

Invitation to Bid

Compellent Storage Package#1 & Extreme Switch's Package #2 for the City of Pell City (Equipment and Manufacture Support only)

Sealed bids for the projects for a Compellent Storage and Extreme Switches for the City of Pell City as specified in this ITB, will be received by the City Clerk at City Hall located at 1905 1st Avenue North, Pell City, Alabama, prior to <u>Tuesday July</u>, 03 2018 at 10:00 a.m. at which time sealed bids will be publicly opened and read in the City Hall Council Chambers of the City of Pell City.

Bids must be submitted in a sealed envelope marked — "Sealed Bids for Compellent Storage and Extreme Switches", along with the date and time of bid, prior to Tuesday July 03, 2018 at 10:00 a.m. and should be addressed to City of Pell City, Attn: City Clerk Penny Isbell, 1905 1st Avenue North, Pell City, Alabama 35125. Bids may be mailed or hand delivered to City Hall at 1905 1st Avenue North, Pell City, Alabama 35125. Bids will not be accepted by facsimile or email.

Prices bid shall be delivered prices. The City of Pell City is exempt from federal, state and local sales tax. The City will assume no transportation, handling or shipping charges unless the charge is included in the submitted bid.

To be considered by the City of Pell City, the successful bidder must comply with Alabama Law, including but not limited to Ala. Code (1975) Section 41-16-50 et seq. and Section 31-13-1 et seq., and provide documentation of enrollment in the E-Verify program pursuant to Ala. Code Section 31-13-9. If this law does not apply, bidder shall provide a waiver to that effect.

The bids will be awarded to the lowest responsible and responsive bidder meeting all specifications listed in this ITB for each package and deemed by the City of Pell City to be in the best interest of the City. The City of Pell City reserves the right to reject any/or all bids, to alter or change specifications and to waive any informality in awarding this bid.

The bidder shall assume full responsibility for warranty of all components within these specifications. A statement shall be attached with the bid setting out the conditions of the warranty.

For questions regarding the specifications contact Jay Headrick at <u>jheadrick@cityofpellcity.net</u> or 205-338-2244 x138

Penny Isbell, City Clerk 205-338-2244 ext. 104

PART I. GENERAL INFORMATION FOR THE VENDOR

Rejection of Bids

The City reserves the right, at any time and in its sole discretion, to reject any and all bids received as a result of this request, or to negotiate separately with any and all competing vendors.

Standard Contract

Negotiations will be undertaken with the vendor whose bid best meets the needs of the City. Prices shall include materials, hardware, and any shipping costs. No sales tax to be included.

Pre-bid Clarification

Vendors needing to clarify any points in this ITB which may not have been clearly understood should contact Jay Headrick @cityofpellcity.net or 205-338-2244 x138.

Addenda to the ITB

If it becomes necessary to revise any part of this ITB, an addendum will be provided to all vendors who received the original ITB via U.S. Mail or email from the city. The addendum will also be posted on the city website. All addenda will become part of this ITB.

Package Bidding Process

Package#1 Dell Compellent Storage and Package#2 Extreme Switches are to be bid separately but are to be included in the same sealed bid envelope if bidding on both packages. Shipping costs must be included with the total bid amount for each package. All information must be completed on the Package Bid Form of the correlated package section for each package bid that is being submitted. The form is included in this bid specification and must be submitted with the sealed bids to be considered for award. The City reserves the right to award bid packages (Package#1 or Package#2) separately to different vendors since they are considered separate bids. Vendors can bid on either package of choice if so desired to be considered for award of just a single package.

Contractor Responsibility Program

By submitting a response, vendors agree that neither they nor any subcontractor(s) are currently under bidding list suspension or debarment by the City, any state, or the federal government. If it is later discovered that any violations have occurred, the City may reject any bid or rescind any contract awarded pursuant to this ITB.

PART II. INFORMATION REQUIRED FROM VENDOR

Bids are to consist of:

1. Executive Summary

Include a description of the vendor, services offered, years in business, management structure and profile, financial viability, and scope of products and services offered.

2. Pricing Section

Specify all pricing with list prices, and discounts if available for each option proposed. Specify individual costing for all options, special cables, etc. if not included in base prices. Indicate volume discount levels if they apply to your product(s). Specify pricing details for the following maintenance and service options available. Do not include installation, migration, or replication services. Pricing is for equipment and manufacture support services only.

3. Warranty

Describe warranty available. Provide information regarding any variation of warranty by product; provide reference to any included service contract information and pricing.

4. Appendix

An Appendix containing any vendor supplied material to support the bid, including product or other relevant brochure material.

5. Signed and Completed Bid Package Form

Section 1 – Technical Requirements for Compellent Storage Package#1

Required: Technology Platform / Architecture for SAN

Technology Platform / Architecture

The SAN must provide block level virtualization of all drives within the SAN. No fixed Raid Groups or other drive isolation requirements.

The SAN must not need reserved space for snapshot functionality or for replication but pull from the unused pool. Must support thin provisioning.

Individual hardware components must be fully redundant and hot-swappable to ensure maximum data availability. This includes storage controllers, disk drives, power supplies, fans and power cords.

Servers must be allowed to boot from the SAN, eliminating the need for internal storage in individual servers.

SAN must have the ability to reclaim available space in a Windows windows file systems when think provisioned volume usage is reduced.

The SAN must allow RAID levels to be changed on a volume-by-volume basis on the fly without taking down the server to which the volume is attached.

The SAN must have the ability to manage data page sizes of 512K, 2MB, or 4MB.

The SAN must support multiple protocols Fiber Channel and iSCSI both.

Every volume of data must be presented to the SAN without special consideration for the data path, and data volumes must be able to be moved between different data paths.

The SAN must support 4/8/16 Gb Fiber Channel and 1/10gE iSCSI SFP+ and 10GBaseT options.

The SAN must support up to three different tiers of storage within the same system and have the ability to intelligently tier data between them at the page level.

The SAN must support synchronous, asynchronous replication. Further, the replication must be bidirectional to support multiple replication options.

The SAN must support remote replication to multiple locations without third-party hardware and/or software.

The SAN must be able to scale from as little as 6 drives to as many as 1024 without an fork-lift upgrades or migrations or generation/family upgrades or swaps

The SAN must allow for RAID 10 writes for write performance optimization but automatic conversion to RAID 5/6 for storage efficiency for read activity.

The SAN must provide post-process data reduction technology meaning compression and deduplication settable at the volume level.

The SAN must allow remote and local sites to be of different hardware/software configurations, if replication is needed

Management

Entry-level system must have same management platform as the manufacturer's largest system in order to allow system expansion without learning curves in the future.

Management system must include comprehensive online and remote monitoring abilities without third party hardware or software.

At-a-glance, comparable views of current aggregate capacity statistics and overall storage resource objects for all Storage systems

Display overall and detailed views of current and historical capacity utilization and storage resource objects for a specific Storage system's

Display current and historical allocation of disk storage by tier of storage and RAID level

Display current and historical consumption of storage specific to volumes or servers

SAN must have the ability to report home capacity and performance statistics to streamline support calls.

The SAN must include an Internet-enabled call-home capability to send alerts and status to the manufacturer without the requirement of a modem or other device.

Capacity and Disk

The SAN must be online expandable to add additional storage capacity without affecting system performance and data availability to users. Expansion must be within the same platform

The SAN must feature technology to intelligently place data on the outside edge of physical disk platters for superior performance.

The SAN must require the option for self-encrypting drives and external key management.

The SAN must allow dynamic migration of data between RAID levels and/or performance tiers on the disk platters and/or drive technology with no server downtime.

Server Connectivity

The SAN must be online expandable to add server connectivity without affecting system performance and data availability to users.

Controllers

The SAN must allow online expansion and/or replacement and/or upgrade of controllers without affecting system performance and data availability to users.

The SAN must allow for software licenses to be migrated to a different model controller or system for all but entry-level systems.

A multiple storage controller configuration must not have a single point of failure between controllers, or within each controller. Cannot share a common backplane

Snapshots

The SAN must be able to capture any number of point-in-time copies of data. These blocks of data must not occupy additional disk space, and must be able to be assigned to other systems.

The SAN must only take snap-shots of block level changes

The SAN must allow for data not to be physically bound to any array or data center.

The SAN must ensure data integrity with Consistency groups for simultaneous snapshots of application data spanning volumes

Replication

The SAN must be capable of replicating data to a remote storage device to enable mirroring of production data.

The SAN must support synchronous, asynchronous replication. Further, the replication must be bidirectional to support multiple replication options.

The SAN must support remote replication to multiple locations without third-party hardware and/or software.

The SAN must allow remote and local sites to be of different hardware/software configurations.

Information Life Cycle Management

The SAN must be able to provide automatic classification of data - with no third party products

Data must be automatically moved in a Bi-Directional manner

Data must be moved at the block level - and very granular - blocks cannot be larger than 2MB in size

The SAN must place less frequently accessed data on the inner tracks of the drives.

The SAN must place more frequently access data on the fastest or outer tracks of each drive, furthermore that space should be reserved for only frequently accessed data blocks

City of Pell City, Alabama, Compellent Storage Package#1,

All products and services are to be included as described below.

SCv3020 3Ux30 Drive Storage Array & Dell EMC SCv300 Enclosure

	Qty
Description	
SCv30X0 Dual Controller Components	1
No Mezzanine Card	1
No Mezzanine Card	1
IO, 10Gb iSCSI, 4 port, PCI-E, Optical, Full height	1
IO, 10Gb iSCSI, 4 port, PCI-E, Optical, Full height	1
SHIP,SCV3020,DAO	1
Dell SC Storage Reg Label	1
Storage Center Core Software Bundle, Base License	1
SSN License	1
Storage Optimization Bundle, Software License (Includes: Data Progression, Fast Track)	1
Redundant Power Supply, 1378W, C20	1
Rack rail, 2Us, Static	1
SC Bezel	1
Dell Hardware Limited Warranty	1
ProSupport Plus Mission Critical: 4-Hour 7x24 Onsite Service with Emergency Dispatch,3 Years	1
ProSupport Plus Mission Critical: 4-Hour 7x24 Onsite Service with Emergency Dispatch,2 Years Extended	1
ProSupport Plus Mission Critical: 7x24 HW/SW Technical Support and Assistance,5 Years	1
Dell Limited Hardware Warranty Extended Year(s)	1
ProSupport for Software: 7X24 Storage Center Optimization Bundle, 5 Years	1
US Order	1
SC, 1.92TB, SAS, 12Gb 2.5" RI SSD	7
Hard Drive Filler 2.5in, single blank	23
Power Cord, 250V, 16A, C19 to C20, 2 feet	2

Description	Qty
Dell EMC SCv300 Enclosure	1
Dell EMC SCv300 Bezel	1
Enclosure Management Module, Dual	1
Rack rail, 2Us, Static	1
Power supply, AC 600W, Redundant	1
Dell EMC SCv300 Shipping, DAO	1
Dell Hardware Limited Warranty	1
ProSupport Plus Mission Critical: 4-Hour 7X24 On-Site Service with Emergency Dispatch, 2 Years Extended	1
ProSupport Plus Mission Critical: 4-Hour 7X24 On-Site Service with Emergency Dispatch, 3 Years	1
ProSupport Plus Mission Critical: 7X24 HW/SW Technical Support and Assistance, 5 Years	1
Dell Limited Hardware Warranty Extended Year(s)	1
SC, 4TB, SAS, 12Gb, 7.2K, 3.5" HDD	12
Power Cord, C13 to C14, PDU-Style, 12 Amps, .6 meter,	2
	1
12Gb HD-Mini to HD-Mini SAS cable, 0.5m	_
12Gb HD-Mini to HD-Mini SAS cable, 2m	2

City of Pell City, Alabama, Extreme Switch's Package#2,

Section 2 - Technical Requirements

Before preparing your Response, please read carefully all sections of the specifications. Your response should describe how your offering would meet these requirements. City OF Pell City will consider any vendor not responding to each requirement for all products quoted to be non-responsive.

10 Gigabit Ethernet Network Switches

Specs below based on the Extreme Switching X620.

The proposed solution must provide a 10Gb Ethernet switch solution that meets the requirements provided below. Your response should describe how your offering would meet these requirements. Vendors must provide clear and concise responses; illustrations can be provided where appropriate. Any additional feature descriptions for your offering can be provided, if applicable.

- Must offer a stackable switching solution that provides 16 10Gb SFP + Ethernet ports that are
 capable of supporting port speeds based on the switch model referenced x620. Please describe
 your switch offerings as needed.
- Port density is determined per Rack/location as detailed below. Please detail the recommended solution for each Rack/location.

Location	10GBASE-T	10GbE SFP+	QTY:
MDF – Rack1	-	16	2

- Must support line rate switching with system performance of at least 320 Gbps switch bandwidth and 238 Mpps forwarding rate. Please describe the performance levels for the recommended switching solution.
- Must support high-performance stacking options with the ability to stack with other switches from the same manufacturer. Please describe the stacking capability of the recommended switching solution.
- Must support stacking of up to eight units in a stack.
- Must support redundant hot-swappable modular power supplies, which are capable of supporting AC or DC. Please describe the power supply configuration for the recommended switches.
- Must support a hot-swappable modular fan unit.
- Must offer options for airflow to include back-to-front or front-to-back cooling.
- Must support dynamic role-based policy, independent of the VLAN assigned to the port. Please
 describe the capabilities and integration with the recommended/existing SNMP management
 platform.
- Must support ingress and egress bandwidth policing/rate limiting per flow/ACL. Please describe the implementation.
- Must support SNMPv1, SNMPv2c, and SNMPv3.
- Must support RMON (Statistics, History, Alarms, Events) and RMON2 (probe configuration).
- Must support routing protocols including: static routes, OSPF v2/v3, RIPv2, RIPng, VRRP. Please describe if any licenses are required to enable these capabilities.
- Must support multicast protocols including: MVRP, IGMP v1/v2/v3, MLD v1/v2, PIM-SM and PIM-SSM. Please describe if any licenses are required to enable these capabilities.
- Must support the ability to authenticate multiple users on a single port via 802.1X, web, or MAC at the same time.

- Must support up to 8 QoS queues per port.
- Must support high availability network protocols. Please describe any specific features supported by the switch to ensure high availability.
- Must support 802.1w Rapid Reconfiguration of Spanning Tree Protocol and 802.1Q 2003 (formerly 802.1s) Multiple Instances of Spanning Tree Protocol.
- Must support 802.3ad Link Aggregation. Please specify the number of LACP groups.
- Must support LLDP and LLDP-MED.
- Must support RADIUS Accounting and TACACS+.
- Must support MAC security with lockdown and limit capabilities.
- Must support Denial of Service (DoS) protection. Please describe the switch capabilities to protect against DoS attacks.
- Must support Data Center Bridging (802.1Qaz & 802.1Qbb) with support for Data Center Bridging Exchange Protocol (DCBx), Priority Flow Control (PFC) and Enhanced Transmission Selection (ETS).
- Must support IEEE 802.1 Audio Video Bridging to enable real-time audio/video transmission over Ethernet. Please describe if any licenses are required to enable this capability.
- Must support a Lifetime Warranty that includes sustaining releases for software, phone support and advanced hardware replacement. Please describe the warranty that is provided.

1 Gigabit POE Ethernet Network Switches capable of 10Gb up links

Specs below based on the Extreme Switching X460.

The proposed solution must provide a 10/100/1000Base-TX Ethernet switch solution that meets the requirements provided below. Your response should describe how your offering would meet these requirements. Vendors must provide clear and concise responses; illustrations can be provided where appropriate. Any additional feature descriptions for your offering can be provided, if applicable.

Must offer a modular switching solution that supports flexible port configurations providing the
ability to support 10/100/1000Base-TX (PoE or non-PoE), 1000Base-X SFP and 10GBaseX-SFP+
ports. Port density is determined per rack/location as detailed below. Please detail the
recommended solution for each rack/location with details on the switching capacity and system
performance of the recommended switch(es).

Location	10/100/1000 PoE+	1000Base-X SFP	10GbE SFP+	QTY:
MDF – Rack1	48	-	4	2

- Must provide a stackable switch with 48 10/100/1000Base-TX ports and four 1000Base-X SFP ports. 48-port switch must offer system performance of at least 264 Gbps switch bandwidth and 196.4 Mpps forwarding rate.
- Must provide a stackable switch with 48 10/100/1000Base-TX ports and four 10GbE SFP+ ports.
 48-port switch must offer system performance of at least 336 Gbps switch bandwidth and 250 Mpps forwarding rate.
- Must support flexible stacking options with an option for high speed stacking of up to 160 Gbps. Please describe the available stacking methods and detail if the switch is capable of stacking with other switches from the same manufacturer.
- Must support dual internal redundant power supplies that are hot-swappable. Please describe the power supply configuration for the recommended switches.
- Must support 802.3af and 802.3at PoE+ and be capable of supporting up to 30 watts of PoE power
 per switch port. Please describe how the solution can achieve this.
- Must support stacking of up to eight units in a stack.

- Must support SNMPv1, SNMPv2c, and SNMPv3
- Must support RMON (Statistics, History, Alarms, Events)
- Must support routing protocols including: static routes, OSPF v2/v3, RIPv2, RIPng, VRRP, IS-IS, BGPv4. Please describe if any licenses are required to enable these capabilities.
- Must support multicast protocols including: MVRP, IGMP v1/v2/v3, MLD v1/v2, PIM-SM, PIM-DM and PIM-SSM. Please describe if any licenses are required to enable these capabilities.
- Must support bandwidth policing and rate limiting.
- Must support dynamic role-based policy, independent of the VLAN assigned to the port. Please
 describe the capabilities and integration with the recommended/existing SNMP management
 platform.
- Must support up to 8 QoS egress queues per port
- Must support high availability network protocols. Please describe any specific features supported by the switch to ensure high availability.
- Must support 802.1w Rapid Reconfiguration of Spanning Tree Protocol and 802.1Q 2003 (formerly 802.1s) Multiple Instances of Spanning Tree Protocol.
- Must support Port mirroring options (one-to-many, many-to-many)
- Must support 802.3ad Link Aggregation. Please specify the number of LACP groups.
- Must support LLDP and LLDP-MED
- Must support RADIUS Accounting and TACACS+
- Must support IEEE 802.3az Energy Efficient Ethernet
- Must support MAC security with lockdown and limit capabilities
- Must support the ability to authenticate multiple users on a single port via 802.1X, web, or MAC at the same time.
- Must support Denial of Service (DoS) protection. Please describe the switch capabilities to protect against DoS attacks.
- Must support IEEE 802.1 Audio Video Bridging to enable real-time audio/video transmission over Ethernet.
- Must support a Lifetime Warranty that includes sustaining releases for software, phone support and advanced hardware replacement.

Extreme Switch Package#2 Description and Qty's:

Description	Qty
X460 G2 48P 10GE4 BASE 10/100/1000 POE with capabilities to add optional 2 or 4-port 10 GBE uplink	2
SUMMIT X460-G2 FAN MOD FB	2
SUMMIT 1100W AC PSU FB	4
PWR CORD 13A USA NEMA 5-15 IEC320-C15	4
EW 4HR AHR 16704	2
Extreme Networks Extreme Switching X620 X620-16x-Base - switch - 16 ports	2
Extreme Networks Fan module for X620-16x and X620-16t, Front to Back airflow	2

Extreme Networks 300W AC power supply for X620-16x and X620-16t, Front to Back airflow	4
3YR SKU FOR 97004-17401	2
PWR CORD NA 10A NEMA 5-15P IEC320 C13 11	4
Extrama Naturalla Extrama VOS Direct Attach Eastura	2
Extreme Networks ExtremeXOS Direct Attach Feature Pack - license	2
Description	Qty
1M CBL 10G SFP+ CU TWX COP	4
3M CBL 10G SFP+ CU TWX COP	12

The City requires the following:

Vendor will be responsible for the furnishing of all manufacturer hardware equipment, accessories, cables, connectors, software, and manufacturer support services included in the bid specifications.

The Dell Compellent Storage Solution Package#1 and Extreme Switches Package#2 are to be bid separately.

- Package#1 All Dell Products Support shall be for sixty (60) months as spelled out in the Storage Specifications and must include shipping for a total straight purchase price. Shipping address: 1905 1st Avenue North Pell City, AL 35125
- 2. Package#2 All Extreme Switch Products spelled out in the specifications must include shipping for the total straight purchase price. Shipping address: 1905 1st Avenue North Pell City, Al 35125
- 3. All lines on the Package Bid Form must be completed for the correlated package bid submission and the form turned in with the sealed bid to be considered. Package sections that are not completed will not be considered for award of that specific package.
- 4. Bidder must provide an estimated product ordering/ shipping time-line from time of award.
- 5. Dell Compellent and Extreme Switch Equipment only. No alternates will be considered.
- 6. Bid must not contain installation, migration, or replication services.

Evaluation of Desired Features and Other Items

Vendor bids are further evaluated in the areas of (not in priority order):

- Product ordering/shipping time-line.
- Maintenance, including guarantees and warranties
- Bidder's financial stability, Bidder's flexibility and responsiveness
- Pricing (including shipping costs, warranties, etc.)
- Any specifications that have been deemed desirable
- Any specifications that have been deemed optional

Package Bid Sheet

Please complete the Right Hand Side of the form below that correlates with the bid package that is being submitted. If not bidding on a package, put N/A.

Package #1	Total Amount (includes shipping): \$
Dell Compellent Storage	
Estimated Product Ordering/Shipping Time-line	Weeks:
Package#2	Total Amount (includes shipping): \$
Extreme Switches	
Estimated Product Ordering/Shipping Time-line	Weeks:
Contractor Certification: I, furnish the required article(s) or services(s) at the p conditions, specifications and all attachments hereto what is required. By submitting this bid, I certify th and such acceptance covers all terms, conditions and I have not divulged to, discussed with or compare colluded with any other bidder(s) or parties to this b the bidding firm.	I have read all attachments and fully understand nat I will accept a contract if approved by the City dispecifications contained in this bid. I certify that ad this bid with any other bidder(s) and have not
COMPANY NAME	AUTHORIZED REPRESENTATIVE
Address:	
City: State:	Zip:
Telephone: Email:	

This Bid Sheet must be signed and submitted along with your Bid.

County of _)	
	TE OF COMPLIANCE WITH TH ended by ACT 2012-491)	EASON-HAMMON ALABAMA TAXPAYER AND CITIZEN PROTECTION ACT (ACT	2011-
DATE:			
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a k 2 2 L	uthorized to provide represe nowledge of the provisions of 011-535 of the Alabama Leg	on of with the Contractor/Grantee named above, and is ations set out in this Certificate as the official and binding act of that entity, at HE BEASON-HAMMON ALABAMA TAXPAYER AND CITIZEN PROTECTION ACT (ture, as amended by ACT 2012-491) which is described herein as "the Act." om Section 3 of the Act, select and initial either (a) or (b), below, to describe tructure.	nd has (ACT
	BUSINESS ENTITY. A	person or group of persons employing one or more persons performing or elise, profession, or occupation for gain, benefit, advantage, or livelihood, whet	
	 a. Self-emple partnerships, limite limited liability com 	d individuals, business entities filing articles of incorporation, partnerships, li ability companies, foreign corporations, foreign limited partnerships, and fore nies authorized to transact business in this state, business trusts, and any busi th the Secretary of State.	eign
	b. Any busin charter, or similar fo	entity that possesses a business license, permit, certificate, approval, registra of authorization issued by the state, any business entity that is exempt by la ess license, and any business entity that is operating unlawfully without a bus	w from
	representative, fore employment, or of a State of Alabama, in	n, firm, corporation, partnership, joint stock association, agent, manager, n, or other person having control or custody of any employment, place of employee, including any person or entity employing any person for hire with ding a public employer. This term shall not include the occupant of a househour person to perform casual domestic labor within the household.	
(b) Th 3. A S u 4. T	e Contractor/Grantee is not s of the date of this Certifica tate of Alabama and hereaft nauthorized alien within the he Contractor/Grantee is en	ess entity or employer as those terms are defined in Section 3 of the Act. usiness entity or employer as those terms are defined in Section 3 of the Act. the Contractor/Grantee does not knowingly employ an unauthorized alien wit will not knowingly employ, hire for employment, or continue to employ an afte of Alabama; ed in E-Verify unless it is not eligible to enroll because of the rules of that pro	ithin the
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Certified th	is day of	20	
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