

Dell SonicWALL

SonicPoint-N

Getting Started Guide

Draft Document



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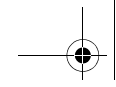
Legend

 **CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.

 **WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.

 **IMPORTANT NOTE, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

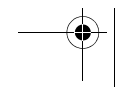
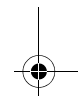
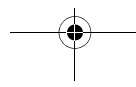
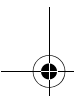
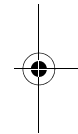
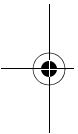
SonicPoint-N Getting Started Guide
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Software Version - Rev. 00
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In this guide

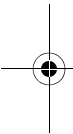
This *Getting Started Guide* provides instructions for basic installation and configuration of the Dell SonicWALL SonicPoint-N wireless appliances in single-unit or distributed wireless deployments.

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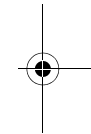




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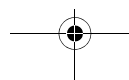


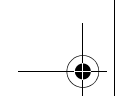
Additional information

The following sections provide additional information for the SonicPoint-N.

[Support and training options, page 35](#)

[Product safety and regulatory information, page 41](#)



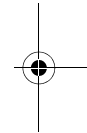
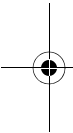


Before you begin

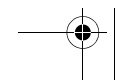
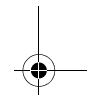
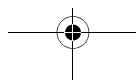
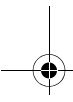
In this section:

This section provides a basic checklist of materials and information needed before you begin.

- ["Check package contents"](#) on page 4
- ["What you need to begin"](#) on page 5
- ["SonicPoint top panel/status LEDs"](#) on page 6



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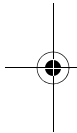


Check package contents

Before continuing, ensure that your SonicPoint package contains the following materials:

SonicPoint-N Appliance Checklist
<input type="checkbox"/> Getting Started Guide
<input type="checkbox"/> SonicPoint-N Appliance
<input type="checkbox"/> Mounting Kit (Ceiling Braces, Anchor and Screw Kit)
<input type="checkbox"/> Front LED/Logo Cover Plate
<input type="checkbox"/> Power Adaptor*

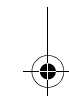
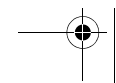
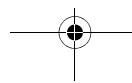
*The included power cord is approved for use only in specific countries or regions. Before using a power cord, verify that it is rated and approved for use in your location.



Any items missing?

If any of the items corresponding to your product are missing from the package, contact Dell SonicWALL Technical Support at <https://support.software.dell.com/manage-service-request>

A listing of the most current support documents are available online at:
<https://support.software.dell.com/>





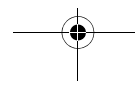
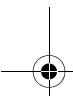
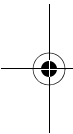
What you need to begin

This page provides basic network hardware and software prerequisites as a baseline for SonicPoint-N deployments.

Hardware/firmware requirements

The Dell SonicWALL SonicPoint-N access points are centrally managed by any of the following Dell SonicWALL appliances running SonicOS 5.6 or higher:

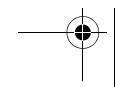
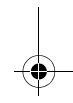
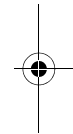
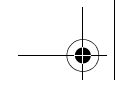
- SuperMassive 9000 Series
- NSA Series (including NSA 2400MX)
- TZ 215/205/105 Series
- TZ 210/200/100 Series



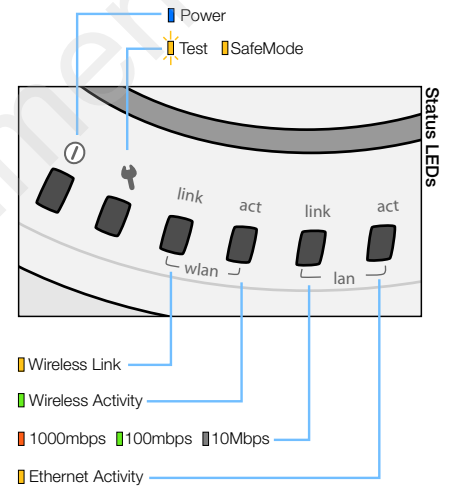
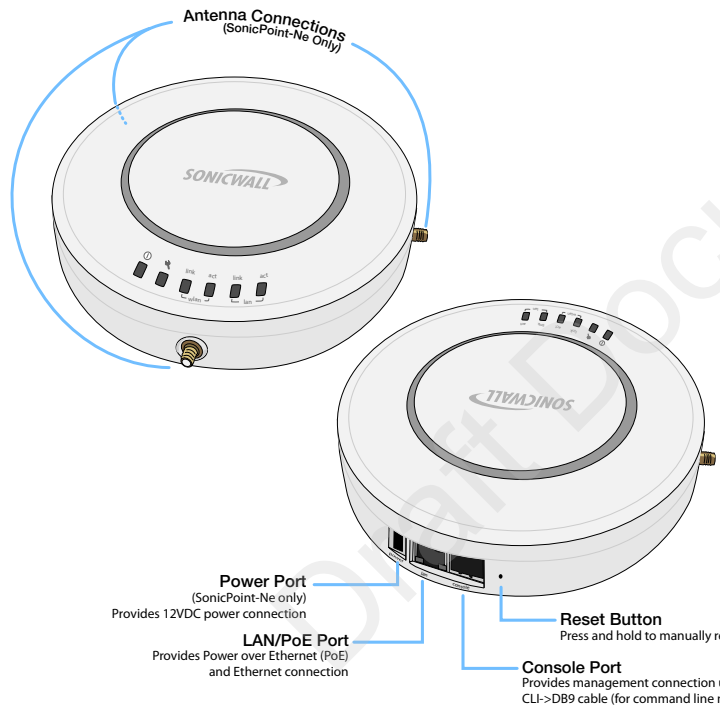
Network deployment requirements

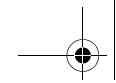
In addition to the aforementioned SonicOS firmware and hardware requirements, ensure that your network deployment includes:

- An 802.3af compliant PoE injector or PoE-capable switch
- An active Internet connection
- A configured interface on the Dell SonicWALL security appliance set to a zone type of “wireless”
- A location selected for placement of your SonicPoint such as a wall or ceiling
- Clients capable of 802.11n wireless communications. Note that although clients with 802.11 a/b/g hardware are supported, the presence of these legacy clients within range of your network may affect the connection speed of your 802.11n clients.



SonicPoint top panel/status LEDs



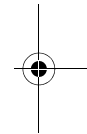
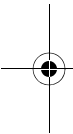


Introduction to secure wireless

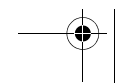
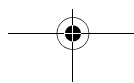
In this section:

This section contains excerpts from the *Dell SonicWALL Secure Wireless Network Integrated Solutions Guide*. The content is meant to provide a brief introduction to Radio Frequency (RF) technology as it pertains to different deployment scenarios.

- ["Wireless RF introduction"](#) on page 8
- ["Placing access points"](#) on page 10
- ["Dell SonicWALL wireless firewalling"](#) on page 13



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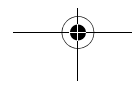
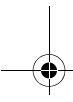
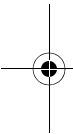


Wireless RF introduction

There are currently four widely adopted standards for 802.11 wireless network types: a, b, g, and n. Although 802.11n is the newest and highest capacity standard, each of the four standards has its own strengths and weaknesses. This section provides overviews of these standards.

The following section provides a brief overview of RF technologies:

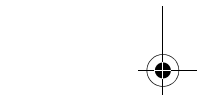
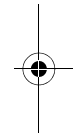
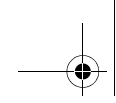
- ["Frequency Bands and Channels"](#) on page 8
- ["802.11 comparison chart"](#) on page 9
- ["Radio frequency barriers"](#) on page 9
- ["RF interference"](#) on page 10



Frequency Bands and Channels

To allow multiple separate wireless networks in a shared and confined space, the RF medium is divided into channels. For devices in the 5GHz range (802.11a), this means the possibility of up to 23 discrete channels. For devices using the 2.4GHz range (802.11b, 802.11g), the wireless space is limited to a maximum of 14 *overlapping* channels. As a result of these overlapping channels, 2.4GHz technology provides only a total of three discrete channels.

The newer 802.11n technology does not fit into either of these categories, as it is capable of using both 2.4GHz and 5GHz, but is limited to 14 overlapping channels for backward compatibility.





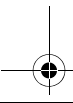
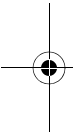
802.11 comparison chart

The following table compares signal characteristics as they apply to the current 802.11 standards:

	802.11a	802.11b	802.11g	802.11n
# of Channels in USA	23	11	11	11
# of Channels in EU	23	13	13	13
# of Channels in Japan	15	14	14	14
Frequency Band	5GHz	2.4GHz	2.4GHz	2.4/ 5GHz
Max. Data Rate	54Mbps	11Mbps	54Mbps	150Mbps 300Mbps
Radius (Range)	90ft/ 25m	120ft/ 35m	120ft/ 35m	300ft/ 90m

NOTE: Although 802.11b/g/n standards provide between 11 and 14 channels, only three of those channels are fully discrete (non-overlapping) channels.

For more information on this topic, refer to the Dell SonicWALL Secure Wireless Networking Integrated Solutions Guide.

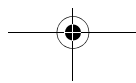
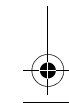
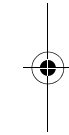


Radio frequency barriers

Determining the location of RF barriers can be a painful part of the placement process, but keep in mind that they can be used beneficially in an attempt to block signals where you do not want coverage.

The following table lists some common RF barrier types:

Barrier Type	RF Signal Blocking
Open air	Very Low
Glass, drywall, cube partitions	Low
Stone floors and walls (brick/marble/granite)	Medium
Concrete, security glass, stacked books/paper	High
Metal, metal mesh (chicken wire), re-enforced concrete, water	Very High
Faraday cage	Extremely High





RF interference

RF interference from home, office, and medical equipment is a common source of frustration in wireless deployments from the smallest home office to the largest multi-building campus.

The following table lists several common sources of RF interference:

Interference Source	Possible RF Interference	Band(s) Affected
2.4GHz phones	Entire range (hundreds of feet)	802.11b/g/n
Bluetooth devices	Within 30 feet	802.11b/g/n
Microwave oven	Within 10-20 feet	802.11b/g/n
Scientific and medical equipment	Short distance, varies	802.11b/g/n
Off-network access points	Entire range	All
RF reflective objects	Long-range wireless bridging	All

NOTE: Most newer model microwave ovens have sufficient shielding to negate possible RF interference.



Placing access points

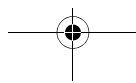
Physical placement of an access point has a measurable effect on who can and cannot access your wireless signal. The following sections provide an overview of wireless access point placement, signal strength, and signal direction in common wireless deployment situations:

- "Making hardware decisions" on page 10
- "Solutions to RF interference and barriers" on page 11

TIP: For the latest SonicPoint wireless deployment information from **switching recommendations to site survey**, see the Dell SonicWALL SonicPoint Deployment Best Practices Guide at: <https://support.software.dell.com/>

Making hardware decisions

The first decision in hardware is the access point. While access point technology (802.11a/b/g/n) is one factor in determining your placement, based on distance served and

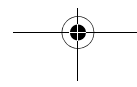
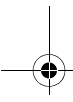
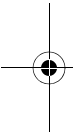




bandwidth needed, taking note of other hardware-based factors is just as important.

Some of the more important hardware decisions include:

- **Number of access points versus user density** - If too many users are serviced by a single access point, maximum transfer rates are reached and that point may become a bottleneck for the whole system.
- **Bandwidth** - How much data is moving upstream and downstream for a given type of user?
- **Ethernet cabling** - Where are you running the powered Ethernet (PoE) cable to and how are you securing that cable. Is your PoE switch able to power all access points?
- **Hubs / Switches** - Your wireless deployment has to tie back into your network security appliance and LAN resources at some point. What speed is needed for your Ethernet connection to accommodate the number of access points you are installing? Also consider where your key networking devices are deployed and how they will connect efficiently with your wireless appliances.
- **Upgrade your Ethernet connections for 802.11n** - In most cases, 802.11n wireless hardware requires more bandwidth than a single (or even dual) 10/100 Ethernet connection can handle. Gigabit Ethernet connectivity

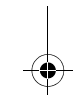
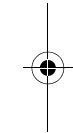


between the WLAN and the LAN is required to take full advantage of 802.11n speed.

- **Power up that PoE for 802.11n** - Part of your wireless network planning should include verifying that your PoE equipment is 802.3af compliant, and that a full 15 watts of power can be supplied to each SonicPoint.

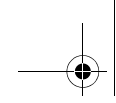
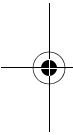
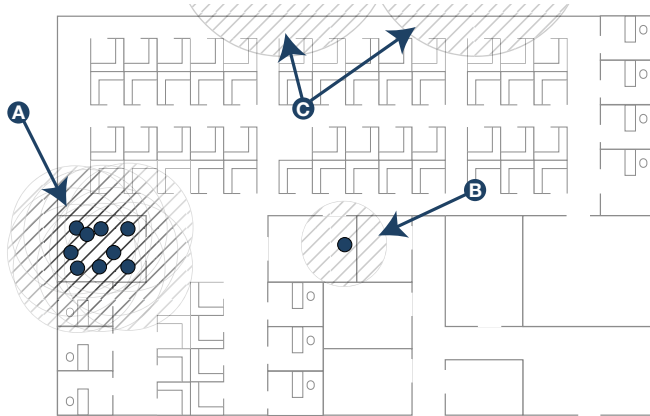
Solutions to RF interference and barriers

These days, finding an environment with no RF interference or noise is nearly impossible. Only if you are setting up an office in a secluded redwood grove can you count on RF interference to be a non-issue. Even then, the redwood trees might just be among those fitted with high-gain cellular antennas, an all-too-common occurrence today. Regardless, you should expect



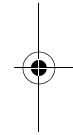


to deal with some level of signal interference in your deployment.



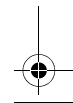
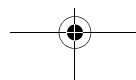
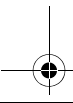
Location A - rogue access points or wireless test lab

- **Problem** - Wireless product test labs and other (non-malicious) rogue access points are problems in many Wi-Fi deployments.
- **Solution** - Either eliminate all rogue access points, or force their owners to use a set channel that does not overlap with your distributed wireless solution.



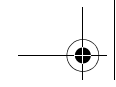
Location B - spectrum noise for 2.4GHz and 5GHz

- **Problem** - Your phone system is partially wireless and uses the 2.4GHz spectrum.
- **Solution** - Give VoIP a try. VoIP will work in tandem *with* your wireless network, instead of against it. For more on Dell SonicWALL VoIP implementation and





capabilities, refer to the *Configuring VoIP* SonicOS feature module available at: <https://support.software.dell.com/>



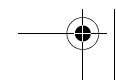
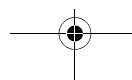
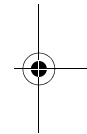
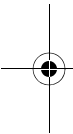
Dell SonicWALL wireless firewalling

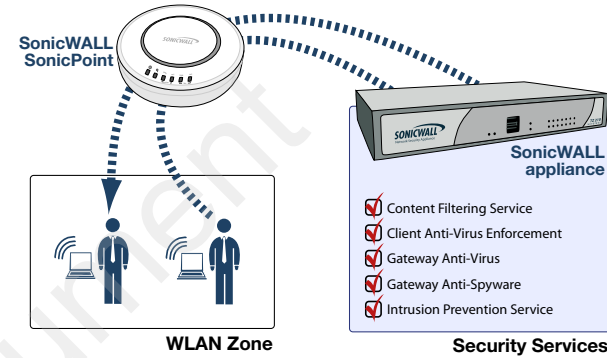
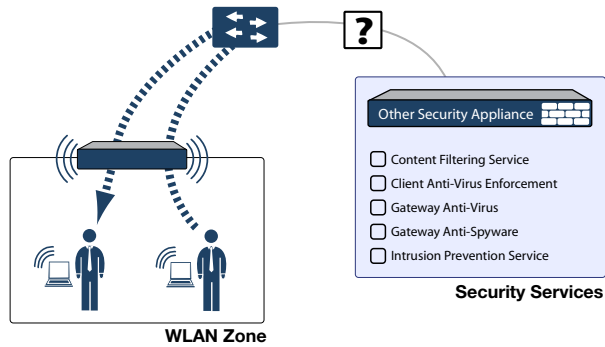
Location C - off-network access points

- **Problem** - Your neighbors need wireless, too! Unfortunately, only a few sheets of drywall separate you. **Solution** - Overpowering your neighbors with high-gain antennas is an option, but not a particularly neighborly one. Instead, you could simply use a different channel for wireless access points bordering this wall and ensure that your neighbors do the same. Performance in some dual-channel wireless devices may take a hit, but it is better than dropped connections—or unhappy neighbors.

When a wireless device uses an access point to communicate with a device on another subnet or on a completely different network, traffic between the devices is forced to traverse the network gateway. This traversal enables security services to be enforced at the gateway.

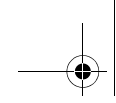
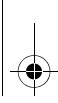
Standard practice for wireless firewalling (where one wireless client is communicating with another) bypasses many of the critical security services. The following illustration shows the standard practice for wireless firewalling.





Many security products on the market share this potential vulnerability when two users connected by a common hub or wireless access point wish to exchange data.

Dell SonicWALL addresses this security shortcoming by managing the SonicPoint access points from the network security appliance. This allows complete control of the wireless space, including zone enforcement of security services and complete firewalling capabilities, as shown in the following illustration.



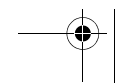
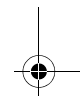
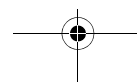
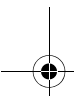
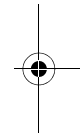
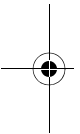
Registering your appliance

In this section:

This section provides instructions for registering your Dell SonicWALL SonicPoint appliance.

- [Creating a MySonicWALL account](#) - page 16
- [Registering and licensing your appliance on MySonicWALL](#) - page 16
- [Using Dell SonicWALL security services for wireless clients](#) - page 17

NOTE: Registration is an important part of the setup process and is necessary to receive the full benefits of Dell SonicWALL security services, firmware updates, and technical support.



Creating a MySonicWALL account

A MySonicWALL account is required for product registration. If you already have an account, continue to the [Registering and licensing your appliance on MySonicWALL](#) section.

To create a MySonicWALL account:

- 1 In your browser, navigate to www.mysonicwall.com.
- 2 In the login screen, click **Register Now**.

Dell SonicWALL | MySonicWALL

English | Français(French) | Deutsch(German) | Italiano(Italian) | 日本語(Japanese) | Español(Spanish) | 中文(Chinese) | 한국어(Korean) | Português(Portuguese)

Username/Email: [Forgot?](#)

Password: [Forgot?](#)

Home

Login

Not a registered user? [Register Now](#)

- 1 Complete the Registration form and click **Register**.
- 2 Verify the information is correct and click **Submit**.
- 3 In the screen confirming your account was created, click **Continue**.

Registering and licensing your appliance on MySonicWALL

You must register your Dell SonicWALL security appliance on MySonicWALL to enable full functionality.

To register your SonicPoint, complete the following tasks:

- 1 Login to your MySonicWALL account.
- 2 Enter the serial number of your product in the **REGISTER A PRODUCT** field and click the **Next** button.

- 3 Type a friendly name for the appliance, select the **Product Group** if any, type the authentication code into the appropriate text boxes, and then click **Register**.
- 4 On the Product Survey page, fill in the requested information and then click **Continue**.
- 5 To pair your SonicPoint with a Dell SonicWALL network security appliance, navigate to the **Service Management** page by clicking on the device you wish to pair with your SonicPoint.
- 6 Scroll to the **Associated Products** section and click the **Dell SonicWALL SonicPoint** link to associate your SonicPoint with the appliance.

Using Dell SonicWALL security services for wireless clients

Any security services you purchased for your Dell SonicWALL appliance can also be applied to wireless clients. Enable the

security services on the WLAN zone or on a custom wireless zone, and your wireless traffic is protected along with your wired traffic.

If you have not purchased a security service subscription for your Dell SonicWALL appliance, visit www.mysonicwall.com to register for free trials.

- To try a Free Trial of a service, click **Try** in the Service Management page.
- To purchase a product or service, click **Buy Now** in the Service Management page.

The screenshot shows a web interface titled "Status - Gateway AV/Anti-Spyware/Intrusion Prevention". It displays the following information:

Product Name:	My TZ 210
Serial Number:	0017CS0881C
Activation Status:	Enabled
Expiration Date:	18 Dec 2008

Below this information is a "Renew Service" section. It contains a "BACK" button and a "RENEW SERVICE" button. A red warning message states: "Enter an Activation Key and Submit or Click the Shopping cart to buy Activation keys online. Select 'Upgrade' to increase licenses and 'Renew' to extend current expiration date." Below this, a note says: "Multiple activations can be performed by adding keys for the same service separated by a comma." There is an "Activation Key:" label followed by a text input field, a "BUY NOW" button, and a "SUBMIT" button.

If you recently purchased security services, you will receive an activation key. This key is emailed to you after online purchases, or is on the front of the certificate that was included with your purchase.

To activate existing licenses:



- 1 Log in to mysonicwall.com and navigate to the **My Products** page.
- 2 Select the registered product you want to manage.
- 3 Locate the product on the Service Management page and click **Enter Key** in that row.

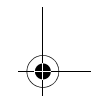
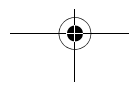
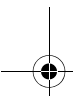
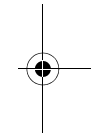
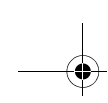
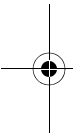
SERVICE BUNDLES			
Service Name	Info	Status	Options
Client/Server Anti-Virus Suite		-	Enter Key
Comprehensive Gateway Security Suite		-	Enter Key

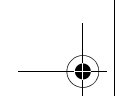
- 4 In the Activate Service page, type or paste your key into the **Activation Key** field and click **Submit**.

When activation is complete, MySonicWALL displays an activation screen with service status and expiration information.

Gateway AV/Anti-Spyware/Intrusion Prevention	Expiry: 11 Jun 2009
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You have successfully registered your Dell SonicWALL appliance, and now you need to enable security services on the Dell SonicWALL appliance itself. Dell SonicWALL security services are not enabled by default.



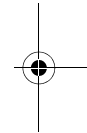
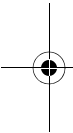


Configuring your appliance for wireless

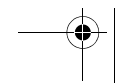
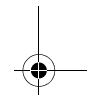
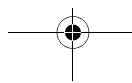
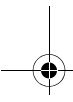
In this section:

This section provides instructions for configuring the Dell SonicWALL network security appliance to connect with your Dell SonicWALL SonicPoint.

- ["An introduction to zones and interfaces"](#) on page 20
- ["Configuring wireless access"](#) on page 20



Draft Document





An introduction to zones and interfaces

Zones split a network infrastructure into logical areas, each with its own set of usage rules, security services, and policies. Most networks include multiple definitions for zones, including those for trusted, untrusted, public, encrypted, and wireless traffic.

Some basic (default) zone types include:

WAN - Untrusted resources outside your local network

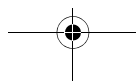
LAN - Trusted local network resources

WLAN - Local wireless network resources originating from SonicWALL wireless enabled appliances

DMZ - Local network assets that must be accessible from the WAN zone (such as Web and FTP servers)

VPN - Trusted endpoints in an otherwise untrusted zone (such as the WAN)

The security features and settings configured for the zones are enforced by binding a zone to one or more physical interfaces (such as, X0, X1, or X2) on the Dell SonicWALL network security appliance.



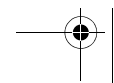
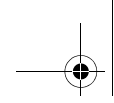
The X1 and X0 interfaces are preconfigured as WAN and LAN respectively. The remaining ports (X2-X6) are also LAN ports by default. However, these ports can be configured to meet the needs of your network, either by using basic zone types (WAN, LAN, WLAN, DMZ, VPN) or configuring a custom zone type to fit your network requirements (for example: Gaming Console Zone, Wireless Printer Zone, Wireless Ticket Scanner Zone).

Configuring wireless access

This section describes how to configure SonicPoints with a Dell SonicWALL network security appliance.

Dell SonicWALL SonicPoints are wireless access points specially engineered to work with Dell SonicWALL network security appliances. Before you can manage SonicPoints in the management interface, complete the following steps:

- ["Configuring provisioning profiles"](#) on page 21
- ["Configuring a wireless zone"](#) on page 23





- "Configuring the network interface" on page 25

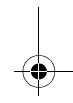
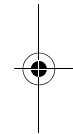
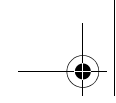
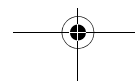
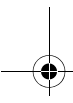
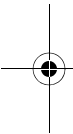
Configuring provisioning profiles

SonicPoint Profile defines settings that can be configured on a SonicPoint, such as radio SSIDs, and channels of operation.

These profiles make it easy to apply basic settings to a wireless zone, especially when that zone contains multiple SonicPoints. When a SonicPoint is connected to a zone, it is automatically provisioned with the profile assigned to that zone. If a SonicPoint is connected to a zone that does not have a custom profile assigned to it, a default profile is used.

To add a new profile:

- 1 Navigate to the **SonicPoint > SonicPoints** page in the SonicOS interface.
- 2 Click **Add SonicPoint** below the list of SonicPoint provisioning profiles.
- 3 The Add/Edit SonicPoint Profile window displays.



SonicPoint Profile 'SonicPoint' Settings

Enable SonicPoint Retain Settings

Enable RF Monitoring

Name Prefix : MyWireless

Country Code: United States

Settings tab

- 1 Select **Enable SonicPoint**.
- 2 Enter a **Name Prefix** to be used internally as the first part of the name for each SonicPoint provisioned.
- 3 Select the **Country Code** for the area of operation.

802.11n Radio tab

- 1 Select **Enable Radio**.
- 2 Optionally, select a schedule for the radio to be enabled from the drop-down list. The most common work and weekend hour schedules are pre-populated for selection.
- 3 Select a **Radio Mode** to dictate the radio frequency band(s). The default setting is **2.4GHz 802.11n/g/b Mixed**.

- 4 Enter an **SSID**. This is the access point name that appears in clients' lists of available wireless connections.
- 5 Select a **Primary Channel** and **Secondary Channel**. You can choose AutoChannel unless you have a reason to use or avoid specific channels.
- 6 Under **WEP/WPA Encryption**, select the **Authentication Type** for your wireless network. Dell SonicWALL recommends using **WPA2** as the authentication type.
- 7 Fill in the fields specific to the authentication type that you selected. The remaining fields change depending on the selected authentication type.
- 8 Optionally, under **ACL Enforcement**, select **Enable MAC Filter List** to enforce Access Control by allowing or denying traffic from specific devices. Select a MAC address object group from the **Allow List** or **Deny List** to automatically allow or deny traffic to and from all devices with MAC addresses in the group. The Deny List is enforced before the Allow List.

802.11n Radio Settings

Enable Radio Always on ▾

Mode: 2.4GHz 802.11n/g/b Mixed ▾

SSID: MyWireless

Radio Band: Auto ▾

Primary Channel: Auto ▾

Secondary Channel: Auto ▾

Enable Short Guard Interval

Enable Aggregation

Wireless Security

Authentication Type: WPA2 - PSK ▾

Cipher Type: AES ▾

Group Key Interval (seconds): 86400

Passphrase: mypassphrase12345

ACL Enforcement **Enable MAC Filter List**

Allow List: --Select an Address Object Group-- ▾

Deny List: --Select an Address Object Group-- ▾

Advanced tab

Configure the advanced radio settings for the 802.11n radio. For most 802.11n advanced options, the default settings give

optimum performance. For a full description of the fields on this tab, see the *SonicOS Enhanced Administrator's Guide*.

802.11n Advanced Radio Settings

Hide SSID in Beacon

Schedule IDS Scan:

Data Rate:

Transmit Power:

Antenna Diversity:

Beacon Interval (milliseconds):

DTIM Interval:

Fragmentation Threshold (bytes):

RTS Threshold (bytes):

Maximum Client Associations:

Preamble Length:

Protection Mode:

Protection Rate:

Protection Type:

Enable Short Slot Time Allow Only 802.11g Clients to Connect

When you are finished, click **OK**.

Configuring a wireless zone

You can configure a wireless zone on the **Network > Zones** page. Typically, you will configure the WLAN zone for use with SonicPoints.

To configure a standard WLAN zone:

- 1 On the **Network > Zones** page in the **WLAN** row, click the icon in the **Configure** column.
- 2 Click the **General** tab.

Select the **Allow Interface Trust** setting to automate the creation of Access Rules to allow traffic to flow between the interfaces within the zone, regardless of which interfaces to which the zone is applied. For example, if the WLAN Zone has both the **X2** and **X3** interfaces assigned to it, selecting **Allow Interface Trust** on WLAN Zone creates the necessary Access Rules to allow hosts on these interfaces to communicate with each other.

General Settings

Name:

Security Type:

Allow Interface Trust

Enforce Content Filtering Service

CFS Policy:

Enable Client AV Enforcement Service

Enable Gateway Anti-Virus Service

Enable IPS

Enable Anti-Spyware Service

- 3 Select the checkboxes for the security services to enable on this zone. Typically, you would enable **Gateway Anti-Virus**, **IPS**, and **Anti-Spyware**. If your wireless clients are all running Dell SonicWALL Client Anti-Virus, select **Enable Client AV Enforcement Service**.
- 4 Click on the **Wireless** Tab.
- 5 Select **Only allow traffic generated by a SonicPoint** to allow only traffic from SonicPoints to enter the WLAN Zone interface, providing maximum security.

Wireless Settings

Only allow traffic generated by a SonicPoint

SSL-VPN Enforcement

SSL-VPN server:

SSL-VPN service:

WiFiSec Enforcement

WiFiSec Exception Service:

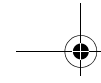
Require WiFiSec for Site-to-Site VPN Tunnel Traversal

Trust WPA / WPA2 traffic as WiFiSec

SonicPoint Settings

SonicPoint Provisioning Profile:

- 6 Optionally, click the **Guest Services** tab to configure guest Internet access solely, or in tandem with secured access. For information about configuring Guest Services, see the *SonicOS Enhanced Administrator's Guide*.
- 7 When finished, click **OK**.

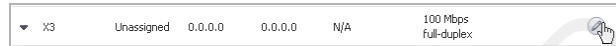


Configuring the network interface

Each SonicPoint or group of SonicPoints must be connected to a physical network interface that is configured for Wireless. SonicOS by default provides a standard wireless zone (WLAN), which can be applied to any available interface.

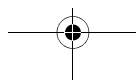
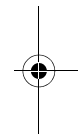
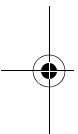
To configure a network interface using the standard wireless (WLAN) zone:

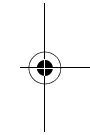
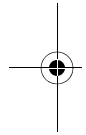
- 1 Navigate to the **Network > Interfaces** page and click **Configure** for the interface to which your SonicPoints are connected.



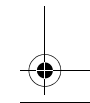
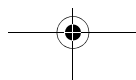
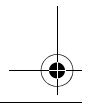
- 2 Select **WLAN** for the **Zone** type.
- 3 Select **Static** for the **IP Assignment**.
- 4 Enter a static **IP Address** in the field. Any private IP is appropriate for this field, as long as it does not interfere with the IP address range of any of your other interfaces.
- 5 Enter a **Subnet Mask**. In our example 255.255.255.0 is an appropriate mask.

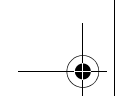
- 6 Optionally, choose a **SonicPoint Limit** for this interface. This option helps limit resources on port-by-port basis when using SonicPoints across multiple ports.
- 7 Optionally, choose to allow **Management** and **User Login** mechanisms if they make sense in your deployment. Remember that allowing login from a wireless zone can pose a security threat, especially if you or your users have not set strong passwords.





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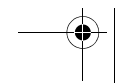
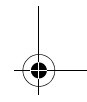
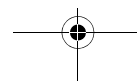
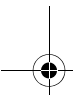
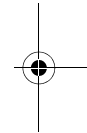
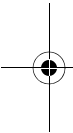


Setting up your SonicPoint

In this section:

This section describes how to connect and configure physical aspects of the SonicPoint including cabling and mounting.

- ["Installing antennas"](#) on page 28
- ["Connecting Ethernet cable"](#) on page 28
- ["Mounting using ceiling brackets"](#) on page 30
- ["Mounting using anchor screws"](#) on page 31
- [Verifying operation](#) - page 32
- [Verifying WAN \(Internet\) connectivity](#) - page 33
- [Troubleshooting tips](#) - page 33



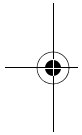
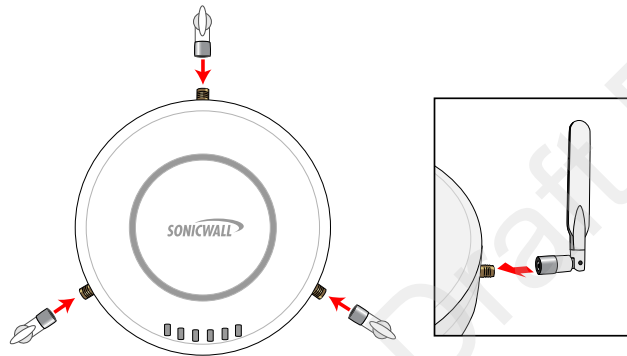


Installing antennas

To install the SonicPoint-N included antennas:

- 1 Remove the antennas from the bag and place one on each connector.
- 2 Carefully finger-tighten the fittings.
- 3 Adjust the antennas for optimal reception.

NOTE: For optimal wireless coverage in most cases, the SonicPoint-N antennas should be oriented vertically.

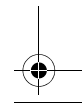
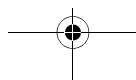
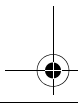
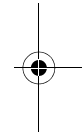
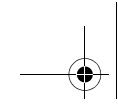


The circular design of the SonicPoint aides in creating a strong tri-directional wireless signal pattern. In most cases, leaving the antennas straight up (as indicated in the illustration) provides the best overall coverage.

NOTE: The SonicPoint-N is authorized to use a dipole antenna with 4dBi or less. Only use antennas provided by Dell SonicWALL; otherwise your authority to use this unit could be revoked. Be aware of the regulations in your region before using other antennas.

Connecting Ethernet cable

The illustration on the following page depicts the SonicPoint within a typical network deployment.

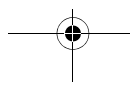
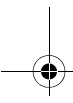
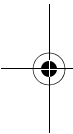




Ethernet cabling: SonicPoint-N vs SonicPoint-ACi

While the SonicPoint-N may be powered with either the included external power adaptor or through Power over Ethernet (PoE), the SonicPoint-ACi must be powered using Power over Ethernet (PoE).

Both SonicPoint appliances should be cabled with CAT5, CAT5e, or CAT6 Ethernet cabling. In addition, the SonicPoint-ACi will not function unless the Ethernet connection to its LAN port is powered either by using the Dell SonicWALL PoE line injector (sold separately), or by using a third-party 802.3af compliant PoE powered switch. For more information on the Dell SonicWALL PoE injector, visit:
<http://www.sonicwall.com/us/en/products.html>

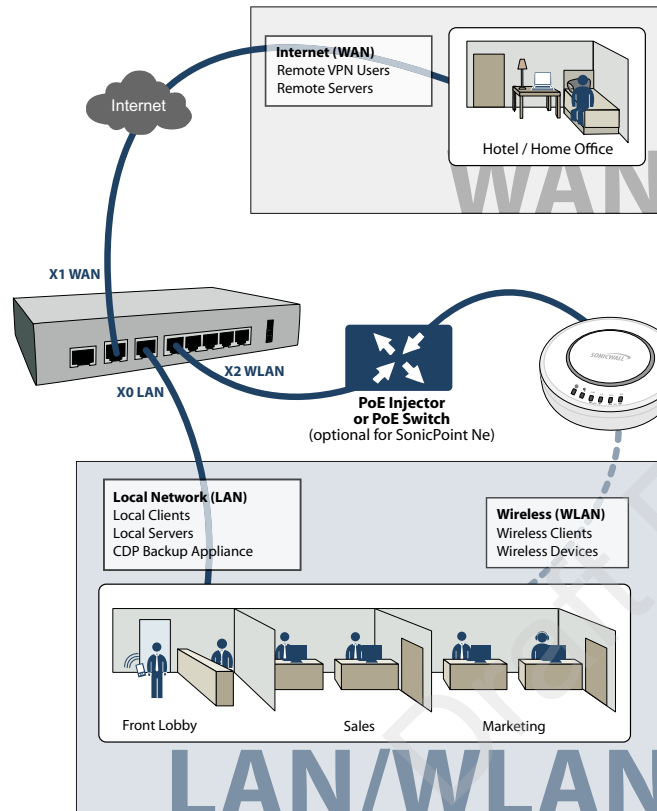


Connecting the PoE cable

If your deployment uses a Dell SonicWALL PoE injector, read and comply with instructions provided with the PoE first, then complete the following steps:

- 1 Plug the power cord of the Dell SonicWALL PoE injector into the power outlet.
- 2 Using Ethernet cable (not included), connect the **Data in** port on the Dell SonicWALL PoE Injector to the **WLAN** zone interface that you created earlier.
- 3 Using Ethernet cable, connect the **Data and Power out** port on the Dell SonicWALL PoE injector to the **LAN** port on the back of your SonicPoint.
- 4 Wait for the **link** LED to illuminate. This indicates an active connection. It takes approximately one minute for the Dell SonicWALL security appliance to auto-provision.

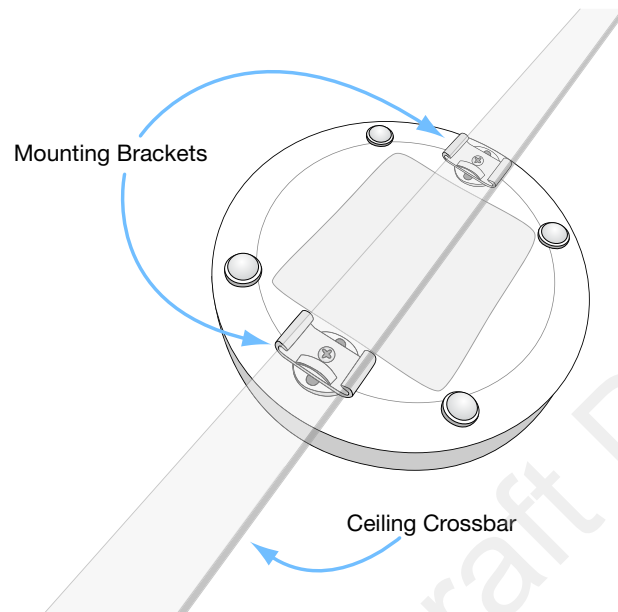




Mounting using ceiling brackets

To mount the SonicPoint to a crossbar between ceiling panels using included brackets:

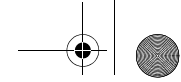
- 1 Using the 3/8" screws, screw in the brackets to the underside of the SonicPoint, making sure both brackets are parallel.
- 2 (Optional) Attach the front LED/logo cover plate to the top of the SonicPoint and if necessary, rotate it to the desired position (See "[Mounting using anchor screws](#)" on page 31 for illustration).
- 3 Supporting the SonicPoint in one hand, clip the edge of each bracket over the edge of the ceiling crossbar. Make sure the SonicPoint is securely attached to the crossbar before releasing the device.



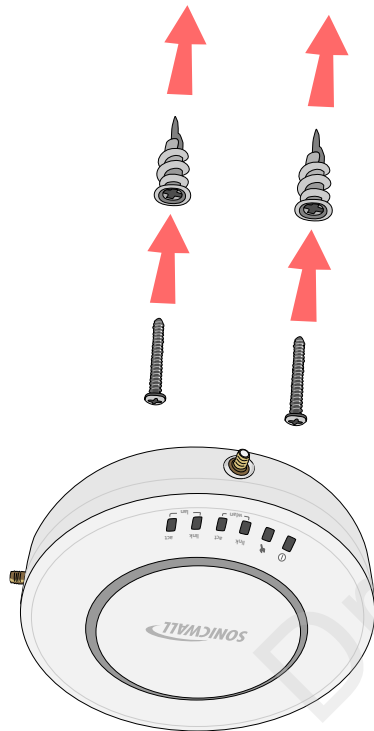
Mounting using anchor screws

To mount the SonicPoint using included anchor screws:

- 1 On the mounting surface, mark the location to make two screw holes. The marks should be horizontally parallel to each other.
- 2 Drill the holes to accommodate the metal anchor screws.
- 3 Screw the anchor screws into the holes to their full depth.
- 4 Insert the 5/8" screws into the anchors, and screw them in deep enough to leave minimal space between the screw heads and the wall surface.
- 5 (Optional) Attach the front LED/logo cover plate to the top of the SonicPoint and if necessary, rotate it to the desired position.
- 6 Supporting the SonicPoint in your hands, securely fit the underside slots of the SonicPoint onto the screw heads.



See also, "Product safety and regulatory information" on page 41



Verifying operation

To verify that the SonicPoint is provisioned and operational, navigate to the SonicPoint > SonicPoints page in the SonicOS management interface. The SonicPoint displays an "operational" status in the SonicPoint table:

SonicPoint /

SonicPoints

Accept Cancel

Synchronize SonicPoints View Style: All SonicPoints

Items 1 to 2 (of 2)

SonicPointN Provisioning Profiles

#	Name Prefix	Applied Zone	802.11n Radio	802.11n Channel	Configure
1	MySonicPoint-N	MyWirelessZone	SSID: MySonicPoint-N Mode: 2.4GHz 802.11n/g/b Mixed	Band: Auto Channel: AutoChannel	Configure
2	SonicPointN	WLAN	SSID: sonicwall-604C Mode: 2.4GHz 802.11n/g/b Mixed	Band: Auto Channel: AutoChannel	Configure

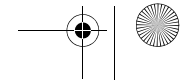
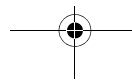
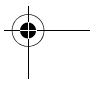
Add SonicPointN Delete Delete All

SonicPointNs

Items 1 to 1 (of 1)

#	Name	Interface	Network Settings	Status	802.11n Radio	802.11n Channel	Enable	Configure
1	SonicPointN 2e53ae	XC3 (MyWirelessZone)	IP: 10.10.40.253 MAC: 00:17:c5:2e:53:ae	Operational	SSID: MySonicPoint-N Mode: 2.4GHz 802.11n/g/b Mixed	Band: Auto Channel: AutoChannel Radio: Enabled (Active)	Enable	Configure

Delete Delete All

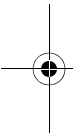




Verifying WAN (Internet) connectivity

Complete the following steps to confirm your Internet connectivity:

- 1 Disconnect a client computer from any other network connections (LAN, 3G, and more).
- 2 Connect the client computer to the wireless access point by selecting the appropriate SSID.
- 3 Launch your Web browser.
- 4 Enter "http://www.sonicwall.com" in the address bar and press **Enter** on the keyboard. The Dell SonicWALL website displays. If you are unable to browse to a website, refer to "[Troubleshooting tips](#)" on page 33.



Troubleshooting tips

If the SonicPoint locates a peer SonicOS device, the two units perform an encrypted exchange and the profile assigned to the relevant wireless zone is used to automatically configure (provision) the newly added SonicPoint unit.

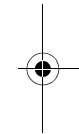
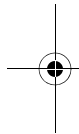
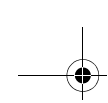
Your SonicPoint is automatically included in the list on the **Wireless > SonicPoints** page of the management interface for the Dell SonicWALL security appliance managing the SonicPoint. If it does not show in the list:

- **Make sure the SonicPoint is connected** to an interface that is configured as part of a Wireless zone. Either the default WLAN zone, or a custom zone with type set to "wireless" is required.
- **Click Synchronize SonicPoints.** This is located in the SonicOS management interface on the SonicPoint > SonicPoints page and forces the Dell SonicWALL appliance, if connected, to download a new SonicPoint image from the Dell SonicWALL back-end server.
- **Ensure that the SonicPoint is connected to a ~~802.3af~~ compliant PoE powered Ethernet connection.** If using PoE to power your SonicPoint appliance, keep in mind that a PoE-capable switch or PoE injector is required.

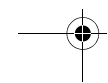
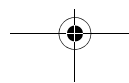


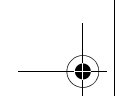


Verify that your PoE switch/injector is rated to deliver at least 15 watts of power to each port. Some older PoE devices do not provide sufficient power to properly run current generation 802.11n devices across multiple ports. Check with your PoE manufacturer for 802.3af support, or use a Dell SonicWALL PoE injector.



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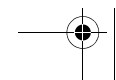
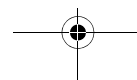
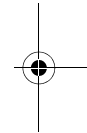
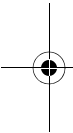


Support and training options

In this section:

This section provides overviews of customer support and training options for Dell SonicWALL appliances.

- ["Customer support"](#) on page 36
- ["Knowledge base"](#) on page 36
- ["User forums"](#) on page 36
- ["Training"](#) on page 37
- ["Related documentation"](#) on page 37
- ["Additionally supported languages"](#) on page 38

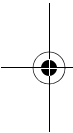




Customer support

Dell SonicWALL offers telephone, email and Web-based support to customers who have a valid Warranty or who purchased a Support Contract. Review our Warranty Support Policy for product coverage. Dell SonicWALL also offers a full range of consulting services to meet your needs, from our innovative implementation services to traditional statement of work-based services.

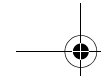
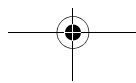
For further information, visit:
<https://support.software.dell.com/>



Knowledge base

The Knowledge Base allows users to search for Dell SonicWALL documents based on the following types of search tools:

- Browse
- Search for keywords
- Full-text search

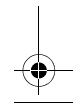
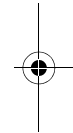


For further information, visit:
<http://www.sonicwall.com/us/en/support/2213.html>

User forums

The Dell SonicWALL User Forums are a resource that provide users the ability to communicate and discuss a variety of security and appliance subject matters. The following categories are available for users:

- Content Security Manager topics
- Continuous Data Protection topics
- Email Security topics
- Firewall topics
- Network Anti-Virus topics
- Security Services and Content Filtering topics
- Dell SonicWALL GMS and Viewpoint topics
- SonicPoint and Wireless topics
- SSL VPN topics
- TZ 210 / Wireless WAN - 3G Capability topics





- VPN Client topics
- VPN site-to-site and interoperability topics

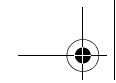
For further information, visit:

<https://forum.sonicwall.com/>

- Authorized Training Partners

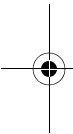
For further information, visit:

<https://support.software.dell.com/essentials/sonicwall-certification-programs>



Training

Related documentation

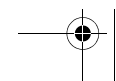
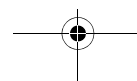
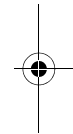


Dell SonicWALL offers an extensive sales and technical training curriculum for Network Administrators, Security Experts, and Medallion Partners who need to enhance their knowledge and maximize their investment in Dell SonicWALL Products and Security Applications. Dell SonicWALL Training provides the following resources for its customers:

- E-Training
- Instructor-Led Training
- Custom Training
- Technical Certification

See the following related documents for more information:

- SonicOS Enhanced Administrator's Guide
- SonicOS Enhanced Release Notes
- SonicOS Enhanced Feature Modules
 - MAC-IP Anti-Spoof
 - Virtual Access Points
 - SSL VPN Remote Access
 - High Availability

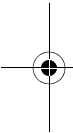




- Multiple Administrators
- NAT Load Balancing
- Packet Capture
- Radio Frequency Monitoring
- Single Sign-On
- SSL Control
- Secure Wireless Bridging
- Dell SonicWALL GMS Administrator's Guide
- Dell SonicWALL GVC Administrator's Guide
- Dell SonicWALL GAV Administrator's Guide
- Dell SonicWALL IPS Administrator's Guide
- Dell SonicWALL Anti-Spyware Administrator's Guide

For further information, visit:

<https://support.software.dell.com/>



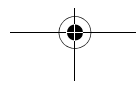
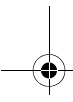
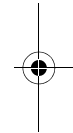
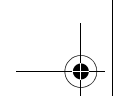
Additionally supported languages

Dell SonicWALL Getting Started Guides, Quick Start Guides, User Guides, appliance firmware, and various end-user clients are now available in multiple languages.

After registering your product, you can check for applicable firmware or end-user client software on MySonicWALL. New releases are posted as they become available, so check periodically for additional firmware, software, and documents.

本地化固件和文档通知

Dell SonicWALL 《入门指南》、《快速入门指南》、《用户指南》、设备固件和多种终端用户客户端现已支持多种语言。请从 <http://www.sonicwall.com/cn/downloads.html> 查找可用的中文文档。





请按照《入门指南》或《快速入门指南》中的说明，在 MySonicWALL 网站 <http://www.mysonicwall.com> 注册您的设备。注册完成后，您可以在 MySonicWALL 网站查看相应的固件和终端用户客户端软件。我们会在第一时间发布可用的新版本，请定期检查以获取最新的固件、软件和文档。

ローカライズ版ファームウェアおよびドキュメントについて

Dell SonicWALL 導入ガイド、クイック スタート ガイド、ユーザ ガイド、装置用ファームウェア、および多彩なエンドユーザ クライアントが複数の言語で利用できるようになりました。利用可能な日本語ドキュメントは、http://www.sonicwall.com/japan/documents/support_document.html をご覧ください。

導入ガイドまたはクイック スタート ガイドの手順に沿って、MySonicWALL (<http://www.mysonicwall.com>) で製品を登録します。製品の登録後に、利用可能なファームウェアまたはエンドユーザ クライアントを MySonicWALL 上で確認できます。新しいリリースは利用可能になると公開されるので、ファームウェア、ソフトウェア、およびドキュメントを定期的に確認してください。

펌웨어 및 문서 한글화 안내

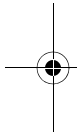
Dell SonicWALL Getting Started 가이드, Quick Start 가이드, 사용자 가이드, 어플라이언스 펌웨어 및 다양한 엔드유저 클라이언트가 다국어 지원을 지원합니다. 다음에서 사용 가능한 한국어 문서를 찾아 보세요. <http://www.sonicwall.com/apac/en/ko/documents.html>.

Getting Started 가이드 또는 Quick Start 가이드에 있는 절차에 따라 <http://www.mysonicwall.com> 에서 제품 등록을 하세요. 제품 등록 후, MySonicWALL 에서 적용 가능한 한국어 펌웨어 또는 사용자 클라이언트 소프트웨어를 확인할 수 있습니다. 새로운 버전은 사용 가능할 때 등록됩니다. 그러므로, 추가되는 한국어 펌웨어, 소프트웨어와 문서가 있는지 주기적으로 체크하세요.



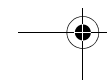
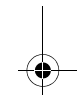
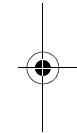
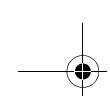
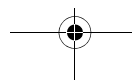
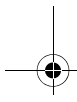


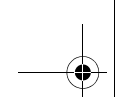
Notificação de Firmware e Documentação Localizada



As Guias de noções básicas, Guias de início rápido, Guias de Usuário, firmware de aplicações, e varios clientes de usuário final de Dell SonicWALL estão agora disponíveis em varias línguas. Pode encontrar a documentação disponível em Português em <http://www.sonicwall.com/br/pt/>.

Siga as instruções da Guia de noções básicas ou Guia de início rápido para registrar seu produto em MySonicWALL no <http://www.mysonicwall.com>. Depois de registrar o produto, você pode procurar firmware ou clientes de usuário final aplicáveis em MySonicWALL. Novos lançamentos são publicados tão pronto estejam disponíveis, assim que por favor visite periodicamente esta página para ver firmware, software e documentos adicionais.



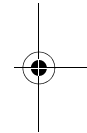
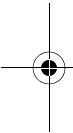


Product safety and regulatory information

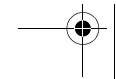
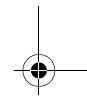
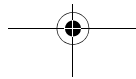
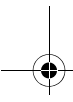
In this section:

This section provides regulatory, trademark, and copyright information.

- ["Safety and regulatory information"](#) on page 42
- ["EU and EFTA"](#) on page 48
- ["Copyright notice"](#) on page 53



Draft Document



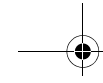
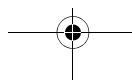
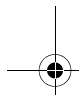
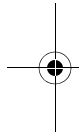


Safety and regulatory information

Regulatory Model/Type	Product Name
APL26-0B3	SonicPoint-N

Mounting the appliance

- Mount in a location away from direct sunlight and sources of heat. A maximum ambient temperature of 104° F (40° C) is recommended.
- Route cables away from power lines, fluorescent lighting fixtures, and sources of noise such as radios, transmitters, and broadband amplifiers
- The included power cord(s) are approved for use only in specific countries or regions. Before using a power cord, verify that it is rated and approved for use in your location.
- Ensure that no water or excessive moisture can enter the unit.
- Allow unrestricted airflow around the unit and through the vents on the side of the unit. A minimum of 1 inch (25.4mm) clearance is recommended.



- Consideration must be given to the connection of the equipment to the supply circuit and the effect of overloading the circuits has minimal impact on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings must be used when addressing this concern.

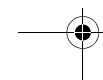
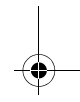
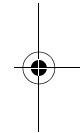
Cable connections

All Ethernet and RS232 (Console) cables are designed for intra-building connection to other equipment. Do not connect these ports directly to communication wiring or other wiring that exits the building where the appliance is located.

Power supply information for APL26-0B3

If the power supply is missing from your Dell SonicWALL product package, contact Dell SonicWALL Technical Support at <https://support.software.dell.com/manage-service-request> for a replacement. ~~This product should only be used with a UL listed power supply marked "Class 2" or "LPS", with an output rated 48 VDC, minimum 0.35 A, Tma: minimum 40 degrees C.~~

~~If power is provided by the Ethernet cable plugged into the "lan" port, this is called "Power Over Ethernet" or "POE." The POE source should only be UL listed marked "Class 2" or~~

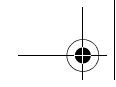
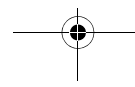
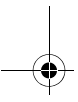
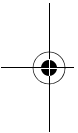




~~„LPS,“ with an output rated 48 VDC, minimum 0.35 A, Tma: minimum 40 degrees C.~~

Weitere hinweise zur montage

- Wählen Sie für die Montage einen Ort, der keinem direkten Sonnenlicht ausgesetzt ist und sich nicht in der Nähe von Wärmequellen befindet. Die Umgebungstemperatur darf nicht mehr als 40 °C betragen.
- Führen Sie die Kabel nicht entlang von Stromleitungen, Leuchtstoffröhren und Störquellen wie Funksendern oder Breitbandverstärkern.
- Das im Lieferumfang enthaltene bzw. die im Lieferumfang enthaltenen Netzkabel sind nur für die Verwendung in bestimmten Ländern und Regionen zugelassen. Überprüfen Sie bitte vor der Verwendung eines Netzkabels, ob es für die Verwendung in Ihrem Land oder Ihrer Region zugelassen ist und den geforderten Normen entspricht.
- Stellen Sie sicher, dass das Gerät vor Wasser und hoher Luftfeuchtigkeit geschützt ist.
- Stellen Sie sicher, dass die Luft um das Gerät herum zirkulieren kann und die Lüftungsschlitze an der Seite



des Gehäuses frei sind. Hier ist ein Belüftungsabstand von mindestens 26 mm einzuhalten.

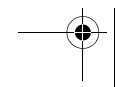
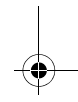
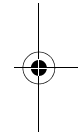
- Vergewissern Sie sich, dass das Gerät sicher im Rack befestigt ist.

Kabelverbindungen

Alle Ethernet- und RS232-C-Kabel eignen sich für die Verbindung von Geräten in Innenräumen. Schließen Sie an die Anschlüsse der Dell SonicWALL keine Kabel an, die aus dem Gebäude herausgeführt werden, in dem sich das Gerät befindet.

Informationen zur stromversorgung APL26-0B3

Sollte das Netzteil nicht im Lieferumfang der Dell SonicWALL enthalten sein, wenden Sie sich diesbezüglich an den technischen Support von Dell SonicWALL <https://support.software.dell.com/manage-service-request>. Dieses ~~Produkt darf nur in Verbindung mit einem für den Europäischen Markt genehmigten und mit dem Logo „LPS.“ Ausgang: 48 VDC Gleichspannung, mind. 0,35 A, Tma: mind. 40 Grad C, betrieben werden.~~



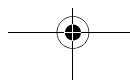


~~Wenn der Strom über den LAN-Port eingespeist wird, bezeichnet man dies als "Power over Ethernet" oder "PoE." Die DIESER POE-Quelle darf nur in Verbindung mit einem für den Europäischen Markt genehmigten und mit dem Logo „LPS.“~~

FCC

NOTE: This equipment was tested and found to comply with the limits for a Class B 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 the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference using one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.



- Connect the equipment into an outlet on a circuit different from the receiver connection.
- Consult Dell SonicWALL for assistance.

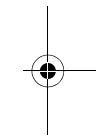
CAUTION: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Radiation Exposure Statement

This equipment complies with FCC and IC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters (7.9 inches) between the radiator (antenna) and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

United States of America Authorized Channels

Dell SonicWALL declares that the APL26-0B3 (FCC ID:E2K-APL260B3) when sold in US is limited to CH1~CH11 by specified firmware controlled in the USA.





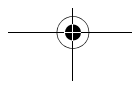
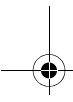
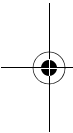
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: The device for the band 5470-5725MHz is only for indoor usage to reduce potential for harmful interference to co-channel mobile satellite systems.

The APL26-0B3 device has been designed to operate with an antenna having a maximum gain of 4dBm. Antenna having a higher gain is strictly prohibited. The required antenna impedance is 50 ohms.

Dynamic Frequency Selection (DFS) is required on all Wireless LAN Mater devices (usually Access Points) and Wireless LAN Clients (usually Wireless NICs) that operate within 5470MHz - 5725MHz. SonicPoints that have these frequencies and channels enable in this range comply with North American and International DFS requirements. Some frequencies are blocked, and cannot be selected by the user per each specific regional approval.

Specific to the USA; at the urging of the Federal Communication Commission (FCC) user/installers should avoid operation frequencies near Terminal Doppler Weather Radar (TDWR) systems frequencies 5600-5650 MHz when installing SonicPoint within 35km of line-of-site of TDWR sites. If TDWR is within 35km the SonicPoint frequencies should be set to at least 30MHz above or below any TDWR system frequency at



that site. TDWR locations and specific frequencies used can be found at <http://spectrumbridge.com/udrs/home.aspx>. Detailed current and background information can be found at http://www.wispa.org/?page_id=2341.

Industry Canada notices for SonicPoint-N

Authorized Channels

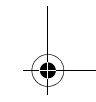
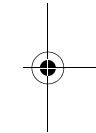
Dell SonicWALL declares that the APL26-0B3 (IC:1514B-APL260B3) when sold in Canada is limited to CH1~CH11 by specified firmware controlled in the USA.

Operation

This device complies with RSS-210 of the Industry Canada 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.

Radiation Exposure Statement

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.





Antenna

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter (IC:1514B-APL260B3) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Approved Antenna

Type: Dipole

Maximum gain: 4dBi at 5GHz and 2.4Ghz

Required impedance: 50 ohms

Caution: (DFS band use)

- (i) the device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems;
- (ii) the maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit; and



(iii) the maximum antenna gain permitted for devices in the band 5725-5825 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non point-to-point operation as appropriate.

Users should also be advised that high-power radars are allocated as primary users (or priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could cause interference and/or damage to LE-LAN devices.

Industrie Canada notifications pour SonicPoint-N

Chaînes autorisées

DeII SonicWALL déclare que l'APL26-0B3 (IC:1514B-APL260B3) une fois vendu au Canada est limité à CH1-CH11 par spécifique microprogrammé aux Etats-Unis.

Opération

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur



de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

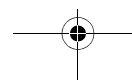
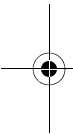
Déclaration de l'exposition aux radiations

Cet équipement est conforme à l'exposition aux rayonnements IC limites établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre le radiateur et votre corps.

Antenne

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Le présent émetteur radio (IC:1514B-APL260B3) a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.



Antenne Approuvée

Type: Dipole

Gain maximum: 4dBi at 5GHz and at 2.4Ghz

Impédance requise: 50 ohms

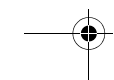
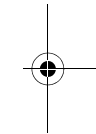
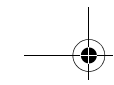
Attention: (utilisation de bande DFS)

(i) les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux;

(ii) le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5 250-5 350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.;

(iii) le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5825 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.

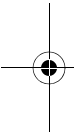
De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.





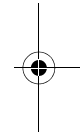
~~India RoHS statement~~

~~This product complies with Restriction of Hazardous Substances (RoHS) requirements as prescribed by E-Waste (Management & Handling) Rules, by the Ministry of Environment & Forests, Government of India. For further information, see: http://www.dell.com/learn/us/en/uscorp1/regulatory_compliance?c=us&l=en&s=corp.~~



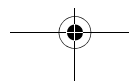
NCC statement

- 第十二條
 - 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。
 - 第十四條
 - 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
- 依LP0002第4.7.5節規定”在5.25-5.35兆赫頻帶內操作之無線資訊傳輸設備，限於室內使用”
- 專業安裝警語(固定式點對點操作)**
此器材須經專業安裝並限用於固定式點對點操作。
此產品於台灣使用頻率為 5250~5350, 5470~5600 及 5650~5725MHz.



EU and EFTA

~~This device is a 2.4GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.~~





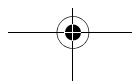
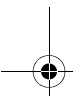
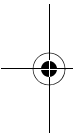
~~In Italy the end user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.~~

~~This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10mW EIRP in the frequency range of 2454-2483.5MHz. For detailed information the end user should contact the national spectrum authority in France.~~



Declaration of conformity

A "Declaration of Conformity" in accordance with the directives and standards has been made and is on file at Dell Inc. Products Europe BV, Limerick, Ireland.



SonicWALL tímto prohlašuje, že tento APL26-0B3 je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.

Undertegnede SonicWALL erklærer herved, at følgende udstyr APL26-0B3 overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.

Hiermit erklärt SonicWALL, dass sich das Gerät APL26-0B3 in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

Käesolevaga kinnitab SonicWALL seadme APL26-0B3 vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.

Hereby, SonicWALL, declares that this APL26-0B3 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Por medio de la presente SonicWALL declara que el APL26-0B3 cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

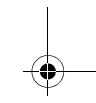
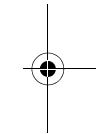
ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ SonicWALL ΔΗΛΩΝΕΙ ΟΤΙ ΑΡΛ26-0Β3 ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.

Par la présente SonicWALL déclare que l'appareil APL26-0B3 est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.

Con la presente SonicWALL dichiara che questo APL26-0B3 è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Ar šo SonicWALL deklarē, ka APL26-0B3 atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

Šiuo SonicWALL deklaruoja, kad šis APL26-0B3 atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.





Hierbij verklaart SonicWALL dat het toestel APL26-0B3 in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.

Hawnhekk, SonicWALL, jiddikjara li dan APL26-0B3 jikkonforma mal-htigijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

Alulírott, SonicWALL nyilatkozom, hogy a APL26-0B3 megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.

Niniejszym SonicWALL oświadcza, że APL26-0B3 jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.

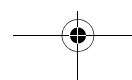
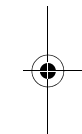
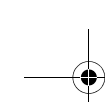
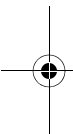
SonicWALL declara que este APL26-0B3 está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.

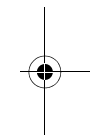
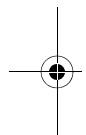
SonicWALL izjavlja, da je ta APL26-0B3 v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.

SonicWALL týmto vyhlasuje, že APL26-0B3 spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.

SonicWALL vakuuttaa täten että APL26-0B3 tyypinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.

Härmed intygar SonicWALL att denna APL26-0B3 står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.





Draft Document

