One of the most important responsibilities of a CIO is to work with the campus to create a governance structure for technology. The scope of governance must be campus-wide in order to create a collaborative, organizational framework to improve service quality, find opportunities for efficiencies, and implement funding and sourcing models that bring the best strategic advantage for the whole institution. These are the kind of outcomes that stakeholders across campus agree will bring about positive change and direction for technology. The governance structure can be thought of as a bus, that we build together and drive together to carry us forward from our current state to a desired state for technology.

Our Current State

Appalachian State University has a diverse technology landscape that has grown organically over time within technology silos throughout the institution. We have a very large number of applications and services in use across the institution, sometimes several with very similar or the same functionality, certainly many with overlapping functionality. In many cases there is little or no technology support in the use and integration of these many applications and, as a result, much of our work still involves manual and redundant steps that lead to inefficiencies and inaccuracies.

This is a natural outcome of technology spending that has occurred at the department level without benefit of conversations, collaborations or support across divisions or institutionally. In many cases our cultural norm suggests that we have been fortunate enough to spend money on a technology solution, but have not been able to benefit from a holistic implementation or support model. When the application fails to meet our needs the cure has often been to purchase a different solution, hoping for a different outcome. Over time we have amassed a terrific assortment of applications and services that still fail by a long shot in meeting our needs. Despite these challenges, we have made substantial progress in some areas through the efforts of very talented technologists in units across campus.

Our central technology unit, Information Technology Services, accounts for about half of the technology staff at the university with roughly 80 employees. Roughly a quarter our campus technology staff members are in other sizeable technology groups in distributed units across the campus, such as Electronic Student Services, Learning Technology Services, Library Technology Services, Financial Services, Business Systems, Telecommunications, etc. The remaining quarter of our technology staff members are in single/duo teams in departments scattered across divisions (Food Services, Leadership and Educational Studies, etc.). Technologists across campus share the desire to provide excellent service and have been remarkably creative in addressing needs within their areas.

The operating budget for central technology in Information Technology Services is about $2.5 million dollars. This budget represents our institutional financial support for our internet services, campus network infrastructure, enterprise level portals and applications, email and storage platforms, institutional software licenses and centralized technology support. Conversely, the services and applications supported in the distributed units address the specialized technology needs within divisions and departments. It is very difficult to determine the technology budget totals associated with the distributed technology resources at the university. Within central technology, as well as within divisions
and departments, significant technology gaps and deficiencies exist due to lack of technology investments over extended period of time.

**Main things to cure**

Our current organization results in a poor understanding of services and applications available across the institution. We truly have no idea of the number and diversity of applications and technology services that have been purchased across the institution. As a result, we either do not use technology that may be available to us or we re-purchase technology for our individual needs.

We have no organizational framework to facilitate technology collaboration across units. Without the benefit of organization, we miss numerous opportunities for efficiencies in decisions about technology use and support at ASU. We develop our technology directions within silos and our efforts to understand broad technology needs are ad hoc at best. We have a pervasive lack of technology governance and no common technology master plans to support a strategic approach to technology.

An institution of our size and complexity often has a model to address centralized and distributed technology resources. The primary responsibility for this model usually lies with the Chief Information Officer of the institution. This is a new position for us at Appalachian State University and one of the primary directives in creating a position of this level is to ensure an institutionally strategic approach to technology. While the CIO is charged with leading this effort, it is critical that we build our governance model together to best address the current and desired state of technology at Appalachian State University.

Traditional governance models in higher education often bring all technology conversations to multiple faculty, staff and student groups regardless of technology interests. Faculty and staff find it hard to zero in on the technology decisions that they care about among the many required to fully involve the campus in the direction of technology. All parties can find this to be a bureaucratic process that stifles the ability to be innovative and make timely decisions. Over time a significant level of disengagement becomes the norm and technology leadership struggles to keep the campus involved. We should strive to keep engagement at a meaningful level for the campus. By grouping technology services and applications into service categories, we can allow stakeholders to be more intentional in their involvement with technology groupings that they care about, while providing a solid framework for broad campus involvement in governance decisions about technology.

**A framework for working together**

Much of what we are looking for in a governance framework becomes possible with a foundation of creating a comprehensive Technology Application and Service Catalog [TASC]. A complete listing of applications and services that we own at various levels within the institution is essential to much of what we can accomplish in our governance framework. A catalog can create transparency and visibility for all ASU technology services and applications to help campus members find available and relevant technology for their needs. It will provide our best understanding of the technology platforms in use and the infrastructure needed to support them. We can better take advantage of aggregate
discounts for application licensing and make collaborative decisions about technology solutions to improve and broaden access across the institution.

Learning Technology Services and Information Technology Services collaborated on an initial survey across the institution to gather and format information on technology services and applications at ASU. The catalog is a dynamic collection of our technology and will require diligence on our part to keep it updated. There are currently over 200 applications and services in our draft catalog, and we know this is not yet a comprehensive list. A rough guess is that the current survey work may have collected 60-70% of our applications and services.

An example of a catalog entry is Degree Works. The catalog entry has a short description about the service, who is eligible to use it, how to gain access and how to resolve issues [http://support.appstate.edu/service-categories/academic-services/degreeworks]. We need your feedback on the catalog format. Does this level of catalog content help you to understand what the application/service is and how it applies to your work? Equally important is your help with the catalog entries to ensure that we have a full, collective picture of our campus technology applications and services in the catalog. What do you know about that is missing from the catalog? You can see the draft Technology Applications and Services Catalog at http://support.appstate.edu/service-categories-new.

In this initial draft of the catalog we have organized services and application into technology portfolio committees. These technology portfolio committees will each have a suite of applications and services in their portfolio that all have some similarity or workplace relevance. It seems to make sense for like applications to be grouped together to ensure that we look at these services holistically and provide a unified direction for technology for campus members who are using this type of technology in their work. Our selection of portfolio committees and the applications and services that we sort into them should foster stakeholder involvement with technology areas that they care about. The technology portfolio committees can then become the framework for collaboration in particular technology areas. We can use the technology portfolio committees to reach across our silos, understand relevant technology needs and capitalize on opportunities for efficiencies in decisions about technology use and support at ASU.

The current draft listing of technology portfolio committees includes:

- Academic Services
- Administrative Services
- Consulting, Training and Support Services
- Productivity Platforms and Services
- Research Services
- Student Computing Services
- Web and Mobile Application Services

In most cases the number of applications and services grouped into these technology portfolio committees is still quite large and may be difficult to manage without a further breakdown into
component service groups. Our working draft to begin the conversation about organization and sorting of catalog services is depicted in Figure 1.

If this is a model that we feel can work for ASU, an important part of the collaboration is to determine how the Technology Portfolio Committees can be best constructed to organize our Technology Application and Service Catalog into committees and work groups. It is important that the organization reflect the needs of the campus and we are actively seeking your ideas and feedback for this part of the framework.

In order to carry out governance activities, the technology portfolio committees need a common set of operating procedures and tools. For instance, the committees need a common charge outlining responsibilities and accountability for the work of technology portfolio committees. The committee members must be selected from stakeholders who can provide direction and coordination in the use of the technology portfolio across the campus. Our committees need resource tools for a working
environment that allows campus members to know who are on the committees, how to initiate conversation and project requests for technology elements in the portfolios and visibility into the future roadmaps for the technology portfolios.

As part of the technology application and service catalog survey, we have also been collecting FTE levels of technology support across campus for each of the services and applications in the catalog. A rough estimate of staffing levels and where they are located could be instrumental in technology portfolio management, assessment and future direction. In some cases, we have applications that really don’t have support resources attached to them.

There’s ample opportunity for campus involvement in helping to define the working environment for the technology portfolio committees. Information Technology Services has been working with Electronic Student Services to present an initial model of tools and resources for the portfolio committees. This is another area where we welcome your ideas and collaboration.

There are a couple of committees that cut across all our layers of technology, such as an Information Security Advisory committee and an IT Infrastructure and Advisory committee. These committees would provide a cohesive and campus wide approach to our information security program and strategic planning efforts for our technology architecture and infrastructure. We should consider how representatives from the technology portfolio committees contribute to the work of these foundational committees for security and infrastructure.

We also need a high level technology council to hold the governance framework together and make decisions at the highest campus level on resources and strategies for initiatives with campus-wide impact. An Executive Technology Council should have representation from the technology portfolio committees along with the highest levels of campus stakeholders. An equally important campus need to address data resources and access could be part of the scope of the Executive Technology Council. We have a strong need to organize our many sources of data across campus and ever-growing demands to ensure that this data is accessible and used for metrics, operational efficiencies and strategic advantage. A high level Data Trustees Council of institutional officers would have authority over policies and procedures regarding campus definitions of data, and the access and usage of campus data.

**Transparency for the campus**

Our governance framework should be transparent, providing good visibility and access to information for all ASU technology services and applications in catalog format. Campus members should easily be able to determine how to engage service groups for technology requests and learn what the service groups are working on with their portfolio roadmaps. At the highest level, we should understand the big campus initiatives and how decisions are made on those initiatives.

As we develop this model, we intend to incorporate feedback and suggestions on the framework and governance processes. We will present and solicit feedback from Deans Council, Council of Chairs, Student Government Association, Staff Senate and Faculty Senate. We have set up a CIO website with information about the governance framework proposal as well as a feedback area located at
Additionally, we are scheduling a couple of campus open forums to present the governance framework along with an opportunity to work on the models with us in a workshop format.

As we begin working with the campus and talk through the rollout of this framework, these important milestones will guide our progress.

1. Publish ASU’s technology service and application catalog and create process for keeping it up-to-date
2. Begin to create Technology Portfolio Committees and component Service Groups, learning from pilot implementations
3. Create transparent processes for campus to interact with Technology Portfolio Committees and Service Groups
4. Create Information Security Advisory Committee and Information Technology Infrastructure and Advisory Committee.
5. Create Executive Technology Council and Data Trustee Council and begin campus level communications and roadmap content as it becomes available

Please join in on this journey toward creating a collaborative, sustainable governance framework. If we work together, we can create a robust and responsive framework that will fit our unique campus needs at Appalachian State University.

Cathy Bates
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Appalachian State University