

Technology Plan 2017 - 2022

*Grossmont-Cuyamaca Community College District
March 21, 2019*

INTRODUCTION

The Grossmont-Cuyamaca Community College District (GCCCD) serves the 1,138-square-mile East County region of San Diego County. The District is comprised of two colleges. Grossmont College is located on a 135-acre mesa in northwest El Cajon; Cuyamaca College is located on a 165-acre site in Rancho San Diego, south of the City of El Cajon. The District Services offices are located on the Grossmont College campus and houses the administrative divisions of Business Services (Accounting, Business & Administrative Services, Purchasing & Contracts, Facilities Planning and Electrical Maintenance, Public Safety, and Warehouse), Human Resources (Human Resources and Payroll), Student and Institutional Success (Community & Workforce Development, IT, and Research & Planning), as well as the Chancellor and Governing Board Office and the Marketing & Communications Department. The District serves about 25,000 students each semester and employs more than 2,500 faculty and staff. Three out of four adults in East County have taken classes at Grossmont or Cuyamaca College.

Rapid advancements in information technology over the past two decades have greatly impacted higher education institutions. Technology plays a key role throughout our students' education, from online application and registration to distance education to systems that support student services. The Internet and mobile technology have become the principal means of finding and communicating information, and today's students will encounter the ubiquitous use of networks, hardware software and smart phones throughout their careers.

The Grossmont-Cuyamaca Community College District (GCCCD) Technology Plan covers the 2017-18 through 2021-22 academic years in support of the GCCCD Strategic Plan. Projects and initiatives emanating from the Technology Plan will be updated annually. The Technology Plan provides a framework for managing the District's hardware and software technologies, networking infrastructure, and information security. The Technology Plan is a part of the Districtwide planning process and supports the mission and strategic goals of the District and the colleges.

Technology Decision-Making Process

In December 2016, the Grossmont-Cuyamaca Community College District (GCCCD) contracted with Strata Information Group (SIG) for a Business Process Analysis (BPA) to address the technology request process at the college (Grossmont College and Cuyamaca College) and district levels, including those requests that are part of building remodel or new construction projects. A follow-up 1½-day workshop was scheduled in March 2017 to complete new, ideal technology request processes that could balance the needs of the colleges and the District. The technology request process covers all hardware, software, networks, as well as technology support or technology training.

Four different technology request processes were defined:

- Technology requested by Individuals (Process 1);
- Technology identified in the annual planning process (Process 2);
- Technology identified off-cycle from the annual planning process (Process 3); and,
- Technology are associated with Building Remodel and/or New Construction (Process 4).

The ideal maps for the processes can be found in Appendix A.

Criteria for New Technology Projects

The criteria identified below define some of the factors to be considered when introducing and implementing new technology solutions. While the number of criteria that a project addresses is an important view of the overall project, it is not the sole determinant to be used in the prioritization process. The criteria listed below, while not exhaustive, should be evaluated and addressed when assessing the viability of project requests:

Relationship to Strategic Plan: How does the project support the vision of the Strategic Plan or other college or district plan?

Mandated/Support for Statewide Initiatives: Does the technology clearly support a statewide initiative or mandate?

Scope of Need/Criticality/Urgency: There should be a documented need for the project that has significant consequences, so the scope of the need should be defined.

Total Cost of Ownership: Decisions to acquire new equipment (hardware/software) must include an analysis of the total cost of ownership (TCO), including staff support requirements, and should not be approved without the accompanying commitment to provide funding for staff support when necessary (additional full-time, additional part-time, available existing staff, or outside contracting options).

Resource Impact: The project should be defined to an extent that an estimate of the cost can be calculated in three factors: time to complete, person hours of time, and life cycle cost. The benefit of the project should also be estimated. This could be identified as a savings or the number of students, faculty, and/or staff who will benefit from the project's implementation.

Funding Impact: Projects should be reflected in the College's integrated planning process. For example, is the project addressed in a department's or school's Program and Services Review document or college's strategic plan?

Evaluation Plan: The project has a clear plan for evaluating the proposed technology.

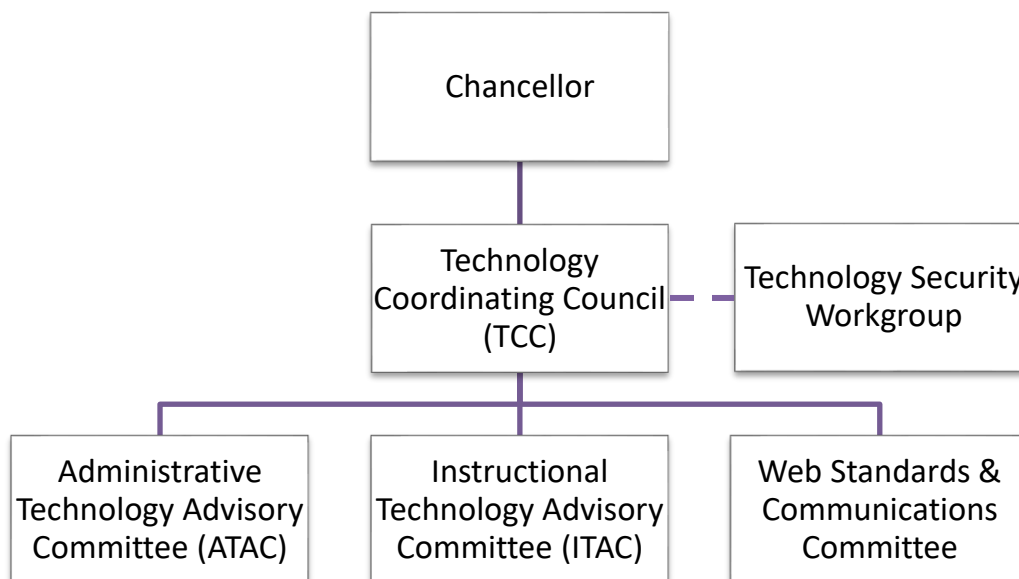
Technology Planning Committees

There are four major districtwide technology bodies that meet regularly throughout the academic year.

1. **The Technology Coordinating Council (TCC)** is a participatory governance group with broad participation from all district constituencies. The Council "...Recommends vision, strategy, prioritization and direction for the adoption and implementation of new and emerging technologies..." and "Serves in an advisory capacity to the Chancellor concerning strategic policies and direction for enterprise systems and technology."
2. **The Administrative Technology Advisory Committee (ATAC)** serves as an operational committee that provides recommendations to the IT Department regarding operational priorities and system enhancements to administrative systems and hardware. In addition, ATAC serves as the primary communication vehicle for ongoing projects that impact administrative information systems.
3. **The Instructional Technology Advisory Committee (ITAC)** on the other hand, provides recommendations regarding technology for instructional programs, including standards and procedures for instructional software and hardware, priorities for new technology implementations, and IT infrastructure support for existing instructional software and hardware.
4. **Web Standards & Communications Committee** maintains the integrity of the design, functionality and content of the college and District digital presence. The committee is responsible for overseeing the policies, standards and practices for both design and content of these media.

In addition, there is an active Technology Security Workgroup that is charged with developing and monitoring the Information Security Plan, establishes and codifies procedures to protect on-going information technology system integrity and student, employee and vendor personal information.

Figure 1: Districtwide Technology Committees



2017-2022 TECHNOLOGY PLAN

Institutional priorities for technology must necessarily connect to the overall strategic directions set forth by the District and college planning processes. Therefore, the Technology Plan relies heavily on the following planning documents:

- GCCCD Educational Master Plan
- GCCCD Facilities Master Plan (refreshed in 2016)
- GCCCD 2016-2022 Strategic Plan
- Grossmont College 2016-2022 Strategic Plan
- Cuyamaca College 2016-2022 Strategic Plan
- Grossmont College Technology Plan
- Cuyamaca College Technology Plan
- District Services Administrative Unit Reviews
- GCCCD 2012-2017 Technology Plan

During the 2016-17 academic year, a small workgroup of the Technology Coordinating Council met to begin work on the Technology Plan. During these meetings, the group identified the vision and overarching guiding principles for the plan.

Vision Statement: Implement student-centric, dynamic, reliable and integrated technology systems that promote student success and institutional excellence.

Intended to help provide distinguishing characteristics for all GCCCD technology deployments and implementations, to commit to existing technology standards and support, and to adhere to all legal regulations, the following comprise the **guiding principles** to the Technology Plan:

1. Student-Centered
2. Secure
3. Reliable
4. Integrated
5. Sustainable
6. Robust Infrastructure

The GCCCD Technology Plan provides a 5-year strategic initiatives roadmap. The Technology Plan is organized across multiple information technology categories:

- Enterprise Resource Planning (ERP) Systems
- Data/Research
- Infrastructure
- Information Security

Enterprise Resource Planning Systems

During the Fall 2017 semester, the Technology Coordinating Council discussed strategic options for moving forward with improvements to the student information system, utilizing the following definition of Enterprise Resource Planning (ERP):

A software solution that integrates information and business processes to enable sharing throughout an organization of information entered once in a database.

As discussed during the TCC meeting, the current state of the ERP systems focused on students (e.g., student outreach, student planning, registration, and financial aid) were assessed as “poor,” indicating a need to invest resources into the student information system (see Appendix B: Assessment of Current ERP Systems). Three general approaches were discussed: (1) implement Workday Student System to integrate with the Workday HCM/Finance Systems; (2) continue with the current student information system with minimal upgrades; or (3) invest substantially in the current student information system to address current needs and improve functionality. The Council found consensus around investing in the Colleague student information system, with an emphasis on addressing registration, student planning, and student outreach.

In addition, further investments in the student information system include upgrading our financial aid system, implementing software to assist with student retention and success, implementing the Ellucian mobile application, and optimizing how the District is using the software. The Technology Coordinating Council also identified the need for new curriculum management software to replace a paper process as well as scholarship software for students.

In 2016, the District implemented a new Human Capital Management (HCM) and finance system by Workday. The District’s roadmap for future development of Workday HCM include implementing Workday Recruiting, Onboarding, Talent Management and Performance. The District will also look at incorporating the budget planning module to Workday finance.

Data and Research

Investments in the current data warehouse and reporting dashboards will be necessary to continue the development of a self-service model of business intelligence. In particular, the vision for data and research will improve how reports are organized, increase access for off-campus users, provide powerful data tools for users (e.g., OLAP Cubes), and improve data visualizations using Tableau and/or Microsoft PowerBI.

Infrastructure

In 2017, the IT Department began upgrading the legacy EMC Storage Area Network (SAN) to an HP 3Par SAN. This included an upgrade of our VMware virtual hosts and the infrastructure for the SAN. In addition, the implementation of the Grossmont and Cuyamaca SANs will allow a disaster recovery option that was not possible with the existing SAN. The SAN upgrade will expand storage capabilities from 50TB to 200TB per campus.

In addition, in order to improve coverage, reliability, and speed, the IT Department recommends replacing all wireless access points and adding wireless access points, where necessary. In tandem with this project, the legacy Hewlett Packard brand switches (including chassis, blades and optics) will need to be replaced. New switches will allow speed upgrades to 10GB. Lastly, routers will be replaced to match the switch gear.

Replacing the legacy Tadiran Phone System has reached a critical level as support and access to parts has dropped precipitously. The District has identified the need to switch to a new Voice over Internet Protocol (VoIP) phone system, which will give access to advanced computer applications that will handle incoming and outgoing calls as well as access live, up-to-date phone directory information directly from the computer. The new phone system also will have a tight integration with Microsoft Outlook.

Information Security

In Spring 2016, the Technology Security Workgroup was formed out of the Technology Coordinating Council in order to finalize the GCCCD Information Security Program and begin creating an official IT Security Plan. The Technology Security Workgroup identified three major actions critical to the success of the IT Security Plan: creating an Information Security Training Plan; conducting a comprehensive security assessment by a reputable vendor; and producing an incident response plan. The Workgroup will also coordinate emerging security needs.

The following listing represents a set of strategic IT initiatives to guide decision-making during over a 5-year period. These initiatives, and others that may be proposed, will be annually reviewed, updated, and prioritized by importance, impact, and prerequisite relationship with other proposed initiatives.

Table 1: Projects in Support of Technology Plan

Goal	Principle	Project Type	System	Item	Description	Priority
GCCCD Goal #1	Student-Centered	ERP Systems	Colleague	Colleague - Registration Upgrade	Implement Colleague Self Service/Registration	2. High
GCCCD Goal #1	Student-Centered	ERP Systems	Colleague	AB 705 Multiple Measures	Data collection process and coding for placement levels	2. High
GCCCD Goal #1	Student-Centered	ERP Systems	Colleague	Colleague - Student Planning	Implement Colleague Self Service Ed Plan - Phase 1: electronic ed plans for counselors	2. High
GCCCD Goal #1	Student-Centered	ERP Systems	LSP	Library Services Platform (LSP) Project	Implement new library services platform from Ex Libris	2. High
GCCCD Goal #1	Student-Centered	Data/Research	Colleague	Program Control ID	Add Program Control ID to ACAD_PROG ODS table	3. Medium
GCCCD Goal #1	Reliable	Data/Research	Colleague	Document MIS Financial Aid Data Submission Process	Document the MIS data validation process for financial aid	3. Medium
GCCCD Goal #1	Reliable	Data/Research	Colleague	Document MIS Student Awards Data Submission Process	Document the MIS data validation process for student awards	3. Medium
GCCCD Goal #1	Student-Centered	ERP Systems	Colleague	Demo CRM Advise	Demo Colleague student success/retention module	3. Medium
GCCCD Goal #1	Student-Centered	ERP Systems	Colleague	Colleague - Define Student Major/Programs	Get the majors stored in Colleague to represent a student's true major/program	3. Medium
GCCCD Goal #1	Student-Centered	ERP Systems	AcademicWorks	Scholarship Management Software	AcademicWorks Software to let students apply for scholarships,	4. Low

Goal	Principle	Project Type	System	Item	Description	Priority
					and management of process by staff	
GCCCD Goal #1	Student-Centered	ERP Systems	Colleague	Colleague - Ellucian Mobile	Colleague mobile application for students	4. Low
GCCCD Goal #1	Student-Centered	ERP Systems	DARs	DARs Degree Audit	Degree Audit for Students	4. Low
GCCCD Goal #1	Student-Centered	ERP Systems	OmniUpdate	Website Redesign	Regional Workforce project to redesign GCCCD websites	
GCCCD Goal #1	Student-Centered	ERP Systems	SARs	SARsTRAK	Track Lab Usage	
GCCCD Goal #1	Student-Centered	ERP Systems	SARs	SARs e-Advising	Upgrade SARS to allow for online counseling sessions	
GCCCD Goal #1	Student-Centered	ERP Systems		Transcript request processing		
GCCCD Goal #2	Student-Centered	Data/Research	Microsoft	GUHSD Database	Develop GUHSD database to house CALPADS files	2. High
GCCCD Goal #2	Student-Centered	ERP Systems	Colleague	AB 19 Promise Coding	Create process for coding and processing students eligible for AB19 funds	2. High
GCCCD Goal #2	Student-Centered	ERP Systems	Colleague	Colleague - CRM Recruit Phase I	Colleague outreach module for prospective students	2. High
GCCCD Goal #2	Student-Centered	ERP Systems	Colleague	Colleague - CRM Recruit Phase II	Map CCCApply Data Elements into/out of CRM Recruit; Design student landing page with checklist	2. High

Goal	Principle	Project Type	System	Item	Description	Priority
GCCCD Goal #2	Student-Centered	ERP Systems	Colleague	AB2248 - Full-Time Status Notification	Implement process to notify students of full-time status and collect receipt of that notification	2. High
GCCCD Goal #2	Student-Centered	Data/Research	Colleague	New Ancestry/Ethnicity data element	Ensure that new ancestry/ethnicity data element from CCCApply imports into Colleague (and ODS)	3. Medium
GCCCD Goal #2	Student-Centered	ERP Systems	Maxient	Maxient	Software to track Title IX claims/actions	
GCCCD Goal #3	Reliable	ERP Systems	Colleague	Upgrades to Colleague and Self Service	Update Colleague, Self Service, and Student Planning to current version	1. Critical
GCCCD Goal #3	Robust	ERP Systems	Colleague	Upgrade Colleague UI to version 5.X	Upgrade Colleague UI to version 5.x (older version not supported)	1. Critical
GCCCD Goal #3	Reliable	ERP Systems	Colleague	Colleague - Replace HP/UX mainframe	Convert all systems and applications over to a Linux virtual environment	1. Critical
GCCCD Goal #3	Robust	ERP Systems	Cascade	Cascade	Upgrade CMS for College and District Web Sites	2. High
GCCCD Goal #3	Sustainable	ERP Systems	Colleague	Colleague - Create new Exercise Science Division for CC		2. High
GCCCD Goal #3	Reliable	ERP Systems	Workday	WorkDay - Finance	Finance - Fixes, updates	2. High
GCCCD Goal #3	Robust	ERP Systems	Workday	Workday - HR Recruiting, Onboarding, Talent, & Performance	Implement Workday modules	2. High
GCCCD Goal #3	Secure	Information Security	DR Plan	Disaster Recovery Plan	Create an updated Disaster Recovery Plan	2. High

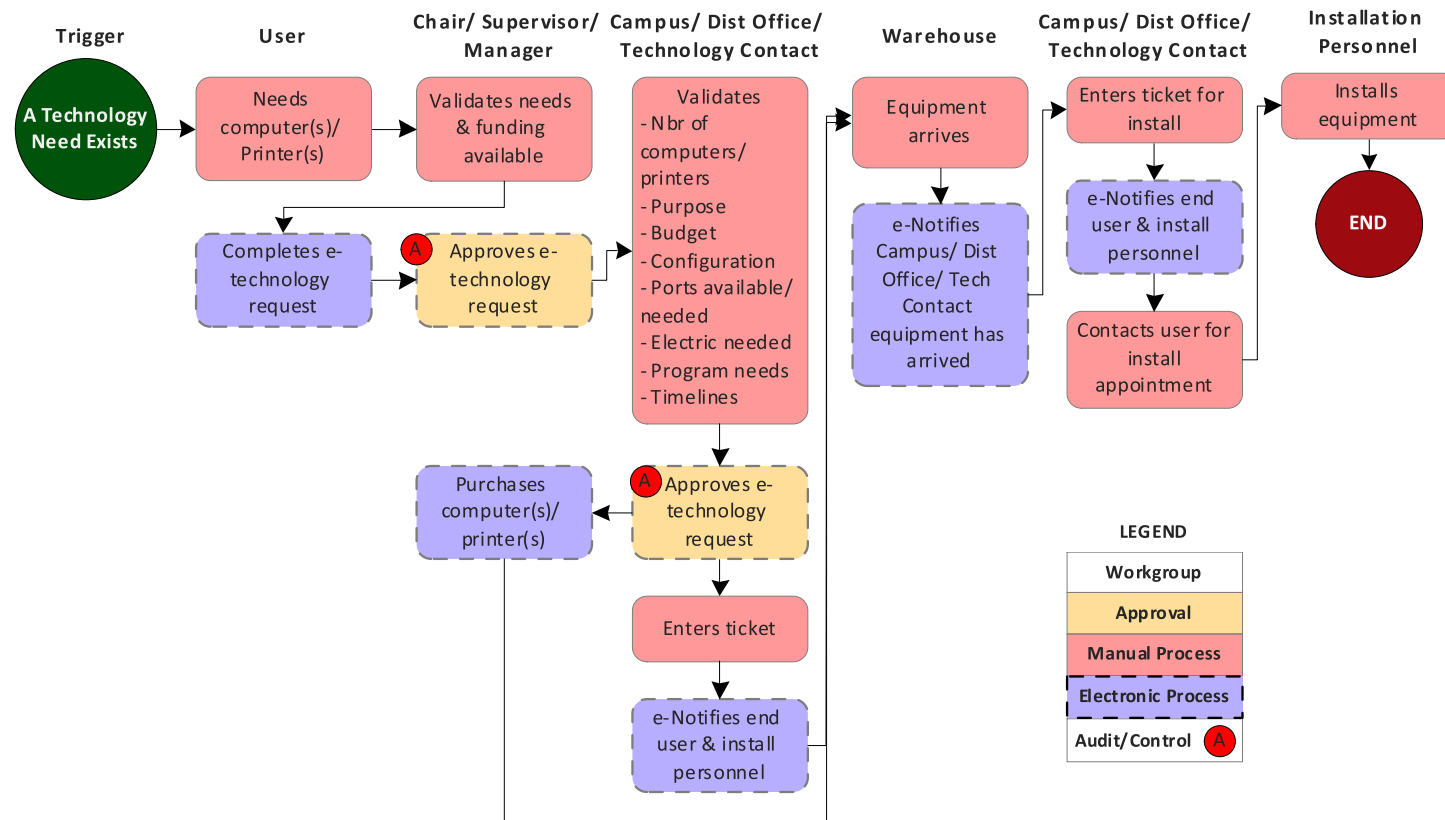
Goal	Principle	Project Type	System	Item	Description	Priority
GCCCD Goal #3	Secure	Information Security	IR Plan	Incidence Response Plan	Create an IT Incidence Response Plan	2. High
GCCCD Goal #3	Secure	Information Security	IS Training Plan	Information Security Training Plan	Implement an information security training plan for all District employees	2. High
GCCCD Goal #3	Secure	Information Security	IT Security Plan	IT Security Plan	Create an IT Security Plan	2. High
GCCCD Goal #3	Secure	Information Security	Security Assessment	Vulnerability Assessments	Work with the NCX Group to schedule vulnerability assessments	2. High
GCCCD Goal #3	Sustainable	Infrastructure	Building Projects	Building Projects	CC Student Center GC Performance Theater CC Ornamental Horticulture CC Waste Water GC Building 3 I (Math, AOJ) District bldg. remodels	2. High
GCCCD Goal #3	Robust	Infrastructure	Network Infrastructure	Network Infrastructure Upgrades	Upgrade all network switches Upgrade Firewalls to 10Gig	2. High
GCCCD Goal #3	Secure	Infrastructure	SQL Servers	Upgrade Unsupported Servers	Upgrade all servers that are not supported (e.g., 2008 SQL servers)	2. High
GCCCD Goal #3	Reliable	Infrastructure	VoIP	VOIP	Replace Telephone system	2. High
GCCCD Goal #3	Reliable	Infrastructure	Wifi Upgrade	Wireless Expansion	Upgraded wifi across entire District	2. High
GCCCD Goal #3	Robust	Data/Research	Microsoft	PowerBI for Reporting	Implement Microsoft PowerBI for data visualizations	3. Medium

Goal	Principle	Project Type	System	Item	Description	Priority
GCCCD Goal #3	Robust	Data/Research	Microsoft	SharePoint Reports Portal	Develop SharePoint reports portal to simplify report access for end users	3. Medium
GCCCD Goal #3	Robust	Data/Research	Microsoft	Data Warehouse	Vendor is working closely with Research and IT to move data to 2016 SQL Server	3. Medium
GCCCD Goal #3	Reliable	ERP Systems	Colleague	Colleague - Optimization Projects	Improve and optimize Colleague Student processes and procedures	3. Medium
GCCCD Goal #3	Robust	ERP Systems	Colleague	Colleague - SQL Transition	Convert Colleague databases to a SQL environment	3. Medium
GCCCD Goal #3	Student-Centered	ERP Systems	EvaluationKit	Course Evaluation Software	EvaluationKit pilot occurring at Grossmont College for online courses	3. Medium
GCCCD Goal #3	Robust	ERP Systems	Resource25	Resource 25 upgrade to new version	Migrate to cloud based service	3. Medium
GCCCD Goal #3	Student-Centered	ERP Systems	SARs	SARS upgrade to SARS Anywhere	Move to a web based UI (User Interface)	3. Medium
GCCCD Goal #3	Robust	ERP Systems	Workday	Workday - Mobile	Workday Mobile application for employees and prospective employees	3. Medium
GCCCD Goal #3	Robust	Infrastructure	HelpDesk	HelpDesk Software	Users can enter helpdesk ticket – web based – auto route to IT/ICS	3. Medium
GCCCD Goal #3	Secure	Infrastructure	Microsoft	Desktop software	Windows 10 and Office 2016 rollout	3. Medium
GCCCD Goal #3	Reliable	ERP Systems	ImageNow	Document Imaging	ImageNow - upgrade file system configuration	4. Low

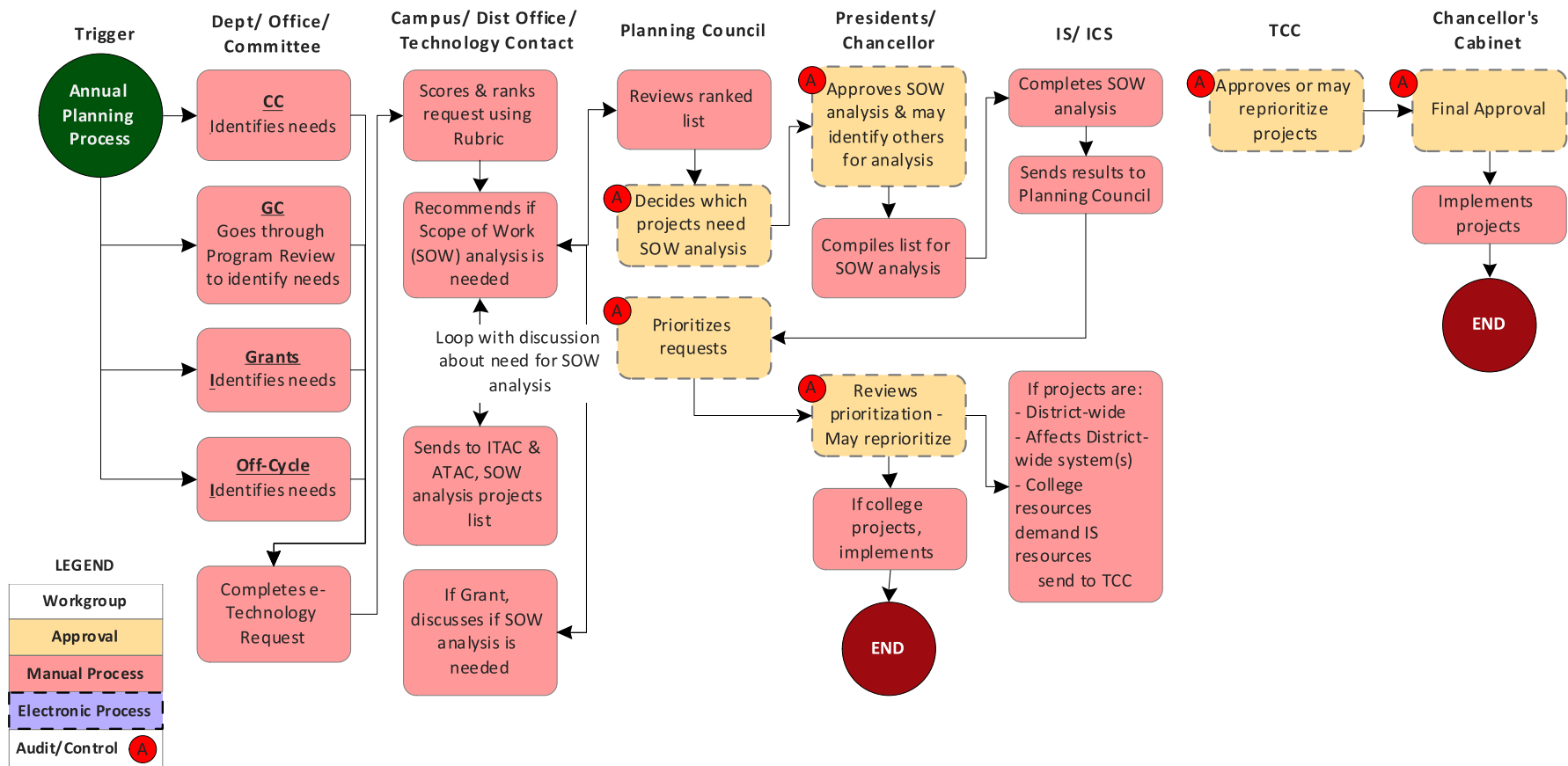
Goal	Principle	Project Type	System	Item	Description	Priority
GCCCD Goal #3	Robust	ERP Systems	Microsoft	Sharepoint	Implement Sharepoint for depts, committees, etc	4. Low
GCCCD Goal #3	Integrated	ERP Systems	Workday	Workday - P-cards	Re-engineer the procurement card process and implement in Workday	4. Low
GCCCD Goal #3	Integrated	ERP Systems	Workday	Workday - Purchasing "Punchouts"	Implement purchasing pre-set "punchouts" for select vendors (e.g., Dell) in Workday	4. Low
GCCCD Goal #3	Robust	Infrastructure	Microsoft	OneDrive	Rollout OneDrive as individual app	4. Low
GCCCD Goal #3	Robust	ERP Systems	Cornerstone	Professional Development Software	Cornerstone software	
GCCCD Goal #3	Robust	ERP Systems	Curriculum	Curriculum Management Software	Implement curriculum management software districtwide	
GCCCD Goal #3	Secure	ERP Systems	OpenCCCApply	Open CCCApply Authentication		
GCCCD Goal #3	Secure	ERP Systems	SARs	SARS instance for Cuy Health Services	HIPAA compliance separate instance of SARS for both GC and CC Health Services	
GCCCD Goal #3	Sustainable	Infrastructure	Adobe	Adobe Licensing	Implement Enterprise controls for Adobe licensing due to change in licensing model	
GCCCD Goal #3	Sustainable	Infrastructure	Apple	Apple Licensing model change	Implement DEP, VPP, and MDM to correctly manage all Apple devices	
GCCCD Goal #3	Secure	Infrastructure		External Password reset	Implement external password reset for expired or forgotten network (AD) passwords	

Appendix A: Technology Request Processes

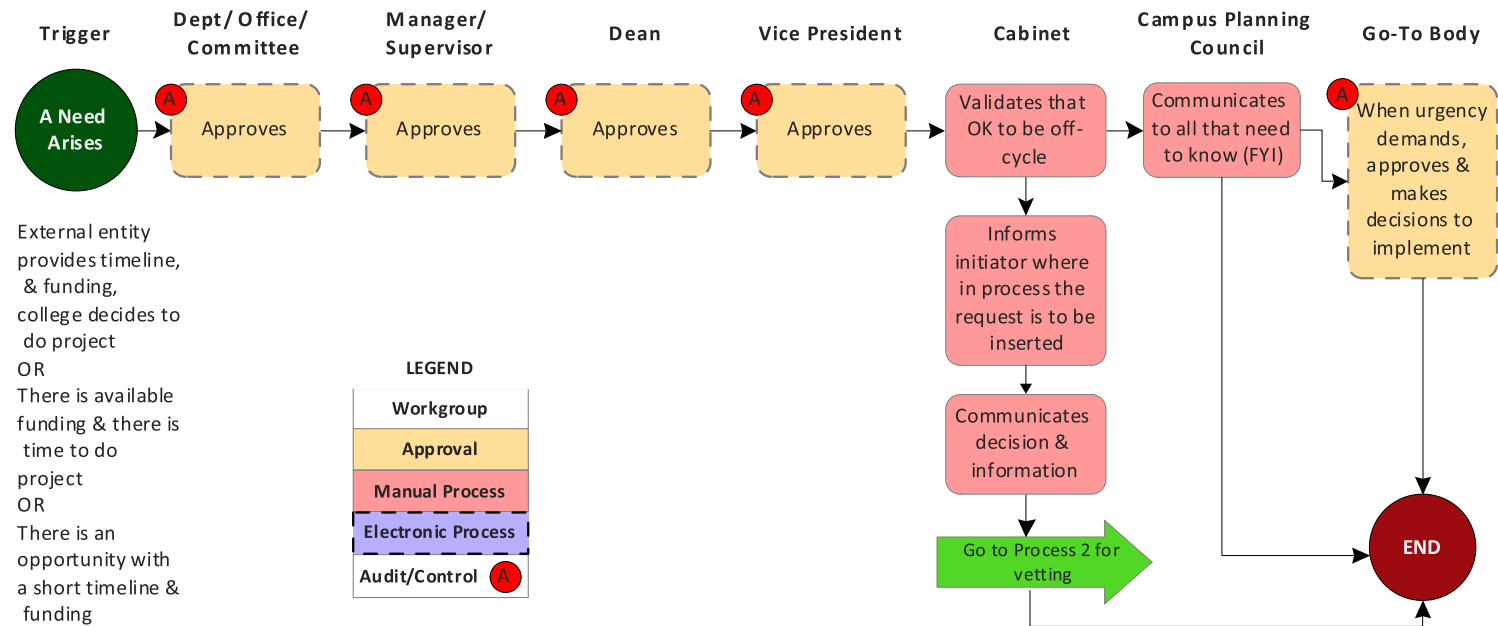
Process I: Individual Technology Requests



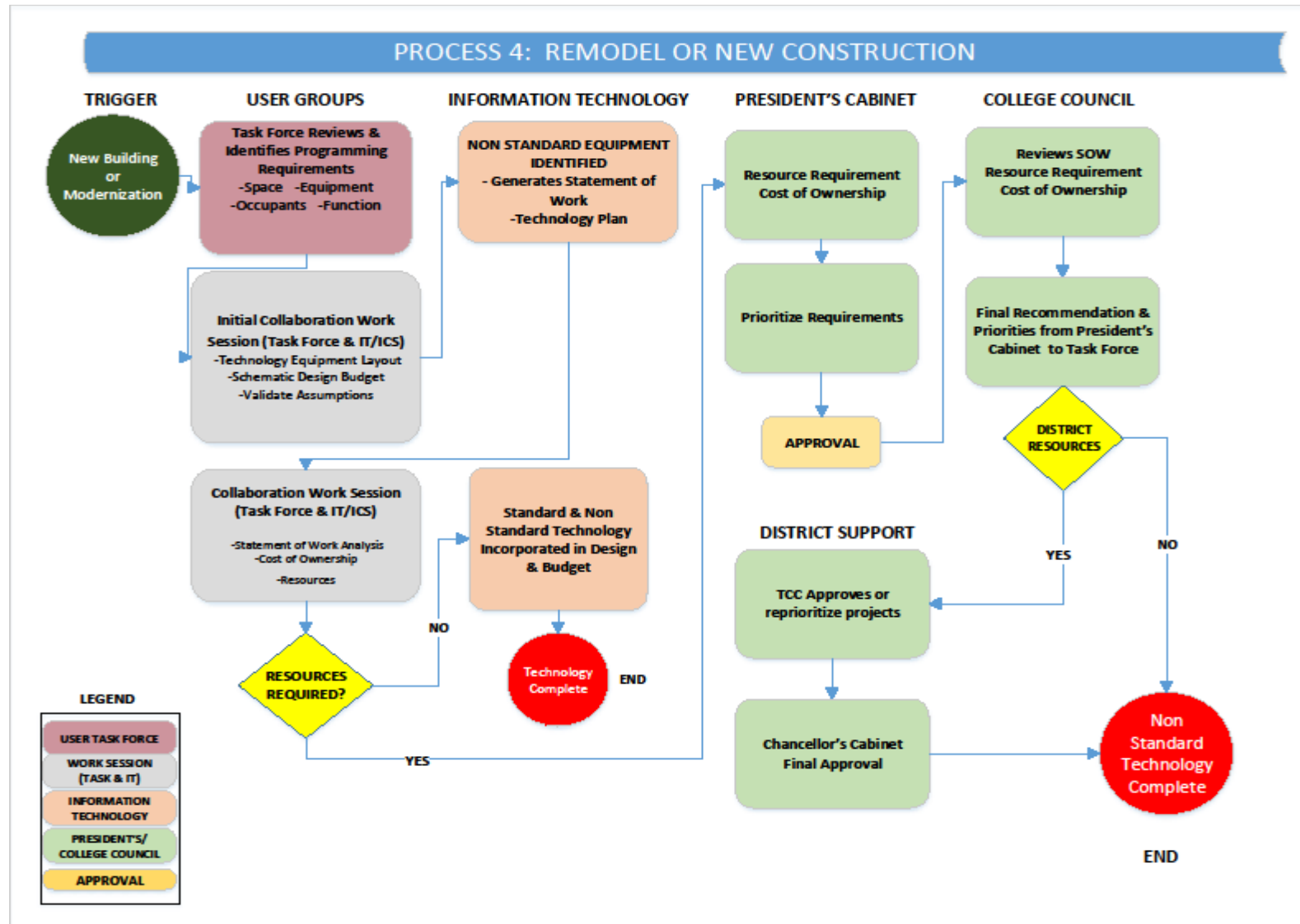
Process 2: Technology Request as a Result of Annual Planning



Process 3: Off-Cycle Technology Request



Process 4: Technology Request for Facilities



Appendix B: Assessment of Current ERP Systems

	Student Information	Registration	Financial Aid	Education Planning	Degree Audit	Human Resources	Finance	Student Outreach	Facilities Scheduling
Current System	Colleague	Colleague	Sigma	-None-	DARS	Workday	Workday	-None-	R25
Condition	★★	★ ¹ / ₂	★ ¹ / ₂	★	★★★★	★★★★★	★★★★★	★	★★
Integration Potential	Colleague	Colleague	Colleague	Colleague	Colleague	Workday	Workday	Colleague	R25