

# Franklin Technology Services



The Technology Services Department is a “merged” department meaning all Technology Department employees provide services to all Town and School departments.

# Town / School Distribution

Position	Location(s)	%Town	%School
Director of Technology Services	Town/Districtwide	50	50
Technology Operations Specialist	Town/Districtwide	30	70
Database Administrator	Town/Districtwide	30	70
Technology Reporting Specialist	Town/Districtwide	0	100
Network Administrator	Town/Districtwide	50	50
Server Administrator	Town/Districtwide	50	50
Jr Network/Server Admin	TH/RC	50	50
Tech Support Technician	HM/OS/EC/PW/MU	30	70
Tech Support Technician	LR/TJ/GP	20	80
Tech Support Technician	AS/HK/LB/F1/F2	30	70
Tech Support Technician	HS/JK/DT/FO/SC/PD	20	80
Tech Support Technician	HS/JK/DT/FO/SC/PD	30	70
Inventory Clerk (Part Time)	HS	0	100

# Technology Support Areas

- End User Support
- Device Support (Computers, printers, chromebooks etc...)
- Software Support
- Network Support
- Server resources support (files, user accounts etc... )
- Cloud Services Support (Google Suite, Website etc... )
- Security & Disaster Recovery (Backups, Archive requests)
- Facilities support (Security Cameras, Access Control etc ...)
- State Reporting - Schools
- Evaluation and purchasing of all technology

# End User Support

- **Roughly 1,000 staff Town + School**
  - Approximately 70/30 Laptop/Desktop
- **Approximately 5,300 students**
  - 3,000 students at the High school and Middle school level use Chromebooks daily. Each student has a device (1-to-1)
  - The Elementary schools use chromebooks in a classroom “shared” model.
- Support requests are tracked using a work order ticketing system

# Device Support

- “Devices” include , but not limited to, the following:

Device	Town	School	Total
Desktop	168	518	686
Laptop	60	638	698
Chromebooks		6,000	6,000
iPad	4	117	121
Desktop Laser Printer	39	213	252
Workgroup BW Laser Printer	14	42	56
Workgroup Color Laser Printer	9	40	49
Inkjet Printer	15	2	17
Interactive Whiteboard	0	343	343
Document Cameras		419	419

# Software Support

- Over 2000 pieces of software are supported by the technology department across various platforms.
- Most are locally installed, however the continuous trend is to replace local “legacy” products with SAS versions when available.
- Database integrity and consistency must also be maintained across systems whenever inter-application communication is required.

# The Network

The foundation for communication



# What IS The Network ?

- **Hardware**

- Local Area Network (LAN) with thousands of network drops.
- 192 managed Network switches
- 647 Wireless Access Points

- **Connections**

- Wide Area Network (WAN)
  - Private fiber optic network to 23 sites
- Internet Access
  - 3 redundant internet connections from 3 different providers served from 2 different locations.
  - Comcast / Cogent / Fios



# What's ON The Network ?

Demands on network services has increased rapidly in the past 10 years.  
Ubiquitous WiFi is now “expected”.

- Desktops
- Laptops
- Chromebooks
- Tablets
- Personal devices (Phones etc...)
- Access control (Door fobs)
- Point of Sale (lunch)
- Security Cameras
- Building environmental Controls
- Media broadcast systems
- Interactive Displays
- Phone systems
- Desk Telephones (VOIP)
- Distance learning (Skype)
- All Internet services
  - ASP, SAS, Google suite, Google Classroom

# What do “Servers” do ?

- Provide Secure, password-protected access to files, printers...
- Provide “User Authentication” to manage access to everything on the network
- Host myriad software applications from Munis to Nutrikids!
- In short - they are the “*Management platform*” of the technology environment.

# Do we use “The Cloud”

Every organization uses a mix of cloud-based and local resources.

## Our Cloud services include:

- Google Suite (Docs, Drive, email)
- Google Classroom
- Aerohive WAP management (WiFi)
- Aspen student information system
- Viewpoint permitting system
- TeachPoint evaluation system
- All website hosting
- Regroup mass notification system



# Security

- **Internet Security** / “edge” security: Sonicwall Firewalls
- **LAN Security:**
  - Locations are V-LANed / segregated to allow only authorized access to certain areas of the network.
- **Client Security:**
  - Sophos Antivirus
  - Sophos Intercept X - Ransomware protection
  - Secure access on all end-user devices
    - Users cannot install software

# Security (cont.)

- Chromebook Security
  - SecURLy Software tracks HS/MS student activity while logged into the schools google domain with a student account
- Physical security
  - All areas where sensitive technology is located are secured.
- WiFi Security
  - All personal devices are directed to a completely separate network that has no access to the internal network.

# Disaster Recovery

- INTERNAL
  - Local user data backed up daily (Microsoft windows/Mac).
  - All data is continuously replicated off-site.
- CLOUD
  - Google docs/email backed up using Google Vault
- Email Archive is accomplished using Google Vault

# Security Enhancements

- MIIA (Insurance) is including coverage specific to Ransomware attacks. This plan is still under development.
- Disaster Recovery & Ransomware response plan
- End-user Cyber-Responsibility Training utilizing the KnowBe4 Platform.

# Facilities Support

The Technology Department supports every school and town department however the Facilities Department, due to its heavy reliance on technology to automate and secure buildings, requires special consideration.

## Areas of support:

- Access Control - Door fobs
- Telephone System
- Security Camera System
- Building environmental controls
- Lighting Controls
- All software related to the above.



# State Reporting

Collection Name	What does it collect?	Level of Data	Data as of	Due Date	Certification Deadline
<b>SIMS October</b>	Individual student data	Student	Oct. 1	Oct. 25*	Nov. 1**
<b>SIMS March</b>	Individual student data	Student	Mar. 1	March 21*	March 28**
<b>SIMS End-of-Year Collection</b>	Individual student data	Student	Last day	Certify Jul. 5*	Jul. 11**
<b>EPIMS October</b>	Staff data by job assignment	Educator	Oct. 1	Dec. 6	Dec. 6
<b>EPIMS End-of-Year</b>	Staff data by job assignment	Educator	Last day	Aug. 1	Aug. 1
<b>SCS October</b>	Course level student data	Student	Oct. 1	Dec. 6	Dec. 6
<b>SCS End-of-Year</b>	Course level student data	Student	Last day	Aug. 1	Aug. 1
<b>School Safety and Discipline Report (SSDR)</b>	Student offense data, suspensions, removals and expulsions	Offense	school year	Jul. 18	Jul. 18
<b>School Attending Children</b>	Number of children reported by municipality	City/Town	Jan. 1	Feb. 22	Feb. 22
<b>School Choice</b>	Number of school choice children	Student	Oct. 1	April 30	April 30

# Evaluation of all Technology

- Before any technology or related software is purchased, the Technology Department must evaluate and ensure compatibility with our current systems.
- Once deemed compatible, the Technology Department is responsible for purchasing both software and hardware at the most competitive prices available.
- Finally, once purchased, the Technology Department must coordinate installation , implementation and, sometimes, user training.

# Purchasing of all Technology

Purchasing falls into two main areas

- Annual licensing for Support service
  - Software - Munis, Viewpoint, Aspen etc ...
  - Hardware - Network Switches, Access Points etc ...
- Hardware addition, repair or replacement

# Questions so far ?

- End User Support
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# Recent Successes & Ongoing\* Projects



## In the past couple years & ongoing

- Viewpoint Online Permitting conversion - Town
- Computer based / Online MCAS Testing
- Google Suite conversion (Town / School)
- School Website Conversion
- Cultural District Committee Website
- Implementation of Anti-Ransomware user training platform
- Outsourced Printer service Town/Schools
- Implementation of new Technology Work Order System
- Telephone System Replacement (VOIP)
- Virtualization of all remaining physical servers
- Extending 1-to-1 chromebook program to grades 5-8
- Public Library Expansion
- Police/Fire Radio expansion

# Ongoing Challenges

- **SECURITY !**
  - Security is always a top concern. Balancing security with functionality is always difficult.
- **Staff Retention**
  - The ever-expanding field of technology creates many opportunities for technology professionals. As a municipality we struggle to compete specifically in the area of compensation.
- **Sustainability of Technology Infrastructure:**
  - Current funding model does not support the replacement life-cycle of our network and all related hardware (laptops, chromebooks, desktops etc ... )

# Questions ?

Thank you for your time ...