

WTCS 2027-29 Biennial Budget Proposals

Type: System Office Operations

Issue Title: Critical IT Infrastructure Security

Strategic Direction Goals: Collaborate, Innovate

Statutory Modification: Yes ☒ No

Amount:

<u>FY 28</u>	<u>FY 29</u>
\$4,070,000	\$4,070,000

Summary:

WTCS requests \$4,070,000 and 1 FTE position in FY28 and \$4,070,000 and 1 FTE position in FY29 to address critical IT security and stability issues within its Information Technology environment.

The Wisconsin Technical College System (WTCS) Office is a state agency with an annual budget of \$634,582,000 and consists of 51 authorized Full Time Equivalent Positions (FTE). The System Office is led by the System President and supports the WTCS Board in carrying out its duties and responsibilities as laid out in Chapter 38, Wis. Stats. These responsibilities include, among other things, approval of academic programs, the distribution of state aid and grants to colleges, approval of facility projects, and maintenance of course and student data. System Office operations total just over \$8.3 million annually, most of which is used to cover staff costs, rent, WTCS Board operations, and IT System development and management. In FY 26, \$871,300 of the System Office's budget was spent on IT.

In addition to supporting System Office staff, the WTCS IT team is responsible for maintaining a multi-system environment that supports academic programs at the colleges. These systems house numerous data elements, many of which are confidential and in need of modern security protection. These systems support more than 2,000 users across the system while ensuring secure access to critical information. Beyond internal reporting, WTCS data is relied upon to fulfill statutory reporting requirements, support outcomes-based funding, drive workforce and labor market analysis, and provide the data foundation for numerous publications, agreements, grants and accountability initiatives across the WTCS.

Over time, inadequate investments in WTCS' IT infrastructure have created security vulnerabilities and inefficiencies that should be addressed over the next biennium. WTCS has identified three critical investments that would reduce the chance of data breach, data loss, and improve overall system efficiency. This risk is amplified by the fact that higher education systems and institutions remain top targets for cybersecurity attacks due to the concentration of sensitive data within vulnerable systems.

Portal Modernization

- The WTCS “Portal” is a collection of 14 systems where the colleges and System Office staff upload and exchange data on students, courses, financial transactions and contractor activity. WTCS systems process 30,000 records daily and eight million records annually. At any given time, WTCS systems store 760,000 course related records. Many of these records are sensitive because they contain Personally Identifiable Information (PII).
- As noted, the Portal contains millions of student records. Each containing PII that is becoming increasingly difficult to protect.
- All but one of these systems rely on outdated and unsupported technology. The programming language has not been industry standard since 2013 and therefore vendors do not provide support to these systems. Without vendor support there are no security patches, forcing System Office staff to develop their own security strategies. Consequently, these systems are vulnerable to security breaches.
- In addition to security concerns, these outmoded systems are not user friendly, nor do they position WTCS for future technology or business needs.
- Due to outdated programming language, development cycles for WTCS-built modifications and upgrades are slow and inefficient.
- It has become increasingly difficult to find staff and contractors with the ability to work in this obsolete programming language.
- The cost of procuring a vendor and replacing all 13 remaining obsolete systems in the Portal is \$3.5 million per year over the next five years.
- This estimate includes the cost to create a 1.0 FTE IT Project Manager position to oversee the vendor for these redesign projects.

Data Warehouse

- WTCS currently operates a large data system with multiple siloed and inefficient ways of accessing that data.
- Access to this data is critical for federal and legislative reporting and for ad hoc reporting on student success, program effectiveness, etc.
- Staff accessing these data risk inadvertently altering, deleting or releasing sensitive information because they must work within the source data. As a result, WTCS restricts access to the data to only a handful of staff. In addition to data risks, limiting staff access to basic data creates delays and inefficiencies.
- A Data Warehouse is a system whereby select data elements are copied and housed separate from the source data. These data can be accessed without risk to source data and PII can be restricted or removed.
- The System Office aims to unify its data strategy into a single consolidated data management system with fewer and more robust data access solutions. These solutions

would continue to support institutional reporting needs, modern analytical tools and operational decision making.

- As the Data Warehouse will become the standard source for reports, all WTCS staff and large numbers of technical college users are the intended users of the project. Up to 60 staff across the system will use the data warehouse and build reporting and up to 1,000 college staff will access those reports and/or the Data Warehouse itself.
- WTCS requests \$500,000 in FY28 and FY29 to hire two contractors for the development of a modern Data Warehouse that meets industry best practices.

Grants Management System

- Over the last three fiscal years, WTCS has awarded an average of 424 unique grants to colleges and other entities.
- WTCS began using its current grants management system in 2019. It functions as an application and award system that includes workflows for review and approval processes. In addition, some limited reporting functions are present.
- The system has poor cyber security controls and does not interface with other existing WTCS or state systems. For example, the current grant management system has no option to provide an output file that can be uploaded into STAR. All grant expenditures must be manually entered into STAR.
- The user interfaces and workflows are inefficient and difficult to use. In addition, the current vendor is resistant to system modifications that could improve functionality.
- The current annual cost of the existing system is approximately \$32,000 per year.
- WTCS estimates that \$100,000 per year is needed for a more functional grants management system. WTCS requests \$70,000 per year in base funding to procure and pay for a new grants management system.