This document outlines the architecture design recommendation for the below IT consult. The recommendation is for the physical server configuration alone and is limited in scope to the service catalog offered by Hosting Midrange.

Consult Name: Captiva Version 7.6 Upgrade

Consult Requester: Kay Miller

Consult Description: Platform Configuration Recommendation

# Problem Statement

**Problem**: Captiva is the go-forward application for document imaging. It is used across business areas. Current version is out of extended support at the end of 2017. New servers are required because current servers are running Windows 2008 R2 and new version requires Windows 2012.

**Opportunity**: Expand the Captiva capabilities to accommodate current increasing volume requirements, as well as increased volume for new projects.

**Benefit**: Maintain Captiva at a vendor-supported version.

**Performance/Platform Requirements:**

The primary drivers for physical servers over virtual:

* MS Cluster shared storage requirement unavailable in VM environment
* Vendor documents that running the primary Captiva services on virtual servers results in at least a 30% performance degradation
* The application cannot share server processing power. Running on virtual servers would require dedicated processors and dedicated RAM. The need for a dedicated server is documented by the vendor

**Storage Requirements:**

The stated storage requirements are:

* Shared SAN storage for MS Cluster configurations
* SAN storage with performance comparable to a local RAID 10 configuration
* Local disk with a minimum of 100GB

# Assumptions

All requirements and information pertaining to the existing environment are accurate.

# Motivation

Maintain Captiva at a vendor-supported version.

Retire/replace dated servers and OS.

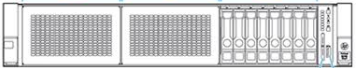
# Alternatives

No design alternatives provided – standard Liberty Mutual Midrange compute platforms are sufficient to meet all defined requirements.

# Recommendation

Direct Customer to request the server configuration discussed below as a standardized configuration created for this requirement & designated ‘Captiva Gen9’. Server requests will be reviewed for accuracy and detail and should be specific to the phase/environment to be used. Customer indicates ordering all servers at one time may be most beneficial for the project/effort. See Appendix for total server count and environment deployment.

The recommendation is to approve the submitted server requests and assist in any way to facilitate this effort. The below configuration has been reviewed with customer.



**Captive Gen9**

**HP DL380 Gen9 E5-2620v4 / 128GB (8-core processors)**

| **Ln #** | **Qty** | **Mfg Part #** | **Description** |
| --- | --- | --- | --- |
| 1 | 1 | 719064-B21 | HP DL380 Gen9 8SFF CTO Server |
| 2 | 1 | 817927-L21 | HP DL380 Gen9 E5-2620v4 FIO Kit |
| 3 | 1 | 817927-B21 | HP DL380 Gen9 E5-2620v4 Kit |
| 4 | 8 | 836220-B21 | HPE 16GB 2Rx4 PC4-2400T-R Kit |
| 5 | 4 | 872475-B21 | HPE 300GB SAS 10K SFF SC DS HDD |
| 6 | 1 | 719073-B21 | HP DL380 Gen9 Secondary Riser Kit |
| 7 | 1 | 749974-B21 | HP Smart Array P440ar/2G FIO Controller |
| 8 | 2 | P9D93A | HPE SN1100Q 16Gb 1p FC HBA |
| 9 | 1 | 733660-B21 | HP 2U SFF Easy Install Rail Kit |
| 10 | 2 | 720478-B21 | HP 500W FS Plat Ht Plg Pwr Supply Kit |
| 11 | 1 | 512487-B21 | HP iLO Adv Track incl 1yr TS/U SW |

**Storage:**

The stated storage requirements will be met and surpassed by using an additional pair of 300GB HDD’s in a RAID1 config for the local storage requirement and the use of 16Gb HBA’s & EMC VMAX for SAN performance average of 5,000 IOPS compared to the approximate 1,000 IOPS of a local HDD RAID10 configuration.

# Financial Estimate

**DL380 Options & Best Configuration Quote Summation:**

DL380 Gen9 SFF, E5-2620v4 (8-core processors) 128GB RAM

Total for each server: $8,609.

[HP Captiva Configuration Quote](https://itcomposites.lmig.com/Sites/Midrange/InfrastructureLogistics/ExternalDocuments/Staging/Liberty%20GDL1-72855-02%20146.pdf) 8/22/2017

Total for 19 servers: $163,571.

# Next Steps

**Hosting Application Environments** reviews 260 recommendations & purchase requestfor approval, once approved – green light to place orders via PDP.

**Hosting Midrange Lifecycle- Infrastructure Logistics** needs to review PDP requests and ensure correct components and configurations are requested. Also discuss with customer anything about the requests that may require change or clarification prior to placing server order via Provisioning. A Logistics Build Engineer (BE) is assigned to assist customer throughout provisioning process.

**Hosting Midrange Operations - Operational Stability** needs to complete a capacity review for requested SAN storage at request of assigned Logistics Build Engineer.

# Appendix

**Central IT Intake -** [Consult - Captiva upgrade](https://itcomposites.lmig.com/Sites/CITIntake/Lists/Intake%20Requests/Item/displayifs.aspx?List=9c1936d9%2Dd89a%2D414c%2D9645%2D09ce19af63a2&ID=2781&ContentTypeId=0x01001C6E8100F55625479C734F30B39AFEB6)

**Submitted requirements:** [Captiva 135 Requirements Doc](https://itcomposites.lmig.com/Sites/Midrange/InfrastructureLogistics/ExternalDocuments/Staging/Captiva/135_MRS_Non_Functional_Template_CaptivaUpgrade.doc)

**EMC Captiva Capture:** [Performance Sizing and Tuning Guide](https://itcomposites.lmig.com/Sites/Midrange/InfrastructureLogistics/ExternalDocuments/Staging/Captiva/Captiva%20Tuning%20Guide.pdf)

**Total Server count/environment for this project: 19**

DEV – 1

TST – 2 (in one MS Cluster server cluster)

STG – 4 (in two MS Cluster server clusters)

PRD – 6 physical (in three MS Cluster server clusters)

DR – 6 physical (in three MS Cluster server clusters)

**Consult by John McFarland 8/28/2017**