# Table of Contents

Executive Summary .......................................................................................................................... 3

Replacement Plan .......................................................................................................................... 5
  I. Plan Overview and Explanation ................................................................................................. 5
  II. PC Refresh Plan ..................................................................................................................... 6
  III. Server Refresh Plan ............................................................................................................... 10
  IV. Peripheral Refresh Plan ....................................................................................................... 11
  V. Inventory Management Plan ................................................................................................ 14
  VI. Deployment Plan .................................................................................................................. 14

Project Development Plan .......................................................................................................... 15

SWOT Analysis ............................................................................................................................. 18

Training Plan .................................................................................................................................. 21

Security Analysis ............................................................................................................................ 23

Disaster Recovery Initial Discoveries ......................................................................................... 26
APLS / IT Division - Executive Summary

APLS / IT Division works diligently to provide excellent service to the APLS employees agency wide. We provide services such as email, secure and managed storage of information, internet availability, desktop hardware/software support and telephone/video conferencing services to any and all APLS employees.

APLS / IT Division also aids local libraries in a variety of ways including web site development and maintenance, remote and on-site desktop hardware and software support and network assistance as needed.

The following summary is an attempt to provide a high-level look at the work of our division and whom are the expert knowledge owners and back-ups for each of the main responsibilities of the APLS / IT Division.

**Desktop Services – IT Helpdesk**
The Division aids all APLS employees and local library employees that use a PC or Mac device each and every day. The work performed ranges from simple password resets to difficult data recovery efforts and many different needs in between. The Helpdesk has technicians available from 8:00 a.m. to 5:00 p.m. Monday through Friday to assist with these needs. The Helpdesk works an average of 100 tickets per month in assistance to APLS and library needs. Any APLS employee or local library employee can contact the IT Helpdesk at any time with any technical need.

*Expert Knowledge Owners:*
Eric Bair
Demetris Smith (leaving division on 7/12/19 upon which the helpdesk will be short staffed)

*Back-Up Technicians:*
Clyde Mills
Bryan Harris
Matt Sponsler
Trevor Johnson

**Server Administration**
The Division manages and maintains 14 or more servers used by APLS employees every day. This includes managing new user accounts and user home storage. Also included within these duties are maintaining the servers for Evergreen, File Maker and Secure Data Back Ups. There are several different on-going projects within this group.

*Expert Knowledge Owners:*
Bryan Harris – Server Maintenance, VM Ware, SAN
Trevor Johnson – Data Back Up and Restoration, VM Ware
Clyde Mills – Data Back Up and Restoration
**Program Development and Maintenance**
The Division has a large network of database applications and programs that are administered and maintained on a daily basis. Most applications are supported through the File Maker product and other sole source programs. Our team assists with data fixes, development of new applications and installation of new services both inside the APLS agency and as a service to the local libraries served by APLS.

**Expert Knowledge Owners:**
Clyde Mills – File Maker Design, Development and Maintenance, Web Site Development and Maintenance
Trevor Johnson – Evergreen Maintenance and Installation
Bryan Harris – Keystone / KLAS Maintenance

***Trevor and Clyde back up one another in these roles, Clyde also backs up Keystone***

**Network, Data and Cyber Security Control**
The Division maintains the security and integrity of the APLS data network and the Microsoft and Apple operating systems located within the network. They administer these duties via software and hardware installation and maintenance. Another key component of the security strategy of APLS involves the server maintenance duties mentioned above.

**Expert Knowledge Owners:**
Trevor Johnson – Switch Set Up and Maintenance
Matt Sponsler – Tenable, CISCO AMP Administration and Maintenance

**Back Up Technicians:**
Trevor Johnson – Tenable and CISCO AMP
Matt Sponsler – Switch Set Up and Maintenance

**Telephone and Video Conferencing Administration**
The Division maintains a fully functioning Voice over IP telephony environment that provides all telephone and fax capabilities to the staff of APLS. This includes voice mail, intercom, and transfer features. The Division also provides to the APLS staff, local libraries, state agencies and possibly the public business sector Video Conferencing (VidCon) Services that include training space (owned by APLS and local libraries), operating hardware, program direction and technical support.

**Expert Knowledge Owners:**
Matt Sponsler

**Back Up Technician:**
Trevor Johnson
APLS / IT Division – Product Replacement Plan

I. Plan Overview and Explanation
II. PC Refresh Plan
III. Server Refresh Plan
IV. Peripheral Refresh Plan
V. Inventory Management Plan
VI. Deployment Plan

I. Plan Overview and Explanation
As an IT Department our goal is to provide the most optimal technological solutions for our clients. This goal will be carried out in three phases.

A. Hardware – end user computers, server and data storage hardware as well as peripheral hardware (scanners, printers, etc…).
B. Software – Microsoft office, FileMaker databases, web browser compatibility, etc...
C. Support – desk top level support for end users and maintenance of background hardware and software.

This product life cycle plan is being developed and implemented in order to best provide for all three facets of the IT Department operations goal. By ensuring that hardware is up to date with industry technology standards our customers are always capable of computing at a level that meets the expectations perceived by the marketing of the discipline from outside the agency.

Our goal with this plan is to provide hardware, software and support that is readily available, properly operational and capable of meeting the everyday needs of our client’s workloads.
II. PC Refresh Plan
The following is a list of all APLS Employees and the IT equipment that each individual is using actively. This list contains pertinent information used to determine the necessity of refresh and/or the severity of the refresh need when a typical replacement cycle can’t be followed due to purchasing constraints.

<table>
<thead>
<tr>
<th>Division</th>
<th>User</th>
<th>Make/Model</th>
<th>Asset Number</th>
<th>Operating System</th>
<th>Year Purchased</th>
<th>Years Remaining in Life Cycle</th>
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</table>
**PC Refresh Phases:**

> **Phase 1**
The following list of users have had their equipment upgraded in the FY’18 and will be looked at for replacement again in Q1 of FY’24.

**BPH**
Angela Fisher-Hall  
Tim Emmons  
Mike Coleman  
Dorothy Baker  
Laquisha Thomas  
Amanda Trawick  
Jeff Finklea

**Admin**
Jennifer Holman  
Vacant Accountant  
Tameka Gilmore  
Carol Burchett

> **Phase 2**
The following list of users have had or are having their equipment upgraded in the FY’19 and will be looked at for replacement again in Q1 of FY’25.

**Admin**
Kelyn Ralya

**Consultant**
Rhonda Napier  
Ken Herston  
Stephanie Taylor  
Gail Sheldon  
Jim Smith  
Alisa McLeod

**Reference**
Melinda Smith  
Alex Perry

**IT**
Trevor Johnson (Development Machine)  
Clyde Mills (Development Machine)
>Phase 3
The following list of users are planned to have their equipment upgraded in the FY’20 and will be looked at for replacement again in Q1 of FY’26.

**Admin**
Nancy Pack
Vanessa Carr

**Maintenance**
Randy Garmon
Kedia Richardson
Theresa Murray

**IT**
Bryan Harris
Matt Sponsler
Eric Bair
Demetris Smith

>Phase 4
The following list of users are planned to have their equipment upgraded in the FY’21 and will be looked at for replacement again in Q1 of FY’27.

**IT**
Jay Mims
Clyde Mills
Trevor Johnson

**Admin**
Keith Walker
Ryan Godfrey

The industry standard for PC replacement is generally considered to be between two and four years. Our desire is to create a plan that is economically acceptable for our department while also providing high standard operational computing devices for our department’s users. Based on this desire we will plan to replace each pc as it becomes 6 years old.
III. Server Refresh Plan

The IT division manages and maintains several different servers locally. They are as follows:

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<th>Make</th>
<th>Model</th>
<th>Operating System</th>
<th>Asset Number</th>
<th>Purpose</th>
<th>Date Purchased</th>
<th>Years Remaining in Life Cycle</th>
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<td>0</td>
</tr>
<tr>
<td>Apple</td>
<td>Mac Pro</td>
<td>ESXi 6.</td>
<td>LS-000469</td>
<td>Virtual Test</td>
<td>9/21/2011</td>
<td>0</td>
</tr>
<tr>
<td>Apple</td>
<td>Mac Pro</td>
<td>ESXi 6.</td>
<td>LS-000470</td>
<td>Virtual Test</td>
<td>9/10/2012</td>
<td>0</td>
</tr>
<tr>
<td>Apple</td>
<td>Mac Pro</td>
<td>ESXi 6.</td>
<td>LS-000471</td>
<td>Virtual Test</td>
<td>9/10/2012</td>
<td>0</td>
</tr>
</tbody>
</table>

The industry standard for server replacement is generally considered to be five years. Our desire is to create a plan that is economically acceptable for our department while also providing high standard operational computing devices for our department’s users. Based on this desire we will plan to replace each server as it becomes 7 years old. If a server loses proper functionality before its designated replacement time it will be replaced as an emergency.

***Apple Mac Mini LS-000424 used for BARD will be replaced in FY’19 with a New Dell PowerEdge R340 Server***
IV. Peripheral Refresh Plan

The IT Division will institute a plan to replace peripheral devices upon failure, loss of proper function or loss of ability to meet current standards implemented by the technology of the department.

The Alabama Public Library Services currently owns and operates 9 Scanners, 15 Printers and 15 Secondary Monitors.

The Admin Division has 3 printers, 1 specialty printer, 1 secondary monitor and 2 scanners.

The Business Office/Finance has 2 printers 2 secondary monitors and 3 scanners.

The Consultants Division has 2 secondary monitors and 1 scanner.

The Reference Division has 2 printers.

The BPH Division has 1 printer and 2 specialty printers.

The Building/Maintenance Division has 1 printer and 1 scanner.

Finally, the IT Division has 4 printers, 2 scanners and 7 secondary monitors in service for daily use/support.

Scanners:

APLS has the following scanning devices.

1) Fujitsu iX500 ScanSnap Scanner – Clyde Mills
2) Fujitsu iX500 ScanSnap Scanner – Jennifer Holman
3) Fujitsu iX500 ScanSnap Scanner – Trevor Johnson
4) Fujitsu iX500 ScanSnap Scanner – Carol Burchett
5) Fujitsu iX500 ScanSnap Scanner – Storage
6) Fujitsu iX500 ScanSnap Scanner – Kelyn Ralya
7) Fujitsu iX500 ScanSnap Scanner – Nancy Pack
8) Fujitsu iX500 ScanSnap Scanner – Randy Garmon
9) Fujitsu iX500 ScanSnap Scanner – Stephanie Taylor
10) Fujitsu iX500 ScanSnap Scanner – Storage
11) Fujitsu iX500 ScanSnap Scanner – Storage
12) Fujitsu iX500 ScanSnap Scanner – Storage
Printers:
APLS has the following printing devices.
1) HP 4250dTn – Vanessa Carr
2) HP M553n – IT Division
3) HP LaserJet – Rhonda Napier
4) HP M602x – Jennifer Holman
5) HP M402dNe – Jennifer Holman
6) HP M402dNe – Nancy Pack
7) HP M402dNe – Randy Garmon
8) HP Brother MFP – Trevor Johnson
9) Xerox Phaser 3320 – IT Division
10) Xerox Phaser 3320 – Keith Walker
11) Xerox Phaser 3610 – Rhonda Napier
12) Xerox Phaser 3610 – Trevor Johnson
13) HP M477 Color LaserJet – Reference
14) Xerox Phaser 3320 – Kelyn Ralya
15) HP 402dNe – Storage
16) HP LaserJet M553n – Storage
17) HP LaserJet M553 – Ryan Godfrey
Monitors:

APLS has the following secondary monitors.

1) Apple Thunderbolt Display – Matt Sponsler
2) Apple Thunderbolt Display – Bryan Harris
3) Apple Thunderbolt Display – Eric Bair
4) Apple Thunderbolt Display – Demetris Smith
5) Apple Thunderbolt Display – Trevor Johnson
6) Apple Thunderbolt Display – Jay Mims
7) Apple Monitor – Clyde Mills
8) HP 27” Display – Matt Sponsler
9) HP 27” Display – Matt Sponsler
10) HP 27” Display – Bryan Harris
11) Dell 24” Display – Bryan Harris
12) HP 27” Display – Storage
13) HP 19’ Display – Storage
14) HP 19’ Display – Storage
15) HP 19’ Display – Storage
16) HP 27” Display – Alisa McLeod
17) HP 27” Display – Jim Smith
18) HP 27” Display – Ryan Godfrey
19) HP 27” Display – Clyde Mills
20) Dell 24” Display – Trevor Johnson
21) HP 24” Display – Trevor Johnson
22) HP 27” Display – Jennifer Holman
23) HP 27” Display – Carol Burchett
24) HP 27” Display – Kelyn Ralya
25) Dell 24” Display – Matt Sponsler
V. Inventory Management Plan
7 of the PC’s being replaced this fiscal year will be formatted and refurbished for use as replacements for “B-Top” machines being used as training machines in the Tombigbee Training Room on the Lower Level of our agency building. The eighth machine will be formatted and refurbished for use by Kedia Richardson in the interim year until his pc gets replaced. Any machines that can’t be formatted and refurbished will be sent to surplus through the proper state surplus channels.

VI. Deployment Plan

Step 1) Develop specifications for replacement items as needed and request quotes from proper vendors via state contracts.

Step 2) Upon receiving the quotes, place an order for equipment as approved by Director and Finance.

Step 3) Receive and Inventory equipment properly through the Business Office.

Step 4) Train all users who are going to receive new equipment on changes to platform, etc... to ensure that all users are as prepared as possible to receive new equipment.

Step 5) After the release of equipment to IT, we will develop and install all images necessary on computing devices and plan with necessary divisions to deploy the new equipment to recipients in a way to minimize downtime to our users and make the best use of the time of our IT staff.

Step 6) Gather all removed equipment and prep for the Inventory Management plan explained above.
APLS / IT Division – Project Development Objectives

As an IT Division one of the main focuses is to identify, research, assist and develop technological projects for the divisions of our agency. As technology changes the agencies needs for technology will change as well. The IT Division desires to be proactive in ensuring that technologies are available for our agency as operations change in the future.

**FY’19 and FY’20 Projects Identified**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>IT Employees Involved</th>
<th>Project Start Date</th>
<th>Projected End Date</th>
<th>Technology to be Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC Refresh Plan (Phase 2)</td>
<td>Demetris Smith, Eric Bair</td>
<td>4/29/19</td>
<td>7/18/19</td>
<td>Apple iOS</td>
</tr>
<tr>
<td>Server Refresh Plan (Phase 2)</td>
<td>Bryan Harris, Trevor Johnson</td>
<td>4/29/19</td>
<td>11/27/19</td>
<td>M/S Server</td>
</tr>
<tr>
<td>Filemaker Upgrade Project</td>
<td>Clyde Mills, Trevor Johnson</td>
<td>TBD</td>
<td>TBD</td>
<td>Filemaker O/S</td>
</tr>
<tr>
<td>PHP My Admin Local Website Upgrades</td>
<td>Clyde Mills</td>
<td>TBD</td>
<td>TBD</td>
<td>Drupal</td>
</tr>
<tr>
<td>Radius Account Administration Set-Up</td>
<td>Trevor Johnson</td>
<td>TBD</td>
<td>TBD</td>
<td>Multiple Technology Platforms</td>
</tr>
</tbody>
</table>

**FY’18 and FY’19 Projects Carried Over for Reset in Q4 FY’19 and FY’20**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>IT Employees Involved</th>
<th>Project Start Date</th>
<th>Projected End Date</th>
<th>Technology to be Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document Imaging System</td>
<td>Clyde Mills, Trevor Johnson, Bryan Harris</td>
<td>5/14/18</td>
<td>TBD - Ongoing</td>
<td>Filemaker / Fujitsu ScanSnap Scanner / SAN</td>
</tr>
<tr>
<td>SysLog Server Install and Set Up</td>
<td>Trevor Johnson</td>
<td>TBD</td>
<td>TBD</td>
<td>Virtual Server / SysLog Software</td>
</tr>
<tr>
<td>KACE Update Server</td>
<td>Trevor Johnson, Bryan Harris</td>
<td>TBD</td>
<td>TBD</td>
<td>Virtual Server / M/S Server</td>
</tr>
</tbody>
</table>
## FY ’18 and FY ’19 Projects Identified

<table>
<thead>
<tr>
<th>Project Name</th>
<th>IT Employees Involved</th>
<th>Project Start Date</th>
<th>Projected End Date</th>
<th>Technology to be Used</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BARD Server Upgrade</strong></td>
<td>Trevor Johnson, Bryan Harris</td>
<td>TBD – Hardware Purchased</td>
<td>TBD</td>
<td>Dell Blade Server</td>
</tr>
<tr>
<td><strong>CloudStore Virtualization</strong></td>
<td>Trevor Johnson, Bryan Harris</td>
<td>7/9/18</td>
<td>11/5/18</td>
<td>Virtual Server / SAN</td>
</tr>
<tr>
<td><strong>PC Refresh Plan (Phase 1)</strong></td>
<td>Bryan Harris</td>
<td>6/27/18</td>
<td>11/2/18</td>
<td>Multiple Technology Platforms</td>
</tr>
<tr>
<td><strong>Server Refresh Plan (Phase 1)</strong></td>
<td>Bryan Harris</td>
<td>6/27/18</td>
<td>11/2/18</td>
<td>Multiple Technology Platforms</td>
</tr>
<tr>
<td><strong>Document Imaging System</strong></td>
<td>Clyde Mills, Trevor Johnson, Bryan Harris</td>
<td>5/14/18</td>
<td>TBD - Ongoing</td>
<td>Filemaker / Fujitsu ScanSnap Scanner / SAN</td>
</tr>
<tr>
<td><strong>VoIP / VidCon Hardware Upgrade</strong></td>
<td>Matt Sponsler</td>
<td>5/1/18</td>
<td>7/26/19</td>
<td>CISCO / Multiple Vid/Con Hardwares</td>
</tr>
<tr>
<td><strong>SysLog Server Install and Set Up</strong></td>
<td>Trevor Johnson</td>
<td>TBD</td>
<td>TBD</td>
<td>Virtual Server / SysLog Software</td>
</tr>
<tr>
<td><strong>Sharepoint Server and System Install</strong></td>
<td>Bryan Harris, Trevor Johnson</td>
<td>5/1/18</td>
<td>10-31-18 - Ongoing</td>
<td>Virtual Server / Sharepoint Software</td>
</tr>
<tr>
<td><strong>Agency Technology Training</strong></td>
<td>Clyde Mills, Trevor Johnson, Matt Sponsler</td>
<td>5/16/18</td>
<td>Ongoing</td>
<td>M/S Office / SANS / etc...</td>
</tr>
<tr>
<td><strong>KACE Update Server</strong></td>
<td>Trevor Johnson, Bryan Harris</td>
<td>TBD</td>
<td>TBD</td>
<td>Virtual Server / M/S Server</td>
</tr>
</tbody>
</table>

*Bold andItalicized* = Completed  
**Italicized** = In-Progress
### Unidentified FY ‘18 and FY ‘19 Projects Developed

<table>
<thead>
<tr>
<th>Project Name</th>
<th>IT Employees Involved</th>
<th>Project Start Date</th>
<th>Projected End Date</th>
<th>Technology to be Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Website Virtualization</td>
<td>Clyde Mills Trevor Johnson</td>
<td>1/14/19</td>
<td>9/30/19</td>
<td>Virtual Server / Drupal</td>
</tr>
<tr>
<td>HealthInfoNet Migration</td>
<td>Bryan Harris Trevor Johnson</td>
<td>1/4/18</td>
<td>9/30/19</td>
<td>M/S Sharepoint</td>
</tr>
<tr>
<td>Evergreen Virtualization</td>
<td>Trevor Johnson</td>
<td>10/15/18</td>
<td>10/31/19</td>
<td>Evergreen / Virtual Server</td>
</tr>
<tr>
<td><strong>YALSA Community of Practice</strong></td>
<td>Clyde Mills Eric Bair Demetris Smith Trevor Johnson</td>
<td>1/14/19</td>
<td>6/2/19</td>
<td>Drupal</td>
</tr>
<tr>
<td>NASA Maker Kit Website</td>
<td>Clyde Mills Trevor Johnson</td>
<td>1/15/19</td>
<td>3/18/19</td>
<td>Drupal</td>
</tr>
<tr>
<td>Front Office IDF Move</td>
<td>Clyde Mills Demetris Smith Eric Bair Trevor Johnson</td>
<td>11/13/18</td>
<td>1/3/19</td>
<td>Cat6 and Cat5e Cabling, RJ45 Connectors</td>
</tr>
<tr>
<td>Drupal Upgrade</td>
<td>Clyde Mills</td>
<td>9/5/18</td>
<td>3/31/19</td>
<td>Drupal</td>
</tr>
</tbody>
</table>

*Bold and Italicized = Completed  
**Italicized = In-Progress
### SWOT Analysis FY'18 (with FY'19 updates)

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>✔️ Longevity / Tenured IT Staff</td>
<td>o Lack of Standardization in Deployed Equipment</td>
</tr>
<tr>
<td>✔️ Broad Knowledge Base among IT Staff</td>
<td>o <strong>Lack of staff expertise in new and evolving technologies needed for the future of the agency’s IT goals</strong></td>
</tr>
<tr>
<td>✔️ Strong Team Work and Collaboration Willingness</td>
<td></td>
</tr>
<tr>
<td>✔️ Division wide desire to assist the agency and local libraries with the best service we can provide</td>
<td></td>
</tr>
<tr>
<td>✔️ <strong>Focused and implemented methodology for project plans</strong></td>
<td></td>
</tr>
<tr>
<td>✔️ <strong>Active and properly working Tier 1 APLS/IT Helpdesk</strong></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ <strong>Streamline Project Development/Management ✓</strong></td>
<td></td>
</tr>
<tr>
<td>➢ Create Added IT Value for Agency and Local Libraries through Training</td>
<td></td>
</tr>
<tr>
<td>➢ Develop New Applications for Agency Divisions to Assist the Promotion of Agency Objectives</td>
<td></td>
</tr>
<tr>
<td>➢ <strong>Continue to develop reporting that will assist with future management, staffing and inventory needs</strong></td>
<td></td>
</tr>
<tr>
<td>➢ Cyber Security Awareness</td>
<td></td>
</tr>
<tr>
<td>➢ Disaster Recovery Readiness</td>
<td></td>
</tr>
</tbody>
</table>

**How to take full advantage of Strengths:**
- Ensure that staff members are aware of their importance to the agency and developed professionally to encourage a continued course of longevity.
- Properly assess work to guarantee that staff members best skills are being utilized for the agency’s overall objectives.
- Continue to develop projects that are inclusive of all staff so that the division is giving both the agency and the local libraries our best services and support.
- **During Q4 FY ’18 and FY ’19 the IT Director has implemented a new project plan methodology and general practice which has assisted with focus on projects and working to complete projects in a timely and efficient manner.**
How to develop **Weaknesses** into **Strengths**:  
- Develop a grouping of IT Equipment that is used within the agency and that is promoted to local libraries for purchase so that standards are naturally implemented over time.  
  - During Q4 FY ’18 and FY ’19 APLS/IT has worked with 15 libraries to purchase standardized equipment for implementation in a local library. **APLS/IT will continue this effort moving forward.**  
- IT Director will work with staff to develop a standard for ticketing and information input so that good information and data is being collected.  
  - **APLS/IT has developed a standard for ticketing and are working to revise those standards more to attain even more “good” data for future planning and management.**  
- IT Director will work with Program Development to create good reports.  
  - During Q4 FY ’18 and FY ’19 APLS/IT has developed a monthly ticket report, a fiscal year scoreboard report and bi-weekly project reports.  
- **IT Director has requested training for staff via an on-line training repository which will allow continuous opportunities for training and development.**

How to cultivate **Opportunities**:  
- IT Director will implement and teach a specific project planning management style which will develop a stronger culture of preparation and implementation.  
  - **This opportunity has been attained**  
- IT Director will work with Public Relations Officer to develop marketing tools to be used to promote both training opportunities and services provided by the division to the local libraries via the new APLS website, Quarterly Admin Meetings and via Brochures delivered by Consultants when traveling and visiting all libraries state wide.  
  - **This opportunity has been worked on and partially implemented. The work continues.**  
- Meet with the different divisions of the agency on a quarterly basis to see what work they are doing and to learn of any new efforts they are wanting to implement. Then ask questions to see where and how the IT Division can possibly assist with these efforts.  
  - **This opportunity remains uncultivated and will be a priority during Q4 FY ’19 and FY ’20**
How to minimize Threats:

- Develop written policies for all areas of IT Division security that identify the security provided, the on-going maintenance needed and the schedule for such maintenance.
- Subscribe to and actively read the best newsletters and security information provided within the industry.
- Develop a specified IT Security team that will meet bi-weekly to analyze security scans and determine points of vulnerability and plan to address vulnerabilities through Desktop Services, Server Administration or Program Maintenance.
  - Team has been developed and is an ongoing growth opportunity for the division.
- Develop a Disaster Recovery IT Plan that is feasible and actionable.
  - This is a simple plan and is in place. Ongoing work is needed for the future sufficiency of a disaster recovery plan.
- Perform quarterly assessments and vulnerability drills to actively learn and strengthen the security of APLS technology and data.
- APLS/IT has implemented a new cybersecurity training program via OIT, ThreatAdvice. Cybersecurity will always be a threat but APLS/IT will continue to look for and provide training to educate staff on cyber awareness.
APLS / IT Division – Training Plan

Internal Training:
APLS / IT Division is seeking to have each employee attend a training and/or conference each year that correlates to one of the Division’s 5 areas of discipline.

The areas of discipline are:
1) Desktop Services
2) Server Administration
3) Program Development and Maintenance
4) Network, Data and Cyber Security Control
5) Telephone and Video Conferencing Administration

APLS/IT has requested permission to purchase an annual subscription (approximately $550.00 per technician or $3,800.00 total for the division) for each team member to the training website repository known as “Plural Sight”. This website will allow the IT Director to assign training for each staff member on a quarterly basis for each individual technician or team. These assignments will be based on training deemed to be advantageous to the agency’s overall IT goals and mission. Each technician can also take additional classes at their leisure on subjects that are of interest to them personally and their overall growth as an IT professional. This product will also give us access to training on different technologies that may affect our team and agency moving forward that came into our environment unplanned and to which we aren’t prepared for.

Implementing a training plan will allow our IT Division team members to continue to grow their skills in specific areas as technology continues to advance which in turn will allow the division to provide services and support to both agency employees and the local libraries we work to consult and assist on a daily basis.

Agency and Local Library Staff Training:
With the implementation of the new Video Conferencing technology APLS/IT hopes to provide on demand training seminars for agency and local library staff to access in order to learn both basic and intermediate technological skills for daily technology software’s such as the products of the M/S Office Suite.

Targeted areas of training are:
Microsoft Excel (Beginner and Intermediate)
Microsoft Word (Beginner and Intermediate)
Microsoft Outlook (Overview)
Microsoft PowerPoint (Beginner)
FileMaker Basics (Overview)
Security Training:
APLS / IT Division has successfully tested and implemented the OIT mandated ThreatAdvice cyber security training system for all APLS employees. The training has been divided into quarterly trainings with well-known completion dates. At this point (July 2019) all APLS employees are up to date or ahead of pace in the quarterly training classes.
Physical Security Assessment:

1) The agency does not employ a full-time security guard or security management team.

2) There are two non-secured entry points where public access is possible. They are the main floor entrance to the APLS facility and the lower floor entrance to the BPH offices. Both of these entry points are manned by front desk personnel and backups who provide a first level of security to entry ability. Both desks also have security escalation options to trigger a rapid public safety response.

3) The agency does implement a sign-in sheet protocol at the front doors. **In 2019 the agency added the addition of requiring visitor badges be checked out and worn by all visitors except service vendors who are easily identifiable in company clothing.**

4) The agency does have a security system that creates access control to all perimeter entry points except the two main entry points.

5) Access to the administration suite is not locked down and has 3 access points. They are through the business office, the main suite entry and the back-suite entry. All offices are lockable by key and are generally, at least half of the offices, occupied by staff including the ASA located in the common area during business hours.

6) Access to the consultants’ area does not appear to be lockable and is generally open to all individuals that walk by their main entrance. The area is at times sparsely populated by staff and is possible that no staff are in the area during the agencies business hours.

7) Access to the BPH beyond the front desk employee is not secured. The Director’s office is lockable by key but all other locations are open during the day’s operational hours. In general, there are employees in cubicles or open areas including the warehouse throughout the day.

8) The Main IT Office is locked by a card key access-controlled magnetically locked door and is only accessible by those who have the proper permissions.

9) The IT Server closet (FACP Room) is locked by security magnet lock and accessible by card key permissions only. The cages housing the servers are also locked by physical key and accessible only by those who hold a key.

10) The IT Warehouse closet which houses vacant equipment, the security access control system and several switches is locked behind both the Main IT Office card key magnetic lock and a second lock on the door to entry for the closet itself which is also a card key magnetic lock only accessible by those with permissions.

11) The secondary switch closet is locked behind a magnet locked access-controlled door which is only accessible by individuals with proper access permissions. This room also houses HVAC/Mechanical equipment. The secondary door to this facility is magnetically access control locked and only accessible by those who have permissions to the room.
Physical Security Threats:
1) Free access to most of the building by individuals not approved for access.
2) Technology equipment not actively occupied is susceptible to being removed by possible perpetrators.

Suggestions to Alleviate Threats:
1) Suggest that agency management implement a card key access locked door policy for Admin and Consultant suite. Consultant suite is a more critical request.

Network Security Assessment:
1) APLS/IT Division implements a network security scanning system. The system is:
   a. Tenable – scans all software across the network and analyzes the scans for out of date patches, out of date service packs and other vulnerabilities and reports the outcomes of the analysis to a large report.
2) APLS/IT Division has implemented a new endpoint security program during 2019. The program is:
   a. CISCO AMP for EndPoints (AMP = Advanced Malware Protection)
3) APLS/IT Division firewall – CISCO Adaptive Security Appliance 508x
4) APLS/IT Division web filter – iBoss provided by Alabama Super Computer
5) Domain Administration via M/S Domain Controller and Apple Controller

Network Security Threats:
1) Possibilities are always available for hacking. APLS/IT Division is making great efforts to keep the network as impenetrable as possible however network breaches are not completely inevitable and always a possibility.

Suggestions to Alleviate Threats:
1) Prepare a security/disaster response plan to properly, step by step, deal with any breach that we may experience in the future.

Device Security Assessment:
1) As mentioned above, a large portion of IT equipment that possibly holds data are not in secured areas. This includes both desktop pc’s and laptops.
2) Laptops are possibly free floating in non-secured areas where unapproved visitors can see them and take them without being noticed.
3) Vacant equipment is properly stored behind dually locked and controlled entry doors.
4) All desktop and laptop pc’s are accessible via domain controlled log-in user names and/or administrator user names held by IT Staff only.
5) All desktop and laptop pc’s receive updates to patch security issues via dedicated WSUS and Apple Update Servers.
6) All desktop and laptop devices are scanned while on the network by the Symantec Protection software employed across our network of computing devices.
Device Security Threats:
1) The big threat is physical as mentioned above under the physical security assessment.
   a. Laptops that are in non-secure areas could possibly be removed by individuals looking to steal equipment.
   b. Desktops and Laptops could be “hacked” in unsecure areas where unwanted visitors looking to cause damage may have access.

Analysis to Alleviate Threats:
1) Implement physical policy to have all laptops in non-secure areas locked within desks at all times when not in use.
   a. Set up policy for bi-weekly system scan of all non-daily technology equipment (laptops).

APLS/IT implemented the following new policies to strengthen the network and security integrity of our agency. The policies were as follows:
- Acceptable Use Policy
- Password Policy
- Portable Equipment Policy
- On-Boarding Procedures
- Off-Boarding Procedures

APLS/IT Cybersecurity Team and Function:
Security Team will consist of Director of IT (Jay Mims), Security Officer (Trevor Johnson) and Security Technician (Matt Sponsler) who will meet bi-weekly to analyze security scans and discuss security issues and news. Security team will develop the procedures and policies for the implementation of up to date, technologically relevant security for the network of the agency. Team will develop and deliver quarterly security reports to the agency director for overview and informational purposes.

Cybersecurity reporting is difficult and the team is still working to find a proper way to provide useful and meaningful information via reporting to management.
APLS / IT Division – Disaster Recovery Information

For the Agency:
Loss of File Server – Recovery available via backup storage appliance, will require hardware purchase?
  - File Server can be set up for vital functions via VMware until new hardware can be procured.
  - Procurement cost will be approximately $8,000.00.

Loss of SAN Data – Recovery available via backup storage appliance, will require hardware purchase?
  - Agency will be down until new hardware is delivered and set up is complete.
    - The SAN is currently on a maintenance contract for next day resolution in case of issue.
  - Procurement cost will be approximately $40,000.00.

Loss of Off-Site Data Storage Redundancy – Link would need to be recreated and repopulated with data from data storage device

Loss of Physical Agency Building – hardware purchase would be necessary for servers and local computing devices, data could be repopulated from data storage offsite redundancy

For the Local Library:
Loss of Evergreen Server – Recovery available via backup storage appliance, server may be set up via VMware until new hardware can be procured and setup locally for the library.

Loss of Physical Building – APLS / IT could assist with setting up a temporary location including provision of aged laptops and set up of a LAN temporarily for library computing necessities, would require ISP assistance and/or MiFi devices???

Loss of PC’s – APLS / IT could respond with aged laptops and set up a LAN temporarily for library computing necessities