

Information Technology Project Initiation Form

Project Name: Virtualization and Data Storage

[40J-J05.21]

Date: December 7, 2017

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College Location	Project Name	Project Number
ELAC	Virtualization and Data Storage	40J-205.21
LACC	Virtualization and Data Storage	40J-105.21
LAHC	Virtualization and Data Storage	40J-305.21
LAMC	Virtualization and Data Storage	40J-405.21
LAPC	Virtualization and Data Storage	40J-505.21
LASC	Virtualization and Data Storage	40J-605.21
LATTC	Virtualization and Data Storage	40J-705.21
LAVC	Virtualization and Data Storage	40J-805.21
WLAC	Virtualization and Data Storage	40J-905.21
ESC	Virtualization and Data Storage	40J-D05.21

1. Project Description:

Install new Storage:

College	Vendor	Model Upgrade	Target Storage Capacity (TB)
LACC	HP	3Par	120.82
LAVC	HP	3Par	211.82
LAPC	HP	3Par	62.92
LAHC	HP	3Par	200.16
LASC	HP	3Par	90.2
College	Vendor	Model Upgrade	Target Storage Capacity (Tb)
LATT	HP	3Par	136.18
WLAC	HP	3Par	50.6
LAMC	HP	3Par	57.09
ESC	HP	3Par	648.56
ELAC	HP	3Par	279.4

Install new Backup Appliance:

Future State Backup Storage Hardware		
College	Model Upgrade	Target Storage Capacity (TB)
LACC	HP StoreOnce	120
LAVC	HP StoreOnce	120
LAPC	HP StoreOnce	40
LAHC	HP StoreOnce	100
LASC	HP StoreOnce	80
LATT	HP StoreOnce	80
WLAC	HP StoreOnce	40
LAMC	HP StoreOnce	40
ESC	HP StoreOnce	300
ELAC	HP StoreOnce	100

Install new Target Backup Appliance:

Future State Backup Storage Hardware		
College	Model Upgrade	Target Storage Capacity (TB)
MULTI-CAMPUS	Storage	750 TB (at LAVC)

2. Project Purpose:

Fulfill accreditation compliance requirements identified in 2016 External Evaluation Report by implementing a standard Districtwide backup and disaster recovery solution. As described in the 2016 DW IT Assessment recommendations, the project intends to reduce storage capacity to under 50% utilization and implement a standard onsite and offsite backup solution for each college.

3. Project Deliverables:

- Deliver and install Storage equipment
- Deliver and install on-site backup equipment
- Deliver and install off-site backup equipment
- Program and configure equipment
- Test equipment and functionality
- Perform training of designated college staff

4. Risk Management:

Risk ID	Identified Risk	Impact	Risk Mitigation
1	Current HP Master Agreement expires in February 2017.	Schedule may slip and impact ability to deliver project by Oct 2017 to meet Accreditation Compliance Requirements	Obtain PIF Signoff from Colleges, Complete Project Setup, Initiate Procurement, and Issue PO before 01/31/2017. Prepare to issue formal RFP or utilize proposed MSA that is slated to go to BOT in Feb 2017.

			Crash implementation schedule and utilize agile approach to deliver project.
2	College does not have adequate power or Rackspace to support new system	Change order will need to be issued to install power and racks.	Validate current environment with College IT and fund risk reserve as part of project.
3	Installed equipment does not bring storage utilization to under 50%	Change order will need to be issued to buy additional storage.	Perform detailed storage calculation estimate based on 45% utilization and fund risk reserve as part of project.
4	Storage appliance does not perform as expected	Potential schedule and cost delays	Develop a test plan in collaboration with the College and validate with manufacturer that products specified will perform as expected. Establish RMA process in advance.
5	Limited college personnel and resources	Schedule may slip and impact ability to deliver project by Oct 2017 to meet Accreditation Compliance Requirements	Perform resource planning with IT Managers and coordinate project schedules with all stakeholders

5. Training

- 3 days of training for HP 3Par included for (3) members from IT staff.
- 2 days of training for HP StoreOnce included for (3) members from IT staff
- 1 day of implementation training for Veeam included for (3) members from IT staff
- Training is customizable through training credits and the district can decide how to use it.

6. High Level Schedule:

- Project Start Date: January 30, 2017
- Project End Date: September 30, 2017

7. Project Milestones

Milestone Date	Milestone Name	Milestone Description
Dec 22, 2017	Approve PIF	Validate SOW and obtain approvals
Jan 3, 2017	Begin Procurement	Issue PIF and Quotes to PMO Contracts
Jan 30, 2017	Issue PO	Issue PO
Feb 2017	Conduct Project Kick-off	Project Kickoff and planning is performed
Mar 2017	Perform Implementation	Install equipment at Colleges
Jul 2017	Perform Testing	Perform QA, UAT or other testing
Aug 2017	Perform Training	Train District and College staff on use of system
Sep 2017	Closeout	Signoff and closeout project

8. Identify services provided by the vendor:

- Deliver and install storage equipment
- Deliver and install on-site backup equipment
- Deliver and install off-site backup equipment
- Program and configure equipment
- Perform basic testing of equipment
- Assist with detailed troubleshooting of equipment as necessary
- Provide training to college staff
- Provide 5 years of equipment warranty/support for 3Par and StoreOnce, and 3 years of warranty/support for Veeam.
- Attend status meetings and provide updates as required

9. Identify responsibilities of District or College:

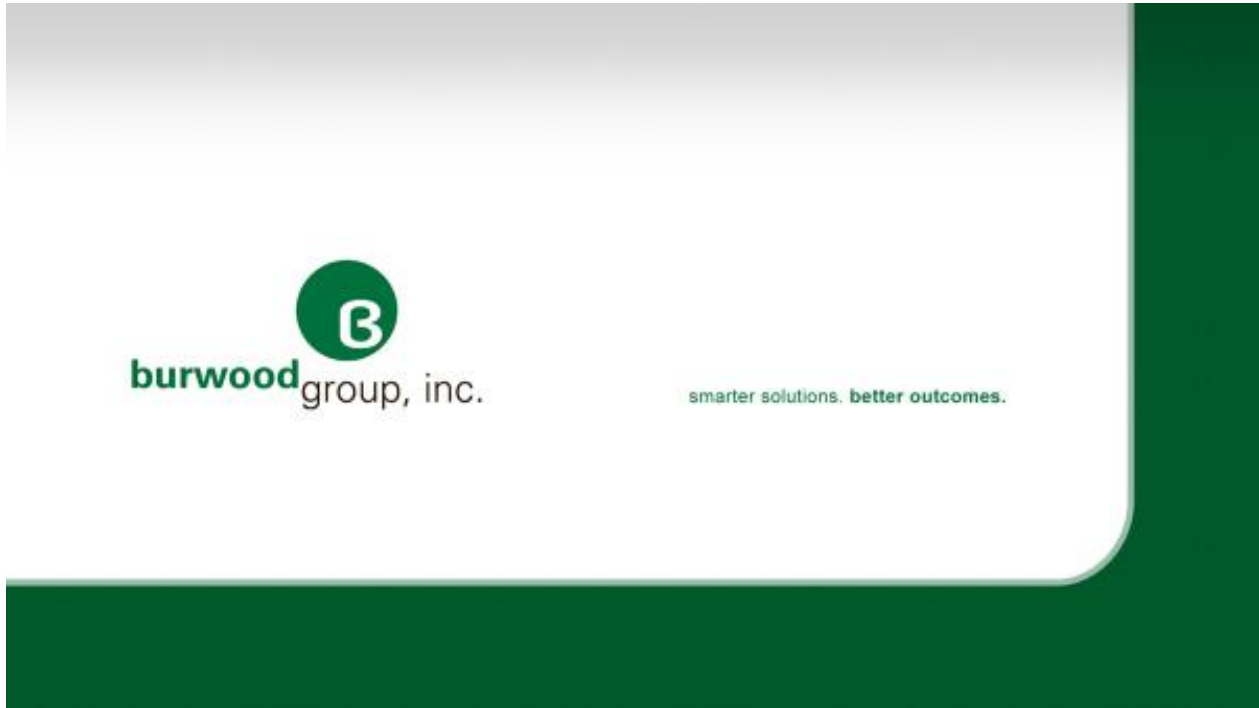
- Identify proposed location of equipment and oversee installation/configuration
- Develop test plan
- Coordinate with vendor to configure equipment on college IT network
- Perform testing on equipment and communicate test results
- Attend status meetings and provide updates as required
- Migrate data as necessary
- Coordinate warranty/support items with manufacturer post project closeout

10. Vendor Out of Scope Items (Not included with bond eligible project scope)

- Data migration responsibilities
- Backup schedule and configurations
- Maintenance and operational costs

11. Project Budget (Bond Eligible scope):

Hardware	\$2,931,219.64
Software	\$764,351.54
Support	\$2,047,997.45
Installation	\$165,228.48
Risk	\$886,319.57
Est Tax	\$679,511.67
TOTAL	\$7,474,628.34



Objective:

- Reduce the amount of SAN instances at each College into a standard platform
- Size each SAN to support predicted growth for a period of five years.
- Standardizing on a SAN arrays will better allow cross campus support and serviceability as well as the ability to leverage volume discounts
- Provide each College with backup solution with sufficient capacity to protect all mission critical systems and maintain adherence to district mandated retention policies.
- Backup solution will provide functionality to replicate backup data to an alternate location over existing WAN circuits
- Completion will meet compliance requirements identified in District accreditation evaluation report by October 2017

LACCD

District Data Storage and Backup Approach

Data Storage Standardization

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12/15/2016

Executive Summary Report



Configuration Guidelines

- Recommend standard HP storage solution across district
- Target Day 1 utilization of <50%
- Assume 15-20% year to year growth
- Sufficient capacity to last 5 years with projected growth
- Utilize flash storage for high performance workloads

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12/15/2016

Executive Summary Report



Backup Solution

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12/15/2016

Executive Summary Report



Configuration Guidelines

- Recommend standard HP backup solution across district
- Provide granular file, Microsoft Exchange Email, SQL Database, and Active Directory object backup and recovery
- Off host backup of VMware and Hyper-V virtual machines
- Backup to disk support for a target capable of de-duplication and replication
- Native data de-duplication
- Replication of de-duplicated backup data across WAN
- Sufficient capacity to meet district defined retention policy for all data locally and mission critical data replicated remotely
- LAVC to host offsite replication target for all campuses and ESC
- LAVC to replicate local backup storage to ESC

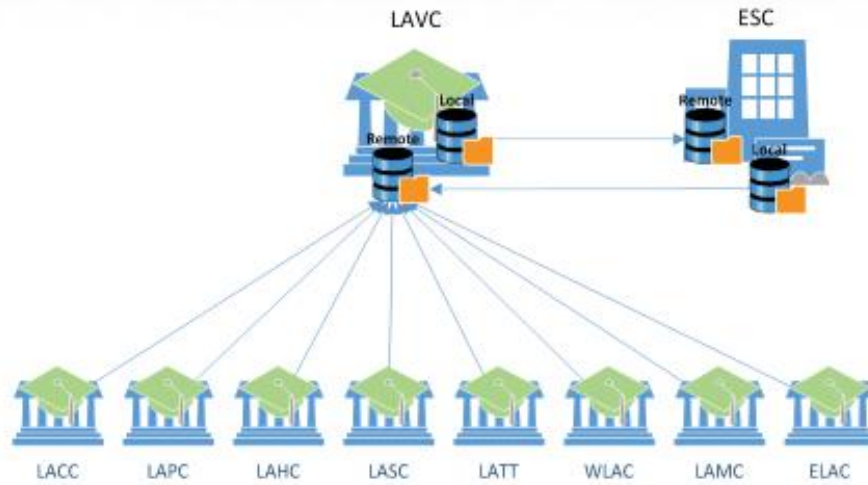
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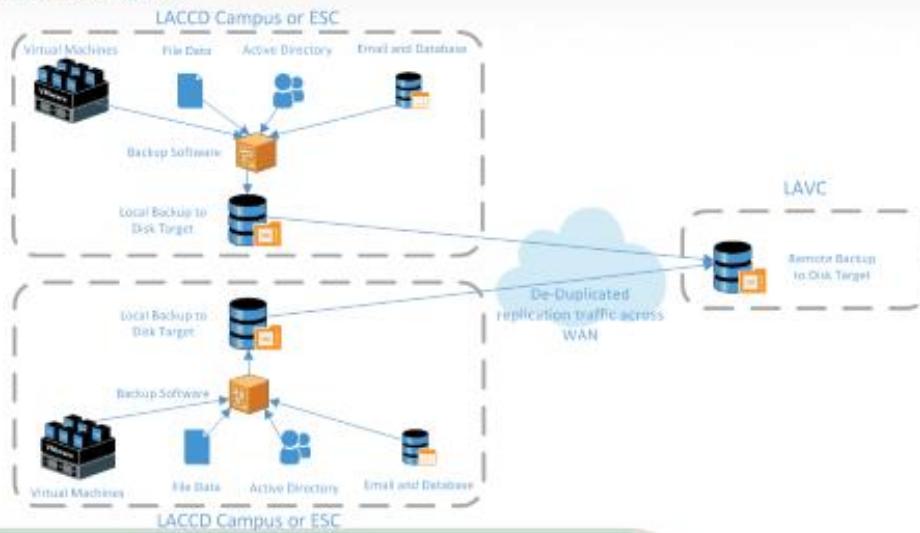
Executive Summary Report



District Wide Backup Replication



Backup Traffic Paths



12. Authorization:

[LACC Vice President of Administrative Services] DATE: _

[LACC College IT Manager] DATE:

[LAVC Vice President of Administrative Services] DATE: _

[LAVC College IT Manager] DATE:

[LAPC Vice President of Administrative Services] DATE: _

[LAPC College IT Manager] DATE:

[LAHC Vice President of Administrative Services] DATE: _

[LAHC College IT Manager] DATE:

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[ESC IT Manager] DATE:

[ELAC Vice President of Administrative Services] DATE:

[ELAC College IT Manager] DATE: