Computer Lab of the Future

Overview

- Brief background
- Pre-COVID status quo
- COVID
- Beyond

Where We've Been

- Despite laptop requirement, computer labs have persisted
  - Specialized hardware/software
  - Convenience
  - Configuration/customization
- Computer Integrated Learning Spaces

COVID

- Remote learning
- Social distancing
- Sanitization protocols

Working Group

- Jonathan Bradley
- Alice Rogers
- Scott Huffman
- James Archual
- Robert Dickert
- Andrew Tweedt
- Brian Broniak
- Jeffrey McConnell
- John Homer
- Quinn Warnick
- Santhosh Chalamalla
- Thomas Weeks
- Bob Edmison
- Rick Craig
- Gary Burns

- Jackie Meese
- Warren Lucero
- Denton Yoder
- Steve Edwards
- Jeffrey Lewis
- Cindy Kelley
- Shannon Phillips
- Ryan Spoon
- Jim Dickhans
- Mark Sumner
- Scott Shetrone
- Jeremy Mumford
- Kimberly Ascue
- Dale Pike
- Justin Davenport
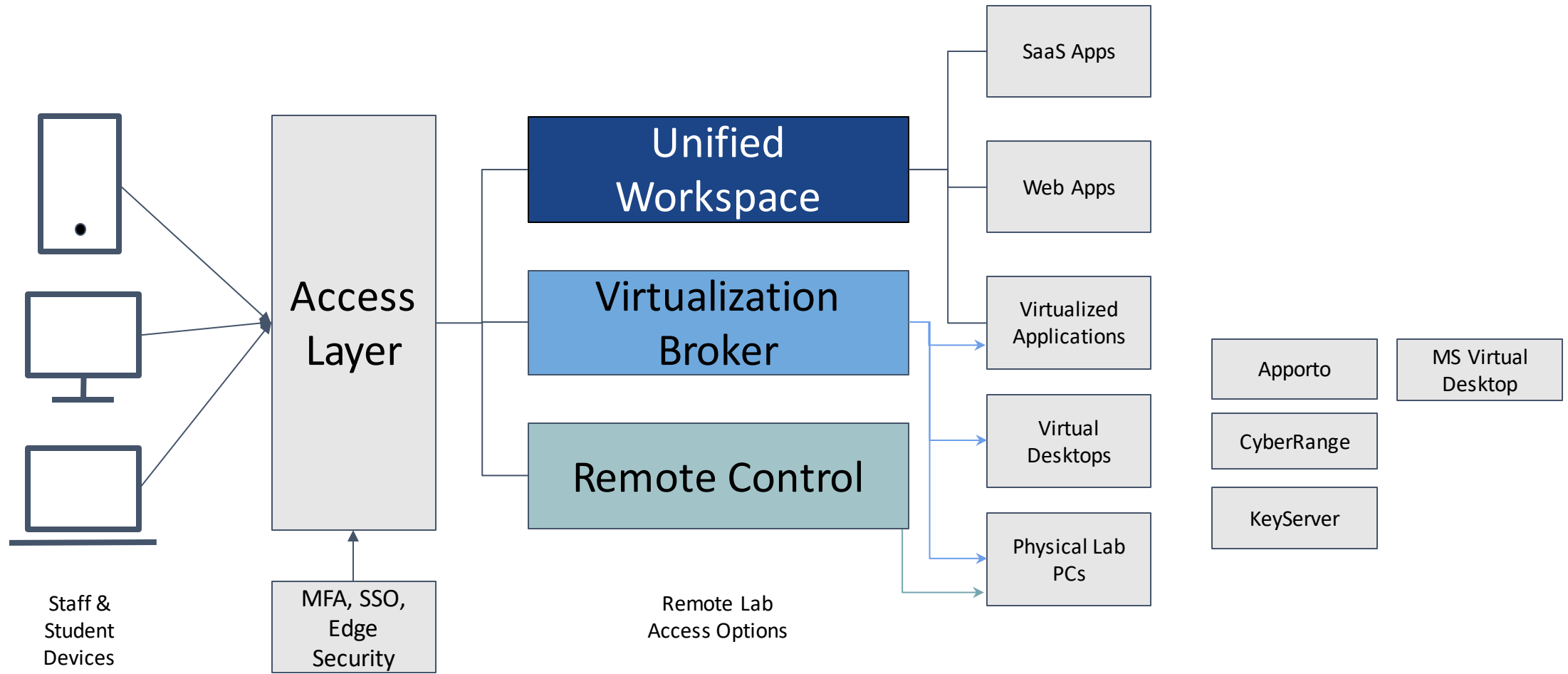
Working Group (cont.)

- University Library
- CALS
- Division of IT
- Engineering
- College of Business
- Vet Medicine
- DC Area

Options for consideration

- Keyserver w/ current installed lab machines (funded, PROD now)
- Apporto (COVID funding, in PROD soon)
- CyberRange (unfunded, potential)
- Microsoft Azure labs (or Virtual Desktops) (unfunded, potential)

- We are planning a head to head analysis of these options
- Apporto is the only option that offers Canvas integration today

Computer Lab of the Future (Project)

- Explore/document emerging practices
  - Virtualization
  - Visualization

- Consider continuing needs for physical spaces
  - Instruction
  - Collaboration
  - Support

Staff & Student Devices

Access Layer

MFA, SSO, Edge Security

Unified Workspace

Virtualization Broker

Remote Control

Remote Lab Access Options

SaaS Apps

Web Apps

Virtualized Applications

Virtual Desktops

Physical Lab PCs

Apporto

CyberRange

KeyServer

MS Virtual Desktop

Source: Gartner 731216_C

Right now

- Apporto license
  - Two years (starting now, Fall 2020)
    - We have a concurrent use model with 50 lightweight, 50 medium, and 50 large machines
  - Support remote learning
  - Demonstrate use cases/usage levels
  - Establish support/funding models

Challenges

- How to pay for it (after two-year period)?
- Direct billing to departments?
- "Brokered" billing?

Apporto Timeline

- Goal: Have system online for at least one class by 10/30/2020
  - Build upon work done during 2020 Summer Pilot
  - Setup SSO using SAML (uses VT Login Service)
  - Setup Canvas LTI integration
  - Deploy just limited number of virtual desktops to start with more added later

Questions?