



The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at ***wvOASIS.gov***. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at ***WVPurchasing.gov*** with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

## Header

[List View](#)

### General Information [Contact](#) [Default Values](#) [Discount](#) [Document Information](#)

Procurement Folder: 162343

SO Doc Code: CRFQ

Procurement Type: Central Purchase Order

SO Dept: 0210

Vendor ID: 000000219154 

SO Doc ID: ISC1600000007

Legal Name: SOFTWARE INFORMATION SYSTEMS LLC


Published Date: 2/29/16

Alias/DBA:

Close Date: 3/8/16

Total Bid: \$1,389,230.00

Close Time: 13:30

Response Date: 03/08/2016 

Status: Closed

Response Time: 13:19

Solicitation Description: Replacement solution for State's primary backup system

Total of Header Attachments: 0

Total of All Attachments: 0



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

State of West Virginia  
Solicitation Response

Proc Folder : 162343

Solicitation Description : Replacement solution for State's primary backup system

Proc Type : Central Purchase Order

Date issued	Solicitation Closes	Solicitation No	Version
	2016-03-08 13:30:00	SR      0210   ESR03081600000004150	1

VENDOR

000000219154

SOFTWARE INFORMATION SYSTEMS LLC

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale  
(304) 558-8801  
stephanie.l.gale@wv.gov

Signature X

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	Cost of System	1.00000	JOB	\$1,389,230.000000	\$1,389,230.00

Comm Code	Manufacturer	Specification	Model #
71151106			

Extended Description :	Total Cost of New System
------------------------	--------------------------



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

State of West Virginia  
Request for Quotation

Proc Folder: 162343

Doc Description: Replacement solution for State's primary backup system

Proc Type: Central Purchase Order

Date Issued	Solicitation Closes	Solicitation No	Version
2016-02-29	2016-03-08 13:30:00	CRFQ 0210 ISC1600000007	2

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV

25305

US

VENDOR

Vendor Name, Address and Telephone Number:



Strategy | Technology | Results  
200 Association Drive, Charleston, WV 25311

Software Information System, LLC  
200 Association Drive, Suite 210  
Charleston, WV 25311

304 768-1645

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale

(304) 558-8801

stephanie.l.gale@wv.gov

Signature X

FEIN #

61-1371685

DATE

3-8-2016

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

**ADDITIONAL INFORMATION:**

Addendum #1 issued to:

1. Provide responses to technical questions.

End of Addendum #1.

INVOICE TO	SHIP TO
DEPARTMENT OF ADMINISTRATION OFFICE OF TECHNOLOGY 1900 KANAWHA BLVD E, BLDG 5 10TH FLOOR CHARLESTON WV25305 US	IS&C - DATA CENTER MANAGER DEPARTMENT OF ADMINISTRATION BLDG 6 RM B110 1900 KANAWHA BLVD E CHARLESTON WV 25305-0135 US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Cost of System	1.00000	JOB	1,389,230	1,389,230

Comm Code	Manufacturer	Specification	Model #
71151106			

**Extended Description :**

Total Cost of New System

**SCHEDULE OF EVENTS**

Line	Event	Event Date
1	Technical Questions Due	2016-02-22

**Request for Quotation**  
**Backup System Replacement RFQ**  
**Attachment A – Pricing Page**

CREQ 0210 ISC1600000007 due 3-8-2016

<b>Description</b>	<b>Cost</b>
<b>Hardware (Includes 4 Year 7x24 Warranty Support)</b> <i>(IBM ProtecTier /V5000s/Lenovo X3500 M5)</i>	<b>\$1,100,000</b>
<b>Software (Includes 4 Year 7x24 Support Support)</b> <i>(IBM Storage Software – IBM Spectrum Protect) TSM</i>	<b>\$259,230</b>
<b>Installation Services/Training</b>	<b>\$30,000</b>
<b>Total</b>	<b>\$1,389,230</b>

***Note: Includes 1 hour critical support***

## CERTIFICATION AND SIGNATURE PAGE

By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Software Integration Systems LLC  
(Company)

Charles D. Arnett Sr. Client Executive  
(Authorized Signature) (Representative Name, Title)

304 768-1645 304-768-1671 3-8-2016  
(Phone Number) (Fax Number) (Date)

**ADDENDUM ACKNOWLEDGEMENT FORM**

**SOLICITATION NO.:** CRFQ 020 USC1600000007

**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)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6  |
| <input type="checkbox"/> Addendum No. 2            | <input type="checkbox"/> Addendum No. 7  |
| <input type="checkbox"/> Addendum No. 3            | <input type="checkbox"/> Addendum No. 8  |
| <input type="checkbox"/> Addendum No. 4            | <input type="checkbox"/> Addendum No. 9  |
| <input type="checkbox"/> Addendum No. 5            | <input type="checkbox"/> 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.

Software Information Systems LLC  
Company  
[Signature]  
Authorized Signature  
3-8-2016  
Date

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

REQUEST FOR QUOTATION  
Backup System Replacement RFQ

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ATTACHMENT B - VENDOR INFORMATION

Vendor Name

Software Information Systems LLC

Vendor Address

200 Association Drive

Suite 210

Charlottesville, VA 22901

Vendor Contact

Charles D. Arnett

Vendor E-Mail Address

carnette@thinksis.com

CD Arnett 3-2-2016

Vendor Signature

Date

STATE OF WEST VIRGINIA  
Purchasing Division

## PURCHASING AFFIDAVIT

**MANDATE:** Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

**EXCEPTION:** The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

**DEFINITIONS:**

**"Debt"** means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

**"Employer default"** means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

**"Related party"** means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**AFFIRMATION:** By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

**WITNESS THE FOLLOWING SIGNATURE:**

Vendor's Name: Software Integrity Systems, LLC  
Authorized Signature: [Signature] Date: 3-7-2016

State of West Virginia  
County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 3 day of March, 2016  
My Commission expires Nov 2020, 2020.

**AFFIX SEAL HERE**

**NOTARY PUBLIC**

[Signature: Janet Christman]

Purchasing Affidavit (Revised 08/01/2015)





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## Highlights

- Improves backup and recovery and simplifies disaster recovery operations
  - Lowers operational costs and energy usage
  - Manages more data with less infrastructure
- 

# IBM System Storage TS7650G ProtecTIER Deduplication Gateway

*Powerful data deduplication for improved backup and disaster recovery operations*

The IBM® System Storage® TS7650G ProtecTIER® Deduplication Gateway is designed to meet the disk-based data protection needs of the enterprise data center while enabling significant infrastructure cost reductions. The solution offers industry-leading inline deduplication performance and scalability up to 1 petabyte (PB) of physical storage capacity per system that can provide up to 25 PB or more backup storage capacity. Combined with IBM or third-party storage, the ProtecTIER Gateway provides a powerful disk-based repository to improve the performance, retention and availability of backup and archive data.

The TS7650G ProtecTIER Deduplication Gateway provides:

- High-speed backups: Up to 2000 MB/sec or more (7.2 TB/hr) sustained inline deduplication backup performance
- Even faster restores: Up to 2800 MB/sec or more (10 TB/hr) sustained recovery performance
- Capacity: Easily scalable to provide up to 25 PB or more backup storage capacity
- Data Integrity: Nonhash-based approach avoids the possibility of data loss due to a hash collision
- Nondisruption: Inline approach ensures backup windows are met and existing operations are not disrupted
- Symantec OpenStorage (OST) support: Simplifies administration of backup, restore and replication operations
- Production proven: Tested and proven in thousands of production environments around the globe since 2005



ProtecTIER's native replication technology enables the automated electronic replication of backup data between one or more data centers, remote office and offsite storage locations for enhanced disaster recovery and business continuity. By eliminating the need to transport actual tape cartridges, data can be recovered faster and more reliably enabling systems to get back online quicker in the event of a disaster or major system outage. It also lowers the total cost of ownership of backup and recovery by eliminating the costs associated with moving and storing physical tape cartridges.

ProtecTIER deduplication with native replication technology provides:

- One-to-one replication for enhanced disaster recovery operations
- Many-to-one replication for improved remote office data protection
- Many-to-many replication for multiple data center environments
- Enterprise-class data integrity level at all sites
- The ability for a remote site to become primary site during disaster recovery
- Replication that can occur concurrently with backup and inline deduplication
- Easy-to-use GUI-based management and monitoring tools



Deploying a TS7650G ProtecTIER Deduplication Gateway solution can help organizations protect their corporate data on disk-based storage more efficiently while helping them manage the exponential growth of new data through reduction or elimination of duplicate data in their backups.

**IBM System Storage TS7650G ProtecTIER Deduplication Gateway hardware at a glance**

<b>Form factor/height</b>	Rack/4U per chassis
<b>Base unit</b>	x3850 X5/x3950 X5 Base
<b>Processors</b>	Four Intel Eight Core Xeon Processor X7560 (2.26 GHz 24 MB cache)/1066 MHz memory access 130w (32 processors total)
<b>Memory</b>	Sixteen 4 GB PC3-8500 CL7 ECC DDR3 1066 MHz LP RDIMMs (64 GB memory total)
<b>Memory expansion cards</b>	Eight x3850 X5/x3950 X5 Memory Expansion Cards
<b>Hard drives</b>	Two 300 GB 10 K 6 Gbps SAS 2.5 in. SFF Slim-HS HDDs
<b>Bay fillers</b>	Six 2.5-inch HDD Filler Bezel
<b>Optical drive</b>	UltraSlim Enhanced SATA DVD-ROM
<b>Network interface</b>	Integrated dual Gigabit Ethernet w/TCP-IP offload engine
<b>Power supply</b>	Dual redundant 1975 W Power Supplies
<b>RAID controller</b>	ServeRAID M5015 SAS/SATA Controller
<b>RAID configuration</b>	ServeRAID Mirror SAS set (RAID1)
<b>RAID battery</b>	ServeRAID M5000 Series Battery Assembly
<b>Expansion cards (a)</b>	PRO/1000 PT Quad Port Server Adapter
<b>Expansion cards (b)</b>	Two QLogic 8 GB FC Dual-port HBAs for IBM System x

## For more information

To learn more about the IBM System Storage TS7650G ProtecTIER Deduplication Gateway, please contact your IBM marketing representative or IBM Business Partner, or visit the following websites:

- [ibm.com/systems/storage/tape/ts7650g](http://ibm.com/systems/storage/tape/ts7650g)
- [ibm.com/systems/storage/tape/protectier](http://ibm.com/systems/storage/tape/protectier)

Additionally, IBM Global Financing can tailor financing solutions to your specific IT needs. For more information on great rates, flexible payment plans and loans, and asset buyback and disposal, visit: [ibm.com/financing](http://ibm.com/financing)



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Route 100  
Somers, New York 10589

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July 2011  
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Please Recycle

# LENOVO SYSTEM x3500 M5

All-in-one business-critical two-socket tower or rack-mountable server

Lenovo™



## BIG PERFORMANCE

The new Lenovo System x3500 M5 delivers big performance and storage flexibility in a small footprint. Choose from models with up to 32 2.5-inch or 12 3.5-inch drives. Leverage tiered storage with a combination of fast-access 2.5-inch and low-cost-per-terabyte 3.5-inch drives in the same server.

Deploy up to two Intel® Xeon® processors E5-2600 v3 series for up to 36 cores per server. Accelerate your graphics applications with up to two optional GPUs. With twice the memory, up to 131 percent greater performance,<sup>1</sup> and 50 percent more cores and cache than the previous generation, the x3500 M5 lets your workloads fly.

## SECURITY, RELIABILITY

The x3500 M5 integrates industry-leading security and reliability. System x Trusted Platform Assurance establishes a solid security foundation for your workloads—from infrastructure to analytics. You can also deploy self-encrypting drives with optional key management software.

Lenovo servers achieved the highest reliability of any x86 server.<sup>2</sup> Diagnostic tools such as Predictive Failure Analysis proactively monitor server sub-components to help reduce downtime and costs.

## INNOVATIVE DESIGN

The x3500 M5 can keep your business running in extended operating temperatures for optimal performance in office and data center environments.

To further reduce energy costs, the x3500 M5 can run ample low-voltage TruDDR4 Memory modules along with available high-efficiency 80 PLUS® Titanium power supplies that deliver up to 96 percent efficiency.

Select configurations of the x3500 M5 are part of the TopSeller Portfolio, designed to meet the needs of small and midsized businesses. Easy to manage, TopSeller models vary by country.



[WWW.LENOVO.COM](http://WWW.LENOVO.COM)

## SPECIFICATIONS

FORM FACTOR/HEIGHT	Tower (5U rack-mountable)
PROCESSOR (MAX)	Up to two 18-core Intel® Xeon® processors E5-2600 v3 series; support for up to two 300 W GPUs
MEMORY (MAX)	Up to 1.5 TB with 64 GB TruDDR4™ Memory LRDIMMs, up to 45 MB cache
DISK BAYS	Up to 32 2.5-inch hot-swap hard disk drives (HDDs) or solid-state drives (SSDs), or up to 12 3.5-inch hot-swap HDDs or 6 3.5-inch simple-swap HDDs, or a combination of up to 16 2.5-inch hot-swap HDDs/SSDs with up to 6 3.5-inch hot-swap HDDs
MEDIA BAYS	DVD-ROM and optional tape drive
NETWORK INTERFACE	Quad-port Gigabit Ethernet and single-port IMM2 standard; optional 10 GbE PCIe adapters
POWER SUPPLY (STD/MAX)	1/2 HS redundant 550/750/900 W, 80 PLUS Platinum or 750 W 80 PLUS Titanium
HOT-SWAP COMPONENTS	Power supplies, fans and HDDs/SSDs
RAID SUPPORT	Up to two 12 Gbps hardware RAID adapters -0, -1, -10 with RAID-5, -50, -6, -60 upgrades
SYSTEMS MANAGEMENT	IMM2 with dedicated management port (optional remote presence); Predictive Failure Analysis, Diagnostic LEDs; Lenovo XClarity
OPERATING SYSTEMS SUPPORTED	Microsoft Windows Server , Red Hat Enterprise Linux, SUSE Linux Enterprise, VMware vSphere - (optional USB Key or SD Media Adapter)
LIMITED WARRANTY	3-year customer replaceable unit and onsite limited warranty, next business day 9x5, service upgrades available

<sup>1</sup> Up to 131 percent performance boost based on internal measurements as of June 2014 for representative Java-based workloads, Intel Xeon E5-2699 v3 (18C, 2.3 GHz, 145W) vs. Intel Xeon E5-2697 v2 (12C, 2.7 GHz, 130W)

<sup>2</sup> ITIC 2014 Reliability Survey: IBM Servers Most Reliable for Sixth Straight Year <http://www.lenovo.com/images/products/system-x/pdfs/analyst-reports/XSL03126USEN.PDF>

## OPTIONS

<b>64 GB TruDDR4 Memory (4Rx4, 1.2V) PC4-17000 CL15 2133 MHz LP RDIMM 95Y4812</b>  Add more TruDDR4 Memory to improve the performance of all your workloads.	<b>6 TB 7.2K NL SATA 512e HDDs and 6 TB 7.2K NL SAS 512e HDDs and SEDs 00FN173, 00FN228 and 00FN258</b>  Optimize storage with high density and low cost per GB hard drives.	<b>ServeRAID M5210 and SAS/SATA Controllers  46C9110</b>  12Gbps data transfer rates with MegaRAID SafeStore support for self-encryption drive services.
--	--	--

For a complete list of options, visit [lenovoquickpick.com](http://lenovoquickpick.com)

## FOR MORE INFORMATION

To learn more about the Lenovo System x3500 M5, contact your Lenovo Business Partner, or visit: [lenovo.com/systems/servers](http://lenovo.com/systems/servers)

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Learn more about Lenovo Storage  
[lenovo.com/systems/storage](http://lenovo.com/systems/storage)

NEED SERVICES?

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[lenovo.com/systems/services](http://lenovo.com/systems/services)

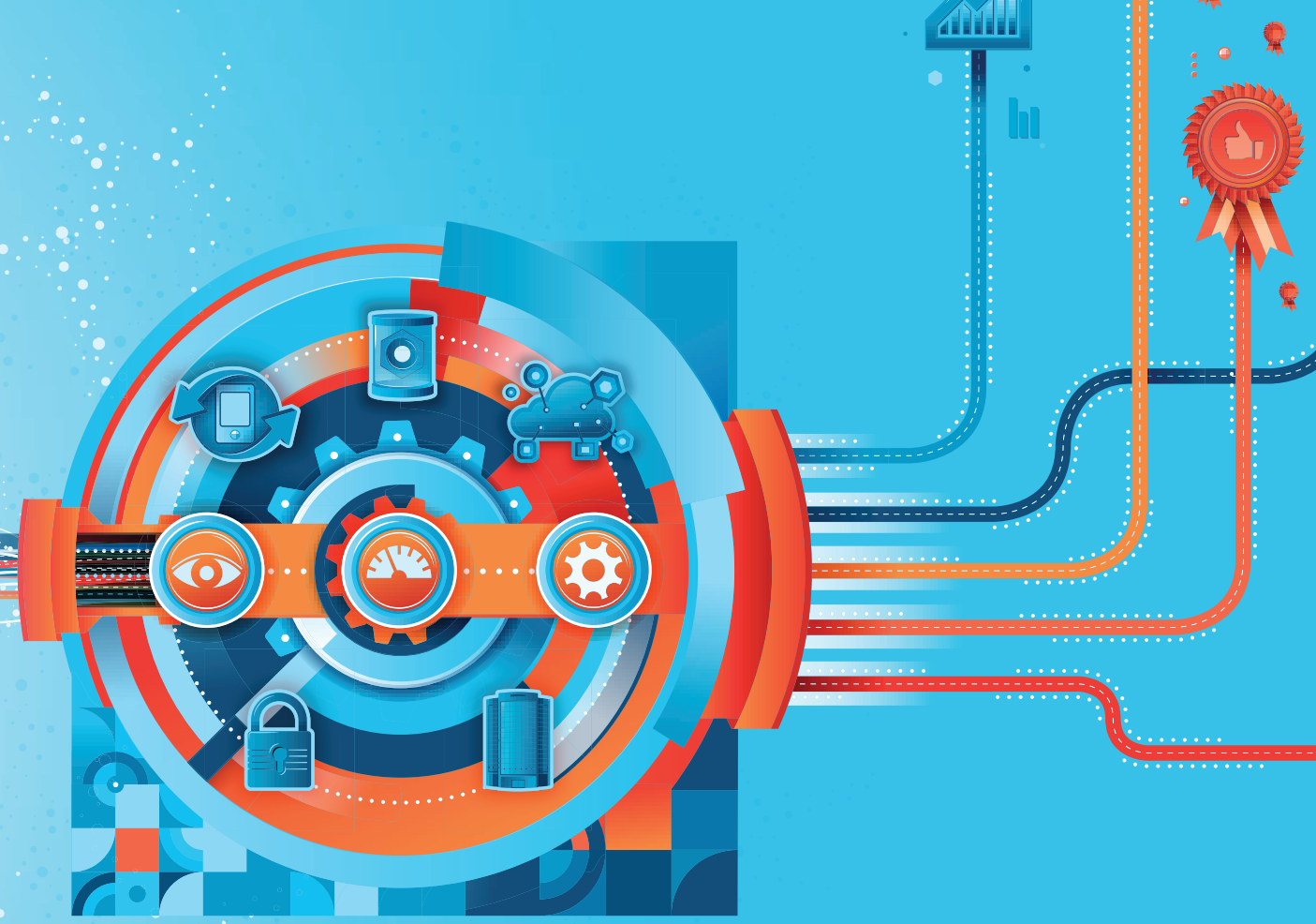


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# SMARTER BACKUP AND RECOVERY.



Imagine if you could save up to 38% in backup infrastructure costs.<sup>1</sup>  
Imagine instant backups that can recover a single file in less than two minutes. IBM's smarter approach gives you the ability to visualize your backup infrastructure, control changes and automate tasks to help you deliver improved IT services at a lower cost. [LEARN MORE ▶](#)

## SIMPLICITY

IS YOUR DATA PROTECTED?

### IBM can help you:

- See if your data is protected anytime, using any browser-based device
- Use multisite replication and fail-over with confidence
- Manage backups with your choice of Tivoli® Storage Manager Operations Center or VMware vSphere



**TSM Operations Center gives me an excellent status overview at a glance. Before, it would be virtually impossible to get the same overview of a TSM environment."**

— Roger Stakkestad,  
PEANUTS



vs. EMC Avamar

- EMC recommends multiple products with multiple user interfaces for typical workloads, increasing administration complexity<sup>2</sup>
- EMC Avamar agents must be installed on all VMs to enable file restores<sup>3</sup>

## SCALABILITY

ARE YOUR BACKUPS KEEPING UP WITH DATA GROWTH?



**Today, we can manage backups for about 4,000 systems per technician. Other backup software would need twice as many people to support the same business."**

— Peter Nielsen  
CEO of cloud backup provider  
Front-safe

### IBM can help you:

- Manage up to twice as many backups per administrator<sup>4</sup>
- Start small and grow to billions of objects with one backup server
- Backup 500 VMware images in as little as 15 minutes<sup>5</sup>



vs. CommVault  
Simpana 10

- 7 CommVault backup servers can be consolidated with 1 TSM server<sup>6</sup>
- CommVault Manual Disaster Recovery processes can become complex and nearly impossible to audit<sup>7</sup>

## EFFICIENCY

ARE YOU WASTING MONEY ON INEFFICIENT BACKUPS?

### IBM can help you:

- Reduce required backup storage space by up to 95%<sup>8</sup>
- Enable nonexperts to manage backups
- Restore files from snapshot backups in as little as 2 minutes



**[TSM capacity pricing] rewards operational environments that strive for greater storage efficiency."**

— John Webster,  
Evaluator Group



vs. Symantec  
NetBackup

- With Symantec, full backups are required regularly, impacting business applications and wasting significant IT resources
- With Symantec, up to 9x more backup and media servers are needed to protect the same data<sup>9</sup>

According to industry analyst Gartner, 1/3 of businesses will replace their backup and recovery solutions between 2012 and 2016 due to cost, complexity or lack of capability. **Will you be ready?**

**SEE HOW THE LATEST VERSION OF IBM TIVOLI® STORAGE MANAGER OPERATIONS CENTER IMPROVES BACKUP ADMINISTRATION, IMPROVES SCALABILITY AND BOOSTS EFFICIENCY.**

[LEARN MORE ▶](#)

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Let's Build a Smarter Planet.

1. Average of individual customer Analysis Engine Reports from Butterfly Software. <http://public.dhe.ibm.com/common/ssi/ecm/en/tw14150usen/TW14150USEN.PDF> May 2013, n=450. The savings include cumulative 36-month hardware, hardware maintenance and electrical power savings. Excludes one-time TSM migration cost.  
2. Avamar: Deduplication, Virtual environment, remote office <http://www.emc.com/backup-and-recovery/avamar/avamar.htm> ; Networker; Tape management, replication <http://www.emc.com/backup-and-recovery/networker/networker.htm>  
3. <http://www.emc.com/collateral/software/data-sheet/h2568-emc-avamar-ds.pdf>  
4. Front-safe Case Study  
5. IBM internal testing. [https://www-304.ibm.com/connections/blogs/tivolistorage/entry/backup\\_1000\\_virtual\\_machines\\_in\\_less\\_than\\_36\\_minutes?lang=en-us](https://www-304.ibm.com/connections/blogs/tivolistorage/entry/backup_1000_virtual_machines_in_less_than_36_minutes?lang=en-us)  
6. <http://www-01.ibm.com/software/tivoli/subscriptionsupport/whats-new-storage-manager/> and [http://documentation.commvault.com/commvault/release\\_10\\_0\\_0/books\\_online\\_1/english\\_us/prod\\_info/dedup\\_disk.htm?var1=http://documentation.commvault.com/commvault/release\\_10\\_0\\_0/books\\_online\\_1/english\\_us/features/dedup\\_disk/building\\_block.htm](http://documentation.commvault.com/commvault/release_10_0_0/books_online_1/english_us/prod_info/dedup_disk.htm?var1=http://documentation.commvault.com/commvault/release_10_0_0/books_online_1/english_us/features/dedup_disk/building_block.htm)  
7. [http://documentation.commvault.com/commvault/release\\_10\\_0\\_0/books\\_online\\_1/english\\_us/prod\\_info/disaster\\_recovery/cs\\_sql\\_separate.htm](http://documentation.commvault.com/commvault/release_10_0_0/books_online_1/english_us/prod_info/disaster_recovery/cs_sql_separate.htm)  
8. Enterprise Strategy Group, Tony Palmer, February 2013  
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