



# Configuration for SonicWall TZ Series 6300-CX

## Configuration for SonicWall TZ Series

# SONICWALL



### Overview

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The Accelerated 6300-CX LTE Router provides a reliable, high-speed cellular connection that is compatible with existing wireline infrastructure. While its 4G LTE speeds are capable of operating as a primary WAN uplink, the 6300-CX can also be configured as a backup. This network redundancy solution delivers the ultimate flexibility to minimize expenses when it comes time for upgrading equipment to the latest wireless standards.

Business continuity depends on the seamless integration of failover-connectivity solutions to prevent service interruptions. Now more than ever, contingency networks play a strategic role in sustaining business operations. Unplanned outages can cost companies significant time and money, frustrating employees and clients alike, which creates a negative perception that is difficult to overcome.

Cellular data (4G LTE) bypasses wireline Internet service providers (ISPs) to facilitate the best redundancy possible. Additionally, in some situations it may be a challenge to acquire access to wired circuits or an event may call for temporary online access. For these reasons SonicWall and Accelerated Concepts have teamed up to offer comprehensive security and flexibility for small businesses, retail, government, remote sites, and branch offices.

SonicWall's TZ Series of firewalls consolidates enterprise security measures into a single Unified Threat Management (UTM) device. It optimizes and fortifies networked environments thanks to a robust suite of administrative utilities ranging from content filtering to malware and intrusion prevention though this functionality hinges upon an active WAN connection. A TZ-Series UTM Firewall paired with the Accelerated 6300-CX LTE Router will ensure your enterprise network remains secure and operational should its primary ISP go offline. Running a cellular backup via an Ethernet cable preserves the full security functionality of the TZ-Series device (DPI-SSL inspection), which isn't the case for USB-connected Aircards.

*For additional information, please refer to SonicWall's [TZ-Series datasheet](#) and the [SonicOS Administration guide](#).*

## Interoperability Matrix

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This section covers interoperability information of the hardware tested for this solution. It includes the firmware versions of both devices as well as the date of testing.

Date	SonicOS Release	6300-CX Firmware
10/2016	5.9.X & 6.2.X	16.10.13

## Caveats

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The delivery of wireless services varies depending on the carrier and may lead to differences in the area of coverage, type of service (3G, 4G, LTE, etc.), available bandwidth, and IP address designation (Private or Public) among other factors. The interoperability test designed for this solution guide included LTE service, maximum coverage availability, and a public IP address assigned to each device.

Using the 6300-CX as a secondary connection assumes that a primary WAN Ethernet cable is plugged into the X1 port on the SonicWall device. Connect the 6300-CX's backup Ethernet cable to port X2 and proceed to the configuration described herein. (Compatible with all Gen 6 Firewalls, including TZ, NSA, and SuperMassive series.)

## Accelerated 6300-CX LTE Router Setup

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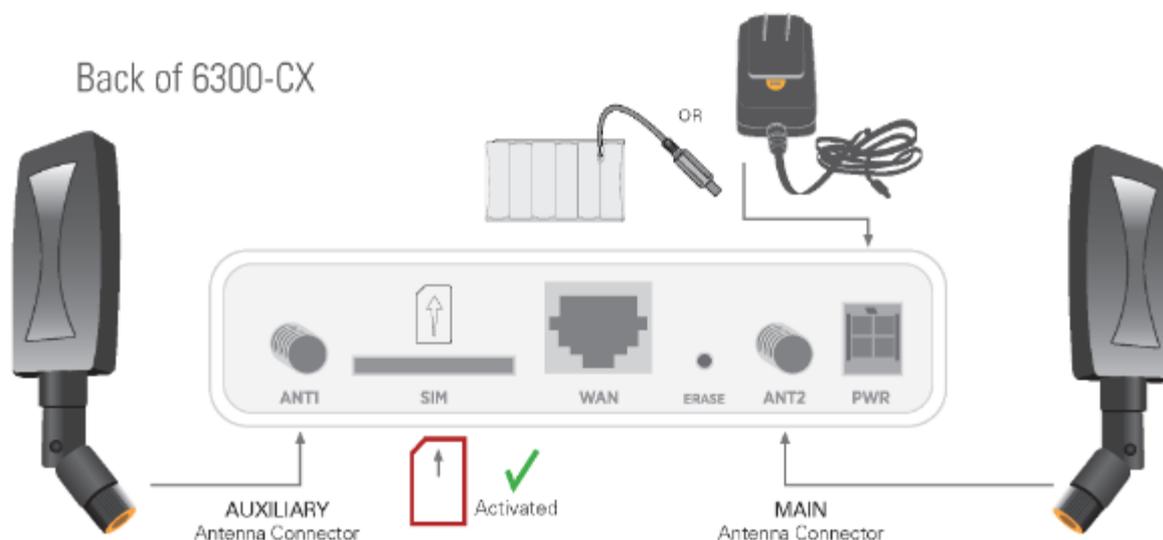
### Initial Setup

Affix both antennas to the router and insert an activated SIM card before deploying the device. Be sure to select a location with optimal signal strength. For detailed instruction, refer to the tables that follow. Subsequent sections will outline site selection, powering options, and other device functionality.

### Step-by-Step Guidance: Initial Setup

1. Insert the activated 2FF SIM card provided by your cellular network operator (putting the cut corner in first with metal contacts facing down). The card clicks into place when completely inserted.
2. Attach the two included antennas; both should be installed for optimal operation. Do this by gripping the metal connector section with your thumb and forefinger, tightening until secure. Do not tighten the antenna by holding any part of the plastic antenna housing.
3. To determine the optimal location for the 6300-CX, please see the "Site Survey" section.
4. Refer to the section(s) for Remote or Direct Power Installations when ready to connect the 6300-CX to the permanent power supply unit.

- The 6300-CX uses DHCP with IP passthrough by default, which satisfies the setup requirements for most environments. If required, please use Accelerated View™ or the 6300-CX local GUI to configure the 6300-CX for router mode.



## Site Survey

If you are unsure of the available cellular signal strength, or are choosing between several locations, please follow the instructions to identify the ideal installation site.

## Step-by-Step Guidance: Site Survey

- After following steps 1 and 2 in the “Initial Setup” section, connect the battery pack to temporarily power the Accelerated 6300-CX. The charge lasts two to four hours – it is not rechargeable and should be properly disposed of after use.
- Move the 6300-CX to different locations within your site to determine the best compromise between signal strength and installation constraints. Since cellular signal strength may fluctuate, it is important to **wait at each location for 1 minute while observing the signal strength indicator on the front of the device**. Minimum cellular signal strength for operation is 2 bars (3+ is preferred).
- After determining the optimal location, remove the battery pack and connect the main power supply unit or Ethernet cable connected to the PoE injector (per the power option outlined below).

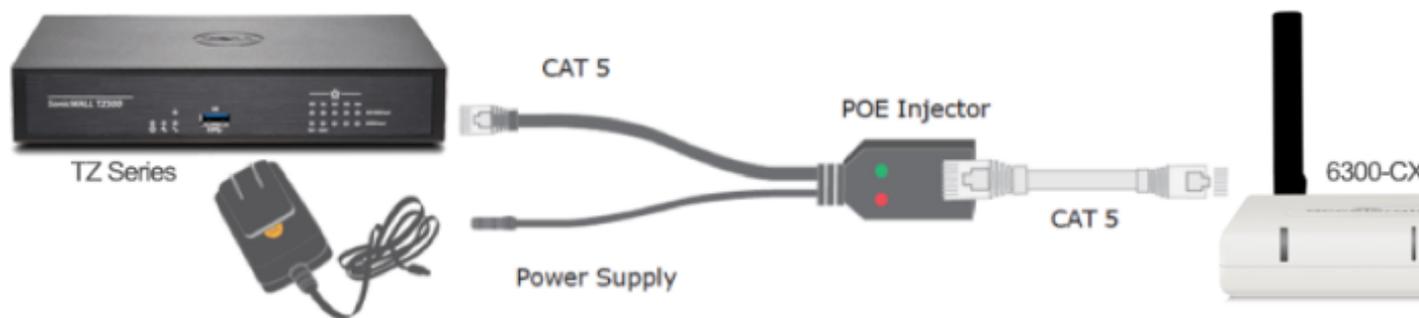
## Remote Power Installation – Power Option #1

The included Power-over-Ethernet (PoE) injector allows the device to be positioned away from power outlets to simplify its installation needs. The adaptor consolidates the DC power and Ethernet connections so that both can be

run to the 6300-CX via a single Ethernet cable. Distances of 300 ft have been tested on CAT6 and 250 ft on CAT5e. Note that cable conditions and the number of splices will impact actual distance.

## Step-by-Step Guidance: Remote Power Installation

1. Plug the 6300-CX's power supply unit (PSU) into an AC power outlet.
2. Connect the end of the PSU into the DC input (4 pin connector) of the PoE injector.
3. Insert the male RJ45 connector of the PoE injector cable into the SonicWall.
4. Connect an Ethernet cable from the RJ45 socket on the PoE injector cable to the Ethernet port of the 6300-CX. (See diagram)

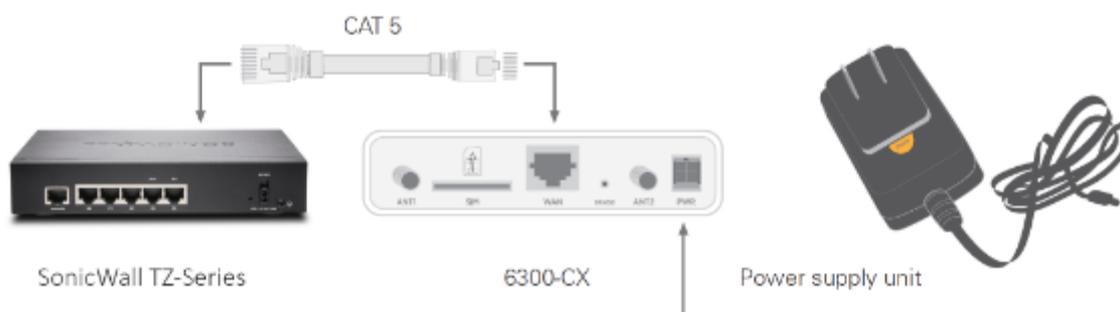


## Direct Power Installation – Power Option #2

If you plan to collocate the 6300-CX with the MX device, you can directly power the 6300-CX without the PoE cable.

## Step-by-Step Guidance: Direct Power Installation

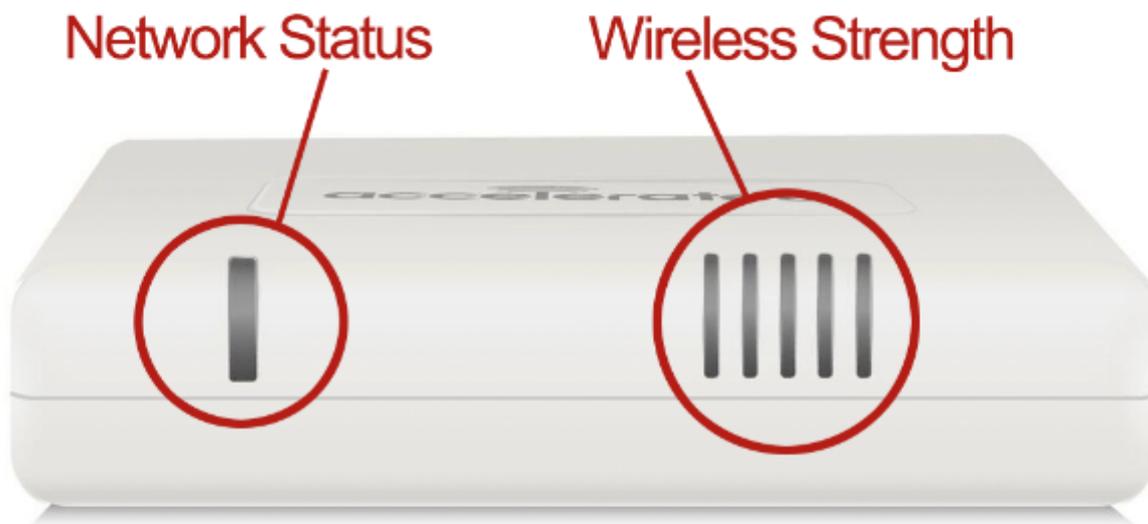
1. Use an Ethernet cable to connect the 6300-CX to the security appliance using port Internet 1 (to use the cellular network as the primary connection) or port Internet 2 (to configure a failover).
2. Plug the 6300-CX power supply unit (PSU) into an AC power outlet.
3. Connect the PSU into the 4-pin power connector of the 6300-CX. (See diagram.)



## Understanding the 6300-CX LEDs

Once power has been established, your device will initialize and attempt to connect to the network. Device initialization may take 30-60 seconds. Indicator lights on the **Wireless Strength Indicator** show you the cellular network signal strength. The **Network Status Light** on the front left of the device displays connectivity information.

Please visit [accelerated.com](http://accelerated.com) for additional information and troubleshooting tips.



### Network Status LED

	<b>Solid Yellow</b> Initializing or starting up.		<b>Solid Green</b> Connected to 2G or 3G and also has an Ethernet connection.
	<b>Flashing Yellow</b> In the process of connecting to the cellular network and to a device on its Ethernet port.		<b>Flashing Blue</b> Connected to 4G LTE and in the process of connecting to a device on its Ethernet port.
	<b>Flashing White</b> Has an Ethernet connection and is in the process of connecting to the cellular network.		<b>Solid Blue</b> Connected to 4G LTE and also has an Ethernet connection.
	<b>Flashing Green</b> Connected to 2G or 3G and is in the process of connecting to a device on its Ethernet port (or nothing is connected to the port).		<b>Alternating Red/ Yellow</b> Upgrading firmware. <b>WARNING: DO NOT POWER OFF DURING FIRMWARE UPGRADE.</b>

### Wireless Strength LEDs

Signal Bars	Weighted dBm	Signal Strength %	Quality
	-113 to -99	0 - 23%	Bad
	-98 to -87	24 - 42%	Marginal
	-86 to -76	43 - 61%	OK
	-75 to -64	62 - 80%	Good
	-63 to -51	81 - 100%	Excellent

## SonicWall Configuration with the Accelerated 6300-CX

### Multiple WAN (MWAN) Configuration

More than one network must be assigned to the SonicWall's WAN Zone to create a contingency solution. Once assigned to a zone, configure the connection's IP assignment, group membership, and any other relevant specifications. MWAN functionality automatically assigns the primary WAN interface from the X1 port. All other ports can be manually allocated for WAN network routing aside from X0, which must remain dedicated to local administration (LAN).

Access the SonicWall admin portal at 192.168.168.168

SonicWALL | Network Security Appliance Register | Alert | Wizards | Help | Logout

Mode: Configuration ▶

- ▶ Dashboard
- ▶ System
- ▼ Network
  - Interfaces
  - PortShield Groups
  - Failover & LB
  - Zones
  - DNS
  - Address Objects
  - Services
  - Routing
  - NAT Policies
  - ARP

Network / **Interfaces**

Accept Show PortShield Interfaces

**Interface Settings** View IP Version:  IPv4  IPv6

Name	Zone	Group	IP Address	Subnet Mask	IP Assignment	Status	Comment	Configure
X0	LAN		192.168.168.168	255.255.255.0	Static		1 Gbps Full Duplex Default LAN	
X1	WAN	Default LB Group	192.168.0.7	255.255.255.0	DHCP	Release	1 Gbps Full Duplex Default WAN	
X2	WAN		166.157.85.215	255.255.255.240	DHCP	Release	100 Mbps Full Duplex accelerated	
U0	WAN		0.0.0.0	255.255.255.0	Dial-Up		undefined Module	

Please refer to the [SonicWall knowledge article](#) for an in-depth walkthrough of the Interfaces Screen.

### Step-by-Step Guidance: MWAN Configuration

**NOTE:** X0 is reserved for the default LAN and X1 is predefined as the default WAN, making X2 the first available interface for a failover WAN.

1. From the Interfaces tab of the admin portal, click on the edit icon under configure.
2. Choose WAN from the Zone pull-down menu.
3. Unless otherwise specified, select DHCP from the IP Assignment pull-down menu.
4. Assign reference labels to entries using the comments field.
5. Click the OK button to finalize any changes.
6. The new interface is now configured for WAN, X2 in the image above.

## Failover & LB Management

TZ-Series Firewalls feature customizable, load-balancing (LB) automation that reroutes traffic to contingency networks when triggered by outages or user-defined limits. SonicWall recommends that load balancing remains enabled at all times, even when a single-WAN solution is in use. (It is activated by default.)

Groups respond to specific network conditions depending on their assigned type: Basic Failover, Round Robin, Spill-over, and Ratio. To set a backup connection so it takes over for the primary line in the event of a service outage, add both interfaces to the “Default LB Group” (the firewall’s basic failover grouping) and confirm that the main interface (X1) is listed above the auxiliary WAN (X2).

The “preempt and failback to preferred interfaces when possible” checkbox appears only for the “Basic Failover” type. Selected by default, it enforces the preferences established by the sort order of the interface list. These options change contextually depending on the group type, including options to set ratio or spill-over thresholds. Use the Probing tab to modify parameters for failback detection via Logical probes, which verify whether or not connectivity has been restored to an inactive interface before reestablishing it as the primary WAN.

Please refer to the [SonicWall knowledge article](#) for an in-depth walkthrough of the Failover & LB Screen.

SonicWALL | Network Security Appliance

General Probing

Name: Default LB Group

Type: Basic Failover

Preempt and failback to preferred interfaces when possible

Group Members:  
Select here:

U0

Add >>

<< Remove

Selected:  
Interface Ordering:

X1  
X2

Final Back-Up:

<< >>

## Step-by-Step Guidance: Failover & LB Management

1. After setting up the WAN from the Accelerated 6300-CX LTE, navigate to the Failover & LB page of the SonicWall admin portal.
2. Next to “Default LB Group,” click the configure button to add a new member.

3. The Group Members column on the left lists all available interfaces.
4. Select X2.
5. Use the Add button to move the chosen interface(s) to the Selected column.
6. The Probing tab specifies how test packets are sent and received to verify WAN path availability.
7. Click OK to finish editing the group's settings.
8. The X2 interface is now set as a failover for the primary network.

***NOTE:** Interface priority within a group is established by list position, which can be adjusted using the Up/Down buttons or the Final Back-Up field. The member listed first takes precedence over subsequent members; the final back-up is always considered last.*