

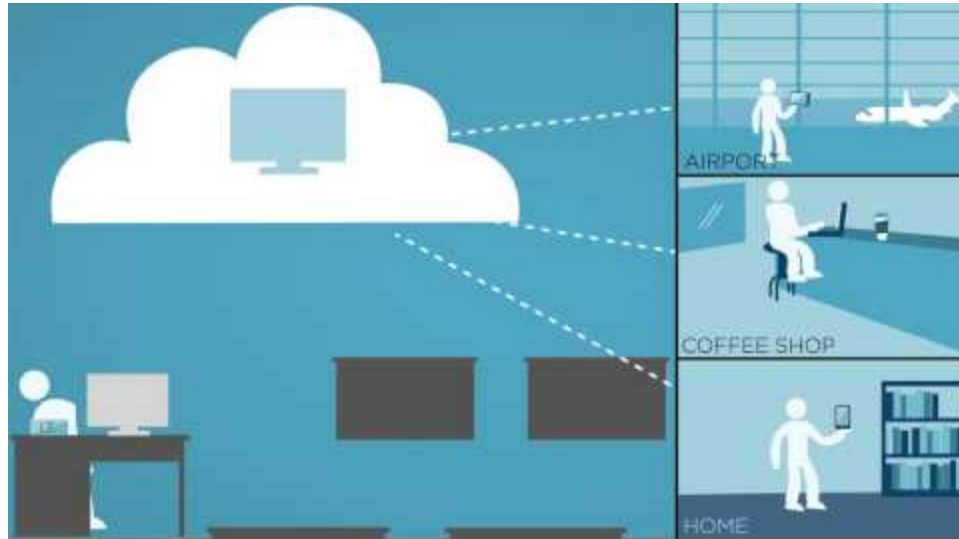
# Securing Healthcare Information with Virtual Desktops

Aivars Apsite  
Technology Strategist  
Metro Health



# Agenda

- ❖ **What do we use at Metro Health**
- ❖ How do we secure it at Metro Health
- ❖ What are the benefits to Metro Health
- ❖ Plan the Next Steps



## [VDI overview](#)

# Access your desktop from any device



*Nurses Station Desktop*



*Wireless WOW  
Thin Client*



*Laptop  
Remote Physicians Office*

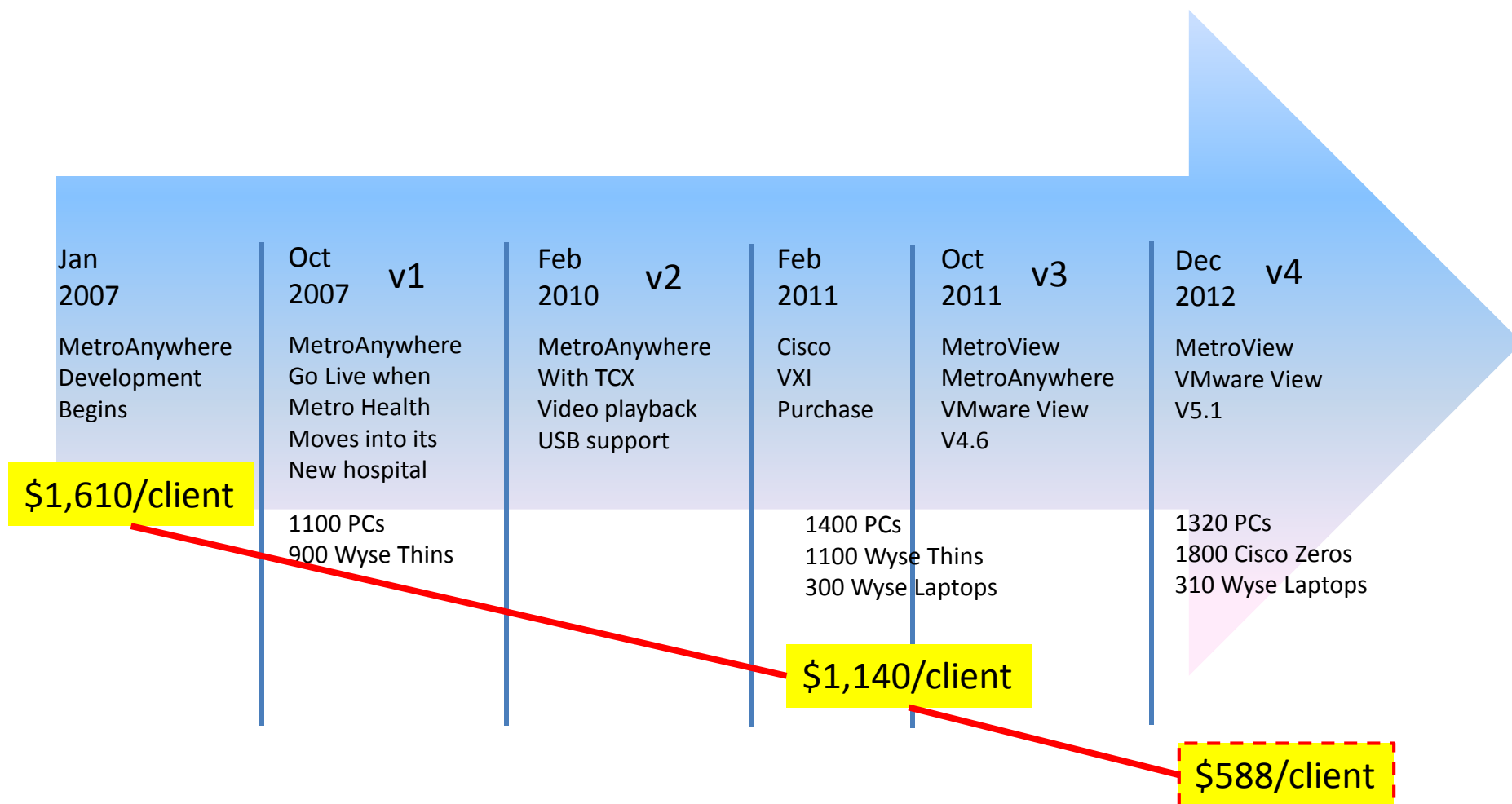


*Tablets / iPad / Mobile Devices*

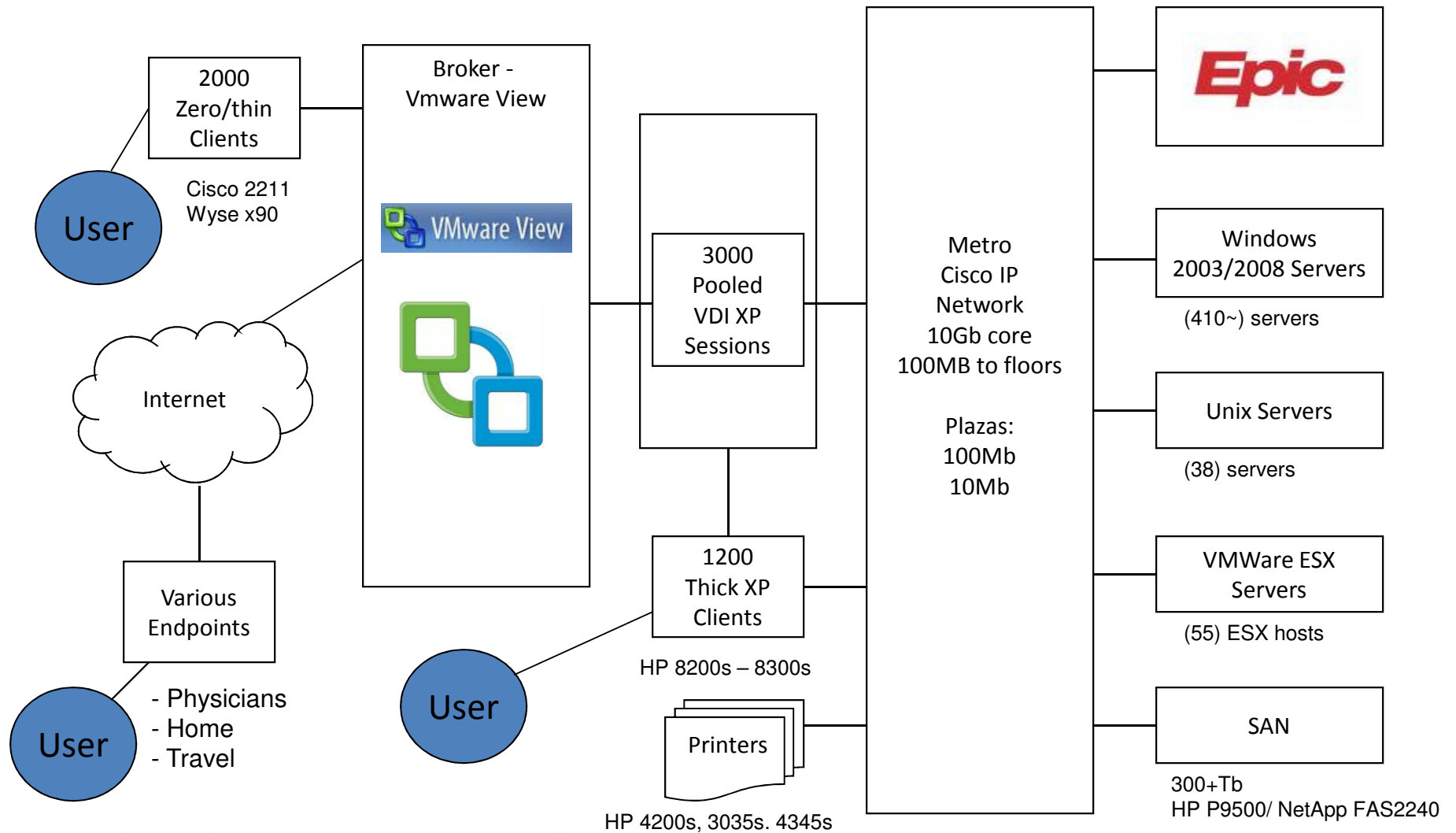


*Remote Access from home*

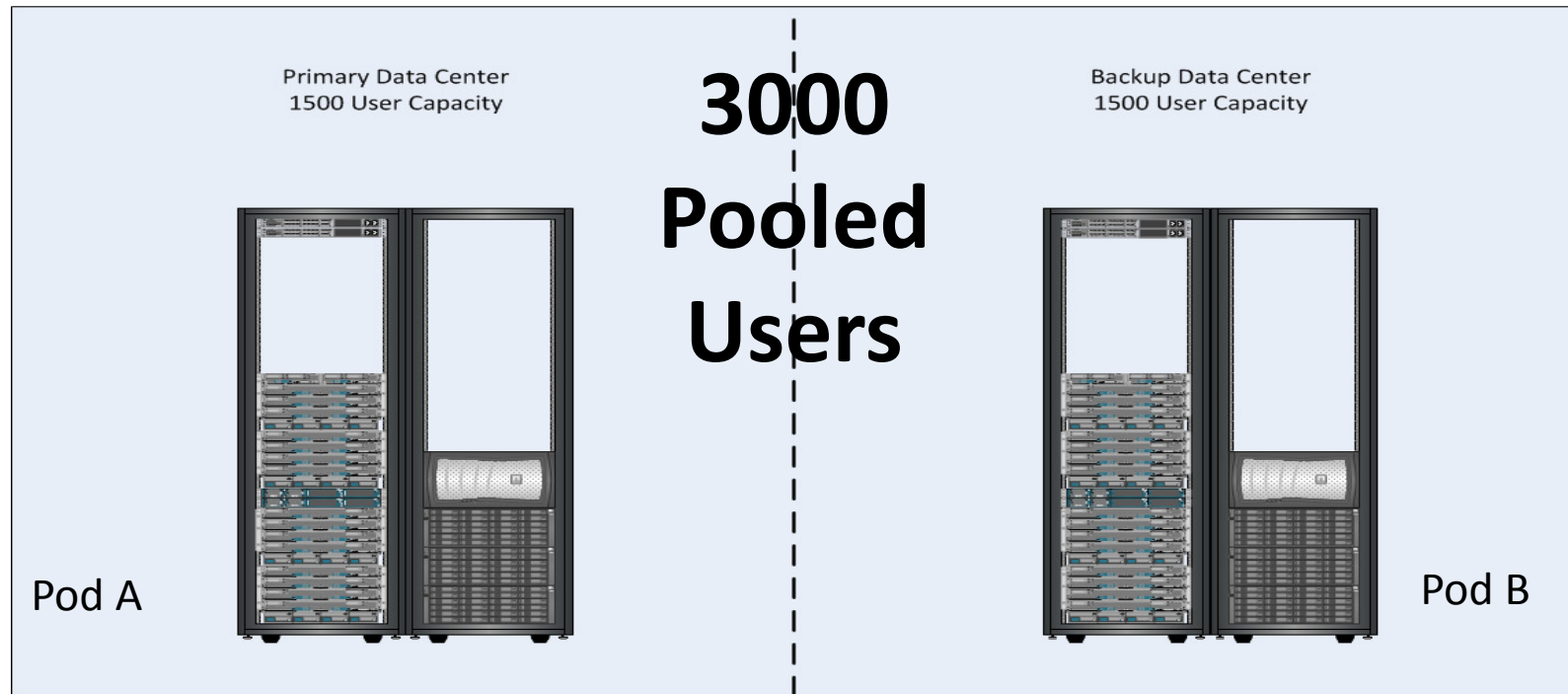
# Desktop Virtualization Timeline



# Metro Health Topology



## VDI “in a box”



- (32) Cisco B250 M2 Servers
  - Dual Intel X5680 Processors (3.3Ghz, 6 cores)
  - 192GB RAM
- (4) Cisco B200 Management Servers (Dual X5670s, 24GB RAM)
- (2) Netapp FAS3240 Storage System (64TB raw/50 TB useable)
- (4) Nexus 5010 Switches with (4) 10Gb uplink connections to core network.





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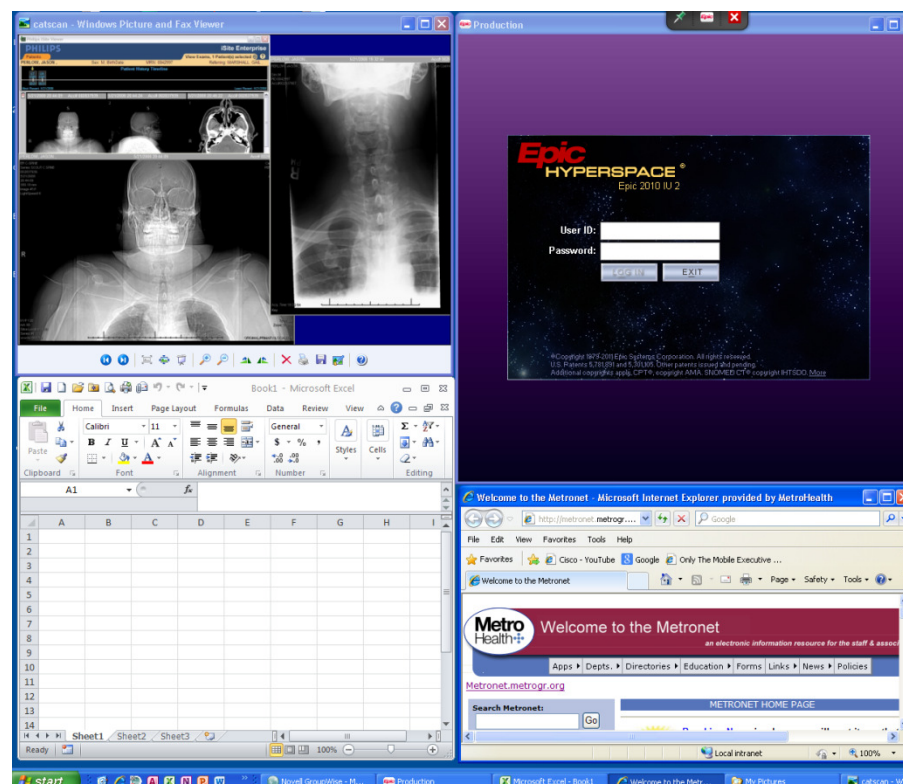


# Secure Roaming with Fast Reconnects

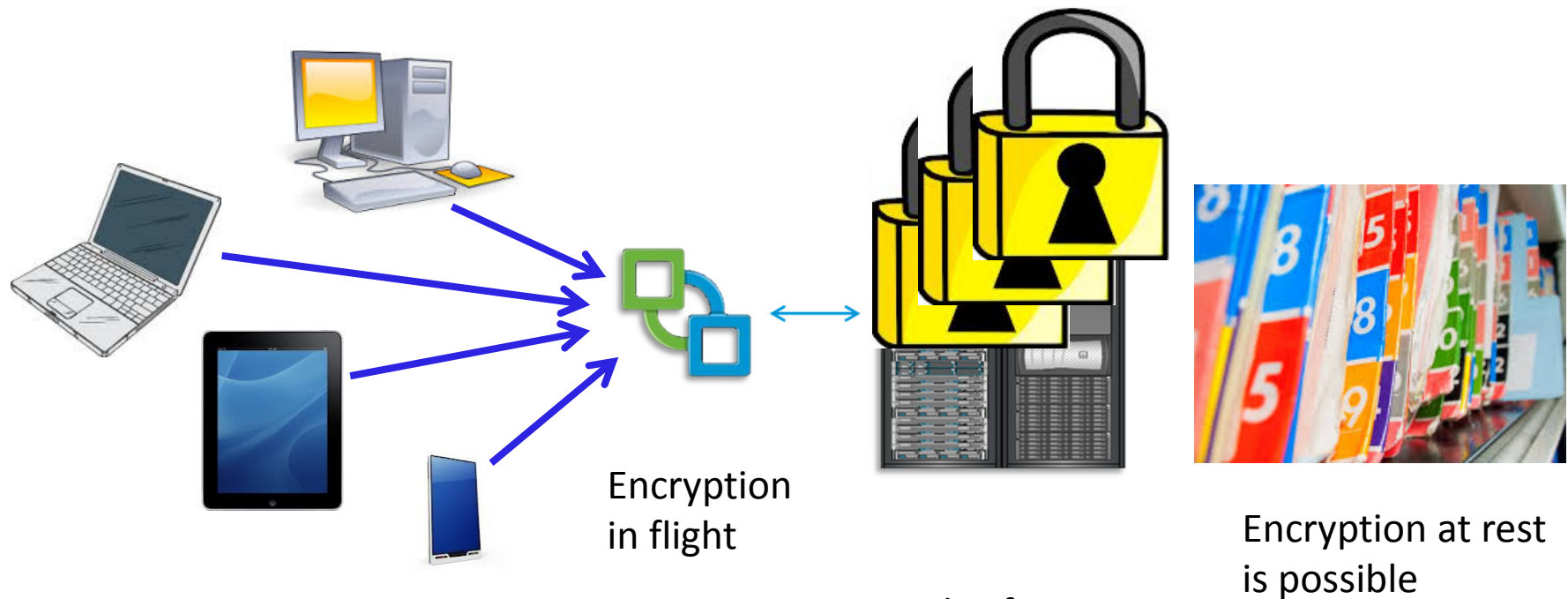
- Reconnect to active desktop in 10 seconds or less
- To a FULL Windows desktop
- Access to ALL opened applications simultaneously

The full Windows OS is running

- Security patches applied
- Antivirus is up to date
- OS is locked down to users
- All centrally managed
- Timeout scripts enabled
- At logoff, all sessions recloned
- Meets compliance standards
  - Quick reconnects



# All PHI\* in our Data Centers

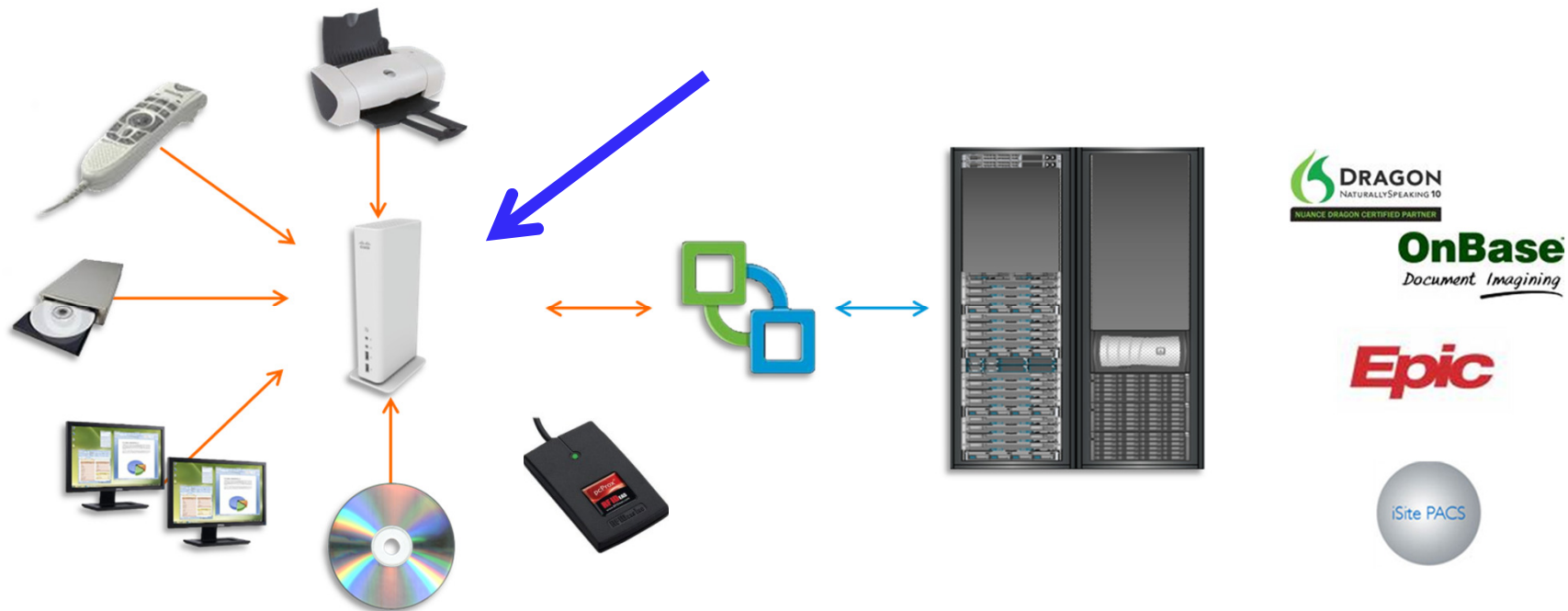


**NOTICE – the PHI\* data is not stored on the local desktop**

Levels of security  
AD login  
AD permissions  
Application

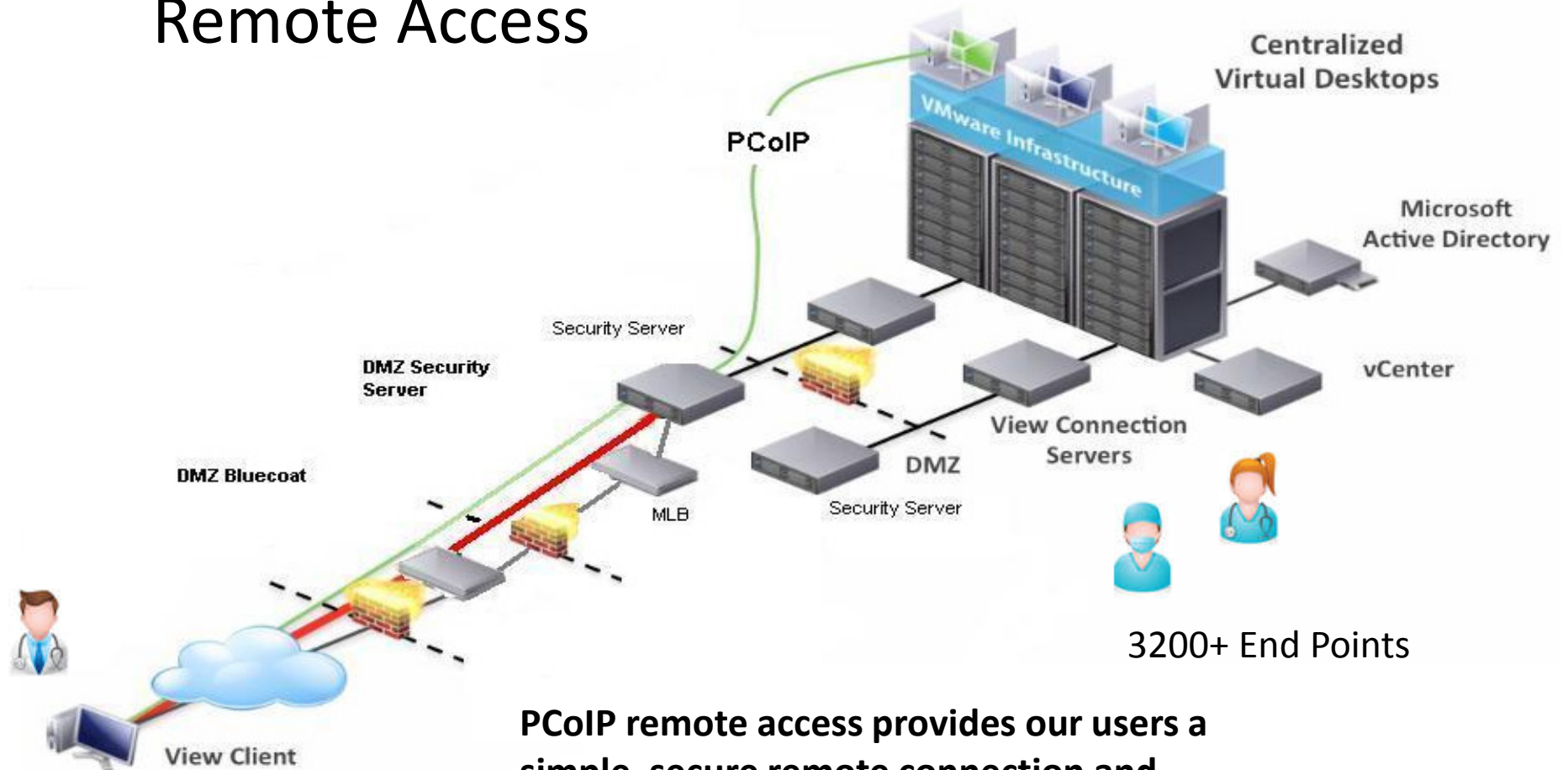
\* Patient Health Information

# Zero Clients and Imprivata Single Sign On



- Only one image to manage –View session
- Zero client “imaging” process takes less than 5 minutes
- No driver management on Cisco VXCs
- Enhanced USB support in View 5.1
- 60+ applications converted to SSO

# Remote Access



**PCoIP remote access provides our users a simple, secure remote connection and authentication to their desktops outside of the firewall.**

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# Lessons Learned

Not enough Imprivata user licenses – some users could not log in



Zero clients do not come with a connection bar. Limited functionality  
Added RocketDock to provide some functionality

No SSPW option from zero clients. Set up a generic user with access to SSPW page.

Big Concern – if we loose our connection servers, no brokering to View sessions  
Possibly looking at developing a Teradici RDSH solution for DR purposes



## Next Steps

- An alternative broker for zero clients
- Imprivata Epic connector to Exam Rooms
- Imprivata “walk away” locking
- SSPW native access from Zero Client



# Questions?

