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# Appliance Quick Start

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ThoughtSpot, Inc. 1 Palo Alto Square  
Building 1, Suite 200  
Palo Alto, CA 94306

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# Welcome to ThoughtSpot

Congratulations on purchasing the ThoughtSpot appliance. This guide will get you started with installing and connecting to the network. We hope your experience with ThoughtSpot is excellent. Please let us know how it goes, and what we can do to make it better.

You can contact [ThoughtSpot Support](#) by phone, mail, email, or by filing a support ticket.

# Supported hardware

## Summary: Required and provided installation hardware.

This section lists all required hardware that is needed to successfully install your ThoughtSpot appliance in your data center. Some hardware will be provided with your appliance, while the rest must be provided on-site.

The ThoughtSpot instance hardware is configured for fast data searching and reliability. This overview details the hardware specification and installation. The system is made up of compute nodes, which form a cluster. The 2U system includes up to 4 nodes and can hold up to 1TB of data. This can be scaled out.

## Network connection

Before accessing ThoughtSpot, you will need a network connection.

You can refer to the ThoughtSpot Administrator Guide to see which ports must remain open to outside traffic for handling certain network requests and for inter-cluster communication. You can also find information on how to test your network connectivity between nodes and network security.

Here are some more details on ports and node communication:

- Port redundancy (bonding) is not supported. Only one 10G port is active per node.
- Nodes communicate to each other via the 10G connection (data ports).
- All nodes should be on the same VLAN – ideally connected to the same top of rack switch.
- IPMI ports are used for management functions of the nodes.

## Appliance hardware platforms

There are two different appliance hardware platforms on which ThoughtSpot's Analytical Search engine is deployed, Ivy Bridge and Haswell. Both of the platforms provide the same performance. The physical differences between the platforms are detailed below.

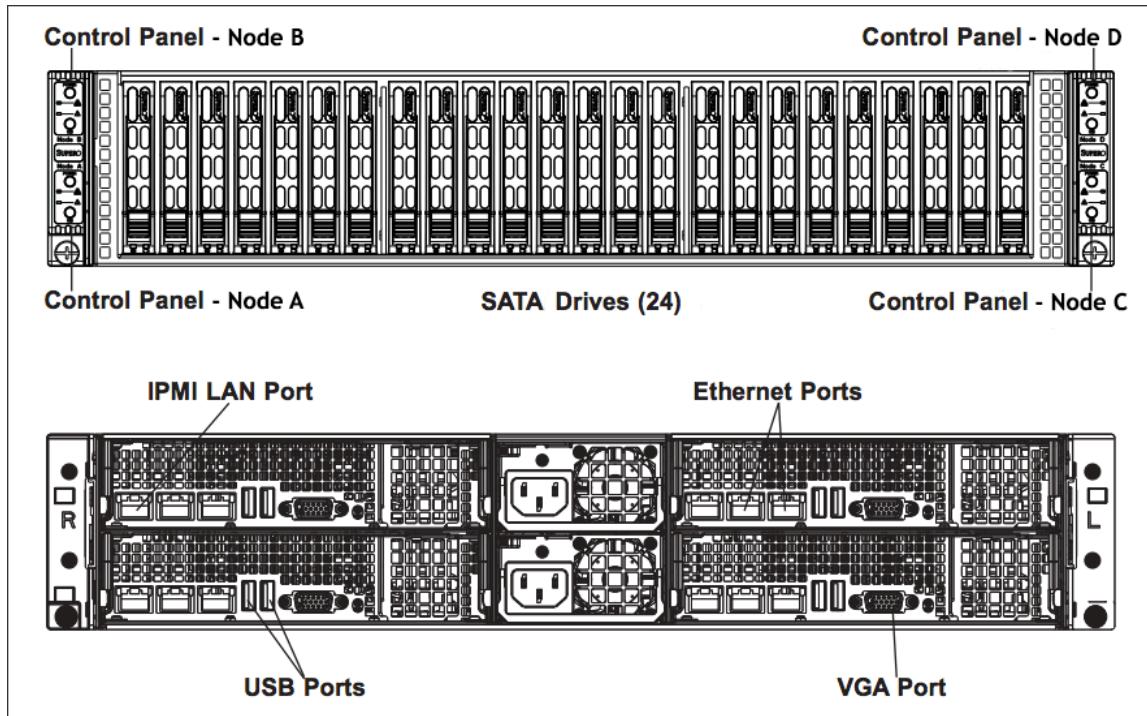
Details	Ivy Bridge	Haswell
<b>Dimensions</b>	2 RU chassis (17.25 x 3.47 x 26.75 in.)	2 RU chassis (17.25 x 3.47 x 28.5 in., 2" longer than Ivy Bridge)
<b># of nodes</b>	Populated with 3 or 4 nodes	Populated with 1 to 4 nodes
<b>Node specifications</b>	Each node is independent and consists of a server board (removable from rear), 1x 120GB SSD, 5x 1TB HDD	Each node is independent and consists of a server board (removable from rear), 1x 200GB SSD, 3x 2TB HDD
<b>Max power consumption</b>	1620 W	2000 W
<b>Required power input</b>	120-140 V / 12-10A / 50-60Hz, 180-240V / 10.5-8 A / 50-60Hz	200-240 / 11.8 - 9.8A / 50-60Hz

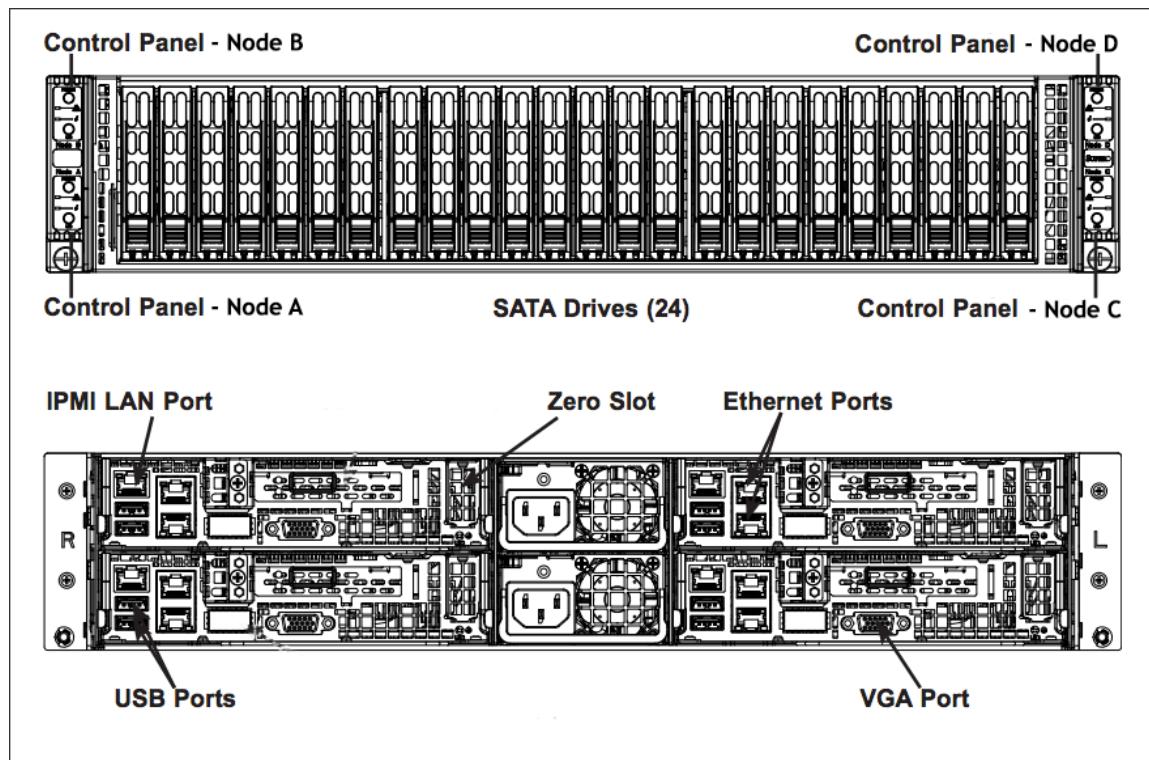
**Note:** Required connections are the same for each platform.

## Chassis views

These diagrams show the front and rear chassis views. The marked features are present on all four nodes on the rear of the chassis even though they are only pointed out on one node in the diagrams.

The chassis are shown fully populated (4-nodes). Your appliance may be populated with 1-4 nodes, depending on the ordered configuration. If less than 4-nodes were ordered, the empty slot will be filled with a filler panel.





# Deployment configuration

## Summary: What is in the box.

The ThoughtSpot appliance hardware will be installed in a rack in your data center. This section describes the typical physical configuration.

## Hardware provided by ThoughtSpot

When your ThoughtSpot appliance arrives, the following items will be included:

Item Name	UOM	Qty
Round Hole to Sq Hole Adapter Kit (For Slide Rail Management)	Each	1
Power Cord, C13 to C14, 6 feet	Each	2
Power Cord, C13 to NEMA 5-15, 6 feet <sup>1</sup> <b>This power cord is not included with the Haswell platform.</b>	Each	2
Document, Rack Rail Installation, TS-2000	Each	1
TS-2000 Quick Start Guide	Each	1
Bezel Assembly, TS-2000	Each	1
Slide Rail Kit	Each	1
Appliance (containing 1-4 nodes, depending on ordered configuration)	Each	1
SFP+ Connector per ordered node (data connection)	Each	1
5m Fiber cable per ordered node (data connection)	Each	1
5m Network cable per ordered node (management connection)	Each	1

<sup>1</sup>: The supply voltage, 120 VAC, available when using a NEMA-15 power cord is an insufficient input to achieve the full power output required by the Haswell power supply. Only the C13 to C14 power cord should be used with the Haswell platform.



## Additional hardware requirements

You will need to supply the following items, as they will not be included with your ThoughtSpot appliance:

- Data center with proper cooling
- 2U of rack space per appliance (post depth 26.5" - 36.4")
- AC power **Attention:** Refer to [Ivy Bridge and Haswell hardware details](#) for power input requirements.
- 10GbE infrastructure (switch) - 1x port required / node
- 100MbE infrastructure (switch) - 1x port required /node
- Network cable Cat 5e/6 (node management)<sup>1</sup>
- 10G connection: SFP+ for switch side<sup>2</sup>

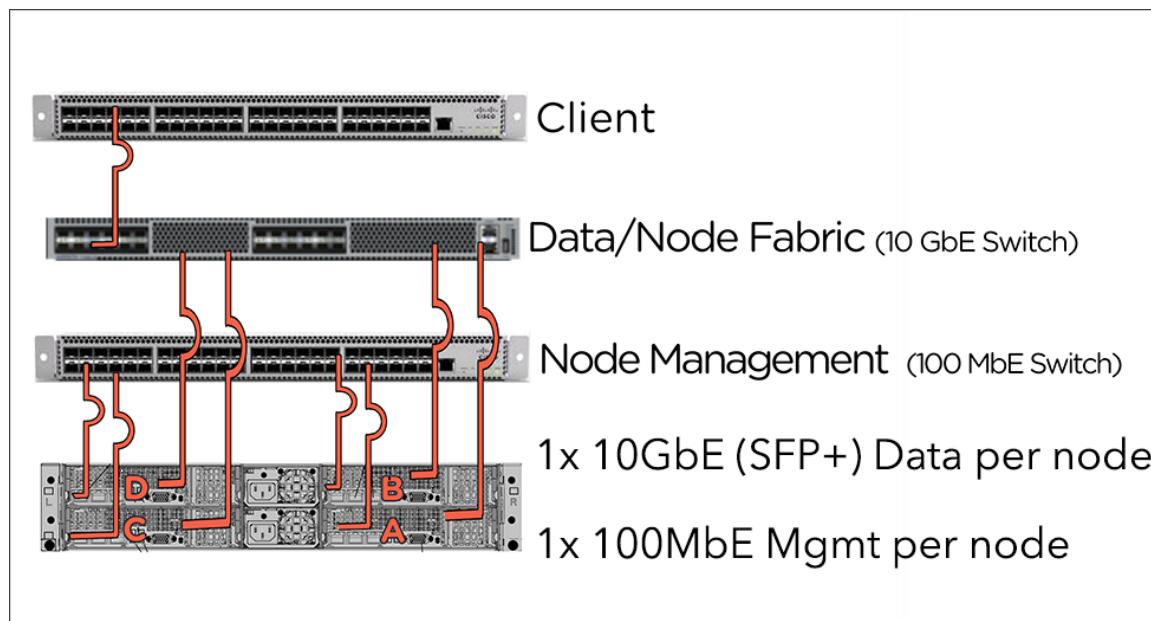
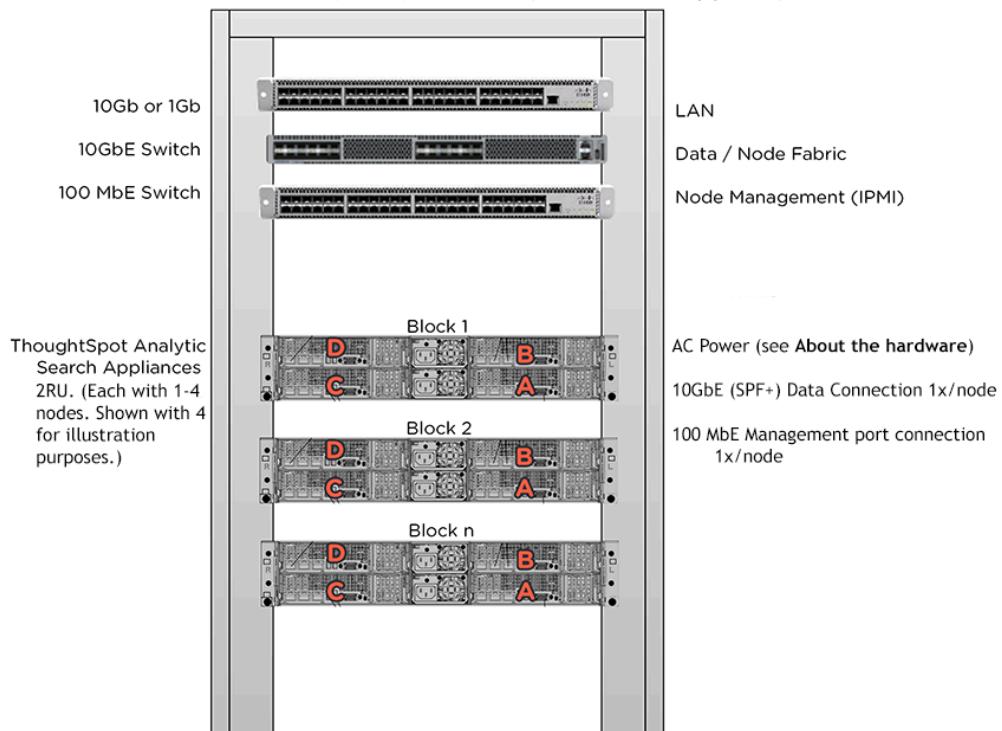
1. One 5m CAT 5e/6 network cable, per node, is provided with the appliance for management port connection. Customer supplied cable can be used if preferred.

2. One SFP+ connector is provided, per node, for the node side data connection. One 5m fiber cable is also provided. The customer must provide switch side SFP+ that is compatible with their switch. Customer supplied DAC cables or fiber cables can be used if preferred.

## Typical physical deployment

These diagrams show a physical configuration with three blocks of four nodes each. Your appliance can have 1-4 nodes, depending on the ordered configuration.

### Server Rack (42U) Back (Customer Supplied)



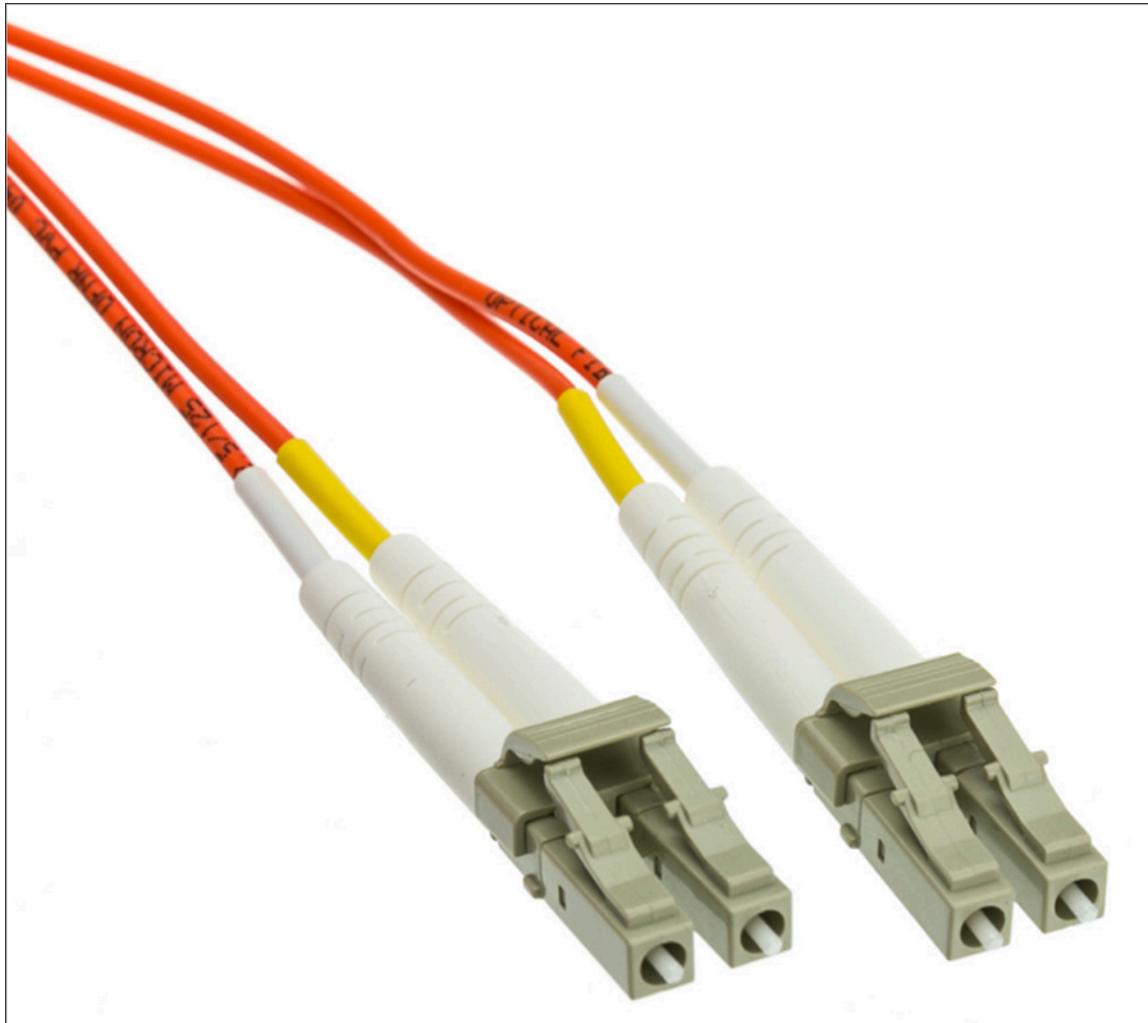
# Cable networking

This section reviews the types of cables needed for 10GbE networking and how to plug them in. There are three types of cables to consider for 10GbE networking:

- Fiber
- Direct Attach Copper (DAC)
- Category 6a (not supported by ThoughtSpot)

## Option 1 - Fiber cables

Fiber can be run long distances to the switch.

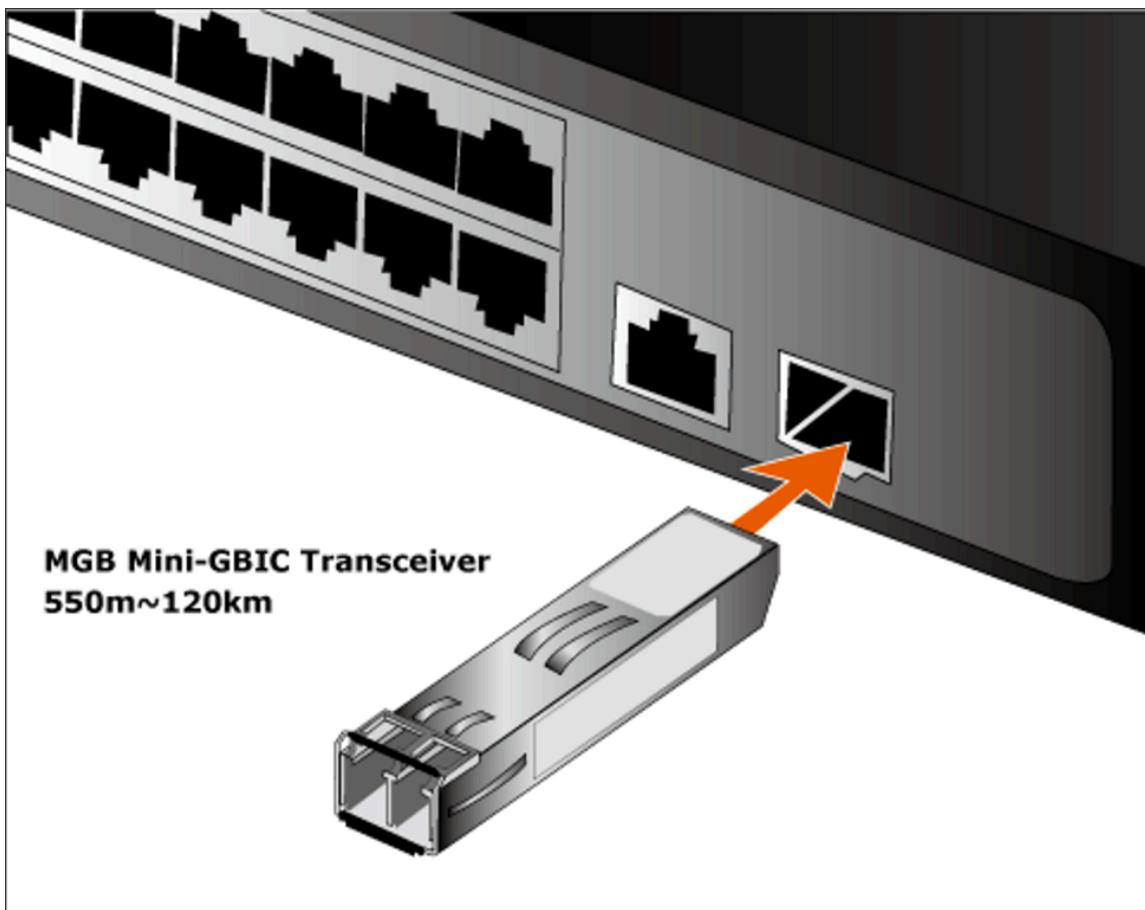


These cables require gigabit interface converters (GBICs), SFP+ form factor.

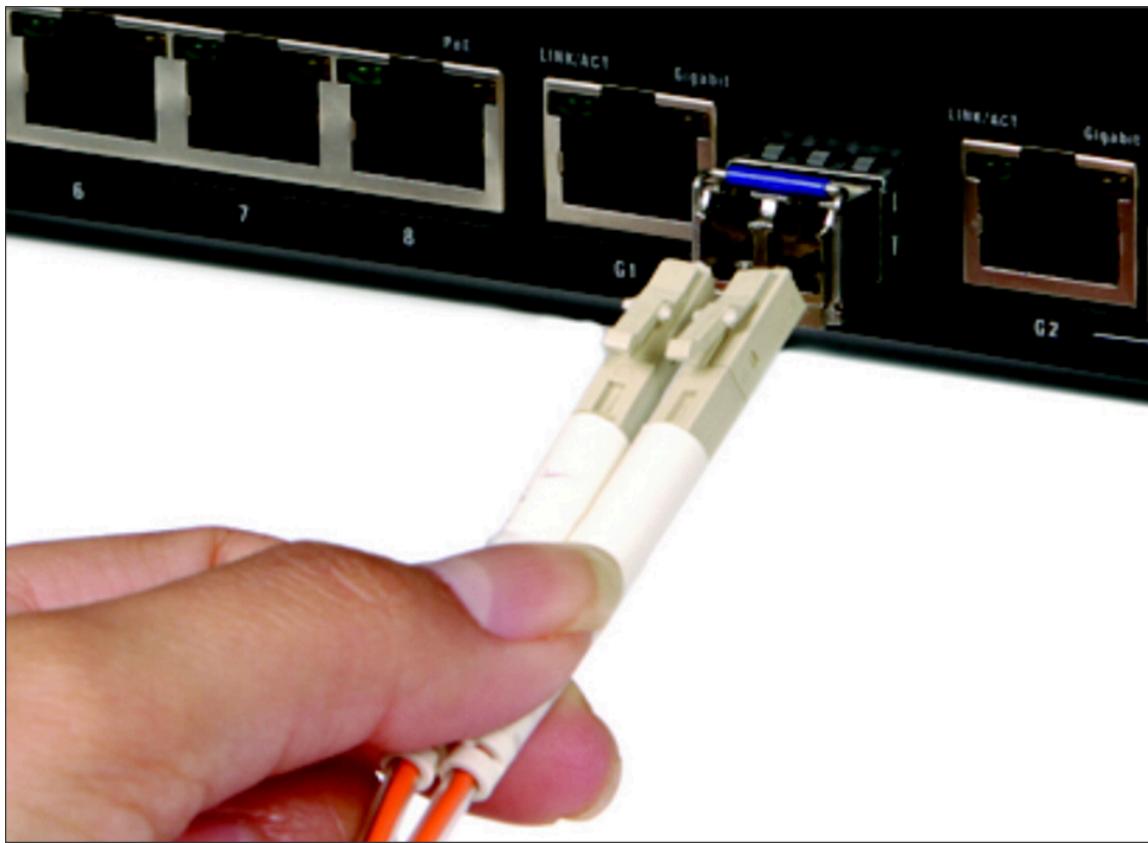
**Remember:** ThoughtSpot does not supply cables or GBICs



The GBIC must be plugged into a data port on the back of the appliance before plugging in the fiber cables.



The fiber cables must then be plugged into the GBIC.

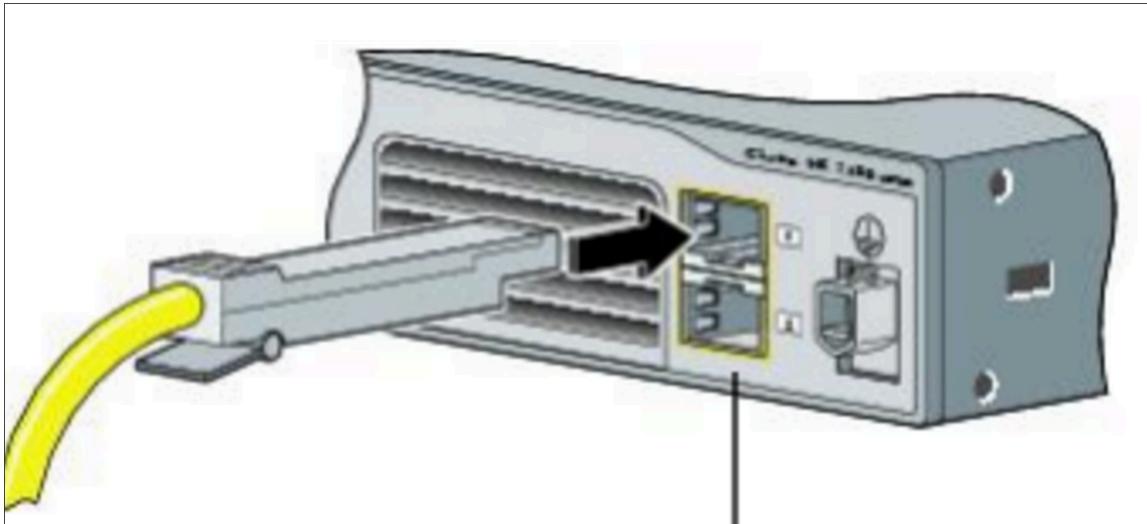


## Option 2 - DAC/Twinax cables

Copper can only be run short distances to the switch. An SFP+ is attached to the cable.



Here is how you would plug in a DAC cable.



## Non-option - Category 6a cables (not supported by ThoughtSpot)

There are no adapters for these cables. The 10GbE NIC (Network Interface Card) used on the ThoughtSpot appliance is not compatible with this type of cable/connection.



# Install and start the appliance

This section explains how to install and start the appliance.

## Before you begin

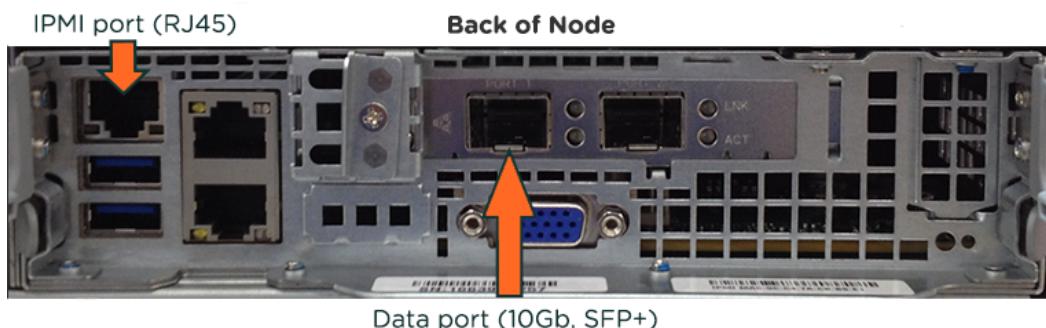
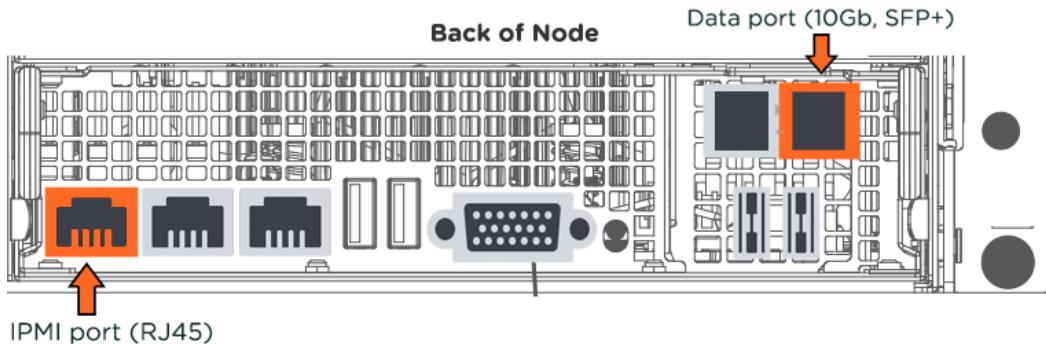
The ThoughtSpot appliance comes pre-installed with all the required software. Network settings on the appliance are required prior to using the appliance. Reference ThoughtSpot's site survey for the information specific to the customer's network environment that is required to configure the appliance.

- If ThoughtSpot's site survey form was completed and returned to ThoughtSpot prior to the appliance being shipped, the appliance may be pre-configured for your network environment and ready to install and connect to your network.
- If the network configuration was not pre-set, then this step must be done as part of the installation process.
- If assistance is needed to determine the configuration status of the appliance, please contact ThoughtSpot Support.

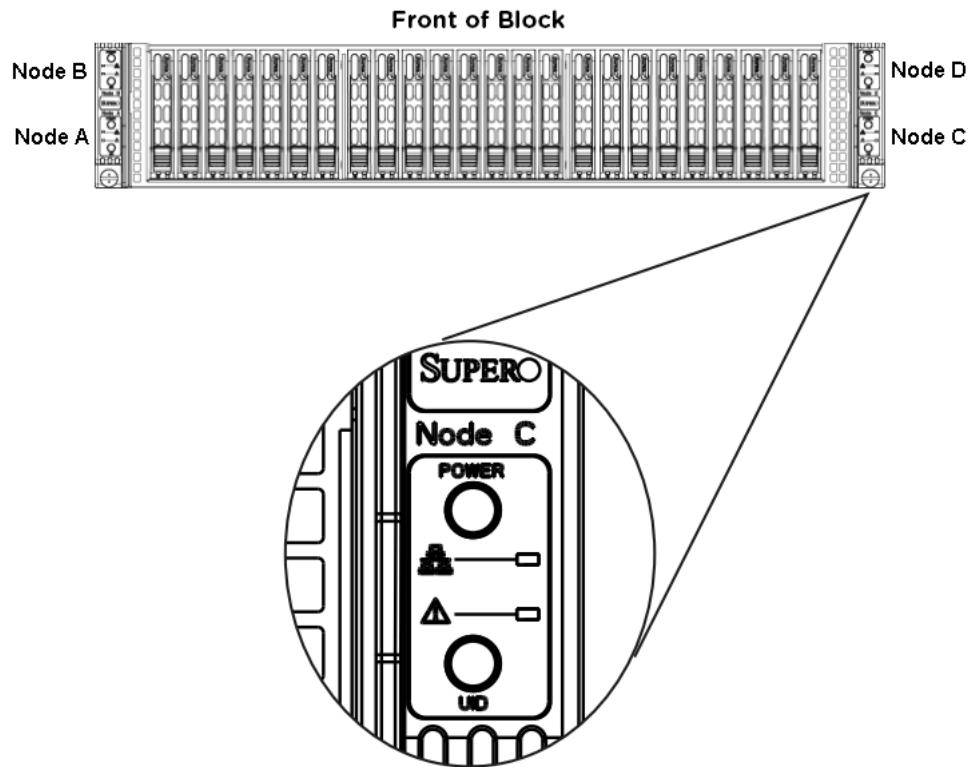
## Installation procedure

To install and start the appliance and connect to your network:

1. Refer to the Rack Install Guide to install the appliance securely in your data center.
2. Plug in the power cord, but do not turn the appliance on yet. See the figure of the **Location of the power and UID buttons on the control panel** for the power button location.
3. Connect the IPMI dedicated LAN port to a dedicated LAN for system management.
4. Connect the data port(s) on the back of the appliance to your 10GbE network switch. Only the one 10GbE port shown in the **Back of Node** figures below is active. Only one 10GbE port connection is needed.



- Turn on the appliance by pressing and releasing the power button for each node and allow time for the nodes to boot up completely.



Each node has its own power and UID buttons. Turning the system off using the power button removes the main power, but keeps standby power supplied to the system. Therefore, you must unplug the AC power cord from any external power source before servicing. The power button for each node has a built-in LED which will turn green when the power is on.

There is also a UID button, which is used to turn on or off the blue light function of the LED. Once the blue light is activated, the unit can be easily located in very large racks and server banks. A blue LED is also illuminated on the corresponding node, visible from the rear of the chassis.

- After the appliance has been turned on, verify that both LEDs (IPMI and data NICs) on each network card are lit.
- Connect a keyboard and monitor to each node in turn. You should see a login prompt on the screen. If you don't see one or the screen isn't responsive, press the key combination control, alt, and F2 on your keyboard, which should allow you to attempt to log in.
- Log in as username admin, using the default password.
- Once logged in, run the following commands and capture the output at every stage:

```
sudo ipmitool lan print 1
sudo ipmitool lan set 1 ipsrc static
sudo ipmitool lan set 1 defgw ipaddr <IPMI_GATEWAY_ADDR>
sudo ipmitool lan set 1 netmask <IPMI_VLAN_SUBNET_MASK>
sudo ipmitool lan set 1 ipaddr <IPMI_NIC_IP_ADDR>
sudo ipmitool lan print 1
```

- Run and capture the output of the following commands as well:

```
ifconfig eth0
ifconfig eth1
```

```
ifconfig eth2  
ifconfig eth3  
sudo ethtool eth0  
sudo ethtool eth1  
sudo ethtool eth2  
sudo ethtool eth3
```

11. Share the output of all commands with the ThoughtSpot team who will then determine the next steps.

# Contact ThoughtSpot

You can contact ThoughtSpot by phone, mail, email, or by filing a support ticket.

## File a support ticket

If you encounter a technical issue, file a support ticket using the Support Portal ticket filing system at:

<http://support.thoughtspot.com/>

Please provide as much detail as possible about your issue, to help us resolve it quickly.

You need a Support Portal login to file a ticket. Please contact ThoughtSpot to get an account, if necessary.

## Address

ThoughtSpot, Inc.

1 Palo Alto Square, Building 1, Suite 200

Palo Alto, CA 94306

## Phone numbers

Phone Number	Description
1-800-508-7008 ext 1	ThoughtSpot Support

1-800-508-7008      Toll free number for ThoughtSpot headquarters.

## Email

Reason for contacting	Email
For sales inquiries.	<a href="mailto:sales@thoughtspot.com">sales@thoughtspot.com</a>
For customer support and software update inquiries.	<a href="mailto:support@thoughtspot.com">support@thoughtspot.com</a>
For other inquiries.	<a href="mailto:hello@thoughtspot.com">hello@thoughtspot.com</a>