

Technology Design



Effective technology is dependent upon proper planning. Design is scenario dependent. All projects require some level of technology design – we tailor it to your specific situation. Secant never implements technology for technology's sake. We start every project discussion and exploration with highly skilled and experienced engineers. This technology planning discussion defines where you are and where you want to go. Whether you're upgrading existing infrastructure or building an entirely new facility, Secant will help you plan for what you want and determine what you need.

“Secant’s expertise and attention to detail contributed to a successful outcome in which the University of Michigan and SmithGroupJJR were pleased.” - Mark Potter, SmithGroupJJR

IMPORTANCE OF TECHNOLOGY

Over the last 20 years, technology has become a major part of construction projects, accounting for a significant percentage of the budget. In a modern building, many of the systems are dependent on the data network, including energy management, lighting control, HVAC, telephone, paging, bells, access control, security cameras and electronic signage.

TECHNOLOGY CONSULTING SERVICES

Secant assists organizations in the design and implementation of technology systems. Our project team works closely with your staff to design, budget, and manage projects ranging from network upgrades to the total technology for a new building. Technology evolves rapidly and our designers constantly research and evaluate the newest solutions. We understand that technology systems are interdependent and each system must be carefully designed with an understanding of its interaction with both new and existing systems.

TECHNOLOGY ASSESSMENT

Having a complete understanding of the existing technology infrastructure within an organization is the first step in identifying needs and planning for new projects. Secant’s Technology Assessment Program (TAP) provides an in depth analysis of your existing systems along with recommendations and budgets for any needed upgrades or improvements.

TECHNOLOGY DESIGN

Secant works as a member of your architectural design and construction management team so the design and management of technology is a seamless part of the overall process. This ensures technology is at the table and involved in, all phases of project management — from budgeting through bidding and construction to the final punch list. You wouldn’t undertake a building project without discussing electrical provisions. You can’t design a building without discussing technology systems.

BID PROCESS MANAGEMENT

Secant will successfully manage the bid process, whether your project is publicly or privately funded, and customize the process for your internal requirements. Starting with the creation of specification documents, CAD drawings, vendor contracts and bid advertisements, to conducting prospective bidder walk-throughs, issuing addenda, evaluating bidder responses and finally, preparing award recommendations.

TECHNOLOGY CONSTRUCTION MANAGEMENT

Once your technology project has been designed, issued for bids, and contractors awarded the work, Secant’s construction management starts. Secant’s team members bring the knowledge necessary to confirm contractors have installed the technology systems in accordance with the technical specifications and industry best practices. Our real world experience installing and supporting technology systems for hundreds of organizations makes us uniquely qualified to perform these tasks.

AREAS OF EXPERTISE

Needs Analysis

- Technology assessments
- Network inventories
- Security audits

Contract Document Services

- Complete AutoCAD and Revit capability
- Specification creation
- Bid process management

Data Cabling

- Category 5e, 6, 6a
- Fiber optic – single & multimode
- Outside plant – aerial & underground

Physical Security Systems

- Access control
- Surveillance camera
- Personal protection device
- Intrusion detection
- Perimeter defense

Networking

- Routers, switches, firewalls
- Indoor and outdoor wireless
- Content filter
- Data loss prevention

Server Infrastructure

- Fault tolerant
- Network-attached storage
- Storage area networks

Network Operating Systems

- Microsoft Windows Server
- VMware ESX
- Apple OS X
- Linux and Unix

Backup Systems

- Tape/disk
- Off-site and disaster recovery

Directory Systems

- Active directory
- NDS
- Open directory
- LDAP
- RADIUS
- Two-factor authentication

Applications

- Email
- DNS
- Web services
- Anti-virus and anti-spyware

Collaboration Systems

- VoIP and traditional
- Cellular/Email/Mass notification
- Paging/Intercom/bell
- Nurse call

End User Devices

- Staff devices
- Student devices
- Specialty function devices

Audio Visual Technology

- Distance learning and conferencing
- Presentation systems
- Sound-field reinforcement
- Auditorium and theater sound systems
- Gymnasium sound systems
- Digital signage
- A/V control – AMX, Crestron
- Video distribution
- Electronic signage
- Telehealth
- Sound masking
- Demonstration and training systems

RECENT PROJECT LIST

Battle Creek, City of
Benton Harbor Area Schools
Bronson Healthcare
Calvin College
Carson City Crystal Area Schools
Catholic Schools of Greater Kalamazoo
China Telecom
Coloma Community Schools
Comstock Public Schools
Dearborn Heights School District #7
Delhi Township DDA
Dicastal North America
East Lansing Public Schools
Eastern Michigan University
Eaton Rapids Schools
Eau Claire Public Schools
Eerdman's Publishing
Family Health Center
Flowserve
Gobles Public Schools
Greenville Public Schools
Gun Lake Tribe of Potawatomi Indians
Harper Creek Area Schools
Hillsdale College

Historic Ford Estates, The
Honor Credit Union
Kalamazoo College
Kalamazoo Public Schools
Kalamazoo County Mental Health
KRESA
Lakeview School District
Lakewood Public Schools
Lawton Community Schools
Marcellus Community Schools
Michigan Department of Corrections
Oakland University
Portage (MI), City of
Portage Public Schools
South Haven (MI), City of
South Haven Public Schools
St. Joseph (MI), City of
St. Joseph Public Schools
State of Michigan Emergency Ops Center
University of Michigan
Van Buren ISD
Veterans Administration
Vicksburg Community Schools
Western Michigan University

“Secant helped us identify the feasibility of pursuing a downtown WiFi project. Once we determined that we wanted to move forward, Secant helped us achieve our goals effectively.”

- Brian Dissette, City of South Haven (MI)

