

TECH COMMITTEE

November 7, 2022

AGENDA

- Infrastructure
- Cyber Security
- Department

+



INFRASTRUCTURE

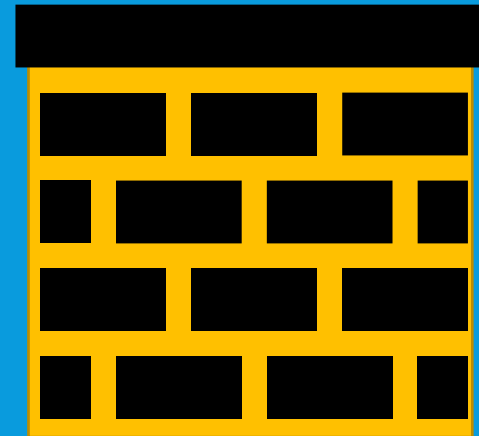
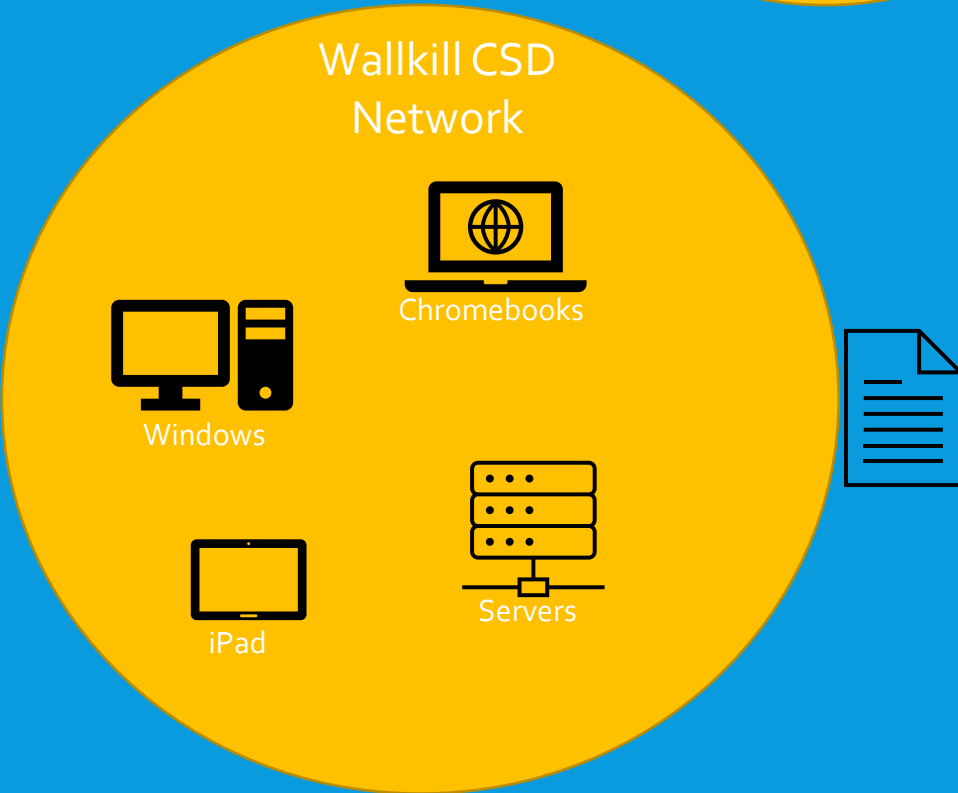
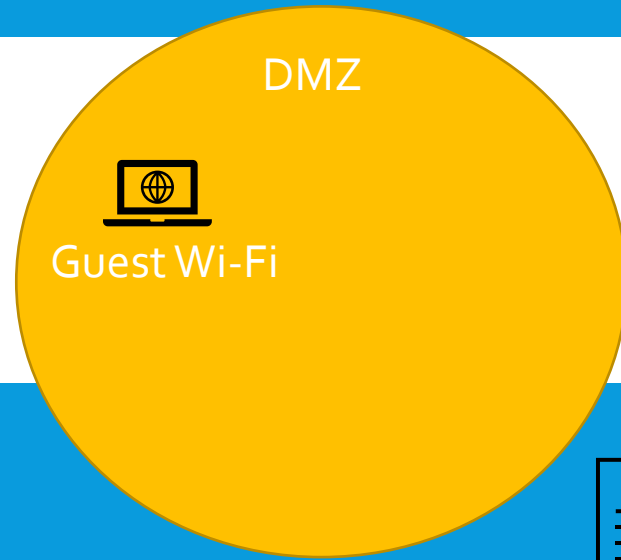
- Phone System Server (Call Manger) EOL June 2023, \$47,000 to upgrade hardware and software. Budget is in place.
- Replace 1 of 3 Virtual Hosting Servers that is EOL June 2023. Budget in place. Other hosts EOL in 2025. Budgeted.
- Replace SAN (Storage Area Network) EOL June 2023.
- Core Edge Switches EOL October 2025.
- Wi-Fi EOL January 2025



CYBER SECURITY UPDATES

- We plan to segment our network and migrate devices to the DMZ (demilitarized zone). DMZ is a buffer between our network and the internet, but still protected by our firewall.
- Last year we migrated our guest network to the DMZ and migrated from WPA2 (Wireless Protected Access) PSK (Pre-Shared Key), implementing MAC based authentication for the guest network.
- We are replacing WPA2 PSK with WPA EAP 802.1x, more secure, for District devices.
- We will reconfigure our internal networks ACL (Access Control List) to regulate access between network segments (filter communication between buildings).

NETWORK OVERVIEW

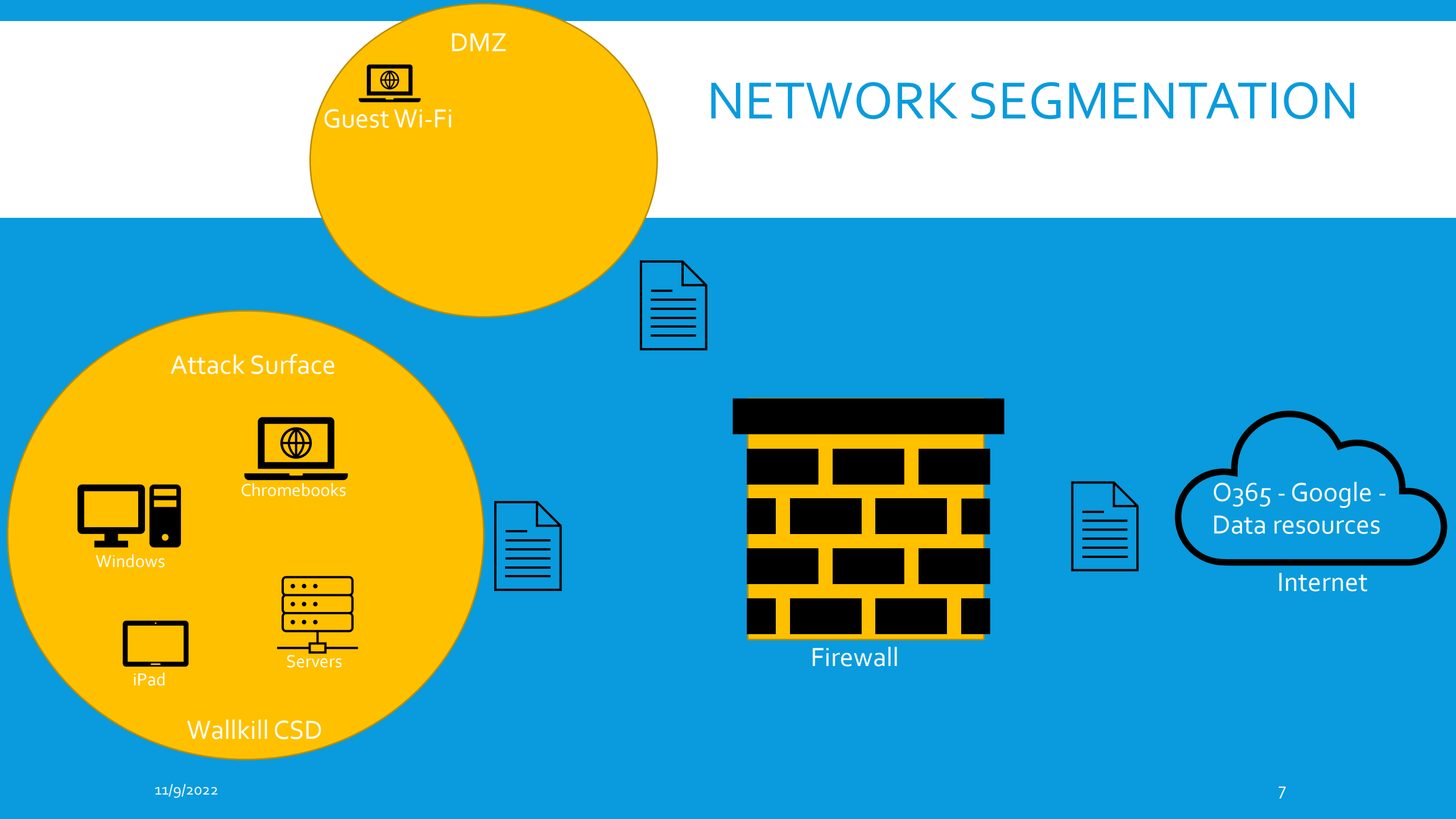


Internet

CYBER SECURITY DEVICE OVERVIEW

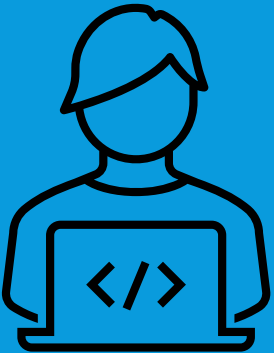
- Windows computers are most subtile devices to Ransomware. Devices are encrypted. Windows PC require on premises resources to manage the device.
- Chromebooks run under a Linux based operating system and have data encryption. Cloud managed device. Ransomware protection built in. Zero ransomware attacks.
- Apple iPad, encrypted, rarely get effected however they can get spyware. Cloud managed device.

NETWORK SEGMENTATION



WI-FI CERT BASED 802.1X

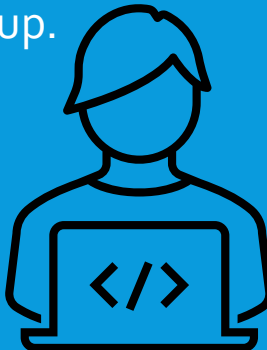
PSK Pre shared Key.
Password Based
authentication leaves
us vulnerable to
password hacking.



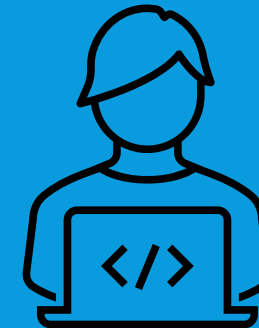
11/9/2022



MAC Based
guarantees device but
a lot of overhead to
setup.



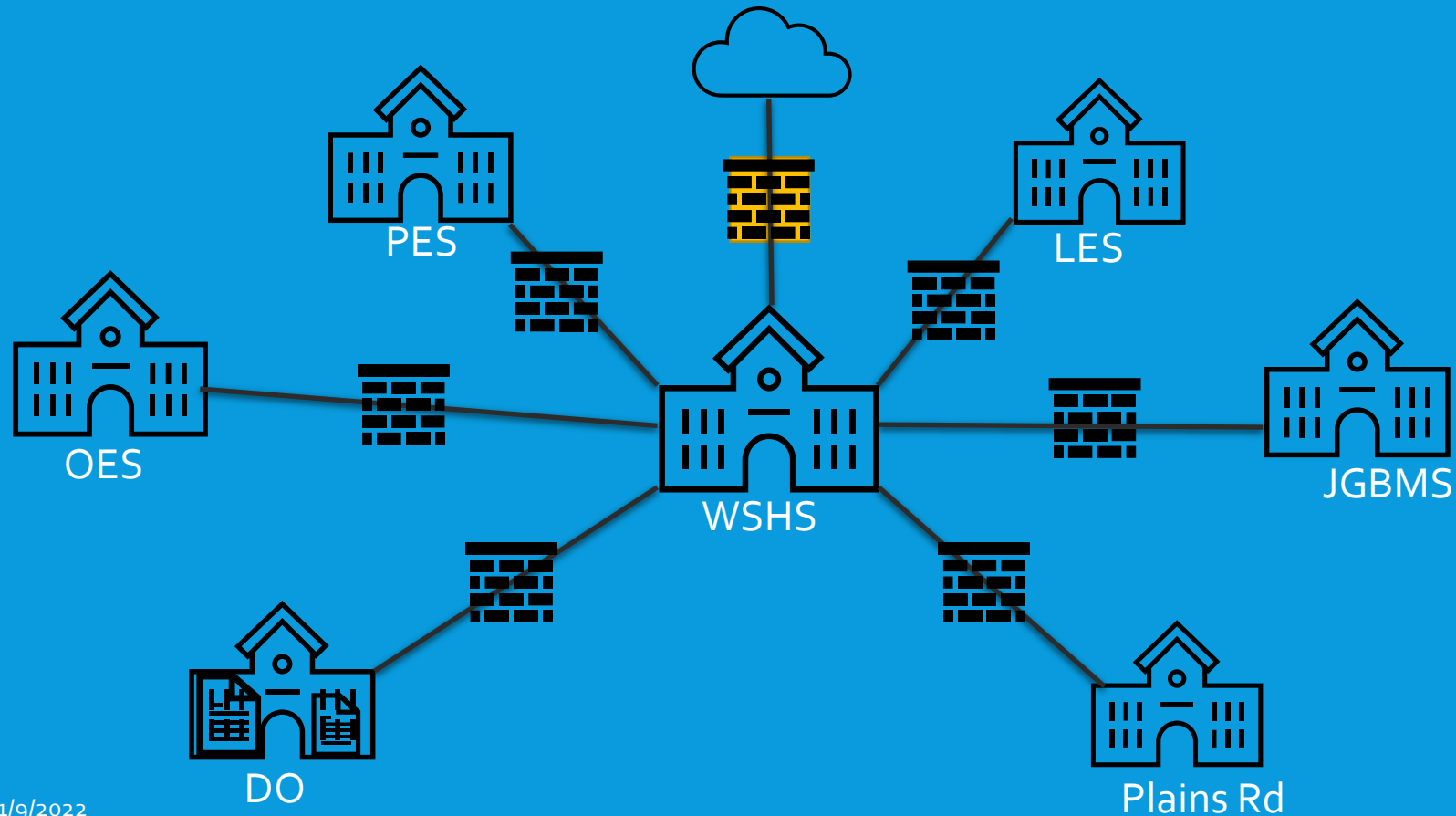
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Certificate Based
authentication is more
secure. Certificate which
cannot be phished,
guessed or socially
engineered.

ACCESS CONTROL LISTS

- Isolated devices by location by restricting access between buildings.



DEPARTMENT

- The board will be approving a new Field Service Technician at the November 16th Board of Education meeting.
- The candidate is currently employed at SUNY Ulster as a computer tech.
- Candidate is experience working in an enterprise setting, familiar with procedures, i.e., ticket systems, inventory control.
- Experienced in repairing windows desktops and devices.
- Will be assigned to HS.