Access Long Term Retention (LTR) 3350 Appliance Pre-Installation Requirements

This document provides details that will assist with the completion of the Veritas Appliance Services Pre-Deployment Questionnaire (PDQ). Completing the PDQ will minimize confusions and/or delays during the installation and configuration process.

Contents

Appliance hardware:

- Appliance and Storage Shelf boxes should remain unopened and stored in the same location, preferably the data center. If the cardboard is not allowed in the data center then please document where the equipment will be located on the day of installation, under "Site Access Requirements".

Temperature control:

- 3350 Appliance Node:
    - American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) A2 Standards.
    - Operating temperature (+10°C to +35°C) (+50°F to +95°F).
    - Non-operating temperature (-25°C to +70°C) (-14°F to +158°F).
    - Operating humidity of Appliance (20% RH to 80% RH).
    - Non-operating humidity (8% RH to 90% RH)
- 5U84 Storage Shelf:
    - Operating temperature (+5°C to 35°C / derate 5°C above 2,133m (7,000')) (+41°F to +95°F)
    - Non-operating temperature (-40°C to +70°C) (-40°F to +158°F)
    - Operating humidity (20% RH to 80%RH non-condensing).
    - Non-operating humidity (5% rh to 100% rh non-condensing).

AC/Power:

- 3350 Appliance Node:
    - Power Cable Specifications: IEC-60320-C14 to IEC-60320-C13, 15A/250V, Black, 4ft

Figure 3-1 AC power cable - Veritas Access 3340 Appliance Appliance

A AC power connector (IEC-60320-C14) to an external power supply such as a Power Distribution Unit (PDU) on a rack.

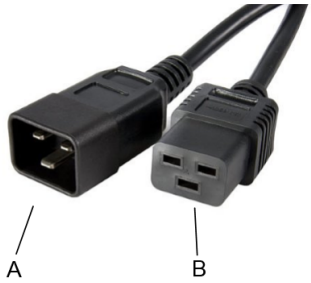
B AC power connector (IEC-60320-C13) to an appliance.

Cable rating: 15A 250V

- AC Power Requirements:
  - 110 VAC - 220 VAC at 2.6A.
- Power Consumption:
  - Typical power consumption - 260 watts
  - Maximum power consumption – 500 watts

- 5U84 Primary Storage Shelf / 5U84 Expansion Storage Shelf:
  - Specification: IEC-60320-C20 to IEC-60320-C19, 20A/250V, Black, 4ft

Figure 3-2 AC power cable - Veritas 5U84 Primary Storage Shelf / Expansion Storage Shelf



A AC power connector (IEC-60320-C20) to an external power supply such as a Power Distribution Unit (PDU) on a rack.

B AC power connector (IEC-60320-C19) to storage shelf.

Cable rating: 20A 250V

Note: If your power distribution unit is not compatible with the IEC-60320-C20 plug, Veritas recommends that you purchase your power cable locally. Make sure that the power cable meets or exceeds the indicated power rating.

  - Power Consumption for each Storage shelf:
    - Typical power consumption – 1000 watts
    - Maximum power consumption – 1300 watts
  - AC Power Requirements:
    - 200 VAC – 240 VAC at 6.67 A.

- Typical power consumption with a maximum of four external storage shelves:
  - 4,520 watts
  - Two (2) servers per cluster
- Maximum power consumption with a maximum of four external storage shelves:
  - 6,200 watts
  - Two servers per cluster - maximum of 500 watts per server

Rack Mounting Equipment:

- Access requires at least two (2) 3350 Appliance nodes and one (1) Primary storage shelf. Access supports up to four (4) storage shelves.
- Each 3350 Appliance compute node and 5U84 Storage shelf should be installed in an EIA standard rack that is 19 inch (48.26 cm) wide and at least 39.37 inches (100 cm) deep.

  Note: 1 inch = 2.54 cm

  - Appliance compute node:
    - Each node is two (2) Rack Units (2RUs) high. Deployments require a total of 4Us for appliance nodes.
    - The compute node rails are extensible to 813mm (32in). This distance is the maximum depth that is allowed between rack posts.

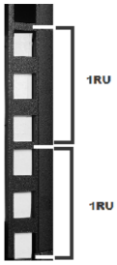
- Each Appliance Node dimensions are:
    - Height: 21.97cm (8.65") (approximately 2U)
    - Width: 48.26cm (19")
    - Depth: 79.38cm (31.25")

- 5U84 Storage shelf:
    - Primary Storage and Expansion Storage Shelves are five (5) Rack Units (5RUs) high.
    - The storage shelf rails measure 71.3cm to 88.4cm (28" to 34.8") in length. Be sure that your rack accommodates this distance from the inside of the front post to the inside of the rear post. Plan for additional space to accommodate power strips, power cords, and other cables.

      Note: Both Primary and Expansion shelves are larger than other models.
        - Height: 22.23cm (8.75") (approximately 5U - shelf, overall)
        - Width: 48.26cm (19") (across the mounting flange)
        - Length/depth: 93.35cm (36.75") (from rear of the front flanges to the rear extremity of the chassis)

      Note: The length/depth of the storage shelf, 36.75” (93.35cm), is longer than what an IEC-compliant rack usually supports. Ensure that the Rack Cabinet and Power Distribution Units (PDUs) accommodate for the extra length of the storage shelves. Rack PDU may need to be installed on the outside of the rack to accommodate the storage shelves.

- One (1) Rack Unit (RU) equals three (3) holes = 1.75 inches.



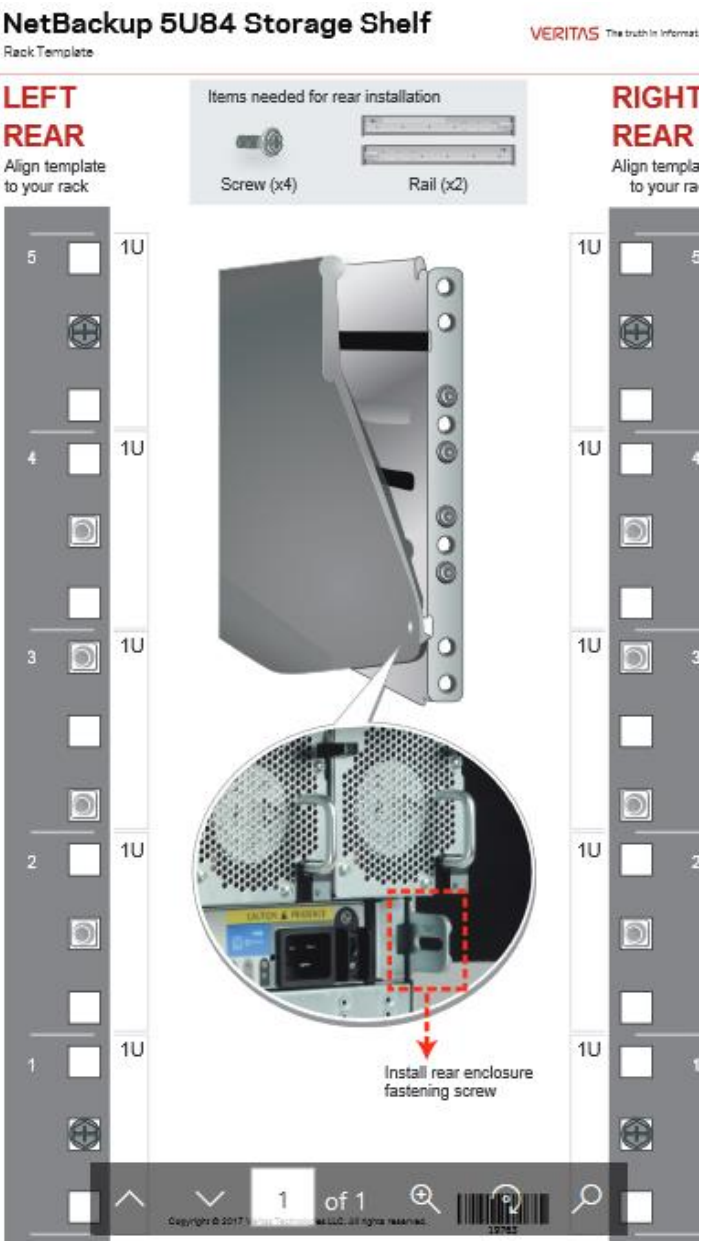
- Below are examples of configurations with their Rack unit requirements:
  - Two (2) compute nodes (2RU each) and one (1) storage shelf (5RU) require 9RUs of height in the rack.
  - Two (2) compute nodes (2RU each) and two (2) storage shelves (5RU each) require 14RUs of height in the rack.
  - Two (2) compute nodes (2RU each) and three (3) storage shelves (5RU each) require 19RUs of height in the rack.
  - Two (2) compute nodes (2RU each) and four (4) storage shelves (5RU each) require 24RUs of height in the rack.

- Rack holes must not be threaded but have cutouts in front and back of rack to secure rails with either Snap-in cage nuts or pins along with screws.

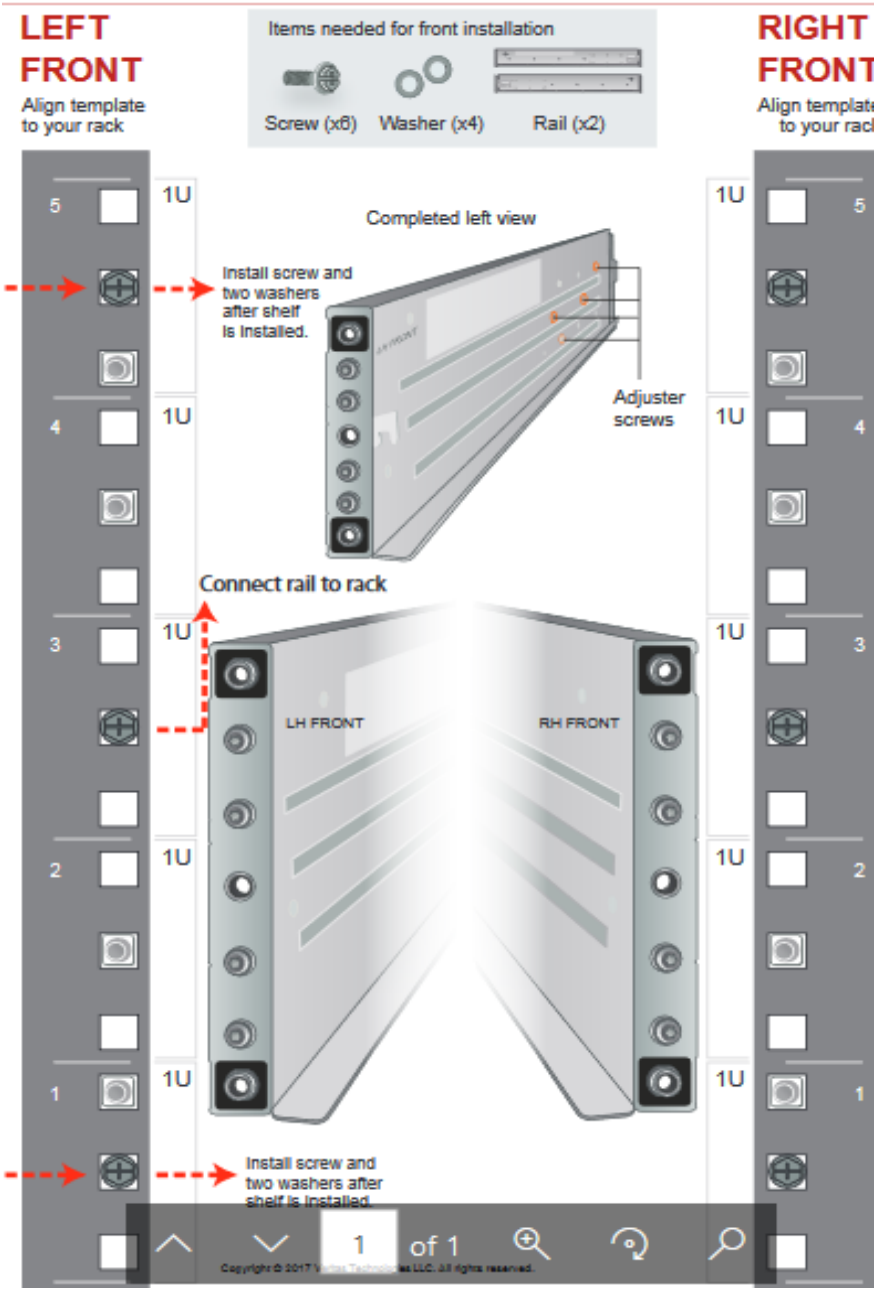
Warning: A storage shelf with drives, weighs 135 kg (298 lbs). A storage shelf without drives, weighs 61.65kg (135.72lbs). To avoid potential equipment damage and personal injury, do not install disk drives into the storage shelves before mounting them into the rack. The added weight of the disk drives hinders the safe install of the storage shelves. The shelf comes with lifting straps to assist with removing the shelf from the shipping container. Use a mechanical lift or three people to raise the shelf into position. The rear of the shelf is heavier than the front of the shelf.

Warning: Storage shelves are heavier than the appliances. Veritas recommends installing the Storage Shelves at the bottom of the rack, below the appliance.

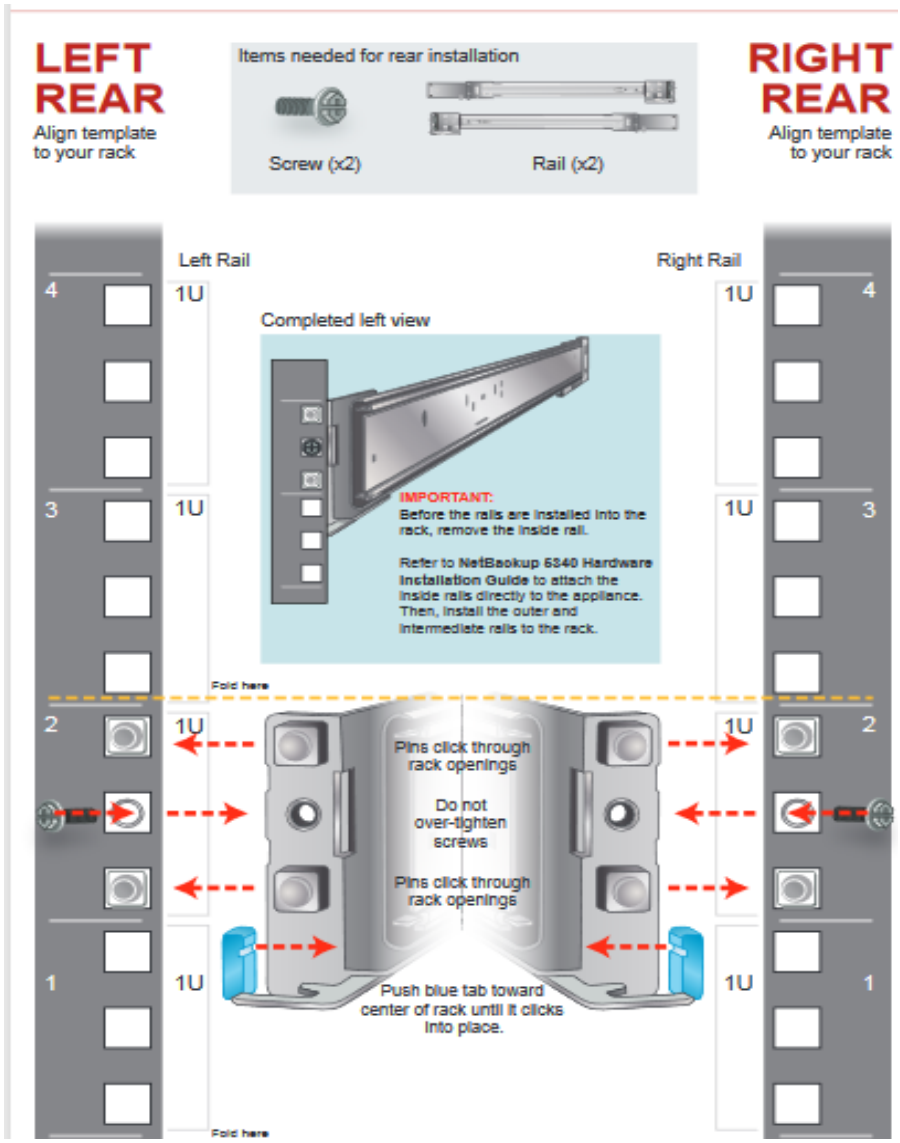
- 5U84 Storage Shelf (Primary and Expansion):
  - Rear View



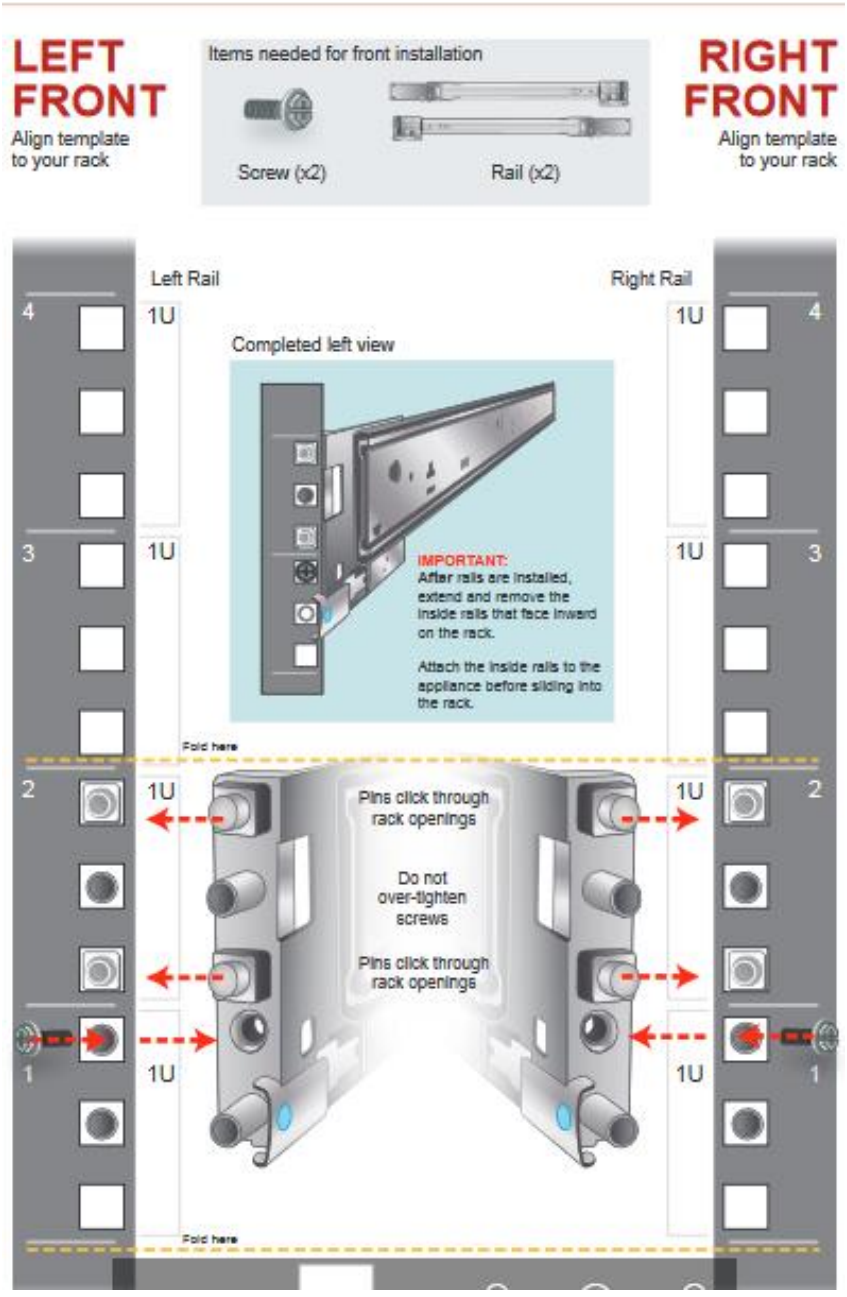
- Front View - The front of each rail includes four pins that insert into the rear of the front rack post. One screw fits into the middle hole of the middle RU.



- 3350 Appliance compute node:
  - Rear View



- Front View


LEFT FRONT
Align template to your rack
Items needed for front installation
Screw (x2)
Rail (x2)
RIGHT FRONT
Align template to your rack
Left Rail
Right Rail
Completed left view
IMPORTANT:
After rails are installed, extend and remove the inside rails that face inward on the rack.
Attach the inside rails to the appliance before sliding into the rack.
Fold here
Pins click through rack openings
Do not over-tighten screws
Pins click through rack openings
1U
Fold here

Cabling:

- Customer must provide the below network cables:
    - 1-Gb Copper Network Cables (Cat5 at a minimum):
        - Two (2) cables for the IPMI Network Port, one for each node.
        - Two (2) cables for Administrative Network Port - Eth1, one for each Node. Connected to an Administrative Network that does not provide any backup data transfer.
        - Two (2) cables will be shipped with Access Nodes for connections between nodes on interfaces Privnic1/Eth2 and Privnic0/Eth3.
    - 10-Gb Fiber Network Cables:
        - Four (4) cables for Public and Virtual Network Access over Eth4 and Eth6, 10/25-Gb Fiber Network Ports, two (2) for each node.
        - For Eth5 and Eth7, 10/25-Gb Fiber Network Ports, these can be used by customer for general use as desired.

          Note: Veritas only ships 10-Gb SFPs. Customer desires to use 25-Gb network connections then they will need to purchase their own 25-Gb SFPs.
- Each appliance node will be shipped with:
    - Two (2) power cables for redundant power supplies on each Computer Node.
    - Four (4) SAS3 cables for connecting between Compute Node and Primary Storage Shelf.
- Each storage shelf will be shipped with:
    - Two (2) power cables for redundant power supplies on each Storage Shelf.
    - Two (2) SAS-3 cables for connecting between Primary Storage Shelf and Expansion Shelf.

Note:

Field Services Technicians will require direction from customer on:

1. Providing access to location of new equipment if equipment is not already waiting at Rack or cabinet, i.e., shipping receiving, room storage, etc.

2. Which Rack/Cabinet and Rack Units to install each piece of equipment.

3. Where to plug in equipment power cables on Power Distribution Units (PDUs) for each piece of equipment. This applies to customers that have specific power distribution requirements for data center equipment.

4. Network cables on which Appliance port the cables need to be attached or dedicated for.

Local Appliance Connection:

- Field Technicians will need to configure IPMI remote access on each Appliance. They will need access to one of the following items from the customer to be able to accomplish this:

    - Crash Cart (VGA Monitor and USB Keyboard)

      or

    - KVM cable, if a KVM has been setup

      Note: If either of the first two options are not available in the Data Center then the Field Technician will need to be allowed to bring their NCR Laptop into the Data Center to connect and configure each Appliance's IPMI port.

- For a list of Network ports required for communication between the Appliance and the Management device, see the

    - Required Ports section of this document.

    - If the IPMI port is connected to a managed switch port, recommend configuring the switch port to auto-negotiation.

    - Verify the remote management port auto-negotiates its link speed to one (1) Gbps.

- If you have a private internal network, remember to configure the settings accordingly in your network address translation (NAT).

- The remote management port must be configured as a DHCP or static address.

Remote Management:

- The Veritas Advanced Services Engineer (ASE) will need to perform a hardware health check, after the installation or upgrade of an appliance. This will be performed by a remote session with the customer to access the appliance. This will require the use of one of the following remote applications:

  - Zoom – Preferred method

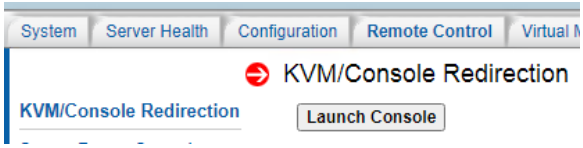
  - Teams

  - Veritas does not use Webex application, in general. However, for the customers that do not allow the use of either of the two above applications, a Webex may be possible, if the ASE has been authorized the use of Webex application by Veritas.

  - Customer sends invite from their own remote application.

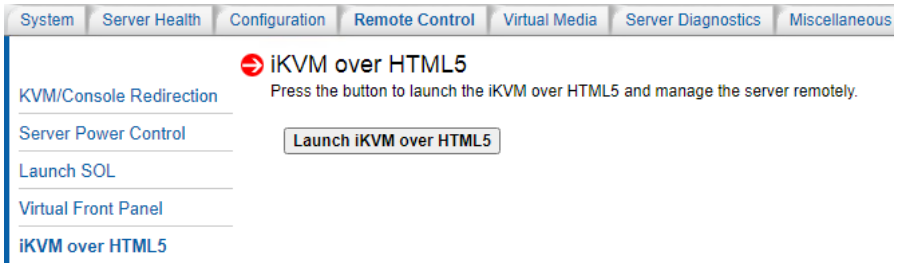
- Once remote session has been established, then ASE will access appliances through IPMI connection. There are two console options:

  - A JViewer application opens that enables you to remotely monitor and control the appliance. This application requires Java Runtime Environment (JRE) version 6.0 or later. Install Java (as needed).



or

- IKVM over HTML5



- For a list of Network ports required for communication between the Appliance and the Management device, see the
  - Required Ports section of this document.
  - If the IPMI port is connected to a managed switch port, recommend configuring the switch port to auto-negotiation.
  - Verify the remote management port auto-negotiates its link speed to one (1) Gbps.
  - If you have a private internal network, remember to configure the settings accordingly in your network address translation (NAT).
  - The remote management port must be configured as a DHCP or static address.

Monitoring:

- AutoSupport - Call Home Feature:
  - Veritas AutoSupport is a set of infrastructures, processes, and systems that enhance the support experience through proactive monitoring of Veritas Appliance hardware and software. AutoSupport also provides automated error reporting and support case creation.
  - Through automation, Internet access, and case management integration, Veritas can improve the support process and give our support engineers the tools to solve problems faster. The AutoSupport infrastructure within Veritas analyzes the Call Home data from each appliance to provide proactive customer support and incident response for hardware failures. This feature reduces the need for an administrator to initiate support cases. It also enables Veritas to better understand how customers configure and use appliances, and where improvements would be most beneficial. AutoSupport correlates

the Call Home data with other site configuration data held by Veritas, for technical support and error analysis. With AutoSupport, Veritas greatly improves the customer support experience.contact information.

- Having up-to-date contact information will allow Veritas support to expedite the resolution of the detected hardware event.
- When Call Home functionality has been enabled and a failure event occurs:
  - The appliance uploads all the monitored hardware and software information to a Veritas server.
  - The appliance generates the following three kinds of email alerts to the configured email address:
    - An error message by email to notify you of the failure once an error is detected.
    - A resolved message by email to inform you of any failure once an error is resolved.
    - A 24-hour summary by email to summarize all currently unresolved errors in the recent 24 hours.
  - Starting from software release 2.7.1, Veritas an email alert is sent if Veritas servers do not receive any Call Home data from your appliance for over 28 hours.
  - The appliance also generates an SNMP trap.
- The appliance uses the HTTPS protocol and port 443 to connect to the Veritas AutoSupport server.
- For Call Home to work properly, you need to register your appliance. The MyAppliance portal is no longer supported with the release of the Veritas NetInsights Console and will be decommissioned. Appliance registration should be done by signing in to the NetInsights portal (https://netInsights.veritas.com) with your Veritas Account Manager credentials.
- From further AutoSupport guidance, please refer to Veritas Appliance AutoSupport Reference Guide.

Necessary software:

- The following pieces of software will be necessary over the course of the engagement and should be downloaded (and installed if applicable) on the management device:
    - The Intelligent Platform Management Interface (IPMI) also referred to as Veritas Remote Manager. You can use the remote manager to log on to the Appliance CLISH.
        - Before you use the Remote Management interface, the following prerequisites must be met:
            - A supported Web browser (see Web browsers supported by Appliance).
            - Two options to open a remote console for monitoring and control of the appliance.
            - iKVM over HTML5 console

              or

            - A JViewer application will open to enable you to remotely monitor and control the appliance. This application requires the latest Java Runtime Environment (JRE). This one is especially preferred while using ISO images or firmware upgrades.
    - Putty or another SSH client. This will be a helpful tool; you can use copy and paste, whereas IPMI you cannot. In addition, Putty has a little better performance than IPMI. IPMI is required, at first, for hardware checks and to configure the first interface then Putty utility can access Appliance.
    - A workstation capable of mounting a CIFS or NFS share to the appliance and/or a Workstation capable of SCP connections from the appliance. This will be needed to transfer files, e.g., Emergency Engineering Binaries (EEBs), Patches, Firmware updates, DataCollect logs, and ASR utility output.
- If the target version of the Appliance is not "As shipped", then the appliance will need to be re-imaged with customer's requested version level prior to configuring the appliance.

  Warning: If the new appliance will be a Media server then the new appliance version cannot be higher than the Master server's version.

- There are two ways to acquire the software needed to re-image the appliance.

  - Preferred method would be to make a request with the Veritas Project Manager to order a USB key with the appropriate target version. However, the target version must be a supported version for that particular Appliance model. Depending on the availability of USBs.

    Note: Our third party vendor (NCR) manages and maintains the stocked for our USBs.

  - You can download the ISO image via Veritas Support Download web page. In order to download the software, you will need a MyVeritas.com account that is authorized to download the particular software.

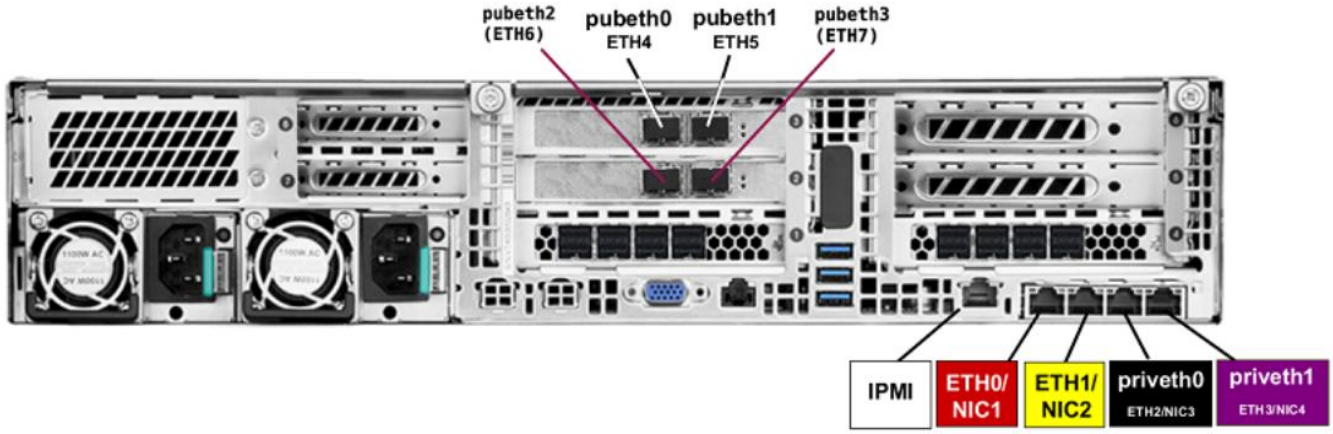
    - To download software, click on below link: https://www.veritas.com/content/support/en_US/downloads

      - Click on dropdown for “Product” then select “Appliances”
      - Click on dropdown for “Sub Product” then select “Access Appliance OS”
      - Select appropriate version
      - Click on “Explore”
      - Below click on “Base and upgrade installers”
      - Once you have logged into your account then select ISO file for fresh installation

    - If you do not have access to download software then go to this link for further information: https://www.veritas.com/licensing/process/activate

    - Recommend to download ISO at least one day prior to scheduled event, due to the length of time needed to down software.

Network/DNS:



- The range of IP addresses need not be contiguous as long as the IP addresses are in the same data network. All IP addresses (both physical and virtual) must be part of the same subnet and use the same netmask as the node's access IP.

IP address requirements

Table 2-3 Required IP addresses

Number of IPs	Item
0 to 4	Physical IP addresses for public network access over eth4 and eth5 for the Access 3340 Appliance model or over eth4 and eth6 for the Access 3350 Appliance model. You can configure up to four public IP addresses. The IP addresses are assigned to the public interfaces of both the nodes using the round-robin algorithm, selecting the first public interface of both the nodes followed by the second public interface of both the nodes.
0 to 8 (Optional)	Virtual IP addresses for public network access over eth4 and eth5 for the Access 3340 Appliance model or over eth4 and eth6 for the Access 3350 Appliance model. Starting with version 8.0, you can assign a virtual IP address to a public data network interface that does not have a physical IP address assigned to it. Earlier, a physical IP address was required to be assigned to a public data network interface if you wanted to assign a virtual IP address to it.
1	IP address for the management console.
2	IP addresses for or appliance node management over IPMI. See "Initial configuration requirements" on page 12.
2	IP addresses for appliance node management over eth1. See "Initial configuration requirements" on page 12.

  - Do not use IP addresses starting with 172.16.X.X, as physical IP addresses or virtual IP address, since this range of IP addresses are used for the private network.

- Network interfaces ETH2 and ETH3 on each node are reserved and need to be connected between both appliance nodes, using the two Ethernet cables provided with the appliance. These connections are used for the inter-communication between both Access nodes.

- The network switch or switches need to be configured prior to configuring the appliance network interfaces.

- Cluster name DNS records should be tied to the VIP shared by the cluster. The cluster name should be registered with any DNS servers in the environment. (I.e., both forward and reverse DNS lookups of Appliance hostname/IP address should work).

Required Ports:

- Refer to the Veritas Access Appliance Initial Configuration Guide to determine which TCP/UDP ports to open for Access for data transfer.

  https://www.veritas.com/content/support/en_US/doc/129305376-151823867-1

References:

- Veritas Access 3350 Appliance Hardware Installation Guide: v8.0
- Veritas Access Appliance Initial Configuration Guide: v8.0
- Veritas Access 3350 Appliance Product Description
- Veritas Access Appliance Solutions Guide for NetBackup v8.0
- Veritas Access Command Reference Guide Documentation Release 8.4.0.000
- Veritas Access Appliance Administrator's Guide v8.0
- Veritas Access Appliance Troubleshooting Guide v8.0
- Veritas Appliance AutoSupport Reference Guide v5.0