



# Regulatory Compliance and Safety Information for the Cisco ONS 15500 Series

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Read this document before installing or servicing the following systems:

- Cisco ONS 15501
- Cisco ONS 15530
- Cisco ONS 15540 ESP
- Cisco ONS 15540 ESPx



**Note**

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Only trained and qualified service personnel (as defined in IEC 60950 and AS/NZS 3260) should install, replace, or service the equipment. Install the system in accordance with the U.S. National Electric Code if you are in the United States.

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**Warning**

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## IMPORTANT SAFETY INSTRUCTIONS

**This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device.**  
Statement 1071

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## SAVE THESE INSTRUCTIONS

This document includes the following sections:

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## Site Preparation

This section describes the site requirements for installing the Cisco ONS 15500 Series products. To ensure normal system operation, plan your site configuration and prepare your site before installation.

Follow these guidelines when choosing a site for installation:

- Install the system in a restricted access area, where access can be gained only by service personnel through the use of a special tool, lock and key, or other means of security.
- Choose a site with a dry, clean, well-ventilated, and air-conditioned area.
- Choose a site that maintains an ambient temperature of 32 to 104°F (0 to 40°C).

## Ensuring Overcurrent Protection

The system relies on the protective devices in the building installation for protection against short-circuit, overcurrent, and earth (grounding) fault. Ensure that the protective devices in the building installation are properly rated to protect the system, and that they comply with national and local codes.

The following DC protection applies to the Cisco ONS 15530, Cisco ONS 15540 ESP, and the Cisco ONS 15540 ESPx.



**Caution**

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This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that a Listed and Certified fuse or circuit breaker 25A, minimum 60 VDC, is used on all current-carrying conductors.

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The following DC protection warning applies to the Cisco ONS 15501.



**Caution**

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This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that a Listed and Certified fuse or circuit breaker 20A, minimum 60 VDC, is used on all current-carrying conductors.

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## Grounding the System

Follow these guidelines when grounding the system:

- Do not defeat the ground conductor on an AC plug.
- Connect AC-powered systems to grounded power outlets.
- Connect the system to earth (ground).

## Creating a Safe Environment

Follow these guidelines to create a safe environment:

- Keep tools and chassis components off the floor and away from foot traffic.
- Clear the area of possible hazards, such as moist floors, ungrounded power extension cables, and missing safety grounds.
- Keep the area around the chassis free from dust and foreign conductive material (such as metal flakes from nearby construction activity).

## Rack-Mounting the System

A rack-mount kit and cable guides come with the system. The kit is not suitable for racks with obstructions (such as a power strip) that could impair access to system components. Allow sufficient clearance around the rack for system maintenance.

## Ensuring Proper Airflow

Follow these guidelines to ensure proper airflow:

- Install the system in an open rack whenever possible. If installation in an enclosed rack is unavoidable, ensure that the rack has adequate ventilation.
- Maintain ambient airflow to ensure normal operation. If the airflow is blocked or restricted, or if the intake air is too warm, an overtemperature condition can occur.
- Allow at least 6 inches (15.24 cm) of clearance around the ventilation openings of the chassis.
- Avoid placing the system in an overly congested rack or directly next to another equipment rack. Heat exhaust from other equipment can enter the inlet air vents and cause an overtemperature condition.
- Equipment near the bottom of a rack might generate excessive heat that is drawn upward and into the intake ports of the equipment above. The warm air can cause an overtemperature condition in the equipment above.
- Ensure that cables from other equipment do not obstruct the airflow through the chassis or impair access to the power supplies or cards. Route cables away from field-replaceable components to avoid disconnecting cables unnecessarily for equipment maintenance or upgrades.

## Stabilizing the System

The standard rack dimensions are 84 x 17.75 x 19.25 inches (213 x 45 x 48 cm). Follow these guidelines to stabilize the system:

- Install any stabilizers that came with your equipment rack before mounting or servicing the system in the rack.
- Load the rack from the bottom to the top, with the heaviest system at the bottom.
- Do not stack the system on top of any other equipment. If the system falls, it can cause severe bodily injury and damage the equipment.
- Ensure that the shelf is constructed to support the weight and dimensions of the chassis if you are using an equipment shelf.
- Ensure that the weight of the chassis does not make the rack unstable. Secure telco racks with ceiling brackets if the rack is populated with heavy equipment.
- Bolt the rack to the floor for stability.

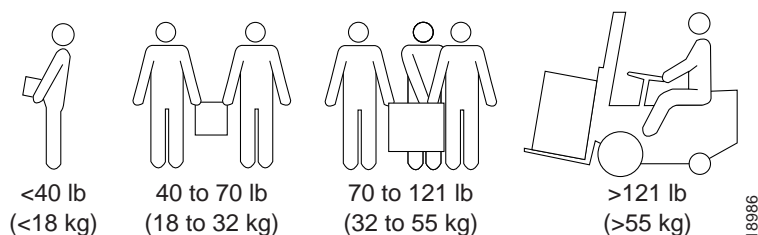
## Lifting the System

Follow these guidelines when lifting the system:

- Disconnect all power and external cables before lifting the system.
- Ensure that your footing is solid and the weight of the system is evenly distributed between your feet.
- Lift the system slowly, keeping your back straight. Lift with your legs, not with your back. Bend at the knees, not at the waist.
- Do not attempt to lift the system with the handles on the power supplies or on any of the cards. These handles are not designed to support the weight of the system.
- Depending on the weight of the system, more than one person might be required to lift it.

Figure 1 shows the number of people needed to lift the system by weight.

**Figure 1** *Safely Lifting the System*



## Power Considerations

AC and DC power supplies, and an optional redundant (second) power supply, are available for most systems. Be careful when connecting systems to the supply circuit so that wiring is not overloaded.



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Refer to your hardware installation guide for AC and DC power specifications and for redundant power supply availability.

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### AC Power

The system is designed for connection to TN power systems. A TN power system is a power distribution system with one point connected directly to earth (ground). The exposed conductive parts of the installation are connected to that point by protective earth conductors.

Ensure that the plug-socket combination is accessible at all times, because it serves as the main disconnecting device.

### DC Power

Follow these guidelines for DC power supplies:

- Connect DC-input power supplies only to a DC power source that complies with the safety extra-low voltage (SELV) requirements in the UL 60950, CSA 60950, EN 60950, and IEC 60950 standards.
- Ensure that there is a readily accessible disconnect device incorporated in the building's installation wiring.
- Ensure that power is removed from the DC circuit before installing or removing power supplies. Tape the switch handle of the DC circuit breaker in the off position.
- Use only copper conductors to connect to a DC terminal block.
- Use approved wiring terminations, such as closed-loop or spade-type with upturned lugs, when stranded wiring is required. These terminations should be the appropriate size for the wires and should clamp both the insulation and the conductor.
- Ensure that no exposed portion of the DC-input power source wire extends from the terminal block plug. An exposed wire can conduct a harmful level of electricity.

## Using Redundant Power

If your system includes an optional redundant (second) power supply, connect each of the two power supplies to different input power sources. Failure to do so makes the system susceptible to total power failure in the event that one of the power supplies fails.

## Preventing ESD Damage

Electrostatic discharge (ESD) damage occurs when electronic cards or components are mishandled and can result in complete or intermittent failures. Note the following guidelines before you install or service the system:

- Always wear an ESD-preventive wrist or ankle strap when handling electronic components. Connect one end of the strap to an ESD jack or an unpainted metal component on the system (such as a captive installation screw).
- Handle cards by the faceplates and edges only; avoid touching the printed circuit board and connector pins.
- Place any removed component on an antistatic surface or in a static shielding bag.
- Avoid contact between the cards and clothing. The wrist strap only protects the card from ESD voltages on the body; ESD voltages on clothing can still cause damage.

**Note**

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For safety, periodically check the resistance value of the antistatic strap. The measurement should be between 1 and 10 megohms (Mohms).

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## Installing and Servicing the System

Follow these guidelines when installing and servicing the system:

- Disconnect all power and external cables before installing the system.
- Install the system in compliance with your local and national electrical codes:
  - United States: National Fire Protection Association (NFPA) 70; United States National Electrical Code.
  - Canada: Canadian Electrical Code, Part I, CSA C22.1.
  - Other countries: If local and national electrical codes are not available, refer to IEC 364, Part 1 through Part 7.
- Do not work alone under potentially hazardous conditions.
- Do not perform any action that creates a potential hazard to people or makes the equipment unsafe.
- Do not touch the backplane or midplane with your hand or metal tools.
- Remove all jewelry (including rings and chains) or other items that could get caught in the system or heat up and cause serious burns.

## Disconnecting Power

Follow these guidelines when disconnecting power:

- Locate the emergency power-off switch for the room before working with the system.
- Turn off the power and disconnect the power from the circuit when working with components that are not hot-swappable or when working near the system backplane or midplane. If the system does not have an on/off switch, unplug the power cord.
- De-energize the system completely by disconnecting the power connection to all power supplies.

- For DC power supplies, locate the circuit breaker on the panel board that services the DC circuit, switch the circuit breaker to the off position, and tape the switch handle of the circuit breaker in the off position.
- Do not touch the power supply when the power cord is connected. Line voltages are present within the power supply even when the power switch is off and the power cord is connected.

## Working with Lasers

The following laser safety standards classify the Cisco ONS 15500 Series:

- Class 1M LASER PRODUCT (IEC 60825-1 2001-01)
- Class I LASER PRODUCT (complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice 50, dated July 26, 2001)

The maximum output is less than 10 mW when measured through a 3.5-mm aperture located at a distance of 100 mm and the wavelength is 1530 to 1562 nm from fiber optic connectors on the optical amplifier, output of the ITU line cards, and the optical mux/demux modules.

Other fiber-optic ports (for example, ESCON, Fibre Channel, Gigabit Ethernet, OC-3, OC-48) have been tested and comply with the Class 1 limits of IEC 60825-1 and Class 1 limits of 21 CFR 1040.10.




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**Class I (CDRH) and Class 1M (IEC) laser products.** Statement 1055.

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**Invisible laser radiation may be emitted from the end of the unterminated fiber cable or connector. Do not view directly with optical instruments. Viewing the laser output with certain optical instruments (for example, eye loupes, magnifiers, and microscopes) within a distance of 100 mm may pose an eye hazard.** Statement 1056.

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**Use of controls, adjustments, or performing procedures other than those specified may result in hazardous radiation exposure.** Statement 1057.

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## Preventing EMI

When you run wires for any significant distance in an electromagnetic field, electromagnetic interference (EMI) can occur between the field and the signals on the wires. Be aware of the following:

- Bad plant wiring can result in RFI (radio frequency interference).
- Strong EMI, especially when it is caused by lightning or radio transmitters, can destroy the signal drivers and receivers in the system, and can even create an electrical hazard by conducting power surges through lines and into the system.

To predict and remedy strong EMI, consult RFI experts.

## Covering Empty Slots

Ensure that all cards, faceplates, and covers are in place. Filler motherboards and filler modules and cover panels are used to:

- Prevent exposure to hazardous voltages and currents inside the chassis
- Help contain EMI (electromagnetic interference) that might disrupt other equipment
- Direct the flow of cooling air through the chassis
- Protect the backplane from dust

## Disposing of the System

Dispose of the system and its components (including batteries) as specified by all national laws and regulations.

## Translated Safety Warnings

This section includes translations in multiple languages of the warnings that may appear in the Cisco ONS 15500 Series product documents.

### Statement 1055—Class I and Class 1M Laser



Warning

**Class I (CDRH) and Class 1M (IEC) laser products.** Statement 1055

Waarschuwing

**Laserproducten van Klasse I (CDRH) en Klasse 1M (IEC).**

Varoitus

**Luokan I (CDRH) ja luokan 1M (IEC) lasertuotteita.**

Attention

**Produits laser catégorie I (CDRH) et catégorie 1M (IEC).**

Warnung

**Laserprodukte der Klasse I (CDRH) und Klasse 1M (IEC).**

Avvertenza

**Prodotti laser di Classe I (CDRH) e Classe 1M (IEC).**

Advarsel

**Klasse I (CDRH) og klasse 1M (IEC) laserprodukter.**

Aviso

**Produtos laser Classe I (CDRH) e Classe 1M (IEC).**

¡Advertencia!

**Productos láser de Clase I (CDRH) y Clase 1M (IEC).**

Varning!

**Laserprodukter av Klass I (CDRH) och Klass 1M (IEC).**

Figyelem

**Class I (CDRH) és Class 1M (IEC) besorolású lézeres termékek.**



**Предупреждение** Лазерные устройства класса I (CDRH) и класса 1M (IEC).

**警告** 这是 I (CDRH) 类和 1M (IEC) 类激光产品。

**警告** クラスI(CDRH)およびクラス1M(IEC)レーザー製品です。

## Statement 1056—Unterminated Fiber Cable



### Warning

Invisible laser radiation may be emitted from the end of the unterminated fiber cable or connector. Do not view directly with optical instruments. Viewing the laser output with certain optical instruments (for example, eye loupes, magnifiers, and microscopes) within a distance of 100 mm may pose an eye hazard. Statement 1056

### Waarschuwing

Er kunnen onzichtbare laserstralen worden uitgezonden vanuit het uiteinde van de onafgebroken vezelkabel of connector. Niet in de straal kijken of deze rechtstreeks bekijken met optische instrumenten. Als u de laseruitvoer met bepaalde optische instrumenten bekijkt (zoals bijv. een oogloep, vergrootglas of microscoop) binnen een afstand van 100 mm kan dit gevaar voor uw ogen opleveren.

### Varoitus

Päättämättömän kuitukaapelin tai -liittimen päästä voi tulla näkymätöntä lasersäteilyä. Älä tuijota sädettä tai katso sitä suoraan optisilla välineillä. Lasersäteen katsominen tietyillä optisilla välineillä (esim. suurennuslasilla tai mikroskoopilla) 10 cm:n päästä tai sitä lähempää voi olla vaarallista silmille.

### Attention

Des émissions de radiations laser invisibles peuvent se produire à l'extrémité d'un câble en fibre ou d'un raccord sans terminaison. Ne pas fixer du regard le rayon ou l'observer directement avec des instruments optiques. L'observation du laser à l'aide certains instruments optiques (loupes et microscopes) à une distance inférieure à 100 mm peut poser des risques pour les yeux.

### Warnung

Eine unsichtbare Laserstrahlung kann vom Ende des nicht angeschlossenen Glasfaserkabels oder Steckers ausgestrahlt werden. Nicht in den Laserstrahl schauen oder diesen mit einem optischen Instrument direkt ansehen. Ein Betrachten des Laserstrahls mit bestimmten optischen Instrumenten, wie z.B. Augenlupen, Vergrößerungsgläsern und Mikroskopen innerhalb eines Abstands von 100 mm kann für das Auge gefährlich sein.

### Avvertenza

L'estremità del connettore o del cavo ottico senza terminazione può emettere radiazioni laser invisibili. Non fissare il raggio od osservarlo in modo diretto con strumenti ottici. L'osservazione del fascio laser con determinati strumenti ottici (come lupette, lenti di ingrandimento o microscopi) entro una distanza di 100 mm può provocare danni agli occhi.

### Advarsel

Usynlig laserstråling kan emittere fra enden av den ikke-terminerte fiberkabelen eller koblingen. Ikke se inn i strålen og se heller ikke direkte på strålen med optiske instrumenter. Observering av laserutgang med visse optiske instrumenter (for eksempel øyelupe, forstørrelsesglass eller mikroskop) innenfor en avstand på 100 mm kan være farlig for øynene.

Aviso	Radiação laser invisível pode ser emitida pela ponta de um conector ou cabo de fibra não terminado. Não olhe fixa ou diretamente para o feixe ou com instrumentos ópticos. Visualizar a emissão do laser com certos instrumentos ópticos (por exemplo, lupas, lentes de aumento ou microscópios) a uma distância de 100 mm pode causar riscos à visão.
¡Advertencia!	El extremo de un cable o conector de fibra sin terminación puede emitir radiación láser invisible. No se acerque al radio de acción ni lo mire directamente con instrumentos ópticos. La exposición del ojo a una salida de láser con determinados instrumentos ópticos (por ejemplo, lupas y microscopios) a una distancia de 100 mm puede comportar lesiones oculares.
Varning!	Osynlig laserstrålning kan komma från änden på en oavslutad fiberkabel eller -anslutning. Titta inte rakt in i strålen eller direkt på den med optiska instrument. Att titta på laserstrålen med vissa optiska instrument (t.ex. lupper, förstoringsglas och mikroskop) från ett avstånd på 100 mm kan skada ögonen.
Figyelem	A lezártlan optikai kábelek és a csatlakozók láthatatlan lézertényet bocsáthatnak ki. Ne nézzen bele a sugárba, és ne nézze közvetlenül, optikai berendezések segítségével! Ha a kibocsátott lézert 100 mm-esnél kisebb távolságból nézi bizonyos optikai eszközökkel (például nagyítóval vagy mikroszkóppal), látáskárosodást szenvedhet.
Предупреждение	Световоды и разъемы без заглушек могут испускать невидимое лазерное излучение. Не допускайте попадания лазерного луча в глаза и не смотрите на него через оптические приборы. Нельзя смотреть на источник лазерного излучения через некоторые оптические приборы (например увеличительное стекло, лупу или микроскоп) с расстояния ближе 100 мм: это может привести к травме органов зрения.
警告	无终端接头的光纤的末端或接头有可能发出不可见的激光辐射。请勿直视光束或直接用光学仪器观看。在 100 毫米的距离内用某些光学仪器（例如小型放大镜、放大镜和显微镜）观看激光输出有可能伤害眼睛。
警告	終端されていない光ファイバ ケーブルまたはコネクタの開口部からは、目に見えないレーザー光線が放射されていることがあります。光線をのぞきこんだり、光学機器を使用して直接見たりしないでください。ある種の光学機器（ルーペ、拡大鏡、顕微鏡など）を使用して 100 mm 以内の距離からレーザー光線を見ると、目を痛めることがあります。

## Statement 1057—Hazardous Radiation Exposure



### Warning

Use of controls, adjustments, or performing procedures other than those specified may result in hazardous radiation exposure. Statement 1057

### Waarschuwing

Het gebruik van regelaars of bijstellingen of het uitvoeren van procedures anders dan opgegeven kan leiden tot blootstelling aan gevaarlijke straling.

### Varoitus

Säätimien tai säätöjen käyttö ja toimenpiteiden suorittaminen ohjeista poikkeavalla tavalla voi altistaa vaaralliselle säteilylle.

Attention	L'utilisation de commandes, de réglages ou de procédures autres que ceux spécifiés peut entraîner une exposition dangereuse à des radiations.
Warnung	Die Verwendung von nicht spezifizierten Steuerelementen, Einstellungen oder Verfahrensweisen kann eine gefährliche Strahlenexposition zur Folge haben.
Avvertenza	L'adozione di controlli, regolazioni o procedure diverse da quelle specificate può comportare il pericolo di esposizione a radiazioni.
Advarsel	Bruk av kontroller eller justeringer eller utførelse av prosedyrer som ikke er spesifiserte, kan resultere i farlig strålingseksposering.
Aviso	O uso de controles, ajustes ou desempenho de procedimentos diferentes dos especificados pode resultar em exposição prejudicial de radiação.
¡Advertencia!	La aplicación de controles, ajustes y procedimientos distintos a los especificados puede comportar una exposición peligrosa a la radiación.
Varning!	Om andra kontroller eller justeringar än de angivna används, eller om andra processer än de angivna genomförs, kan skadlig strålning avges.
Figyelem	<b>Az előírtaktól különböző kezelőszervek és módosítások használata, vagy ilyen eljárások végrehajtása sugárzásveszélyt rejt magában.</b>
Предупреждение	Использование других элементов управления и регулировки, а также не указанные здесь действия могут привести к воздействию опасного излучения.
警告	不按照规定的步骤控制、调整或操作有可能造成危险的辐射外泄。
警告	記載されている手順以外の方法で性能を調節しようとする、レーザー光線の放射に曝される危険性があります。

## Statement 94—Wrist Strap Warning



Warning

During this procedure, wear grounding wrist straps to avoid ESD damage to the card. Do not directly touch the backplane with your hand or any metal tool, or you could shock yourself. Statement 94.

Waarschuwing

Draag tijdens deze procedure aardingspolsbanden om te vermijden dat de kaart beschadigd wordt door elektrostatische ontlading. Raak het achterbord niet rechtstreeks aan met uw hand of met een metalen werktuig, omdat u anders een elektrische schok zou kunnen oplopen.

<b>Varoitus</b>	<b>Käytä tämän toimenpiteen aikana maadoitettuja rannesuojia estääksesi kortin vaurioitumisen sähköstaattisen purkauksen vuoksi. Älä kosketa taustalevyä suoraan kädelläsi tai metallisella työkalulla sähköiskuvaaran takia.</b>
<b>Attention</b>	<b>Lors de cette procédure, toujours porter des bracelets antistatiques pour éviter que des décharges électriques n'endommagent la carte. Pour éviter l'électrocution, ne pas toucher le fond de panier directement avec la main ni avec un outil métallique.</b>
<b>Warnung</b>	<b>Zur Vermeidung einer Beschädigung der Karte durch elektrostatische Entladung während dieses Verfahrens ein Erdungsband am Handgelenk tragen. Bei Berührung der Rückwand mit der Hand oder einem metallenen Werkzeug besteht Elektroschockgefahr.</b>
<b>Figyelem!</b>	<b>Az elektromos kisülés okozta meghibásodás elkerülése érdekében az eljárás során viseljen földelő csuklópántot. Se kézzel, se fém eszközzel ne érjen hozzá a kártya hátlapjához, mert különben áramütést szenvedhet.</b>
<b>Avvertenza</b>	<b>Durante questa procedura, indossare bracciali antistatici per evitare danni alla scheda causati da un'eventuale scarica elettrostatica. Non toccare direttamente il pannello delle connessioni, né con le mani né con un qualsiasi utensile metallico, perché esiste il pericolo di folgorazione.</b>
<b>Advarsel</b>	<b>Bruk jordingsarmbånd under prosedyren for å unngå ESD-skader på kortet. Unngå direkte berøring av bakplanet med hånden eller metallverktøy, slik at du ikke får elektrisk støt.</b>
<b>Aviso</b>	<b>Durante este procedimento e para evitar danos ESD causados à placa, use fitas de ligação à terra para os pulsos. Para evitar o risco de choque eléctrico, não toque directamente na parte posterior com a mão ou com qualquer ferramenta metálica.</b>
<b>¡Advertencia!</b>	<b>Usartiras conectadas a tierra en las muñecas durante este procedimiento para evitar daños en la tarjeta causados por descargas electrostáticas. No tocar el plano posterior con las manos ni con ninguna herramienta metálica, ya que podría producir un choque eléctrico.</b>
<b>Varning!</b>	<b>Använd jordade armbandsremmar under denna procedur för att förhindra elektrostatisk skada på kortet. Rör inte vid baksidan med handen eller metallverktyg då detta kan orsaka elektrisk stöt.</b>
<b>Предупреждение</b>	<b>При выполнении данной процедуры наденьте заземленные браслеты, чтобы избежать повреждения платы электростатическим разрядом. Не дотрагивайтесь до задней панели рукой или металлическим предметом, поскольку это может привести к поражению электрическим током.</b>
<b>警告</b>	<b>在此过程中，请佩戴接地腕带以避免ESD损坏插卡。请勿用手或任何金属工具直接接触后面板，否则您可能受到电击。</b>
<b>警告</b>	<b>この手順を行う際には、ESDによるカードの損傷を防ぐため、静電気防止用リストストラップを着用してください。電気ショックを防ぐために、装置の背面を直接手や金属で触らないようにします。</b>

## Statement 37—Restricted Area Warning



### Warning

This unit is intended for installation in restricted access areas. A restricted access area can be accessed only through the use of a special tool, lock and key, or other means of security.  
Statement 37.

### Waarschuwing

Deze eenheid is bestemd voor installatie in plaatsen met beperkte toegang. Toegang tot een dergelijke plaats kan alleen verkregen worden door middel van een speciaal instrument, een slot en sleutel of een ander veiligheidsmiddel.

### Varoitus

Tämä laite on tarkoitettu asennettavaksi paikkaan, johon pääsy on rajoitettua. Tällaiseen paikkaan pääsee vain erikoistyökälua, lukkoon sopivaa avainta tai jotakin muuta turvalaitetta käyttämällä.

### Attention

Cet appareil est à installer dans des zones d'accès réservé. L'accès à une zone d'accès réservé n'est possible qu'en utilisant un outil spécial, un mécanisme de verrouillage et une clé, ou tout autre moyen de sécurité.

### Warnung

Diese Einheit ist zur Installation in Bereichen mit beschränktem Zutritt vorgesehen. Der Zutritt zu derartigen Bereichen ist nur mit einem Spezialwerkzeug, Schloss und Schlüssel oder einer sonstigen Sicherheitsvorkehrung möglich.

### Figyelem!

A készülék korlátozottan hozzáférhető területre történő beszerelésre készült. A korlátozottan hozzáférhető területekhez csak speciális szerszám, zár és kulcs vagy más biztonsági berendezés segítségével lehet hozzáférni.

### Avvertenza

Questa unità è prevista per essere installata in un'area ad accesso limitato, vale a dire un'area accessibile solo mediante l'uso di un attrezzo speciale, come lucchetto e chiave, o altri dispositivi di sicurezza.

### Advarsel

Denne enheten er beregnet på installasjon i områder med begrenset tilgang. Et begrenset tilgangsområde kan bare nås ved hjelp av et spesielt verktøy, lås og nøkkel, eller andre sikkerhetsanordninger.

### Aviso

Esta unidade foi concebida para instalação em áreas de acesso restrito. Uma área de acesso restrito é uma área à qual apenas tem acesso o pessoal de serviço autorizado, que possua uma ferramenta, chave e fechadura especial, ou qualquer outra forma de segurança.

### ¡Advertencia!

Esta unidad ha sido diseñada para instalación en áreas de acceso restringido. Sólo puede obtenerse acceso a una de estas áreas mediante la utilización de una herramienta especial, cerradura con llave u otro medio de seguridad.

### Varning!

Denna enhet är avsedd för installation i områden med begränsat tillträde. Ett område med begränsat tillträde kan endast tillträdas med hjälp av specialverktyg, lås och nyckel eller annan säkerhetsanordning.

### Предупреждение

Данное устройство предназначено для установки в помещениях с ограниченным доступом. В такие помещения можно попасть, только имея специальное устройство доступа, карту или ключ или пройдя проверку другими средствами обеспечения безопасности.

**警告** 此部件应安装在限制进出的场所。限制进出的场所指只能通过使用特殊工具、锁和钥匙或其它安全手段进出的场所。

**警告** この装置は立ち入り制限区域内に設置することが前提になっています。立ち入り制限区域とは、鍵、錠、またはその他の保全手段を使用しないと立ち入ることができない区域です。

## Statement 1030—Equipment Installation



### Warning

**Only trained and qualified personnel should be allowed to install, replace, or service this equipment.** Statement 1030

### Waarschuwing

**Deze apparatuur mag alleen worden geïnstalleerd, vervangen of hersteld door bevoegd geschoold personeel.**

### Varoitus

**Tämän laitteen saa asentaa, vaihtaa tai huoltaa ainoastaan koulutettu ja laitteen tunteva henkilökunta.**

### Attention

**Il est vivement recommandé de confier l'installation, le remplacement et la maintenance de ces équipements à des personnels qualifiés et expérimentés.**

### Warnung

**Das Installieren, Ersetzen oder Bedienen dieser Ausrüstung sollte nur geschultem, qualifiziertem Personal gestattet werden.**

### Figyelem!

**A berendezést csak szakképzett személyek helyezhetik üzembe, cserélhetik és tarthatják karban.**

### Avvertenza

**Questo apparato può essere installato, sostituito o mantenuto unicamente da un personale competente.**

### Advarsel

**Bare opplært og kvalifisert personell skal foreta installasjoner, utskiftninger eller service på dette utstyret.**

### Aviso

**Apenas pessoal treinado e qualificado deve ser autorizado a instalar, substituir ou fazer a revisão deste equipamento.**

### ¡Advertencia!

**Solamente el personal calificado debe instalar, reemplazar o utilizar este equipo.**

### Varning!

**Endast utbildad och kvalificerad personal bör få tillåtelse att installera, byta ut eller reparera denna utrustning.**

### Figyelem

**A berendezést csak szakképzett személyek helyezhetik üzembe, cserélhetik és tarthatják karban.**

### Предупреждение

**Установку, замену и обслуживание этого оборудования может осуществлять только специально обученный квалифицированный персонал.**

**警告** 只有经过培训且具有资格的人员才能进行此设备的安装、更换和维修。

**警告** この装置の設置、交換、保守は、訓練を受けた相応の資格のある人が行ってください。

## Statement 201—Card Handling Warning



### Warning

High-performance devices on this card can get hot during operation. To remove the card, hold it by the faceplate and bottom edge. Allow the card to cool before touching any other part of it or before placing it in an antistatic bag. Statement 201.

### Waarschuwing

Geavanceerde onderdelen op deze kaart kunnen tijdens het gebruik heet worden. Als u de kaart wilt verwijderen, moet u deze vastpakken bij de voorkant en onderrand. Laat de kaart afkoelen voordat u andere delen van de kaart aanraakt of voordat u de kaart in een antistatische verpakking plaatst.

### Varoitus

Tämän kortin suorituskykyiset mekanismit voivat kuumeta käytössä. Kortin voi poistaa tarttumalla siihen tasopinnasta ja alareunasta. Anna kortin jäähtyä, ennen kuin kosket sen muihin osiin tai ennen kuin laitat sen antistaattiseen pussiin.

### Attention

Les périphériques hautes performances de cette carte emmagasinent de la chaleur en cours de fonctionnement. Pour retirer la carte, tenez-la par le cache et par la partie inférieure. Attendez qu'elle refroidisse avant de toucher les autres parties ou avant de la mettre dans un sac antistatique.

### Warnung

Hochleistungsgeräte auf dieser Karte können während des Betriebs sehr heiß werden. Um die Karte zu entfernen, halten Sie sie an der Frontplatte und der Unterkante. Lassen Sie die Karte abkühlen, bevor Sie sie an einer anderen Stelle berühren oder in einen Antistatikbehälter stecken.

### Avvertenza

Le apparecchiature ad alte prestazioni montati su questa scheda possono surriscaldarsi durante il funzionamento. Per rimuovere la scheda, tenerla tra la piastra anteriore e il bordo inferiore. Attendere che la scheda si raffreddi prima di toccare le altre componenti o di porla in un sacchetto antistatico.

### Advarsel

Enkelte høykapasitets komponenter på dette kortet kan bli varme under bruk. Hvis du skal ta ut kortet, må du holde i kortet ved frontplaten og den nederste kanten. La kortet bli avkjølt før du tar på andre deler av kortet eller putter det i en antistatisk pose.

### Aviso

Os dispositivos de alta performance nesta placa podem aquecer durante o funcionamento. Para retirar a placa, segure-a pela borda do prato e da base. Deixe a placa arrefecer antes de tocar em qualquer outra zona da mesma ou antes de a colocar num saco antiestático.

- ¡Advertencia!** Los dispositivos de alto rendimiento contenidos en la tarjeta pueden alcanzar elevadas temperaturas durante su funcionamiento. Para extraer la tarjeta, sujétela por el extremo inferior y la cubierta. Permita que se enfríe la tarjeta antes de tocar ninguna pieza de la misma y de colocarla en una bolsa antiestática.
- Varning!** Detta korts högprestandaenheter kan bli mycket varma under drift. Ta ut kortet genom att hålla det på frontpanelen och nedre kanten. Låt kortet svalna innan du vidrör någon annan del av det eller innan du placerar det i en antistatisk påse.

## Statement 1071—Warning Definition



Warning

### IMPORTANT SAFETY INSTRUCTIONS

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

### SAVE THESE INSTRUCTIONS

Waarschuwing

### BELANGRIJKE VEILIGHEIDSINSTRUCTIES

Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van de standaard praktijken om ongelukken te voorkomen. Gebruik het nummer van de verklaring onderaan de waarschuwing als u een vertaling van de waarschuwing die bij het apparaat wordt geleverd, wilt raadplegen.

### BEWAAR DEZE INSTRUCTIES

Varoitus

### TÄRKEITÄ TURVALLISUUSOHJEITA

Tämä varoitusmerkki merkitsee vaaraa. Tilanne voi aiheuttaa ruumiillisia vammoja. Ennen kuin käsittelet laitteistoa, huomioi sähköpiirien käsittelemiseen liittyvät riskit ja tutustu onnettomuuksien yleisiin ehkäisytapoihin. Turvallisuusvaroitusten käännökset löytyvät laitteen mukana toimitettujen käännettyjen turvallisuusvaroitusten joukosta varoitusten lopussa näkyvien lausuntonumeroiden avulla.

### SÄILYTÄ NÄMÄ OHJEET



**Attention    IMPORTANTES INFORMATIONS DE SÉCURITÉ**

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant entraîner des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers liés aux circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions des avertissements figurant dans les consignes de sécurité traduites qui accompagnent cet appareil, référez-vous au numéro de l'instruction situé à la fin de chaque avertissement.

**CONSERVEZ CES INFORMATIONS**

**Warnung    WICHTIGE SICHERHEITSHINWEISE**

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu Verletzungen führen kann. Machen Sie sich vor der Arbeit mit Geräten mit den Gefahren elektrischer Schaltungen und den üblichen Verfahren zur Vorbeugung vor Unfällen vertraut. Suchen Sie mit der am Ende jeder Warnung angegebenen Anweisungsnummer nach der jeweiligen Übersetzung in den übersetzten Sicherheitshinweisen, die zusammen mit diesem Gerät ausgeliefert wurden.

**BEWAHREN SIE DIESE HINWEISE GUT AUF.**

**Avvertenza    IMPORTANTI ISTRUZIONI SULLA SICUREZZA**

Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di intervenire su qualsiasi apparecchiatura, occorre essere al corrente dei pericoli relativi ai circuiti elettrici e conoscere le procedure standard per la prevenzione di incidenti. Utilizzare il numero di istruzione presente alla fine di ciascuna avvertenza per individuare le traduzioni delle avvertenze riportate in questo documento.

**CONSERVARE QUESTE ISTRUZIONI**

**Advarsel    VIKTIGE SIKKERHETSINSTRUKSJONER**

Dette advarselssymbolet betyr fare. Du er i en situasjon som kan føre til skade på person. Før du begynner å arbeide med noe av utstyret, må du være oppmerksom på farene forbundet med elektriske kretser, og kjenne til standardprosedyrer for å forhindre ulykker. Bruk nummeret i slutten av hver advarsel for å finne oversettelsen i de oversatte sikkerhetsadvarslene som fulgte med denne enheten.

**TA VARE PÅ DISSE INSTRUKSJONENE**

**Aviso    INSTRUÇÕES IMPORTANTES DE SEGURANÇA**

Este símbolo de aviso significa perigo. Você está em uma situação que poderá ser causadora de lesões corporais. Antes de iniciar a utilização de qualquer equipamento, tenha conhecimento dos perigos envolvidos no manuseio de circuitos elétricos e familiarize-se com as práticas habituais de prevenção de acidentes. Utilize o número da instrução fornecido ao final de cada aviso para localizar sua tradução nos avisos de segurança traduzidos que acompanham este dispositivo.

**GUARDE ESTAS INSTRUÇÕES**

**¡Advertencia! INSTRUCCIONES IMPORTANTES DE SEGURIDAD**

Este símbolo de aviso indica peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considere los riesgos de la corriente eléctrica y familiarícese con los procedimientos estándar de prevención de accidentes. Al final de cada advertencia encontrará el número que le ayudará a encontrar el texto traducido en el apartado de traducciones que acompaña a este dispositivo.

**GUARDE ESTAS INSTRUCCIONES**

**Varning! VIKTIGA SÄKERHETSANVISNINGAR**

Denna varningssignal signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanliga förfaranden för att förebygga olyckor. Använd det nummer som finns i slutet av varje varning för att hitta dess översättning i de översatta säkerhetsvarningar som medföljer denna anordning.

**SPARA DESSA ANVISNINGAR**

**Figyelem FONTOS BIZTONSÁGI ELOÍRÁSOK**

Ez a figyelmeztető jel veszélyre utal. Sérülésveszélyt rejtő helyzetben van. Mielőtt bármely berendezésen munkát végezte, legyen figyelemmel az elektromos áramkörök okozta kockázatokra, és ismerkedjen meg a szokásos balesetvédelmi eljárásokkal. A kiadványban szereplő figyelmeztetések fordítása a készülékhez mellékelt biztonsági figyelmeztetések között található; a fordítás az egyes figyelmeztetések végén látható szám alapján kereshető meg.

**ORIZZE MEG EZEKET AZ UTASÍTÁSOKAT!**

**Предупреждение ВАЖНЫЕ ИНСТРУКЦИИ ПО СОБЛЮДЕНИЮ ТЕХНИКИ БЕЗОПАСНОСТИ**

Этот символ предупреждения обозначает опасность. То есть имеет место ситуация, в которой следует опасаться телесных повреждений. Перед эксплуатацией оборудования выясните, каким опасностям может подвергаться пользователь при использовании электрических цепей, и ознакомьтесь с правилами техники безопасности для предотвращения возможных несчастных случаев. Воспользуйтесь номером заявления, приведенным в конце каждого предупреждения, чтобы найти его переведенный вариант в переводе предупреждений по безопасности, прилагаемом к данному устройству.

**СОХРАНИТЕ ЭТИ ИНСТРУКЦИИ**

**警告** 重要的安全性说明

此警告符号代表危险。您正处于可能受到严重伤害的工作环境中。在您使用设备开始工作之前，必须充分意识到触电的危险，并熟练掌握防止事故发生的标准工作程序。请根据每项警告结尾提供的声明号码来找到此设备的安全性警告说明的翻译文本。

请保存这些安全性说明

**警告** 安全上の重要な注意事項

「危険」の意味です。人身事故を予防するための注意事項が記述されています。装置の取り扱い作業を行うときは、電気回路の危険性に注意し、一般的な事故防止策に留意してください。警告の各国語版は、各注意事項の番号を基に、装置に付属の「Translated Safety Warnings」を参照してください。

これらの注意事項を保管しておいてください。

## Statement 1022—Disconnect Device

**Warning**

**A readily accessible two-poled disconnect device must be incorporated in the fixed wiring.**  
Statement 1022

**Waarschuwing**

**Er moet een gemakkelijk toegankelijke, tweepolige stroomverbreker opgenomen zijn in de vaste bedrading.**

**Varoitus**

**Kiinteään johdotukseen on liitettävä kaksinapainen kytkinlaite, johon on helppo päästä käsiksi.**

**Attention**

**Un disjoncteur bipolaire facile d'accès doit être intégré dans le câblage fixe.**

**Warnung**

**Die feste Verdrahtung muß eine leicht zugängliche, zweipolige Trennvorrichtung enthalten.**

**Avvertenza**

**Nei cablaggi fissi va incorporato un sezionatore a due poli facilmente accessibile.**

**Advarsel**

**En lett tilgjengelig, topolet frakoblingsenhet må være innebygd i det faste ledningsnett.**

**Aviso**

**Deverá incorporar-se um dispositivo de desconexão de dois pólos de acesso fácil, na instalação eléctrica fixa.**

**Advertencia**

**El cableado fijo debe incorporar un dispositivo de desconexión de dos polos y de acceso fácil.**

**Varning!**

**En lättillgänglig tvåpolig fränkopplingsenhet måste ingå i den fasta kopplingen.**

**Figyelem**

**Fix bekötés esetén jól hozzáférhető kétpólusú megszakítóeszközt kell beépíteni!**

- Предупреждение** Стационарная электропроводка должна быть снабжена легкодоступным двухполюсным устройством отключения.
- 警告** 若采用固定布线，必须装配一个方便使用的两端具有接头的断开设备。
- 警告** 固定配線の中で、常に手が届く場所に、2極型切断装置を組み込む必要があります。

## European Directives

### Statement 287—Declaration of Conformity to R&TTE Directive 1999/5/EC for the European Community, Switzerland, Norway, Iceland and Liechtenstein

- English:** This equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
- Dansk:** Dette udstyret er i samsvar med de grunnleggende kravene og andre relevante forskrifter i 1999/5/EC-direktivet.
- Deutsch:** Diese Geräte entsprechen den Anforderungen und anderen relevanten Bestimmungen der Richtlinie 1999/5/EC.
- Español:** Este equipo cumple con los requisitos esenciales y otras provisiones relevantes de la Directiva 1999/5/EC.
- Ελληνας:** Αυτός ο εξοπλισμός συμμορφώνεται με τις ουσιαστικές απαιτήσεις και τις λοιπές διατάξεις της Οδηγίας 1999/5/EK.
- Français:** Cet équipement répond aux exigences et provisions de la Directive 1999/5/EC.
- Íslenska:** essi búna ur samr mist lögbo num kröfum og ö rum ákvæ um tilskipunar 1999/5/ESB.
- Italiano:** Questa apparecchiatura rispetta i requisiti essenziali e le altre clausole rilevanti della Direttiva 1999/5/CE.
- Nederlands:** Deze apparatuur voldoet aan de essentiële vereisten en andere relevante voorzieningen van EU-richtlijn 1999/5/EC.
- Norsk:** Dette utstyret samsvarer med de vesentligste kravene og andre regler i direktiv 1999/5/EC.
- Português:** Este equipamento está de acordo com os requisitos essenciais e outras provisões relevantes da Diretiva 1999/5/EC.

Română	<b>Prin prezenta, noi Cisco Systems România SRL, declarăm pe propria răspundere că produsul de mai jos îndeplinește principalele cerințe de conformitate cu Directiva Europeană 1999/5/EC(R&amp;TTE):</b> Cisco ONS 15500 Series
Suomalainen:	Tämä laite noudattaa direktiivin 1999/5/EC keskeisiä vaatimuksia ja sen muita olennaisia määräyksiä.
Svenska:	Denna utrustning uppfyller de väsentliga kraven och andra relevanta förordningar i Direktiv 1999/5/EC.

You can check on the approval status of your product at the following URL:

[http://tools.cisco.com/cse/prdapp/jsp/externalsearch.do?action=externalsearch&page=EXTERNAL\\_SEARCH](http://tools.cisco.com/cse/prdapp/jsp/externalsearch.do?action=externalsearch&page=EXTERNAL_SEARCH)

## Statement 275—Declaration of Conformity with Regard to the Directives 73/23/EEC and 89/336/EEC as amended by Directive 93/68/EEC

English:	This equipment is in compliance with the essential requirements and other provisions of Directives 73/23/EEC and 89/336/EEC as amended by Directive 93/68/EEC.
Dansk:	Dette udstyr er i overensstemmelse med de ufravigelige hensyn og andre bestemmelser i direktiv 73/23/EEC og 89/336/EEC som ændred i direktiv 93/68/EEC.
Deutsch:	Dieses Gerät entspricht den wesentlichen Anforderungen und weiteren Bestimmungen der Richtlinien 73/23/EWG und 89/336/EWG mit der Ergänzung durch Richtlinie 93/68/EWG.
Español:	Este equipo cumple con los requisitos esenciales y otras disposiciones de las Directrices 73/23/EEC y 89/336/EEC de acuerdo a las modificaciones de la Directriz 93/68/EEC.
Έλληνας:	Αυτός ο εξοπλισμός συμμορφώνεται με τις ουσιώδεις απαιτήσεις και τις λοιπές διατάξεις των Οδηγιών 73/23/EOK και 89/336/EOK, όπως τροποποιήθηκαν με την Οδηγία 93/68/EOK.
Français:	Cet appareil remplit les principales conditions requises et autres dispositions des Directives 73/23/EEC et 89/336/EEC, modifiées par la Directive 93/68/EEC.
Íslenska:	essir búna ur samr mist lögbo num kröfum og ö rum ákvæ um tilskipana 73/23/EBE og 89/336/EBE, me breytingum skv. tilskipun 93/68/EBE.
Italiano:	Questa apparecchiatura è conforme ai requisiti essenziali e altre disposizioni delle Direttive 73/23/EEC e 89/336/EEC modificate con la Direttiva 93/68/EEC.
Nederlands:	Deze apparatuur voldoet aan de belangrijkste eisen en andere voorzieningen van richtlijnen 73/23/EEC en 89/336/EEC zoals gewijzigd door richtlijn 93/68/EEC.

- Norsk:** Dette utstyret samsvarer med de vesentligste kravene og andre regler i direktivene 73/23/EEC og 89/336/EEC samt i tilleggsdirektiv 93/68/EEC.
- Português:** Este equipamento satisfaz os requisitos essenciais e outras provisões das Directivas 73/23/EEC e 89/336/EEC, conforme amendados pela Directiva 93/68/EEC.
- Română** Prin prezenta, noi Cisco Systems România SRL, declarăm pe propria răspundere că produsul de mai jos, îndeplinește principalele cerințe de conformitate cu Directiva Europeană 89/336/EEC, 73/23/EEC (R&TTE):  
Cisco ONS 15500 Series
- Suomalainen:** Tämä laite on direktiivien 73/23/ETY ja 89/336/ETY (kuten muutettu direktiivissä 93/68/ETY) keskeisten vaatimusten ja määräysten mukainen.
- Svenska:** Denna utrustning uppfyller de väsentliga kraven och andra villkor i direktiven 73/23/EEC och 89/336/EEC enligt ändringarna i direktiv 93/68/EEC.

You can check on the approval status of your product at the following URL:

[http://tools.cisco.com/cse/prdapp/jsp/externalsearch.do?action=externalsearch&page=EXTERNAL\\_SEARCH](http://tools.cisco.com/cse/prdapp/jsp/externalsearch.do?action=externalsearch&page=EXTERNAL_SEARCH)

# Regulatory Standards Compliance

This section includes all regulatory, safety, EMC, telecom, and NEBS standards. The Cisco ONS 15500 Series is in compliance with national and international standards as described in [Table 1](#).

**Table 1** *Regulatory Standards Compliance*

Specification	Description
Regulatory Compliance	Products with the CE Marking indicate compliance with the 89/336/EEC and 73/23/EEC directives, which include the safety and EMC standards listed.
Safety	UL 60950 CAN/CSA-C22.2 No. 60950 EN 60950 IEC 60950 TS 001 AS/NZS 3260 IEC 60825-1 IEC 60825-2 EN 60825-1 EN 60825-2 21 CFR 1040
EMC	47CFR Part 15 (FCC) Class A AS/NZS 3548 Class A AS/NZS CISPR22 Class A CISPR22 Class A EN55022 Class A ICES003 Class A VCCI Class A EN50082-1 EN61000-6-1 EN55024 EN300386 EN61000-3-2 EN61000-3-3 ETS300386-1/ES201468
Telecom (Optical)	AS/ACIF S026:2001 IDA TS BISDN II, IDA TS DLCN I Jate Green Book

For specific details about the years, revisions, and relevant amendments, please refer to the applicable declaration of conformity available at <http://www.cisco.com>.

The following Cisco ONS 15500 products meet the industry EMC, safety, and environmental standards described in [Table 2](#):

- Cisco ONS 15501, DC version only
- Cisco ONS 15530
- Cisco ONS 15540 ESP
- Cisco ONS 15540 ESPx

**Table 2** *Industry EMC, Safety, and Environmental Standards*

Specification	Description
NEBS	GR-63-Core NEBS Level 3 GR-1089-Core NEBS Level 3
ETSI	ETS 300 019-1-1, Class 1.2 Storage ETS 300 019-1-2, Class 2.3 Transportation ETS 300 019-1-3, Class 3.2 Stationary Use

## EMC Environmental Conditions for Products Installed in the European Union

The equipment is intended to operate under the following environmental conditions with respect to EMC:

- A separate defined location under user's control.
- Earthing and bonding shall meet the requirements of ETS 300 253 or CCITT K27.
- AC power distribution shall be one of the following types, where applicable: TN-S and TN-C as defined in IEC 364-3.

In addition, if equipment is operated in a domestic environment, interference may occur.

## EMC Class A Notices and Warnings

This section includes the EMC Class A warnings for the Cisco ONS 15500 Series.

### Class A Notice for FCC

Modifying the equipment without Cisco's authorization may result in the equipment no longer complying with FCC requirements for Class A digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

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 not installed and used in accordance with the



instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.

## Class A Notice for Canada

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

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

## Statement 340—Class A Warning for CISPR22



### Warning

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.

### Waarschuwing

Dit is een product van klasse A. In een woonomgeving kan dit product radiostoring veroorzaken. In dat geval moet de gebruiker de juiste maatregelen nemen.

### Varoitus

Tämä on A-luokan tuote. Kotona käytettynä tämä tuote voi aiheuttaa radiotaajuushäiriöitä, jolloin käyttäjän tulisi ryhtyä vaadittaviin toimenpiteisiin häiriöiden ehkäisemiseksi.

### Attention

Il s'agit d'un produit de classe A. Dans un environnement local, ce produit peut entraîner des perturbations radioélectriques, auquel cas l'utilisateur devra éventuellement prendre des mesures adéquates.

### Warnung

Dies ist ein Produkt der Klasse A. Bei der Verwendung dieses Produkts im Haus- oder Wohnungsbereich kann es zu Funkstörungen kommen. In diesem Fall muss der Benutzer u. U. angemessene Maßnahmen ergreifen.

### Avvertenza

Prodotto di classe A. È possibile che il prodotto generi interferenze radio in un ambiente chiuso. In questo caso l'utente deve intraprendere le misure adeguate per risolvere il problema.

### Advarsel

Dette er et produkt i klasse A. I et hjemmemiljø kan dette produktet forårsake radioforstyrrelser, og brukeren kan da være nødt til å ta de nødvendige forholdsregler.

### Aviso

Este é um produto de classe A. Em um ambiente doméstico, este produto pode causar interferência de rádio. Nesse caso, talvez o usuário precise tomar as medidas adequadas.

### ¡Advertencia!

Este es un producto de clase A. En el ámbito doméstico, este producto puede causar radiointerferencias, lo que puede hacer necesaria la puesta en marcha de medidas adecuadas.

### Varning!

Detta är en klass A-produkt. Denna produkt kan orsaka radiostörningar inomhus. Det kan då vara ett krav att användaren vidtar lämpliga åtgärder.

**Figyelem** Ez egy A osztályba tartozó termék. Lakáson belüli környezetben előfordulhat, hogy a termék rádióvételi interferenciát okoz; ilyen esetben megfelelő lépéseket kell tenni a zavar megszüntetése érdekében.

**Предупреждение** Данное изделие относится к классу А. При установке в жилых помещениях данное изделие может стать причиной радиопомех, в результате чего пользователю может потребоваться предпринять соответствующие меры.

**警告** 这是类别 A 产品。在家用环境中，该产品可能会引起无线电干扰，此时用户需要采取适当措施。

**警告使用者** 這是甲類資訊產品，在居住環境中使用時，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。

**警告** この装置はクラスA製品です。この装置を住宅地で使用した場合、電波妨害を引き起こすことがあります。その場合、ユーザが適切な防止措置を講じるよう求められることがあります。

## Statement 191—VCCI Class A Warning for Japan



### Warning

This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.

**警告** これは、情報処理装置等電波障害自主規制協議会（VCCI）の規定に基づくクラスA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取るよう要求されることがあります。

## Statement 256—Class A Warning for Hungary



Warning

This equipment is a class A product and should be used and installed properly according to the Hungarian EMC Class A requirements (MSZEN55022). Class A equipment is designed for typical commercial establishments for which special conditions of installation and protection distance are used.

Figyelem

**Figyelmeztetés a felhasználói kézikönyv számára: Ez a berendezés "A" osztályú termék, felhasználására és üzembe helyezésére a magyar EMC "A" osztályú követelményeknek (MSZ EN 55022) megfelelően kerülhet sor, illetve ezen "A" osztályú berendezések csak megfelelő kereskedelmi forrásból származhatnak, amelyek biztosítják a megfelelő speciális üzembe helyezési körülményeket és biztonságos üzemelési távolságok alkalmazását.**

## Statement 294—Class A Warning for Korea



Warning

This is a Class A Device and is registered for EMC requirements for industrial use. The seller or buyer should be aware of this. If this type was sold or purchased by mistake, it should be replaced with a residential-use type.

주의

A급 기기 이 기기는 업무용으로 전자파 적합 등록을 한 기기이  
오니 판매자 또는 사용자는 이 점을 주의하시기 바라며 만약  
잘못 판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

# Telecom Approvals Listing

The Cisco ONS 15500 Series meets the requirements listed in this section for telecommunications equipment.

## JATE Certification for Japan

The Cisco ONS 15500 Series meets the requirements of the Japan Approvals Institute for Telecommunications Equipment (JATE). [Table 3](#) lists the JATE approval details.

**Table 3** JATE Approval

Applicant Name	Model Number	Approval Number
Nihon Cisco Systems	15540-TSP1-01A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-03A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-05A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-07A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-09A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-11A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-13A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-15A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-17A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-19A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-21A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-23A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-25A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-27A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-31A3	D02-0462JP
Nihon Cisco Systems	15540-TSP1-01B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-03B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-05B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-07B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-09B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-11B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-13B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-15B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-17B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-19B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-21B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-23B3	D02-0463JP

**Table 3** *JATE Approval (continued)*

Applicant Name	Model Number	Approval Number
Nihon Cisco Systems	15540-TSP1-25B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-27B3	D02-0463JP
Nihon Cisco Systems	15540-TSP1-31B3	D02-0463JP
Nihon Cisco Systems	15540-TSP2-0100	D02-0464JP
Nihon Cisco Systems	15540-TSP2-0300	D02-0464JP
Nihon Cisco Systems	15540-TSP2-0500	D02-0464JP
Nihon Cisco Systems	15540-TSP2-0700	D02-0464JP
Nihon Cisco Systems	15540-TSP2-0900	D02-0464JP
Nihon Cisco Systems	15540-TSP2-1100	D02-0464JP
Nihon Cisco Systems	15540-TSP2-1300	D02-0464JP
Nihon Cisco Systems	15540-TSP2-1500	D02-0464JP
Nihon Cisco Systems	15540-TSP2-1700	D02-0464JP
Nihon Cisco Systems	15540-TSP2-1900	D02-0464JP
Nihon Cisco Systems	15540-TSP2-2100	D02-0464JP
Nihon Cisco Systems	15540-TSP2-2300	D02-0464JP
Nihon Cisco Systems	15540-TSP2-2500	D02-0464JP
Nihon Cisco Systems	15540-TSP2-2700	D02-0464JP
Nihon Cisco Systems	15540-TSP2-2900	D02-0464JP
Nihon Cisco Systems	15540-TSP2-3100	D02-0464JP

## GR-1089-Core Intrabuilding Lightning—Immunity Requirements



### Caution

To comply with GR-1089-Core intrabuilding lightning-immunity requirements, you must use shielded (screened) cable that is grounded at both ends.

## RRL Certification for Korea

The following equipment meets the requirements of the Director General of Radio Research Lab (RRL) Ministry of Information and Communication (MIC), Republic of Korea. Refer to [Table 4](#) for RRL approval details.

**Table 4** *Korea RRL Approval*

Model Number	Approval Number
CP-7912G	E-K900-03-0863(B)

## Related Documentation

Refer to the following URL for the most recent documents about the Cisco ONS 15500 Series:

<http://www.cisco.com/univercd/cc/td/doc/product/mels/>

## Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

### Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

[http://www.cisco.com/public/countries\\_languages.shtml](http://www.cisco.com/public/countries_languages.shtml)

## Ordering Documentation

You can find instructions for ordering documentation at this URL:

[http://www.cisco.com/univercd/cc/td/doc/es\\_inpk/pdi.htm](http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm)

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:  
<http://www.cisco.com/en/US/partner/ordering/index.shtml>
- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

# Documentation Feedback

You can submit e-mail comments about technical documentation to [bug-doc@cisco.com](mailto:bug-doc@cisco.com).

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems  
Attn: Customer Document Ordering  
170 West Tasman Drive  
San Jose, CA 95134-9883

We appreciate your comments.

## Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour-a-day, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance. If you do not hold a valid Cisco service contract, please contact your reseller.

### Cisco TAC Website

The Cisco TAC website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year. The Cisco TAC website is located at this URL:

<http://www.cisco.com/tac>

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

### Opening a TAC Case

Using the online TAC Case Open Tool is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using the recommended resources, your case will be assigned to a Cisco TAC engineer. The online TAC Case Open Tool is located at this URL:

<http://www.cisco.com/tac/caseopen>

For P1 or P2 cases (P1 and P2 cases are those in which your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

## TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

## Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Go to this URL to visit the company store:  
<http://www.cisco.com/go/marketplace/>
- The *Cisco Product Catalog* describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:  
<http://cisco.com/univercd/cc/td/doc/pcat/>
- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press online at this URL:  
<http://www.ciscopress.com>
- *Packet* magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:  
<http://www.cisco.com/packet>
- *iQ Magazine* is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:  
<http://www.cisco.com/go/iqmagazine>



- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:  
<http://www.cisco.com/ipj>
- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:  
<http://www.cisco.com/en/US/learning/index.html>

## Cisco Limited 5-Year Hardware and 1-Year Software Warranty Terms

There are special terms applicable to your hardware warranty and various services that you can use during the warranty period. Your formal Warranty Statement, including the warranty applicable to Cisco software, is included on the CD that accompanies your Cisco product. Follow these steps to access and download the *Cisco Information Packet* and your warranty document from the CD or from Cisco.com.

1. Launch your browser, and go to this URL:

[http://www.cisco.com/univercd/cc/td/doc/es\\_inpk/cetrans.htm](http://www.cisco.com/univercd/cc/td/doc/es_inpk/cetrans.htm)

The Warranties and License Agreements page appears.

2. To read the *Cisco Information Packet*, follow these steps:

- a. Click the **Information Packet Number** field, and make sure that the part number 78-5235-02F0 is highlighted.
- b. Select the language in which you would like to read the document.
- c. Click **Go**.

The Cisco Limited Warranty and Software License page from the Information Packet appears.

- d. Read the document online, or click the **PDF** icon to download and print the document in PDF format (Adobe Portable Data File).




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**Note** You must have Adobe Acrobat Reader to view and print PDF files. You can download the reader from Adobe's website: <http://www.adobe.com>

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3. To read translated and localized warranty information about your product, follow these steps:

- a. Enter this part number in the Warranty Document Number field:  
78-13712-01B0
- b. Select the language in which you would like to read the document.
- c. Click **Go**.

The Cisco warranty page appears.

- d. Read the document online, or click the **PDF** icon to download and print the document in PDF format (Adobe Portable Data File).

You can also contact the Cisco service and support website for assistance:

[http://www.cisco.com/public/Support\\_root.shtml](http://www.cisco.com/public/Support_root.shtml).

**Duration of Hardware Warranty**

Five (5) Years

**Duration of Software Warranty**

One (1) Year

**Replacement, Repair, or Refund Policy for Hardware**

Cisco or its service center will use commercially reasonable efforts to ship a replacement part for delivery within fifteen (15) working days after receipt of the defective product at Cisco's site. Actual delivery times of replacement products can vary, depending on the customer location.

Cisco reserves the right to refund the purchase price as its exclusive warranty remedy.

**To Receive a Return Materials Authorization (RMA) Number**

Contact the company from whom you purchased the product. If you purchased the product directly from Cisco, contact your Cisco Sales and Service Representative.

Complete the information below, and keep it for reference.

Company product purchased from	
Company telephone number	
Product model number	
Product serial number	
Maintenance contract number	

This document is to be used in conjunction with the documents listed in the "[Related Documentation](#)" section.

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