



2010-2015 Technology Plan  
Final Approved 12-9-2010

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## Preface

"Virginia's leaders have prepared the commonwealth to be attractive to companies and investors by providing the technology infrastructure and skilled workforce today's businesses require. Critical to the commonwealth's ability to capitalize on this advantage is the extent to which Virginia's schools prepare the next-generation workforce for knowledge-based jobs that utilize cutting-edge information technology." (VDOE, 7) This accurately describes exactly how the Appomattox Regional Governor's School feels about technology and education in general. ARG, being a premier technology school in the central Virginia area, cares deeply for using technology not only in the classroom but extending that learning environment to the student's lives. In 2010 we are wrapped around technology and highly dependent on the technology that surrounds us. We are molding the next generation of students to properly use technology in ways that they never would.

We are starting to see a technology shift from the normal desktop computer that does all the processing on the local unit back to the older style "main-frame" type of computing where everything is done by a central unit instead of on the desktop computer. This revisit of older technology into the 21-st century is now called **Cloud-Computing**. This technology is becoming widespread and will continue to help students keep connected with teachers and their various activities. This type of Cloud-Computing technology is everywhere we look, while we may not know what this technology is directly we are seeing it in social networking, smartphones, email systems, and even document systems. Cloud-Computing allows us to use the technology that we have available, even if it's underpowered, to provide us with a 24/7 service that we may not normally be have to have on such an underpowered system.

In the past 5 years we have seen educational technology take a direct climate shift from using technology to only supplement the educational environment to technology is a direct part of the learning environment. Educational Technology is so vastly integrated in the learning environment it is critical to maintain the latest technology as well as maintaining the most amount of up-time possible. ARG will look toward a Cloud-Computing setup to help with this effort.

Trying to predict technology for 5 years into the future is near impossible, technology can change in less than 24 hours. The same can be said for services, while today we need to provide document and email services to keep afloat, 2 years from now we may need to provide 3 additional services just to stay on level grounds with the rest of the educational system. This battle of technology vs. budget can be exhausting for an I.T. Department as well as the end user. This Technology Plan will not try to predict the trends for the next 5 years as it is near impossible. Any listed costs on any of its goals are estimates only as these will change almost daily.

This plan intends to use what the I.T. Department has learned about the teachers and put it into a single document that defines what the organization as a whole feels about this process.

## Executive Summary

### ***Recommendations for the current technology plan (Prioritized with most important at the top)***

- Problem:** The phone system located at ARGV is outdated and should be replaced. This system has also been discontinued and no support is available to repair this system. Further note that no new parts are available ; only refurbished.

**Solution:** The phone system at ARGV should be replaced with a newer style VOIP phone system to support the increased demand on the voicemail and phone system.

**Actions:** ARGV I.T. and our local in house grant writer have been working together to obtain the needed funds to resolve this concern.

**(Under \$50,000 – Cost of voicemail system replacement included)**
- Problem:** ARGV Teachers and ARGV I.T. have identified that lab sizes are undersized for the current size of the classes. Most class sizes are coming are 20-25 students with some as large as 27. ARGV labs were sized for 1999 school opening and have not grown in size to match the growth of the school. Current lab size is 18-19 computers.

**Solution #1:** Part of the original plan of the school was to dedicate the Focus Area Foyers as labs (Social Science, World Language, Literary Arts). These foyers have enough space for about 30 computers if done properly.

**Solution #2:** Current labs would need to be refurbished to take advantage of the smaller footprint of the current computers. This should provide expansion room up to approximately 25-30 for most labs. Some labs do not have room for expansion.

**Solution #3:** Additional rooms need to be dedicated computer labs with at least 30 computers in each.

**Action:** 1. **No Action has been taken at this time.** Most teachers have worked around this issue in the past.

**(\$100,000 - \$200,000)**
- Problem:** Servers are not on rotation and become dated without money designated for their replacement. Establish a long-term, fully funded technology replacement program to revitalize aging and increasingly obsolete instructional and administrative technology infrastructure. The replacement cycle should be, at minimum, every five years, with a 3-year cycle preferable in order to take advantage of potential warranty and buy-back cost savings. Special attention should be given to those specific applications, mostly in Technical Education programs (e.g., AutoCAD, Adobe PhotoShop, etc.) that require operating system (OS) updates at a faster rate than the proposed equipment replacement cycle would allow. In higher-end use is for video-editing and graphics for rendering and 3-D programs in the Arts programs requiring special equipment, software, and monitoring.

**Solution:** Additional funding should be used to keep technology current.

**Actions:** New Servers were purchased in 2010 to replace the 6-7 year old servers that were in place.

**(\$20,000)**
- Problem:** No ITRT available at ARGV

**Solution:** An ITRT should be hired to satisfy the state requirement.

**(Staffing - Reccurring cost)**
- Problem:** Infrastructure wiring has been deemed poor at best in at least two locations in the building. The areas of the building that have been identified as unacceptable are the following:

First Floor Technology Foyer, First Floor Center, First Floor East, First Floor Annex, Second Floor West, Second Floor Center, Second Floor East, Basement East, Basement Center, and Sub-basement.

**Solution:** These areas should be rewired, tested, certified, and labeled to correct the issue. Any additional IDFs should be added as needed.

**Actions:** ARGS I.T. has already set in motion a plan to replace wiring in these areas and already has a contact that is willing to perform this work for an education price and work within our budgets.

**(\$50,000)**

6. **Problem:** Voicemail system is currently at capacity.

**Solution:** This system should be replaced when Problem number two is resolved to save time and money.

**Actions:** ARGS I.T. and our local in house grant writer has been working together to obtain the needed funds to resolve this problem.

**(Should be combined with Phone System replacement cost.)**

7. **Problem:** Several ARGS Departments have identified the need for the Adobe Creative Suite.

**Solution:** ARGS has been in process of acquiring a site license to deploy the Adobe Creative Suite in all locations in the building.

**Actions:**

1. ARGS I.T. has deployed a free software solution that provides a vast majority of the features seem in the Adobe specific application.

2. ARGS I.T. has deployed the older Adobe Creative Suite products owned by ARGS. A limited number of licenses exist for this product.

3. ARGS I.T. and our local in house grant writer have been working together to obtain the needed funds to resolve this problem.

**(\$25,000 – \$30,000)**

8. **Problem:** ARGS Teachers have identified the collaboration system “Sharepoint” by Microsoft is not ready for teachers and is geared more towards a business. The current solution does not support online test taking.

**Solution:** ARGS Teachers would like to see this system replaced with another system that is geared towards education and would support all the features that the teachers need to host a paperless classroom.

**Actions:**

1. ARGS I.T. has met with the local blackboard sales team to identify the costs involved in switching to blackboard.

2. ARGS I.T. and our local in house grant writer have been working together to obtain the needed funds to resolve this problem.

3. Google Sites has been deployed to satisfy most of this concern and the I.T. Department is in the process of evaluating a free blackboard type system.

**(\$15,000 - \$20,000)**

9. **Problem:** ARGS has no off-site storage to protect it's data from a natural disaster.

**Solution:** ARGS will need to initiate a contract with a data center on the west coast to off-load all of its data. ARGS will need approx. 1-2TB of data storage and a secure channel to transmit the data.

**Actions:** 1. ARGS I.T. is in the process of negotiating a contract for the 2010-2011 school year to off-load it's data to a west coast data facility.

2. ARGS I.T. has partnered with a school system located at least 1 hour away to backup data off-site

**(\$1,500 - \$5,000 yearly based on the amount of data transferred)**

10. **Problem:** ARGS does not have an on-site fire-proof/water-proof secure data storage.

**Solution:** ARGS I.T. should acquire the needed secure storage container and additional data storage needed and implement a plan to secure this data on a weekly rotation. ARGS should also purchase a water resistant/Air Conditioned server rack as a dry type fire suppression system does not exist in the server room.

**Actions:**

1. ARGS I.T. is in the process of acquiring the additional data storage and secure storage

container.

2. ARGIS I.T. has already setup a plan to implement a weekly data rotation but has not set the plan into motion.

**(\$7,000 - \$10,000)**

## ***Executive Summary Notes***

**Total Cost to implement this plan:**

\$268,500 - \$385,000 (includes reoccurring costs but not additional staff)

**Funding:**

Funding will come from grants, partnerships, donations, and the technology budget.

**Definitions:**

**VOIP** – Voice Over IP, transmission technology for extending voice communication over the data network, typically resulting in lower cost per line.

### Introduction to The Appomattox Regional Governor's School

The Appomattox Regional Governor's School for the Arts and Technology is a regional full time governor's school located in historic downtown Petersburg, VA servicing 14 school districts from Central Virginia area. The Appomattox Regional Governor's School specializes in the Fine Arts and Technology and is expected to hold a high standard for students attending while maintaining some of the best and cutting edge technology in the area.

### *Introduction to The Appomattox Regional Governor's School Staff/Teachers*

The Appomattox Regional Governor's School for the Arts and Technology houses some of the finest and most skilled teachers and staff in the Central Virginia area. ARGST Teachers are expected to use the technology provided to them to enable students to learn from a multitude of resources available around the world and push students to excel in all areas of technology independent of their focus area. This can be seen from the work produced from Visual Arts to Musical Theatre while maintaining a curriculum standard set far above all other regional schools.

### *Introduction to The Appomattox Regional Governor's School I.T. Staff*

The Appomattox Regional Governor's School for the Arts and Technology currently has 2 full-time Information Technology support personnel. Providing direct support to the faculty is a Microcomputer Analyst/Specialist and providing tier-2 support to the faculty and tier-1 support to the Administration and staff is a Technology Coordinator.

### *Introduction to Technology in Virginia School Divisions*

"More than two-thirds of the reporting school divisions noted that their students are computer literate. Nearly all teachers are technologically literate based upon the Technology Standards for Instructional Personnel. Observation and performance-based assessments are the most commonly used methods for assessing technology literacy among students and teachers; although, portfolios increasingly are being used to assess teachers. Just more than one percent of the surveyed teachers are NETS\*T certified; about 8.5 percent of the instructional technology resource teachers (ITRT) in the responding divisions are NETS\*T certified. Among division employees, ITRT receive the largest amount of professional development specific to technology (approximately 36.5 hours per school year); teachers are the next highest group with about 15 hours per school year. The most popular technology trainings include multimedia digital content (e.g., digital audio or video) for instruction, Internet resources and communication tools for instruction (e.g., accessing education materials, online discussion forums, virtual field trips), content-specific software tools for instruction (e.g., graphic organizers, interactive mathematics programs, graphing tools), and computers (e.g., word processing, creating spreadsheets, creating Web pages) to enhance student learning. The most common types of technology professional development are traditional workshops and conference sessions that last less than three hours; however, 90 percent of the divisions deliver portions of professional development online or through other Web-based resources; 76 percent use one-on-one mentoring.

For teachers and administrators, the most common collaboration tools are e-mail, Web conferencing, and blogs; instant messaging and social networking Web sites are the least used. Students most frequently use blogs or wikis as collaboration tools; they use instant messaging and social networking Web sites the least. In terms of productivity tools, teachers and administrators most commonly use client-server tools (e.g., Microsoft Office, iWork) and Web-based tools, such as Google Docs. Moodle is the most frequently used course-management tool.

With regard to hardware and policies, 28 percent of the reporting divisions use computers more than four years old; a significant number (33 percent), however, use computers that are less than two years old. A majority have archiving and disaster-recovery plans for electronic records. Of the responding divisions, most have written policies either restricting use or specifying acceptable use by students for MP3 players/iPods, cell phones, e-mail, and wikis/blogs. Fewer address social networking sites directly." (VDOE, 93)

## ***Introduction to Instructional Technology Resource Teachers***

"In 2005, the Virginia General Assembly began requiring divisions to employ one ITRT per 1,000 students to help integrate technology into classrooms. A study by Virginia Tech's Center for Assessment, Evaluation, and Educational Programming determined that ITRT have become an essential part of educational technology in the Commonwealth (Virginia Department of Education, 2007). The research found that ITRT are "overwhelmingly qualified for their positions, work consistently on appropriate tasks, and train teachers regularly in the latest technologies. While some teachers still resist incorporating technology, the program has helped many overcome their fears; an increasing number have taken advantage of the ITRT program, particularly through technology integration, software training, and the development of curriculum resources" (p. 2).

The study added that ITRT have contributed to major improvements in 32 percent of the SOL test areas, with the most significant impact occurring in English reading; however, improvements also were observed in eighth-grade English writing and fifth-grade mathematics. The study recommended that the program would achieve even greater success by hiring at least one ITRT per school, clarifying their duties more precisely, and encouraging administrators to work more closely with them (Virginia Department of Education, 2007)." (VDOE, 23)

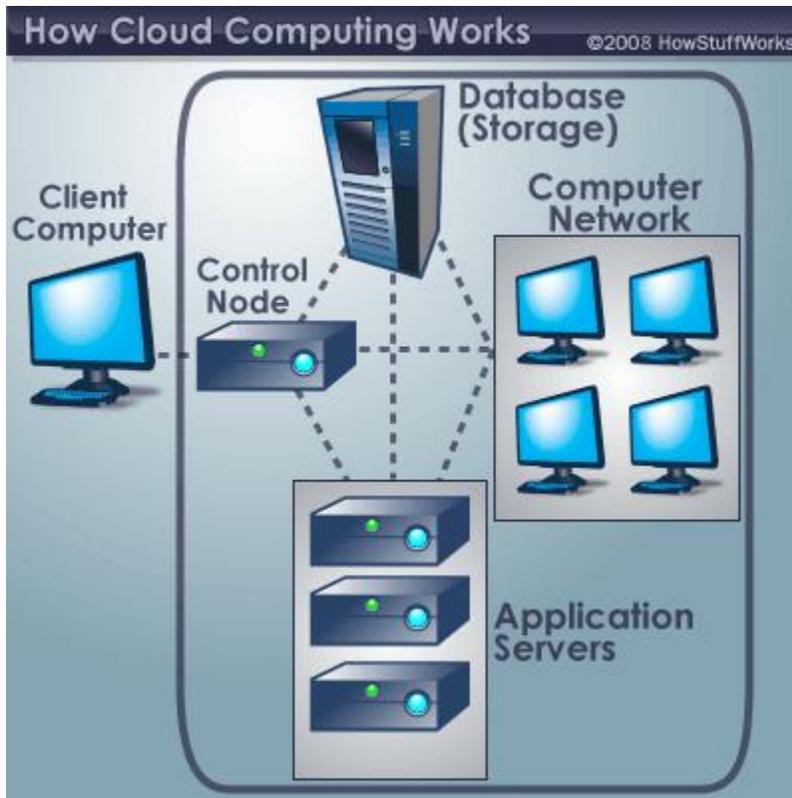
## ***Introduction to Technology Support Positions***

"In 2005, the Virginia General Assembly also began requiring divisions to employ a second technology position aimed at providing technology support for schools. School divisions must employ one technology support position per 1,000 students. This position provides support for information networks; software and hardware installation, maintenance, and repair; security management; and other related responsibilities. In the most recent educational technology survey, 93 percent of respondents believe their school's technology is reliable, and 92 percent believe technical support for teachers is adequate (Virginia Department of Education, 2009)." (VDOE, 23)

## ***Cloud Computing***

As a school that should be always on the cutting edge of technology we have to ask ourselves, how do we utilize the technology at hand to provide the services that the larger companies provide without inflating our budget? The simple answer to this is Cloud-Computing. A multitude of services can be available for the faculty/staff and the students 24/7 from various sites around the world. This technology provides us with the same type of up-time that we have come to expect from the larger companies, resulting in less downtime and scheduled maintenance that is virtually unseen. We would have been unable to provide this level of service from in-house systems because of power, budget, and even space constraints.

Cloud-Computing, simply put is technology that is not hosted at one central location but is hosted around the U.S. to provide the end user with the maximum amount of up-time in mind at all times. Up-time is now more critical than ever, you see more "smart phones" and other devices that can maintain a connection with a server 24/7. If the user is able to maintain that level of up-time on a device you as a technology service provider must be able to provide the same level of connectivity. In the pre-cloud-computing mindset you would need multiple locations and multiple servers in each location with many modes of data transportation to ensure 100% up-time. This problem is solved today with companies coming to the market that already have this level of connectivity for their own services and are now offering the same connectivity to business and educational for a fair price.



<http://static.howstuffworks.com/gif/cloud-computing-1.gif>

## Google and Cloud Computing

As of 2010 Google (NYSE: goog) is now offering many of their services for free for educational institutes. This system includes a document management system, hosted email, calendar, webspaces, and more for free. This service would have cost ARGs thousands of dollars but is now provided for free. This allows for a reallocation of funds that would have normally been spent on licencing and additional servers to provide only single site redundancy to be spent on additional educational technology resources. Additional laptops, desktops, e-book readers, mp3 players can now be purchased from the money saved on licencing costs and redundancy while maintaining a 99% uptime, even globally.

## *Previous Technology Plans*

### *Revisiting the 1999-2004 Technology Plan*

This technology plan was outdated by the 2005-2010 Technology Plan all goals were either met or outdated. No further action is necessary.

### *Revisiting the 2005-2010 Technology Plan*

The ARGS 2005-2010 Technology Plan was written during a time when PCs (Personal Computers) were the most popular computer purchases for most K-12 organizations. At the time of this Technology Plan it made sense to recommend higher powered desktops and additional servers. The 2010-2015 Technology Plan is highly focused on Cloud computing and reducing the carbon footprint made by the organization. This single fact is why much of what is stated in the recommendations has now become invalid. Much of the recommendations made in the 2005-2010 Technology Plan can now be handled in Cloud Computing with a less powerful desktop and/or server.

Recommendations from the 2005-2010 Technology Plan

1. Immediate Need: A web-based email system to interface with Active Directory.  
**Solved:** ARGS now uses a complete web-based email system that fully integrates with Active Directory that connects both the students and the teachers.
2. Immediate Need: Replace All Instructional Computers more than five years old, or slower than 600 MHz.  
**Partially Solved:** All computers used by the teachers and staff are newer than five years old and are faster than 600 Mhz. However, some machines are approaching or have exceeded the five year limit but this number is less than 5%.
3. Immediate Need: Add an additional T-1 for connectivity to the Internet and video streaming.  
**Solved:** The I.T. Department has upgraded to a 50 Mbp/s Cable line to replace the outdated T-1 line
4. High Priority: Establish a long-term, fully funded technology replacement program to revitalize aging and increasingly obsolete instructional and administrative technology infrastructure. The replacement cycle should be, at minimum, every five years, with a 3-year cycle preferable in order to take advantage of potential warranty and buy-back cost savings. Special attention should be given to those specific applications, mostly in Technical Education programs (e.g., AutoCAD, Adobe PhotoShop, etc.) that require operating system (OS) updates at a faster rate than the proposed equipment replacement cycle would allow. In higher-end use is for video-editing and graphics for rendering and 3-D programs in the Arts programs requiring special equipment, software, and monitoring.  
**Not Solved:** This will be rolled into the current technology plan.
5. Significant Need: Establish school-based, instructional Technology Resource Teacher (TRT) program to capitalize technology investments and yield better learning opportunities for all students and faculty. Currently, lead teachers are used for this.  
**Solved:** Additional I.T. staff has been added to help assist teachers with the use of technology.
6. Critical Need: Assessment of the network infrastructure for better management. Inspection and implementation of closets, switches, and wiring to effectively troubleshoot network errors.  
**Solved:** All wiring closets have been inspected, cleaned and have been properly maintained for the past 3 years.
7. High Priority: Create VPN network and work with Chesterfield to gain access to the extranet network.  
**Solved:** A VPN connection has been established with Chesterfield and ARGS has used this access for the past 3 years.
8. Highly Desirable: Reengineer the network servers and computers to allow single-user login for Mac and Windows machines to increase security and management.  
**Partially Solved:** 70% of all the user access is handled with a single-login. Powerschool and our Mac server are disconnected from this system because of incompatibilities.

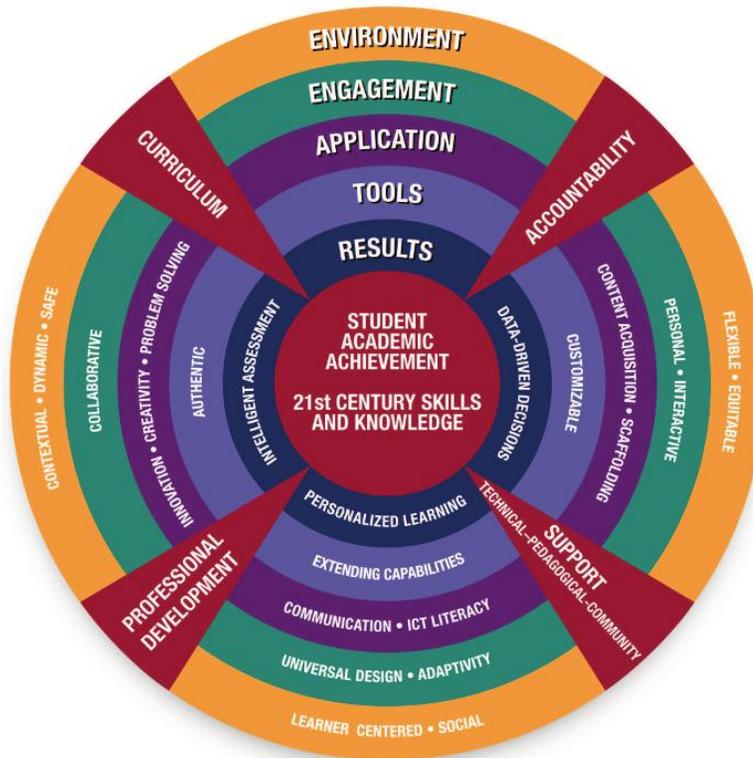
## Conceptual Framework

"The Educational Technology Plan for Virginia: 2010-15 builds upon the foundation established by the Educational Technology Plan for Virginia: 2003-09, Computer/Technology Standards of Learning, Technology Standards for Instructional Personnel, NETS\*S, NETS\*T, NETS\*A, and the goals for ICT literacy. To foster the development of 21st century skills, the plan relies extensively on factors that support effective technology use:

1. Appropriately and adequately designed environment
2. Meaningful engagement
3. Purposeful application of tools for learning
4. Use of authentic technology tools to extend learning capabilities
5. Authentic and intelligent assessments

### Conceptual Framework

Educational Technology Plan for Virginia: 2010-15



The conceptual framework shows five focus areas for educational technology in Virginia between 2010 and 2015:

- Schools need to consider physical and virtual environments in new and innovative ways to support learning activities.
- Educators must employ multiple ways to engage students in learning through technology. This engagement should reflect student learning styles, cultural backgrounds, and personal interests.
- Students need to understand the proper application of technology tools (i.e., choosing and applying the most appropriate technology for communicating and problem solving) and to be creative and innovative.
- Students should not use technology tools just to replicate paper-and-pencil activities. Tools should extend student capabilities to perform functions that would be difficult, if not impossible, without technology. Tools should be authentic—ones students will encounter in the nonschool environment.
- Results are not just a matter of meeting accountability requirements but using data, including real-time assessments, to inform instruction. Teachers addressing 21st century skills and knowledge must employ intelligent assessments.

These five focus areas underlie the plan's goals. Each focus area comprises a number of topics that form the basis for the plan's objectives. Four key educational components cut across these focus areas:

- Accountability
- Support
- Professional development
- Curriculum" (VDOE Exec, 13-15)

## *Recommendations for the current Technology Plan*

### *Recommendations for the 2010-2015 Technology Plan (from teachers/staff)*

All data was collected from teachers and staff using a polling system that is built-in to our current Sharepoint website. All questions were carefully selected from previous teacher input and the option was available for additional input. The survey questions were grouped to at no time exceed 15 questions at to encourage the successful completion of all questions and to not received "rushed" answer. No relevant additional input was given by the staff or teachers at the time of the questions.

The list below was comprised of the top 10 issues that need to be resolved for the Appomattox Regional Governor's School's Technology Plan to be the most effective by the ARGs staff/teachers. This list does not include recommendations by the ARGs Information Technology Team. ARGs I.T.

The Staff have identified the following issues with the current state of educational technology:

- Problem:** ARGs currently has computers that are over 6 years old still in use in the building. Computers used in a technology school should only be used for up to 5 years.

**Solution:** These computers should be replaced on rotation to ensure no machine exceeds 5 years old.

**Actions:** 1. ARGs I.T. recently replaced or removed all computers that were over the age of 8 years still in use in the building.

2. ARGs I.T. also has set in motion a plan to replace the labs that contain these older computers to be replaced in the next year.

Current Status: Completed
- Problem:** ARGs Teachers have identified the need for projectors to be mounted/installed in their classrooms to aid in interactive teaching environments. ARGs Teachers have been using projectors in the front of the classrooms as a stop-gap solution but this can be dangerous.

**Solution:** Mount projectors in as many classrooms as possible with current budget money and identify grant solutions to cover the additional rooms.

**Actions:** 1. As of July 2009 ARGs mounted 6 projectors in locations that were deemed absolutely necessary.

2. As of October 2010 ARGs Mounted an additional 8 projectors

3. 14 Additional Rooms have been identified and will be satisfied as soon as possible

Current Status: In Progress
- Problem:** Several ARGs Departments have identified the need to need for the Adobe Creative Suite.

**Solution:** ARGs has been in process of acquiring a site license to deploy the Adobe Creative Suite in all locations in the building.

**Actions:** ARGs I.T. has deployed GIMP, which is a GNU "Photoshop" like solution to the entire site for academic use. 2. ARGs I.T. has deployed the older Creative Suite products owned by ARGs. 3. ARGs I.T. and our local in house grant writer has been working together to obtain the needed funds to resolve this problem.

Current Status: Added to Recommendations
- Problem:** ARGs Teachers and ARGs I.T. has identified the lab sizes are undersized for the current size of the classes. ARGs labs were sized for 1999's school opening and have not grown in size to match the growth of the school

**Solution #1:** Part of the original plan of the school was to dedicate the Focus Area Foyers as labs. These foyers have enough space for about 30 computers if done properly.

**Solution #2:** Current labs would need to be refurbished to take advantage of the smaller footprint of the current computers. This should provide expansion room up to approximately 25-30 for most labs. Some labs do not have room for expansion.

**Solution #3:** Additional rooms need to be dedicated computer labs with at least 30 computers in each.

**Action:** 1. **No Action has been taken at this time.** Most teachers have worked around this issue in the past.

Current Status: Added to Recommendations

5. **Problem:** Teachers dissatisfied with current sharepoint solution for teacher work area.  
**Solution #1:** ARGS I.T. is currently in the process of replacing the Sharepoint teacher area with a user friendly workspace from Google. This issue will be resolved by the end of the 2009-2010 school year with minimal cost to ARGS.  
Actions: ARGS I.T. has replaced Sharepoint with Google Sites/Google Docs.  
Current Status: Complete

**ARGS I.T. has completed or set a plan in motion to resolve all teacher/staff concerns with the exception of number 3.**

## ***Recommendations for the 2010-2015 Technology Plan from the Information Technology Team***

1. **Problem:** The phone system located at ARGS is outdated and should be replaced. This system has also been discontinued and no support is available to repair this system. Further note that no new parts are available for this system, only refurbished.  
**Solution:** The phone system at ARGS should be replaced with a newer style VOIP phone system to support the increased demand on the voicemail and phone system.  
**Actions:** ARGS I.T. and our local in house grant writer has been working together to obtain the needed funds to resolve this problem.  
*(Under \$50,000 – Cost of voicemail system replacement included)*
2. **Problem:** ARGS Teachers and ARGS I.T. has identified the lab sizes are undersized for the current size of the classes. Most class sizes are coming in around 20-25 students with some as large as 27. ARGS labs were sized for 1999's school opening and have not grown in size to match the growth of the school. Current lab size is 18-19 computers.  
**Solution #1:** Part of the original plan of the school was to dedicate the Focus Area Foyers as labs (Social Science, World Language, Literary Arts). These foyers have enough space for about 30 computers if done properly.  
**Solution #2:** Current labs would need to be refurbished to take advantage of the smaller footprint of the current computers. This should provide expansion room up to approximately 25-30 for most labs. Some labs do not have room for expansion.  
**Solution #3:** Additional rooms need to be dedicated computer labs with at least 30 computers in each.  
**Action:** 1. **No Action has been taken at this time.** Most teachers have worked around this issue in the past.  
*(\$100,000 - \$200,000)*
3. **Problem:** Servers are not a rotation and become dated without money designated for their replacement. Establish a long-term, fully funded technology replacement program to revitalize aging and increasingly obsolete instructional and administrative technology infrastructure. The replacement cycle should be, at minimum, every five years, with a 3-year cycle preferable in order to take advantage of potential warranty and buy-back cost savings. Special attention should be given to those specific applications, mostly in Technical Education programs (e.g., AutoCAD, Adobe PhotoShop, etc.) that require operating system (OS) updates at a faster rate than the proposed equipment replacement cycle would allow. In higher-end use is for video-editing and graphics for rendering and 3-D programs in the Arts programs requiring special equipment, software, and monitoring.  
**Solution:** Additional funding should be used to keep technology current.  
**Actions:** New Servers were purchased in 2010 to replace the 6-7 year old servers that were in place.  
*(\$20,000)*
4. **Problem:** No ITRT available at ARGS  
**Solution:** An ITRT should be hired to satisfy the state requirement.  
*(Staffing - Recurring cost)*
5. **Problem:** Infrastructure wiring has been deemed poor at best in at least 2 locations in the building. The areas of the building that have been identified as unacceptable are the following: First Floor Technology Foyer, First Floor Center, First Floor East, First Floor Annex, Second Floor West, Second Floor Center, Second Floor East, Basement East, Basement Center, and Sub-basement.  
**Solution:** These areas should be rewired, tested, certified, and labeled to correct the issue. Any additional IDFs should be added as needed.  
**Actions:** ARGS I.T. has already set in motion a plan to replace wiring in these areas and already has a contact that is willing to perform this work for an education price and work within our budgets.  
*(\$50,000)*
6. **Problem:** Voicemail system is currently at capacity.  
**Solution:** This system should be replaced when Problem #2 is resolved to save time and money.  
**Actions:** ARGS I.T. and our local in house grant writer has been working together to obtain the needed

funds to resolve this problem.

*(Should be combined with Phone System replacement cost.)*

7. **Problem:** Several ARGs Departments have identified the need to need for the Adobe Creative Suite.  
**Solution:** ARGs has been in process of acquiring a site license to deploy the Adobe Creative Suite in all locations in the building.  
**Actions:**
  1. ARGs I.T. has deployed a free software solution that provides a vast majority of the features seem in the Adobe specific application.
  2. ARGs I.T. has deployed the older Adobe Creative Suite products owned by ARGs. A limited number of licenses exist for this product.
  3. ARGs I.T. and our local in house grant writer has been working together to obtain the needed funds to resolve this problem.  
*(\$25,000 – \$30,000)*
8. **Problem:** ARGs Teachers have identified the collaboration system “Sharepoint” by Microsoft is not ready for teachers and is geared more towards a business. The current solution is a stop-gap and does not support online test taking.  
**Solution:** ARGs Teachers would like to see this system replaced with another system that is geared towards education and would support all the features that the teachers need to host a paperless classroom.  
**Actions:**
  1. ARGs I.T. has meet with the local blackboard sales team to identify the costs involved in switching to blackboard.
  2. ARGs I.T. and our local in house grant writer has been working together to obtain the needed funds to resolve this problem.
  3. Google Sites has been deployed to satisfy most of this concern and the I.T. Department is in the process of evaluating a free blackboard type system.  
*(\$15,000 - \$20,000)*
9. **Problem:** ARGs has no off-site storage to protect it’s data from a natural disaster.  
**Solution:** ARGs will need to initiate a contract with a data center on the west coast to off-load all of its data. ARGs will need approx. 1-2TB of data storage and a secure channel to transmit the data.  
**Actions:**
  1. ARGs I.T. is in the process of negotiating a contract for the 2010-2011 school year to off-load it’s data to a west coast data facility.
  2. ARGs I.T. has partnered with a school system located at least 1 hour away to backup data off-site  
*(\$1,500 - \$5,000 yearly based on the amount of data transferred)*
10. **Problem:** ARGs does not a have an on-site fire-proof/water-proof secure data storage.  
**Solution:** ARGs I.T. should acquire the needed secure storage container and additional data storage needed and implement a plan to secure this data on a weekly rotation. ARGs should also purchase a water resistant/Air Conditioned server rack as a dry type fire suppression system does not exist in the server room.  
**Actions:**
  1. ARGs I.T. is in the process of acquiring the additional data storage and secure storage container.
  2. ARGs I.T. has already setup a plan to implement a weekly data rotation but has not set the plan into motion.  
*(\$7,000 - \$10,000)*

## *State Goals*

### *Goal 1*

Provide a safe, flexible, and effective learning environment for all students.

#### **Objective 1.1**

Deliver appropriate and challenging curricula through face-to-face, blended, and virtual learning environments.

- **Strategy:** Expand course offerings for students through Virtual Virginia.
  - Evaluation Strategy: Before and after, analyze the frequency counts of courses offered through Virtual Virginia.
- **Strategy:** Enhance Virtual Virginia courses to promote greater flexibility and engagement for learners.
  - Evaluation Strategy: Describe the number and types of media enhancements to Virtual Virginia.
  - Evaluation Strategy: Analyze the user assessments of flexibility and engagement.

ARGS currently has plans to expand these course offerings in the very near future.

- **Strategy:** Provide district-wide access to Web-based content, tools, and collaborative spaces.
  - **Evaluation Strategy:** Analyze use data to determine frequency of access to Web-based content, tools, and collaborative spaces.
- **Strategy:** Leverage higher education partnerships to assist schools in instructional design and media production.
  - **Evaluation Strategy:** Document how the number and types of higher education partnerships differ from previous years.
  - **Evaluation Strategy:** Describe the types, quantity, and perceived quality of instructional and technical assistance provided by higher education partnerships.

- **Evaluation Strategy:** Describe the extent to which these partnerships are accessible and useful with regard to delivering appropriate and challenging curricula.
- **Evaluation Strategy:** Document the professional development program attendance and perceived quality.

## Objective 1.2

Provide the technical and human infrastructure necessary to support real, blended, and virtual learning environments.

- **Strategy:** Provide resources and support for one instructional technology resource teacher (ITRT) per 1,000 students to assist teachers in integrating technology into teaching and learning.
  - **Evaluation Strategy:** Document the resources and support provided by the district to reach this objective.
  - **Evaluation Strategy:** Describe the ratio of ITRTs to students by school division.
  - **Evaluation Strategy:** Describe the extent to which the actual count matches the one ITRT per 1,000 students guideline.
- **Strategy:** Provide resources and support for one technical support position per 1,000 students to ensure that technology and infrastructure is operational, secure, and properly maintained.
  - **Evaluation Strategy:** Document resources and support provided by the district to reach this objective.
  - **Evaluation Strategy:** Describe the ration of technical support to personnel to students by school.
  - **Evaluation Strategy:** Describe the extent to which the actual count matches the one technical support position per 1,000 students guideline.
- **Strategy:** Facilitate the implementation of fiber and 1 Gbps Ethernet to every school. (File E-Rate in 2010)
  - **Evaluation Strategy:** Describe state-level and district-level efforts to facilitate this

objective.

- **Evaluation Strategy:** Describe to the extent to which fiber and 1 Gbps Ethernet have been implemented in every school.
- **Strategy:** Facilitate the implementation of wireless access to the Internet in every school.
- **Evaluation Strategy:** Describe state-level and district-level efforts to facilitate this objective.
- **Evaluation Strategy:** Describe to the extent to which wireless access has been implemented in every school.

### Objective 1.3

Provide high-quality professional development to help educators create, maintain, and work in a variety of learner-centered environments.

- **Strategy:** Identify, develop, disseminate, and maintain resources to support the effective use of technology in all curricula by teachers at all levels of integration expertise.
  - **Evaluation Strategy:** Examine the extent to which the district identifies, develops, disseminates, and maintains the resources needed to support the effective use of technology across curricula and at varying levels of integration expertise.
- **Strategy:** Leverage public/private/nonprofit partnerships to provide professional development focused on technology integration strategies and the development of teachers' and administrators' 21st century skills.
  - **Evaluation Strategy:** Document how the number and types of partnerships differ from previous years.
  - **Evaluation Strategy:** Describe the types, quantity, and perceived quality of professional development provided by partnerships.
  - **Evaluation Strategy:** Describe the extent to which these partnerships focus on technology integration and 21st century skills.

- **Evaluation Strategy:** Document the professional development program attendance.
- **Strategy:** Support pilot projects to help educators better understand the impact of new and emerging technologies on the learning environment and develop strategies to integrate them effectively into schools.
  - **Evaluation Strategy:** Document the district's efforts to support pilot projects.
  - **Evaluation Strategy:** Describe the number, types, locations, and scope/extent (breadth and depth) of the pilot projects.
  - **Evaluation Strategy:** Document the new and emerging technologies and strategies for technology integration in schools.

## ***Goal 2***

Engage students in meaningful curricular content through the purposeful and effective use of technology.

### **Objective 2.1**

Support innovative professional development practices that promote strategic growth for all educators and collaboration with other educators, content experts, and students.

- **Strategy:** Facilitate the development or use and delivery of innovative professional development that promotes collaboration.
  - **Evaluation Strategy:** Describe the development of professional development opportunities.
  - **Evaluation Strategy:** Describe the types, scope/extent, and accessibility of the professional development offered.
  - **Evaluation Strategy:** Describe the extent to which these opportunities facilitate the development or use and delivery of innovative professional development that promotes collaboration.
  - **Evaluation Strategy:** Document the professional development program attendance.
- **Strategy:** Facilitates the development and delivery of professional development opportunities

that focus on effective technology use in specific core curricular areas.

- **Evaluation Strategy:** Describe how the state facilitates professional development opportunities.
- **Evaluation Strategy:** Describe the development of professional development opportunities for each core curricular content area.
- **Evaluation Strategy:** Describe the types, scope/extent, and accessibility of the professional development offered.
- **Evaluation Strategy:** Document the professional development program attendance.

## **Objective 2.2**

Actualize the ability of technology to individualize learning and provide equitable opportunities for all learners.

- **Strategy:** Provide reasonable access to Internet-connected devices that offer students the flexibility to learn anytime, anywhere.
  - **Evaluation Strategy:** Describe the district's role in providing access to Internet-connected devices.
  - **Evaluation Strategy:** Tabulate the number of Internet-connected devices per student by school and grade level.
  - **Evaluation Strategy:** Describe access policies.
  - **Evaluation Strategy:** Describe student use records.
- **Strategy:** Identify and disseminate information and resources to assist schools in evaluating the interactive and universal design features of hardware, software, and Internet sites.
  - **Evaluation Strategy:** Describe ways the district identifies and disseminates hardware, software, and Internet evaluation information.
- **Strategy:** Identify and disseminate information and resources to assist schools in developing and maintaining personal learning plans for all students.

- **Evaluation Strategy:** Describe ways the state assists schools in developing personal learning plans.
- **Evaluation Strategy:** Describe methods of information dissemination.

### **Objective 2.3**

Facilitate the implementation of high-quality Internet safety programs in schools.

- **Strategy:** Identify and disseminate best practices and resources to promote the integration of Internet safety and security throughout the curricula.
  - **Evaluation Strategy:** Describe methods of identifying best practices with regard to Internet safety and security.
  - **Evaluation Strategy:** Describe the best practices identified and methods of information dissemination.
- **Strategy:** Monitor the implementation of Internet safety policies and programs and provide technical assistance and support to ensure that schools have effective programs and policies.
  - **Evaluation Strategy:** Describe monitoring methods.
  - **Evaluation Strategy:** Describe the types and availability of technical assistance and support.

### **Goal 3**

Afford students with opportunities to apply technology effectively to gain knowledge, develop skills, and create and distribute artifacts that reflect their understandings.

#### **Objective 3.1**

Provide and support professional development that increases the capacity of teachers to design and facilitate meaningful learning experiences, thereby encouraging students to create, problem-solve, communicate, collaborate, and use real-world skills by applying technology purposefully.

- **Strategy:** Identify and disseminate information and resources that help schools provide ongoing, personalized, and just-in-time professional development for teachers implementing

technological and pedagogical innovations.

- **Evaluation Strategy:** Describe the identification of resources.
- **Evaluation Strategy:** Describe the dissemination of information.
- **Evaluation Strategy:** Describe the extent to which these information sources are accessible and useful with regard to giving ongoing, personalized, and just-in-time support.
- **Strategy:** Enhance curricula using Internet resources and software that encourage creativity, collaboration, and problem solving.
  - **Evaluation Strategy:** Describe curriculum enhancement (list of Web resources and software, including their instructional objectives).
  - **Evaluation Strategy:** Describe the availability of resources.
  - **Evaluation Strategy:** Describe access to these resources.
- **Strategy:** Promote the safe and responsible use of social media.
  - **Evaluation Strategy:** Describe the district's efforts to promote safe and responsible use of social media.
- **Strategy:** Provide opportunities for students to participate in global communication and collaboration.
  - **Evaluation Strategy:** Describe the district's efforts to provide students with opportunities to participate in global communication and collaboration.
- **Strategy:** Identify and disseminate resources to help the school board and administrators develop and evaluate technology policies that effectively balance the need for instructional innovation with safety and security.
  - **Evaluation Strategy:** Describe the identification and dissemination procedures that help the school board develop and evaluate technology policies.

## Objective 3.2

Ensure that students, teachers, and administrators are ICT (Information and Communications Technologies) literate.

- **Strategy:** Identify and disseminate information and resources to ensure that schools can effectively assess and report ICT literacy.
  - **Evaluation Strategy:** Describe the identification and dissemination procedures that help the school board develop and evaluate technology policies.
- **Strategy:** Monitor the assessment of ICT literacy in schools and provide technical assistance and support to schools as needed.
  - **Evaluation Strategy:** Describe the monitoring processes.
  - **Evaluation Strategy:** Describe the technical assistance efforts.
  - **Evaluation Strategy:** Describe the support efforts with regard to helping schools find resources to assess ICT literacy.
- **Strategy:** Provide and support high-quality professional development focused on the acquisition and application of ICT skills for teaching, learning, and school management.
  - **Evaluation Strategy:** Describe the development of ICT-related professional development for teaching, learning, and school management.
  - **Evaluation Strategy:** Describe the types, scope/extent, accessibility, and perceived quality of the professional development offered.
  - **Evaluation Strategy:** Document the professional development program attendance.
- **Strategy:** Provide opportunities for teachers and students to learn to reconstruct and construct media messages.
  - **Evaluation Strategy:** Describe the opportunities provided to teachers and students to reconstruct/construct media messages.
  - **Evaluation Strategy:** Document the state-recommended media literacy guides.

### **Objective 3.3**

Implement technology-based formative assessments that produce further growth in content knowledge and skills development.

- **Strategy:** Identify and disseminate information and resources that help schools provide ongoing, personalized, and just-in-time professional development for teachers implementing technological and pedagogical innovations.
  - **Evaluation Strategy:** Describe the identification of resources.
  - **Evaluation Strategy:** Describe the dissemination of information.
  - **Evaluation Strategy:** Describe the extent to which these information sources are accessible and useful with regard to giving ongoing, personalized, and just-in-time support.

### **Goal 4**

Provide students with access to authentic and appropriate tools to gain knowledge, develop skills, extend capabilities, and create and disseminate artifacts that demonstrate their understandings.

#### Objective 4.1

Provide resources and support to ensure that every student has access to a personal computing device.

- **Strategy:** Provide tools that extend student's capabilities, can be customized to meet individual needs and preferences, and support learning.
  - **Evaluation Strategy:** Determine the frequencies of personal computing device distribution, specifically (a) how personal computing devices are customized and (b) how the options are customized for support learning.
- **Strategy:** Provide opportunities for students to learn and apply ICT skills in local and community settings using a variety of authentic tools.
  - **Evaluation Strategy:** Describe how and the extent to which the district provides students with opportunities to learn and apply ICT skills, describe the programs

designed to teach students about ICT skills.

## **Objective 4.2**

Provide technical and pedagogical support to ensure that students, teachers, and administrators can effectively access and use technology tools.

- **Strategy:** Provide and support high-quality professional development to assist educators in evaluating and integrating technology tools in ways that foster effective student use.
  - **Evaluation Strategy:** Describe the district's role in providing professional development opportunities.
  - **Evaluation Strategy:** Describe the types, scope/extent, and accessibility of the professional development offered.
  - **Evaluation Strategy:** Describe how the professional development assists educators in evaluating and integrating technology tools in ways that benefit student learning.
  - **Evaluation Strategy:** Document the professional development program attendance.
- **Strategy:** Provide ongoing just-in-time support to assist teachers in effectively integrating a variety of technology-based tools into teaching and learning.
  - **Evaluation Strategy:** Describe the district's role in providing ongoing and just-in-time support.
  - **Evaluation Strategy:** Describe the types of ongoing and just-in-time support and how they assist educators in evaluating and integrating technology tools in ways that benefit student learning.
- **Strategy:** Provide timely and effective technical support to ensure that all tools and the network that supports them are installed and maintained properly.
  - **Evaluation Strategy:** Describe the district's role in providing technical support.
  - **Evaluation Strategy:** Describe the types of technical support available.
  - **Evaluation Strategy:** Describe the extent to which technical support is timely and

effective with regard to technology installation and maintenance.

### **Objective 4.3**

Identify and disseminate information and resources that assist educators in selecting authentic and appropriate tools for all grade levels and curricular areas.

- **Strategy:** Identify and disseminate information about new and emerging technologies.
  - **Evaluation Strategy:** Describe methods of identifying and disseminating information about new and emerging technologies.
- **Strategy:** Design and implement pilot projects to evaluate a variety of personal computing devices.
  - **Evaluation Strategy:** Document the district's efforts to support pilot projects.
  - **Evaluation Strategy:** Document the processes of designing and implementing the pilot projects.
  - **Evaluation Strategy:** Describe the number, types, locations, and scope/extent (breadth and depth) of the pilot projects.
  - **Evaluation Strategy:** Describe the methods of the pilot projects for evaluating personal computing devices.

## ***Goal 5***

Use technology to support a culture of data-driven decision making that relies upon data to evaluate and improve teaching and learning.

### **Objective 5.1**

Use data to inform and adjust technical, pedagogical, and financial support.

- **Strategy:** Model the use of data to inform strategic plans and purchases.
  - **Evaluation Strategy:** Describe how the district uses data to inform strategic plans and purchases.
  - **Evaluation Strategy:** Describe how the district models data use to schools to inform

strategic plans and purchases.

- **Strategy:** Conduct an annual survey and provide schools with an annual district-wide technology status report.
  - **Evaluation Strategy:** Document when, where, and how the survey is conducted.
  - **Evaluation Strategy:** Document the dissemination of survey results.

## **Objective 5.2**

Provide support to help teachers disaggregate, interpret, and use data to plan, improve, and differentiate instruction.

- **Strategy:** Provide training and support to help ITRT interpret data and assist teachers in using technology effectively to address data-supported needs.
  - **Evaluation Strategy:** Describe the district's role in providing ITRT training.
  - **Evaluation Strategy:** Describe the types, scope/extent, and accessibility of the professional development offered.
  - **Evaluation Strategy:** Describe how professional development enables ITRT to use student achievement data to help teachers use technology in ways that optimize student learning.
- **Strategy:** Identify and disseminate resources to assist ITRT in training teachers to disaggregate, interpret, and use data for instructional improvement.
  - **Evaluation Strategy:** Describe the types of resources disseminated.
  - **Evaluation Strategy:** Describe the dissemination processes.
  - **Evaluation Strategy:** Document how these resources help ITRT use student achievement data to inform teachers about ways to improve instructional technology to enhance student learning.

### Objective 5.3

Promote the use of technology to inform the design and implementation of next-generation standardized assessments.

- **Strategy:** Design and implement pilot projects that support technology-based assessments, including simulations and game environments, innovative delivery platforms, and multiple ways for students to demonstrate understanding.
  - **Evaluation Strategy:** Describe the processes of designing the pilot programs.
  - **Evaluation Strategy:** Describe the number, types, locations, and scope/extent (breadth and depth) of the pilot projects.
  - **Evaluation Strategy:** Describe the technology-based assessments that are developed.

## Appendix A: AUP

Technology Use Appomattox Regional Governor's School provides access for students, staff and community to resources from around the world through an electronic communication system which includes internet and email access. These technologies are provided solely for the purpose of enhancing learning and communication inside and outside the school. Access to the electronic network is for educational purposes only. Be sure to talk to an ARGs staff member about any point in this Acceptable Use Policy which is not clear to you. And always remember: ask before you do anything with an ARGs computer or other piece of technology if there is any question about a possible violation of the policy. The Opportunities and Risks of Technology Use The Appomattox Regional Governor's School believes that the value of information and interaction that technology offers outweighs the possible hazards of its use. Making network, internet and email access available to students and staff, however, carries some risk to the user and to the security of personal information. Because information on networks is transitory and so diverse, ARGs cannot completely predict or control what users may or may not locate. In accordance with the Children's Internet Protection Act, the Keeping the Internet Devoid of Sexual Predators Act, and the Social Networking Prohibition Act, ARGs installs, operates and monitors filtering software to limit users' internet access to materials that are obscene, pornographic, harmful to children, or otherwise inappropriate, notwithstanding that such software may at certain times block access to other materials as well. At the same time ARGs cannot guarantee that filtering software will in all instances successfully block access to materials that are obscene, pornographic, harmful to children, or otherwise inappropriate. The use of filtering software does not negate or otherwise affect the obligations of users to abide by the terms of this policy and to refrain from accessing such inappropriate materials. No technology is guaranteed to be error-free or totally dependable. Among other matters, ARGs is not liable or responsible for:

1. any information that may be lost, damaged, or unavailable due to technical or other difficulties,
2. the accuracy or suitability of any information that is retrieved and/or produced through technology, breaches of confidentiality, or
3. defamatory material.

In addition, ARGs will not be responsible for any breach of personal security as a result of user error. Privileges and Responsibilities The Appomattox Regional Governor's School's Network is a part of a curriculum and is not a public forum for general use. Users may access technology only for educational purposes. Access to the ARGs Network and use of the technology related equipment is a privilege, not a right. We will strive to provide equitable opportunities for the use of technology, and the I.T. Department will take reasonable measures to inform students and staff of the rules and regulations regarding network and equipment use in staff and student handbooks. This

policy shall apply to all users including but not limited to faculty, students, administrators, staff, community, and guests.

Users of technology will:

1. Use or access technology only for educational or administrative purposes.
2. Comply with copyright laws and software licensing agreements.
3. Understand that email and network files are not private. Network administrators and other designated personnel have access to all email messages and may review files and communications to maintain integrity and monitor responsible use. All electronic transactions may be logged in accordance with the Electronic Discovery Act.
4. Respect the privacy rights of others and maintain confidentiality of all personnel and student records stored.
5. Be responsible at all times for the proper use of technology including the proper use of access privileges, complying with all system security identification codes, and not sharing any codes or passwords.
6. Maintain the integrity of technological resources from potentially damaging messages, physical abuse, or viruses.
7. Abide by the policies and procedures of networks and systems likened by technology.
8. Respect the rights of others to use equipment.
9. Understand that a third party may view your data or email communications in the event of an assisted technical support case.
10. Request assistance from I.T. personnel only through the approved communications methods available on the I.T. support page.

Users of technology will not:

1. Access, submit, post, publish, display or create any defamatory, inaccurate, abusive, obscene, profane, sexually oriented, threatening, racially/religiously offensive, harassing, illegal or other material unsuitable in the educational setting or related to the educational program.
2. Use the Network for, or in support of, any obscene or pornographic purposes including, but not limited to, the retrieving or viewing of any sexually explicit material. If a student inadvertently accesses such information he or she should immediately disclose the inadvertent access to a teacher or other school official. Other authorized users should report the incident to the Network Administrator. This will protect the user against accusations of violating this policy
3. Solicit or distribute information with the intent to incite violence, cause personal harm or bodily injury, or to harass or "stalk" (cyberstalking) another individual.
4. Interfere with, or disrupt Network use by others; create and/or propagate unsolicited advertising, political lobbying (except in the case of an on-campus mock election), chain letters, pyramid schemes, computer worms, viruses, or other acts of vandalism. Vandalism includes any attempt to harm or destroy data of another user, the Internet, the Network or any other network. This includes, but is not limited to, uploading, downloading, creation or knowing transmission of computer viruses. If a user is uncertain

whether his or her conduct is permissible, he or she should contact the Network Administrator immediately.

5. Send mass emails to the entire student body or faculty/staff or both. This includes forwarding chain letters or any other mass communication. All mass emails must be submitted to a teacher or class sponsor for distribution and must pertain to school or otherwise educational activities.
6. Use another's account or password.
7. Distribute user passwords, copyrighted or plagiarized material or material protected as a trade secret.
8. Misrepresent themselves or others.
9. Trespass in others' folders, work, or files, or attempt to gain unauthorized access to resources or entities.
10. Use the network to distribute or share files (including music and video files), images, applications, etc. with others unless the user has received direct permission from the author and appropriate teacher to do so and the material is not copyrighted.
11. Post personal contact information or other private information about oneself, a student or staff member, or otherwise invade the privacy of individuals or violate the federal Right to Privacy Education Act.
12. Use ARGS technology for non-educational purposes, personal financial gain (including gambling), or any other illegal purpose.
13. Forge or anonymously transmit email or other electronic materials.
14. Attempt to and/or breach security measures or remove hardware/software, networks, information, or communication devices from the District or other network.
15. Use the Network while access privileges are suspended or revoked.
16. Use the school provided telephone system in an attempt to make/receive toll calls, long distance, pay per use numbers or any other action that would result in the school being charged for these services.
17. Use the telephone system unless previously authorized by a teacher, staff member, or administrator to do so.

Security In order to maintain the security of the Network users are prohibited from:

1. Using any unauthorized personal equipment to attach, connect to or install on the Network.
2. Intentionally disrupt the Network by "hacking" of any kind, use of proxy or filter avoidance software or devices, and/or engaging in computer tampering of any kind.
3. Downloading and/or installing and/or using unauthorized software, games, programs, files, electronic media, and/or stand-alone applications.

Wireless Networking and Laptops/Other Portable Communication Devices Users may not connect to any other wireless network except the ARGS Wireless Network. This includes wireless internet access by cell phone and access points maintained by the residences adjacent to ARGS. Any user found to be accessing the internet on a personal device with wireless connectivity without express permission by a teacher, administrator, or the I.T. Department will

be subject to the disciplinary actions set forth in this policy.

Access to the Wireless Network is restricted to a per-user basis. Anyone who is authorized for wireless access to the Network will be subject to the rules and regulations set forth in this policy. If a user violates any portion of the Acceptable Use Policy, the right to access the Wireless Network will be immediately and permanently revoked.

Students may not use laptops or portable computing/communication devices (including PDAs, Smartphones, and/or Blackberries) while in class without the express permission of his or her teacher.

Websites and Web pages Authorized users may create web pages as part of a class activity.

Material presented on a class website must meet the educational objectives of the class activity.

The Class Sponsor/Teacher, Department Head, I.T. Department, and Administration have the right to exercise control over the content and/or style of the student web pages. All class web pages shall be posted through the school website and not housed off school grounds.

Only those students whose parent(s) or guardian(s) have consented and signed a release may post their work or picture on student or school websites. Students whose work, likeness (as captured by photograph, video or other media) or voices are presented on a student website shall be identified by first name only for confidentiality and safety purposes unless otherwise approved by ARGS administration and a parent or guardian.

Electronic Social Networking While home-based web sites, message boards, blogs, forums, and other uses of home-based computers may be regarded as a benefit to a student's computer literacy, the student needs to be aware of the following:

- Using a non-ARGS computer such that it results in material and/or disruption of the educational process of the school will constitute grounds to investigate whether the use violates policies and rules.

#### Physical Technology Equipment

The ARGS I.T. Department cannot be held responsible for any equipment that was not directly purchased by the Appomattox Regional Governor's School. Equipment not purchased by the Appomattox Regional Governor's School will not be serviced by the ARGS I.T. Department. Changes in the physical set-up of any computer are not permitted. Examples include, but are not limited to: removing or disconnecting any computer or peripherals connected to a computer (such as the mouse, keyboard, or speakers) or disconnecting a computer from the local area network. Printers may be used to make only one copy of a document. Printed webpages must be copied to a Word Document and edited before printing in order to reduce the amount of pages used.

Reporting Violations Any actual or suspected violation of the rules listed above should be brought to the system administrator. The system administrator will perform an investigation and determine the appropriate course of action.

ARGS Response to a Reported Violation Upon receipt of a violation notice, ARGS may temporarily suspend a user's privileges or move or delete the allegedly offending material pending further proceedings. A person accused of a violation will be notified of the charge and have an opportunity to respond before ARGS imposes a permanent sanction. If a user is deemed

to be in violation of the Acceptable Use Policy, he or she will be subject to the disciplinary actions defined in the following section.

Disciplinary Action

Failure to observe the Acceptable Use Policy will result in recommendation(s) from the faculty for disciplinary action. Punishment for infractions of the Acceptable Use Policy includes, but is not limited to:

- a temporary or permanent reduction or elimination of access privileges to computing and communication accounts, networks, ARGS-administered computing rooms, and other services or facilities.
- verbal warnings
- disciplinary probation
- suspension from school
- permanent dismissal from school

School administrators may impose any additional disciplinary actions not listed in this policy as deemed necessary by a situation which they feel warrants such actions.

Criminal prosecution, depending on the circumstances of each incident, may be necessary. If your activity breaks the law, you can be prosecuted. Even if you are not charged criminally, you can still be suspended from the school. Parents or guardians will be involved in any case which may result in suspension or dismissal from the school. Parents or guardians may be liable for damages resulting from student abuse of the system.

The school reserves the right to protect its electronic resources from threats of immediate harm. This may include activities such as disconnecting an offending computer system from the campus network, terminating a session, terminating a running job on a computer system, or taking other action. If ARGS believes it necessary to preserve the availability, security, or integrity of facilities, user services, or data, it may temporarily suspend any account with or without notice, whether or not the account user is suspected of any violation. Servers and computers that threaten the security of school systems will be removed from the network and allowed to reconnect only with the approval of network administration.

No Expectation of Privacy The I.T Department retains control, custody and supervision of all computers and the Network. The I.T. Department reserves the right to monitor all computer and network activity by students and staff. Users have no expectation of privacy concerning information transmitted or received via the Network or contained or stored on the Network computers. In addition, users must recognize that there is no assurance of confidentiality with respect to access to transmissions and files by persons outside, or from persons inside the Network.

Staff responsibilities to Students Staff members utilizing the Network for instructional purposes with students are responsible for supervising such use. In selecting technology for teaching purposes, staff shall comply with the selection criteria for instructional materials and library-media center materials. Staff members are expected to be familiar with the School's policies and any administrative rules concerning student computer and Network use and then enforce them. When in the course of their duties staff members become aware of student violations, they are expected to stop the activity and/or inform the building Network Administrator or the administration.

Additional Rules/Actions The Director may establish procedures and guidelines and shall take appropriate action to implement this policy.

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