Mobile Enablement of Staff – Deployment of Endpoint Manager (Intune)

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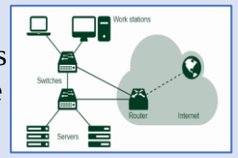
Introduction

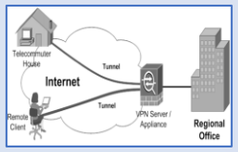
Existing Networks & Infrastructure

- Focus on Corporate Networks
- Security within the Corporate Network Boundary.
- VPN for Remote Access
- Corporate Owned Devices.



Evolution of End User Access & Management

- Introduction of Mobile Devices. Phones /Tablets.
- Move to Mobile App Support for Clinical and Office uses
- Mobile Management Tools, MDM/MAM/UEM/EMM



Evolution of Workplace

- Staff more remote and community based.
- Expectation to access any and all systems from any device
- Priority focus Collaboration and Communication Tools.

Aims and Objectives

Project Aim:
The Aim of the project is enable users of Hywel Dda UHB, to be able to carry out the workloads that were predominantly used on traditional desktop devices within the health board premises, to be able to access these from mobile enabled devices in and away from the corporate localities and networks with the deployment of Microsoft Endpoint Manager.

Project Objectives: Deploying Microsoft Endpoint Manager

- Conduct literature review into the mobile enablement utilising Microsoft Endpoint Manager.
- Identify the methodology approach for the research project.
- Design deployment configurations & rules in line with Organisation policies & best practice.
- Implement the design rules and configuration within the Organisational infrastructure.
- Analyse the implementation outcomes post deployment.
- Review analysis and discuss future enhancements / work to be carried out.

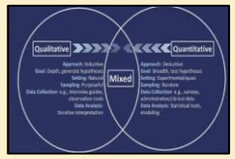
Research Methodology & Project Planning

Research Approaches:

- **Deductive**
- Inductive
- Abductive

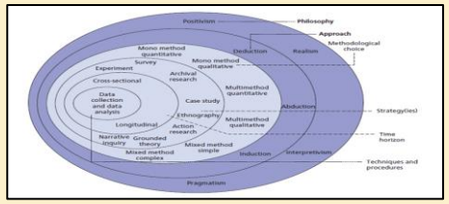
Data Collection Methods:

- Qualiative
- Quantative
- **Mixed**



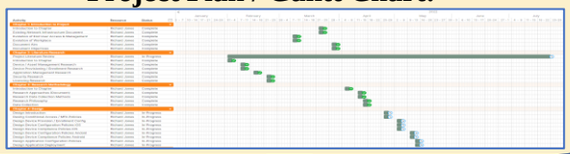
Research Philosophy:

- **Positivism**
- Interpretevisim
- Pragmatism



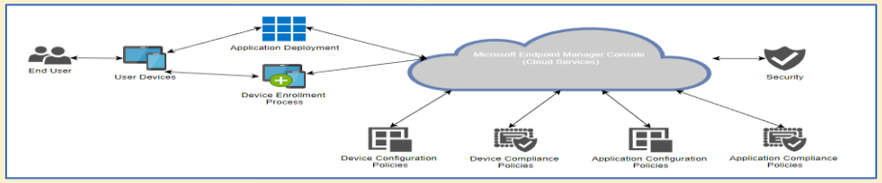
Approaches Adopted:
Due to the nature of the data/information being collected from research literature & informal meetings. A deductive and mixed approach with a leaning towards the data collection being Quantative.

Project Plan / Gantt Chart:

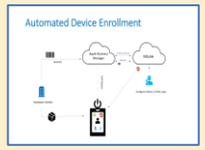


Project Design & Implementation

Project Design High Level Overview



Device Enrollment: Apple Business Manager & Samsung Knox used to assist smooth onboarding to Microsoft Endpoint Manager.



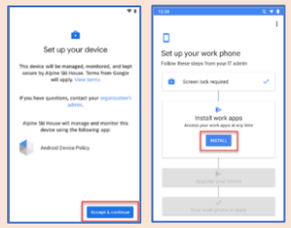
Device Config & Compliance: Setup of Configuration and Compliance Profiles with Endpoint Manager.

Application Deployment: Utilising Apple and Android Managed Stores

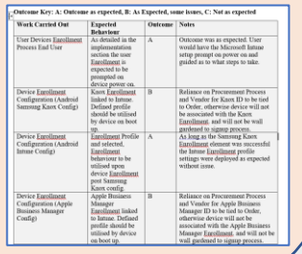
Security and Authorisation: Utilising MFA and Conditional Access Policies for Security and Authorisation.

Project Testing & Conclusion

Testing: Utilising an Android Phone and Apple iOS tablet to deply the configured deployments. Confirming that all configuration and compliance policies applied as expected.



Analysis:
Carried out an Analysis table, example shown to the right. With analysis of each design implementation point. Overall, the project was successful highlighting some points to be highlighted moving forward to avoid failure in process



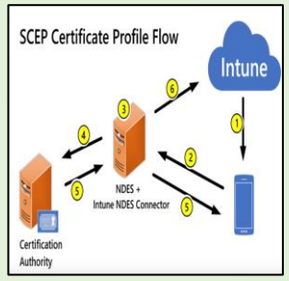
Outcome Key: A: Outcome as expected, B: As Expected, some issues, C: Not as expected

Work Carried Out	Expected Behaviour	Outcome	Notes
User Devices Enrollment Process End User	As detailed in the implementation section the user Enrollment is expected to be prompted on device power on.	A	Outcome was as expected. User would have the Microsoft Intune setup prompt on power on and guided as to what steps to take.
Device Enrollment Configuration (Android Samsung Knox Config)	Knox Enrollment linked to Intune. Defined profile should be utilised by device on boot up.	B	Reliance on Procurement Process and Vendor for Knox ID to be tied to Order, otherwise device will not be associated with the Knox Enrollment, and will not be wall gardened to signup process.
Device Enrollment Configuration (Android Intune Config)	Enrollment Profile and selected, Enrollment behaviour to be utilised upon device Enrollment post Samsung Knox config.	A	As long as the Samsung Knox Enrollment element was successful the Intune Enrollment profile settings were deployed as expected without issue.
Device Enrollment Configuration (Apple Business Manager Config)	Apple Business Manager Enrollment linked to Intune. Defined profile should be utilised by device on boot up.	B	Reliance on Procurement Process and Vendor for Apple Business Manager ID to be tied to Order, otherwise device will not be associated with the Apple Business Manager Enrollment, and will not be wall gardened to signup process.

Future Work

FUTURE

Technical Documentation:
Requirement for creation and distribution to wider digital services team for expansion of project and awareness of requirements to renew existing features in current deployment.

Alternate Deployment Methods:
Project focus and pilot was based on user affinity deployments. Work for Kiosk and shared devices to be investigated.

Managed Wi-Fi Profiles:
As part of the project Wi-Fi was deployed using manual connections. To improve security and user experience, Wi-Fi Configuration profiles should look to be deployed, with the addition of a required PKI infrastructure