

# INFORMATION TECHNOLOGY MASTER PLAN

2020 - 2025





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#### Introduction

#### **Purpose and Background Information**

Santa Monica College (SMC or the College) developed <u>College-wide strategic planning initiatives and objectives</u> in 2017 to set overall priorities for the institution and guide the strategies and efforts of the College district.

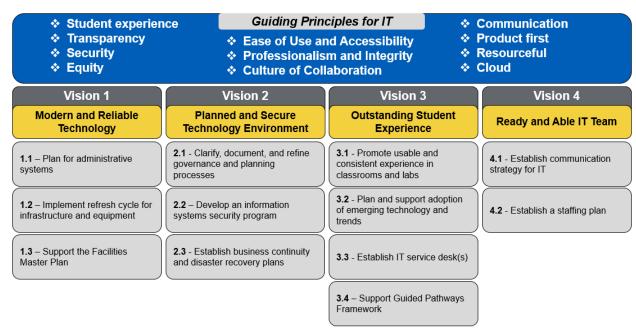
This Information Technology (IT) Master Plan aligns with the strategic initiatives and objectives established by the College. The intention of this plan is to establish strategic IT priorities and initiatives, and to inform decision-making over the next five years as the College continues to invest in IT infrastructure, services, and functions to support student success.

#### **Development of the IT Master Plan 2020 – 2025**

This plan is the outcome of a collaborative process that engaged over 900 participants from across the College, including leadership, faculty, students, and staff. This process engaged stakeholders in multiple ways, including: on-site focus groups and interviews, strategic planning work sessions, and an online survey. This allowed for a broad understanding of current IT operations, challenges, opportunities, and priorities.

The process led to the creation of IT guiding principles, IT vision and mission statements, and specific strategic initiatives. The relationship and structure of the plan is depicted in Figure 1.

Figure 1 | Overview of Plan





The following vision and mission statements were developed collaboratively with the IT Strategic Planning Committee:

Vision: One IT for SMC

**Mission:** IT at Santa Monica College is a cohesive team that supports excellence in teaching and learning through continuous improvement of technology and the end user experience.





## **Guiding Principles**

Guiding principles were developed by the IT Strategic Planning Committee. These principles provide a broad philosophy that influences the actions and beliefs of IT. Guiding principles are equally important and are listed in no particular order below:

- 1. **Student Experience**: Remain laser-focused on student needs. Every technology initiative and solution should consider the student experience.
- 2. **Communication**: Communicate the right message using the appropriate channels in a way that is understandable to the intended audience.
- 3. **Culture of Collaboration**: Find creative ways to collaboratively engage and meet end-user needs. The first response should never be "no," but "yes, and."
- 4. **Professionalism and Integrity**: Work hard, treat customers with respect, and consistently deliver innovative support and services. Maintain expert-level knowledge through access to the right resources, training, and tools.
- 5. **Security**: Protect SMC's data and information from unauthorized use, destruction, and disruption. Security is everyone's shared responsibility.
- 6. **Transparency**: Communicate well—share why IT initiatives are important, how they will be conducted, and when they will be completed.
- 7. **Ease of Use and Accessibility**: Deliver technology solutions that are intuitive and accessible for all students, faculty, and staff.
- 8. **Equity**: Work to ensure that SMC students, faculty, and staff have equal access to technology services and support regardless of location or technical proficiency.
- 9. **Resourcefulness**: Stay open-minded to deliver cost-conscious and collaborative solutions that leverage existing resources whenever possible.
- 10. **Product first**: To minimize risk and impact to the district, seek to address future needs with commercially available products and services. Only develop internally when no viable alternatives exist.
- 11. **Cloud**: Prioritize cloud solutions when possible to improve scalability, flexibility, and business continuity.



Vision categories were developed as a result of the strategic planning work sessions. These vision categories, along with the specific initiatives, show the value of each initiative to the institution, and the linkage to SMC's strategic initiatives and objectives—these initiatives are depicted in Table 1 below:

Table 1 | Table of Strategic IT Initiatives

	Table 1   Table of Strategic 11 Illitratives			
#	Initiative	Initiative Description	Benefit/Outcome	Linkage to SMC Strategic Initiatives
Visi	on 1   Modern and	d Reliable Technology		
1.1	Plan for administrative systems	Define and communicate a strategy for administrative systems at SMC, including implementing a modern Enterprise Resource Planning (ERP) system; completing the work that needs to be done to get there; and supporting existing systems in the interim.	Enables the College to approach a future ERP implementation in a thoughtful and structured way, and will serve to gain buy-in for change from the campus community.	Improve facilities and technology infrastructure, integration, and staffing.
1.2	Implement refresh cycle for infrastructure and equipment	Establish and maintain a realistic refresh cycle for technology infrastructure and equipment that prioritizes areas of greatest needs and importance.	Reduces risk of critical system failure and supports continuous and seamless access to existing and future systems. Helps to clearly communicate IT needs and associated costs to SMC senior staff.	Improve facilities and technology infrastructure, integration, and staffing.
1.3	Support the Facilities Master Plan	Collaboratively work with Facilities Planning to support the successful deployment of technology infrastructure, hardware, and instructional technologies needed for construction projects.	Creates IT standards for construction projects at SMC which will support on time and on budget project completion.	Improve facilities and technology infrastructure, integration, and staffing.
Visi	Vision 2   Planned and Secure Technology Environment			
2.1	Clarify, document, and refine governance and planning processes	Define the IT governance structure and planning processes to improve clarity about how technology projects and	Improves buy-in, engagement, coordination, and oversight of technology planning and decision-making.	Foster institutional effectiveness and innovation by improving long-term and integrated



#	Initiative	Initiative Description	Benefit/Outcome	Linkage to SMC Strategic Initiatives
		priorities are established at SMC.		planning linked to resource allocation.
2.2	Develop an information systems security program	Develop a formal framework to reduce institutional risk by establishing documented IT policies and procedures.	Improves information security policies, processes, and tools resulting in reduced risk to the College.	Improve facilities and technology infrastructure, integration, and staffing.
2.3	Establish business continuity and disaster recovery (DR) plans	Develop a comprehensive plan to maintain critical IT systems in the event of unplanned incidents. IT can support the creation of an institutional business continuity plan, but the plan needs to be driven by the College leadership team.	Documents DR and business continuity procedures, resulting in reduced risk to the College.	Assure an effective and dynamic College by ensuring long-term fiscal stability.
Visi	on 3   Outstandin	g Student Experience		
3.1	Promote usable and consistent experience in classrooms and labs	Establish a comprehensive support model for all classrooms and labs. Spaces should be welcoming, consistent, and intuitive. Support should be reliable, timely, and proactive.	Provides seamless technology experience for students and faculty. Improves IT"s ability to provide consistent support.	Close the gaps in educational outcomes among student groups.
3.2	Plan and support adoption of emerging technology and trends	Continuously evaluate the existing and anticipated technology needs of the College, and work collaboratively with the College community to procure technology solutions that best meet College needs.	Encourages approval and implementation of new technologies. Increases engagement with faculty and students about technology needs.	Expand the College's identity by enhancing and diversifying educational and career opportunities and pathways for students.
3.3	Establish IT service desk	Establish two service desks. One for students and another for faculty and staff. Each should have at least one walk-up location on the main campus.	Improves clarity regarding where to go for IT support. Provides more efficient IT support and internal knowledgebase.	Close the gaps in educational outcomes among student groups.



#	Initiative	Initiative Description	Benefit/Outcome	Linkage to SMC Strategic Initiatives
			Creates growth opportunities for IT staff.	
3.4	Support Guided Pathways Framework	Work with the SMC Redesign Team to provide technology solutions that support the goals to reimagine and comprehensively redesign the SMC student experience.	Supports reshaping the college as an equitable institution to better serve the diverse student body both socially and academically.	Close the gaps in educational outcomes among student groups.
Visi	on 4   Ready and	Able IT Team		
4.1	Establish communication strategy for IT	Develop and deliver a tailored, consistently branded, College-wide IT communication strategy for promoting awareness for IT services and resources.	Increases awareness and utilization of the available technology and technology services. Provides two-way communication about services and needs.	Improve facilities and technology infrastructure, integration, and staffing.
4.2	Establish a staffing plan	Establish a realistic staffing plan for IT that considers the future needs of the College as well as training, professional development and coaching for IT staff.	Increases planning and support for professional development. Clarifies for IT staff about future needs, opportunities, and direction.	Develop a human resource (HR) plan that supports student success by achieving benchmark levels of full-time faculty, classified staff, and administrators.



## **Initiative Components**

The following legend describes the components and elements of each initiative.

#### <Initiative #> <Initiative Title>

Vision <#> | <Vision Title>

<#> <Initiative Title>

Summary of the initiative. One to two sentences.

#### **Action Items to Implement Initiative**

- 1. Identify specific actions that need to be undertaken to implement and sustain the initiative.
- 2. There is no limit to the number of action items.

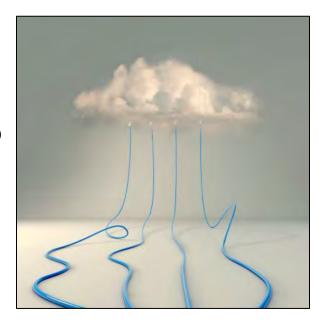
- 1. Identify specific metrics that can be used to gauge success of the initiative.
- 2. There is no limit to the number of measure of progress.

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact
Indicates SMC 2017 – 2022 strategic initiative and objective that is most directly supported by the initiative.	Represents the amount of effort required of those individuals directly tasked with implementing the initiative and estimated costs.  <   = Less than 1 Full-Time Equivalent position (FTE), or less than 1,800 hours per year    = 1 FTE or 1,800 hours per year    + = 1.5 FTE or 2,700 hours per year	On a scale of one (●) to three (●●●), indicates the level of change the initiative will require of stakeholders and the IT community.
Key Initiative Stakeholders		
Initiative Owner	Leader responsible for the initiative	
Consultative Role	Stakeholders that will likely be involved	



All departments at SMC, both academic and administrative, are reliant on technology infrastructure and systems. Modern and reliable technology is crucial to student success.

SMC has been considering replacing its legacy integrated student information system (WebISIS) for several years. The system was developed inhouse and supports critical College functions, including admissions, enrollment, catalog, scheduling, and curriculum. Although SMC appears to be headed toward a new enterprise resource planning (ERP) system, no official timeline has been established; funding is uncertain; and there is a lack of buy-in from faculty and staff. This uncertainty is impacting the morale within IT.



In addition, SMC has critical infrastructure that has reached end of life.

This section includes two initiatives:

- 1. Plan for administrative systems Define and communicate a strategy for administrative systems at SMC, including implementing a modern ERP system; completing the work that needs to be done to get there; and supporting existing systems in the interim. A clear strategy will enable the College to approach a future ERP implementation in a thoughtful and structured way, and will serve to gain buy-in for change from the campus community. This <u>EDUCAUSE article</u> provides one strategy for SMC to consider.<sup>1</sup>
- Implement refresh cycle for infrastructure and equipment Establish and maintain a
  realistic refresh cycle for technology infrastructure and equipment that prioritizes the
  areas of greatest needs and importance. An established refresh cycle will reduce risk of
  critical system failure, and support continuous and seamless access to existing and
  future systems.
- Support the Facilities Master Plan Collaborate work with Facilities Planning to support the successful deployment of technology infrastructure, hardware, and instructional technologies needed for construction projects.

<sup>&</sup>lt;sup>1</sup> Berman, Michael. "New Life for Legacy Systems." *EDUCAUSE*, 2019, pp. 44–47.



#### 1.1 | Plan for Administrative Systems

Define and communicate a strategy for administrative systems at SMC, including implementing a modern ERP system; completing the work that needs to be done to get there; and supporting existing systems in the interim.

#### **Action Items to Implement Initiative**

#### Implementing a Modern ERP

- Continue work with the student information system (SIS) Steering Committee to define a timeline and strategy for implementing a modern ERP system. Work with Business Services to identify and consider budget implications.
- Engage an ERP consultant to facilitate the vendor selection process. This includes a fit gap
  analysis to identify third-party needs and cost estimates, including current state and required
  third-party vendors.

#### **Preparing for a Modern ERP**

- Assess the current risks to WebISIS and establish a strategy to sustain it in accordance with the timeline established for implementing a modern ERP system.
- Consider staffing to support WebISIS as part of the staffing plan (reference section 4.2).
- Limit development for WebISIS and implement a new approach for requesting additional functionality. Consider the following questions: Will the functionality be met by a future ERP? Can SMC wait until a new ERP is implemented? Are third-party products available?
- Develop business analysis and integrations skills internally
- Convert all Oracle forms to Oracle Application Express (APEX).

#### **Supporting Existing Systems**

- Document existing business processes.
- Develop a change management plan for implementation of a modern ERP system.
- Identify and document specific information about SMC data, including: where it resides, its structures, its quality, who has data access, and who has responsibility.
- Identify additional skills and training needed.

- Established strategy and timeline for future direction for ERP.
- Active and visible executive sponsorship for ERP implementation.
- Increased buy-in and stakeholder satisfaction measured through surveys.
- WebISIS no longer needed nor in use by SMC.

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact
Improve facilities and technology infrastructure, integration, and staffing.	♦ + - Significant funding and effort required.	●● • - District–wide impact. Significant business process changes required.
Key Initiative Stakeholders		
Initiative Owner	TBD. This is not solely an IT initiative. SMC leadership needs to define an initiative owner.	
Consultative Role	Senior staff, Chief Director of IT, IT staff, all functional areas	



## 1.2 | Implement Refresh Cycle for Infrastructure and Equipment

Establish and maintain a realistic refresh cycle for technology infrastructure and equipment that prioritizes areas of greatest needs and importance.

#### **Action Items to Implement Initiative**

- Identify and categorize existing infrastructure and equipment, including but not limited to: cabling, DR equipment, door access, firewalls, IP phones, mobile devices, routers, security cameras, servers, storage, switches, uninterruptable power supply (UPS), and wireless access points.
- Establish policies for when each item should be replaced based on industry standards and SMC budget considerations.
- Identify the physical equipment that can be replaced by infrastructure-as-a-service (laaS) and determine associated costs.
- Consider adopting an IT asset management tool.

#### Sample of Planned Projects

- Upgrade firewall to provide 10G internet speed.
- Discontinue use of backup tapes in favor of cloud services.
- Migrate to Office 365 and decommission Exchange server.
- Expand wireless coverage.
- Decommission end of life wireless controllers.
- Replace audio/video (A/V) infrastructure.
- Retire and decommission end of life servers.

- Five-year infrastructure replacement plan and budget provided to senior leadership.
- All infrastructure and systems are updated and under support.
- No equipment passes end of life.

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact
Improve facilities and technology infrastructure, integration, and staffing.	← Effort upfront to inventory equipment and establish replacement cycles. May require additional funding to maintain.	- District–wide impact.  Work completed by IT.
Key Initiative Stakeholders		
Initiative Owner	Chief director of IT	
Consultative Role	VP for business and administration, IT management, IT staff	



#### 1.3 | Support the Facilities Master Plan

Collaboratively work with Facilities Planning to support the successful deployment of technology infrastructure, hardware, and instructional technologies needed for construction projects.

#### **Action Items to Implement Initiative**

In support of the Facilities Master plan, IT will:

- Provide current standards documentation for each construction project.
- Provide consultation and technology recommendations.
- · Adhere to construction schedules and timelines.
- Provide requested equipment in a timely manner.
- Plan for impact new construction projects will have on existing staffing and infrastructure resources

- · Technology Standards are met.
- Schedules and timelines are followed.
- No disruption to technology resources for students, faculty and staff.

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact
Improve facilities and technology infrastructure, integration, and staffing.	< • - Significant funding and effort required. Will vary based on capital projects.	District-wide impact. Significant business process changes required.
Key Initiative Stakeholders		
Initiative Owner	Director, Network Services	
Consultative Role	Business Services, Facilities Planning, Chief Director of IT	



A complex technology environment, and SMC's reliance on said environment, creates significant institutional risk. Breaches of the College's systems or a loss of service could have impactful ramifications on College operations and reputation.

During the assessment phase, BerryDunn noted multiple opportunities to reduce risk to SMC, including: establishing business continuity and DR plans, policies, and procedures that enable the institution to operate during outages and failures of critical systems; completing critical security projects and developing an information security program; and increasing awareness of IT governance to help ensure a tightly integrated and understood process across campus.



This section includes the following initiatives:

- 1. Clarify, document, and refine governance and planning processes Define the IT governance structure and planning processes to improve clarity about how technology projects and priorities are established at SMC. This will serve to improve buy-in, engagement, coordination, and oversight of technology planning and decision-making.
- Develop an information systems security program A security program improves information security policies, processes, and tools, resulting in reduced risk to the College.
- Establish business continuity and DR plans Support institutional leadership in developing a comprehensive plan to maintain critical IT systems in the event of unplanned incidents. This will serve to reduce risk to the College.



## 2.1 | Clarify, Document, and Refine Governance and Planning Processes

Refine the IT governance structure and planning processes to improve clarity about how technology projects and priorities are established at SMC. Establish clear objectives and increase awareness of IT governance across the district. Ensure cross-campus representation, collaboration, and communication to improve engagement.

#### **Action Items to Implement Initiative**

- Document existing governance and planning processes.
- Work with stakeholders to identify existing gaps and points of confusion.
- Establish processes to assess, approve, and prioritize IT projects. Leaders from the functional areas should be involved in establishing priorities.
- Establish processes around technology procurement. Consider specific scenarios—for example, how should IT be involved in technology procurement as a result of grants or donations?
- Seek direction from the District Planning and Advisory Council (DPAC).
- Communicate the technology governance and planning processes to the campus community.

- All projects go through formal planning and approval process.
- Campus understands and follows established processes.
- IT is closely involved in the planning and approval processes.

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact		
Foster institutional effectiveness and innovation by improving long-term and integrated planning linked to resource allocation.	<	●● - District—wide impact. Work primarily completed by IT and functional area leaders.		
	Key Initiative Stakeholders			
Initiative Owner	Chief director of IT			
Consultative Role	VP for business and administration, IT staff, departmental stakeholders, Technology Planning Committee			



#### 2.2 | Develop an Information Systems Security Program

Develop a framework to reduce institutional risk by establishing documented IT policies and procedures, regularly scheduled assessments/scans, and security awareness training.

#### **Action Items to Implement Initiative**

SMC will establish an Information Security Program based on National Institute of Standards and Technology (NIST) 171 standards that includes the following:

- An established information security office
- Security breach response plan
- Regular security assessments and third-party audits
- Center for Internet Security (CIS) critical controls assessment
- · Phishing assessment
- Service policy and procedure catalog
- Vulnerability management
- Daily Splunk logging, Spirion data inventory and monitoring, and spam filtering
- Self-service password management/multi-factor authentication
- Mandatory security awareness training—included during new employee onboarding
- Secure Socket Layer (SSL) certificates
- Plan for mobile device management
- Approval process for data requests—data access management
- Encryption of protected data in transmission or at rest

- 100% of employees have taken security awareness training.
- Security assessments and remediation efforts completed.
- Compliance with NIST standards and industry compliance requirements (Payment Card Industry (PCI), Gramm-Leach-Bliley Act (GLBA), General Data Protection Regulation (GDPR), etc.)

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact
Improve facilities and technology infrastructure, integration, and staffing	Significant effort to establish, maintain, and execute information systems security program. May require additional funding.	●●● - District-wide. Everyone is responsible for information security.
Key Initiative Stakeholders		
Initiative Owner	Information security officer	
Consultative Role	Senior staff, chief director of IT, IT staff, functional stakeholders	



#### 2.3 | Establish Business Continuity and DR Plans

Develop a comprehensive plan to maintain critical IT systems in the event of unplanned incidents. IT can support the creation of an institutional business continuity plan, but the plan needs to be driven by the College leadership team.

#### **Action Items to Implement Initiative**

- Conduct a business impact analysis to establish recovery time objectives (RTOs) and recovery point objectives (RPOs) for critical systems.
- Conduct an analysis of existing datacenters and develop options for primary and backup sites
  moving forward. Assess costs of backing up directly to the cloud and determine frequency of
  backups.
- Procure funding and contract with an additional internet service provider for redundancy.
- Assess bandwidth requirement to support continuity of WebISIS.
- Develop an IT incident management/response team and communication plan that includes stakeholders from outside of IT.
- Document incident response scenarios and remediation plans. Maintain printed copies.
- Investigate and develop mutual aid agreements with external partners and institutions.
- Implement a test environment and test established plans regularly, including mock disaster drills. Stakeholders from outside of the department will need to participate. For example, facilities may need to assist with generator tests.
- Update plans on an annual basis.

- Documented policies and procedures approved and in place.
- Adherence with established RPOs and RTOs during routine DR tests.

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact	
Assure an effective and dynamic College by ensuring long-term fiscal stability.	← Effort – Significant effort by multiple stakeholders at the College to establish plans. Additional funding likely required.	●● - District-wide impact in the event of a disaster or unplanned outage.	
Key Initiative Stakeholders			
Initiative Owner	TBD. This is not solely an IT initiative. SMC leadership needs to define an initiative owner.		
Consultative Role	Senior staff, Chief director of IT, manager of information systems (MIS) manager, information security officer (ISO), IT staff, department heads		



The College has a reputation as an innovative institution. However, faculty and students reported that classroom experiences are not consistent across campus; there is inequity in the

condition and outfitting of campus facilities; and there is not a dedicated service desk for students to contact for technology support.

IT can help affirm and advance SMC's reputation as an innovative institution by coordinating and facilitating the adoption of new technologies across campus, equipping the College's instructional spaces with consistent technology, and establishing an IT service desk. SMC will need to regularly consult with faculty and students to help determine technology needs and priorities.



This section includes the following initiatives:

- Promote usable and consistent experience in classrooms and labs Establish a
  comprehensive support model for all classrooms and labs. Spaces should be
  welcoming, consistent, and intuitive. Support should be reliable, timely, and proactive.
  Consistent technology in learning spaces provides seamless technology experience for
  students and faculty, and improves IT's ability to provide consistent support.
- Plan and support adoption of emerging technology trends Continuously evaluate
  the existing and anticipated technology needs of the College and work collaboratively
  with the College community to procure technology solutions that best meet College
  needs.
- Establish IT service desk Establish two single point-of-contact service desks. One for students with at least one walk-up location on campus and another for faculty and staff. Service desks improve clarity regarding where to go for IT support, provide more efficient IT support and an internal knowledgebase, and create opportunities for growth for IT staff.
- Support Guided Pathways Framework Provide the technical support and expertise needed to reshape the college as an equitable institution that is more effective and more efficient at serving SMC's diverse student body.



## 3.1 | Promote Usable and Consistent Experience in Classrooms and Labs

Establish a comprehensive support model for all classrooms and labs. Spaces should be welcoming, consistent, and intuitive. Support should be reliable, timely, and proactive.

#### **Action Items to Implement Initiative**

- Create a working group with broad representation from across campus. Faculty and students need to be included.
- Inventory the technology currently in place in each classroom and lab.
- Define the use cases and needs of each type of classroom and lab and, define specific technology requirements. Involve faculty and students in classroom discussions to understand their needs. Conduct site visits to aspirational institutions to understand what is possible.
- Consider EDUCAUSE's <u>Learning Space Rating System</u> and other computer area facilities standards as benchmarks.
- Conduct a gap analysis of the technology that exists at each location and the defined technology requirements. Quantify the cost to bring all spaces up to the target standard.
- Develop training videos and quick-start guides to help faculty and students use the technology in each space. Include this information in a technology orientation process for new students and faculty.
- Assess staffing to support the labs and classrooms. Staff should be available during all hours of operation. Consider increased support during the first weeks of semester. Modify the existing Service Level Agreement (SLA) to reflect staffing changes.
- Work with facilities to modernize the look and feel of the labs, including: paint, furniture, etc. Clean up and replace the cabling as needed.
- Help ensure adequate Wi-Fi in classrooms and labs. This will include installing new access points and fixing points that are not placed correctly.
- Consistently engage with students and faculty to understand evolving needs. Current examples
  include consistent printing solutions and virtual workstations to support Bring Your Own Device
  (BYOD).
- Disseminate consistent information to lab and classroom support staff to best serve students.

- Student and faculty feedback—gained through surveys and focus groups.
- Increased lab utilization—measured through LabStats.

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact
Close the gaps in educational outcomes among student groups.	← Significant effort up front to determine classroom and lab standards. Will require increased funding to completely standardize the classrooms and labs.	●● - All faculty and students. Streamlined support for IT staff.
Key Initiative Stakeholders		
Initiative Owner	Academic Computing Manager	
Consultative Role	Chief director of IT, IT staff, Academic Affairs, faculty, and students	



## 3.2 | Plan and Support Adoption of Emerging Technology and Trends

Continuously evaluate the existing and anticipated technology needs of the College and work collaboratively with the College community to procure technology solutions that best meet College needs.

#### **Action Items to Implement Initiative**

- Identify a working group focused on innovative uses of technology. Incorporate members of the Information Services Committee (ISC) and center for teaching excellence.
- Establish processes to identify, evaluate, and approve new technologies. Several elements need to be considered, including: changes in program, return on investment (ROI), Americans with Disabilities Act (ADA) compliance, space requirements, etc.
- Continually engage faculty and students to identify emerging technology needs through surveys and focus groups.
- Engage faculty to discuss new software requirements each semester.
- Regularly attend IT conferences to learn about emerging technologies and present lessons learned. Develop internal expertise to support emerging technologies as needed.
- Establish expectations about level of support provided for emerging technologies. Examples of emerging technologies that SMC must continue to monitor include: Wi-Fi 6, 5G, chatbots, interactive display boards, telepresence, artificial intelligence, and blockchain.

- Pilots that have moved to campus-wide deployment.
- Openness to pilot innovative and emerging technologies—measured through surveys.
- · Continual engagement of faculty and students.
- Adoption of deployed technologies.

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact
Expand the College's identity by enhancing and diversifying educational and career opportunities and pathways for students.	↑ - Continual effort for IT staff to stay apprised of technology trends and consult with faculty and students.     Adopting and supporting emerging technologies may require significant funding.	● - The impact has the potential to be district-wide.
Key Initiative Stakeholders		
Initiative Owner	Chief director of IT	
Consultative Role	IT managers, IT staff, faculty, staff, students	



#### 3.3 | Establish IT Service Desk

Establish two service desks. One for students and another for faculty and staff. Each should have at least one walk-up location on the main campus.

#### **Action Items to Implement Initiative**

- Define hours of operation for each service desk. Analyze current help request data to identify times of peak demand. Make sure to consider all locations (Center for Media and Design (CMD), Bundy, Emeritus, etc.).
- Develop a staffing plan to staff the service desks based on the hours of operation, using both
  classified employees and student workers. Assign roles to existing IT staff. IT needs to stagger
  hours of support for lunch and start/end times. Consider outsourcing to augment support hours.
- Establish a consistent hiring and recruitment process for student workers, including a training program. SMC will need to determine the access that students can have.
- Determine the best locations on campus for the service desks. Establish where the service desks report in the IT organization.
- Establish triage process to escalate service requests from the service desks. Assign roles to existing IT staff. Clearly define the responsibilities. Consider training as needed, particularly around customer service.
- Identify and implement an IT service management system that includes: ticketing and analytics, service catalog, and knowledgebase functionality. Make the ticketing system available to all IT staff.
- Develop documentation and a knowledgebase to improve efficiency and expand the role of service desk staff. Work to expand self-service functionality to reduce ticket volume.
- Communicate new processes and expectations around the service desk and tiered support structure to the College community.

- Establish a service desks.
- Hire student workers.
- Implement a new service management system.
- Gauge satisfaction—measured through surveys.
- Identify number of students helped—tracked through ticketing system data.

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact
Close the gaps in educational outcomes among student groups.	† + - Moderate effort to establish. Significant effort to maintain. Increased funding required for student workers and IT service management system.	●● - District-wide impact.
Key Initiative Stakeholders		
Initiative Owner	Director of network services	
Consultative Role	Chief Director of IT, IT staff, senior staff, faculty, and students	



#### 3.4 | Support Guided Pathways Framework

Work with the SMC Redesign Team to provide technology solutions that support the goals to reimagine and comprehensively redesign the SMC student experience.

#### **Action Items to Implement Initiative**

Provide the technology resources required in support of the following overarching goals identified by the Redesign Team.

- Program Maps: All instructional programs (degrees, certificates, and major preparation for transfer) have an adaptable program map with on and off ramps.
- Areas of Interest: All first time in college students identify an Area of Interest at the time of application and select an Academic and Career Path by end of their first academic year.
- Student Support: All students receive proactive academic and non-academic support.
- Critical and Gateway Courses: All students complete a minimum of 9 degree-applicable units in their Area of Interest or Academic and Career Path within their first year.
- Scheduling/Enrollment: Course scheduling is data-driven and informed by students' availability and comprehensive educational plans.
- Student-Facing Technology: All students utilize seamlessly integrated, interactive, comprehensive student-facing technology in support of their educational goals.
- Communication & Outreach: The College provides interactive, coordinated, and targeted communication throughout the student's SMC experience.
- Professional Development: All faculty, staff, and administrators participate in strategic, frequent, and consistent professional development to sustain SMC's student-centered, equity-minded, data-driven efforts.

Campus Community: The college provides the physical and social space conducive to campus engagement and to a sense of belonging.

Measures of Success			
Successful implementation of projects associated with the identified goals.			
Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact	
Close the gaps in educational outcomes among student groups.	< • - Significant funding and effort required.	- District-wide impact. Significant business process changes required.	
Key Initiative Stakeholders			
Initiative Owner	TBD. This is not solely an IT initiative. SMC leadership needs to define an initiative owner.		
Consultative Role	VP, Academic Affairs, Chief Director of IT, All functional areas		



## Vision 4 | Ready and Able IT Team

The IT Department (IT) at SMC has talented employees who are committed to the success of the College. There is an opportunity to develop a staffing plan to better align the skills and efforts of the employees with the changing needs of the institution. A key component of this plan will be training and professional development.

There is also an opportunity to improve communication both within IT and from IT to the campus community.



This section includes two initiatives:

- 1. **Establish communication strategy for IT** Develop and deliver a tailored, consistently branded, College-wide IT communication strategy for promoting awareness for IT services and resources. A communication strategy will provide increased awareness and utilization of the available technology and technology services.
- 2. **Establish a staffing plan that includes training and professional development** Establish a realistic staffing plan for IT that considers the future needs of the College, as well as training, professional development and coaching for IT staff. A staffing plan will provide clarity for IT staff about future needs, growth opportunities, and direction.



## **Vision 4** | Ready and Able IT Team

#### 4.1 | Establish Communication Strategy for IT

Develop and deliver a tailored, consistently branded, College-wide IT communication strategy for promoting awareness for IT services and resources.

#### **Action Items to Implement Initiative**

- Identify and document the situations that require communication from IT (e.g., outages, planned disruptions, updates, upgrades, changes, new projects). Establish policies and expectations for each situation to identify the campus constituents to be communicated with and how best to communicate with each constituent group (e.g., email, phone, digital signage). This matrix will need to be consistently updated.
- Establish someone within the IT who is responsible for communication and maintaining the department's communication strategy. This may require the individual's job description to be changed.
- Communicate to, and educate, end users about the appropriate channels for communication.
   Educate and train the campus community to align expectations about future communications from IT. Incorporate the training into new hire orientation for faculty and staff.
- Establish a service catalog to communicate available services to the campus community.
- Develop policies and best practices to improve the user experience including sending an
  acknowledgement to faculty and staff when they submit a help ticket and keep them updated
  through the resolution process. Establish, publish, and communicate SLAs for common
  requests.
- Work with Marketing to develop consistent templates, documentation, web pages, and standard messages. Adopt a standard email signature for all IT staff.
- Develop plan for IT leadership and staff to be active and visible on campus to promote their services. Consider the following: having an IT booth at VIP day, organizing annual or semiannual student focus groups, and facilitating regular workshops for faculty and staff. Other strategies to promote awareness include increased IT signage around campus.

- Development of communication strategy and incident communication matrix.
- Satisfaction with communication from IT—measured through surveys.
- Feedback from student focus groups.
- Monitoring of SMC social platforms.

Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact	
Improve facilities and technology infrastructure, integration, and staffing.	• • Ongoing effort for IT. Will require additional funding for Marketing and communication materials.	●●● - District-wide impact.	
Key Initiative Stakeholders			
Initiative Owner	Chief director of IT		
Consultative Role	IT managers, IT staff, Marketing, all functional areas		



## Vision 4 | Ready and Able IT Team

#### 4.2 | Establish a Staffing Plan

Establish a realistic staffing plan for IT that considers the future needs of the College, as well as training, professional development, and coaching for IT staff.

#### **Action Items to Implement Initiative**

- Conduct an initial assessment of IT staff skills, interests, and professional development goals.
- Create individual development plans for each IT staff member—utilize the Specific,
   Measurable, Achievable, Relevant, and Time-Bound (SMART) goal system. This will require IT managers to work with HR and the California School Employees Association (CSEA).
- Identify skills that will be needed to support the future ERP system. Consider the need to retrain and reskill staff in professional development plans as needed.
- Establish a budget for professional development.
- Consider components of common frameworks such as ITIL and COBIT as needed
- Develop a plan for cross-training staff within the department.
- Create succession plans as needed.
- Adjust job descriptions to acknowledge varying levels of knowledge and responsibility within IT, and provide career-laddering opportunities where they do not already exist.
- Promote annual attendance at technical conferences and membership in professional organizations such as EDUCAUSE.
- Set aside a predetermined amount of time for weekly training and professional development.
- Build the knowledgebase in the IT service management tool.
- Assess the schedules of IT staff to align support with the needs of the College.

- Use and achievement of SMART goals.
- Quantity and quality of content in the knowledgebase.
- Annual job and performance reviews.
- · Certifications acquired.
- Increased productivity and morale—measured through surveys.
- Increased customer satisfaction—measured through surveys.
- Adequate coverage for all classes and events.
- Consistent adherence to policies and procedures among all IT groups.

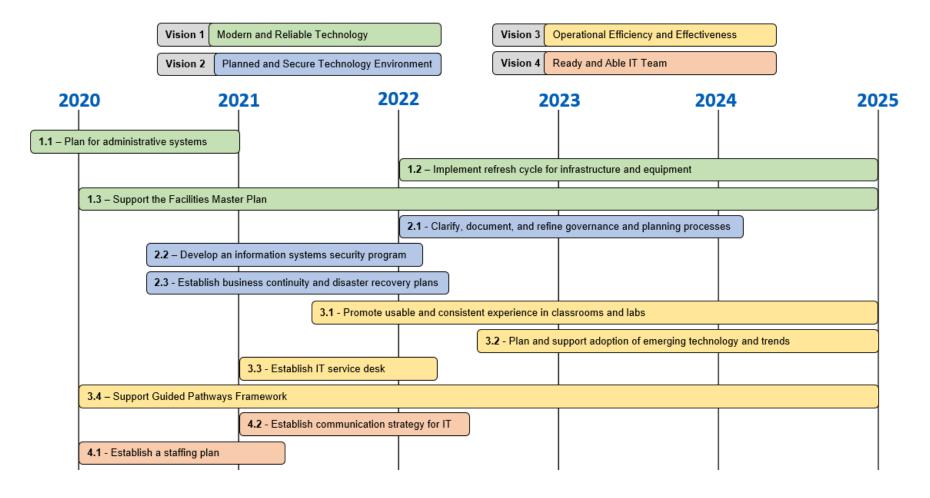
Primary Linkage to the SMC Strategic Initiatives	Level of Effort and Budgetary Considerations	Organizational Impact
Develop a HR plan that supports student success by achieving benchmark levels of full-time faculty, classified staff, and administrators.	Ongoing effort for every staff and manager in IT. Increased professional development budget.	●● - This initiative will primarily involve IT staff, but increased skill and planning will benefit the entire district.
Key Initiative Stakeholders		
Initiative Owner	Chief director of IT	
Consultative Role	President. VP of business services, personnel commission, HR, IT managers, IT staff	



## IT Strategic Plan Roadmap

Figure 2 depicts the initiatives over the next five years based on prioritization.

Figure 2 | IT Strategic Plan Roadmap





## **Appendix**

The following sections have been included in the appendix:

Appendix A | IT Strategic Planning Committee

**Appendix B** | Implementing and Sustaining the Plan

Appendix C | Survey Questions to Measure Success



#### **Appendix A | IT Strategic Planning Committee**

The following individuals are members of the IT Strategic Planning Committee and were involved in the IT strategic planning work sessions:

- Marc Drescher, Chief Director of IT
- Joshi John, Manager, Instructional Technology Services
- Miguel Reyes, Network Services Support Analyst
- Brant Looney, Manager, Instructional Technology Services CMD
- Tran Trang, Systems Administrator
- Mark Engfer, Manager, Technology Support Services Manager
- Dee Upshaw, Network Communications Technician I
- Leroy Nakamura, Media Services Technician
- Wendy Liu, MIS Manager
- Brian Pena, Project Analyst
- Ernesto Barba, Network Administrator
- Yuriy Karpman, Systems Administrator
- Dan Rojas, ISO



#### Appendix B | Implementing and Sustaining the Plan

The IT Strategic Plan is a living document that the College should revisit and update as part of an ongoing planning process. Sustaining the IT Strategic Plan will require an effective IT governance function, coupled with continued executive sponsorship and broad campus engagement and communication.

As the College moves forward with implementation of the plan, specific project plans and timelines will be developed to support each initiative. Project planning will include determination of initiative owners and key stakeholders.

An annual review process will help ensure the plan stays relevant and up to date to meet the needs of the College. The Technology Planning Committee should convene annually to review the past year's initiatives and discuss the upcoming year's initiatives. This meeting will provide an opportunity to review any changes required. These changes could be starting new initiatives, postponing or removing existing or upcoming initiatives, and/or changing the priority or timing of initiatives. An output of this annual meeting is a status report of the IT Strategic Plan to be shared College-wide.

The following table provides a framework for documenting progress and accomplishments each year.

Table 2 | Progress and Next Steps

#	Initiative	Accomplishments in 2020	New Action Items for 2021	
	Vision 1   Modern and Reliable Technology			
1.1	Plan for administrative systems			
1.2	Implement refresh cycle for infrastructure and equipment			
1.3	Support the Facilities Master Plan			
Visi	Vision 2   Planned and Secure Technology Environment			
2.1	Clarify, document, and refine governance and planning processes			
2.2	Develop an information systems security program			
2.3	Establish business continuity and disaster recovery (DR) plans			



#	Initiative	Accomplishments in 2020	New Action Items for 2021	
Visi	Vision 3   Outstanding Student Experience			
3.1	Promote usable and consistent experience in classrooms and labs			
3.2	Plan and support adoption of emerging technology and trends			
3.3	Establish IT service desk			
3.4	Support Guided Pathways framework			
Vision 4   Ready and Able IT Team				
4.1	Establish communication strategy for IT			
4.2	Establish a staffing plan			



#### **Appendix C | Survey Questions to Measure Success**

Several of the initiatives require a survey to measure progress and determine success. This section proposes several survey questions to help SMC establish a baseline and gauge progress moving forward.

#### Questions for Students, Faculty, and Staff

Please rank your satisfaction with the following:

- 1. Availability of IT
- 2. Responsiveness of IT
- 3. Availability of technology training
- 4. Communication from IT
- 5. IT service desk
- 6. Classroom technology and equipment
- 7. Innovative uses of technology

#### **Questions for IT**

Please rank your satisfaction with the following:

- 1. Opportunities for professional development
- 2. Collaboration with the campus community
- 3. Clarity of roles and responsibilities
- 4. IT governance and prioritization of IT projects
- 5. Information security program
- 6. Technology infrastructure