

Datix ID	Strategic Risk owner	Strategic Goal	Risk Domain	Risk Title	Risk Description	Controls in place	Action Plan	Assuring Committees	Rating (current)	Heat Map Link (Consequence X Likelihood)	Rating (Target)	Trend	Opened	Last Reviewed	Next Review Date
4664	Executive Lead: Director for Digital. Chief Information Officer	Creating Health	Legal / Regulatory	Ransomware Attack resulting in loss of critical services and possible extortion	IF: The Health Board suffers a major ransomware attack. Then: there could be potential data loss and subsequent loss of critical services. Resulting in: Catastrophic service loss to all clinical and business services impacting on population health management, patient care, business continuity, organisational relationships & substantial financial risk - culminating in a culture of mistrust of the Health Board and all things digital	Key Controls: 1. Email filters from both Microsoft and the National email relay which scan for malicious and suspicious email types and their attachments. 2. National Checkpoint firewalls that monitor for and block suspicious network traffic, including those from known malicious geographical areas. 3. National SIEM that monitors and logs suspicious external incoming traffic. As well as monitoring local network traffic for each NHS Wales organisations. 4. Local Firewalls at each of the Health Board's geographical areas that only allows inbound trusted network traffic. 5. Anti-malware software installed on all Health Board computing devices which includes ransomware behavioural intelligence. 6. Blocking and monitoring of Internet traffic. 7. Locally systems that monitor the local network for suspicious traffic. 8. A monthly patching regime to ensure that all operating systems are up to date. 9. Regular backups of critical information and device configuration which is stored off site as part of DR/BC planning. 10. Cyber Incident response plan developed and being iteratively developed Gaps in Controls: 1. Current National SIEM has presented many issues in terms of access to the Health Board for identifying issues and addressing false positives. 2. The Health Board is currently not addressing the need for the national Cyber Security training to become part of mandatory training to all staff. 3. A regular co-ordinated approach to providing Phishing campaigns as part of staff awareness to indicators of compromise. 4. A process where the Health Board can monitor where staff have read important information/cyber security policies. 5. The current network Intrusion Detection/Intrusion Protection system (IDS/IPS) is no longer licensed under the new generation firewall infrastructure. 6. No assurance processes in place for UHB to determine & manage vulnerabilities presented by third party suppliers and other NHS Wales organisations 7. Inefficient skills and capacity within the UHB (not just within digital)	CTMUBH is amalgamating the issues arising from the Cyber Essentials plus, the NIS-D assessment and the NCSC board framework in a single plan. Elements of this need to be taken forward at the UHB level, others nationally. - Timeframe: Quarterly updates The ICT Department are investigating ways to improve the security of backups to ensure that these are protected from potential ransomware attacks. Timeframe - 21.02.2022 The ICT Department are investigating ways to segregate the current configuration of the network infrastructure to ensure that critical systems are better protected from cross infection. Timeframe - 21.02.2022 The ICT Department will re-appraise a case to re-introduce Cisco FirePower which is an IDS/IPS networking software. Timeframe -1.4.2022 The ICT Department will be reviewing and further testing the developing Cyber Incident Response Plan. Timeframe - 1.02.2022 Medical Engineering and the ICT team to develop a programme for assessing risks presented by medical devices and possible mitigations. Timeframe - 21.04.2022 The organisation is recruiting a Director of Digital Services who will be a member of the Board. This position will enhance the complexities and needs of both service delivery and information/cyber risks. Completed - Commenced December 2021. Update March 2022 - No change to risk updates or mitigation at this point, however, the Digital team have agreed to break this risk down in to component parts. These risks will eventually replace the current risk. This review is in progress with an update by the 30.04.2022.	Digital & Data Committee	20	C5 x L4	15 (C5xL3)	↔	26/05/2021	10.03.2022	30.04.2022
4699	Director of Corporate Governance Information Governance Function	Creating Health	Patient / Staff /Public Safety	Impact on the safety - Physical and/or Psychological harm & Statutory Duty / Legislation	IF: the Health Board fails to adequately resource the Information Governance Function following an increase in activity and demand since the boundary change and new operating model. Then: the health and wellbeing of staff along with the ability to comply with legislation and service delivery will be impacted. Resulting in: an impact on the workforce (poor morale, health and wellbeing, retention), Impact on Service Delivery e.g. delays in approving Data Sharing Agreements, Data Protection Impact Assessments, Subject Access Requests and FOI requests. Compliance with Legislation such as the Data Protection Act, FOI Act and GDPR Regulations could also be impacted.	Context: The IG Team (1 WTE and 2 PTE) have experienced the following increase in activity: 1. 300% increase in FOI requests and a 500% increase in complexity (number of questions asked per FOI request); 2. 600% increase in Data Protection Impact Assessments to be undertaken; and 3. 225% increase in the number of Information Sharing Agreements being handled . Work programme prioritised to focus on the "must do's": - Urgent Data Sharing Agreements - Responding to FOIs from the Public - Responding to Subject Access Requests - Responding to IG activity that relates to the safety of the public, responding to queries from external agencies such as Police investigations etc. - Significant incident investigations and concerns. - ICO activity and audit	Benchmarking with other organisations in Wales undertaken. Business case for additional IG resource completed. Funding sources being explored by the Executive Lead and Assistant Director of Governance & Risk - Timeframe: 31.03.2022. The control measures and risk prioritisation exercise undertaken by the IG Team is captured and detailed in this risk assessment and linked to Risk ID S004. Alternative ways of working have been explored with no sustainable solution identified. The fundamental risk treatment option to manage this risk, given the significant increase in activity in this area is an increase in resource. In this regard, an increase in resource has been included in the IMTP for 2022/2023. If funding is not available then the Health Board will need to consider its risk treatment in terms of Tolerating/Accepting the risks facing the organisation.	Digital & Data Committee	20	C4xL5	8 C4xL2	↑	18.06.2021	20.01.2021	30.04.2022
4337	Executive Lead: Director for Digital. Bridgend Integrated Locality Group	Creating Health	Operational: Core Business Business Objectives Environmental / Estates Impact Projects	Integrated IT Systems	IF: The Health board is unable to deliver vital clinical information services to the Bridgend locality affecting many clinical systems that are not compatible with Cwm Taf University Morgannwg Systems. Then: The Health board will be unable to deliver safe, high quality care to patients without vital clinical information available. Resulting In: Compromised safety of patients needing treatment that are reliant on clinical test results and information being available to clinicians to plan and deliver the treatment plan.	Key Controls 1. SBUBH Service Level Agreement 2. Bridgend disaggregation and the one-CTM aggregation plan 3. Numerous national service management boards and Technical oversight groups providing strategic, tactical and operation governance. 4. Band 7 Senior Server manager being appointed specifically to work with SBU on the transference of infrastructure and services within Princess of Wales (POW) to CTMUBH. Gaps in Control The business case for integration remains unfunded. There are currently a number of CTM systems that are not compatible with Bridgend systems. SBUBH have no process in place to incorporate the needs of Bridgend users in their developments.	Progress in line with the existing plans which were agreed on the primary basis of their need to be affordable, has been made over 2020/21 with a number of new systems, such as pharmacy management introduced as pan-CTM products. However there is still considerable work required to create a unified digital infrastructure for CTM = around the clinical systems and the remainder of the ICT SLA. The business case details a funding requirement of £8 million. This was discussed at the Digital cell with WG in February 2021 and a further funding request has been submitted to WG at their request, along with complimentary proposals from Digital Healthcare Wales (DHCW) for which CTM has worked with them on. Timeframe - Mid June 2021 when DPiF Funding is announced. Update October 2021 - In the absence of WG support to provide the necessary infrastructure to safely and effectively enable the boundary change the UHB took the decision, informed by a business case appraisal, to make best endeavours, using the opportunities provided to lead to integration. In addition nearly all efficiencies made by the digital and informatics team are being put to resourcing the aggregation programme. Phase 1 of which, which includes the integration of non PAS interfaced clinical systems, the helpdesk and Wi-Fi and mobilisation is nearing completion. Phase 2 is presently being planned, with the business case still awaiting agreement from the Welsh Minister for Health. Meetings have been ongoing with a Band 7 Senior Server manager being appointed specifically to work with Swansea Bay UHB on the transference of infrastructure and services within Princess of Wales (POW) to CTMUBH. No change to mitigation or risk rating. Review date extended to 25.3.2022.	Digital & Data Committee	16	C4 x L4	8 (C4xL2)	↔	14.10.2020	31.12.2021	25.03.2022
4339	Director of Corporate Governance Information Governance Function	Improving Care	Legal / Regulatory	Failure to complete a timely and robust Data Protection Impact Assessment (DPIA)	IF: the organisation fails to complete a timely DPIA for processing activities associated with new projects and systems. Then: there is a risk that the organisation will not identify and/or minimize the data protection risks of a project and undertake the necessary consultation with the Information Commissioners Office (ICO). Resulting in: non compliance with the General Data Protection Regulations, Information Governance breaches leading to complaints, incidents and impact on the reputation of the Health Board. Enforcement action/investigation by the ICO. Potential risk that Health Board officers may decide to proceed at risk on projects, sharing agreements where a DPIA cannot be provided in the timescales required.	Context: 600% increase in Data Protection Impact Assessment in the last 12-18 months. Information Governance Team providing specialist expert advice and support to teams across the organisation. Information Governance training as part of the Statutory and Mandatory training compliance captures the DPIA requirements. Information Governance Policy for the Health Board. Data Privacy Impact Assessment Procedure for the Health Board - updated to clearly indicate timescales for responding and the key stages in the DPIA process. This will allow risks and mitigations to be identified at the earliest opportunity. Information Governance included within a "Good Governance" slot on the Welcome Day Induction Programme.	Continue to raise awareness through training and induction. Monthly IG Awareness Sessions to be reinstated from March 2022. Identify IG Champions through TNA to increase capacity within Health Board and reduce reliance on central team. Likelihood of risk occurring has increased from a 4 to a 5 in January 2022 in light of the continuing increase in demand for the completion of DPIA's which is resulting in a backlog which will likely incur delays.	Digital & Data Committee	16	C4 x L4	8 C4xL2	New risk escalated to Organisational Risk Register in February 2022	19.10.2020	20.01.2022	31.03.2022
4282	Chief Operating Officer Facilities	Sustaining Our Future	Operational: Core Business Business Objectives Environmental / Estates Impact Projects	Risks associated with the transfer to the new Planet FM System	IF: the Health Board transfers over to the new Planet FM system Then: the TAB system will no longer be supported for Support Services, Laundry Services etc Resulting In: Business Continuity / Service Delivery not being available leading to service and financial loss. Potential for system to crash with no support available to rectify. No reporting system being available.	The Health Board is still using the TAB system until suitable alternative is found. Additional control measure in place of reverting to spreadsheets being used with manual entry, with additional staff put in post. Option to transfer services over to Planet FM through a phased approach has been looked at but unfortunately this is no longer feasible. Depending on if feasible there may be costs associated with licences, training etc. with new system. This has been included within the 'Support Services Forward Work Plan' to identify a solution in place of TAB system. Following review of this risk, the Technical Services Team have agreed that the risk now needs to be increased following confirmation that Tabs will no longer be supported on an IT server from July 2021, so there will be no system in place. Five demonstrations of alternative systems have been undertaken, however they have not been suitable for the Facilities Services. Other systems continue to be looked at by the Technical Services Team. Based on this update the likelihood of the risk remains at 4, giving a high rating (from 12 to 16). The risk will be reviewed in 3 months or following any mitigating actions being undertaken.	Action: Alternative system for Technical Services and the Laundry Service to be sourced. Timescale: 31/03/2022. Alternative systems continue to be reviewed. Tabs upgrade still appears to be the best option so far and could further expand to support other disciplines in the future; examples are accommodation and Shuttle bus bookings. This version also supports full audit tools and history transfer (if required). This is a web based version with live IT support from TABS and does not need CTM ICT infrastructure. However Server maintenance and support is necessary. Based on this update the high rating of 4 x 4 = 16 remains. The risk will be reviewed in 3 months or following any mitigating actions and / or implementation of above options being undertaken. Review Date: 31/05/2022	Digital & Data Committee	16	C4xL4	4 C4xL1	↔	19/02/2020	11.02.2022	31.05.2022

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4672	Executive Lead: Director for Digital. Chief Information Officer	Creating Health	Operational: • Core Business • Business Objectives • Environmental / Estates Impact • Projects Including systems and processes, Service /business interruption	Absence of coded structured data & inability to improve on delivery of the national clinical coding targets and standards (target is 95% completeness within month coded, and 98% on e-rolling 3-month period) Access to a complete and coded medical record.	IF: The Health Board is not able to record information accurately and reliably & does not address the 25000 backlog of uncoded FCEs Then: the data informing the clinical, regional and organisational decisions we and our partners (including WG) make, will be inaccurate, out of date or incomplete Resulting in: Degradation in our delivery of the quadruple aim and strategic objectives and damage to our reputational standing with our population and partners. Further we will be prevented from driving forward our ambitions to become a digital organisation, an exemplar for R&D and Value etc.	Operational controls: Coding key performance indicators covering productivity, demand and backlog robustly monitored Digitised Patient Notes programme board monitors scanning times, adherence of contractor to terms and quality of staff in maintaining a record DHCW annual coding quality audit. Coding improvement and transformation plan established incorporating additional trained coding capacity, coding at source, use of data captured in other systems and e-forms implemented. Natural language programming resource deployed and outputs of programme being validated. Tactical - EPR programme with deployment of snomed-CT ontology server, WCP & E-forms etc. Tactical controls: Digital element of the strategic programme - Culture to digitise the EPR, our communications, how we do business National Architecture Review - encompassing (NDR /CDR & Sharing arrangements) Coding transformation programme - Gaps in controls Scanning time of outpatient activity to digitise the record is at 8 days of maximum clinically safe time of 24-48 hours Quality of paper record and its filing is very poor Insufficient resource available to address coding backlog Digital solutions not yet using snomed-CT/ structurally coded data Information and Technical Standards Clinical audit	o Work is ongoing to improve the quality of clinical data held within Clinical Systems. o Data quality improvements efforts are ongoing in collaboration with colleagues from the relevant clinical areas and the Software Development team (MITS data fields are being updated/amended and TOMs OPCS codes are being refreshed to the latest version). - OPCS: Classification of Interventions and Procedures Code - there is no fixed completion date as this is dependent on the pace of improvement. The plan is to review progress quarterly. o MediCode 360 Go Live scheduled for completion by the end of February 2022 (this provides automated template coding capabilities, medical history assurance, live data quality checks and data quality analytics). o Work is underway to develop mechanisms to batch feed data from MITs, TOMs, McKesson Cardiology, Medilogik Endoscopy Management System (EMS) and MediSoft Ophthalmology into MediCode 360 ARC (automated template coding module) back end. Proposal for an interim target operating model will be completed by the end of February 2022. Funding approved to procure contract clinical coders to support the delivery of national clinical coding targets. Risk Rating remains unchanged at this current time and this decision is based on the wider risk profile not just the mitigation that is being put into place to address the coding of our consultant engagement.	Digital & Data Committee	15	C3 x L5	9 (C3xL3)	↔	05.06.2021	05.03.2022	30.04.2022
4671	Executive Lead: Director for Digital. Chief Information Officer	Creating Health	Operational: • Core Business • Business Objectives • Environmental / Estates Impact • Projects Including systems and processes, Service /business interruption	NHS Computer Network Infrastructure unable to meet demand	IF: The Health Board suffers regular local and/or national network issues and/or outages to clinical and critical business systems. Then: there could be a detriment to patient care, inefficiencies in care provision and loss in confidence by Health Board staff in the technology provided to them leading to them using alternative software and bespoke systems (including paper based systems) to carry out their duties which are not integrated. Resulting in: delays in clinical decisions and consequently treatment which may affect clinical outcomes, reduced levels of productivity and thus poorer access to services, staff appetite to work digitally and in accordance with the digital standards required to realise the full strategic benefits of an integrated record and repository not being realised. Other consequences include: Loss of information integrity and accessibility as multiple copies of clinical records. Threat of malware being introduced on to the network from unmanaged data, systems and software. Possible breaches to the GDPR, safeguarding and information governance risks. Mistrust by staff of the ICT systems and services they are using	There are various Service Management boards from ADIs, service delivery and infrastructure management which have representatives from each NHS Wales organisation and departments. These meet regularly with a governance structure to escalate any service delivery and security incidents and risks. SLAs are in place between DHCW and NHS Wales organisations and incidents are escalated up via the national Service Point Service Management system. The Health Board has the Risk Audit Governance & Cyber Security Board which meets monthly to discuss and take action on service delivery incidents. Local and National Infrastructure reviews are presently underway. CTMUHB has a large digital infrastructure refresh and expansion programme which is well funded with local and national support and is close to completing the infrastructure review. Operational weekly meetings take place to manage and learn from all new and ongoing major incidents. National infrastructure review is close to completing and making recommendations. Gaps in controls: Approach to cloud is variable across Wales, this presents numerous risks ranging from Information Governance and privacy to workforce (minimal skills available) and finance (revenue based and a lot more expensive)	Infrastructure and comms actions plans were agreed 24 months ago and are being delivered as funding and staffing are available (recognising priorities changed during Covid). The Health Board to develop a robust incident management process. This is to ensure that regular outages of national systems and infrastructure are escalated to the appropriate governance structures to address such issues locally and nationally. Update October 2021 - Progress has been made with the firewall replacement completed at PCH increasing bandwidth to 3GB and 10 GB by May 2022, RGH is planned for mid-October 2021. Enhanced WiFi has been made available on all sites. Server back ups have been optimised to reduce the overloading and DHCW are half way through their infrastructure and application initiatives which will also improve service availability and responsiveness. Weekly meetings are now taking place to discuss and update all new and ongoing major incidents. As at March 2022 - no change to risk score or mitigation.	Digital & Data Committee	15	C3 x L5	9 (C3xL3)	↔	26/05/2021	05.03.2022	30.04.2022
5040	Executive Lead: Director of Digital Chief Information Officer (SIRO)	Creating Health	Operational: • Core Business • Business Objectives • Projects Including systems and processes, Service /business interruption	Digital Healthcare Wales (DHCW interdependencies)	IF: The Health Board can not integrate new applications into its digital architecture in a timely fashion Then: there could be a detriment to patient care, inefficiencies in care provision and loss in confidence by Health Board staff in the technology provided to them leading to them using alternative software and bespoke systems (including paper based systems) to carry out their duties which are not integrated and major strategic priorities for the organisation (e.g. Bridgend aggregation and the deployment of the new Emergency Department system) not being delivered Resulting in: delays in clinical decisions and consequently treatment which may affect clinical outcomes, reduced levels of productivity and thus poorer access to services, staff appetite to work digitally and in accordance with the digital standards required to realise the full strategic benefits of an integrated record and repository not being realised. Other consequences include: 1. Loss of information integrity and accessibility as multiple copies of clinical records. 2. Failure and delay of digital system deployments (e.g. WEDES) 3. Possible breaches to the GDPR, safeguarding and information governance risks. 4. Mistrust by staff of the ICT systems and services they are using 5. Money being wasted	A Myrddin strategic programme group has been established, chaired by the CEO of DHCW to map out how the constraints can be overcome SLAs are in place between DHCW and NHS Wales organisations, however their fulfilment has been exposed by demand pushing the waiting times for developments to start (not complete) to over 12 months Gaps in controls: WG have agreed some funding for the PAS element, however the DHCW IMTP continues to be a top down decision process rather than one being based on HB (user / customer) needs - driven in part by demand overwhelming their capacity (much of which is either covid born or results from the significant overrun in establishing a minimum viable product to replace CanISC) and numerous critical constraints not continuing to be observed in the system whilst the architecture remains closed. HB carrying vacancies in critical areas with no capacity to cover the work from within. As a consequence programme to digitise the Emergency Department processes and records has been suspended.	National Data Resource Programme has accelerated plan to open up the architecture, with API management procured for all of Wales. National Funding received from WG for PAS integration work to create a second team supporting data migration. CTMUHB appointment process has commenced	Digital & Data Committee	15	C3xL5	9 C3xL3	New Risk escalated to the Organisational Risk Register March 2022	07.02.2022	05.03.2022	01.04.2022

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Nil for Digital & Data Committee.											

Datix ID	Strategic Risk owner	Strategic Objective	Risk Domain	Risk Title	Risk Description	Controls in place	Action Plan	Assuring Committees	Rating (current)	Rating (Target)	Closure Rationale
4693	Chief Operating Officer Facilities	Creating Health	Operational: • Core Business • Business Objectives • Environmental / Estates Impact • Projects Including systems and processes, Service /business interruption	Electrocardiogram (ECG) carts not connecting to hospital network	<p>If: The GE ECG carts use DHCP to obtain an IP address from the network so that they can connect to the SBUHB MUSE system and download ECGs. If they are not able to connect to the hospital network then they cannot identify patient demographics from the wrist band using the online ADT functionality.</p> <p>Then: This is causing a backlog of tests not being stored centrally and only held locally on the machines. The machines are only capable of storing 200 tests before overwriting historic tests on a first in first out principle.</p> <p>Resulting In: the Health Board having no method of recording what tests have been deleted and failed to store on the MUSE server. In addition to this ICT (SBUHB) have looked at the situation and informed us that the wireless connectivity for these machines are running out of IP addresses depending on the number of wireless devices also live on the network at the time. This makes the connection of machines to the network random and unsustainable for the service. This could result in service / business interruption and delays.</p>	<p>There are no control measures that can be put into action currently. Situation is being escalated to SBUHB ICT. The Health Board can only rely on paper copies of the ECGs being kept in the patient notes. There is no mitigation options for digital review and storage of ECGs with GE MUSE System.</p> <p>Based on this update the risk has been scored as a high risk (Consequence 3 x Likelihood 5 = 15) and will be reviewed in 3 months time or when mitigating actions have been implemented.</p>	<p>Action: ICT (SBUHB) to review potential solutions with Clinical Engineering to address the wireless connectivity for these machines and the running out of IP addresses. Timescale: 31/03/2022.</p> <p>There is an on-going issue with the corporate Wi-Fi in Princess of Wales Hospital where devices are taking up all the IP addresses available due to an issue with the free Wi-Fi. This initially caused some of the carts to fail in successfully obtaining IP addresses. Whilst SBU colleagues are looking into the issues relating to the free Wi-Fi, a workaround is in place where a daily manual intervention from ICT staff keeps the services running until a permanent solution is in place. A further issue was identified with a number of carts not transmitting data into MUSE. Upon investigation this was due to internal departmental processes not being followed. Training has been provided and the Cardiology department have confirmed that all carts are now transmitting in to MUSE.</p>	Digital & Data Committee	Closed	Closed	It is suggested that this risk will close as the mitigation undertaken has reduced the likelihood of the risk being realised.