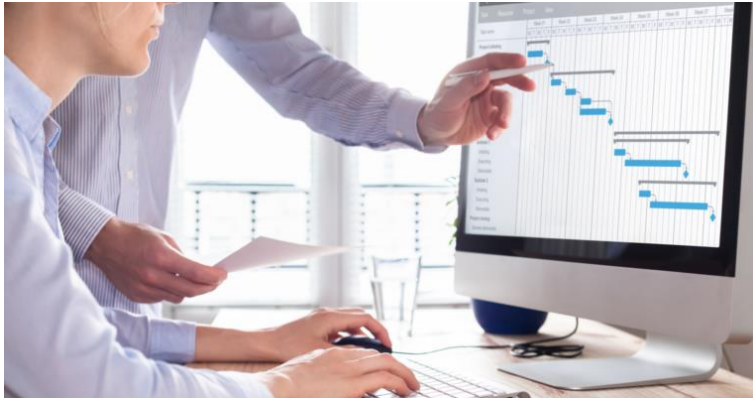**IT Infrastructure Review – Phase 1**

Presentation of Findings

Jon Ashford-Clark

- Review of initial information

- Technology themed workshops / discussion

- Physical inspection of main server / telephone system rooms

- Analysis of information gathered

- ~ 15 Stakeholder sessions

4C | STRATEGIES

- Context of initial findings

- Recent Projects

  - Firewall Upgrades
  - Community Site Upgrades
  - Mobile Contract Procurement
  - VPN (AnyConnect) Split Tunnelling
  - O365 Assessment

4C | STRATEGIES

- PCH
  - Main Server Room – No Issues, cooling upgrade planned
  - PBX Room – Poor condition, but due for relocation / replacement

- RGH
  - Larger / PBX Room – Needs removal of old equipment & tidy
  - Smaller Room - Needs removal of old equipment & tidy
  - Both rooms adjacent to each other – single point of failure

- POW
  - Large purpose-built room – Needs removal of old Swansea Bay equipment / tidy
  - PBX Room – General poor condition, significant Swansea Bay legacy equipment and spares to be removed

- Overall review of hosting / DR Strategy…?

4C | STRATEGIES

- Dual PSBA connections

- Connections at some sites terminate in the same location

- Reports of network performance issues

- Current bandwidth / utilisation issues

- Internet breakout connection / contention (all Wales considerations).

- No private links between larger hospital sites for back-haul of internal traffic / replication / clustering

- Mixture of older and new network equipment (recent upgrades conducted / future upgrades planned)

- Connectivity Issues between old ABM and CT areas

- Wi-Fi
  - Mixture of older and new Wi-Fi network access points
  - Connectivity issues between old ABM and CT areas
  - Fragmented / diverse SSID structure
  - Connectivity, coverage and performance issues
  - Contention with public Wi-Fi..- Plan to move to PSBA Connection (July 21)

- Good Overall Server / Storage Provision

- Pilot of newer systems in progress

- Clusters of Servers for Citrix

- Some limitations / differences on local survivability / failover

- Transition plan for Swansea Bay Required
  - Network / Connectivity Upgrade
  - Server and Storage Investment

- Overall review of hosting / DR strategy

4C | STRATEGIES

- Windows desktops
    - ~4,500 IGEL devices
    - ~1,400 Desktops
    - ~2,400 Laptops
    - ~2,500 ex ABM (breakdown tbc)

- Mobile / table devices
    - ~400 iPhone
    - ~700 iPads
    - Other older devices
    - ~600 ex ABM (mainly iPads)

- Split of management platforms
    - CT – Blackberry
    - ex ABM - MobileIron
    - Plan to Migrate to Intune on Office 365 (Feb deadline)

- 'Solution-based' mobile network procurement initiated

- Device request / allocation process
    - Role-based & changes in ways of working
    - Funding / approvals model – New SOUR process

4C | STRATEGIES

- Mixture of local application delivery and Citrix

- Current Citrix issues
  - Not all applications supported. Many applications need to be locally provided
  - Recent issues with video, MS Teams
  - Compatibility issues with older IGEL devices
  - Recent upgrade to Windows 10 image
  - User frustration / confusion / difficult to use
  - Main options screen on logon is confusing / too complicated
  - Change / move towards mobile / laptop usage
  - Citrix not generally deployed in Bridgend / old ABM area – lack of consistency, will cause further issues as detachment progresses

- General decline in full thin client deployment. Review of strategy required..?

citrix

4C | STRATEGIES

- Current arrangements
    - ~150 Canon devices (CT)
    - ~115 Konica Minolta devices (ex ABM)
    - Other 'non-managed' print devices
    - Large management overhead of current billing
    - Split print queues / difference is user experience.

- Opportunity for consolidation / cost savings via re-procurement under a single contract

- Investigate other opportunities to reduce print volumes

- Specialist printers

- Print strategy required

4C | STRATEGIES

Telephony, UC, Video Conferencing & Paging

- Complete decommissioning of old legacy PBX equipment

- Confirm detachment / future provision for Bridgend

- Further investigate Teams UC voice integration

- Switchboard console consolidation

- Paging procurement complete
  - Funding / replacement plan for PCH
  - Migrate away from DECT extensions at RGH
  - Bridgend end of life March 22. Replacement required

- Retire any remaining wide area pagers

4C | STRATEGIES

Feedback from Stakeholder Sessions (Ranked)

- Excellent COVID response

- Disaggregation of POW related issues
  - Different PAS / clinical systems
  - Other difference systems (appointment booking)
  - Accessing systems 'cross-boundary'
  - IT support arrangements

- Frustrations / inefficiencies using Citrix

- Wi-Fi coverage / performance

- General network performance

- Some end user equipment
  - Some older / poor performance PC's & Laptops
  - Larger / Multiple screens
  - Access to VC equipment / locations

4C | STRATEGIES

"The requirements to safely meet the increasingly mobile ways of working, including digital consultations"

"The requirements to ensure integrated ways of working throughout the Health Board, across localities and care sectors"

1. Citrix / Application Delivery / End User Devices

2. Network performance / Wi-Fi coverage (including Internet breakout)

3. Telephony, UC & Paging

4. Wider data centre / hosting strategy

5. Print & Digital Strategy

- Common Themes
    - Resolve Swansea bay detachment
    - Consistency
        - Device Type
        - User Experience
        - Connectivity
        - Service and Support Model
    - User Profiling

Questions…?