



ThoughtSpot Appliance Quick Start Guide

Version 4.2
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Chapter 1: Welcome to ThoughtSpot

Topics:

- [Contact 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.

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

Table 1: Phone numbers

Phone Number	Description
1-800-508-7008 ext 1	ThoughtSpot Support
1-800-508-7008	Toll free number for ThoughtSpot headquarters.

Email

Table 2: Email addresses

Reason for contacting	Email
For sales inquiries.	sales@thoughtspot.com
For customer support and software update inquiries.	support@thoughtspot.com
For other inquiries.	hello@thoughtspot.com

Chapter 2: Hardware and deployment

Topics:

- [About the hardware](#)
- [Hardware provided by ThoughtSpot](#)
- [Additional hardware requirements](#)
- [Typical physical deployment](#)
- [Network connection](#)

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.

Physical deployment diagrams and details are also included in this section for both hardware versions.

About the hardware

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.

Table 3: Ivy Bridge and Haswell hardware details

Details	Ivy Bridge	Haswell
Dimensions	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)
# of nodes	Populated with 3 or 4 nodes	Populated with 1 to 4 nodes
Node specifications	Each node is independent and consists of a server board (removable from rear), 1x 120G SSD, 5x 1TB HDD	Each node is independent and consists of a server board (removable from rear), 1x 200G SSD, 3x 2TB HDD
Max power consumption	1620 W	2000 W
Required power input	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.

Hardware front and rear view diagrams

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.

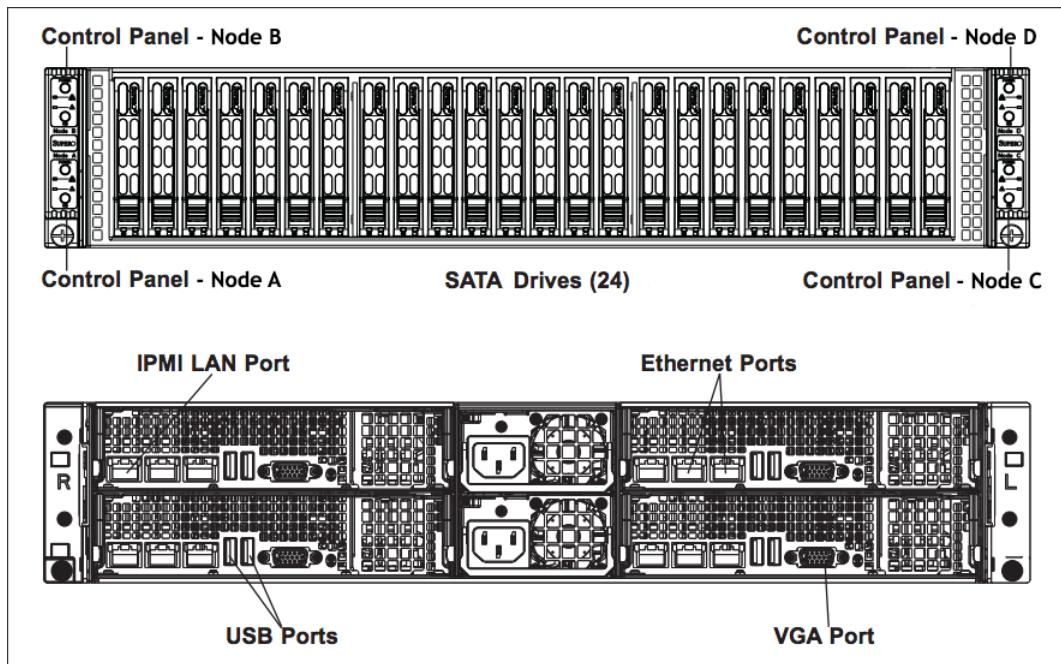


Figure 1: Ivy Bridge - front and rear chassis views

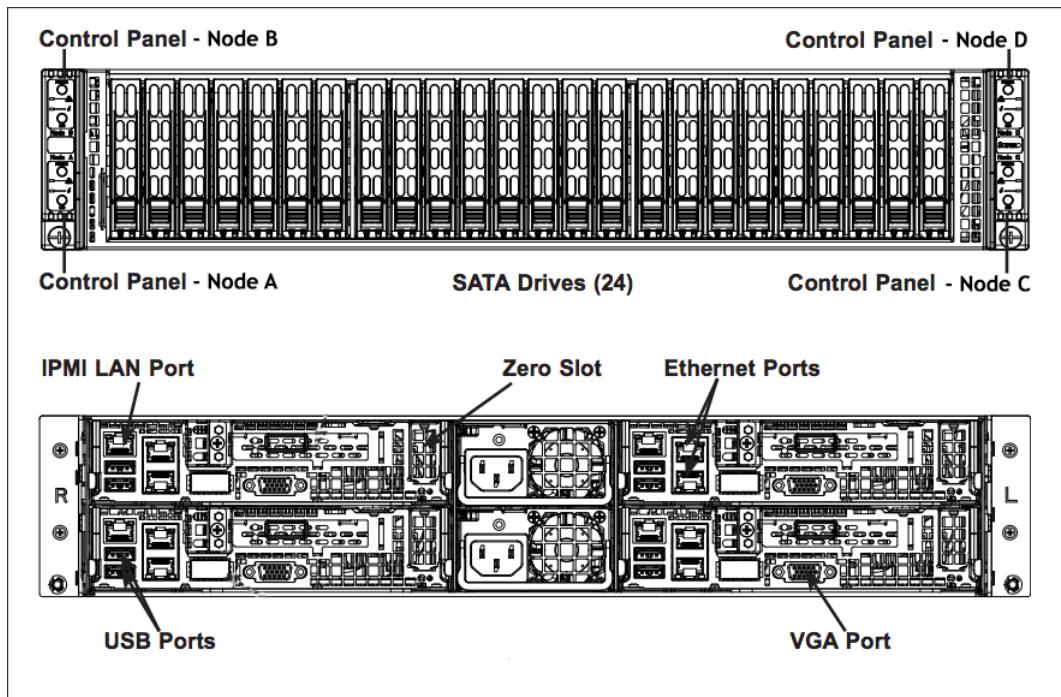


Figure 2: Haswell - front and rear chassis views

Hardware provided by ThoughtSpot

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

Table 4: ThoughtSpot supplied Ivy Bridge and Haswell hardware items

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*	Each	2
 Attention: This power cord is not included with the Haswell platform.		
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

*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.



Figure 3: C13, C14, and NEMA 5-15 power cords

Additional hardware requirements

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

Table 5: Customer supplied Ivy Bridge and Haswell hardware items

Item Name
Data center with proper cooling
2U of rack space per appliance (post depth 26.5" - 36.4")
AC power
Attention: Refer to Table 3: 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)*
10G connection: SFP+ for switch side**

*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.

**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

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

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.

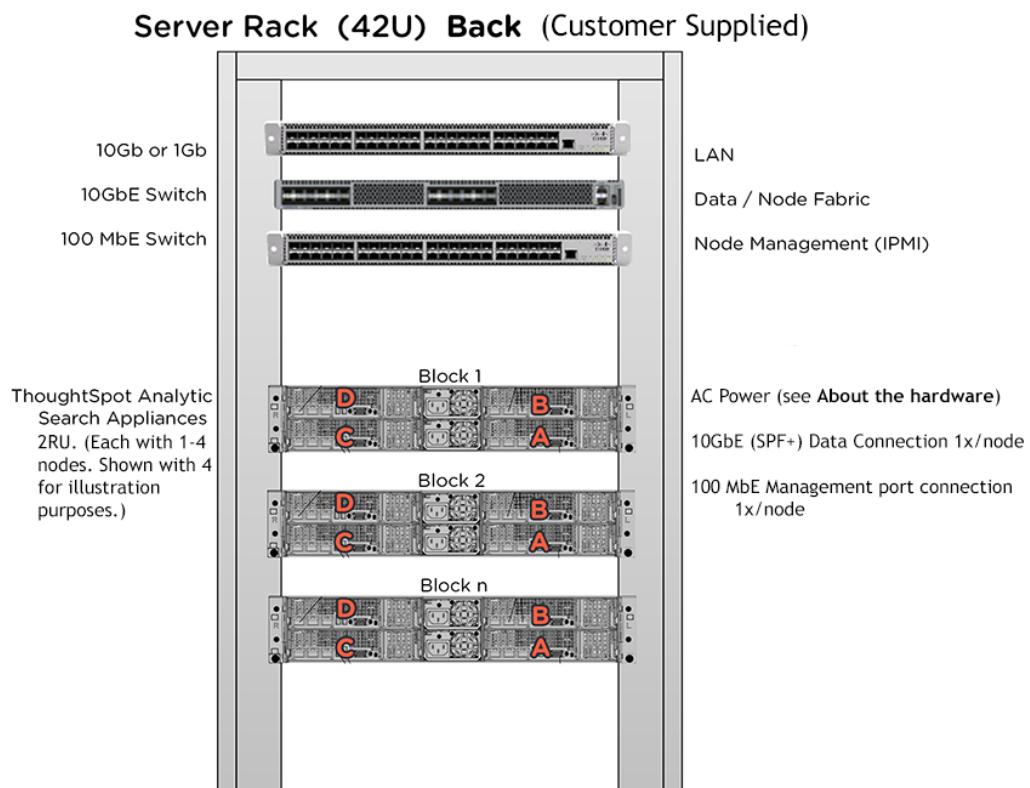


Figure 4: Ivy Bridge and Haswell platforms physical configuration

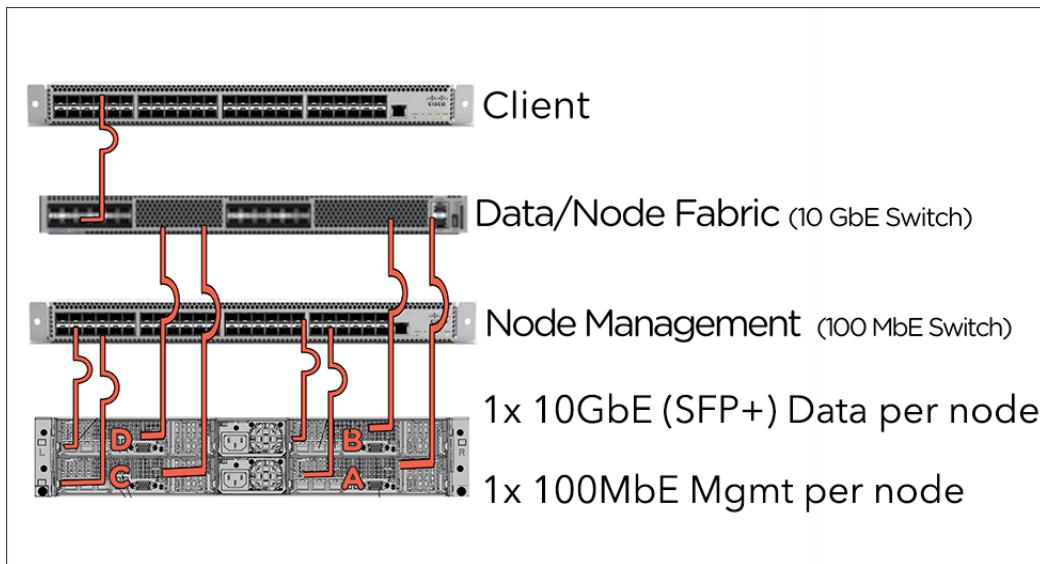


Figure 5: Connections between the nodes and your data center

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.

Chapter 3: Cable Networking

Topics:

- [Cable networking](#)
- [Install and start the appliance](#)

This section covers how to plug the cables in and install your ThoughtSpot appliance.

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.



Figure 6: Fiber cables

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

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



Figure 7: GBICs

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

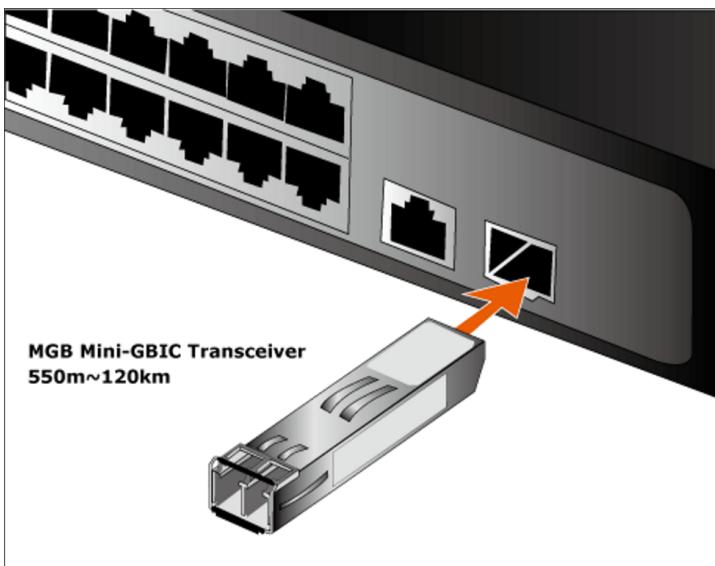


Figure 8: Plugging in a GBIC

The fiber cables must then be plugged into the GBIC.

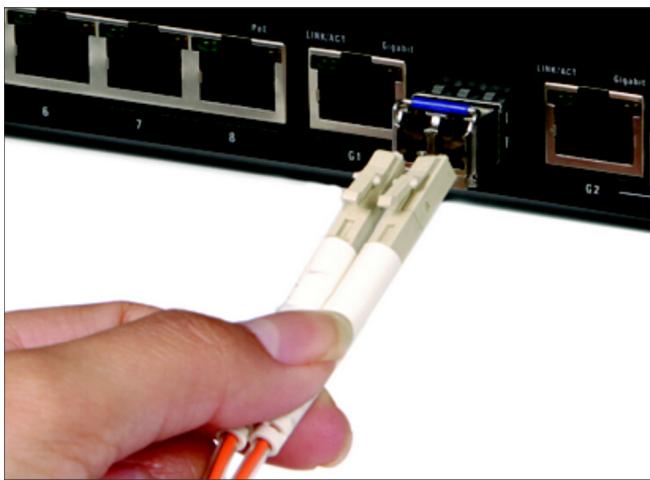


Figure 9: Plugging in fiber cables

Option 2 - DAC/Twinax cables

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



Figure 10: DAC/Twinax cables

Here is how you would plug in a DAC cable.

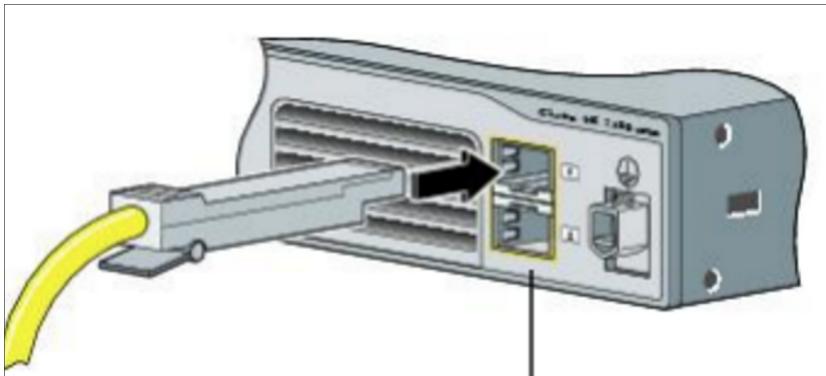


Figure 11: Plugging in DAC cables

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.



Figure 12: Category 6a cables

Install and start the appliance

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.

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 10Gb Ethernet network switch. Only the one 10G port shown in the **Back of Node** figures below is active. Only one 10GbE port connection is needed.

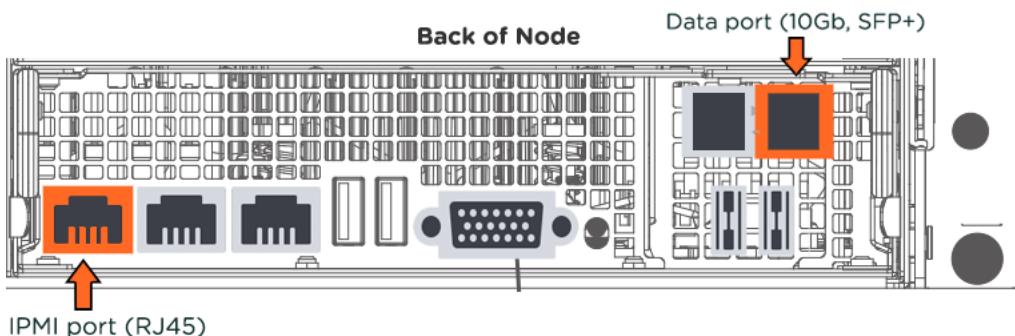


Figure 13: Ivy Bridge port to use for 10 Gb Ethernet

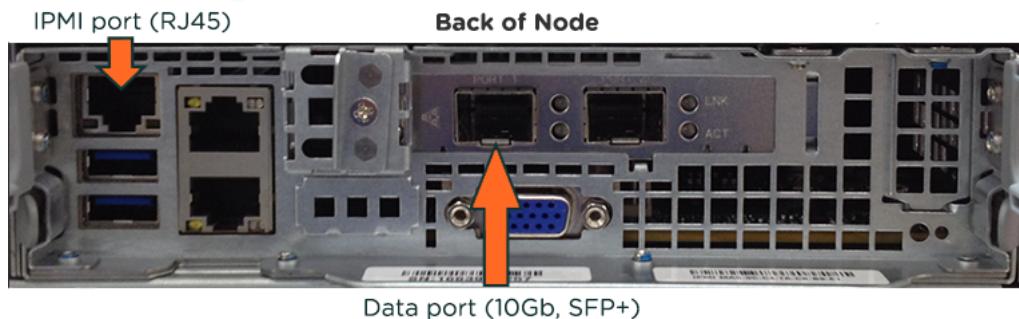


Figure 14: Haswell port to use for 10 Gb ethernet

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

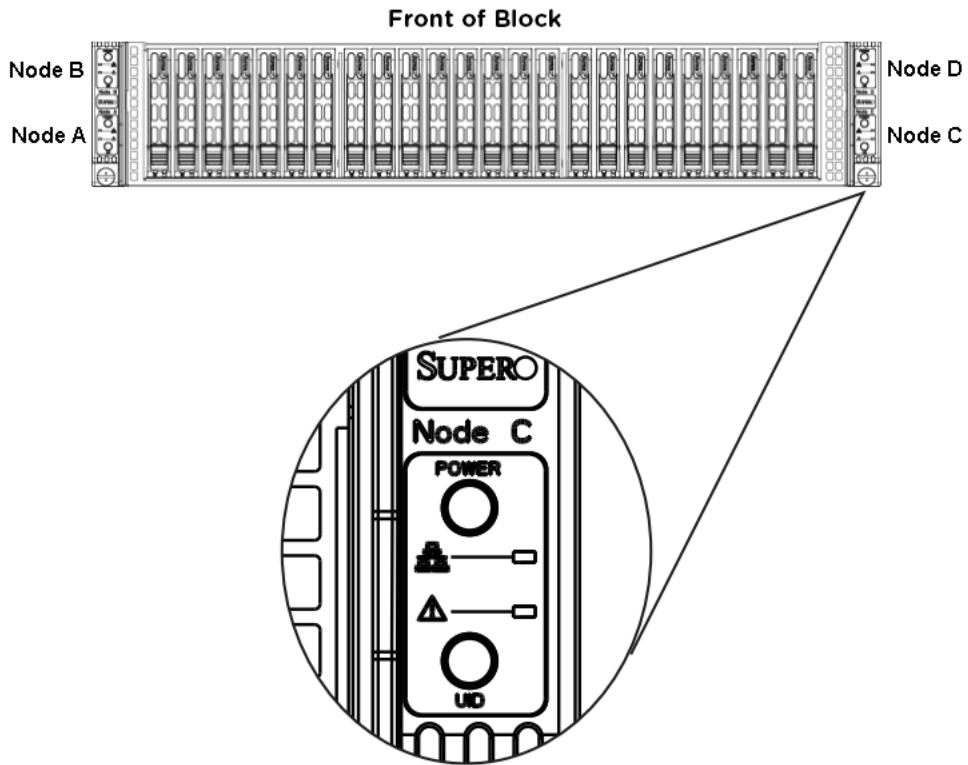


Figure 15: Location of the power and UID buttons on the control panel

-  **Note:** 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.

6. After the appliance has been turned on, verify that both LEDs (IPMI and data NICs) on each network card are lit.
7. 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.
8. Log in as username admin, using the default password.
9. 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
```

10. 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.