGE RELATED TO USE OF THE PRODUCT OR SERVICE IN CONNECTION WITH HIGH RISK ACTIVITIES, DE-INSTALLATION AND INSTALLATION FEES AND COSTS, DAMAGE TO PERSONAL OR REAL PROPERTY, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, COMPUTER SECURITY BREACH, COMPUTER VIRUS INFECTION, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT INCLUDING ANY PRODUCT RETURNED TO FORTINET FOR WARRANTY SERVICE RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THE LIMITED WARRANTY IN SECTION 6 ABOVE, EVEN IF FORTINET HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE LIMITED WARRANTY IS, AT FORTINET'S SOLE AND ABSOLUTE DISCRETION: REPAIR, REPLACEMENT, OR REFUND OF THE DEFECTIVE OR NON-CONFORMING PRODUCT AS SPECIFICALLY STATED IN SECTION 6 ABOVE; PROVIDED, HOWEVER, IN NO EVENT SHALL ANY END-CUSTOMER REMEDIES UNDER THIS EULA AND ANY SUPPORT AGREEMENT EXCEED THE AMOUNT PAID TO FORTINET FOR THE SPECIFIC APPLICABLE DEFECTIVE OR NON-CONFORMING PRODUCT AT ISSUE.

#### 10. Compliance with Laws, including Import/Export Laws and FCPA.

You are advised that the Products may be subject to the United States Export Administration Regulations and other import and export laws; diversion contrary to United States law and regulation is prohibited. You agree to comply with all applicable international and national laws that apply to the Products as well as end user, end-use, and destination restrictions issued by U.S. and other governments. For additional information on U.S. export controls see <https://www.bis.doc.gov>. Fortinet assumes no responsibility or liability for your failure to obtain any necessary import and export approvals and licenses, and Fortinet reserves the right to terminate or suspend shipments, services and support in the event Fortinet has a reasonable basis to suspect any import or export violation. You represent that neither the United States Bureau of Industry and Security nor any other governmental agency has issued sanctions against you or otherwise suspended, revoked or denied your export privileges. You agree not to use or transfer the Products for any use relating to nuclear, chemical or biological weapons, or missile technology, unless authorized by the United States Government by regulation or specific written license. Additionally, you agree not to directly or indirectly export, import or transmit the Products contrary to the laws or regulations of any other governmental entity that has jurisdiction over such export, import, transmission or use. Furthermore, you hereby agree that, for any orders that you place with Fortinet whereby any legal or regulatory requirements may apply to Fortinet such as requirements related to the International Traffic in Arms Regulations, or Buy American Act, or the Trade Agreements Act; you are responsible to ensure the Purchase Order submitted to Fortinet by you and/or any partners clearly states the specific requirement in writing, or otherwise Fortinet is not bound by any such requirements. You represent that you understand, and you hereby agree to comply with, all applicable laws including but not limited to the U.S. Foreign Corrupt Practices Act. You represent that you hereby agree that you and your employees have not accepted, and will not accept, anything of value, including money, meals, entertainment, paid for travel, beta, testing, evaluation, donation or free Products and/or related services, or anything else of value, in exchange for providing current business or for new business opportunities. You represent and warrant to Fortinet that you and your employees, consultants, agents and representatives will not use Fortinet's products and services to engage in, or support in any way, violations or abuses of human rights, including those involving censorship, surveillance, detention, or excessive use of force. You agree you and your employees will be responsible to comply in full with all laws and policies applicable to all and all dealings with Fortinet in general and its distributors, resellers and partners.

#### 11. U.S. Government End Users.

The Software and accompanying documentation are deemed to be "commercial computer software" and "commercial computer software documentation," respectively, pursuant to DFAR Section 227.7022 and FAR Section 12.212, as applicable. Any use, modification, reproduction, release, performance, display or disclosure of the Software and accompanying documentation by the United States Government shall be governed solely by the terms of this Agreement and shall be prohibited except to the extent expressly permitted by the terms of this Agreement and its successors.

#### 12. Tax Liability.

You agree to be responsible for payment of any sales or use taxes imposed at any time on this transaction.

#### 13. General Provisions.

Except as specifically permitted and required in section 5 ("Transfer") above, you agree not to assign this Agreement or transfer any of the rights or obligations under this Agreement without the prior written consent of Fortinet. This Agreement shall be binding upon, and inure to the benefit of, the successors and permitted assigns of the parties. The United Nations Convention on Contracts for the International Sales of Goods is expressly excluded. This Agreement and other Fortinet agreements may be amended or supplemented only by a writing that refers explicitly to the agreement signed on behalf of both parties, or, for this Agreement, as otherwise expressly provided in the lead-in above Section 1 above, provided, notwithstanding anything to the contrary and except for this Agreement which may be amended or updated as expressly provided in the lead-in above Section 1 above, for any amendment or other agreement to be binding on Fortinet, such amendment or other agreement must be signed by Fortinet's General Counsel. No waiver will be implied from conduct or failure to enforce rights nor effective unless in a writing signed on behalf of the party against whom the waiver is asserted. If any part of this Agreement is found unenforceable, that part will be enforced to the maximum extent permitted and the remainder shall continue in full force and effect. You acknowledge that you have read this Agreement, understand it, and agree to be bound by its terms and conditions. Notwithstanding anything to the contrary, this EULA constitutes the entire agreement between Fortinet and its end-customers and supersedes any and all prior representations or conflicting provisions, such as limitations of liability, warranties, or otherwise in any and all purported end customer agreements, whether entered into now or in the future. In the event of a conflict between this EULA and another agreement, this EULA shall prevail unless the conflicting agreement expressly states that it replaces this EULA, expressly referring to this EULA, and is agreed to in writing by authorized representatives of the parties (which, in the case of Fortinet, is Fortinet's General Counsel).

#### 14. Privacy.

You agree to Fortinet's collection, use, disclosure, protection and transfer of your information, as set forth in the Fortinet privacy policy on the Fortinet web site (<http://www.fortinet.com/about-us/privacy.html>), including (a) Fortinet's use of the Customer information to send information regarding Fortinet products and services; and (b) Fortinet's disclosure of your information to provide assistance to law enforcement, governmental agencies and other authorities or to allow Fortinet to protect its Customers' and/or end users' rights.

#### 15. Open Source Software.

Fortinet's products may include software modules that are licensed (or sublicensed) to the user under the GNU General Public License, Version 2, of June 1991 ("GPL") or GNU Lesser General Public License, Version 2.1, of February 1999 ("LGPL") or other open source software licenses which, among other rights, permit the user to use, copy, modify and redistribute modules, or portions thereof, and may also require attribution disclosures and access to the source code ("Open Source Software"). The GPL requires that for any Open Source Software covered under the GPL, the source code is distributed to someone in an executable binary format, that the source code is also made available to those users. For any Open Source Software covered under the GPL, the source code is made available on this CD or download package. If any Open Source Software licenses require that Fortinet provide rights to use, copy or modify any Open Source Software program that are broader than the rights granted in this agreement, then such rights shall take precedence over the rights and restrictions herein. Fortinet will provide, for a charge reflecting our standard distribution costs, the complete machine-readable copy of the modified software modules. To obtain a complete machine-readable copy, please send your written request, along with a check in the amount of US \$25.00, to General Public License Source Code Request, Fortinet, Inc., 899 Kifer Rd, Sunnyvale, CA 94086 USA. To receive the modified software modules, you must also include the following information: (a) Name, (b) Address, (c) Telephone number, (d) E-mail address, (e) Product purchased (if applicable), (f) Product Serial Number (if applicable). All open source software modules are licensed free of charge. There is no warranty for these modules,

to the extent permitted by applicable law. The copyright holders provide these software modules "AS-IS" without warranty of any kind, either expressed or implied. In no event will the copyright holder for the open source software be liable to you for damages, including any special, incidental or consequential damages arising out of the use or inability to use the software modules, even if such holder has been advised of the possibility of such damages. A full copy of this license, including additional open source software license disclosures and third party license disclosures applicable to certain Fortinet products, may be obtained by contacting Fortinet's Legal Department at legal@fortinet.com.

**GNU GENERAL PUBLIC LICENSE GNU GENERAL PUBLIC LICENSE**

Version 2, June 1991  
Copyright (C) 1989, 1991 Free Software Foundation, Inc.  
59 Temple Place, Suite 330, Boston, MA 02111-1307 USA

**TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION**

This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License. The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law; that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and give any other recipients of the Program a copy of this License along with the Program. You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.  
b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run, you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception: if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it. Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program. In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following:

a) Accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machine-readable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange; or,  
c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

Source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable. If distribution of executable or object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

5. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Program or its derivative works.

These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties to this License.

7. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Program.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system, which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice.

This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.  
8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

9. The Free Software Foundation may publish revised and/or new versions of the General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Program specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.  
12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

**GNU LESSER GENERAL PUBLIC LICENSE**

Version 2.1, February 1999  
Copyright (C) 1991, 1999 Free Software Foundation, Inc.  
59 Temple Place, Suite 330, Boston, MA 02111-1307 USA  
**TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION**

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library. You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library.  
b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change.  
c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License.

d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful.

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it. Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library. In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2 instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy. This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

4. You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange.

If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

5. A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License.

However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables.

When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not.

Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law. If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.) Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

6. As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for your own use and reverse engineering for debugging such modifications. You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License.

If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

a) Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)

b) Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.

c) Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

d) If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.  
e) Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable. It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

7. You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.

8. You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.

9. You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.

10. Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.

11. If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library.

If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances.

It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice. This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

12. If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

13. The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.

14. If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.

15. The warranty disclaimer contained in Sections 11 and 12 of the preceding GPL License is incorporated herein.



