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Purchasing Division 2019 Washington Street East Post Office Box 50130 Charleston, WV 25305-0130

State of West Virginia Solicitation Response

	Proc Solie	c Folder: 446251 citation Description: Ad	ddendum, WVSTO Network Infrastructure Refresh,				
	Proc Type : Central Purchase Order						
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VENDOR					
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SOURCE IT TECHNOL	OGIES LLC				
KARA HOMAN					
Solicitation Number:	CRFQ 1300	STO180000003			
Total Bid : \$887,9	91.40	Response Date:	2018-05-22	Response Time:	11:52:37
Comments:	On behalf of Sourc to submit a bid. As most valuable solu again, and we look Virginia! Sincerely, Serica K. King Source IT Technolo 317-601-7430 sking@sourceittecl	e IT Technologies and a certified Woman C tion at the most afforc forward to the possib ogies h.com	d Scale Computing, w wned Business with th lable price, is Source I ility of an outstanding	e thank you greatly fo ne State of West Virgi IT's number one goal! partnership with the S	r this opportunity nia, providing the Thank you State of West

(304) 558-2596 guy.l.nisbet@wv.gov			
Signature on File	FEIN #	DATE	

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Production Site: Storage Array Solution	1.00000	EA	\$288,604.400000	\$288,604.40
Comm Code	Manufacturer	Specification		Model #	
43200000					
Extended Des	scription : Storage Array Solution for Vendor should complete E category listed	Production Site xhibit A - Pricing	- per Specific Page and pro	ations Section 4.1 ovide an itemized lis	t with brand, model/part numbers, etc. per

Comments: The Warranty is not "limited" it covers the materials purchased for five years

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Disaster Recovery Site: Storage Array Solution	1.00000	EA	\$288,604.400000	\$288,604.40
Comm Code	Manufacturer	Specification		Model #	
43200000					
Extended Des	scription : Storage Array Solution fo Vendor should complete I category listed	r Disaster Recove Exhibit A - Pricing	ery Site - per Page and pr	Specifications Sectio ovide an itemized lis	n 4.2 t with brand, model/part numbers, etc. per

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Production Site: Compute & Networking Solution	1.00000	EA	\$8,221.500000	\$8,221.50
Comm Code	Manufacturer	Specification		Model #	
43200000		·			
Extended Des	scription : Compute & Networking Vendor should complete per category listed	Solution for Produc Exhibit A - Pricing	tion Site - pe Page and pr	r Specifications Sec ovide an itemized lis	tion 4.3 sting with brand, model/part numbers, etc.

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Disaster Recovery SIte: Compute & Networking Solution	1.00000	EA	\$8,221.500000	\$8,221.50
Comm Code	Manufacturer	Specification		Model #	
43200000					
Extended Des	Scription : Compute & Networking Sol Vendor should complete Ex category listed	ution for Produc hibit A-Pricing F	tion Site - per age and prov	Specifications Sec vide an itemized list	tion 4.4 ing with brand, model/part numbers, etc. per

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	Production Site: Cabinet	1.00000	EA	\$0.000000	\$0.00
Comm Code	Manufacturer	Specification		Model #	
43200000		·			
Extended Des	scription : Cabinet for Production S Vendor should complete category listed	ite - per Specificat Exhibit A - Pricing	ions Section Page and pr	4.5 ovide an itemized	d list with brand, model/part numbers, etc. per

Comments: INCLUDED WITH HC5150D HARDWARE; SEE ATTACHMENT B

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
6	Disaster Recovery Site: Cabinet	1.00000	EA	\$0.000000	\$0.00
Comm Code	Manufacturer	Specification		Model #	
43200000		·			
Extended Dea	scription : Cabinet for Disaster Recov Vendor should complete Ex category listed	ery Site - per Sp khibit A - Pricing	pecifications S Page and pr	Section 4.6. ovide an itemized	l list with brand, model/part numbers, etc. per

Comments: INCLUDED WITH HC5150D HARDWARE, SEE ATTACHMENT B

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
7	Implementation & Migration Services	1.00000	JOB	\$4,500.000000	\$4,500.00
Comm Code	Manufacturer	Specification		Model #	
81111706					
Extended Des	scription : Base Implementation & Mig Vendor should complete Ex category listed	ration Services, hibit A Pricing F	per Specifica Page and prov	ations Section 4.8 vide an itemized list	with brand, model/part numbers per

Comments: \$4500 FOR BOTH SITES

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
8	Post Implementation Services	40.00000	HOUR	\$7,245.990000	\$289,839.60
Comm Code	Manufacturer	Specification		Model #	
81111706					
Extended Des	scription : Post Implementation Se Vendor should complete category listed	rvices, per Specific Exhibit A Pricing F	ations Sectio Page and pro	n 4.8.6 vide an itemized lis	t with brand, model/part numbers, etc. per

Comments: These Professional Services also include an additional 4 years (on top of the already included initial 12 months) of SCALE CARE Premium Support

Line	e Comm Ln Desc		Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount \$0.00	
9 Training & Knowl		Knowledge Transfer	1.00000	EA	\$0.000000		
Comm Code	Mar	nufacturer	Specification		Model #		
81111706							
Extended Description		Training & Knowledge Tr Vendor should complete category listed	ansfer Services, p Exhibit A Pricing F	er Specificati Page and pro	ons Section 4.9 vide an itemized li	st with brand, model/part numbers, etc. per	

Comments: TRAINING FOR COMPUTE / NETWORKING COMPONENTS & FOR STORAGE ARRAY IS INCLUDED WITH THE PREMIUM INSTALL SERVICES (QSON)



SPECIFICATIONS:

** 388.8TBu Storage / 28.8TBu SSD; 7.68TB RAM; 200 Cores / 400 Logical Cores / Redundant 10GbE Networking; Built in Replication

<u>B48-MX</u> Quantity Quoted: 2; [Per Unit: (B48-MX 48PORT 10GB Switch): B48-MX Scale recommended 10gbE Backplane switch | SwitchX_-2 based 40GbE, 1U Open Ethernet Switch with MLNX-OS, 12 QSFP+ ports, 2 Power Supplies (AC), short depth, PPC460, P2C airflow | INCLUDES 5 years of SILVER SUPPORT|]

<u>12HZ77.76TP2-768 –</u> Quantity Quoted: 10; [Per Unit: (HC5150D 77.76 TB RAW 38.88TBu 768GB RAM UPGRADED CPU): HC5150D - 77.76TB RAW Storage / 38.88TBu - 768GB RAM with upgraded CPU HC5150D - 77.76TB RAW Storage / 38.88TBu | 3 x 1.92TB SSD + 9 x 8TB NL-SAS | 2U node | 768GB RAM | 2 x 10 Core CPUs (40 logical cores) | integrated storage/servers/ virtualization | redundant power supplies | redundant 10GbE LAN and backplane NIC ports | Purchase includes 1 year of ScaleCare Support]

<u>QSVC / QCARE 4YEAR EXTENSION</u> ScaleCare Professional Services (40 Hours); ScaleCare - HC5150D - 12Hz77.76tp2-768 - 4 Year Extension ScaleCare - HC5150D - 12Hz77.76tp2-768 - 4 Year Extension | Hardware and Software support | 48 months (starts at conclusion of 12 months included with purchase) | 24/7 Critical phone support | Phone/Web/Email/LiveChat support | Online self-service portal access | QCARE-4-12Hz77.76tp2-768 \$30,573.00

<u>QSPI / QSON</u> ScaleCare Premium Installation; Priority Scheduling; Includes Training, "Rack and Stack", and Migration

HC5000 Series





The HC5000 Series are a storage heavy HC3 system designed for small to mid-sized company virtualization environments with heavy storage needs. More information at *www.scalecomputing.com* - (877) SCALE.59

HC5150D	HyperCore OS v7					
Base Model	Guest OS Support	Scalability	Management			
CPU: 2x Intel E5-2620v4 • # of Cores: 16 • # of Threads: 32 • Clock Speed: 2.1GHz / 3GHz RAM: • Size: 128GB • Type: DDR4 Network Access: • 2 x 10GbE bonded active/passive NL-SAS Storage: • RAW Capacity: 36TB (9 x 4TB) • Speed: 7200 RPM SSD Storage: • RAW Capacity: 3 x 960GB Dimensions: 2U Rack Height • 3.44" (87.3mm) H x 17.49" (444mm) W x 26 92" (684mm) D	 Windows: Windows Server 2016, Windows Server 2012, R2, Windows Server 2012, Windows Server 2008 R2, Windows Server 2008 R2, Windows Server 2008 R2, Windows Vindows 8 (64 bit), Windows 7, Windows Vista Linux: RHEL/CentOS 4, 5, 6 (32 bit and 64 bit) SUSE Linux Enterprise 9, 10, 11, 12 (32 bit and 64 bit) Other: Other operating systems that run on virtualized x86 and x64 platforms may work, but they will not be fully supported by Scale Computing. 	Customer can add up to 8 nodes per cluster with no disruption to operation. Contact Scale for information on designing clusters larger than 8 nodes.	 Web browser-based GUI, email, and Syslog notifications Automatic VM failover and live migration between nodes Built in hypervisor (included) 			
Power: • Redundant Power Supplies, 750W Certifications: • UL/CB, CE, FCC All Models Include: • Rack rails, Power cables, Bezel, and Quick start guide	Public Network					
Upgrade Options CPU: 2 x Intel E5-2640v4 • # of Cores: 20 • # of Threads: 40 • Clock Speed: 2.4GHz / 3.4GHz RAM: • Size: 256GB, 512GB, 768GB NL-SAS Storage: • RAW Capacity: 72TB (9 x 8TB) SSD Storage: • RAW Capacity: 5.76TB (3 x 1.92TB)						



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HC3[®] Advantages

HC3 was built for organizations with small IT staffs. The HC3 solutions are widely used in the healthcare, education, manufacturing, financial services, and government industries. They have been specifically built for easy deployment and to be managed by IT administrators who want to spend more time focused on business needs and applications, rather than troubleshooting infrastructure and hardware issues. Ideal for main offices, remote offices and DR sites, HC3 fits any type of environment where applications need high availability, not high costs and complexity.

Virtualization

HC3 is a complete 'datacenter in a box' with servers, storage and virtualization integrated into a single appliance to deliver simplicity, availability and scalability.

- Integrated hypervisor based on proven, open source technology with no additional licenses
- Integrated management with the patented HyperCore Software
- Live VM migration
- Cluster to Cluster Replication
- Easy migration from physical or virtual environments to HC3

Storage

Storage is seamlessly integrated into the HC3 cluster as a global namespace that is local to the applications running on HC3. No more storage subsystem, SAN, or storage protocols to manage.

- · Thin provisioning, snapshots, cloning
- No LUNs, arrays, or storage protocols to setup or manage
- Streamlined data path
- Wide striping of data across all disks
- · Automatic redundant data placement

Management

There is no SAN to buy and manage, no servers to buy and manage, and no virtualization software to buy and manage. HC3 handles all of these functions.

- Web based UI
- VM console access from within a browser
- No separate management server
- Self-healing including automatic failover of VMs
- Rolling upgrades and patching with no downtime

Scalability

Nodes of different types can be mixed and matched in a single cluster, providing flexibility to build out the perfect infrastructure for applications.

- · Industry standard hardware
- Remote support
- Mix and match node types after initial cluster with different storage, RAM and CPU footprints
- Appliance configurations optimized for size, variety of hardware capabilities
- Turn key plug and play expansion



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EMEA Office Saunders House 52-53 The Mall London W5 3TA United Kingdom



CAPABILITY STATEMENT

JOURCE IT

COMPANY DATA

DUNS Number: 054492687 CAGE Code: 6RG29 EIN: 45-4600436 NAICS Codes: 423430, 511210, 518210, 541512, 541519 SAM Registration: Active Accepting Credit Cards: Yes Business Size: Small Business Certifications NYS: WBE NYC/SBS: WBE CT: WOS/MBE PA: SDB WVA: WOB, SB WBENC: WBE WOSB

Contact Person

Serica King, Sales Director Source IT Technologies, LLC 24 East Avenue #244 New Canaan CT 06840 Phone: 317-601-7430 E-mail: <u>sking@sourceittech.com</u> **Website** www.sourceittech.com

COMPANY OVERVIEW

Source IT Technologies is a women owned, Value Added Reseller of IT services and solutions. Founded February 2012, we have worked with government, healthcare, higher education as well as enterprise and private sectors. Our multi-talented professionals meet tough challenges and mission-critical objectives by offering premier IT business applications and solutions. We focus on innovative and continued process improvements and are dedicated to providing optimal products, backed by guaranteed service, at the most competitive prices in the industry.

IT Products and Services

Software:

- Security
- Business Intelligence
- Cloud & Virtualization
- Hardware:
- Data Center Solutions
- Storage

Professional IT Services:

- Consulting
- Training
- On-Site Support

DIFFERENTIATORS

- 100% Women Owned Business
- Personalized service to large industry leaders
- Cerifications with over 20 IT Partners;
- Platinum Level partner, Intel Security

PAST PERFORMANCE

UNISYS for The Commonwealth of Pennsylvania (COPA)

As a certified Small Diverse Business with COPA, Source IT Technologies was selected by Unisys from a competitive field of Value Added Resellers to help facilitate the procurement of technology solutions for a groundbreaking, on-demand, government Cloud Computing Program. It is expected to be one of the largest secure, cloud-based, on-demand IT computing implementations by a U.S. state government.

New York Police Department

After making an investment in McAfee solutions, the NYPD needed a Resident Support Account Manager (RSAM/ onsite engineer), with specific product expertise, to manage their real-time technical issues and provide comprehensive security management. Source IT facilitated this placement through the close relationship with our partner, McAfee.

Princeton University

Princeton University was looking to heighten the security of their IT environment. Princeton's rise in collection of personal data, the expansion of mobile device usage, increased data traffic, and risks of hacking makes higher educational institutions investment in broader security a necessity.

SOURCE IT TECHNOLOGIES

24 East Avenue #244 , New Canaan CT 06840 Phone: 203-594-6988 E-mail: info@sourceittech.com





OUR PARTNERS







CERTIFICATIONS

By State STATE OF CONNECTICUT Women Owned Small/ Minority Business Enterprise

STATE OF NEW YORK Women Business Enterprise

COMMONWEALTH OF PENNSYLVANIA Small Diverse Business

STATE OF WEST VIRGINIA Women's Business Enterprise

By City NEW YORK CITY Small Business Services: Woman-owned Business Enterprise

By Non-Government

WBENC Women's Business Enterprise

WOSB Women Owned Small Business

CONTRACTS

OGS State of New York

Forescout Fujitsu CDW Requirements Contract Partner HPE McAfee Oracle

Maryland COTS Contract

GSA Contracts

Source IT Technologies, LLC 24 East Avenue # 244 New Canaan, CT 06840

203-594-6988 info@sourceittech.com www.sourceittech.com



How HC3 Lowers the Total Cost of Infrastructure

A Discussion of Soft, Hidden, and Ongoing Infrastructure Costs



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Introduction

When considering a new IT infrastructure solution, the acquisition cost of the hardware and software to standup the infrastructure is only the starting point for cost analysis. It is important to look into the operational costs of deployment, training, licensing, scale out, downtime, and management. All of these considerations contribute to the total cost of ownership (TCO) of the solution.

This document will dive into the TCO of the Scale Computing HC3 infrastructure solution and discuss how it compares to traditional architecture models. The combined considerations of different areas of costs will give a broader and more complete picture of how HC3 affects IT costs. With a focus on serving small and midmarket IT, Scale Computing is committed to making virtualization infrastructure both accessible and affordable for any size organization.

Operational Cost Considerations

Acquisition costs of hardware and software are generally easy to determine based on vendor quotes, particularly if allocated as a Capex (a Capitial Expense). Acquisition costs can also be calculated as fixed Opex (Operational Expense) which is also easy to calculate based on direct vendor quotes. Other types of operational expenses are not as easy to calculate and are often overlooked as part of TCO. Such costs that will be discussed here are:

- Deployment
- Training
- Software Licensing
- Scale Out
- Downtime
- Management

HC3 SCALE SCALE SCALE SCALE SCALE SCALE SCALE SCALE SCALE

With each area of consideration, organizations will need to evaluate their own needs, own processes, and specific costs to determine the actual numbers. This will serve as a guide to calculating those costs.

Deployment

Traditional infrastructure deployment usually consists of deploying a SAN or NAS appliance, multiple virtual host servers, and then layering on a virtualization hypervisor. These three components are usually from different vendors meaning that each component is deployed separately and then configured and integrated into the complete infrastructure solution. With HC3, the deployment is almost turnkey.

Because HC3 combines server, storage, hypervisor, and management in a single appliance, all supported by a single vendor, a cluster of 3 or more nodes can be quickly deployed in under an hour. There is no integration of components other than assigning IP addresses to cluster nodes to create network connections for clustering. Storage is automatically striped and pooled across the entire cluster so there is no storage configuration. The hypervisor is included and preinstalled on each node, so there is no added configuration or integration of software needed.

From shipping container to rack to running live VMs, even a novice administrator can have HC3 deployed and ready for production in well under 1 hour. Compare that to traditional infrastructure that may take days or even weeks to deploy and test before putting into production. Getting up and running is only the first phase of deployment. The second phase is migrating your workloads to the infrastructure.



The migration process is going to be more or less the same on HC3 as on any virtualization platform. All hypervisors have tools to import VMs from other hypervisors and convert them to their own format. There are 3rd party tools that can assist in migrating workloads from any physical or virtual server with practically no downtime. It involves some planning and at least minimal planned downtime to account for any potential issues that may pop up.

Because the process is almost the same on any hypervisor, migration alone is not a differentiator, however support and services for migration can be a big difference. Scale offers a number of migration services. These services range from migrating every workload onto HC3 and handing every aspect of migration to comprehensive migration walkthrough and training with users, enabling them to repeat the process on their own. Aside from service offerings, migration is supported by ScaleCare support services including how-to documentation along with an optional migration tool called HC3 Move. All ScaleCare customers also enjoy 24/7 phone and email support to assist through any critical issues.

So to sum up the deployment and migration costs, it is a simple matter of calculating the costs of administrator hours, 3rd party migration tools (if used), and downtime (if applicable). Compare the rapid delivery within a couple hours for HC3 to traditional virtualization infrastructure that can take days or weeks to fully deploy.

Training

Training and certification is often required to administer many technologies traditionally deployed in virtualization infrastructure including SAN or NAS solutions, hypervisors, and virtualization management tools. This kind of training can require dedicated offsite classroom learning or self-driven training through online resources, requiring days of time to complete. The cost of training can be high in terms of purchasing trainer classroom time, travel, and administrator time spent. Even with classroom training, administrators are often required to self-train hours of each week on updates and changes to ensure all components of the infrastructure remain compatible.

HC3 requires no specific training and has been designed so that it can be administered easily by IT generalists or even novices. Although there are some minimal training offerings around migration and deployment, most users are able to become familiar with the management interface rapidly during deployment without the need for any training resources. In fact, it's so simple that part of the included installation service is a HC3 web interface introduction and first VM creation walkthrough as part of the installation time. There are no certifications required. Training costs are usually calculated as zero for HC3 administration.



Software Licensing

One of the most oppressive costs of virtualization can be renewing hypervisor licensing costs. In particular, VMware can come with high annual license renewal rates both for the hypervisor and for vCenter management. Software licensing for virtualization can vary depending on the license type and implementation size. Free versions of hypervisors are sometimes available but often lack many of the features of the full hypervisor version that comes with the hefty price tag. Licensing can become an issue when scaling out infrastructure as well, when adding a new host server can require new licensing and sometimes move the whole solution into the next tier of licensing and significantly higher cost.

4

HC3 does not require any software licensing fees or renewals. All HC3 customers receive the full version of the built-in HyperCore hypervisor and all updates are available at no extra charge to customers under active support contracts including any new or existing features. Also, HC3 does not require any additional management tools at extra cost. This results in zero software licensing cost for HC3. When compared to many VMware implementations, the cost of HC3 is often absorbed simply by the savings from eliminating the software licensing renewals from VMware.

Scaling

In traditional architecture built on servers, SAN/NAS, and hypervisors from different vendors, scaling out can be challenging because of the unknown. It is not always clear how or even if a new piece of hardware will interact with the existing implementation. Usually testing must be planned and executed before rolling out the new hardware into production. Often the existing infrastructure must be brought offline to add resource capacity. This is followed by crossing fingers that a latent incompatibility is not present which could cause new problems during implementation or at any later time, including inadvertently breaking out of a supported configuration.

It is also difficult to properly calculate or estimate the resources needed over a given period of time. As a result, organizations often over-provision, which means overspending. Between the cost of over-provisioning and spending days or weeks testing new hardware, and downtime for implementation, the costs add up.

With HC3, scale out couldn't be simpler. A new node can be added to the cluster within minutes, automatically making new resource capacity instantly available and adding storage capacity to the existing storage pool without taking any workloads offline. No testing needs to be performed because the hardware has been pre-validated.



There is no need to over-provision with HC3 because scaling out can be done so quickly and easily, only the resources

required at the time need be purchased. Future needs can be easily met with more cluster nodes. Furthermore, nodes can be mixed and matched adding resources as needed. Need more storage but not much more CPU? Need more RAM but not much more CPU and storage? New nodes can be configured with whatever you need and can be added to a cluster seamlessly.

The ability to scale out at will, while mixing and matching nodes, nearly eliminates the costs associated with testing hardware, taking workloads offline, over-provisioning, and dealing with incompatibility issues. The cost of scaling out with HC3 is basically just the cost of a new node or two at whatever capacity or configuration your scale out requires.

Downtime

Downtime costs can cripple organizations, especially when man-made or natural disasters strike. Without sufficient high availability, disaster recovery, and backup strategies in place, such events can cause hours or days of downtime that may lead to critical revenue loss. But downtime can be both planned or unplanned and planned downtime can be costly as well.

The hourly downtime cost of each organization will vary depending on the type of business operations being performed. At the very least, downtime erodes credibility with customers both internal and external. For some businesses, an hour of downtime can be measured in the tens of thousands of dollars, especially if occurring during a seasonal rush. Planned downtime is generally much less costly than unplanned, but still carries costs of loss of productivity and administrators working extra hours on nights and weekends when the downtime is planned.



HC3 practically eliminates all planned and unplanned downtime for infrastructure. With built-in redundancy, high availability, backup, replication, snapshots, failover, and failback at no extra cost, HC3 provides a comprehensive disaster recovery strategy to ensure practically no unplanned downtime. Additionally, non-disruptive rolling updates and non-disruptive scale out eliminate nearly all planned downtime.

Within any HC3 cluster, VMs are automatically highly available and will failover to another node of the cluster if an entire node fails. Then, by enabling replication between a production cluster and a remote cluster or single node appliance, VM workloads can be backed up with multiple recovery points that can be used for failover within minutes of entire cluster failure. There is no need for a third party DR solution with HC3; the capabilities are built-in.

After a failover to a remote site, data can be quickly restored to the recovered production cluster by sending only the data that changed. The VMs can then be failed back within a matter of minutes. This reduces unplanned downtime from hours or even days to mere minutes in an incredible savings for business operation costs. If no remote site exists, Scale Computing offers a ScaleCare Remote Recovery Services--a disaster recovery as a service (DRaaS) offering--which allows replication and backup of an HC3 cluster to our own hosted DR site for a low cost per VM starting a \$100 per month.

The redundant hardware and storage architecture also protects HC3 from various failures ranging from failed network ports or failed drives to failed power supplies. The resilient appliances continue to operate normally with self-healing abilities and administrators can replace failed components days after failure. Replacement components are shipped for next business day delivery whenever possible.

All of these combined abilities nearly eliminate downtime costs of any kind, dramatically reducing the TCO of the solution. Eliminating the cost of a third party solution for DR capabilities is yet another way HC3 reduces the cost of ownership.

Management

Management costs generally refer to any administrator time spent dealing with the solution and therefore many of the areas already discussed here include elements of management time from deployment to dealing with downtime. There are more general areas of management that include monitoring and break/fix that can also be significant.

With traditional architecture that contains multiple technologies from multiple vendors, infrastructure often needs a lot of babysitting, in many cases requiring full time infrastructure administrators to monitor infrastructure performance and resource consumption, perform break/fix, and to plan and deploy new infrastructure for refresh or scale out. Management time is a significant cost especially when calculated over the lifecycle period of infrastructure, often between 3-5 years.

By eliminating complexity from infrastructure, HC3 significantly reduces management costs. One of the most significant savings comes from providing a single vendor solution. Rather than having to manage servers, storage, and hypervisor as separate components, with HC3, the entire system is managed from a single management interface. The need to either manage through multiple consoles or purchase additional management tools is not necessary. The single management cost of monitoring the infrastructure by allowing status to be checked at a glance.

Another significant cost of infrastructure management is dealing with support issues ranging from incompatibilities between vendor solutions, software or firmware errors, hardware failures, and performance issues. In traditional architectures that combine multiple solutions, multiple vendor support organizations are needed to troubleshoot and resolve issues. Troubleshooting is complicated when dealing with multiple vendor technologies and often results in vendor run-around without any vendor willing to take responsibility, but instead blaming the other vendors whose technologies make up part of the solution.

With Scale Computing, there is only one vendor supporting the storage, hypervisor, and server compute resources. ScaleCare support services troubleshoots all issues and offers solutions to all issues in the virtualization infrastructure, significantly reducing the time spent by administrators dealing with support. While user experiences may vary based on the management costs tied directly to support issues, one can reasonably compare support costs between solutions based on the number of vendors involved. A single vendor solution can be expected to cost approximately 1/2 to 1/3 of a 3 vendor solution in terms of support management costs.

One of the key value propositions of HC3 is decreasing management time. By nearly eliminating downtime, providing a single vendor infrastructure solution, and automating many typical IT tasks, HC3 dramatically reduces management time and costs. This allows administrators who would generally be employed full time to monitor and maintain infrastructure to instead focus on applications and activities that drive business forward instead of merely keeping the ship afloat.

Summary

As discussed, there are many costs to calculate and consider when determining TCO for an infrastructure solution. These costs vary from organization to organization so there is no way to know the exact TCO without digging into the specific processes and practices that drive these costs for each organization. However, with HC3, the TCO is sure to be lowered versus traditional SAN/NAS+server+hypervisor architecture because it is simply easier to use and maintain.

No other solution today can deliver the same level of simplicity combined with offering high availability, disaster recovery, near turn-key deployment, seamless scalability, and non-disruptive rolling updates like HC3 from Scale Computing. This is why HC3 is the leading hyperconverged infrastructure solution for small and midsize organizations. It's time to stop investing in the technical debt of yesterday's infrastructure and continuing the high-cost practices of maintaining that outdated technology.

Additional Resources

Learn more about the features that help reduce infrastructure costs in these additional documents or by visiting the Scale Computing website. - www.scalecomputing.com

- HC3 Feature Guide
- HC3, SCRIBE, and HyperCore Theory of Operations
- DR Strategies with Scale Computing

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: 10000003

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received: (Check the box next to each addendum received)

	IL.	1	Addendum No. 1]]	Addendum No. 6
	[]	Addendum No. 2	[]	Addendum No. 7
3	[]	Addendum No. 3	[]	Addendum No. 8
	[]	Addendum No. 4	[]	Addendum No. 9
[[]	Addendum No. 5	ſ]	Addendum No. 10

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

SOURCE IT TECHNOLOGIES
Gompany
Dervot
Authorized Signature
5-20-2018
Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing. Revised 6/8/2012



Scale Computing provides a complete, virtualization, solution for the datacenter, in a single appliance designed for rapid deployment, ease-of-use, seamless scaling, high performance, and cost effectiveness.

True Hyperconverged Infrastructure:

HC3 brings together virtualization, servers, storage, and backup/disaster recovery into a single solution. All of the components are built together into the solution, including the hypervisor, with-out the need for any third party components or licensing. Every component has been designed for highly efficient virtualization infrastructure, from the intelligent storage architecture to the low cost of ownership.



Simplicity

The key to the success of the HC3 and to the success of HC3 customers is the ease-of-use. HC3 eliminates wasteful management tasks that have kept IT administrators trapped in datacenters like overpaid babysitters rather than allowing them time to focus on improving business processes. The simplicity of HC3 directly impacts IT with higher productivity and lower costs.

Scalability

One of the most challenging tasks for IT can be adding capacity to existing infrastructure. With HC3, the simplicity of design and ease of use allow for seamless scaling of infrastructure. New appliances can be added into a running cluster seamlessly, within minutes, without disruption to any running workloads. Different models and capacities can be used together in nearly any combination to scale out resources as needed.

Availability

Based on simplicity of design, HC3 is inherently more stable and more highly available than traditional virtualization solutions. Redundancy, high availability, and resiliency are built into HC3 in every way, including the option of disaster recovery as a service. With HC3, both planned and unplanned downtime can be virtually eliminated, creating more confidence with customers both internal and external.



HC3 Use Cases

HC3 virtualization infrastructure can be used in a variety of ways but here are some of the most common use cases for our HC3 customers.

Virtualization Without Licensing

With HC3, the solution includes the hypervisor with no additional costs or licensing fees. After paying VMware licensing fees for years, many of our customers saw the value in becoming free of these extra fees to lower their IT costs and reinvest in better technologies.

Backup and High Availability

Many HC3 customers saw the value of built-in backup and high availability after their legacy solutions had proven ineffective despite being an added cost. The out-of-the-box features of HC3 gives organizations higher levels of availability on a more stable and easier to use platform.

Lowering Infrastructure TCO

In general, our customers have all been looking to lower their total cost of ownership (TCO) for IT infrastructure. We have designed HC3 to reduce IT infrastructure costs in almost every way. Many of the hidden costs of IT infrastructure such as unplanned downtime, management, maintenance, training, and consulting are virtually eliminated with HC3. Other solutions that integrate multiple vendor solutions only add complexity which increases costs. We believe HC3 is a better way, and our customers agree.

Distributed Enterprise

HC3 customers who were managing remote offices and branch offices saw the value in HC3 for both ease of use and low entry cost. The ease of use and remote web-based management capabilities meant that their remote sites could be managed more efficiently and with less cost.

Virtual Desktops (VDI)

The low cost, ease-of-use, and scalability of HC3 make it perfect for VDI infrastructure. Scale Computing has validated our solution with VDI vendors to allow our customers to implement VDI from the SMB to the enterprise.

	HC1100		HC1150		HC1150D		HC1150DF		HC5150D	
	Cores	Models	Cores	Models	Cores	Models	Cores	Models	Cores	Models
Compute	6 - 8	E5-2603v4 E5-2620v4	8 - 10	E5-2620v4 E5-2640v4	16 - 20	2 x E5-2620v4 2 x E5-2640v4	16 - 20	2 x E5-2620v4 2 x E5-2640v4	16 - 20	2 x E5-2620v4 2 x E5-2640v4
RAM	64св, 128св, 256св		64св, 128св, 256св		128св, 256св, 512св		128св, 256св, 512св		128св, 256св, 512св, 768св	
	SSD	HDD	SSD	HDD	SSD	HDD	SSD	HDD	SSD	HDD
Storage (RAW)		4 тв - 32 тв	480 дв - 1.92тв	Зтв - 24 тв	960дв - 1.92т	з 3 тв - 24 тв	3.84тв - 7.68	ТВ	2.88тв - 5.76т	тв 36тв - 72тв
Network	Network 1GbE or 10GbE		1GbE or 10GbE		1GbE or 10GbE		1GbE or 10GbE		10GbE	
(per node starting at)		,799	\$8,559		\$12,619		\$18,499		\$31,499	
Pricing Samples: 3 x H			60 # 0 RA	mpute f Cores: 24 M: 192GB	Tiere	d 3 x H	IC1150DF	Compu # of Co RAM: 1	ite res: 60 .5TB	All-SSD
Pricing shown in L Dollar.	U.S. regions test. \$25,675		Sto SS SA Dis	Storage SSD Raw Capac SAS Raw Capac Disk Speed: 7.2k		 19880000000 19880000000 19880000000 19880000000 	SSD R		e aw Capacity: ∼23TB	
available on requ			Net 6 x	Network 6 x 1GbE bonded active/passive		\$1	\$131,980 Netwo 6 x 100		rk GbE SFP+ bonded active/passive	

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