



ST. JOHN BOSCO CATHOLIC  
SCHOOL TECHNOLOGY  
PLAN 2024-2029

---

# Table Of Contents

|                                      |   |
|--------------------------------------|---|
| 1.0 Overview.....                    | 3 |
| 1.1 Vision.....                      | 3 |
| 1.2 Mission.....                     | 3 |
| 1.3 Goals.....                       | 3 |
| 1.4 Guiding Principles.....          | 3 |
| 2.0 Technology Committee.....        | 4 |
| 2.1 Roles and Responsibilities.....  | 4 |
| 3.0 Needs Assessment.....            | 5 |
| 3.1 Administrative.....              | 5 |
| 4.0 Learning with Technology.....    | 5 |
| 4.1 Curriculum Integration Plan..... | 5 |
| 4.2 Staff Development Plan.....      | 6 |
| 5.0 Technology Infrastructure.....   | 6 |
| 5.1 Current Environment.....         | 6 |
| 5.1.1 Network.....                   | 7 |
| 5.1.2 Network Servers.....           | 7 |
| 5.1.3 Personal Computers.....        | 7 |
| 5.1.4 Video.....                     | 7 |
| 5.1.5 School Website.....            | 7 |
| 5.2 Future Plans.....                | 8 |
| 5.3 Technology Refresh.....          | 8 |
| 5.4 Financials.....                  | 9 |

## **1.0 Overview**

### **1.1 Vision**

To educate and empower administrators, teachers, and students to become self-directed, continuous learners, and ethical, responsible citizens prepared to meet the increasing challenges of a global, technology-oriented society.

### **1.2 Mission**

To enable administrators, teachers, and students to be as fluent and comfortable with technology as they are with textbooks, pencils, and numbers. They will learn when and how to utilize technology to express ideas, solve problems, formulate inquiries, navigate knowledge, and collaborate with others. The school will establish and achieve technology goals through collaboration with parents, administrators, teachers, students, and the Diocese of Phoenix.

### **1.3 Goals**

Current technology goals are as follows:

- a Provide adequate access to a reliable computer network so that computer skills can be taught, planned curricula integration projects can be completed, and “ad-hoc” use is encouraged for student learning, teacher productivity, and administrative tasks, including process improvement. Networked computers are available throughout the school, including the nurse’s office and administrative offices.
- b Provide robust networking infrastructure that enables users to centrally access their files/data, the Internet, printing, and key school-wide network-based applications from any computer in the school.
- c Provide access to media capture and creation facilities to enable students to express their thoughts and ideas in a variety of linear and hyper-media formats ( text, graphics, photographic images, 3D rendering, animation, sound, video).
- d Provide mechanisms that support communication and collaboration among students, teachers, parents, administrators, and the community to improve these skills, create a safe and effective learning environment, provide access to key information, and promote the image of the school and the Diocese.
- e Provide the infrastructure, operational process, and resources needed to support all of the above in a manner that is accessible, reliable, responsive, effective, and affordable.

## **1.4 Guiding Principles**

The school's technology program shall promote and support the following guiding principles:

- a. Personal responsibility for appropriate and ethical use of technology.
- b. Learning computing at the conceptual level (not just specific procedures, platforms, and tools).
- c. The integration of computer-based teaching strategies into the other curricular areas.
- d. The development of higher-order thinking skills (problem solving, inquiry, communication, etc).
- e. The use of home computers and home-oriented software to complete school projects.
- f. The judicious use of automation in a minimally supported school environment.

## **2.0 Technology Committee**

This plan was created and written by the IT Director (Hogan Macdonald) of St. John Bosco Catholic School.

It will be reviewed by Principal Jamie Bescak for approval.

The core Technology Committee currently consists of the following people:

Technology Director — Hogan Macdonald

Principal — Jamie Bescak

Faculty Members — Jena Gump, Ashley Kirksey

SAB Member — Sam Root

Strategic Plan Subcommittee — Cindy Casaus

Yearly Parent and Staff survey

## **2.1 Roles and Responsibilities**

The roles and responsibilities of the core Technology Committee members are as follows:

Principal — Set priorities for the use of technology at the school; determine use of budget funds and fundraising proceeds; approve projects and ensure due diligence has been done on technology recommendations.

Technology Committee Members — Support the Technology Director with the technology goals listed in the 2024-28 SJB Technology Plan.

Technology Director — Work along with the Principal, Technology Committee Members, and faculty to ensure goals are met in a timely manner as outlined in the 2024-28 Technology Plan; develop and train teachers on the proper use of computer equipment, and run and maintain the STEM lab and all technology resources; conduct routine network domain administration; work with teachers on curriculum integration; maintain firewall and network security; conduct/coordinate staff training; review technology-related projects and recommendations to ensure consistency with instructional, faculty, and administrative needs.

### **3.0 Needs Assessment**

#### **3.1 Administrative Roles**

Although the focus is on the use of technology for the direct improvement of the learning environment, many administrative uses of technology indirectly support this focus by streamlining processes and freeing up teachers and administrators to spend more time with students. Technology can also be used to improve communications, provide a safer environment, ensure better understanding between the school and family, and enhance the image in the community. The following are identified administrative needs:

- a. Two-way communication between classrooms and offices; improved teacher accessibility and teacher access to phones.
- b. Easy access to school information; improved school-to-family communications and provide information to those interested in the school.
- c. Improved collection, tracking, and access to grades, attendance, and immunizations. Solutions must include administration, ongoing support, and maintenance.
- d. Library administration (card catalog, check in/out, etc.)
- e. Computing infrastructure administration; provide virus and adware/spyware control, power and data backup, reporting, software upgrades, lab management, etc.

### **4.0 Learning with Technology**

#### **4.1 Curriculum Integration Plan**

The integration of technology into the curricula will be driven on two fronts:

- a. **Curriculum Integration.** All teachers will develop annual plans and schedule computer lab time for incorporating computer-based teaching strategies into their other curricula (language arts, science, etc.). Students learn computer skills (word processing, spreadsheets, etc.) in the context of solving a diverse range of non-

computer problems (writing poems, tabulating data from experiments, etc.). This is the primary way that our students learn to use computers.

- b. **Computer Skills Training.** Specific objectives have been established for K–3, 4–6, and 7–8 (see Appendix A – Diocesan Computer Curriculum). Although these skills are typically taught by incorporating computer-based teaching strategies into other (non-computer) curricula, the computer teacher tracks and ensures that all students have developed competency in these computer skills and teaches computer-specific lessons to address any shortfall (keyboarding, ethics, etc.). This approach will also be used to prepare junior high students for local high school entrance requirements.
- c. **Digital Citizenship.** A comprehensive digital citizenship curriculum will be implemented using commonsense.org to educate students on the responsible and ethical use of technology, complementing the school's vision and mission to empower learners in a technology-driven society. The curriculum will involve curriculum integration across subjects and dedicated computer skills training, aligned with the Diocesan Computer Competency Skill Matrix and supported by staff development initiatives. The curriculum will also add parent/home components to help facilitate reinforcement of lessons at home and help establish best practices of technology. All K–8 teachers will complete the Common Sense Education “Teaching Digital Citizenship” training.

## 4.2 Staff Development Plan

Technology experience is a prerequisite skill requirement for any applicant seeking a staff position at St. John Bosco Catholic School. A two-hour technology integration meeting/training will be provided for all new staff members. If further training is needed for technology integration, the training will be based on individual needs. If any new technology is purchased, training will be provided for all staff who will be utilizing the technology. Training delivery will be determined based on needs and internal capability. For example, the Technology Director, a knowledgeable parent, a peer, a third party or vendor, or a community college may conduct training. Subject areas will include:

- a. Classroom strategies for integrating computers and higher-order thinking.
  - Identifying curricula integration opportunities.
  - Designing collaborative and/or constructive learning environments.
  - Designing technology-based activities that engage higher-order thinking.
- b. Enriching the non-computer curriculum with technology-enhanced content:
  - Setting up video equipment for computer-generated content.
  - Running Google Workplace using Chromebooks.
  - Searching the Internet and presenting material for classroom display.
  - Building multimedia slideshows using Google Slides for classroom content presentation.

- c. Faculty use of computers for personal productivity:
  - Effective use of email.
  - Document and multimedia capture/authoring.
  - Grade book software.
  - Database and spreadsheet utilization.
  - School applications.
- d. Management of the Chromebook in the classroom:
  - Basic networked Chromebook operation and basic troubleshooting of common problems.
  - Implementing teaching strategies that utilize both lab and classroom computers.
  - Managing and structuring activities for shared computers / Chromebook use.

## **5.0 Technology Infrastructure**

### **5.1 Current Environment**

Significant progress has been made in the school technology program over the last several years thanks to administrative focus, adequate funding, and community involvement.

#### **5.1.1 Network**

- a. 1000 Base-T full duplex switched (6) backbone throughout the entire school, with fully secure Wi-Fi using Ruckus access points (12) throughout the entire school campus with full encryption.
- b. Multiple network connections in every classroom
- c. High speed Internet: Cox 300 sync up and down
- d. Client-Server architecture: 3 physical servers with 3 virtual servers
- e. Fortigate firewall x1

#### **5.1.2 Network Servers**

- a. Primary Domain Controller, domain management, file storage and retrieval possible from any PC computer on campus along with print to any one of the 2 Canon printers.
- b. Servers are on conditioned battery back-up power systems.
- c. SIS back up to FACTS/Renweb online
- d. Teacher Chromebooks network directly with printers/copiers

#### **5.1.3 Personal Computers**

- a. Each teacher has his/her own school-issued teacher Chromebook, all on the school network with Internet access, controlled by Google Workspace
- b. Chromebook laptops in the classrooms

- c. Nurse's Office
- d. Administrative Offices
- e. All grades have one-to-one Chromebooks, and each K–5 grade has a classroom set located in charging carts. All are controlled by the IT Director using Google Workspace and Hapara programs.

#### **5.1.4 Video**

- a. Each classroom has a OneScreen, which allows the teachers to display any kind of content using the screen or casting from their Chromebooks utilizing YouTube and other streaming services.

#### **5.1.5 School Website**

- a. Hosted by a private provider (Catholic Web Company). The website link is as follows: <http://www.sjbosco.org/>
- b. The website is full of information for school families as well as potential new families. It is an excellent communication and marketing tool.

#### **5.1.6 PA System**

- a. The school uses the latest Bogen Nyquist C4000 system that runs off the network instead of phone lines
- b. Automated bell system is in place with web interface for changes
- c. Main PA handset is in front office
- d. 3cx integration for use of local phone handsets

#### **5.1.7 Phones**

- a. Monitored cloud-based VOIP (Voice Over IP) system
- b. Fanvil Handsets for all classrooms
- c. 3cx app available for teachers to use on mobile devices

### **5.2 Future Plans**

The Technology Director, with suggestions from the Technology Committee, has identified several items being considered to enhance and/or maintain technology in support of the school's needs. They are as follows:

- a. Move the physical server to the cloud: Summer 2025



- b. Update Onescreens with latest model or Android Module: Summer 2025
- c. Obtain newer Chromebooks with a 3-year lease program every 5 years: Fall 2026
- d. Update Ruckus Access Points to the latest technology: Summer 2026
- e. Update Cox Internet, faster speeds: Summer 2025
- f. New copier and printers for the teacher lounge: Summer 2025
- g. New battery backups for the MDF and IDFs: Summer 2026
- h. Updated fiber lines from the MDF to the IDFs: Summer 2027 or 2028
- i. Upgrade to Cat6 or higher for all buildings: Summer 2027 or 2028
- j. Update Chromebook deployment for teachers: Summer 2027
- k. Update Switches in MDF and IDF: Summer 2026
- l. Update MPR projector and sound system: Summer 2027
- m. Implement a digital citizenship program to teach students responsible use of technology and internet tools and resources. Fall 2026
- n. Adoption and implementation of Digital Citizenship curriculum from Common Sense for grades K–8 (Fall 2026)

### 5.3 Technology Refresh

Now that the school has established a solid technology program, emphasis must be placed on Technology Refresh. The time and investment required to achieve future results are critical to the school staying on or ahead of the technology curve, or the program will quickly become obsolete. The principles the school will utilize to guide technology refresh are as follows:

- a. Technology requirements will be dictated by learning and administrative needs assessments, not by the desire to have new or exciting technology.
- b. Technology purchases or leases will be done with longevity as a priority. Purchases will entail care evaluation, including use and cost of ownership vs lease-to-own.
- c. Software updates are critical because they come with the latest bug fixes, security fixes, and stability fixes.
- d. At least 20% of funds raised shall be banked every year so that every 5 years, new Chromebooks may be leased/purchased. Chromebooks may be placed in the library or sold to raise money; older Chromebooks may be moved down to younger grades, sold, or donated.
- e. Standardization of Chrome OS/Android environments through the school and application is one of the highest priorities to minimize any cross-platform issues and reduce maintenance.
- f.

### 5.4 Financials

|                               |
|-------------------------------|
| <b>Financials (Estimates)</b> |
|-------------------------------|

| <b>Project</b>          | <b>Cost</b> | <b>Notes</b>                                      | <b>Funding Source</b> |
|-------------------------|-------------|---------------------------------------------------|-----------------------|
| Move Server to Cloud    | \$2000      | Domain and AD                                     | Tech Budget           |
| Network Update          | \$50,000    | AP, Switches, firewall (40% discount after erate) | Gala/erate            |
| Network Line Update     | \$100,000   | Fiber, Cat6 upgrade (40% discount after erate)    | Gala/erate            |
| Chromebook Update       | \$92,000    | 3-year lease (≈\$31,000/year)                     | Gala                  |
| Onscreen Updates        | \$40,000    | 5-year lease (≈\$7500/year)                       | Tech Budget           |
| New Copies and Printers | \$53,000    | 4-year lease (≈\$1100/month)                      | Tech Budget           |
| Upgrade Internet speed  | \$TBD       | 5-year Contract                                   | Tech Budget           |
| Battery Backups         | \$1000      | IDFs                                              | Tech Budget           |
| Teacher Devices         | \$20,000    | 14"-15" laptops with i3 and 8gig                  | Tech Budget/Gala      |