Sample K-12 Technology Plan

PROVIDED BY IKON BUSINESS GROUP

Table of Contents

- Objective
- Current Technology Environment
  - Inventory
  - Topology
- Current Issues
- Cybersecurity Risks
- Proposed Solutions
  - Implementation Roadmap
  - Helpdesk
  - Colocation of Network Equipment
- Process for On-Boarding, Off-Boarding, and Device Assignment
- Compliance
- Financial Budgeting

OBJECTIVE

Objective

The objective of this plan is to provide a technology implementation roadmap to support the school in reaching its academic goals. This will be accomplished by developing technology infrastructure and processes that support learning, assessment, teaching, and testing. The school currently has various technical issues, and this plan will provide a solution to remediate those issues and move forward with a solid technology infrastructure to operate now and into the future.

Here is where you can include information about your school's mission which will help you align the technology plan with your long-term goals.

CURRENT ENVIRONMENT

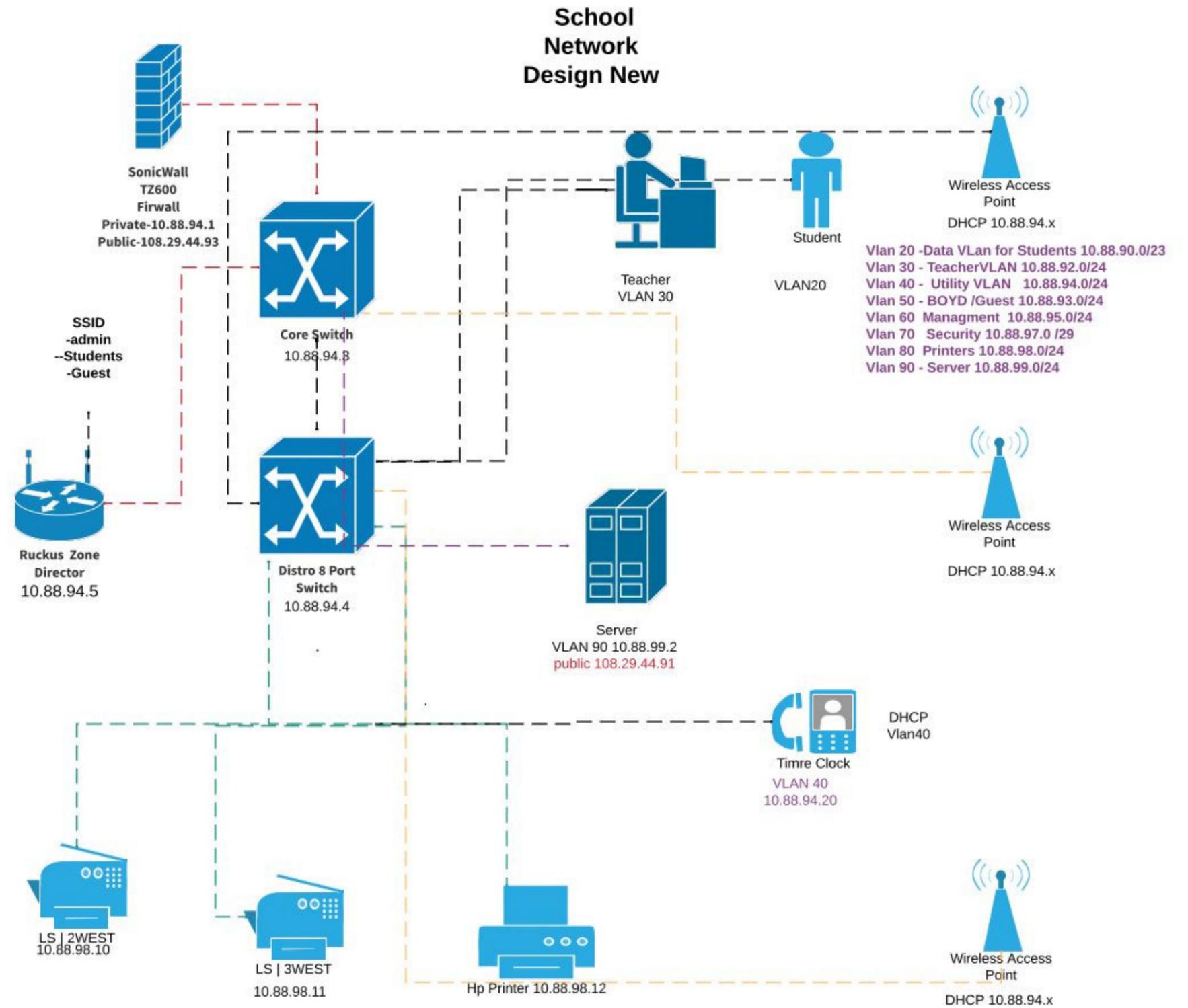# Current Environment: Hardware

List your school's current Technology infrastructure. Some examples of equipment found at most schools include:

- Access Points
- Switches
- Firewall
- Servers
- Staff Devices – Mac and PCs, Chromebooks, Tablets
- Student devices – Chromebooks, Laptops, Tablets
- VOIP Phones
- Video Cameras

TIP: This section should include any infrastructure that is used by your school

Example of School Network Design

School
Network
Design New

SonicWall
TZ600
Firwall
Private-10.88.94.1
Public-108.29.44.93

Teacher
VLAN 30

Student
VLAN20

Wireless Access
Point
DHCP 10.88.94.x

Vlan 20 -Data VLan for Students 10.88.90.0/23
Vlan 30 - TeacherVLAN 10.88.92.0/24
Vlan 40 - Utility VLAN   10.88.94.0/24
Vlan 50 - BOYD /Guest 10.88.93.0/24
Vlan 60 Managment 10.88.95.0/24
Vlan 70   Security 10.88.97.0 /29
Vlan 80 Printers 10.88.98.0/24
Vlan 90 - Server 10.88.99.0/24

SSID
-admin
--Students
-Guest

Core Switch
10.88.94.3

Ruckus Zone
Director
10.88.94.5

Distro 8 Port
Switch
10.88.94.4

Server
VLAN 90 10.88.99.2
public 108.29.44.91

Wireless Access
Point
DHCP 10.88.94.x

Timre Clock
VLAN 40
10.88.94.20

DHCP
Vlan40

LS | 2WEST
10.88.98.10

LS | 3WEST
10.88.98.11

Hp Printer 10.88.98.12

Wireless Access
Point
DHCP 10.88.94.x

Current Environment: Software

List your all of the software your school currently uses. Some examples include:

- Google Workspace
- Microsoft Office 365 Word, Excel, PowerPoint, Outlook, and MicrosoftTeams
- Zoom
- Mosley
- Smart Board Software
- Power School
- Ingenuity

Any software that is cloud-based or local to end-user devices should be included here. Your school should give careful thoughtand consideration to what software is needed as opposed to purchasing software in an ad-hoc manner.

CURRENT ISSUES

Current Issues

Below are some examples of technology issues your school may encounter:
- WiFi not optimized – coverage, 2.4 Ghz not turned off, bandwidth not optimized
- WiFi security
- Lack of a helpdesk or helpdesk software
- Acceptable user policy
- Lack of process around IT
- Colocation of equipment within a shared public school building
- Lack of control over end-user devices
- Inventory management
- Printing
- Data backup & Recovery

Helpdesk software is useful to uncover common technology issues amongst staff. Many time users won't report a problem unless it has a high impact on their work. Surveys can help gather this information.

CYBERSECURITY RISKS

Cybersecurity Risks

- Lack of endpoint protection software
- No email security
- Application guarding
- Backing up of data in cloud
- Security awareness training
- Cybersecurity Insurance
- Security feature on firewall – IDS/IPS

To prevent bias from your internal IT department it may be best to bring in an independent company to provide you with a top down cybersecurity assessment.

PROPOSED SOLUTION
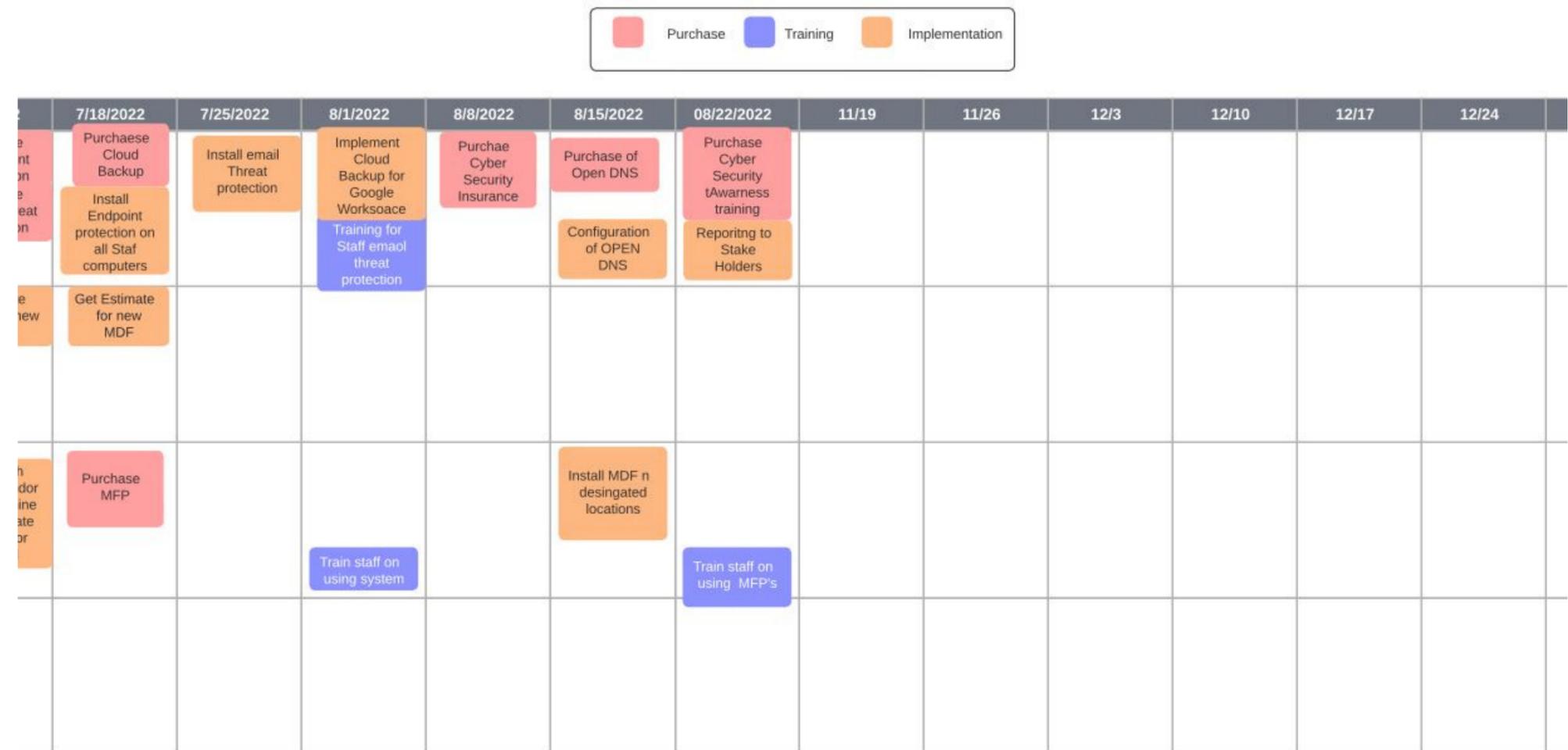
Proposed Solution

Your proposed solution should address all of your current issues. Examples include:

- **Optimization of Wifi –** Create separate WiFiSSID for students, teachers and guest/BYOD. Set bandwidth limits on each. Determine which application should have priority. Create Virtual networks for each traffic type (Student, teachers, guest, security, IoT, etc). Turn off 2.4Ghz radio on student and teachers

- **Check WiFi coverage** by performing a wireless survey which will create a heat map of the school's space.

- **Wifisecurity –** Use Radius server, WPA2 enterprise, Certificates or Mac address

TIP: Your proposed solution should explain what problem is being addressed and the impact of remediating these issues.

Implementation Roadmap

A roadmap with timeline, cost, and resources should be graphically planned out showing the implementation schedule of your proposed solutons.

	Purchase		Training		Implementation							

	7/18/2022	7/25/2022	8/1/2022	8/8/2022	8/15/2022	08/22/2022	11/19	11/26	12/3	12/10	12/17	12/24
nt on e eat on	Purchaese Cloud Backup / Install Endpoint protection on all Staf computers	Install email Threat protection	Implement Cloud Backup for Google Worksoace / Training for Staff emaol threat protection	Purchae Cyber Security Insurance	Purchase of Open DNS / Configuration of OPEN DNS	Purchase Cyber Security tAwarness training / Reporitng to Stake Holders						
e ew	Get Estimate for new MDF											
h dor ine ate or	Purchase MFP		Train staff on using system		Install MDF n desingated locations	Train staff on using MFP's						

Helpdesk

- Implement a helpdesk system for the school, e.g. Zendesk or Freshdesk
- End-users should be able to communicate with helpdesk personnel via chat, email, phone or social platform.
- Service Level Agreement should be created to clearly define expectations.
- Service should be classified as Level 1, Level 2, and Level 3
- Workflows should be used to help staff maintain SLA and communicate to the end-users
- A knowledge base should be created to provide self-service solutions for staff and students.

A helpdesk can evaluate your IT department's effectiveness as well as identify commonly reported issues and how they are resolved. This will help your school make better budgeting decisions for future IT expenditures.

Inventory Management

- As the Covid-19 pandemic forced schools to adopt 1:1 device policies, keeping track of inventory has become more difficult. Schools also need to keep track of which grant sources end-user devices were purchased from. Devices also should be tracked for warranty and service purposes.
- Inventory management software such as *Asset Panda* has become essential for helping schools remain compliant based on grant requirements.

Since most equipment purchases are based on grant sources, being able to track those devices is critical. Inventory management solutions allow schools to stay compliant.

Colocation of Network Equipment with Public or Other School's Equipment

Instead of building separate data closets when sharing facilities with another school, many IT departments tend to use the space previously earmarked by the other school. This may cause problems with security and maintaining access - both of which can hurt your service level agreement and potentially leave you exposed to issues on the other school's network.

TIP: Find space in your facility footprint to create a main IT closet. If there are multiple floors, create an IDF closet on each floor that can be locked within a cabinet.

Compliance

Your school MUST be aware of all the compliance mandates that need to adhere to, including:

- **FERPA (Family Educational Rights Act)** is a federal law that protects the privacy of student education records.
- **CIPA (Child Internet Protection Act)** requires schools to certify that they have an Internet safety policy that includes technology protection. Schools also must monitor the online activity of minors and educate them about appropriate online behavior.
- **FOIA (Freedom in information Act)** provides the public with the right to request access to records from any federal agency. You must make all records, including email, instant messaging, and social media available.
- **PCI (Payment Card Industry)** compliance is a requirement for securing cardholder data.
- **ADA (Americans with Disabilities Act)** is a civil rights law that prohibits discrimination against individuals with disabilities in all areas, including jobs, schools, transportation and digital assets such as websites and online applications.

TIP: There are software solutions available to assist your school in meeting all of the compliance mandates listed above.

Financial Budgeting

- Your school's technology budget should include one-time costs, monthly costs, and annual costs.
- Be sure to highlight areas where E-Rate and other funding sources may supplement your school's costs.
- Most recurring technology purchases will offer a discount for multi-year contracts.

THANK YOU FOR READING!

Let's Keep in Touch!

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