Stratusphere™ UX Prerequisites & Preparation Overview

Table of Contents

![liquidware logo]

TechBrief

Stratusphere™ Requirements

Liquidware's Stratusphere has four components: Stratusphere Hub Appliance, Stratusphere Database Appliance, Stratusphere Collector Appliance, and Connector ID Key. Here are some of the requirements for these components.

Stratusphere Hub Appliance (SHA)

Stratusphere Hub Appliance is a required component and forms the central management and reporting core of the Stratusphere platform.

Specifications	
Hypervisors Supported	VMware ESXi 5.5 and higher, Citrix XenServer 6 or higher, Microsoft Hyper-V on Windows 2012 and higher & Azure, AWS EC2, Google Cloud Platform, Red Hat KVM & RHEV, and Nutanix Acropolis 2016.04.09 and newer. **Note: VMware vSphere Virtual Machine Hardware Version** Based on some recently published vulnerabilities, VMware has recommended using higher virtual machine hardware versions. Please make sure to upgrade the Stratusphere appliance virtual machine hardware version to at least 10 and higher as supported by your infrastructure. Please reference this Knowledge Base article from VMware for additional information on how to upgrade virtual machine hardware versions. *Note: In an unlikely scenario where the appliances need to be run on VMware Player, VMware Server, and VMware Workstation we recommend the use of VMware Converter to convert the appliance file formats.*
Download Size	~1.2 GB
CPU	4 vCPUs or higher
Memory	8 GB or higher
Storage	57.2 GB pre-allocated hard disk space — Larger installations may require more disk space depending on data retention needs and a fast storage system (local storage can be a good solution).

Stratusphere Database Appliance (SDA)

Stratusphere Database Appliance (SDA) is an optional component used to store information when more than 1,000 CID Keys are deployed. This option allows a higher volume of CID Keys to call back to the Stratusphere Hub and a high-performance option for better user interface response times.

Specifications	
Hypervisors Supported	VMware ESXi 5.5 and higher, Citrix XenServer 6 and higher, Microsoft Hyper-V on Windows 2012 and higher & Azure, AWS EC2, Google Cloud Platform, Red Hat KVM & RHEV, and Nutanix Acropolis 2016.04.19 and newer. **Note: VMware vSphere Virtual Machine Hardware Version** Based on some recently published vulnerabilities, VMware has recommended using higher virtual machine hardware versions. Please make sure to upgrade the Stratusphere appliance virtual machine hardware version to at least 10 and higher as supported by your infrastructure. Please reference this Knowledge Base article from VMware for additional information on how to upgrade virtual machine hardware versions. *Note: In an unlikely scenario where the appliances need to be run on VMware Player, VMware Server, and VMware Workstation we recommend the use of VMware Converter 4.x to convert the appliance file formats.*
Download Size	~619 MB
CPU	4 vCPUs or higher
Memory	16 GB or higher
Storage	91.85 GB pre-allocated

Stratusphere Collector Appliance (SCA)

Stratusphere Collector Appliance (SCA) is an optional but important component that can be used in different roles. In the CID Data Collector role, it is used to collect CID Key callback data which is then validated, queued, processed, and inserted into the Stratusphere Database appliance. In the Network Collector role, it is used to capture information about the virtual network. It provides important metrics such as Network Latency and Response Times for network connections.

Specifications	
Hypervisors Supported	VMware ESXi 5.5 and higher, Citrix XenServer 6 and higher (bonded NICs not supported), and Microsoft Hyper-V on Windows Server 2012 and higher & Azure, AWS EC2, Google Cloud Platform, Red Hat KVM & RHEV, and Nutanix Acropolis 2016.04.19 and newer. **Note: VMware vSphere Virtual Machine Hardware Version** Based on some recently published vulnerabilities, VMware has recommended using higher virtual machine hardware versions. Please make sure to upgrade the Stratusphere appliance virtual machine hardware version to at least 10 and higher as supported by your infrastructure. Please reference this Knowledge Base article from VMware for additional information on how to upgrade virtual machine hardware versions. *Note: In an unlikely scenario where the appliances need to be run on VMware Player, VMware Server, and VMware Workstation we recommend the use of VMware Converter 4.x to convert the appliance file formats.*
Download Size	~1.2 GB
CPU	2 vCPU or higher
Memory	4 GB or higher
Storage	31.40 GB pre-allocated

Stratusphere Software Download

1. Use our Download site: https://www.liquidware.com/download. Fill in the requested information and you can use the links to download our software for your platform.
2. If you are part of our Acceler8 Partner Program, you can use your credentials to log into our Partner Portal at https://partners.liquidware.com/. Navigate to the software download page and download the appropriate files and links directly.

Stratusphere Software Install – Customer Preparation

1. Please make sure you use the Stratusphere Sizing Guide available online to properly size the Stratusphere Hub and Database appliances.

2. **Each** Stratusphere virtual appliance (Hub, Database & Collector) needs the following during configuration:
   a. **DNS Resolvable Hostname (Required)**
   b. **IP Address (static) (Required)**
   c. Network mask (Required)
   d. Default Network Gateway IP Address (Required)
   e. DNS Server IP Address (2)
   f. Mail Relay Servers (Optional)
   g. NTP Servers (Recommended)
   h. **DNS entry name for the IP Address (Required)**

3. Please make sure you use the Stratusphere Sizing Guide available online to properly size the Stratusphere Hub and Database appliances.

4. Distribution of the Connector ID Key (CID) to the target desktops needs to be handled by the infrastructure team at the end user. The Standard CID Key installer in the form of an EXE will be provided to the software distribution team who would then be responsible for packaging, distribution, and installation of the CID Key on all targeted desktops. Documentation for installation of the CID Key in various scenarios is available in addendums within the Stratusphere Installation Guide.

5. The Stratusphere Collector Appliance installation for the Network Collector role will require modifications to the virtual switch networking configuration on your ESX hosts. If you need a Change Control to make changes, please go ahead and schedule it. The modifications will not affect any production VMs. Essentially, all existing production port groups will be locked into "Reject" promiscuous mode inherently keeping the original production configuration. The virtual switch will then be flipped into "Accept" promiscuous mode. A new "Monitor" port group will be added that will inherit the "Accept" promiscuous mode from its virtual switch. If the port group will monitor a specific VLAN ID, then add its ID to the name "Monitor180". You can specify either one VLAN ID or specify All VLANS (0-4094) to monitor all network traffic on the virtual switch.

6. The Stratusphere software components communicate between each other using TCP connections. Please ensure these ports are open and accessible between the components. Here is a list of TCP network ports used in communication between the Stratusphere Hub, Database, Collector and Connector ID Keys:
   a. Stratusphere Hub TCP/22 (SSH)   : Console access to Stratusphere Hub
   b. Stratusphere Hub TCP/443 (HTTPS)   : Management Web UI
   c. Stratusphere Hub TCP/443 (CID Key) : Connector ID Key Communications
   d. Stratusphere Hub TCP/443   : Collector Communications
   e. Stratusphere Hub TCP/5432   : Postgres Database Access (SHA)

    f.   Stratusphere Database TCP/22 (SSH)   : Console access to Stratusphere Database

    g.   Stratusphere Database TCP/5432   : Postgres Database Access (SDA)

    h.   Stratusphere Collector TCP/22   : Console access to Stratusphere Collector

    i.   Stratusphere Collector TCP/443   : Collector Communications

    j.   Stratusphere Collector TCP/443   : Connector ID Key Communications

7. The Stratusphere UI can import user group and machine group information from any LDAP compliant name store such as Microsoft Active Directory and Novell eDirectory. We can use a standard domain user account or better yet, a service account to import user group membership information. This account should have read-only permissions since Stratusphere does not update any information on the name store. However, in most organizations the group memberships may not be exactly what you expect to use since they may not be populated in the way we want to use them. Liquidware Labs recommends creating a CSV file with grouping information for users and machines which can then be imported into the Stratusphere UI. This form of import provides a better focus on how the output of the assessment deliverable can be grouped together. Here is the format of the Linux based CSV text file:

        <group1-name>,<member1-name>;<member2-name>;…<memberN-name>;

        <group2-name>,<member1-name>;<member2-name>;…<memberN-name>;

Note: To create a Linux based text file, you can use open source applications like [NotePad++](#) that can convert to UNIX based text files.

Stratusphere Installation Time Estimates

Step	Task	Time Estimate
1.	Initial conference call with customer to explain the concept, requirements and preparation for the Assessment.	1 Hour. (T-1week before installation)
2.	Downloading of Stratusphere Hub, Database (optional), and Collector Appliances. Partner should ask the customer to download before we get on site or bring the software with on a DVD/USB Stick.	5min to 1 Hour depending on customer bandwidth.
3.	Configure ESX host for Promiscuous Port Group – change control may be required if the ESX is in production.	15 min.
4.	Install and configure 1 Stratusphere Hub & Collector. The Database Appliance is optional.	1 Hour.
5.	Import Active Directory/LDAP user and group information. If large numbers of user groups exist, we recommend using a manually created CSV file import.	1 Hour – depends on size.
6.	Provide the CID Key installer to customer Software Distribution team for pushing out to physical desktops.	
7.	Health-check #1 after two days.	1 Hour.
8.	Health-check #2 after three days.	1 Hour.
9.	Health-check #3 after four days.	1 Hour.