



CITY OF ORLANDO

MEMORANDUM

Date: August 14, 2018
To: David M Billingsley, Chief Procurement Officer
Through: David Bass, Division Manager – Water Reclamation
From: Guy Mecabe, Industrial Automation Manager – Water Reclamation
Sonia Flores-Alba, Systems Manager – Water Reclamation
Subject: Dell EMC Data Domain/Avamar Storage Solution Purchase
Justification

Purpose

The purpose of this memo is to request approval to purchase a new backup software and storage solution for the Water Reclamation Division using the Dell GSA contract number NVP STORAGE-MNWNC-109 (FLORIDA).

Background

The Industrial Automation Group (IAG), in an effort to provide better backup and disaster recovery procedures, has researched and recommended the deployment and implementation of the Dell EMC Data Domain/Avamar backup platform at the Iron Bridge, Conserv II, and Conserv I Water Reclamation Facilities (WRFs).

Our current platform has been in place for over ten (10) years and even though it still functions as designed, it has the following disadvantages when compared to the newer technologies:

- Limited single management Interface across the backup infrastructure. We have to go to each single backup server and open a connection with each in order to configure the backup and check any statistics on it.
- There is limited deduplication/compression capabilities. All the compression is software based.
- There is no integration with purpose-built backup appliances. This limits the compression rates as mentioned on the previous item.
- Very limited reporting capabilities. We do not have a way to get informed that backups have failed unless we go directly to the backup server.
- Terastations (Buffalo) have frequent hard disk and hardware failures. Also, the replication to the secondary terastation fails and the job has to be re-initiated.
- Even though we can backup virtual machines, there is no integration with our virtual infrastructure to streamline the backup jobs using built in VMWare features.
- Limited cloud capabilities. If we were ever interested in backing up to the cloud, it will not be easily done with our current platform.

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These are some advantages of going to the Data Domain/Avamar platform:

- Web based management interface for all backup operations and management.
- Built in reporting, analytics, search tools.
- Full integration between backup software engine and dedicated purpose built backup appliance.
- Very advanced deduplication engine.
- Data Domain guards against data Integrity issues.
- Robust cloud integration.
- Data Protection Advisor (DPA) will provides us with all sort of reports related to the backup system. All this information will ensure that all backup and replication processes are being implemented correctly.
- Data Protection Search (DPS) will provides us with a fast and powerful way to search backup data across one or more Avamar servers, and then restore or download the search results. DPS provides a familiar Google-like search interface, complex & advanced search queries, cross server and cross platform searches.
- Avamar Virtual Edition (VE) is optimized for backup and recovery of virtual and physical servers, enterprise applications, desktops or laptops.
- We will have backups from all of the three facilities in all three installations giving us backup redundancy.

** I have attached a drawing that shows the proposed architecture.*

Scope of Work

Item Description	Purpose	QTY	Price	Ext. Price
Iron Bridge - Data Domain 6300 Storage Appliance 34TB Capacity with 5-Year Support	Backup storage for virtual and physical server images.	1	\$ 33,210.60	\$33,210.60
Conserv II - Data Domain 6300 Storage Appliance 34TB Capacity with 5-Year Support	Backup storage for virtual and physical server images.	1	\$33,210.60	\$33,210.60
Conserv I - Data Domain 6300 Storage Appliance 34TB Capacity with 5-Year Support	Backup storage for physical server images.	1	\$33,210.60	\$33,210.60
Solution Architecture	Design and architecture the solution to make sure that we have all we need to start implementation.	1	\$1,477.52	\$1,477.52
Implementation for Data Domain No Shelf System	Pre-installation check list, installation and configuration of Data Domain appliance.	1	\$1,875.02	\$1,875.02
Implementation for Avamar Virtual Edition	Installation and configuration of Avamar in a virtual machine.	1	\$4,132.55	\$4,132.55
Implementation for Avamar VADP Integration	Configuration of Avamar system to work with VMWare	1	\$7,230.09	\$7,230.09

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	VSphere, integration with VCenter.			
5-day training self-paced or part of a class for one or two people	Training for IAG personnel to be able to completely maintain and support the system.	1	\$2,805.00	\$2,805.00
Conserv I - M600 Avamar Appliance with 5-Year Support	Appliance that will run the Avamar software as there is not a virtual environment.	1	\$5,691.00	\$5,691.00
Avamar Backup Software - Yearly Subscription	Software needed to manage, configure, schedule and maintain server backup jobs.	1	\$4,685.00	\$4,685.00
Freight	Shipping to City's facilities	1	\$258.76	\$258.76
			TOTAL	127,786.74

If you have any questions regarding this matter, please contact me (321)-765-8021 Ext. 5037, (321) 231-5785 cell, or sonia.flores@cityoforlando.net.

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