

Recommendation	SAT Action Plan	Date Projection
1. Proactive v. Reactive		
<p>We encourage SAT to adopt a proactive approach to recognizing technology needs and identifying new or innovative solutions to these needs. This recommendation could utilize the strongly collaborative culture of SAT by discussing needs and innovations at each department meeting. Individual employees could adopt specific technology areas to monitor based on their personal and professional interests.</p>	<p><i>SAT risk assessment is in process and we have begun to implement Nagios to monitor all our systems to better prepare for possible failures. Nagios will allow us to recognize potential system failure with early warning signs that are issued to our Systems Architect. A positive point is central IT also uses Nagios for their server monitoring so we can share knowledge and management practices.</i></p>	<p>Completed Aug 2015</p>
<p>We recommend that SAT use server/infrastructure/enterprise application management plans in conjunction with the results of a risk assessment to identify problems that are likely to arise. Methods for handling likely problems can be defined and practiced before the problem actually occurs. Being better able to predict when specific problems are more likely to arise can be accomplished through hardware and software monitoring.</p>	<p><i>One concern we have recognized as a department and has also been mentioned in the site review recommendations many times, is the lack of time and cross training of our full time staff to be proactive in monitoring and planning for system and service management.</i></p>	
<p>Careful and daily monitoring of the logs of these technology resources will significantly support a predictive approach; additionally, hardware use and stress can be monitored to further support a predictive and proactive approach. Software systems are available to gather and analyze logs (Splunk is one example) and hardware use and stress (Nagios is one example).</p>		

2. Infrastructure and Systems Management		
There is no replacement plan for Division servers and infrastructure. There appear to be two reasons for this: there is not a list of inventory or an inventory management plan, and there are perceptions that there is no money for server hardware replacement.	We have created a document that has an inventory of all SA server information, which will better allow us to monitor systems age and are in need of a replacement plan. We can prioritize which systems are due for replacement and when it should be considered.	Completed August 2015
SAT needs to create a replacement plan and then work with Division leadership to identify funding sources for the replacement of each piece of hardware. Unexpected loss of a piece of hardware can cause serious problems that may take days or weeks to resolve; a proactive management plan can eliminate or greatly reduce this risk.	SAT has issued a capital fund request to President's Council for server replacement for critical systems that are approaching 5-7+ years old. The servers included in the request house the division's "Student Affairs Applications" that include each department's 6 column models and annual reports among other important division programs. This request also includes a high capacity disk array to ensure redundancy and backup systems are provided for disaster recovery system failure.	
More attention and management needs to be devoted to Student Affairs Systems. Because little information was provided in the self-study report about servers, enterprise applications, their management, and future plans, the site review committee fears that too little attention and effort are being applied to these resources.		
There are several recommendations:		
1. Create an inventory of server/infrastructure hardware	Request was accepted and all the hardware was purchased	

<p>and develop a management/replacement plan.</p>	<p>Jan 2016. Hardware has been installed but the applications are scheduled to be transferred summer 2016</p>	
<p>2. Create an inventory of enterprise applications and define necessary management activities</p>	<p>We also recognize future funding for replacement plans will need to be discussed with our division leadership (SAMC)</p>	
<p>3. Carefully identify skills needed for server/enterprise application management and insure that any single-person dependency is eliminated.</p>	<p>Our Desktop Support Manager and Systems Architect have begun to cross train for better system coverage and management. This will begin to resolve the issue of one person doing all server management. Continuing process started Summer 2015 – ongoing with Spencer and Chip.</p>	