

<b>AGENDA ITEM</b>
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<b>DIGITAL &amp; DATA COMMITTEE</b>
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<b>DIGITAL AND DATA ASSURANCE REPORT</b>
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<b>Date of meeting</b>	13 March 2023
<b>FOI Status</b>	Open/Public
<b>If closed please indicate reason</b>	Not Applicable - Public Report
<b>Prepared by</b>	Karen Winder Assistant Director of Informatics
<b>Presented by</b>	Karen Winder Assistant Director of Informatics
<b>Approving Executive Sponsor</b>	Stuart Morris Director of Digital
<b>Report purpose</b>	FOR NOTING

<b>Engagement (internal/external) undertaken to date (including receipt/consideration at Committee/group)</b>		
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<b>Committee/Group/Individuals</b>	<b>Date</b>	<b>Outcome</b>
(Insert Name)	(DD/MM/YYYY)	Choose an item.

<b>ACRONYMS</b>			
CTMUHB	Cwm Taf Morgannwg University Health Board	PCH	Prince Charles Hospital
POW	Princess of Wales	RGH	Royal Glamorgan Hospital
YCR	Ysbyty Cwm Rhondda	GFDC	Ground Floor Data Centre
UEM	Blackberry Unified EndPoint Management	MECM	Microsoft EndPoint Configuration Manager
WCP	Welsh Clinical Portal	WNCR	Welsh Nursing Care Record
WPAS	Welsh Patient Administration System	ETOC	Electronic Transfer of Care
MTED	Medicine Transcription Electronic Discharge	ADT	Admission Transfer and Discharge
LINC	Laboratory Information Network Cymru	D2RA	Discharge to Recover and Assess
WICIS	Welsh Intensive Care Information System	RISP/PACS	Radiology Information System and PACS

## **1. SITUATION/BACKGROUND**

- 1.1 There is an extensive work plan within Digital and Data, well above that agreed as part of the IMTP. Presently there are 121 projects on the project portfolio catalogue and 10 National systems in the pipeline.
- 1.2 The Digital and Data team's assessment is that services and resilience are being improved, however not at a pace that users require.
- 1.3 To deliver these solutions there must be a robust digital infrastructure in place across CTMUHB. Currently the department is carrying 24 vacancies including fixed terms and temporary staff.
- 1.4 A number of these vacancies are awaiting authorisation and the Director of Digital is now actively following these up with the Scrutiny Panel.
- 1.5 To help alleviate the staffing shortage in Digital and Data, and in recognition of the high turnover rates, consideration is being given to

an over recruitment of staff and an increasing usage of contractors at premium rates is being required.

## 1.6 Financial Situation for 2022/2023

1.6.1 Capital rolling replacement allocation was £1.5m. During the financial year an additional allocation of £300k was granted, followed by a further allocation of £200k. This equates to approximately 1/3 of our requested capital allocation.

1.6.2 As vacancies and request for new positions need to go through a scrutiny approval process, there are delays in the delivery of core functions and development programmes of work. These delays have resulted in additional pressures for some the existing workforce, which can ultimately affect morale of those teams.

1.7 Despite considerable financial and staffing constraints, the department has delivered a considerable work package 2022/2023

## 2. SPECIFIC MATTERS FOR CONSIDERATION BY THIS MEETING (ASSESSMENT)

2.1 Highlights of the projects and work plan delivered by Informatics 2022/2023.

SERVICE	UPDATE
Network	<ul style="list-style-type: none"> <li>• Switch replacement programme               <ul style="list-style-type: none"> <li>➤ PCH                   <ul style="list-style-type: none"> <li>➤ All switches have been upgraded to Cisco 9300 and fitted with 10 GB modules</li> <li>➤ The connections from A&amp;E, radiology, Maternity, Pharmacy and the wards have been upgraded to 10 GB back to the cores</li> </ul> </li> <li>➤ YCR                   <ul style="list-style-type: none"> <li>➤ Network upgrade is now completed apart from the two cores which required a more detailed plan</li> </ul> </li> <li>➤ RGH                   <ul style="list-style-type: none"> <li>➤ Not started as have had to redeploy switches earmarked for RGH to YCR</li> </ul> </li> </ul> </li> <li>• Switch software updates – UHB wide               <ul style="list-style-type: none"> <li>➤ 98% of the estate on firmware updates completed, the only outstanding area is A&amp;E in PCH need to agree a time to restart the switches</li> </ul> </li> <li>• Firewall replacement programme across the UHB</li> </ul>



SERVICE	UPDATE
	<ul style="list-style-type: none"> <li>➤ Both 4112 HA pairs have been installed at PCH and RGH. Work has started on the POW 4112. 35 x 1010 ASA Firewalls purchased from end of year funding to replace all EOL/EOS Cisco 5505, 5506 &amp; 5508s deployed at all smaller sites. Planning for this replacement programme to start ASAP</li> <li>• Multitone paging commissioning at all 3 sites               <ul style="list-style-type: none"> <li>➤ New paging systems live at PCH and POW. RGH still not fully live and have only deployed to rapid response</li> </ul> </li> <li>• New mobile phone contract across the CTMUHB.</li> <li>• Cabinet enclosure / plant room environment improvements               <ul style="list-style-type: none"> <li>➤ In the process of surveying the whole estate</li> </ul> </li> <li>• Public Wi-Fi overhaul – new provider with increased bandwidth and user experience               <ul style="list-style-type: none"> <li>➤ Completed at all three DGH</li> </ul> </li> <li>• Commissioning of GFDC               <ul style="list-style-type: none"> <li>➤ Completed and BT Switch room has been decommissioned. Now starting the planning and design phase for Phase III of the Ground and First Floor which will see the removal of the ITC Portacabin and the building of a replacement facility</li> </ul> </li> </ul>
Infrastructure (servers)	<ul style="list-style-type: none"> <li>• New Server clusters &amp; SAN's installed and commissioned valued at c £1.25M</li> <li>• New server cluster installed in POW giving us full hosting capacity, enabling further work on the Bridgend disaggregation</li> <li>• Server moves into the GFDC completed giving the Health Boards a better level of resilience for critical systems in PCH</li> <li>• New Citrix Windows 10 environment</li> <li>• Migration of systems from Hyper V to new VM estate</li> </ul>
Cyber & Service Management	<ul style="list-style-type: none"> <li>• Cyber update provided in committee</li> </ul>
End User Computing	<ul style="list-style-type: none"> <li>• Realignment of Desktop Support and Service Desk functions</li> <li>• Introduction of new Support Model</li> <li>• Aternity deployment to enable active monitoring of kit</li> <li>• SCCM improvements</li> <li>• Microsoft licensing – user profiling and continuous review leading to an ongoing cost avoidance of c£1m</li> <li>• Equipment replacement programme.</li> <li>• Legacy Operating system updates</li> <li>• Standardisation on Edge, migration from IE.</li> </ul>



SERVICE	UPDATE
	<ul style="list-style-type: none"> <li>• Migration to OneDrive</li> <li>• Adoption of Microsoft 365 EndPoint Manager solution and reduction/removal of Blackberry UEM including replacement/reconfiguring of over 1000 devices</li> <li>• Introduction of hardware firmware updates to improve security and stability of devices</li> <li>• New mobile telephony contract and associated rollout of hardware</li> <li>• Implementation of new conferencing facilities at Unit 2 for Board</li> </ul>
<p>Programme and projects team</p>	<ul style="list-style-type: none"> <li>• Deployed e Whiteboards across CTMUHB</li> <li>• Project managed WNCR implementation across CTMUHB</li> <li>• Deploying OpenEyes in a Glaucoma clinic</li> <li>• Provide assurance on 43 projects submitted through the Project Portfolio Board (PPB)</li> <li>• Project managed the infrastructure assessment at YCR</li> <li>• Project managing the deployment of WICIS</li> <li>• Project managed the digital transition of public health staff from Public Health Wales to CTMUHB</li> <li>• Project managed Phase 1 of the Canisc Replacement project</li> </ul>
<p>Business Change</p>	<ul style="list-style-type: none"> <li>• Recruited a Business Change Facilitator</li> <li>• Engaged with the Adult Inpatient Wards to deploy the Electronic whiteboards in POW</li> <li>• Currently running workshops with Maternity, SCBU and Paediatrics to engage and collaborate with them to get the whiteboard system working for them</li> <li>• Planning Current ways of working process map sessions with Mortuaries to develop and enhance the whiteboard system for their needs</li> <li>• Introductory sessions with Palliative Care and understanding how the whiteboard system will work for them</li> <li>• Liaising with various departments regarding T Drive migration to SharePoint Online e.g. School Nursing, Integrated Services, Speech and Language in Bridgend</li> <li>• Providing on going support for T Drive, E Whiteboards and the D2RA pathway (List View / ETOC) and ADT/MTED</li> <li>• Provided the business change expertise for the transition of POW mobile devices to CTMUHB infrastructure</li> </ul>
<p>Digital Systems</p>	<ul style="list-style-type: none"> <li>• Delivered ETR into radiology at PCH and RGH working with POW on next stages</li> </ul>



SERVICE	UPDATE
	<ul style="list-style-type: none"> <li>• At the request of the UHB’s Glaucoma Consultants, the OpenEyes programme was revived in January 2023 Final User Acceptance Testing has been successful, and it is anticipated that the staggered implementation of the system will go live in the middle of March. The three risks to this being: <ul style="list-style-type: none"> <li>➢ Completion of the clinical safety review (Medium risk due to capacity and expertise constraints)</li> <li>➢ Service assurance on the productivity and business process impact. (Medium risk as there is the potential that if admin processes are not transformed on a sustainable basis, clinic throughput may reduce by 20%, based on experience in other Health Boards)</li> <li>➢ Acceptance of the Cyber Security Impact Assessment which has been completed (Low)</li> </ul> </li> <li>• WNCR <ul style="list-style-type: none"> <li>➢ Adult WNCR rollout completed across all sites March 31st 2023</li> <li>➢ Paediatric WNCR in development</li> </ul> </li> <li>• Cardiology <ul style="list-style-type: none"> <li>➢ Adult Cardiology system expansion undertaken</li> <li>➢ Paediatric Cardiology upgrade from Xcelera</li> </ul> </li> <li>• Local readiness undertaken for National solutions <ul style="list-style-type: none"> <li>➢ WICIS</li> <li>➢ LINC</li> <li>➢ RISP/PACS</li> </ul> </li> <li>• A&amp;E hardware improvements to improve patient flow within the department</li> <li>• Orizon incontinence pads trial – digital enablement completed. Trial due to start this week</li> <li>• Brainomix (AI Stroke application); discussions continue for go live in RGH and PCH. POW has been passed back to the national programme (NWSSP) for contractual resolution</li> <li>• E Whiteboards <ul style="list-style-type: none"> <li>➢ Are now live across adult acute inpatient wards in POW with positive feedback and usage</li> <li>➢ Project team have been supporting existing e Whiteboards wards across CTMUHB with utilisation of e Whiteboards and refresher training in order to support the release of the list view and ETOC functionality delivered by the patient flow teams.</li> <li>➢ Planning for next phases is now in flight which consists of designing the e Whiteboards for use in Maternity, Paediatrics, SCBU, mortuaries and palliative care</li> </ul> </li> </ul>



SERVICE	UPDATE
Software Development	<ul style="list-style-type: none"> <li>• Developed and rolled out the Schematic e whiteboard in Bridgend</li> <li>• Developed the list view of the e whiteboards D2RA – Discharge to Recover and Assess</li> <li>• Developed the Electronic Transfer of care forms</li> </ul>
Clinical Coding	<ul style="list-style-type: none"> <li>• Autocoder upgraded to improve accuracy of procedure coding and to streamline working practice of the coding team</li> </ul>
Information	<ul style="list-style-type: none"> <li>• Referral Tracker to guide the Discharge Hub's notification of ETOC/SDN completeness and help to liaise with the Las</li> <li>• QlikSense dashboard for identifying the live discharge status of patients, their delay reasons, how many are Optimised for Discharge, which D2RA pathways are they on, what are their EDDs, where are they currently etc etc.</li> <li>• Significant development of demand capacity and forecasting models being co-developed with the service to support quantitative planning for the IMTP and trajectory</li> </ul>
Business Intelligence	<ul style="list-style-type: none"> <li>• Apps released:               <ul style="list-style-type: none"> <li>➢ Radiology Live Reporting</li> <li>➢ Integrated Performance Report</li> <li>➢ Flu Dashboard</li> <li>➢ Patient Flow – to support discharge planning using the eWhiteboard data</li> <li>➢ A&amp;E Validation</li> <li>➢ A&amp;E Sitrep</li> </ul> </li> <li>• Apps under development:               <ul style="list-style-type: none"> <li>➢ WNCR</li> <li>➢ UEC – 6 Goals</li> <li>➢ Theatres Utilisation</li> <li>➢ Waiting List – redevelopment</li> <li>➢ FUNB</li> <li>➢ Anaesthetics &amp; Recovery Room Reporting Dashboard</li> <li>➢ Quality Metrics</li> <li>➢ National Maternity &amp; Perinatal Audit</li> <li>➢ Cancer – Quality Assurance Framework</li> <li>➢ Maternity – Robson Groups</li> <li>➢ Coding Errors</li> <li>➢ Codable</li> <li>➢ IP Coding</li> <li>➢ Finance – Commissioning</li> </ul> </li> </ul> <p>In addition, a Maternity Reporting Dashboard has been developed for the service to monitor their high-level</p>



SERVICE	UPDATE
	metrics. Work has begun on pulling in Neonatal metrics as well.
National Data Repository	<ul style="list-style-type: none"> <li>• FHIR SERVER           <ul style="list-style-type: none"> <li>➤ The HAPI FHIR server software has been modified to support OAuth2 authorization, simple SMART-on-FHIR scopes, and IHE ATNA compliant audit logging.</li> <li>➤ The SMART scopes currently support allowing users per resource type (e.g. Patient, Encounter, Observation etc.) access and specifying access type via SMART 2 scope (Create, Read, Update, Delete, Execute/Search) .</li> <li>➤ All actions generate event logs tying username, IP/host, and OAuth Application ID to the actions.</li> <li>➤ Work progressing well on acquiring IP clinical activity – building local extension to identify coding status</li> <li>➤ Exploring acquisition of sentinel ECG and physiology results plus scanned documents of value presently stored within the UHB’s Digital Health Record</li> </ul> </li> <li>• Json Web Token Bearer           <ul style="list-style-type: none"> <li>➤ Rather than a JSON Web Token bearer, an OAuth2 server generating plain oauth2 tokens has been created &amp; deployed.</li> <li>➤ It has global, group, and user allow/deny scopes that can be managed by an admin and these decide what SMART scopes the users get when they generate a token.</li> </ul> </li> </ul>

### 3. KEY RISKS/MATTERS FOR ESCALATION TO BOARD/COMMITTEE

- 3.1 The current financial climate will impact the digital programme as both the capital and revenue forecast for next year is severely reduced
- 3.2 Staffing continues to be a problem with post held up by the scrutiny approval process and the restrictions imposed to advertise fixed term posts
- 3.3 Number of National projects proposed without local business cases and agreed funding
- 3.4 Drive to digital ways of working without adequate funding to be able to plan a constructive rolling replacement programme



#### 4. IMPACT ASSESSMENT

<b>Quality/Safety/Patient Experience implications</b>	Yes (Please see detail below)
	Age of equipment to deliver a digital solution affects both staff and patients experience
<b>Related Health and Care standard(s)</b>	Effective Care
	If more than one Healthcare Standard applies please list below:
<b>Equality Impact Assessment (EIA) completed - Please note EIAs are required for <u>all</u> new, changed or withdrawn policies and services.</b>	No (Include further detail below)
	If yes, please provide a hyperlink to the location of the completed EIA or who it would be available from in the box below.  If no, please provide reasons why an EIA was not considered to be required in the box below.
<b>Legal implications / impact</b>	There are no specific legal implications related to the activity outlined in this report.
<b>Resource (Capital/Revenue £/Workforce) implications / Impact</b>	Yes (Include further detail below)
	Delivery of the Digital Programme requires both capital and revenue funding which in the current financial climate is difficult
<b>Link to Strategic Goals</b>	Improving Care

#### 5. RECOMMENDATION

- 5.1 The Committee is asked to:
- 5.2 **NOTE** the projects both system and infrastructure completed this year
- 5.3 **NOTE** the lack of capital and revenue funding to sustain a digital and data programme
- 5.4 **NOTE** the increase of National systems without local business cases and therefore funding