Albemarle County
Public Schools

DART
Department of Accountability, Research & Technology

DART

OPERATIONAL REVIEW AND FINDINGS

4/20/11

All learners believe in their power to embrace learning, to excel, and to own their future.

Review of the CIO Entry Plan

| Data Acquisition | Service Design | Results |

The purpose of the Chief Information Officer's entry plan is to develop, in the shortest time possible, a measured course of action to acquire a deep understanding of the Albemarle County Public Schools culture, traditions, history, expectations, and service models. The entry plan utilizes formal and informal collection methodologies to acquire data necessary for evaluation.

The entry plan is comprised of two phases: Data Acquisition (complete) and Service Design (in process). During Data Acquisition, meetings were held with key stakeholders (formal and informal) and staff surveys will be conducted in June to access current needs, wants, and expectations of the Department of Accountability, Research & Technology (DART). This phase also includes a thorough review of all documentation, Division processes, and project status.

Data Acquisition concentrates on developing connections with the various stakeholders within the Division and those whom the Division supports. The process entails many "listen and learn" sessions conducted through both one-on-one and group formats. This phase also involves the Chief Information Officer (CIO) participating in building visits and tours with building leadership. The one-hour building visitations with building leadership are purposed to gauge the "pulse" of the building and assess what has been successful in the past and the areas of concern for the future.

Listen and learn sessions took place in February with the following groups:

- Cabinet (Superintendent and Assistant Superintendents)
- DART Leadership
- DART Staff

During the months of March through May, listen and learn sessions have occurred or will occur with the following groups:

- School Board
- Central Office Administration
- Principals and Assistant Principals
- Lead Instructional Coaches
- DART Advisory Group
- Teachers

Concurrent with the listen and learn sessions and building visits, a full review of the Division's operating procedures, budget, and other important documents was conducted. The document review included the following:

- Strategic Plan
- Technology Vision Goals
- Technical Documentation
- Technology Evaluation Processes and Products
- Service level agreements (internal and external)
- Network Designs and Layout
- Software Inventory
- Hardware Inventory
- Refresh Cycle
- Seed Projects and Evaluations
- Budget Documents (FY09, FY10, Proposed FY11)
- Board Policies relating to DART
- Organizational Chart
- Job Descriptions and Evaluations
- Curriculum Guides
- Education Specifications
- Handbooks and Promotional Brochures
- Capital Improvement Plan and Policies

The final aspect of Data Acquisition is to review the current service delivery model and to determine its alignment with the Division's mission. With the data from the listen and learn sessions, building visits, and documentation review, the current service delivery model was evaluated for its effectiveness in supporting the Division's mission to establish a community of learners and learning, through rigor, relevance, and relationships, one student at a time.

Service Design

Service Design begins the process of aligning DART's service portfolio (the collection of services provided by DART) to meet the needs and expectations of the Division. Albemarle County Public Schools (ACPS) has a robust deployment of technologies, and it is evident from discussions that schools embrace the use of learning technologies to provide contemporary learners with a contemporary learning environment.

The Strengths, Weaknesses, Opportunities, and Threats (SWOT) Analysis below applies to the on-going vitality of DART.

Strengths	Weaknesses
• Knowledgeable Staff • Dedicated Staff • Financial Support • Administrative Support • Pockets of Excellence • Commitment to innovation • Flexibility, Agility, and Resiliency • School Board Policy	• Functional Organizational Framework • Incident Management • Availability Management • Policies, Procedures, and Standards • Professional Development and on-going implementation support • ISTE NETS *T and *S adoption • Communication • Fiscal Management • Disjointed Staff locations • Incomplete enterprise deployments • Commitment to innovation
Opportunities	**Threats**
• ITIL Framework • Organizational Restructure • Application/Software tools • Policies, procedures, and standards • IT job Descriptions • Communication • Centralized Support Desk • Building capacity in systems, people, and organization • Empower end users to be independent	• Organizational Resistance to change • IT Staff Resistance to change • Customer Service Levels not met • Functionality of current systems • Inequity issues at the building level • Technology (Rapid Pace of Change)

Staff

The Data Acquisition phase highlighted both the dedication of DART employees and their strong, collective belief in the Division's mission and goals. In the midst of frequent shifts in roles and responsibilities over the past few years, DART staff has been able to demonstrate resiliency. These shifts have occurred due to increased mandates from Federal and State Departments of Education, redirection of budget, and turnover of personnel to other departments. The current departmental organization has resulted in duplication of responsibilities across multiple people and departmental groups. This has led to inefficiencies of services, conflicts, and a failure to provide an appropriate level of customer satisfaction. The current concerns and issues around the deployment of the Student Information System (SIS) are examples.

There has also been an overall lack of staff training and professional development, resulting in inefficient skill sets and the inability of staff to be adequately prepared to take on various duties. Another byproduct has been the manifestation of technical "silos," thereby creating high levels of risk.

During the Data Acquisition phase, nearly all DART staff expressed the need for a full review of DART's organizational structure. They embraced bringing clarity through identifying roles/responsibilities, creating accurate job descriptions, and participating in functional teaming.

Processes

Currently there is no formal, functional framework that governs departmental activities. DART has implemented a project management model that provides a foundation for further development of more systemic project management tools and processes. Nearly all technical work is completed via "sneakernet," referring to the practice of physically walking from one computer to another to carry out technical duties; e.g., installing software. Incident management suffers from a void of formal procedures that detail service level agreements and escalation rules. The inefficiencies detailed above have resulted in availability management issues, because in many cases, technologies and services have not been delivered within an acceptable timeframe to clients.

With regard to educational technology, the Division does not have a clear staff development plan or framework for delivering National Educational Technology Standards for teachers and students (NETS *T and *S). While there is clear evidence of excellence throughout the Division in educational technology, it can best described as pockets of excellence rather than systemic adoption. The instructional coaching model could be a powerful vehicle to achieve full adoption of NETS *T and *S, ensuring that all students experience a technology-rich learning environment. Instructional coaches must become a clear line of site between the deployment of technology and the use of technology in classrooms. Instructional coaching positions are used to meet staffing standards for Technology positions as required by the Virginia Department of Education.
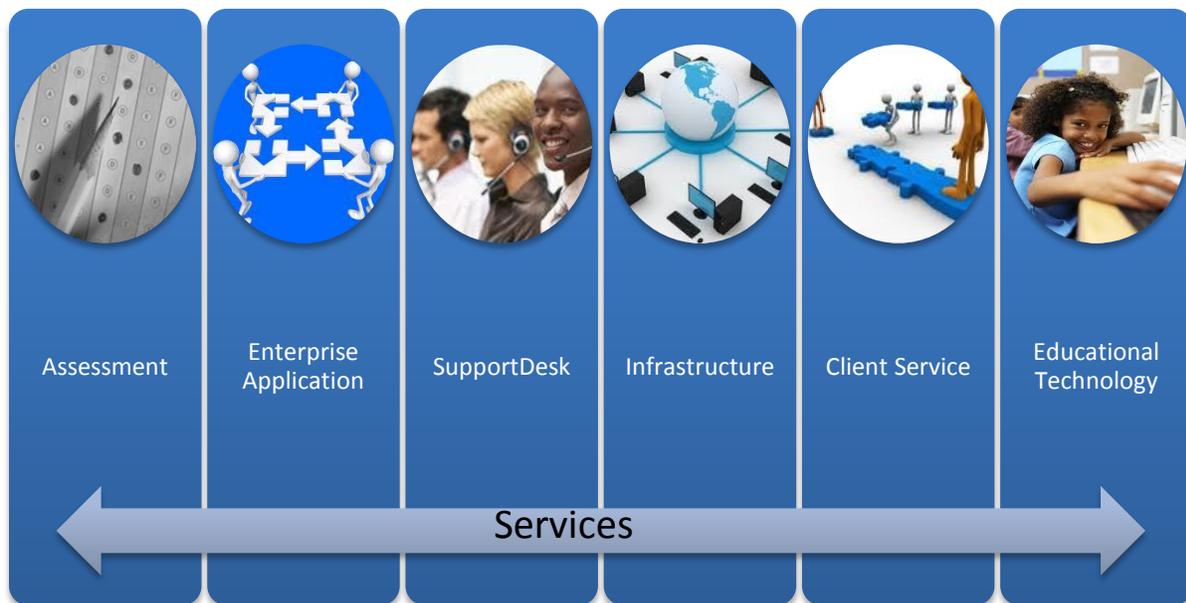
Technologies

Desktop and Laptop deployments have been inconsistent. Also, the distribution of new technologies, including Seed Project awards, has not been well communicated or understood by staff. As a result, school leaders see their work as isolated from the work of DART in the implementation of effective use of technology in the classroom.

On an infrastructure level, we have a robust backbone with excellent connectivity to the Internet; however, data services present some specific concerns that must be addressed. Site-based management has resulted in inconsistent deployment of wireless infrastructure. Additionally, wireless networks have not been developed to support current needs. The Capital Improvement Plan will allow us to bridge that gap, but it could take three years for full implementation across the Division. It is a critical concern that all required Standards of Learning (SOL) testing must occur online and schools will face both hardware and network challenges.

Incomplete implementation of enterprise applications has also presented challenges across the Division and individual schools; e.g., the build-out of the Division's intranet, development of the Division's web presence, and Blackboard, an interactive virtual learning tool available to teachers. Based upon the departmental review, this clearly can be contributed to a void of qualified staff to perform these duties.

Next Steps

In order to maximize efficiency and deliver high quality services to our students, parents, staff and community, an organizational alignment and reorganization must take place within DART. In doing so, data will be collected to ensure that stakeholders find improvement in guaranteed services. Reorganization of staff is critical in removing technical silos. Furthermore, the new framework will enable DART to develop staff capacity to understand and effectively use technologies as they are deployed in schools and departments.

| Assessment | Enterprise Application | SupportDesk | Infrastructure | Client Service | Educational Technology |

Services

Following the reorganization, the next step is to adopt the Information Technology Infrastructure Library (ITIL) service model. ITIL was developed by the British government in the 1980s, and in 2010 was revised to its current level ITIL version 3. ITIL provides a comprehensive, consistent, and coherent set of best practices for IT Service Management Processes, promoting a quality approach to achieving business effectiveness and efficiency in the use of information systems.

The diagram to the right displays the five components of ITIL: Service Strategy, Service Design, Service Transition, Service Operation, and Continual Process Improvement. There is a strong correlation between this operational framework and the Quality Council Model that is currently used by the Division.
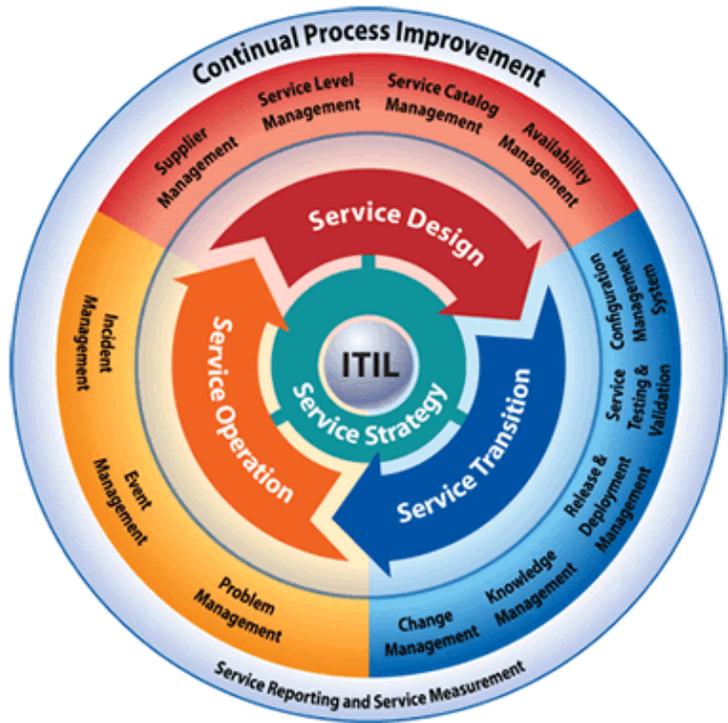
With the proposed service delivery model and a new organizational structure in place, DART will begin to develop standard operating procedures that are currently inconsistent within the department. Three items that will be addressed immediately include incident management, change management, and service level management. Other areas will be addressed and deployed in order by priority.

A key focus area for the deployment of the new service delivery model will involve use of functional technologies to assist in the transition and management of services. In order for DART to become a consistent solution provider to the Division, a "Support Desk" that employs IT Automation will occur. The Support Desk will serve as a single entry point for all Division needs associated with DART. Staff directed to provide Support Desk services will receive specialized training in all technologies and customer support.

Another area for further consideration in the next steps for DART emerges from recent evaluation of the web-based publications and communications management of the Division's web presence, including Division, departmental, and school websites. Specific content management and technical services to maintain and advance use of websites for communication and publication purposes has been impacted by budget reductions and elimination of staff services over the past two years. As a result, specific issues with document management and technical support have been identified by staff in a recent review of websites conducted at the direction of the Superintendent. While the Division website has been updated recently, staff identified that critical support is needed to manage documents and

content, provide technical support and services, and coordinate ongoing development of website maintenance and design skills among web page coordinators for each department and school.

In particular, it is critical that accurate documents and content necessary to provide both required and ongoing information to community members, staff and parents be updated and maintained in a timely fashion. In the next school year, staff recommend that the current website platform be evaluated to determine whether it meets the current needs of the Division and schools. The evaluation of web communication and publication services also identified the need for dedicated staffing to provide technical, content, and document management support, along with training of web page coordinators to maintain and extend the skills needed to ensure that each school and department website is accurate, up-to-date, and professional in quality. While responsibility for communications lies outside of DART, the technical and content management support is a critical technology service that must be sustained with the highest level of quality possible given the current use of web-delivered content by staff, parents, and the community.   Staff responsibility for technical services and support was recommended in the Superintendent's review process as a better fit in DART than under communication services. At this time, no such staffing is available.

From an educational perspective, the DART Advisory Group will be divided into three special interest groups: 1:1 Best Practices, Virtual and Hybrid Learning Models, and Assessment Models. This advisory group will operate as a think tank for the Division to develop best practices for future developments. To further develop strategies to address Division goals, DART Advisory and staff will focus on learning outcomes and the use of current technologies that can extend and enrich student learning. Work will begin to align the Division's Lifelong-Learning Standards with the International Society of Technology in Education's National Educational Technology Standards for students.

Conclusion

The Division possesses the foundational structure and personnel to support the delivery of a superior educational experience. However, DART must provide the critical technologies and technical support necessary to meet the contemporary needs of both schools and departments. It is evident from the review that DART staff is dedicated to the Division's vision, mission, and goals; however, the following critical areas must be assessed for DART to strengthen the Division's foundation of support:

- Implementing a service delivery model that capitalizes on strengths and opportunities available to DART while minimizing weaknesses and threats;
- Ensuring staff receive the necessary training and support to complete tasks and assignments;
- Creating functional teams within DART by establishing clear roles and responsibilities;
- Guaranteeing delivery of timely services and support to departments and schools through the implementation of a service delivery model;
- Integrating professional development and training that includes instructional coaches;
- Implementing a transparent deployment plan of hardware and infrastructure support and services to departments and schools; and

- Developing the technology and content management support essential to the development and continued maintenance of a professional web presence for the Division, departments, and schools.

Over the course of the next 12 months, DART will work tirelessly to see that all of the pieces are properly placed. We look forward to presenting successes as we move forward.