



QUANTUM

20 January 2025

16000 APPLIANCES

QL-15, QL-20, and QP-10

Getting Started Guide



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Important Information



Latest Software

We recommend that you install the most recent software release to stay up-to-date with the latest functional improvements, stability fixes, security enhancements and protection against new and evolving attacks.



Certifications

For third party independent certification of Check Point products, see the [Check Point Certifications page](#).



Check Point 16000 Appliances

For more about this release, see the [home page](#).



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Feedback

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Revision History

Date	Description
11 July 2024	Updated: "Front Panel System LEDs" on page 40
23 February 2022	Rebranding - New Check Point logo

Date	Description
11 November 2020	Updated: • "Appliance Physical Specifications" on page 32 • French and German translations for the Safety, Environmental, and Electronic Emissions Notices section
09 September 2020	Updated "Shipping Carton Contents" on page 30 , regulated models, and "Appliance Physical Specifications" on page 32
10 August 2020	Improved HTML formatting and layout
30 April 2020	Rebranded 16000THS to 16600HS and updates made for the 16200 model
20 January 2020	Updates made for 16000THS - Turbo Hyperscale model
08 December 2019	DRAFT for Declaration of Conformity purposes only - Added BSMI Taiwan information
23 October 2019	Updates made for Base, Plus, and Turbo models
6 June 2019	First release of this document

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Safety, Environmental, and Electronic Emissions Notices

Read the following warnings before setting up or using the appliance.



Warning - Do not block air vents. A minimum 1/2-inch clearance is required.



Warning - Many components described in this document can be damaged by Electrostatic Discharge (ESD). Follow the precautions described here and before specific procedures detailed in the document to protect static-sensitive components from ESD-related damage.



The machine can only be used in a restricted access location and has installation instructions by a skilled person.

Before you install or remove a chassis, or work near power supplies, turn off the power and unplug the power cord.

To prevent damage to any system board, it is important to handle it with care. The following measures are generally sufficient to protect your equipment from static electricity discharge:

- This equipment must be grounded.
- When handling the board, to use a grounded wrist strap designed for static discharge elimination.
- Touch a grounded metal object before removing the board from the antistatic bag.
- Handle the board by its edges only. Do not touch its components, peripheral chips, memory modules or gold contacts.
- When handling processor chips or memory modules, avoid touching their pins or gold edge fingers.
- Restore the communications appliance system board and peripherals back into the antistatic bag when they are not in use or not installed in the chassis. Some circuitry on the system board can continue operating even though the power is switched off.
- Disconnect the system board power supply from its power source before you connect or disconnect cables or install or remove any system board components. Failure to do this can result in personnel injury or equipment damage.

- Avoid short-circuiting the lithium battery; this can cause it to superheat and cause burns if touched.
- Do not operate the processor without a thermal solution. Damage to the processor can occur in seconds.
- Class 1 laser product warning - A totally enclosed laser system containing a class 1 laser.

This device is not intended for use in the direct field of view at visual display workplaces. To avoid incommoding reflexions at visual display workplaces this device must not be placed in the direct field of view.

Lithium Battery Caution

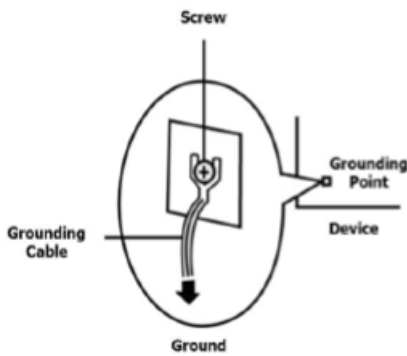
- There is a risk of explosion if battery is replaced by an incorrect type.
- Dispose of used batteries according to the instructions.
- Installation only by a skilled person who knows all Installation and Device Specifications which are to be applied.
- Do not carry the handle of power supplies when moving to another place.
- Please conform to your local laws and regulations regarding safe disposal of lithium battery.
- Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting of a battery in an explosion.
- Leaving a battery in an extremely high temperature surrounding environment can result in an explosion or the leakage of flammable liquid or gas.
- A battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.



Warning - DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

Electrical Safety Instructions

Before turning on the device, ground the grounding cable of the equipment. Proper grounding is very important to protect the equipment against the harmful effects of external noise and to reduce the risk of electrocution in the event of a lightening strike. To uninstall the equipment, disconnect the ground wire after turning off the power. A ground wire is required and the part connecting the conductor must be greater than 6 AWG.



ITE Room Warning

Suitable for installation in Information Technology Rooms in accordance with Article 645 of the National Electrical Code and NFPA 75.

Rack Mount Instructions

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

1. 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 specified by the manufacturer.
2. 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.
3. Mechanical Loading - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
4. 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 over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
5. 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).

For California:

Perchlorate Material - special handling may apply. See <http://www.dtsc.ca.gov/hazardouswaste/perchlorate>

The foregoing notice is provided in accordance with California Code of Regulations Title 22, Division 4.5, Chapter 33. Best Management Practices for Perchlorate Materials. This product, part, or both may include a lithium manganese dioxide battery which contains a perchlorate substance.

Proposition 65 Chemical

Chemicals identified by the State of California, pursuant to the requirements of the California Safe Drinking Water and Toxic Enforcement Act of 1986, California Health & Safety Code s. 25249.5, et seq. ("Proposition 65"), that is "known to the State to cause cancer or reproductive toxicity" (see <http://www.calepa.ca.gov>)

WARNING:

Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. Wash hands after handling.

Caution!

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

This equipment 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.

Caution!

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

Information to user:

The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

CE (European Union (EU) Electromagnetic Compatibility Directive)

This device is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive (2014/30/EU).

The above product conforms with Low Voltage Directive 2014/35/EU and complies with the requirements relating to electrical equipment designed for use within certain voltage limits.

Federal Communications Commission (FCC) statement for a Class A digital device or peripheral

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 in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or tele-

vision reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit that is different from the one to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

ICES (Canadian Department Compliance Statement)

This Class A digital apparatus complies with Canadian ICES-003.

VCCI Compliance Statement

This section provides the compliance statement for the Voluntary Control Council for Interference by Information Technology Equipment (VCCI), which governs radio frequency emissions in Japan.

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用する
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。

VCCI-A



Product Disposal

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office or your household waste disposal service.

Declaration of Conformity

Name and address of the authorized trademark:	Check Point Software Technologies Ltd. 5 Shlomo Kaplan Street, Tel Aviv 6789159, Israel.
Brand name:	Check Point
Marketing models:	16000, 16000T, 16200, 16600HS
Regulated models:	QL-15, QL-20, QP-10
Manufacturer's name:	Check Point Software Technologies Ltd.
Manufacturer's address:	5 Shlomo Kaplan Street, Tel Aviv 6789159, Israel.
Date first applied:	16000, 16000T, 16200 - May 2019 QL-15, QL-20
Date first applied:	16600HS - January 2020 QP-10

The models of the declaration described above have been assessed and found to be in compliance with the following harmonized standards, regulations, and technical references:

Category	Technical Specification	Description
EMC /EMI	CE EN 55032:2015+AC: 2016 Class A EN 61000-3-2: 2014 Class A EN 61000-3-3: 2013 EN 55024: 2010 +A1: 2015 EN 61000-4-2: 2009 EN 61000-4-3: 2006 +A1: 2008 +A2: 2010 EN 61000-4-4: 2012 EN 61000-4-5: 2014 +AC: 2017 EN 61000-4-6: 2014 +AC: 2015 EN 61000-4-8: 2010 EN 61000-4-11: 2004+A1: 2017 EN 55035:2017	Electromagnetic Compatibility, Emissions requirements for inform- ation technology equipment Immunity characteristics. Limits and methods of measurement
EMC /EMI	FCC/IC FCC: FCC Part 15, Subpart B	Information Technology Equipment - Radio Disturbance Characteristics

Category	Technical Specification	Description
	Class A ANSI C63.4-201 ICES-003 Issue 6: 2016(updated April 2017) Class A	
	VCCI VCCI-TECHNICAL REQUIREMENTS (VCCI-CISPR 32: 2016) CISPR 32: 2015 + C1: 2016	Information Technology Equipment - Radio Disturbance Characteristics
	AS/NZS _RCM AS/NZS CISPR 32: 2015 Class A CISPR32:2015+C1: 2016 Class A	Information Technology Equipment - Radio Disturbance Characteristics
Safety	IEC 60950-1:2005/AMD1:2009, IEC 60950-1:2005/AMD2:2013, EN 60950-1:2006 /A11:2009 /A1:2010 /A12:2011/ A2:2013. UL/ULc 62368-1 IEC 62368-1:2014 EN 62368-1:2014/A11:2017.	Information technology equipment. Electrical Safety requirements, LVD
RoHS	EN 50581:2012	Restriction of Hazardous Substances
WEEE	Directive 2012/19/EU	Waste Electrical and Electronic Equip- ment

Date and Place of issue: QL-15, QL-20, May 2019, Tel Aviv, Israel

Date and Place of issue: QP-10, January 2020, Tel-Aviv, Israel

BSMI Taiwan Declaration of Restricted Substances

限用物質含有情況標示聲明書

Declaration of the Presence Condition of the Restricted Substances Marking

證書號碼／受理編號：(No.) 符合性聲明商品
Certificate No./Application No.

商品標籤及商品檢驗標識：(Picture)
Product Label and Commodity Inspection Mark.

樣張及其標示位置：(Description and Picture)
Sample and its location

設備名稱：網路服務器 Equipment name		，型號（型式）： QL-20、QL-15、QL-18 Type designation (Type)				
單元Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr ⁺⁶)	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
印刷電路板 元件 PCBA	—	○	○	○	○	○
內部電源供應 器 POWER SUPPLY	—	○	○	○	○	○
金屬機構件 ME metal part	○	○	○	○	○	○
塑膠機構件 ME plastic part	○	○	○	○	○	○
配件(例：電 源線等) Accessory (cable, etc.)	—	○	○	○	○	○
風扇 FAN	—	○	○	○	○	○
備考1. “超出0.1 wt %” 及 “超出0.01 wt %” 係指限用物質之百分比含量超出百分比含量基準值。 Note 1 : “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition.						
備考2. “○” 係指該項限用物質之百分比含量未超出百分比含量基準值。 Note 2 : “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence.						
備考3. “—” 係指該項限用物質為排除項目。 Note 3 : The “—” indicates that the restricted substance corresponds to the exemption.						

Description	QL-20, QL-15
代理商資訊 <Applicant's information >	報關義務人 申請人: 捷邦安全軟體科技股份有限公司 地址: 臺北市松山區敦化北路205號7樓
甲類警語 <Warning of Class A Equipment>	警告使用者: 這是甲類的資訊產品, 在居住的環境中使用時, 可能會造成射頻干擾, 在這種情況下, 使用者會被要求採取某些適當的對策。
電池警語 <Warning of Battery>	警告: 如果更換不正確之電池形式會有爆炸的風險, 請依製造商說明書處理用過之電池。

Remarques relatives à la sécurité, l'environnement et les émissions électroniques

Avant de mettre en place ou d'utiliser l'appareil, veuillez lire les avertissements suivants.



Avertissement : ne pas obturer les aérations. Il faut laisser au moins 1,27 cm d'espace libre.



Avertissement - Un grand nombre des composants décrits dans ce document peuvent être endommagés par Décharge électrostatique (ESD). Veuillez respecter les précautions décrites ici et avant toute procédure spécifique détaillée dans ce document afin de protéger les composants sensibles à électricité statique contre tout dommage par ESD.



La machine peut uniquement être utilisée dans un endroit dont l'accès est restreint et être installée selon les instructions d'une personne qualifiée.

Avant d'installer ou retirer un châssis ou de travailler à proximité d'alimentations, mettez-le hors tension et débranchez le cordon d'alimentation.

Pour éviter d'endommager les cartes système, il est important de les manipuler avec soin. Les mesures suivantes sont généralement suffisantes pour protéger votre équipement contre les décharges d'électricité statique :

- Cet équipement doit être mis à la terre.
- Avant de manipuler la carte, portez aux poignet un bracelet antistatique relié à la terre.
- Touchez un objet métallique relié à la terre avant d'extraire la carte de son sachet antistatique.
- Ne tenez la carte que par ses bords. Ne touchez aucun composant, puce périphérique, module mémoire ou contact plaqué or.
- Lorsque vous manipulez des processeurs ou des modules mémoire, évitez de toucher leurs broches ou les pistes de contact dorées.
- Remettez dans leur sachet antistatique la carte système et les périphériques de l'appareil de communications lorsqu'ils ne sont pas utilisés ou installés dans le châssis. Certains circuits sur la carte système peuvent rester fonctionnels même si l'appareil est éteint.
- Débrancher l'alimentation de la carte système de sa source électrique avant de connecter ou déconnecter des câbles ou d'installer ou retirer des composants. À défaut, les risques sont

d'endommager l'équipement et de causer des blessures corporelles.

- Ne pas court-circuiter la pile au lithium : elle risque de surchauffer et de causer des brûlures en cas de contact.
- Ne pas faire fonctionner le processeur sans refroidissement. Le processeur peut être endommagé en quelques secondes.
- Produit laser de classe 1 : un système laser totalement clos et contenant un laser de classe 1.

Cet appareil n'est pas prévu pour être utilisé dans le champ de vision direct des personnes occupant un bureau. Pour éviter toute gêne occasionnée par un éventuel reflet, cet appareil ne doit pas être placé dans le champ de vision direct des personnes occupant un bureau.

Mise en garde concernant les batteries au lithium

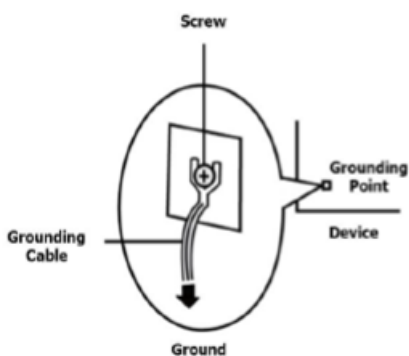
- Un risque d'explosion existe si la batterie est remplacée par une autre de type incorrect.
- Les piles doivent être mises au rebut conformément aux instructions.
- L'installation devra être effectuée uniquement par une personne qualifiée connaissant toutes les Spécifications concernant l'Installation et l'Appareil applicables.
- Ne pas tenir par la poignée d'alimentation lors du transport.
- Veuillez respecter les lois et réglementations locales en matière de mise au rebut sécurisée des piles au lithium.
- Jeter une pile au feu ou dans un four chaud, l'écraser ou la couper peut causer une explosion.
- Laisser une pile dans un environnement de très haute température peut causer une explosion ou la fuite de gaz ou liquide inflammable.
- Laisser une pile dans un environnement de très basse pression peut causer une explosion ou la fuite de gaz ou liquide inflammable.



Avertissement : DANGER D'EXPLOSION SI LA PILE EST MAL REPLACÉE. NE REMPLACER QU'AVEC UN TYPE IDENTIQUE OU ÉQUIVALENT, RECOMMANDÉ PAR LE CONSTRUCTEUR. LES PILES DOIVENT ÊTRE MISES AU REBUT CONFORMÉMENT AUX INSTRUCTIONS DE LEUR FABRICANT.

Instructions de sécurité électrique

Avant d'allumer l'appareil, effectuez la mise à la terre avec le câble de terre. Une mise à la terre correcte est très importante pour protéger l'équipement contre tout bruit externe néfaste et pour réduire le risque d'électrocution en cas de foudre. Pour désinstaller l'équipement, débrancher le câble de terre après avoir coupé le courant. Un câble de terre est obligatoire et la partie reliant le conducteur doit être supérieure à 6 AWG.



Avertissement chambres informatiques

Convient à une installation en Chambre Informatique conformément à l'Article 645 du National Electrical Code et au NFPA 75.

Instructions de montage en rack

Les instructions d'installation sont livrées avec les instructions de montage en rack ci-après (ou similaires) :

1. Fonctionnement à température plus élevée : si l'appareil est installé dans une armoire fermée ou un rack à plusieurs unités, la température du rack en fonctionnement peut être supérieure à la température ambiante de la pièce. Avant d'installer l'équipement, il faut donc s'assurer qu'il sera dans un environnement compatible avec la température ambiante maximale indiquée par le constructeur.
2. Circulation d'air réduite : l'installation dans un rack doit s'assurer de ne pas limiter la circulation de l'air nécessaire au bon fonctionnement de l'équipement.
3. Charge mécanique : lors du montage de l'équipement dans le rack, il faut faire attention à ne pas déséquilibrer l'ensemble. Un rack se remplit en commençant par le bas.
4. Surcharge : pour la connexion de l'équipement au circuit électrique, il faut vérifier les risques de surcharge et les éventuelles conséquences sur la protection contre les surcourants et sur le câblage électrique. Dans ce contexte, il faut tenir compte des informations mentionnées par la plaque technique de l'instrument.
5. Mise à la terre : les équipements montés en rack doivent être en permanence reliés à un terre fiable. Il faut faire particulièrement attention aux branchements qui ne vont pas directement à la source électrique (par exemple des multiprises).

Pour la Californie :

Matériau perchloraté : manipulation spéciale potentiellement requise. Voir <http://www.dtsc.ca.gov/hazardouswaste/perchlorate>

L'avis suivant est fourni conformément au California Code of Regulations, titre 22, division 4.5, chapitre 33. Meilleures pratiques de manipulation des matériaux perchloratés. Ce produit, cette pièce ou les deux peuvent contenir une pile au dioxyde de lithium manganèse, qui contient une substance perchloratée.

Produits chimiques « Proposition 65 »

Les produits chimiques identifiés par l'état de Californie, conformément aux exigences du California Safe Drinking Water and Toxic Enforcement Act of 1986 du California Health & Safety Code s. 25249.5, et seq. (« Proposition 65 »), qui sont « connus par l'état pour être cancérigène ou être toxiques pour la reproduction » (voir <http://www.calepa.ca.gov>)

AVERTISSEMENT :

La manipulation de ce cordon vous expose au contact du plomb, un élément reconnu par l'état de Californie pour être cancérigène, provoquer des malformations à la naissance et autres dommages relatifs à la reproduction. Se laver les mains après toute manipulation.

Attention !

Toute modification non approuvée expressément par la garantie du présent appareil pourrait annuler le droit de l'utilisateur à faire fonctionner l'équipement.

Cet équipement est conforme à la section 15 des réglementations de la FCC. Son fonctionnement est soumis aux deux conditions suivantes : (1) Cet appareil ne doit pas causer d'interférence préjudiciable et (2) Cet appareil doit tolérer toute interférence reçue, y compris celles qui pourraient causer un fonctionnement indésirable.

Attention !

Le fabricant n'est pas responsable des éventuelles interférences radio ou TV dues à des modifications non autorisées du présent équipement. Ces modifications pourraient annuler le droit de l'utilisateur à faire fonctionner l'équipement.

Information à l'intention de l'utilisateur :

Le manuel utilisateur ou le manuel d'instruction d'un dispositif rayonnant (intentionnel ou non) doit avertir que toute modification non approuvée expressément par la partie responsable de la conformité peut annuler le droit de faire fonctionner l'équipement. Si le manuel n'est pas fourni sous forme imprimée (par exemple sur le disque d'un ordinateur ou via Internet), les informations requises par cette section doivent être incluses dans ces versions du manuel, sous réserve que l'utilisateur soit raisonnablement capable d'y accéder.

CE (Directive de l'Union européenne relative à la compatibilité électromagnétique)

Cet appareil est certifié conforme aux exigences de la directive du Conseil concernant le rapprochement des législations des états membres relatives à la directive sur la compatibilité électromagnétique (2014/30/UE).

Le produit ci-dessus est conforme à la directive basse tension 2014/35/UE et satisfait aux exigences relatives aux équipements électriques conçus pour être utilisés dans une certaine plage de tensions.

Déclaration de la Federal Communications Commission (FCC) pour un appareil ou périphérique numérique de classe A

Cet équipement a été testé et déclaré conforme aux limites pour appareils numériques de classe A, selon la section 15 des règlements de la FCC. Ces limitations sont conçues pour fournir une protection

raisonnable contre les interférences nocives dans un environnement résidentiel. Cet appareil génère, et peut diffuser des fréquences radio et, dans le cas d'une installation et d'une utilisation non conformes aux instructions, il peut provoquer des interférences nuisibles aux communications radio. Cependant, il n'existe aucune garantie qu'aucune interférence ne se produira dans le cadre d'une installation particulière. Si cet appareil provoque des interférences avec un récepteur radio ou un téléviseur, ce qui peut être détecté en mettant l'appareil sous et hors tension, l'utilisateur peut essayer d'éliminer les interférences en suivant au moins l'une des procédures suivantes :

- Réorienter ou déplacer l'antenne de réception.
- Augmenter la distance entre l'appareil et le récepteur.
- Brancher l'appareil sur une prise appartenant à un circuit différent de celui sur lequel est branché le récepteur.
- Consulter le distributeur ou un technicien radio/télévision qualifié pour obtenir de l'aide.

ICES (Déclaration de conformité du département canadien)

Cet appareil numérique de catégorie A est conforme à la norme canadienne NMB-003.

Déclaration de conformité VCCI

Cette section présente la déclaration de conformité du Voluntary Control Council for Interference (VCCI) concernant les équipements de technologie de l'information, qui régit les émissions de fréquence radio au Japon.

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用する
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。

VCCI-A



Mise au rebut du produit

Ce symbole apposé sur le produit ou son emballage signifie que le produit ne doit pas être mis au rebut avec les autres déchets ménagers. Il est de votre responsabilité de le porter à un centre de collecte désigné pour le recyclage des équipements électriques et électroniques. Le fait de séparer vos

équipements lors de la mise au rebut, et de les recycler, contribue à préserver les ressources naturelles et s'assure qu'ils sont recyclés d'une façon qui protège la santé de l'homme et l'environnement. Pour obtenir plus d'informations sur les lieux où déposer vos équipements mis au rebut, veuillez contacter votre municipalité ou le service de gestion des déchets.

Sicherheits-, Umwelt- und EMV-Hinweise

Lesen Sie die folgenden Warnhinweise durch, bevor Sie das Gerät einrichten oder verwenden.



Achtung - Halten Sie die Belüftungsöffnungen frei. Es ist ein Mindestabstand von 1,3 cm einzuhalten.



Achtung - Viele in diesem Dokument beschriebene Komponenten können durch elektrostatische Entladung (ESD) beschädigt werden. Befolgen Sie die hier beschriebenen Vorsichtsmaßnahmen und vor bestimmten Verfahren, die in dem Dokument beschrieben werden, um elektrostatisch empfindliche Komponenten vor ESD-bedingten Schäden zu schützen.



Das Gerät darf nur an einem Ort mit beschränktem Zugang verwendet werden und muss von einer fachkundigen Person installiert werden.

Bevor Sie ein Gehäuse aufsetzen oder entfernen oder in der Nähe einer Stromquelle arbeiten, schalten Sie den Strom aus und ziehen Sie das Netzkabel ab.

Um Beschädigungen der Systemplatine zu vermeiden, müssen Sie diese mit Vorsicht behandeln. Die folgenden Maßnahmen sind im Allgemeinen ausreichend, um Ihre Geräte vor statischen Entladungen zu schützen:

- Dieses Gerät muss geerdet werden.
- Tragen Sie beim Umgang mit der Platine eine Erdungsmanschette, die zum Neutralisieren statischer Ladungen ausgelegt wurde.
- Fassen Sie vor dem Entnehmen der Platine aus der antistatischen Verpackung einen geerdeten Metallgegenstand an.
- Berühren Sie die Platine nur an den Kanten. Berühren Sie keine Komponenten der Platine, Peripheriebaugruppen, Speichermodule oder goldenen Kontakte.
- Vermeiden Sie beim Umgang mit Prozessoren und Speichermodulen, deren Kontaktstifte oder goldenen Kanten mit den Fingern zu berühren.
- Verwahren Sie die Systemplatine des Kommunikationsgeräts und die Peripheriemodule wieder in der antistatischen Verpackung, wenn sie nicht benutzt oder in das Gehäuse eingebaut werden. Einige Schaltkreise auf der Systemplatine bleiben möglicherweise auch nach dem Ausschalten der Stromversorgung in Betrieb.

- Trennen Sie das Netzteil der Systemplatine von der Stromversorgung, bevor Sie Kabel anschließen oder trennen oder Systemplatinenkomponenten installieren oder entfernen. Bei Zuwiderhandeln besteht Verletzungsgefahr und die Gefahr von Sachschäden am Gerät.
- Vermeiden Sie einen Kurzschluss der Lithiumbatterie. Sie könnte sonst überhitzen und bei Berührung Verbrennungen verursachen.
- Prozessor nicht ohne eine Kühlvorrichtung in Betrieb nehmen. Der Prozessor kann innerhalb weniger Sekunden Schaden nehmen.
- Laserproduktwarnung Klasse 1 - Dieses vollständig geschlossene Lasersystem enthält einen Laser der Klasse 1.

Das Gerät ist nicht zur Verwendung im direkten Blickfeld von Arbeitsplätzen mit visueller Anzeige vorgesehen. Um störende Reflexionen an Arbeitsplätzen mit visueller Anzeige zu vermeiden, darf das Gerät nicht im direkten Blickfeld platziert werden.

Sicherheitshinweise Lithiumbatterien

- Es besteht Explosionsgefahr, wenn die Batterie durch einen falschen Typ ersetzt wird.
- Entsorgen Sie gebrauchte Batterien gemäß den Anweisungen.
- Installation nur durch eine fachkundige Person, die alle einzuhaltenden Installations- und Gerätespezifikationen kennt.
- Tragen Sie das Gerät nicht am Griff der Stromversorgung, wenn Sie es an einen anderen Ort bringen.
- Bitte beachten Sie die örtlichen Gesetze und Vorschriften zur sicheren Entsorgung von Lithiumbatterien.
- Die Entsorgung einer Batterie in Feuer oder einem heißen Ofen oder die mechanische Zerkleinerung oder das Zerschneiden einer Batterie kann zu einer Explosion führen.
- Das Aufbewahren einer Batterie in einer Umgebung mit extrem hohen Temperaturen kann zu einer Explosion oder zum Auslaufen von entflammbarer Flüssigkeit oder Gas führen.
- Eine extrem niedrigem Luftdruck ausgesetzte Batterie kann zu einer Explosion oder zum Auslaufen von entflammbarer Flüssigkeit oder Gas führen.

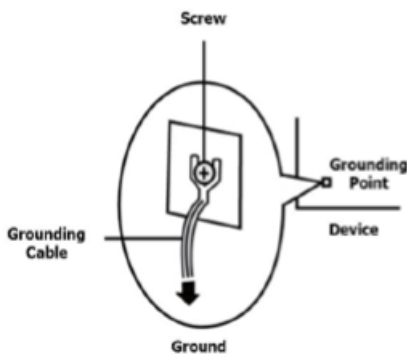


Achtung - WENN DIE BATTERIE NICHT ORDNUNGSGEMÄSS AUSGETAUSCHT WIRD, BESTEHT EXPLOSIONSGEFAHR. NUR GEGEN EINE GLEICHE BATTERIE ODER EINEN GLEICHWERTIGEN BATTERIETYP GEMÄSS HERSTELLEREMPFEHLUNG AUSTAUSCHEN. GEBRAUCHTE BATTERIEN SIND DEN HERSTELLERANWEISUNGEN ENTSPRECHEND ZU ENTSORGEN.

Sicherheitshinweise Elektrik

Erden Sie vor dem Einschalten des Geräts das Erdungskabel des Geräts. Eine ordnungsgemäße Erdung ist sehr wichtig, um die Geräte vor den schädlichen Auswirkungen von externem Rauschen zu schützen und das Risiko eines Stromschlags im Falle eines Blitzeinschlags zu verringern. Um das Gerät zu deinstallieren, trennen Sie den Erdungsdraht nach dem Ausschalten der Stromversorgung ab.

Ein Erdungsdraht ist erforderlich, und der Teil, der den Leiter verbindet, muss größer als 6 AWG sein.



Warnung IT-Raum

Geeignet für die Installation in IT-Räumen in Übereinstimmung mit Artikel 645 des National Electrical Code und NFPA 75.

Anweisungen zur Rackmontage

Die folgenden oder ähnliche Anweisungen zur Rackmontage sind in den Installationsanweisungen enthalten:

1. Erhöhte Betriebstemperatur - Bei Installation in einer geschlossenen oder Mehrfachgeräte-Rack-Baugruppe kann die Betriebsumgebungstemperatur der Rackumgebung höher als die Raumtemperatur sein. Deshalb sollte darauf geachtet werden, das Gerät in einer Umgebung zu installieren, die kompatibel zu der vom Hersteller angegebenen maximalen Umgebungstemperatur ist.
2. Reduzierter Luftstrom - Die Installation des Geräts in einem Rack sollte so erfolgen, dass die Luftstrommenge, die für den sicheren Betrieb des Geräts erforderlich ist, nicht beeinträchtigt wird.
3. Mechanische Belastung - Die Montage des Geräts im Rack sollte so erfolgen, dass bei einer ungleichmäßigen mechanischen Belastung keine gefährliche Betriebsbedingung entstehen kann.
4. Stromkreisüberlastung - Der Anschluss des Geräts an den Speisestromkreis und die Wirkung, die ein Überlasten der Stromkreise auf das Überstromschutz-Gerät und die Speisestromkreisverkabelung haben kann, sollten sorgfältig geprüft und berücksichtigt werden. Beim Berücksichtigen dieses Aspekts sollten die Lastangaben auf dem Leistungsschild des Geräts sorgfältig geprüft werden.
5. Zuverlässige Erdung - Ausrüstung, die in Racks montiert ist, muss zuverlässig geerdet sein. Besonders müssen hierbei die Stromanschlussleitungen und weniger die direkten Verbindungen zum Abzweigstromkreis beachtet werden (z. B. durch die Verwendung von Adapterleisten).

Für Kalifornien:

Perchlorate - möglicherweise ist eine spezielle Handhabung erforderlich. Siehe <http://www.dtsc.ca.gov/hazardouswaste/perchlorate>

Der vorangestellte Hinweis erfolgt in Übereinstimmung mit dem California Code of Regulations Title 22, Division 4.5, Chapter 33. Bewährte Praktiken für den Umgang mit Perchloraten. Dieses Produkt oder Bestandteile dieses Produkts enthalten möglicherweise eine Lithium-Mangandioxid-Batterie, in der Perchlorate enthalten sind.

Proposition 65-Chemikalie

Chemikalien, die vom Bundesstaat Kalifornien laut den Anforderungen des California Safe Drinking Water and Toxic Enforcement Act of 1986, California Health & Safety Code s. 25249.5 ff. („Proposition 65“) als „nach Kenntnis der Regierung krebserregend oder reproduktionstoxisch“ ausgewiesen sind (siehe <http://www.calepa.ca.gov>)

ACHTUNG:

Beim Umgang mit dem Kabel an diesem Produkt kommen Sie mit Blei in Kontakt. Diese Chemikalie ist dem Bundesstaat Kalifornien als Verursacher von Krebs, Geburtsschäden oder anderen Fortpflanzungsschäden bekannt. Nach der Berührung die Hände waschen.

Vorsicht!

Sämtliche Änderungen oder Modifikationen, die nicht ausdrücklich in der Garantieerklärung dieses Geräts gestattet werden, führen möglicherweise zum Erlöschen der Betriebserlaubnis des Benutzers.

Dieses Gerät ist mit Part 15 der FCC Rules konform. Der Betrieb ist unter den folgenden zwei Bedingungen zulässig: (1) Das Gerät darf keine schädlichen Interferenzen verursachen und (2) das Gerät muss jede Art von Interferenz, selbst wenn diese Betriebsstörungen verursachen können, tolerieren können.

Vorsicht!

Der Hersteller übernimmt keine Verantwortung für Radio- oder Fernsehstörungen, die durch nicht genehmigte Modifikationen des Geräts auftreten. Derartige Modifikationen könnten zum Erlöschen der Betriebserlaubnis des Benutzers führen.

Informationen für den Benutzer:

Das Betriebshandbuch oder die Bedienungsanleitung eines Geräts mit beabsichtigter oder nicht beabsichtigter Strahlungsquelle muss einen Warnhinweis für den Benutzer enthalten, dass Änderungen oder Modifikationen, die nicht ausdrücklich von der für die Normenkonformität zuständigen Partei gestattet werden, möglicherweise zum Erlöschen der Betriebserlaubnis des Benutzers führen. Sofern das Handbuch nur in einer papierlosen Form, z. B. auf einer CD-ROM oder über das Internet, bereitgestellt wird, können die diesem Abschnitt zufolge erforderlichen Informationen in dieser alternativen Form in das Handbuch aufgenommen werden, sofern angemessen davon ausgegangen werden kann, dass der Benutzer auf die Informationen in dieser Form zugreifen kann.

CE (Richtlinie der Europäischen Union (EU) bezüglich elektromagnetischer Verträglichkeit)

Hiermit wird erklärt, dass dieses Gerät mit den Auflagen der Richtlinie des Europäischen Rates bezüglich der Angleichung der Rechtsvorschriften der Mitgliedstaaten im Hinblick auf die Richtlinie über elektromagnetische Verträglichkeit (2014/30/EU) konform ist.

Das genannte Produkt ist mit der Niederspannungsrichtlinie (2014/35/EU) konform und erfüllt die Auflagen betreffend elektrische Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen.

Erklärung gemäß Federal Communications Commission (FCC) für ein digitales Gerät oder Peripheriegerät der Klasse A

Dieses Gerät wurde geprüft und als mit den ein digitales Gerät der Klasse A gemäß Part 15 der FCC Rules geltenden Grenzwerten konform befunden. Die Grenzwerte sollen einen angemessenen Schutz gegen schädliche Interferenzen durch Anlagen in Wohnräumen bieten. Dieses Gerät generiert und verwendet Hochfrequenzenergie, kann Hochfrequenzenergie abstrahlen und, wenn es nicht gemäß den Anweisungen installiert und verwendet wird, Störungen in der Funkkommunikation verursachen. Es wird jedoch nicht garantiert, dass bei einer bestimmten Installation keine Störungen auftreten. Wenn dieses Gerät den Radio- oder Fernsehempfang stört, was durch Aus- und Einschalten des Geräts festgestellt werden kann, sollte der Benutzer versuchen, die Störung durch eine oder mehrere der folgenden Maßnahmen zu beheben:

- Neuausrichten oder Umpositionieren der Empfangsantenne.
- Vergrößern des Abstands zwischen Gerät und Empfänger.
- Anschließen des Geräts an einen anderen Stromkreis als den, an den der Empfänger angeschlossen ist.
- Lassen Sie sich vom Händler oder einem erfahrenen Radio- bzw. Fernstechniker beraten.

ICES (Konformitätserklärung Kanada)

Dieses digitale Gerät der Klasse A ist mit der kanadischen Richtlinie ICES-003 konform.

VCCI-Konformitätserklärung

Dieser Absatz umfasst die Konformitätserklärung für den Voluntary Control Council for Interference by Information Technology Equipment (VCCI), der die Funkwellenemissionen in Japan regelt.

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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。

VCCI-A



Produktentsorgung

Dieses Symbol auf dem Produkt oder dessen Verpackung gibt an, dass dieses Produkt nicht zusammen mit dem Hausmüll entsorgt werden darf. Es obliegt Ihrer Verantwortung, das Gerät an einer entsprechenden Stelle für die Entsorgung oder Wiederverwertung von Elektrogeräten aller Art abzugeben. Die separate Sammlung und das Recyceln Ihrer alten Elektrogeräte zum Zeitpunkt ihrer Entsorgung trägt zum Schutz der natürlichen Ressourcen bei und gewährleistet, dass Sie auf eine Art und Weise verwertet werden, die keine Gefährdung für die Gesundheit von Mensch und Umwelt darstellt. Weitere Informationen darüber, wo Sie alte Elektrogeräte zum Recyceln abgeben können, erhalten Sie bei den örtlichen Behörden oder dem für Sie zuständigen Abfallwirtschaftsunternehmen.

Introduction

Welcome

Congratulations on your new 16000 appliance. We hope that you will be satisfied with this Security Gateway and our support services. Check Point products provide your business with the most up to date and secure solutions available today.

Check Point also delivers worldwide technical services including educational, professional and support services through a network of Authorized Training Centers, Certified Support Partners and Check Point technical support personnel to ensure that you get the most out of your security investment.

For additional information on the Internet Security Product Suite and other security solutions, refer to the Check Point [web site](#), or call Check Point at 1(800) 429-4391. For additional technical information about Check Point products, consult the [Check Point Support Center](#).

Welcome to the Check Point family. We look forward to meeting all of your current and future network, application and management security needs.

16000 Appliances Overview

Check Point Appliances pioneer Gen V Cyber Security equipped with Intel's latest multi-core technologies, increased encrypted traffic inspection performance, and lightning fast networking technologies - all optimized to provide the highest security effectiveness and performance for mid to large size enterprise security networks.

Strengthening Check Point Infinity Architecture, the new 16000/16200 series appliances deliver consolidation and security across any network, cloud, and mobile environment with full threat visibility and control.

Ready to battle any threat, from small to the fifth generation large scale and multi-vector attacks, our Security Gateways provide superior threat prevention and a unified security management. Check Point 16000/16200 Next Generation Firewalls combine the most comprehensive protections with data center-grade security and hardware to maximize uptime and performance for securing large enterprise and data center environments.

The Check Point 16000 series comes with a first year subscription to the full SandBlast Prevention suite

The latest 16600 Hyperscale model enables superior performance in the Maestro Hyperscale Orchestrator system in consolidated 1U form-factor and true 100 GbE connectivity.

Security Appliance	In This Document
16600 Hyperscale Security Appliances (1U)	16600HS
16000 Base/Plus/Turbo Appliances (2U)	16000 when referring to all Base, Plus, and Turbo models (when necessary the model

Security Appliance	In This Document
	type is specified)
16200 Base/Plus Appliances (2U)	16200 when referring to both Base and Plus models (when necessary the model type is specified)

Shipping Carton Contents

This section describes the contents of the shipping carton.

Item	Description	Description	Description
Appliance	16000 Turbo/Plus 16200 Plus	16000 Base 16200 Base	16600HS
Cables and Adapters	• 2 power cables • 2 PSU restraints • 1 RJ45 network cable • 1 RJ45 console cable • 1 RJ45 loopback adapter • 1 Fiber loopback adapter • 1 USB Type-C cable • 8 SFP+ 1G/10G Transceiver	• 2 power cables - 16000 Base 1 power cable - 16200 Base • 2 PSU restraints • 1 RJ45 network cable • 1 RJ45 console cable • 1 RJ45 loopback adapter • 1 Fiber loopback adapter • 1 USB Type-C cable	• 2 power cables • 2 PSU restraints • 1 RJ45 network cable • 1 RJ45 console cable • 1 RJ45 loopback adapter • 1 USB Type-C cable • 2 DAC-100G-3M cables (in a separate package)
Rack Mounting	• Telescopic rails • Rack mounting screws • Ear bracket kit and screws		
Documentation	• Quick Start Guide • Installing the Telescopic Rails Guide • Software License Agreement (EULA) • Image Management Guide (only applicable if the software image contains more than one release)		

Terminology

The following terms are used in this guide:

- **Security Gateway:** The security engine that enforces the organization's Security Policy and acts as a security enforcement point.
- **Security Policy:** The policy created by the system administrator that regulates the flow of incoming and outgoing communication.
- **Security Management Server:** The server used by the system administrator to manage the Security Policy. The organization's databases and Security Policies are stored on the Security Management Server and downloaded to the Security Gateway.
- **SmartConsole:** GUI applications that are used to manage various aspects of Security Policy enforcement.
- **SmartDashboard:** A Legacy SmartConsole GUI application that is used by the system administrator to create and manage specific settings for some Software Blades.
- **Locally Managed Deployment:** When all Check Point components responsible for both the management and enforcement of the Security Policy (the Security Management Server and the Security Gateway) are installed on the same machine.
- **Centrally Managed Deployment:** When the Security Gateway and the Security Management Server are installed on separate machines.

Mounting the 16000 Appliances in a Rack

You can install your 16000/16200/16600HS appliance with the Telescopic Rails hardware. For the procedure, see the .

Appliance Physical Specifications

These are the physical specifications of the Check Point appliance.

Appliance	Regulated Models	Width	Depth	Height	Maximum Operating Temperature	Electrical Specifications
16600HS	QP-10	17.40 in (44.2 cm)	24.01 in (61.0 cm)	1.73 in (4.4 cm) (1U)	32°F - 104°F 0°C - 40°C	100V(10A)- 240V(5A) 47-63HZ
16000 Base/Plus	QL-15	17.40 in (44.2 cm)	24.01 in (61.0 cm)	3.46 in (8.8 cm) (2U)	32°F - 104°F 0°C - 40°C	100V(13.8A)- 240V(8.5A) 47-63HZ
16000 Turbo 16200	QL-20	17.40 in (44.2 cm)	24.01 in (61.0 cm)	3.46 in (8.8 cm) (2U)	32°F - 104°F 0°C - 40°C	100V(13.8A)- 240V(8.5A) 47-63HZ

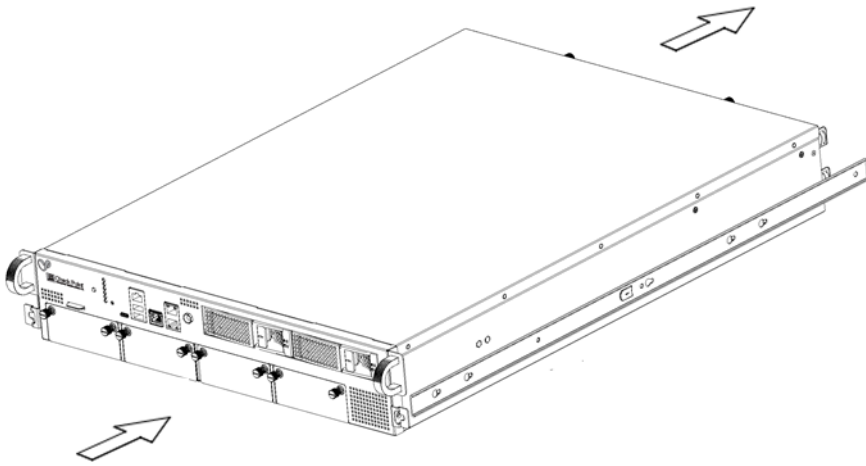
Appliance Air Vents

Make sure that the appliance air vents have sufficient airflow from front to rear when the appliance is mounted in a rack.



Important - If the appliance vents are blocked, the appliance can become too hot and it can be damaged.

The appliance and rack rails have been tested in extreme conditions and do not block air flow to the appliance. These appliances are specifically designed to install with these rails.



Configuring 16000 Appliances

Connecting to the Appliance CLI

You can configure advanced options in Gaia from the Gaia Portal or the CLI.

To connect to the command line interface of the appliances, use one of these:

- An SSH connection to the management interface (if SSHD is configured).
- A serial console cable and terminal emulation software, such as PuTTY (from Windows) or Minicom (from Unix/Linux).

The appliances support these serial console connectivity options:

- USB type-C - Using the included USB type-C console cable
- RJ45 - Using the included DB9 DTE to RJ45 serial console cable

Connection parameters for the appliances are: 9600bps, 8 bits, no parity, 1 stop bit (8N1), Flow Control - None.

If you use both the USB type-C and RJ45 console ports, the USB type-C port has priority. To use the RJ45 port, disconnect the USB type-C console cable.

When you finish using the RJ45 port, reconnect the mini USB console cable.



Note - To use the USB type-C console port, a driver must be installed on the console client machine (desktop/laptop). For installation instructions and the download link, see the appliance [home page](#).

Starting the Appliance

Connect the appliance to a power source and turn on the appliance. When the appliance is ready, you can do the First Time Configuration Wizard to configure it.

To start the appliance:

Connect the power cables to the power supply units in the rear panel.

The appliance turns on.



Note - When one of the power supply unit cords is not connected to the outlet, an alarm sounds continuously. If you hear the alarm, reconnect the cord to the outlet.

To turn off the alarm, press the red **Alarm off** button on the rear panel of the appliance.

Available Software Images

The appliances come with different software images. See the appliance [home page](#).

Reverting to a software image takes a few minutes. To follow progress and see when the appliance is ready, connect to the appliance using a serial console.

Synchronizing RAID

All 16000/16200 appliances support two storage devices, excluding 16600HS.

In appliances that use two storage devices, RAID1 mirroring across both storage devices is used. This lets the appliance continue to work if there is a storage device failure.

The mirror rebuild is automatic. Both storage devices must be the same type.

First Boot Up

At first boot up, wait for up to six hours to let the storage devices fully synchronize. If you reboot the appliance before the storage devices are synchronized, the synchronization starts again from scratch at the next boot.

To monitor the RAID status of the storage devices from the CLI:

1. Connect to the command line on the appliance.
2. Log in to Gaia Clish or the Expert mode.
3. Run this command to monitor the RAID status of the storage devices:

```
raid_diagnostic
```

This command shows data about the RAID and storage devices, with the percent of synchronization done.

DiskID 0 is the left storage device. DiskID 1 is the right storage device.

After the first boot and after you replace a second storage device, the RAID state (in the VolumeID line) shows **DEGRADED** (this indicates that the drives are not synchronized). The DiskID:0 state shows **ONLINE** and the DiskID:1 state shows **INITIALIZING**.

After the RAID is synchronized, the RAID state (in the VolumeID line) shows **OPTIMAL** (this indicates that the drives are synchronized). The DiskID:0 and DiskID:1 states show **ONLINE**.

This example shows that the storage devices are fully synchronized (disk sizes and vendor may vary):

```
MyAppliance> raid_diagnostic

Raid status:
VolumeID:0 RaidLevel: RAID-1 NumberOfDisks:2 RaidSize:931GB State:OPTIMAL Flags:ENAB
DiskID:0 DiskNumber:0 Vendor:ATA ProductID:ST1000NM0008-2F2 Revision:SN02 Size:
DiskID:1 DiskNumber:1 Vendor:ATA ProductID:ST1000NM0008-2F2 Revision:SN02 Size:
```

To monitor the RAID status of the storage devices from the Gaia Portal:

1. Log in to the Gaia Portal.
2. From the left tree, click Maintenance > RAID Monitoring.

To monitor the RAID status of the storage devices from SmartConsole:

1. From Gateways & Servers, select the object that represents the appliance.
2. In the Summary tab, click Device Information.
3. Click RAID Volumes.

The window shows volume and disk information.

To monitor the RAID status of the storage devices using SNMP:

Set up SNMP traps to send information about the RAID.

Use OID: 1.3.6.1.4.1.2620.1.6.7.7

For more about how to configure the SNMP settings on the appliance, see the *Gaia Administration Guide* for the applicable version.

To hot swap a storage device:



Important - Make sure that there is at least one fully synchronized storage device in the system.

1. When the system is up, remove the failed storage device.
2. Wait 15 seconds.

The appliance recognizes that you removed a storage device.

3. Insert a new storage device. If necessary, you can reboot the appliance with one storage device and install the new storage device later.

The system automatically adds the new storage device to the RAID configuration.

Initial Configuration

Configure the appliance with the First Time Configuration Wizard. See the *Installation and Upgrade Guide* for your software version.

Go to the *Installing Security Gateways on Appliances* section, and see the instructions to use the First Time Configuration Wizard.

Creating the Network Object

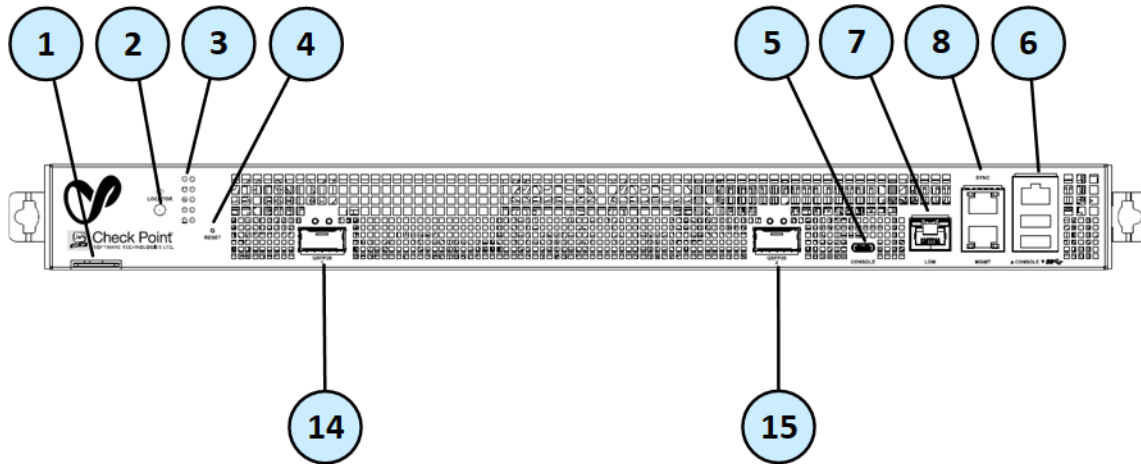
Configure a Security Gateway object on the Management Server:

1. Connect with SmartConsole to the Management Server.
2. Configure a new Security Gateway object for the appliance.
3. Enter the IP address for the appliance.
4. Create Secure Internal Communication (SIC) between the Security Gateway and the Management Server. Enter the activation key you used in the First Time Configuration Wizard.
5. Configure the topology.
6. Configure and install the Security Policy.

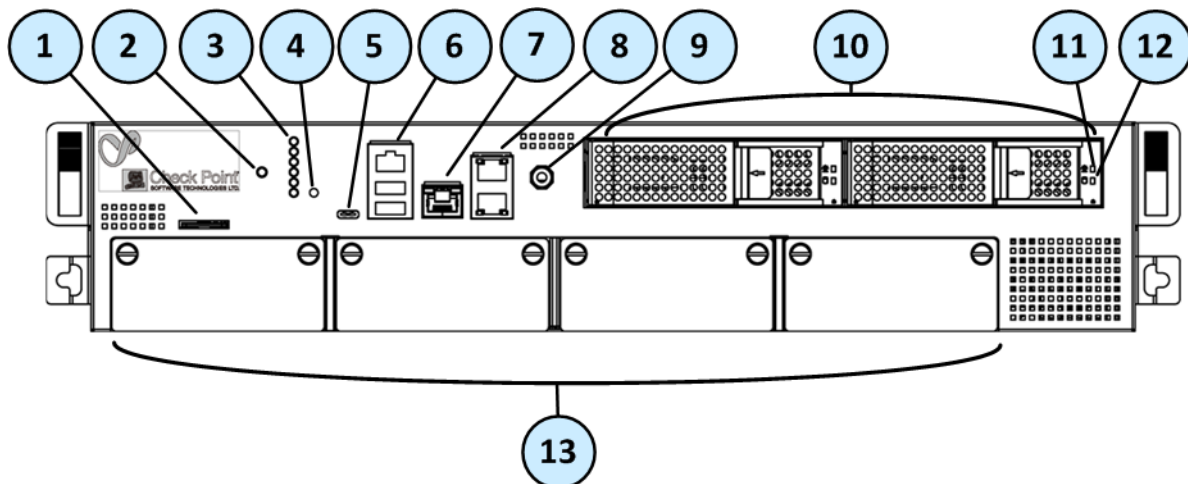
16000 Appliances Hardware

Front Panel

16600HS



16000/16200

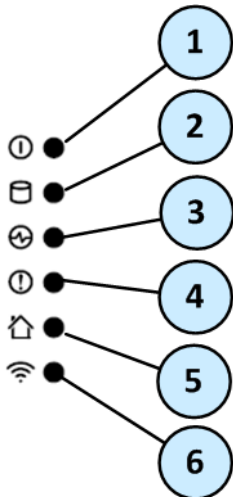


Item	Component	Description
1	Service tag	A slide out card that identifies the appliance and shows its serial number and MAC address.
2	Locator button	Turns the location beacon LED on and off in the appliance.
3	System LEDs	See the "Front Panel System LEDs" section below.
4	Reset	Insert a pin for 5 to 8 seconds to perform a hardware reset.
5	USB Type-C port	For a serial connection to the appliance.

Item	Component	Description
6	RJ45 Console port and 2 USB 3.0 ports	RJ45 port for a serial connection to the appliance. The USB 3.0 ports are backwards compatible to USB 2.0.
7	LOM port	LOM (Lights Out Management) port to connect to the LOM card. Note- In 16000/16200 Base appliances, LOM is optional by default.
8	Management and Synchronization ports	The top synchronization port synchronizes with cluster members or a High Availability peer. The bottom management port is for an Ethernet connection to a remote management computer.
9	ESD grounding point	When servicing the appliance, connect an ESD strap to this point.
10	2 Storage devices	When monitoring the storage devices with the <code>raid_diagnostic</code> command, <code>DiskID 0</code> is the left storage device, and <code>DiskID 1</code> is the right storage device (numbered 1 and 2 on the appliance's chassis). Note - 16000/16200 Base appliances are supplied with one storage device by default.
11	Storage device power LED	- Off - Storage device power is off - On (Green) - Storage device power is on
12	Storage device activity LED	- Off - No storage device activity - On (Amber) - Storage device activity
13	4 Expansion line cards	4 expansion slots. The slots from left to right are assigned eth1-0X, eth2-0X, eth3-0X, and eth4-0X in the OS.
14	QSFP28 port 1	10/25/40/100 GbE QSFP28 port assigned eth1 in the OS.
15	QSFP28 port 2	10/25/40/100 GbE QSFP28 port assigned eth2 in the OS. - Link speed LED - Off - On (Blue) - 10/25/40 Gbit/s data rate is selected - On (Green) - 100 Gbit/s data rate is selected

Item	Component	Description
		- Port activity LED - Off - No activity - On (Amber) - Link exists - Blinking (Amber) - Activity

Front Panel System LEDs

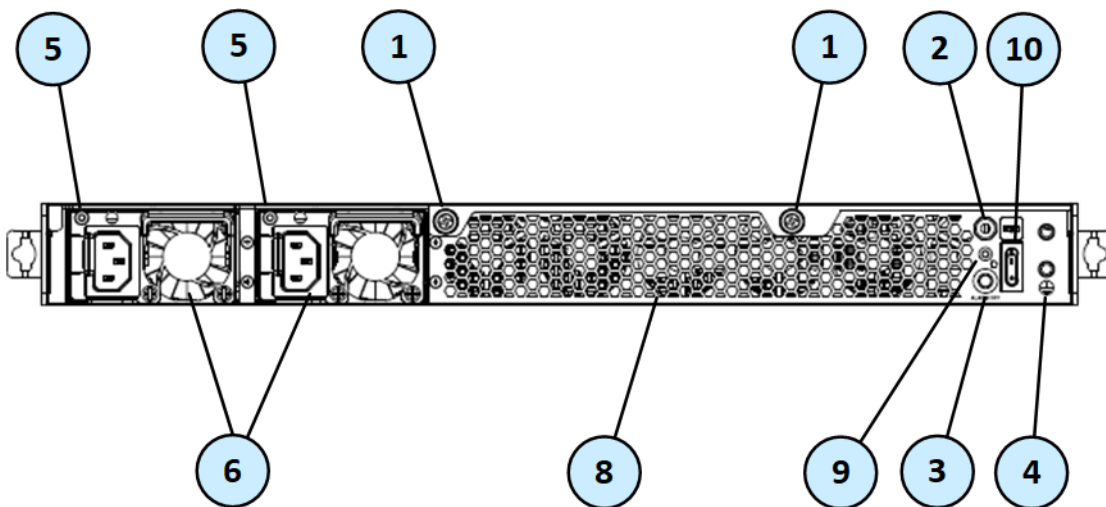


Item	Icon	Component	Description
1	ⓘ	System power	- Off - System power off - On (Green) - System power on
2	🗄️	Storage device activity	- Off - No storage device activity - On (Amber) - Read/write activity
3	⚡	Power supply status	- Off - No power/no status - Amber - Power supply fault detected - Green - All power supplies are functioning correctly
4	⚠️	Alert	- Off - No faults detected - Blinking red - System fault detected

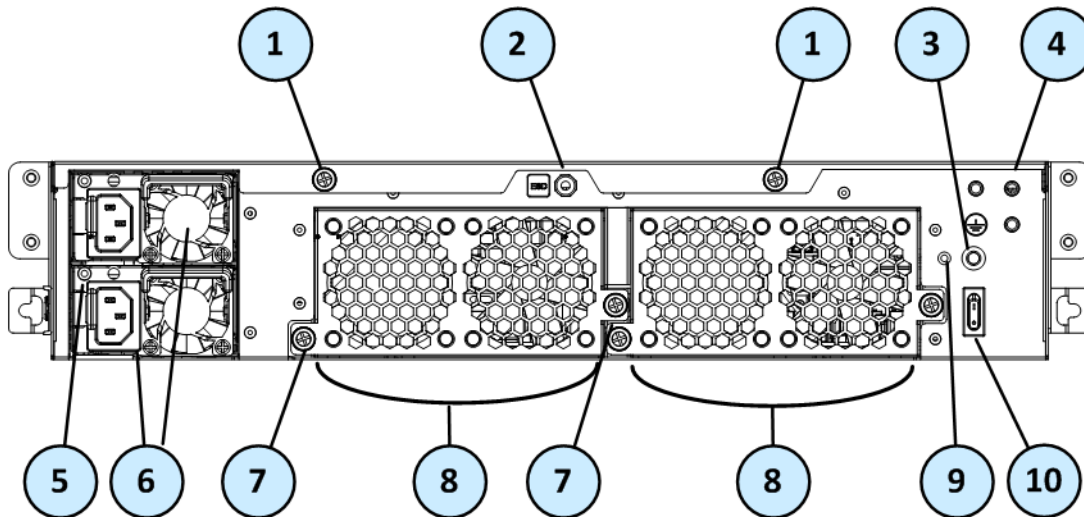
Item	Icon	Component	Description
5		Location beacon	• Off - Location beacon is turned off • Blinking blue - Location beacon is turned on through the Gaia Portal or Gaia Clish • Solid blue - Location beacon is turned on through the Locator button You can turn on / off the Location Beacon LED in these ways: • With the button on the front panel • With this Gaia Clish command: <code>set lcd location {on off}</code>
6		WiFi	Not supported

Rear Panel

16600HS



16000/16200

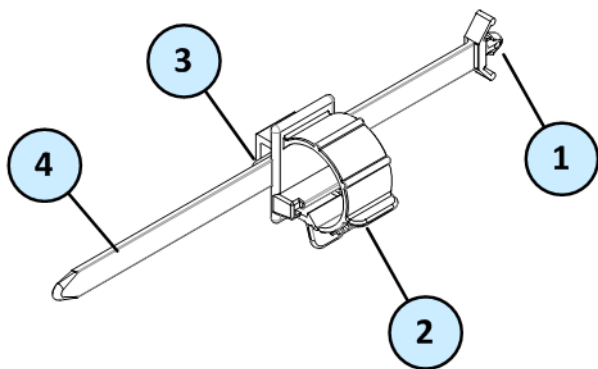


Item	Component	Description
1	Cover screws	Loosen screws to remove the cover of the appliance.
2	ESD ground- ing point	When servicing the appliance, connect an ESD strap to this point.
3	Alarm Off but- ton for power supply units	If a power supply cable is not connected to the outlet, an alarm sounds continuously. Press this button to turn off the alarm. Note that this button is functional immediately after powering up the appliance.
4	Grounding lugs	Used to connect grounding.
5	LED indicator for each power supply unit	• Off - No power cord is connected to any of the PSUs in the system • Green - System on • Blinking green - Power cords are connected to all PSUs, but system is off • Amber - No power cord is connected to the PSU, but other PSUs in the system have a power cord connected • Blinking amber - Warning about a hardware issue (high temperature, high power, high current, slow fan) might lead to an issue with the PSU • Blinking fast green - PSU in Firmware update
6	Power supply	Dual redundant power supplies that you can hot swap. Each

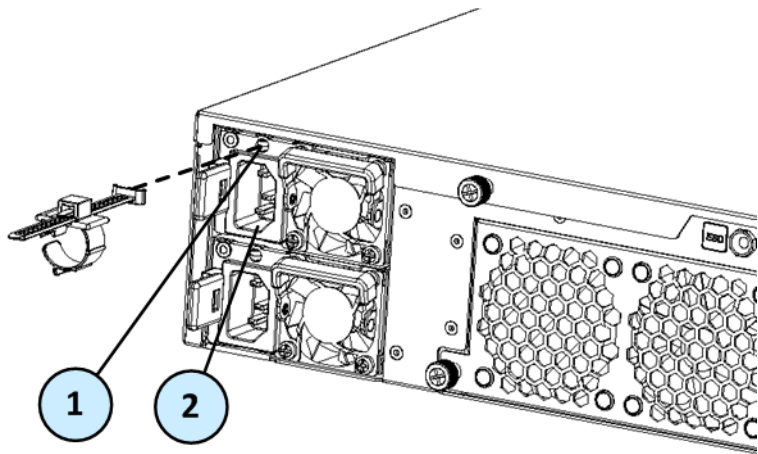
Item	Component	Description
	units	power supply unit connects to an electric outlet. You can use the cable restraints to avoid accidental removal of the power supply cable. In 16000/16200 appliances - The PSUs are numbered from top to bottom in the OS as Power Supply #1 and Power Supply #2. In 16600HS appliances - The PSUs are numbered from left to right in the OS as Power Supply #1 and Power Supply #2. Note - 16000/16200 Base appliances that use AC PSUs, contain one AC PSU and one dummy filler. See "PSU Configuration and Monitoring" on page 47.
7	Thumb screws for cooling fan unit	Loosen screws to remove cooling fan unit from the appliance.
8	Cooling fan units	Numbered from right to left: 1, 2, 3, 4.
9	Location LED	• Off - Location beacon is turned off • Blinking blue - Location beacon is turned on through the Gaia Portal or Gaia Clish • Solid blue - Location beacon is turned on through the Locator button Note - Turn off the Location LED the same way you turned it on.
10	Main power switch	When the appliance is turned off, turns the appliance on. When the appliance is turned on, pressing and releasing the switch will start an orderly shutdown process. Alternatively, holding the switch for 4 seconds will force a machine shut down.

Installing the Power Cable Restraint

You can use the power cable restraint to prevent accidental removal of the power cable.



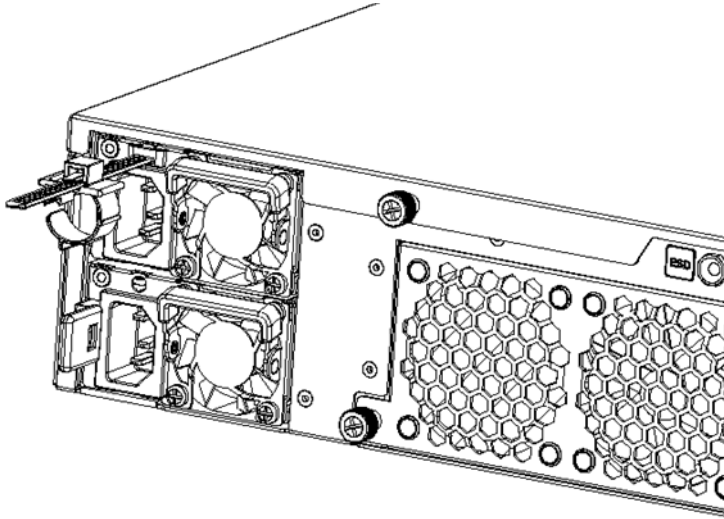
Item	Description
1	Restraint anchor
2	Cable loop
3	Restraint strip tab
4	Restraint strip



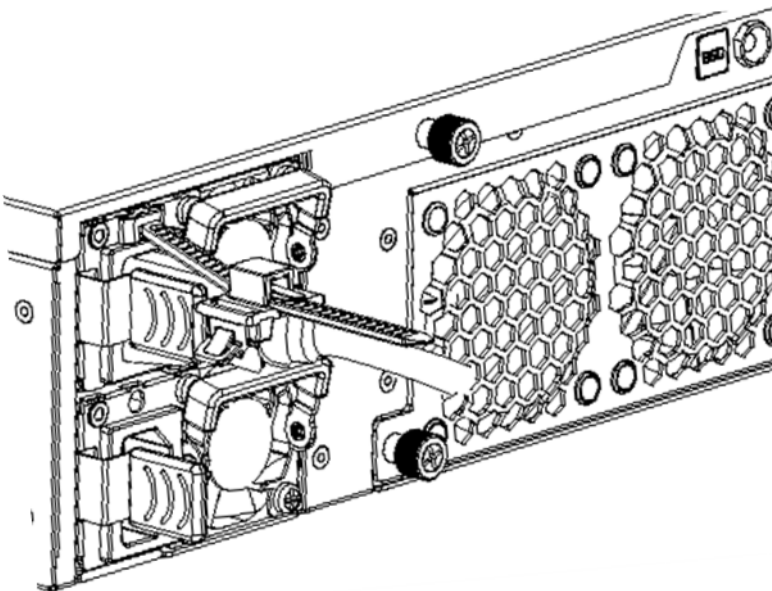
Item	Description
1	Restraint strip slot
2	Power supply inlet

To install the power cable restraint:

1. If a power cable is connected to the power supply inlet, disconnect it.
2. Find the restraint strip slot on top of the power supply inlet.
3. Make sure that the cable loop on the restraint faces the power supply inlet.
4. Insert the restraint strip anchor into the slot until it snaps and locks.



5. Connect the power cable to the power supply inlet.
6. Pull the restraint tab to the side to move the cable loop on the restraint strip.
7. Move the cable loop until you can put it around the power cable as shown in the next figure.
8. Insert the open side of the cable loop into the loop slot until it is tight against the power cable.
9. Make sure the cable loop is secured and the power cable cannot be removed.



Lights Out Management

The Check Point Lights Out Management (LOM) card lets you use a dedicated management channel to remotely control Check Point appliances. Lights Out Management can also work when the appliance is turned off or not responding. However, the appliance must be connected to a power source.

For more about using Lights Out Management, see the *Lights Out Management Administration Guide*.

Dual Redundant BIOS

To ensure resilience in the event of a BIOS failure, appliances are equipped with dual redundant BIOS images.

If an appliance encounters a BIOS failure, it will boot up from a recovery, read-only BIOS image that enables full functionality of the appliance.

These notifications are shown in the event of a BIOS failure:

- The appliance's Alert LED on the front panel will blink red.
- The Gaia Portal Maintenance > Hardware Health page shows that the BIOS sensor is Invalid and its status is Off.

Example:

Maintenance ▶ **Hardware Health**

Hardware Health

Refresh

Sensor	Value	Status
 System Fan 1 Speed	11250.00 RPM	 Ok
 System Fan 2 Speed	11250.00 RPM	 Ok
 System Fan 3 Speed	11440.00 RPM	 Ok
 System Fan 4 Speed	11250.00 RPM	 Ok
Power Supply #1	Up	 Ok
Power Supply #2	Up	 Ok
 BIOS	Invalid	 Off

- An SNMP trap message is sent (if the `biosFailure` trap was configured in the Gaia Portal or Gaia Clish).

Example:

Source:	10.48.0.92	Timestamp:	20 seconds	SNMP Version:
Trap OID:	.1.3.6.1.4.1.2620.1.3000.20.1			
Variable Bindings:				
Name:	.iso.org.dod.internet.mgmt.mib-2.system.sysUpTime.0			
Value:	[TimeTicks] 20 seconds (2001)			
Name:	snmpTrapOID			
Value:	[OID] .1.3.6.1.4.1.2620.1.3000.20.1			
Name:	.1.3.6.1.4.1.2620.1.3000.0.12.0			
Value:	[OctetString] the BIOS has failed, using recovery BIOS			
Description:				

To recover from a BIOS failure, see [sk108517](#) or contact [Check Point Support](#). The appliance is fully functional until the BIOS recovery is completed. Note that it can take a few minutes for it to boot in BIOS recovery mode.

PSU Configuration and Monitoring

These are the supported PSU configurations for the appliance models and PSU types:

PSU Type	16000/16200 Base	16000/16200 Plus	16000 Turbo	16600HS
AC PSU	1 AC PSU 1 Dummy filler	2 AC PSUs	2 AC PSUs	2 AC PSUs
DC PSU	2 DC PSUs	2 DC PSUs	2 DC PSUs	2 DC PSUs



Important - All PSUs on an appliance must be of the same type, either all AC or all DC.

When a PSU is functioning correctly: the PSU LED is green, the Alert LED is not blinking due to a PSU issue (might still be blinking due to other errors), and there is no SNMP alarm.

When a PSU is not functioning correctly: the PSU LED is amber, the Alert LED is blinking due to a PSU issue, and an SNMP alarm is sent.

To monitor the PSUs through the CLI:

1. Connect to the command line on the appliance.
2. Log in to Gaia Clish.
3. Run:

```
show sysenv ps
```

Sample output for a 16000 Turbo appliance:

```
SGW_16000T> show sysenv ps
```

Hardware Information

Name	Value	Unit	Type	Status	Max
Power Supply #1	Up	Up/Down	Power	0	
Power Supply #2	Up	Up/Down	Power	0	

Where:

Column	Description
Name	Power Supply #1 - The PSU in the top PSU slot (in 16600HS in the left-most slot). Power Supply #2 - The PSU in the bottom PSU slot (in 16600HS in the rightmost slot).
Value	Up - The PSU slot containing a PSU is up. Down - The PSU slot contains a PSU and it is not connected to a power source. Empty - There is nothing in the PSU slot. Dummy - The PSU slot contains a dummy filler (only supported for 1 PSU slot in 16000/16200 Base of AC PSU type).
Unit	Up/Down - The type of measure unit used for PSUs is either Up or Down.
Type	Power- The type of sensor is power supply.
Status	0 - Denotes no problems found. 1 - Denotes an error.
Maximum Minimum	Denotes the maximum and minimum thresholds. For PSUs they are only measured as Up and Down.

Replacing and Upgrading Components

The appliance has parts that you can easily replace to minimize downtime. There are also components that you can install to upgrade the appliance. These are the parts and components that can be used with the appliance:

- Telescopic rails
- Line cards (excluding 16600HS)
- Transceivers

- AC and DC Power Supply Units
- Storage devices (excluding 16600HS)
- System memory (excluding 16600HS)
- Cooling fan units (excluding 16600HS)
- Lights Out Management - In Base models of the appliance, Lights Out Management is optional by default.

For more information about installing these parts and components, see the [appliance home page](#).

Unless directed to do so by Check Point technical support, you are prohibited by warranty and support agreements from replacing any parts.

Restoring Factory Defaults

If necessary, restore the appliance to its factory default settings.



Important - If you restore factory defaults, note that all information on the appliance is deleted.

Restoring from the Gaia Portal

Use the Gaia Portal to restore the appliance to the factory default settings.

To restore a Gaia appliance from the Gaia Portal:

1. In your web browser, connect to the management IP address:
`https://<appliance_ip_address>`
2. Log in to the Gaia Portal of the appliance with the administrator username and password.
3. In the left navigation tree, click Maintenance > Factory Defaults.

The Factory Defaults window opens. The image installed on the appliance is shown.

4. Click Apply.

The appliance reboots and installs the selected version from scratch.

Restoring from the Boot Menu

To restore the appliance from the Boot Menu:

1. Connect the supplied serial cable's RJ45 or USB type-C connector to the console port on the front of the appliance.
2. From the computer, open a terminal emulation program such as PuTTY or Microsoft HyperTerminal.
3. Configure the terminal emulation program:
 - In PuTTY select the Serial connection type.
 - In the HyperTerminal Connect To window, select a port from the Connect using list.
4. Define the serial port settings:
9600 BPS, 8 bits, no parity, 1 stop bit
5. From the Flow control list, select None.
6. Connect to the appliance.
7. Reboot or turn on the appliance.

The appliance initializes and status messages are shown in the terminal emulation program.

8. When the message "Press any key to see the boot menu" is shown, you have approximately four seconds to hit any key to activate the Boot menu.
9. From the Boot menu, select the relevant Reset to factory defaults image.
10. Press Enter.

The appliance initializes and status messages are shown in the terminal emulation program.

Restoring from Gaia Clish

To restore the appliance from Gaia Clish:

1. Connect to the command line on the appliance.
2. Log in to Gaia Clish.
3. Run:

```
set fcd revert <image_name>
```

Example:

```
MyAppliance> set fcd revert Gaia_R80.30
Warning! This command will erase all the current configuration on this appliance and will
revert it to the selected image.
Are you sure you want to continue such action? (Yes/No) [No]yes
Reverting to factory defaults Gaia_R80.30
MyAppliance>
Broadcast message from admin (Tue May 14 12:19:16 2019):
The system is going down for reboot NOW!
INIT: Sending processes the TERM signal
```

Registration and Support

Support

For additional technical information about Check Point products, consult the [*Check Point Support Center*](#).

Where To From Here?

You have the basics to get started. The next step is to get more advanced knowledge of your Check Point software.