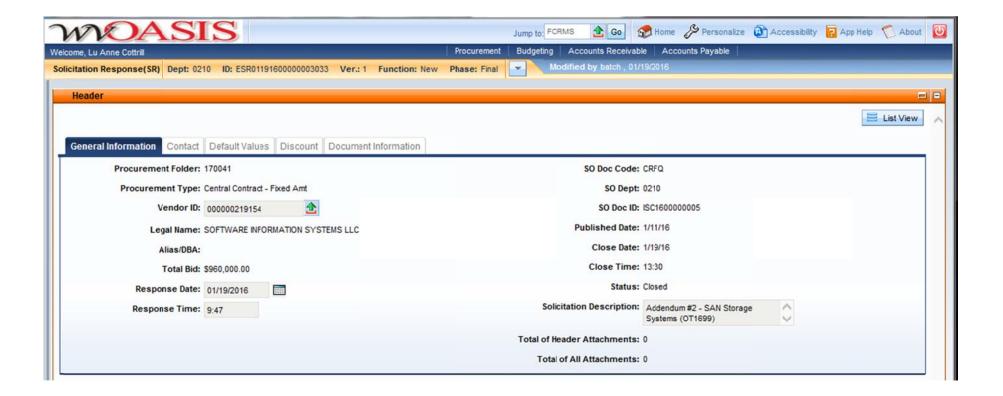


2019 Washington Street, East Charleston, WV 25305 Telephone: 304-558-2306 General Fax: 304-558-6026 Bid Fax: 304-558-3970

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.





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

State of West Virginia Solicitation Response

Proc Folder: 170041

Solicitation Description: Addendum #2 - SAN Storage Systems (OT1699)

Proc Type: Central Contract - Fixed Amt

Date issued	Solicitation Closes	Solicitation No	Version
	2016-01-19 13:30:00	SR 0210 ESR01191600000003033	1

VENDOR

000000219154

SOFTWARE INFORMATION SYSTEMS LLC

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale (304) 558-7023 stephanie.l.gale@wv.gov

Signature X FEIN # DATE

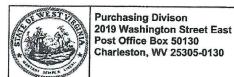
All offers subject to all terms and conditions contained in this solicitation

Page: 1 FORM ID: WV-PRC-SR-001

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	SAN Storage Solutions	2.00000	EA	\$280,000.000000	\$560,000.00
Comm Code	Manufacturer	Specification		Model #	
43210000					
Extended Des	SAN Storage Solutions				
Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Initial Year Maintenance and Supp				\$100,000.00
Comm Code	Manufacturer	Specification		Model #	
81112201					
Line	Comm Ln Desc Optional Year 2 Maintenance and	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount \$100,000.00
	Support Support				ψ100,000.00
Comm Code	Manufacturer	Specification		Model #	
81112201					
Extended Des	Optional Year 2 Mainte	nance and Support			
Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
Line 4	Comm Ln Desc Optional Year 3 Maintenance and Support	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount \$100,000.00
	Optional Year 3 Maintenance and	Qty Specification	Unit Issue	Unit Price Model #	
4	Optional Year 3 Maintenance and Support	-	Unit Issue		

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5 Optional Year 4 Maintenance and Support					\$100,000.00
	<u> </u>			·	·

Comm Code	Manufacturer	Specification	Model #	
81112201				
Extended Descrip	otion: Optional Year 4 M	aintenance and Support		
	'			



State of West Virginia Request for Quotation

Proc Folder: 170041

Doc Description: Addendum #2 - SAN Storage Systems (OT1699)

Proc Type: Central Contract - Fixed Amt

Date Issued	Solicitation Closes	Solicitation No		Version	-
2016-01-11	2016-01-19 13:30:00	CRFQ 0210 ISC	600000005	3	

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV

25305

VENDOR

US

Vendor Name, Address and Telephone Number:

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

304-768-1645

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

Total \$ 960,000

FOR INFORMATION CONTACT THE BUYER

Stephanie L Gale (304) 558-7023

stephanie.l.gale@wv.gov

Signature X

FEIN# 61-137/655

DATE 1-19-2016

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

Page: 1

FORM ID: WV-PRC-CRFQ-001

ADDITIONAL INFORMAITON:

Addendum #2 issued to:

1. Provide attachment for Addendum #1.

End of Addendum #2

INVOICE TO		SHIP TO				
		WV OFFICE OF TECHNOLO BLDG 5. 10TH FLOOR	WV OFFICE OF TECHNOLOGY			
1900 KANAWHA BLVD E, BLDG 5 10TH FLOOR		1900 KANAWHA BLVD E				
CHARLESTON	WV25305	CHARLESTON	WV 25304			
US		US				

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	SAN Storage Solutions	2.00000	EA	280,000	560,000

Comm Code	Manufacturer	Specification	Model #
43210000	Pule Storase		FA-m20 FC-407B-20/20

Extended Description :

SAN Storage Solutions

INVOICE TO		SHIP TO	SHIP TO			
DEPARTMENT OF ADMINISTRATION OFFICE OF TECHNOLOGY		WV OFFICE OF TECHNOL BLDG 5, 10TH FLOOR	WV OFFICE OF TECHNOLOGY BLDG 5, 10TH FLOOR			
1900 KANAWHA BLVD E,	BLDG 5 10TH FLOOR	1900 KANAWHA BLVD E				
CHARLESTON	WV25305	CHARLESTON	WV 25304			
us		US				

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
2	Initial Year Maintenance and Support	0.00000	~	6001	100000

Comm Code	Manufacturer	Specification	Model #	
81112201	Pure Storage		FA-m28-FC-40TB	IXR ADV

Extended Description :

Initial Year Maintenance and Support

INVOICE TO		SHIP TO
DEPARTMENT OF ADMINISTRATION OFFICE OF TECHNOLOGY		WV OFFICE OF TECHNOLOGY BLDG 5, 10TH FLOOR
1900 KANAWHA BLVD E,	BLDG 5 10TH FLOOR	1900 KANAWHA BLVD E
CHARLESTON	WV25305	CHARLESTON WV 25304
us		US

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
3	Optional Year 2 Maintenance and Support	0.00000		50, 622	130,000

Comm Code	Manufacturer	Specification	Model #	
81112201	Pure Stopage		FA-m20-FC-407B /YR	APV

Extended Description :

Optional Year 2 Maintenance and Support

INVOICE TO		SHIP TO	
DEPARTMENT OF ADMIN		WV OFFICE OF TECHNOLOGY BLDG 5, 10TH FLOOR	
1900 KANAWHA BLVD E,	BLDG 5 10TH FLOOR	1900 KANAWHA BLVD E	
CHARLESTON	WV25305	CHARLESTON WV 25304	
us		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
4	Optional Year 3 Maintenance and	0.00000			
	Support		5	9 99 9	100,03

Comm Code	Manufacturer	Specification	Model #	
81112201	Pore Storage		FA-mao-FC-407B	18 ADV
		A		The second secon

Extended Description :

Optional Year 3 Maintenance and Support

INVOICE TO		SHIP TO	
DEPARTMENT OF ADMIN OFFICE OF TECHNOLOG		WV OFFICE OF TECHNOL BLDG 5, 10TH FLOOR	OGY
1900 KANAWHA BLVD E,	BLDG 5 10TH FLOOR	1900 KANAWHA BLVD E	
CHARLESTON	WV25305	CHARLESTON	WV 25304
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
5	Optional Year 4 Maintenance and Support	0.00000		50 300	128827

Comm Code	Manufacturer	Specification	Model #		
81112201	fore Storage		FA-m20-FC-4073	1 78 AD	

Extended Description:

Optional Year 4 Maintenance and Support

SCHEDULE OF EVENTS

<u>Line</u> 1

Event Technical Questions Due

Event Date 2015-12-30

ATTACHMENT A – Pricing Page

Commodity Line Number	Part Number	Description	Unit of Measure	Quantity	Unit Cost	Extended Cost
Commodity Line 1, Specification 3.1.1	FA-m20-FC-40TB-20/20	Pure Storage FlashArray m20 FC 20TB (40TB Raw)	Each	2	280000.00	560,000.00
Commodity Line 2, Specification 3.1.2	FA-m20-FC-40TB,1YR,ADV	FA-m20-FC-40TB 1 Year ADV Maintenance and Support, NBD Delivery, 24/7 Support Year 1	Each	2	50000.00	100,000.00
Commodity Line 3, Specification 3.1.3	FA-m20-FC-40TB,1YR,ADV	FA-m20-FC-40TB 1 Year ADV Maintenance and Support, NBD Delivery, 24/7 Support Year 2	Each	2	50000.00	100,000.00
Commodity Line 4, Specification 3.1.3	FA-m20-FC-40TB,1YR,ADV	FA-m20-FC-40TB 1 Year ADV Maintenance and Support, NBD Delivery, 24/7 Support Year 3	Each	2	50000.00	100,000.00
Commodity Line 5, Specification 3.1.3	FA-m20-FC-40TB,1YR,ADV	FA-m20-FC-40TB 1 Year ADV Maintenance and Support, NBD Delivery, 24/7 Support Year 4	Each	2	50000.00	100,000.00
				Total Cost		960,000.00

SOLICITATION NUMBER: CRFQ ISC1600000005 Addendum Number: 2

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum C	ategory:
-----------------------	----------

[1	Modify bid opening date and time
[1	Modify specifications of product or service being sought
[Attachment of vendor questions and responses
[I	Attachment of pre-bid sign-in sheet
[I	Correction of error
[]	1	Other

Description of Modification to Solicitation:

Addendum #2 issued to:

1. Provide attachment for Addendum #1.

End of Addendum #2

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

- 1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
- 2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

CERTIFICATIONAND 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.

I-francher System, CC

(Authorized Signature) (Representative Name, Title)

304768-1645 304768-1671 (-19-)016

(Phone Number) (Fax Number) (Date)

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: ISC16000000005

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.

(Check the box next to each addendum received)					
Ē	1	Addendum No. 1	[]	Addendum No. 6
[4	Addendum No. 2	[]	Addendum No. 7
[]	Addendum No. 3	[]	Addendum No. 8
1]	Addendum No. 4	[]	Addendum No. 9
ſ	1	Addendum No. 5	ſ	1	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.

Company
Authorized Signature

1-19-2016

Date

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

RFQ No.	
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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 exceed 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: Softwar from to-	System, LLC
Authorized Signature:	
State of West Virginia	
County of <u>Kanawha</u> , to-wit:	
Taken, subscribed, and sworn to before me this <u>//</u> day of	January , 201 6.
My Commission expires _ N o√	, 20 <u> }-2</u> ,
AFFIX SEAL HERE NO	TARY PUBLIC Janet Christman
	Purchasing Affidavit (Revised 07/01/2012

Official Seal
Notary Public, State of West Virginia
Janet Christman
South Charleston Public Library
312 Fourth Avenue
South Charleston, WV 25303
My commission expires November 24, 2020

FlashArray//m

Business and IT Transformation in 3U



Who knew that moving to all-flash storage could help reduce the cost of IT? FlashArray//m makes server and workload investments more productive, while lowering storage spend by up to 50%. Dramatically reduce the complexity of storage to make IT more agile and efficient, accelerating your journey to the cloud.

Transform Your Business.

Make your organization faster by accelerating applications, increasing revenue, driving higher productivity out of staff and systems, and creating a sustainable advantage. FlashArray//m's performance can also make your business smarter by unleashing the power of real-time analytics, driving customer loyalty, and creating new, innovative customer experiences that simply weren't possible with disk.

...All by Transforming Your Storage with FlashArray//m.



All-Flash Storage for Every Workload.

FlashArray//m enables you to transform your data center, cloud, or entire buisiness with an affordable all-flash array capable of consolidating and accelerating all your key applications.

Mini Size

Reduce power, space and complexity by 90%

- 3U base chassis with 15-120+ TBs usable
- ~1kW of power
- · 6 cables

Modular Scale

Scale FlashArray//m inside and outside of the chassis for generations

- Expandable to ~½ PB usable via expansion shelves
- Upgrade controllers and drives to expand performance and/or capacity

Mighty Performance

Transform your datacenter, cloud, or entire business

- Up to 300,000 32K IOPS
- Up to 9 GB/s bandwidth
- <1ms average latency

Meaningful Simplicity

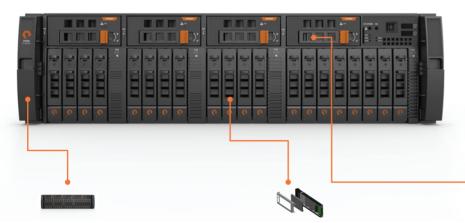
Appliance-like deployment with worry-free operations

- Plug-and-go deployment that takes minutes, not days
- Non-disruptive upgrades and hot-swap everything
- Less parts = more reliability



Modular Upgradability for Generations

The FlashArray//m expands upon the FlashArray's modular, stateless architecture, designed to enable expandability and upgradability for generations. The FlashArray//m leverages a chassis-based design with customizable modules, enabling both capacity and performance to be independently improved over time with advances in compute and flash, to meet your business' needs today and tomorrow.



FlashArray//m Chassis

The //m chassis leverages internal PCIe networking for controller HA, as well as both PCIe/NVMe and 16Gb SAS for flash and NV-RAM module connectivity. The result is ultra-fast connections that enable hot-plug and HA of every module.

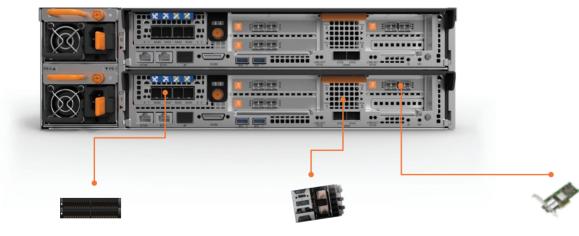
Flash Modules

Dual-drive flash modules pack two independent SSDs in each slot, doubling the performance and density. Drive modules are redundantly connected to both controllers, and can be replaced without performance impact.



NV-RAM Module

NV-DDR4 non-volatile cache modules, are used to protect writes from power loss during I/O processing. Two or four redundant modules are networked with hot-swap PCle/NVMe for the highest performance.



Expansion Shelves

FlashArray//m can expand outside the FlashArray//m Chassis with 16Gb SAS networking. 12TB or 24TB expansion shelves are available, with 1-4 shelves connected per chassis.

Controller Modules

The FlashArray//m features three controller options, to allow different tiers of performance and capacity. New controllers are shipped roughly annually, and can be replaced or upgraded without performance impact.

I/O Modules

The FlashArray//m has onboard SAS, replication, and management ports, and host-based IO ports can be configured to meet a variety of needs. 6 slots per chassis, configurable with 6 or 12 Gb/s FC, or 10 Gb/s Ethernet iSCSI.





Storage Software Built for Flash

Purity Operating Environment

Purity implements advanced data reduction, storage management and flash management

features, and all features of Purity are included in the base cost of the FlashArray//m.

Powered by the

The FlashCare technology virtualizes the entire pool of flash within the FlashArray, and allows Purity to both extend the life and ensure the maximum performance of consumergrade MLC flash.

Granular and Adaptive

Purity Core is based upon a 512-byte variable block size metadata layer. This fine-grain metadata enables all of Purity's data and flash management services to operate at the highest efficiency.

Best Data Reduction Available

FlashReduce implements five forms of inline and post-process data reduction to offer the most complete data reduction in the industry. Data reduction operates at a 512-byte aligned variable block size, to enable effective reduction across a wide range of mixed workloads without tuning.

Highly Available and Resilient

FlashProtect implements high availability, dual-parity RAID-3D, non-disruptive upgrades, and encryption, all of which are designed to deliver full performance to the FlashArray during any failure or maintenance event.

Backup and Disaster Recovery Built In

FlashRecover combines space-saving snapshots, replication, and protection policies into an end-to-end data protection and recovery solution that protects data against loss locally and globally. All FlashProtect services are fully-integrated in the FlashArray and leverage the native data reduction capabilities.



Cloud-Based Management and Support



Pure1 Manage

By combining local web-based management with cloud-based monitoring, Pure1 Manage allows you to manage your FlashArray wherever you are — with just a web browser.

Pure1 Connect

A rich set of APIs, plugin-is, application connectors, and automation toolkits enable you to connect FlashArray//m to all your data center and cloud monitoring, management, and orchestration tools.

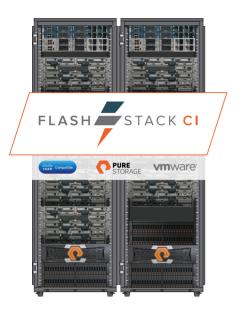
Pure1 Support

FlashArray//m is constantly cloudconnected, enabling Pure Storage to deliver the most proactive support experience possible. Highly trained staff combined with big data analytics help resolve problems before they start.

Pure1 Collaborate

Extend your development and support experience online, leveraging the Pure1 Collaborate community to get peer-based support, and to share tips, tricks, and scripts.





Consolidate Applications with Pre-Validated Solutions

The FlashArray//m is tested and validated with a wide range of data center infrastructure and applications to enable seamless deployment and multi-workload consolidation in your data center. Deployments can be further accelerated with FlashStack CI – end-to-end converged infrastructure powered by flash and supported by our partners.

Business Applications



Virtualization and Cloud Infrastructure







Desktop Virtualization



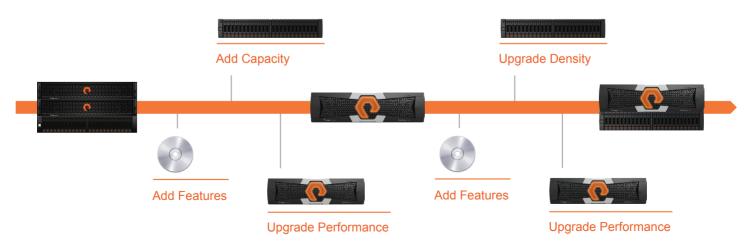
Data Center Infrastructure



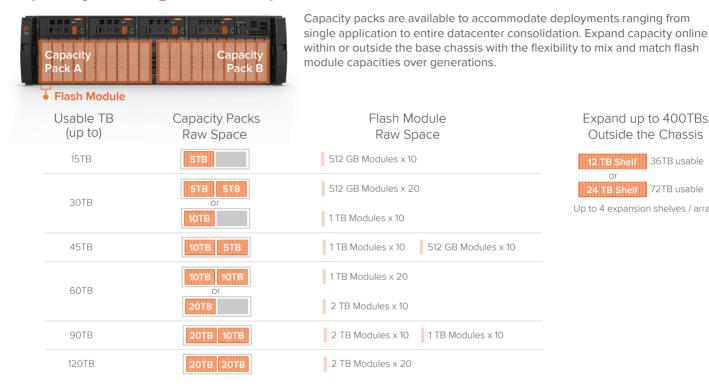


Experience Evergreen Storage

Tired of the 3-5 year array replacement merry-go-round? The move to FlashArray//m can be your last data migration. Purchase and deploy storage once and once only – then expand capacity and performance incrementally in conjunction with your business needs and without downtime. Pure Storage's vision for Evergreen Storage is delivered by a combination of the FlashArray's stateless, modular architecture and the ForeverFlash business model, enabling you to extend the lifecycle of storage from 3-5 years to a decade or more.



Capacity Configuration Options



Expand up to 400TBs Outside the Chassis

12 TB Shelf 36TB usable

24 TB Shelf 72TB usable

Up to 4 expansion shelves / array

Controller Specifications

	//m20	//m50	//m 70
Capacity	 Up to 120+ TBs effective capacity* 5 – 40TBs raw capacity (base chassis) 	 Up to 250+ TBs effective capacity* 30 – 88TBs raw capacity (w/shelves) 	 Up to 400+ TBs effective capacity* 44 – 136TBs raw capacity (w/shelves)
Performance	Up to 150,000 32K IOPS**<1ms average latencyUp to 5 GB/s bandwidth	Up to 220,000 32K IOPS**<1ms average latencyUp to 7 GB/s bandwidth	Up to 300,000 32K IOPS**<1ms average latencyUp to 9 GB/s bandwidth
Connectivity	8 Gb/s Fibre Channel10 Gb/s Ethernet iSCSIManagement and Replication ports	16 Gb/s Fibre Channel10 Gb/s Ethernet iSCSIManagement and Replication ports	16 Gb/s Fibre Channel10 Gb/s Ethernet iSCSIManagement and Replication ports
Physical	• 3U • 742 Watts (nominal draw) • 110 lbs (49.9 kg) fully loaded • 5.12" x 18.94" x 29.72" FlashArray//m chassis	• 3U – 7U • 1007 - 1447 Watts (nominal draw) • 110 lbs (49.9 kg) fully loaded + 44 lbs per expansion shelf • 5.12" x 18.94" x 29.72" FlashArray//m chassis	 5U – 11U 1439 – 2099 Watts (nominal draw) 110 lbs (49.9 kg) fully loaded + 44 lbs per expansion shelf 5.12" x 18.94" x 29.72" FlashArray//m chassis

Note: All specifications are preliminarily, and subject to finalization before the FlashArray//m GA.

- * Effective capacity assumes HA, RAID, and metadata overhead, GB-to-GiB conversion, and includes the benefit of data reduction with always-on inline deduplication, compression, and pattern removal. Average data reduction is calculated at 5-to-1, below the global average of the FlashArray user base.
- ** Why does Pure Storage quote 32K, not 4K IOPS? The industry commonly markets 4K IOPS benchmarks to make inflate performance numbers, but real-world environments are dominated by IO sizes of 32K or larger. FlashArray//m adapts automatically to 512B-32KB IO for superior performance, scalability, and data reduction.

