

## Stratusphere Server FIT with Host Designer™ for Red Hat Enterprise Virtualization™

*Gather, classify and analyze data directly from the physical environment to assess, prioritize, plan, size and design virtual host environment for the Red Hat Enterprise Virtualization platform.*

Liquidware Labs has created Stratusphere Server FIT with Host Designer solution for Red Hat Enterprise Virtualization platforms. Red Hat's staff, consultants, engineers, partners and customers can use this solution to assess physical servers, gather resource & performance requirements, classify servers for different phases of virtualization, and then design an optimal virtual host infrastructure on the Red Hat Enterprise Virtualization platform to run them.

Stratusphere Server FIT with Host Designer will help customers to:

- Discover the hardware & software associated with each physical machine.
- Baseline the minimum, average, peak average, and peak resource utilization requirements on each physical machine and machine groups.
- Baseline the minimum, average, peak average, and peak performance requirements on each physical machine and machine groups.
- Identify machines to be virtualized in a phased manner.
- Understand the overall resource requirements for virtualizing the selected machines.
- Use combined resource requirements across assessed physical machine to size the number of virtual machines on different types of hosts taking into consideration different design choices and parameters.

### **Assessment:** Critical first step for a successful virtualization project

Before undertaking any major server transformation project, gaining an understanding of the current state of affairs is extremely important. This understanding can be achieved by using Stratusphere Server FIT with Host Designer to assess all or some of your target server population.

The resulting assessment provides a good foundation of what is currently deployed in production, hardware and software included. It provides a baseline of the current resource workloads based on utilization and performance metrics. It also provides a good understanding of average, peak average, and peak workloads as well as when these occur based on time of day, day of week, etc. It also identifies whether concurrency of users or connections or any other factors affect overall utilization. This information is gathered by deploying the patented Stratusphere™ Connector ID (CID) Keys to targeted servers using any standard software distribution mechanism. The CID Key software has a very small footprint even though it can collect information on targeted machines for about two weeks, at the end of which it can uninstall itself.

Assessment data collected can be analyzed, charted and trended to provide a detailed analytical picture of what is used, when is it used, how much of it is used, who is using it, etc. Once this information is collected, it can be ranked and rated to enable a phased and orderly transformation of servers so as to mitigate risk, and gain maximum ROI at the least cost possible.

Continued



redhat.

**ENTERPRISE  
VIRTUALIZATION  
CERTIFIED**

Continued

## Design: Converting real-world metrics into a robust infrastructure

The initial assessment provides a roadmap of transformation by identifying the initial servers to be virtualized. The next phase of the project will be to design the virtual infrastructure so the pilot can be initiated. All the assessment data for machines/users for the initial group, is organized into a simple construct called Target Design Group. The overall resource requirement for this group is calculated in terms of average, peak average, and peak values for metrics such as CPU MHz, Memory, Disk IOPs, Network Bandwidth, and Page File size. The solution also provides the ability to enter custom values that may lie between any of these average or peak values so as to further refine the design based on past experience. The solution comes prepopulated with a set of Processors, NICs, HBAs, and Host Models. They can be customized further to match current specifications in use within the organization. The solution will then calculate the number of hosts required to support the selected number of machines/users in the Target Design Group. It also provides additional design choices and parameters to further customize and tweak the design such as taking into consideration future growth, spikes in resource requirements, converting from one operating system to another and how that may affect IOPS and RAM, etc.

All this data gathered and classified over time can be used to:

- Conduct consolidation scenarios for candidates on different host server configurations.
- Determine what host server configuration is optimum for the targeted candidates.
- Compare consolidation ratios vs. hardware configurations.
- Deliver a Host Design Bill of Materials for the selected host server configuration.

Utilizing a unique, proprietary approach, Stratusphere Server FIT with Host Designer compiles all this information in a series of reports to support analysis, decision-making, and ultimately design, of the virtualized environment.

With Stratusphere Server FIT with Host Designer, Red Hat customers now have the confidence to ramp up production environments on the Red Hat Enterprise Virtualization platform to gain incredible performance and scalability based on real world, actual resource usage requirements of their current servers. Red Hat customers can confidently perform server consolidation and balance workloads in line with Red Hat's best practices and recommendations.

## Solution Benefits

Stratusphere Server FIT with Host Designer™ provides Red Hat® consultants, partners, and customers an easy and comprehensive assessment and design capability. The virtual infrastructure is a tightly coupled system of end points, servers, storage, hypervisors, network, and management layers all working with each other. An efficient Host design is the most essential facet of the project for meeting user experience expectations and satisfying performance SLAs while ensuring the costs of running the environment do not outweigh its benefits.

The Liquidware Labs solution provides a proven, industry leading, and universally accepted methodology for accelerating organizations through the virtualization transformation process. The key benefits of the solution are:

- Greater productivity with high performance server consolidation.
- Control costs with capacity optimization, maximize resource utilization, and minimize hardware footprints.
- Easier, flexible provisioning to support peak workloads and special workforce projects.
- Reduced complexity by standardizing on the Red Hat Enterprise Virtualization platform.
- Improved predictability with capacity utilization trends.

## About Liquidware Labs

Liquidware Labs™ is the leader in desktop transformation solutions for next-generation physical and virtual desktops. The company's Stratusphere™ FIT, ProfileUnity™ and Stratusphere™ UX solutions have been described by analysts as the industry's first 'On-Ramp to VDI.'" Liquidware Labs is a founding member of the Open Virtualization Alliance (OVA), and is the first desktop-focused software solution company to join this esteemed alliance.

Unlike other VDI providers, Liquidware Labs provides a complete methodology and software suite that enables organizations to decouple users and applications from the operating system and to cost-effectively assess, design, migrate and validate the user experience for virtual desktops. Stratusphere FIT is the leading assessment solution on the market used by professional services groups worldwide. A specialized version, Stratusphere Server FIT with Host Designer™ is offered by Red Hat®.

Visit [www.liquidwarelabs.com](http://www.liquidwarelabs.com) for further information.