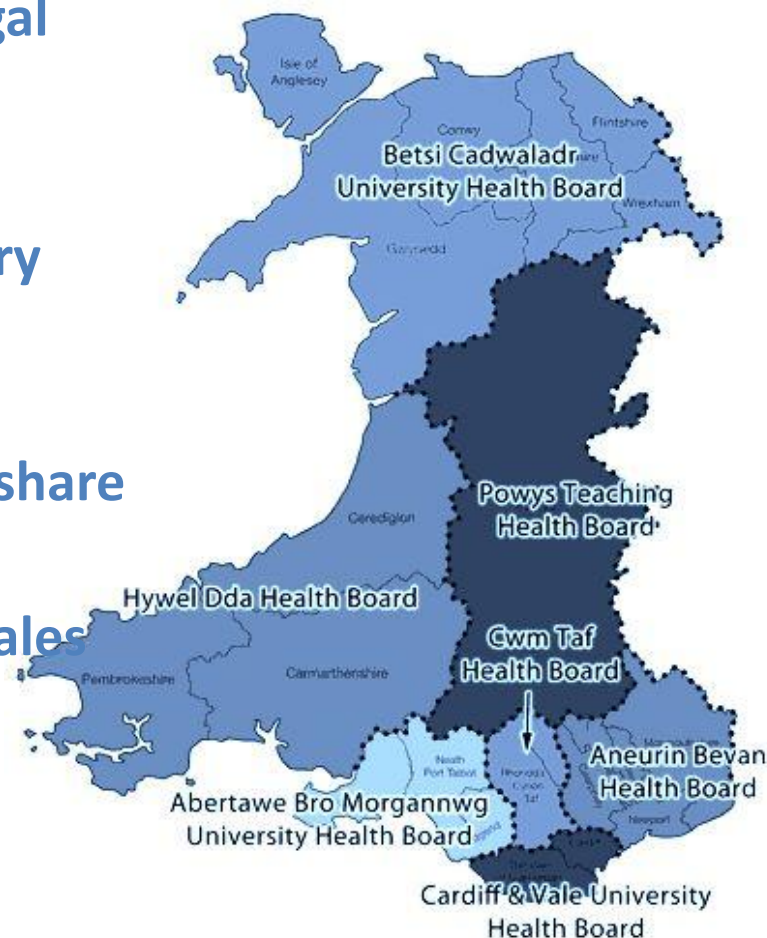


Country Wide Connectivity of POCT

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- **Standardisation and Welsh Government Policy on POCT**
- **Legal implications of recording patient data – a number of high profile legal cases**
 - **Full Audit Trail required**
- **Support of POCT services in Primary Care**
 - **Enabler for POCT services in Primary Care – do once and share solutions**
- **Inequity of POCT service across Wales**
- **Inconsistent procurement models across Wales**
- **Quality and Patient Safety**
- **POCT Governance**

The Drivers



Learning Objectives

- Evaluate the limitations and benefits of large scale POCT connectivity.
- Identify the barriers to implementation and project milestones
- Describe the process
- Highlight lessons learnt from the project

The Vision

To deliver a single system which provides the infrastructure to enable full connectivity of all approved Point Of Care Testing devices across Wales in all suitable locations.

The system will significantly improve existing governance arrangements by allowing POCT co-ordinators to monitor and manage devices, to quality assure information produced and ensure end to end transfer of results into the electronic Patient Record in the Welsh Clinical Portal. It will also provide the scale up capacity to accommodate the expected future growth of POCT services required to support the provision of patient care in the community.



Integration with patients' medical records would allow tests results to be shared and viewed, regardless of where the patient received care, or where the test was undertaken.

The Benefits

- **Single Solution and standardised processes across Wales**
- **Flexibility to meet changes in service delivery models (e.g. Single POCT service in Wales, community POCT co-ordinators, messaging capabilities, procurement strategies)**
- **Align with national POCT strategies e.g. National Procurement of devices and reagents, Quality standards etc**
- **Provides the cornerstone to strengthen the existing governance framework for the use of POCT device**
- **Reliable and consistent access to POCT results for clinicians**
- **Provide a standard cost model for future device connectivity**
- **Support the quality requirements for service delivery for POCT co-ordinators**
- **Maximise the discounting for significant expansion of POCT devices in use across Wales**
- **Access to All Wales information to support planning, performance monitoring, health economies etc. at a national level**
- **Centralised training and competency assessments**

What did we want it do deliver?

- **Complete connectivity within Secondary Care**
- **Infrastructure to support Primary Care POCT**
- **Compliance with National policies**
 - **WG Management of POCT**
 - **WG Compliance of Health & Social Care Standards**
 - **Enabler of POCT in the Community**
- **All valid POCT results delivered to the LIMS system and the electronic patient record which will be available to secondary and primary care (with appropriate access)**
- **Capacity to support difference service models e.g. national POCT Co-ordinator service, community services etc.**
- **Full Audit trail**
- **Comprehensive Business Intelligence Data on a local and national basis**

The Challenges

- **Wide variety of different devices and middleware from different suppliers in use**
- **Different cost models used to fund POCT**
- **Existing POCT contracts already in place differing end dates**
- **Health Board financial support of service going forward**
- **Time constraints from HealthCare Technology and Telehealth Fund**
- **Integration into existing Demographic systems various**
- **Resource availability (Health Board and NWIS)**
- **POCT Departments to agree on a specification, standardised configuration of the middleware, standardised configuration of LIMS and WCP**

WPOCT Project Summary

- **NWIS engagement with the existing POCT community to work in partnership with the HBs to specify, select, implement and support the chosen solution**
- **NWIS procurement & implementation of POCT 'middleware' to support POCT services nationally**
- **NWIS to host the solution in national datacentres.**
- **NWIS to assist in local IT engagement to support and ensure a consistent approach across all Health Boards**
- **HTTF money secured from Welsh Government to fund this Project with the ongoing financial support of the Project, once implemented, via revenue costs secured from the Health Boards.**
- **The Project deliverable to be procured via the OJEU process.**

Tender scope

Managed service software solution and associated support for a contract term of 7 +3

- Supplier who can demonstrate a quality approach to system development and design with an existing market ready solution and is capable of being deployed rapidly upon award. Inc implementation, configuration and training.
- A solution which satisfies the requirements of the Contractual and User Requirements Specifications.
- Software and hardware solution with associated maintenance and support which can be run on a national basis.
- A solution which delivers appropriate quality management of POCT devices.
- A provider who is capable of supporting the deployment of a scalable solution within a national environment.
- A supplier who can provide a formal cost effective model for the future expansion POCT devices across Wales.

Project Timescales

- **Start tender process - Dec 2015**
- **Evaluation process Feb - April 2016**
- **Contract awarded - October 2016**
- **WPOCT Design – November 2016**
- **Implementation - 03/10/ 16 to 25/07/17**
 - **Hardware Installation - completed 09/01/17**
 - **Configuration – 09/01/17 to 25/07/17**
 - **Penetration testing – completed 25/07/17**
 - **Interface testing – 09/01/17 to 25/07/17**
- **Pilot implementation**
 - **C & V UHB 26/07/17 to 18/08/17**
 - **Testing sign off 02/09/17**
- **HB rollout 26/09/17 to 15/04/2018**

How did we do it?

- **NWIS appointed Project Manager**
- **WPOCT Project Board – governance and assurance role**
 - i.e. ensuring that the Project remains on target to deliver products which will achieve the expected business benefits, and that the Project will complete within the agreed tolerances for budget and timescale.
 - Meet 6 weekly
- **WPOCT Project Team - POCT Co-ordinators / NWIS project manager**
 - Provide specific expertise to the Project
 - Engage with Health Board Stakeholders
 - Meet weekly

How did we do it?

- **Identify existing POCT devices (connected or stand alone), existing connectivity software, configuration, “on going” costs.**
- **Identify integration requirements – LIMS, PAS, EMPI, WCP, other middleware**
- **Develop User Requirement Specification.**
- **Agree national configuration for POCT middleware.**
- **Agree LIMS configuration. Test profiles, test names, codes, units, reference range (if appropriate) and auto comments.**

The Project Team

Approach to Developing User requirement:

- Look at existing devices, systems – Collecting and collating current information, what's similar what's different.
- Look at evidence for what we need - Researching current guidance and other evidence as appropriate; ISO 22870, risk assessment, our shared experiences.
- Link with other initiatives such as LIMS standardisation group.
- Meet regularly, developing and refining specifications.
- Reporting back to their organisations
- Reviewing and obtaining feedback from colleagues.

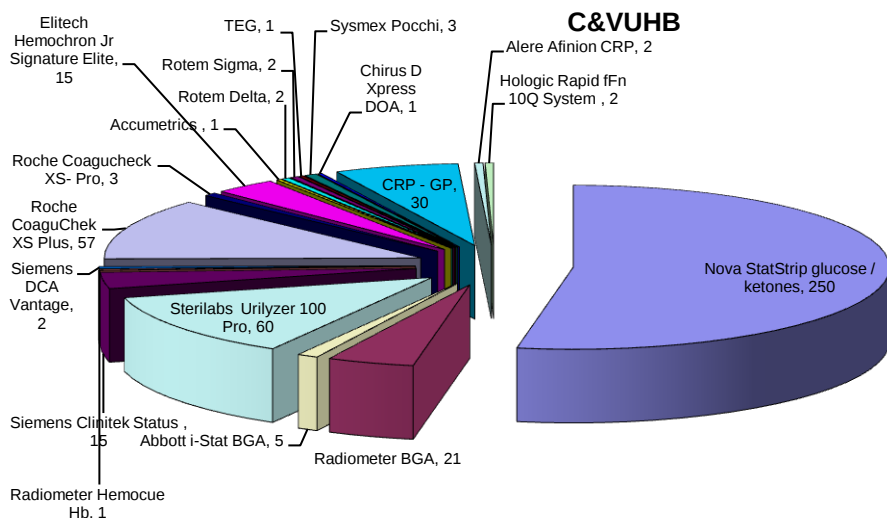
What are we connecting?

- 7 Health Boards -
multiple Hospital sites
both urban and rural.
- Primary care –
numerous GPs.
- 1Trust.
- 3137 devices
- 29 interfaces

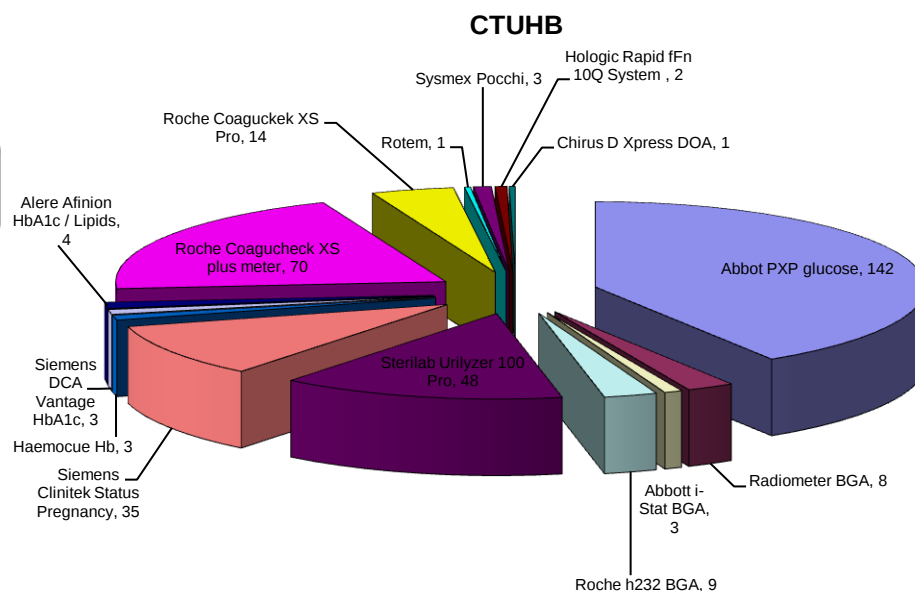
POCT Device	Bi Directional	Patient ID	Patient Result Upload	Operator List	QC Result Upload	QC Lot Upload	Patient List Download	Patient Query	QC Lockout by Rule
Abbott Freestyle Precision Pro	✓	✓	✓	✓	✓	✓	✓	✗	✓
Abbot PXP	✓	✓	✓	✓	✓	✓	✓	✗	✓
Abbott i-Stat via DE Software	✓	✓	✓	✓	✓	✓	✓	✗	✓
ABL 80	✓	✓	✓	✗	✓	✗	✗	✓	✗
Alere Afinion	✓	✓	✓	✓	✓	✓	✗	✗	✓
Alere Cholestech LDX	✗	✗	✓	✗	✓	✗	✗	✗	✗
AVL opti	✓	✓	✓	✓	✓	✓	✗	✗	✗
Chirus D Xpress DOA	✗	✓	✓	✗	✓	✗	✗	✗	✗
Cobas b101	TBC								
Elitech Hemochron Jr Signature Elite	✓	✓	✓	✓	✓	✓	✗	✗	✗
Gem 3000	✓	✓	✓	✗	✓	✓	✗	✓	✓
GEM 4000	✓	✓	✓	✓	✓	✓	✗	✓	✓
Haemocue 201DM	✓	✓	✓	✓	✓	✓	✓	✗	✓
HaemoscopeCorporation, TEG	TBC								
Nova phox	✓	✓	✓	✗	✓	✗	✗	✓	✗
Nova StatsStrip	✓	✓	✓	✓	✓	✓	✓	✓	✓
Orion Quickread	✓	✓	✓	✓	✓	✓	✗	✗	✗
Pentapharm GmbH, ROTEM	✓	✓	✓	✗	✓	✗	✗	✓	✗
Radiometer ABL 800	✓	✓	✓	✗	✓	✓	✗	✓	✓
Radiometer ABL 810 Flex	✓	✓	✓	✗	✓	✓	✗	✓	✓
Radiometer ABL 815 Flex	✓	✓	✓	✗	✓	✓	✗	✓	✓
Rapid fFn 10Q System	TBC								
Roche Coagucheck XS Plus	✓	✓	✓	✓	✓	✓	✓	✗	✓
Roche Coagucheck XS Pro	✓	✓	✓	✓	✓	✓	✓	✗	✓
Roche H232	✓	✓	✓	✓	✓	✓	✓	✗	✓
Siemens Clinitek Status	✓	✓	✓	✓	✓	✓	✗	✗	✗
Siemens DCA Vantage	✓	✓	✓	✓	✓	✓	✗	✗	✗
Sterilab Urilyzer 100 Pro	✓	✓	✓	✓	✓	✓	✗	✗	✗
Sysmex Pocchi	✗	✓	✓	✗	✓	✗	✗	✗	✗

Devices by HB

Health Board 1

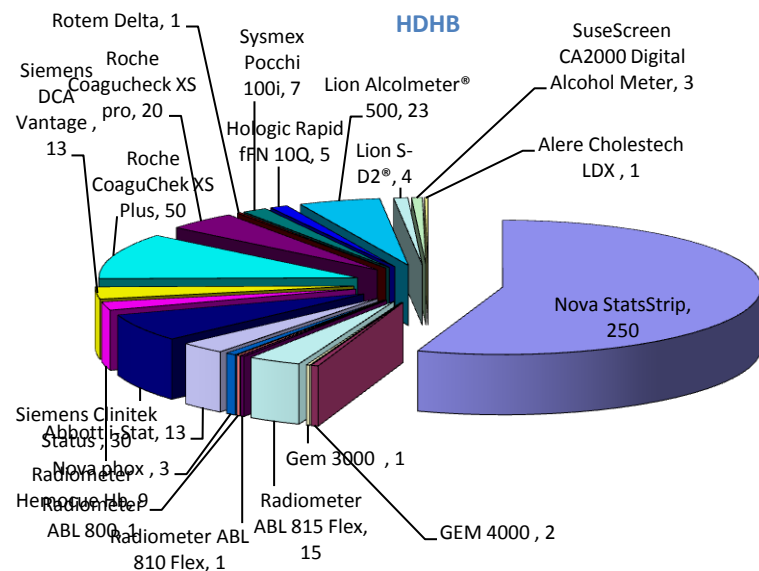


Health Board 6

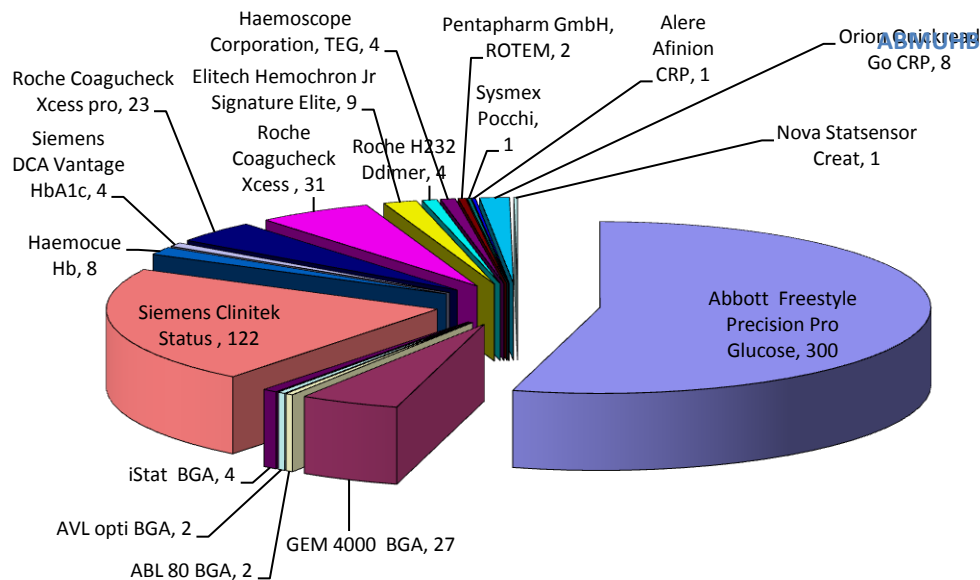


Devices by HB

Health Board 3

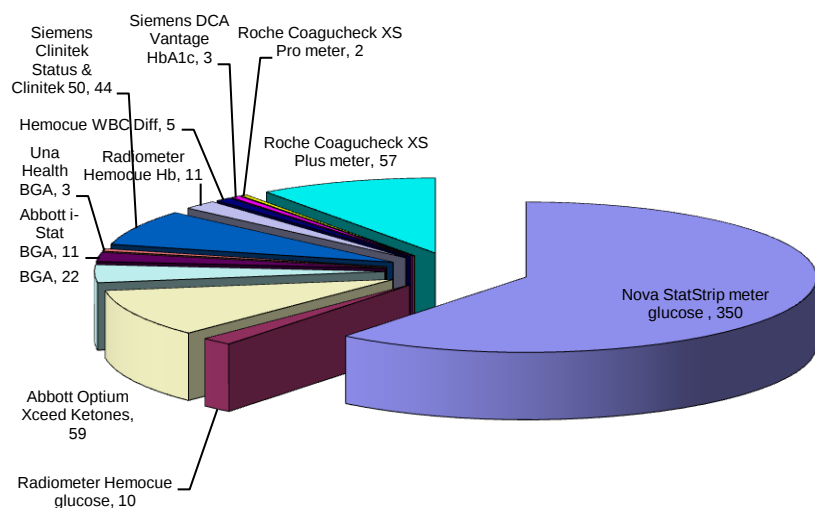


Health Board 2

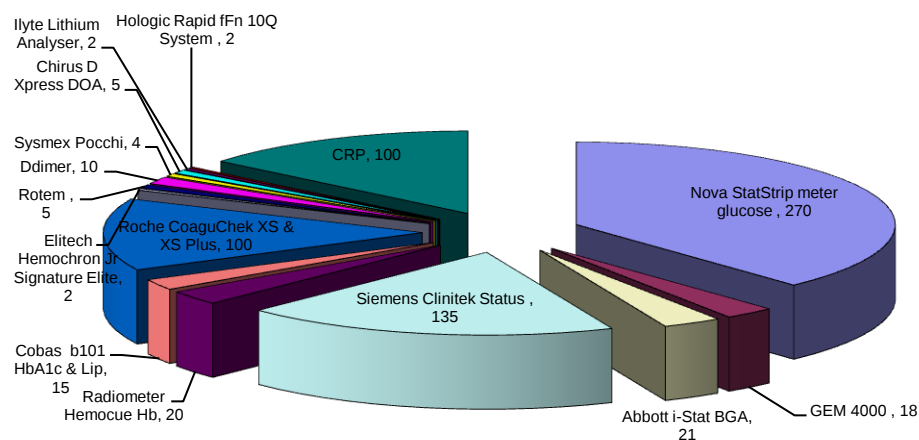


Devices by HB

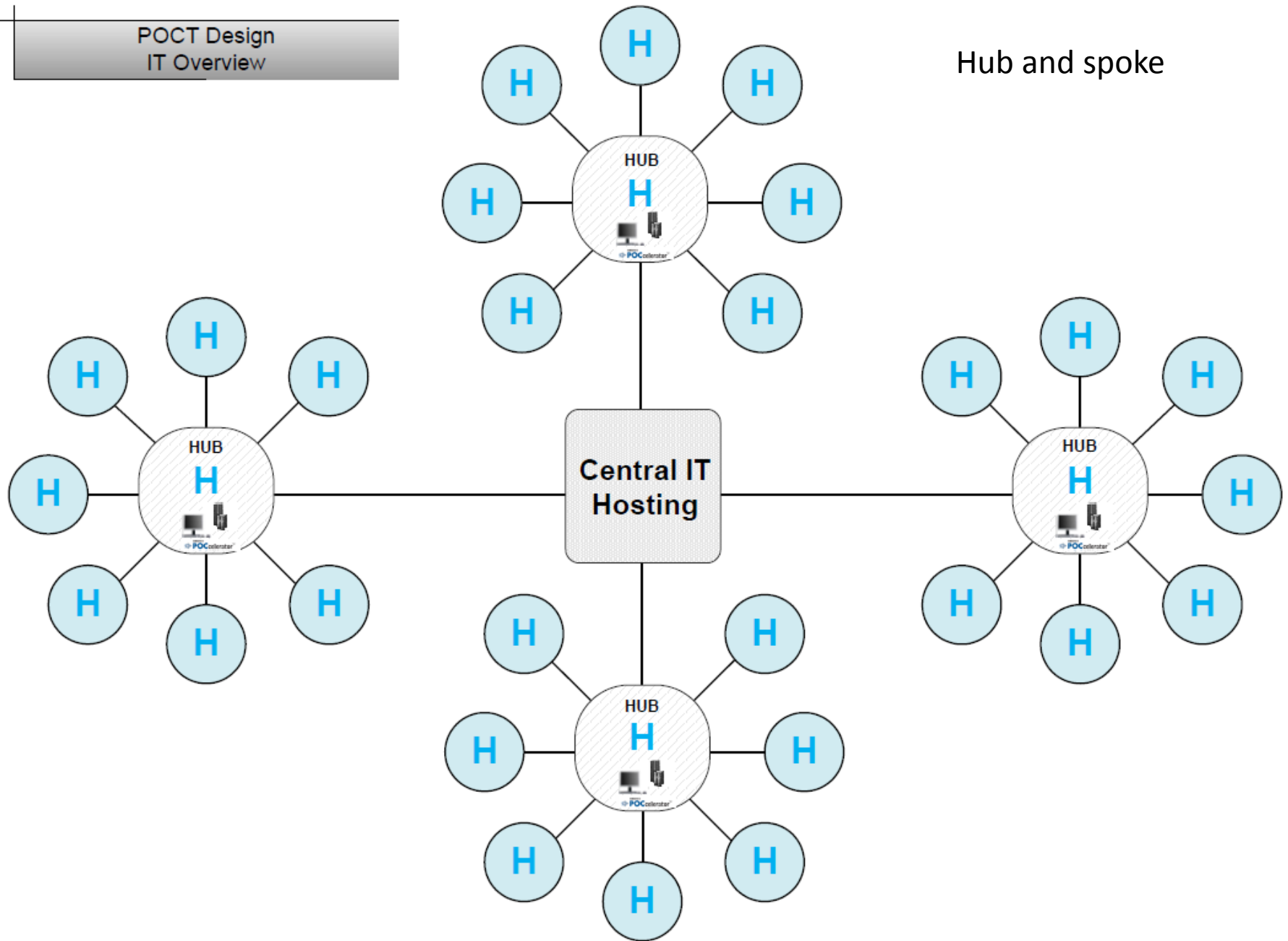
• Health Board 5



• Health Board 4

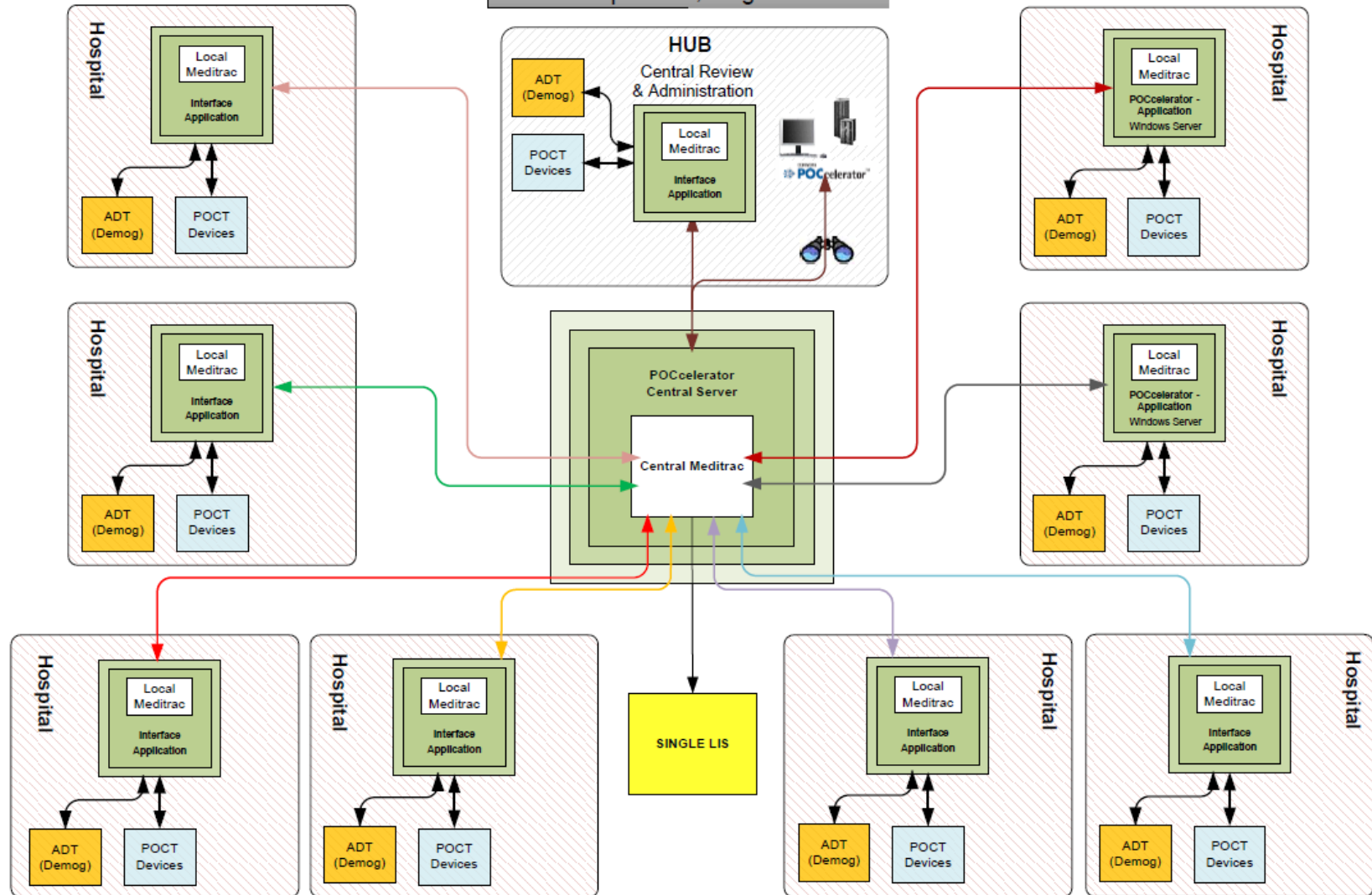


Hub and spoke

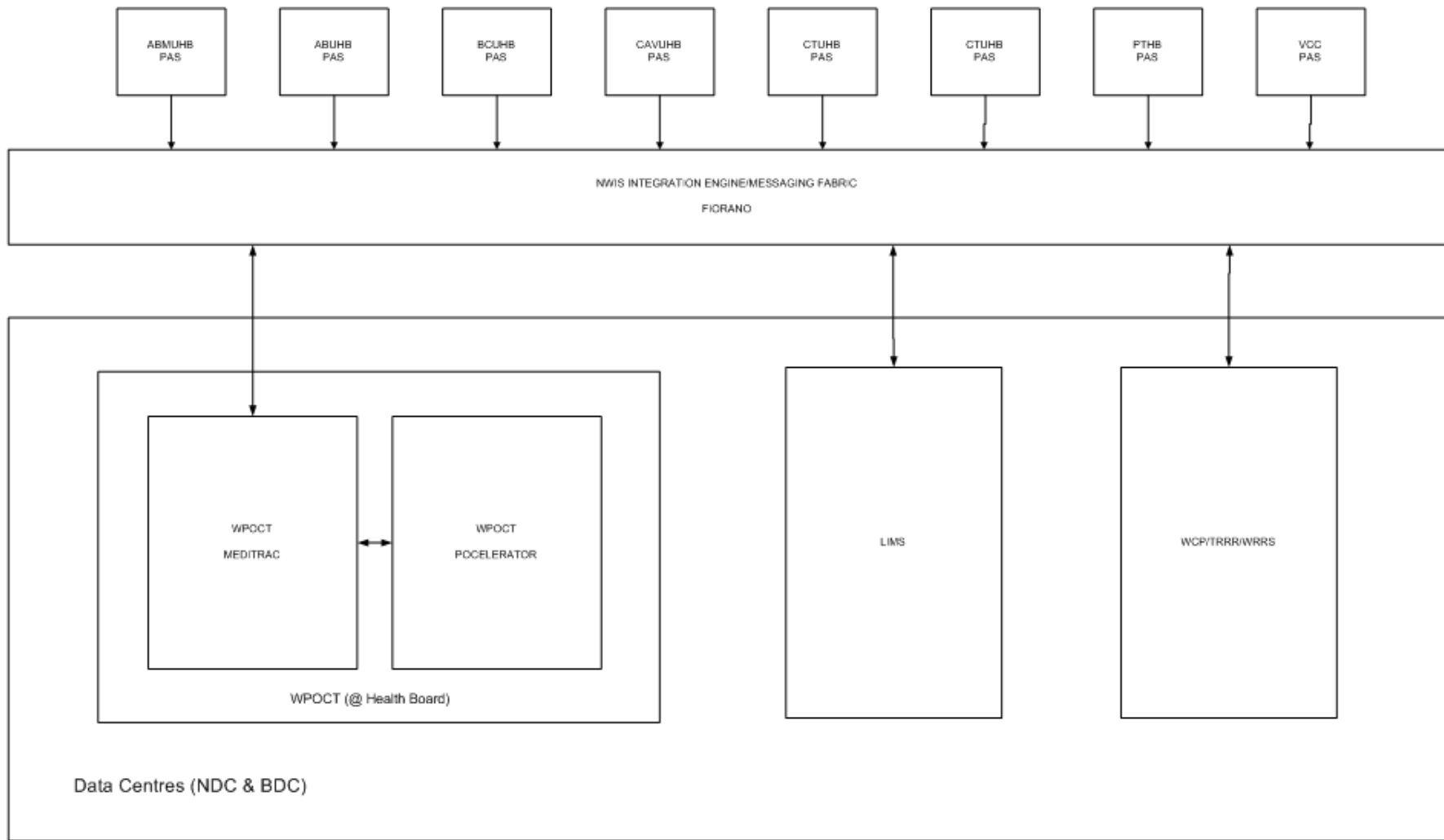


How do we connect?

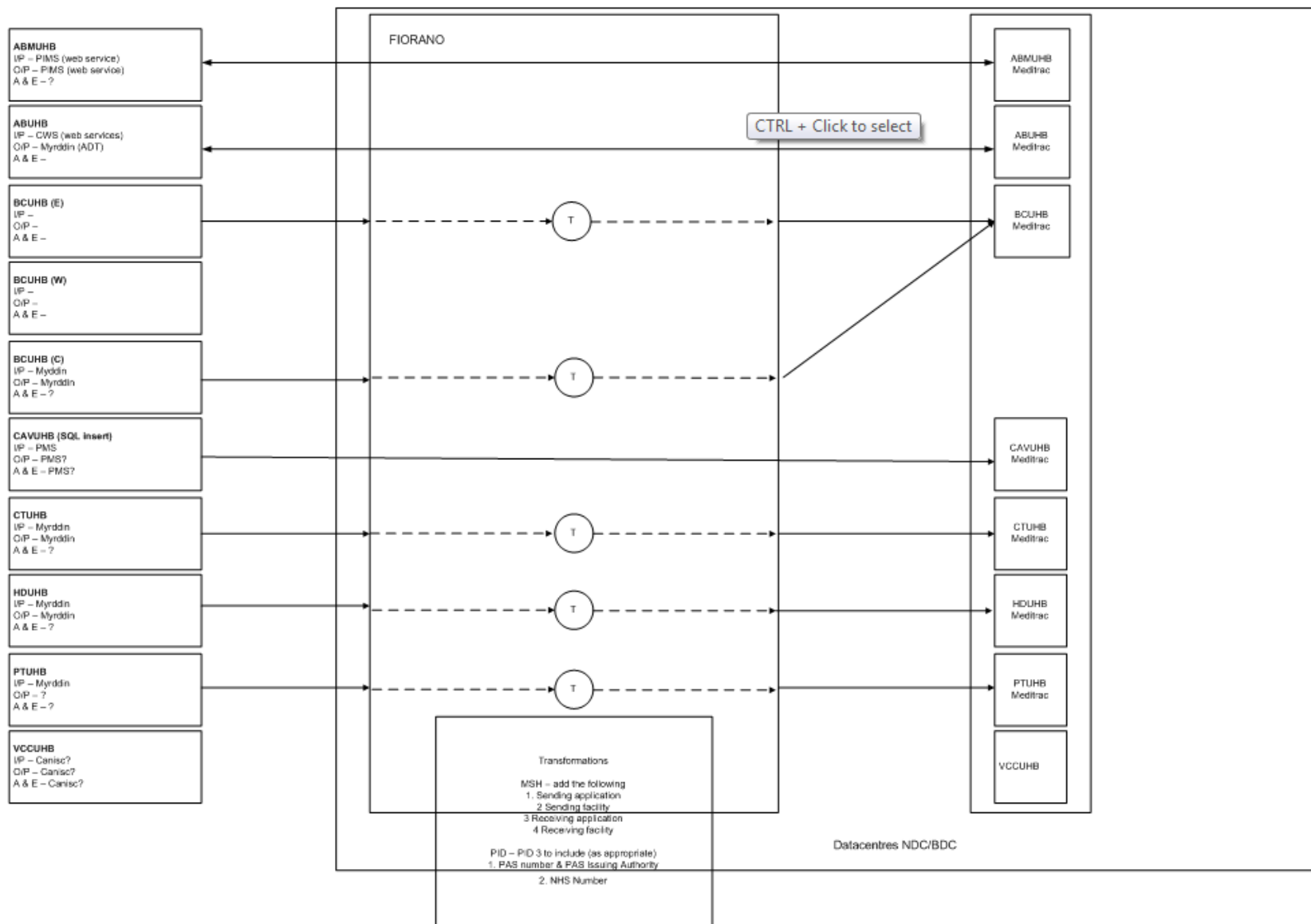
POCT Design Multiple ADT, Single LIS



WPOCT Integration. High Level Overview

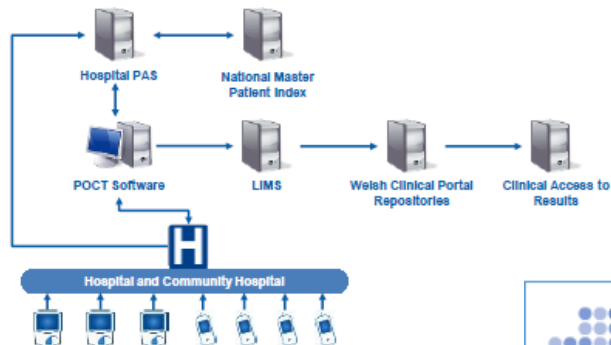


WPOCT Integration. Demographics

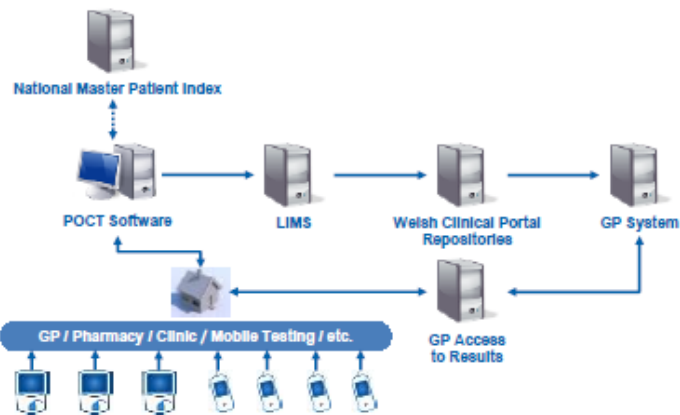




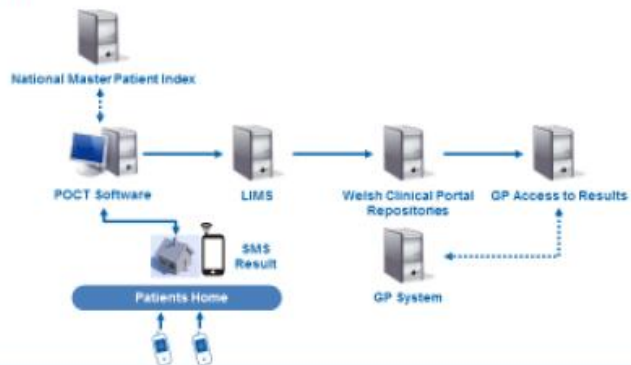
Secondary Care



Primary Care



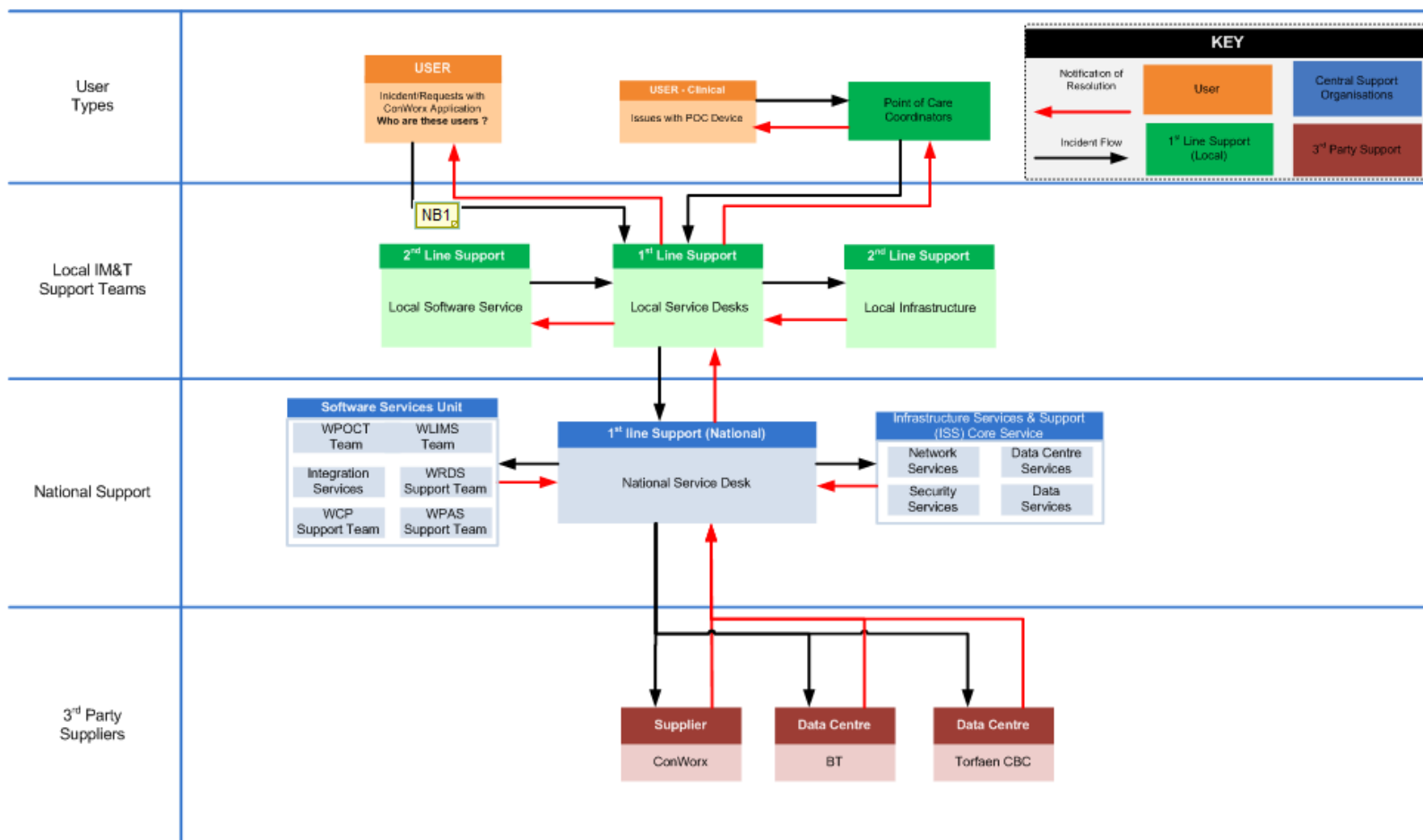
RPM



Where are we now?

- **Hardware testing completed**
- **Middleware configuration completed**
- **LIMS configuration agreed**
- **Support model agreed with NWIS**
- **ADT interface tested (C&V)**
- **Format in WCP tested**
- **Device interfaces and LIMS end to end testing in process (C&V)**

Support Model



End to end testing completed

Device	Test Completed
Nova StatStrip	√
Siemens Clinitek Status	√
Siemens DCA Vantage	√
Radiometer Hemocue	√
Roche Coagucheck XS- Pro	√
Sterilabs Urilyzer Pro	LIMS config issue identified

Device interfaces tested

Device
Pentapharm GmbH, ROTEM Sigma
Pentapharm GmbH, ROTEM Delta
Haemocue
Roche H232
Elitech Hemochron Jr Signature Elite

What were the Barriers?

- Initial “buy in” from each Health Board.
- Very different POCT service models provided by each HB
- Different cost models and level of existing connectivity
- ADT not standardised
- LIMS interfacing not delivered in time
- Different config even on same PAS systems
- Existing infrastructure - insufficient ports/ sockets
- Existing devices have inadequate wifi security – none currently compliant

What next?

- HB roll out from 26th September

Testing

Testing

More Testing

Testing

Conclusions

- There is no POCT middleware available that will do everything we needed
- Country wide connectivity can be done
- It will take longer than you think - be open for change
- It will be challenging – reflect and learn
- You may have to compromise – harmonization across Wales,
- Working together in partnership-beneficial for patients, staff and Wales



All Wales POCT Co-ordinators Committee

