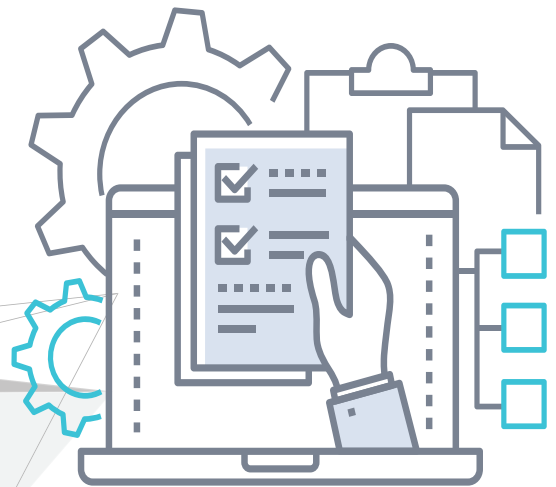


# Site Preparation Guide for ION and ION+ Appliances

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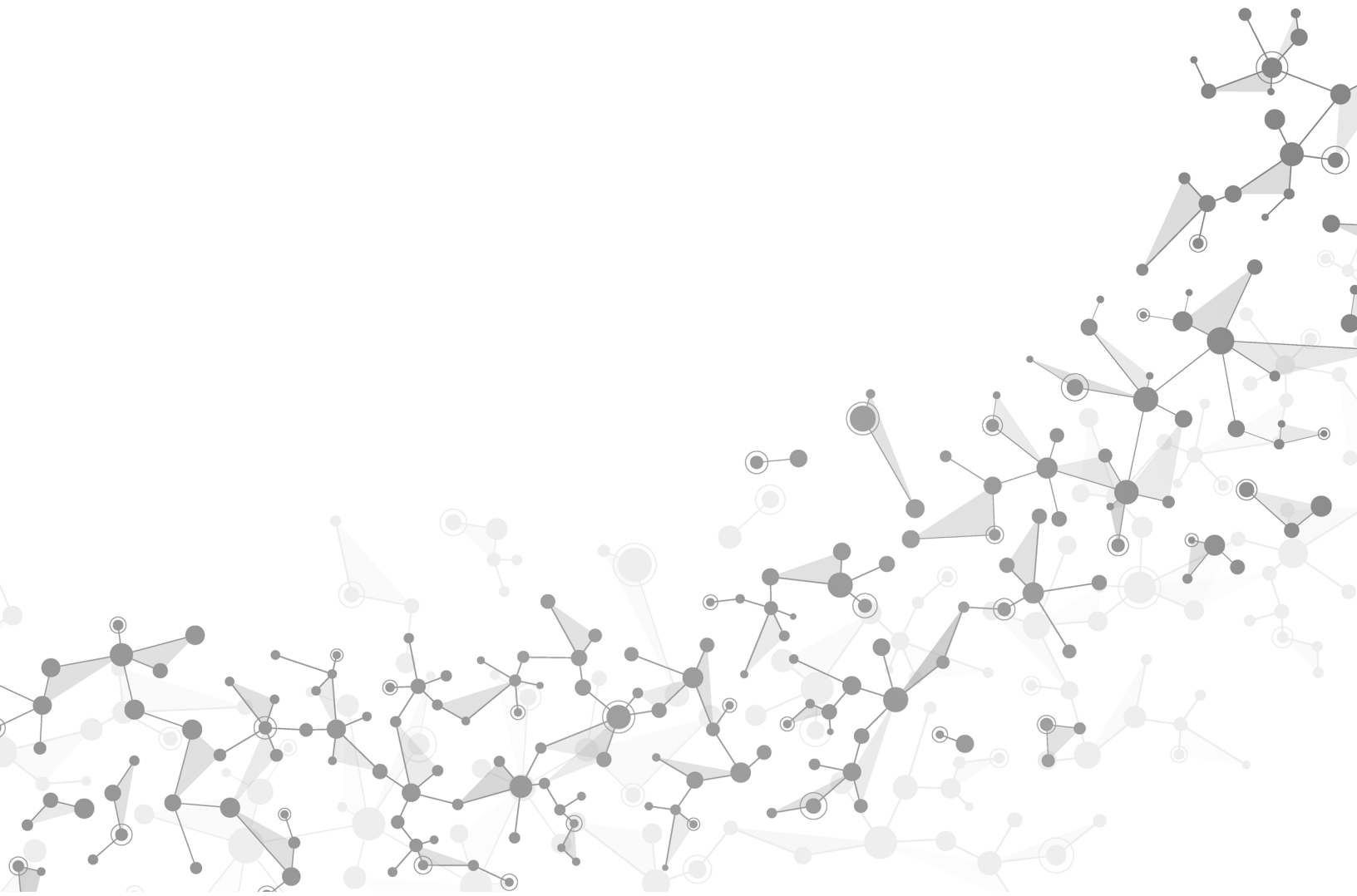
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# Site Preparation Guide for ION and ION+ Appliances

This document describes the preparations that should be considered before installing ION and ION+ appliances. Proper preparation of the site will help ensure consistent and stable operation of the Unitrends solution.

The ION and ION+ appliance line includes these models:

Model	Chassis Type	IDLE Noise levels (dB)		CPU Stressed Noise levels (dB)	
		Operator Position	Bystander Position	Operator Position	Bystander Position
ION-108	Desktop	23.78 dB	N/A	52.23 dB	N/A
ION-208	Desktop	23.78 dB	N/A	52.23 dB	N/A
IONP-132	Desk side	29.7 dB	24.0 dB	35.7 dB	31.0 dB
IONP-232	Desk side	29.7 dB	24.0 dB	35.7 dB	31.0 dB
IONP-432	Desk side	29.7 dB	24.0 dB	35.7 dB	31.0 dB
IONP-832	Desk side	29.7 dB	24.0 dB	35.7 dB	31.0 dB

Consider these site preparation requirements before installation:

- ["Space and Weight Requirements"](#)
- ["Site Preparation Guide for ION and ION+ Appliances" on page 5](#)
- ["Power Requirements" on page 6](#)
- ["Cooling and Environmental Conditions" on page 7](#)
- ["Configuration Requirements" on page 8](#)

## Space and Weight Requirements

The following space and weight requirements should be considered before installing the Unitrends hardware:

**Note:** Unitrends recommends the use of cable guides to organize the power, network, and other cables.

Model	Dimensions (W x D x H)	Appliance Weight	Shipping Weight
ION-108	4.60" x 4.40" x 1.50" (117mm x 112mm x 38mm)	2 lbs (907.2 gr)	6 lbs (2.72 kg)
ION-208	4.60" x 4.40" x 1.50" (117mm x 112mm x 38mm)	2 lbs (907.2 gr)	6 lbs (2.72 kg)
IONP-132	6.95" x 13.58" x 13.19" (176.6mm x 345.0mm x 335.0mm)	18.74 lbs (8.5k g)	24.86 lbs (11.27 kg)
IONP-232	6.95" x 13.58" x 13.19" (176.6mm x 345.0mm x 335.0mm)	18.74 lbs (8.5k g)	24.86 lbs (11.27 kg)
IONP-432	6.95" x 13.58" x 13.19" (176.6mm x 345.0mm x 335.0mm)	18.74 lbs (8.5k g)	24.86 lbs (11.27 kg)
IONP-832	6.95" x 13.58" x 13.19" (176.6mm x 345.0mm x 335.0mm)	18.74 lbs (8.5k g)	24.86 lbs (11.27 kg)

## Power Requirements

The specifications listed in this section assume that appliances are fully configured. There should be sufficient power capacity to service each appliance.

The proper power protection must be provided for each on-site appliance. Uninterruptible power supplies (UPS) must be adequately sized to support the appliance. Additionally, UPS must supply enough current to the appliance while it is charging.

The following table provides power requirements for ION and ION+ appliances:

### Notes:

- ION models make use of an AC to DC power adapter
- IONP models are 90% efficient PSU ( 80 PLUS Gold) Energy Star compliant

Model	Power Supply	Input Voltage Range (Auto Sensing)	Input Freq Range	Input Current Range	BTU/hr
ION-108	DC Input Voltage	19 VDC	2.1 GHZ to 4.1 GHZ	4.7 A	N/A
ION-208	DC Input Voltage	19 VDC	2.1 GHZ to 4.1 GHZ	4.7 A	N/A
IONP-132	460W	90 VAC to 264 VAC	47 Hz to 63 Hz	8 A	1570
IONP-232	460W	90 VAC to 264 VAC	47 Hz to 63 Hz	8 A	1570
IONP-432	460W	90 VAC to 264 VAC	47 Hz to 63 Hz	8 A	1570
IONP-832	460W	90 VAC to 264 VAC	47 Hz to 63 Hz	8 A	1570

## Cooling and Environmental Conditions

Unitrends appliances have been designed to operate within the environmental conditions listed below. Conditions that exceed recommended temperatures may result in severe damage caused by heat buildup. Proper air circulation will help prevent hot spots and ensure optimal performance. Unitrends recommends the use of a temperature alarm system for appliances that operate in an unattended environment.

**Note:** Installing the appliance in direct sunlight may cause it to overheat.

The Unitrends environmental specifications for ION series appliances include:

Chassis Specs for ION Desktop Models	Description for ION Series
Non-operating environment (storage)	<ul style="list-style-type: none"> <li>• Temperature: -20°C to 40°C (-4°F to 104°F)</li> <li>• Shock (maximum): 50 G Trapezoidal Waveform, velocity change of 170"/S<sup>2</sup></li> <li>• Vibration (maximum): Random profile 5 Hz to 40 Hz@0.015g<sup>2</sup>/Hz to 500 Hz@0.00015g<sup>2</sup>/Hz (slope down), input acceleration is 1.09 gRMS</li> </ul>
Operating environment	<ul style="list-style-type: none"> <li>• Temperature (internal): 0°C to 40°C (32°F to 104°F)</li> <li>• Shock (maximum): 50 G Trapezoidal Waveform, velocity change of 170"/S<sup>2</sup></li> <li>• Vibration (maximum): Random profile 5 Hz to 40 Hz@0.015g<sup>2</sup>/Hz to 500 Hz@0.00015g<sup>2</sup>/Hz (slope down), input acceleration is 1.09 gRMS</li> </ul>

The Unitrends environmental specifications for ION+ series appliances include:

Chassis Specs for ION+ Desk Side Models	Description for ION+ Series
Non-operating environment (storage)	<ul style="list-style-type: none"> <li>• Temperature: -40 °C to 65 °C (-40 °F to 149 °F)</li> <li>• Relative humidity: 5% to 95% (non-condensing, max dew point temperature = 33 °C)</li> <li>• Shock (maximum): 105 G half-sine pulse with a change in velocity of 133 cm/sec (52.5 in ./sec)</li> <li>• Vibration (maximum): 1.37 GRMS random at 5 Hz to 350 Hz</li> <li>• Altitude range: 10,668 m (35,000 ft)</li> </ul>
Operating environment	<ul style="list-style-type: none"> <li>• Temperature (internal): 10 °C to 35 °C (50 °F to 95 °F)</li> <li>• Relative humidity (max): 20% to 80% (non-condensing, max dew point temperature = 26 °C)</li> <li>• Shock (maximum): Bottom half-sine pulse with a change in velocity of 50.8 cm/sec (20 in ./sec)</li> <li>• Vibration (maximum): 0.26 GRMS random at 5 Hz to 350 Hz</li> <li>• Altitude range: 10,668 m (35,000 ft)</li> </ul>

## Configuration Requirements

- **IT Personnel Considerations** – An administrator with network and client system access is expected to be available to assist with the implementation. This person will be responsible for installing and configuring agent software and will help with the planning and implementation of the overall Unitrends data protection solution. Additionally, someone responsible for administering and managing the appliances should be available during the installation process.
- **Network Considerations** – Ethernet network configurations must be capable of supporting the added demands of a Unitrends appliance. Ethernet switch ports must be available prior to installation.
- **On-premise to Off-premise Connections** – If hot backup copy will be implemented, adequate bandwidth for transferring data between the on-premise system and the off-premise system is critical. Generally, a T1 line can transfer between 400MB to 500MB of data per hour without secure shell compression. OpenVPN is recommended for connection between the two systems. Additionally, firewall access (if applicable) must be granted in order to allow the two appliances to communicate on designated ports.



## Configuring the System

Configure the system as described in the *Quick Start Guide for ION and ION+ Appliances*, available at <https://www.unitrends.com/docs/user-guides/ion-quick-start-guide>.

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