

# Stratusphere™ IXD 360 View

## Overview:

Using unique, patented technology, **Stratusphere IXD** is an essential tool for desktop transformation project leaders who wish to achieve the best performance at the best price point from their virtual infrastructure. Stratusphere IXD leverages assessment data collected by Stratusphere FIT, Liquidware Labs industry leading assessment solution used by professional services organizations and systems integrators worldwide. The solution then rapidly delivers image, host, and storage designs for virtual desktop project leaders.

Stratusphere IXD can quickly generate a range of desktop image, host and storage designs by shifting parameters such as number of users, applications, or higher IOPS speeds. This interactive design feature allows project leaders to plan for change or model different conditions to see how they affect costs or performance of the server and storage subsystems.

## Do You Need Stratusphere IXD?

You do if you said "yes" to:

- *Is there a hardware refresh cycle approaching for your organization which is prohibitively expensive?*
- *Are you planning to migrate diverse groups of users to virtual desktops?*
- *Do you manage a large number of applications for your organization?*
- *Do you lack a reliable method of sizing capacity for the infrastructure to create the resource pools you will need to support users and applications?*
- *Can you interactively design image, host and storage resources for the virtual infrastructure to model all parameters of performance, cost, technologies, etc. to provide the best outcome?*
- *Are you experiencing issues with your current virtual infrastructure, particularly cost overruns or storage bottlenecks?*

## Stratusphere IXD Customer Use Cases:

Organizations embarking on desktop virtualization projects that purchase server and storage hardware without the proactive due diligence of an assessment and design phase, typically find that they failed to account for all the nuances of versions of the application they are running as well the actual way that desktop users work. Creating an accurate desktop image for a specific set of users is the critical first step in sizing virtual environment resources properly. Poor design of the infrastructure leads to project slowdowns, cost overruns, unproductive users and unhappy management. Best practices dictate that all desktop virtualization projects start with an assessment of the physical desktops. Assessment metrics should then be used to create desktop image designs per user group, as well as host design and storage design. Designs should reflect resource pools for CPU, memory, NIC, HBA, IOPS, and network IO, based on the performance required for the applications and OS contained in the desktop image. Stratusphere IXD allows project leaders to rapidly prototype and model virtual infrastructure designs based on a host of parameters and change those parameters as needed.

### Proactive:

Organizations will conduct an assessment with Stratusphere FIT at the outset of the project and then utilize Stratusphere IXD to create the best designs based on desktop user work modes, applications used, performance requirements (current and future) and cost. This is particularly important if the organization "needs to get it right the first time" because the project time frame is short (e.g., timed to a new facility opening or acquisition) or has extremely rigid budget considerations.

### Post Production:

Organizations find that they are hitting resource constraints, wish to migrate to non-persistent desktops or plan to scale out their virtual desktop environments with new applications or users. Based on the revised desktop images, Stratusphere IXD can produce a range of designs based on workloads, storage type and server architectures.

## Business Benefits:

Stratusphere IXD can:

Save Time	Save Money	Boost Productivity
Infrastructure design for host servers and storage are accurate from the start of the project for more rapid on boarding to the virtual desktop platform.	Customers can select the most cost-effective hardware and storage based on objective designs and real-world specs.	Virtual infrastructure will be sized accurately for current and future conditions, thus preventing bottlenecks or issues that affect user productivity.
A Bill of Materials (BOM) summarizes all capacity and resource specifications.	Infrastructure can also be designed for scalability, preventing the need to purchase host or storage resources unexpectedly as the environment changes.	Project leaders can perform the automated design process easily at all critical junctures to keep pace with changing conditions that can affect users.

## Key Features:

Stratusphere IXD allows project leaders to design virtual desktop environment components with a very high level of accuracy because designs are based on actual observed usage patterns which are then applied to the best 'one-to-many' shared image strategy. Within Stratusphere IXD are three separate "Designer" modules for Image, Host, and Storage resources. All modules leverage actual usage data and metrics from Stratusphere FIT.

- **Image Designer** will inspect applications installed, used, install size, type and complexity and filter our system and hardware applications, including business applications to determine the applications in common to most users in a target group. Stratusphere IXD sets an estimated complexity level for hosting the applications on the virtual platform, using real-world infrastructure and application-usage data. Application considerations include file system drivers and application size as well as the use of shell extensions, services, and COM/DCOM dependencies. Desktop images can be created using an interactive method and applications can be set to be on-image, virtualize or ignore. The final output is a BOM that outlines operating system, applications, virtual applications and the users assigned to the image as well as overall licensing required for OS, applications and virtual application technology.
- **Host Designer** inspects average and peak values of CPU MHz, RAM, network IO and Storage to customize virtual host server chassis with required processor sockets and cores and RAM, NICs and HBA. The host design can also reflect project leader customized inputs related to cost, performance, growth and scalability, capacity and reserve resources. The final output is a BOM that outlines host chassis recommended, chassis count, configuration including processors, RAM, NICs, HBAs and the total cost.
- **Storage Designer** inspects the average and peak values of storage used, IOPS, and data tiers to design customized disk types incorporating RPM and IOPS ratings and RAID levels, thus creating the most effective storage capacity for the targeted desktop image. Designs also reflect customer requirements as to performance, capacity, cost and tier. The final output is a BOM that outlines disk type selected, IOPS rating and RAID level, the minimum capacity of each disk, count of disks required and cost of disks.

## Unique Differentiators:

Stratusphere IXD is the latest addition to Liquidware Labs Stratusphere product line and automates the critical process of designing key components of the virtual desktop infrastructure based on real-world considerations. Typically this process is performed as a service by highly experienced professionals with high levels of expertise in architecting virtual desktop environments. Stratusphere IXD is a complementary and integrated solution developed specifically to leverage the assessment metrics data collected in Liquidware Labs industry-leading Stratusphere FIT solution. No other commercially available product available on the market today can automate the design process based on real-world assessment data and actual usage patterns.

## True Cross-Platform Support:

Hypervisors include VMware® ESX 3.0 and higher, VMware® ESXi 3.0 and higher, Citrix® XenServer 5.5 and higher, Microsoft® Hyper-V on Windows® 2008 R2 and higher, and KVM. Desktop platforms (physical and virtual) include Windows operating systems including Linux®. Virtual Desktop platforms include VMware® View, Citrix® XenDesktop and Citrix® XenApp. Protocols: Citrix® ICA, RDP and VMware® PCoIP. Thin application solutions supported include VMware® ThinApp and Microsoft® App-V.

## Frequently Asked Questions:

### What kind of systems resources does Stratusphere IXD require?

Basically no additional resources are required.. Stratusphere IXD can be deployed as a virtual appliance on a VMware vSphere host. Stratusphere IXD does not perform data collection activities; therefore this solution does not use Liquidware Labs patented Connector ID Key agents. Instead, Stratusphere IXD relies on assessment metrics data gathered by Stratusphere FIT as the basis upon which to produce image, host and storage designs for the virtual desktop environment.

### What is the average data collection duration for an assessment?

Liquidware Labs recommends about 15 days for data collection from users' physical machines. In cases where users are task workers with consistent workloads and limited applications, the period could be reduced to one business week. Assessments should be conducted for every user group (defined by worker type, applications used and workload intensity) which will be migrated to virtual desktops. Liquidware Labs also recommends conducting assessments during peak workload periods, typically at the end of the month or quarter, if that applies.

### Can Stratusphere IXD be used as a stand-alone product or with metrics derived from another source?

No. Stratusphere IXD is purpose built to leverage the data collected from Stratusphere FIT.

### Do I have to be a virtualization expert to use Stratusphere IXD?

Liquidware Labs strongly recommends that project leaders who intend to utilize Stratusphere IXD to design image, host and storage systems have a solid background in desktop virtualization platforms and extensive familiarity with the subsystems and architectures that make up the virtual desktop infrastructure. If an organization's Internal staff does not have this level of experience, it is recommended to work with an authorized Liquidware Labs channel partner to deliver these services.

## Design

866.914.9667 HQ ● 3600 Mansell Road ● Suite 200 ● Alpharetta, GA 30022 ● [www.LiquidwareLabs.com](http://www.LiquidwareLabs.com) ● [info@LiquidwareLabs.com](mailto:info@LiquidwareLabs.com)