

JOINT NETWORK MANAGEMENT COMMITTEE (JNMC)
Minutes for meeting held 20th Oct 2022, via Teams

Present:

Chair – Robin Walker (RW)

Secretary – Robert Franklin (RF)

College representative - Andrew Bainbridge (AB), Rob Beardwell (RB) & Jennifer Philips (JP)

School Representative - John Sinclair (JS)

Observers – Espen Koht (EK), Gordon Ross (GR), Ritchie Carter (RC), Jon Holgate (JH), Katie Edwards (KE) & Caroline Gerrard (CG)

Apologies – Alexander Cox & Steve Riley

1) Minutes

Minutes from last meeting were confirmed.

2) Matters arising

Action points from previous meeting:

RF – To chase missing representation by University departments on the JNMC, has intentionally postponed action in context of the JIG.

Networks

RF - Connection to internet was upgraded through Janet, it was doubled from 2x 10Gbit, to 4x 10Gbit, so it is now 40Gbit on both links, there is redundancy, this is where it will stay until the 200Gbit upgrade in around 18months time. There were problems during the implementation but these were fixed and did not affect use.

The new prices have not yet been updated the website.

DDI replacement, the replacement for the IP register system has stalled due to the router work. There was a delay deciding on a funding strategy. It has been decided to use the UDN budget to fund capital costs, from that point onwards it would move to the UIS subscription budget. Will require new quotes as existing quotes are a year old.

RW – What will be the impact on subscriptions rates, will institutions notice?

RF – The subscriptions budget is outside of the UDN and picked elsewhere in the UIS so this only refers to a one off capital expenditure rather than an ongoing expense.

EK -Encouraged user engagement, there will be an impact on users on things they do day to day.

RF – Will circulate the specification document. Currently an RFI but is about to move to an RFP to allow for comments.

RW – DDI explanation would be beneficial.

Are you thinking of replacing the DNS infrastructure for the University as a whole?

RF - Yes. The current system is very old fashioned.

GBN

New update not listed on paper 199, City Fibre will be looking at proof of concept to link College hostels in economically unviable locations to the GBN. Communication sent to the CITMG explaining this plan and asking for details of colleges with such hostels and has not yet received any details.

EK – Does not believe it has been received and suggested re-sending.

RC – Any feedback on items listed in paper 199?

RW – Interested in the discussion surrounding the disposal of the Hills Road site. What is plan B?

RC – Removing the network entirely from the site is not straightforward, Hills Road has been recently resurfaced, there is a 3 year embargo on any excavations. Proposing to remain in the Southwest corner of the site and use public highway, Harvey Road. Current estimate of £70,000. If the existing infrastructure needs to be moved in its entirety the bill will be doubled.

RW – Are there active components on site?

RC – There is a PoP switch which runs the BMS for the building and wireless access point (AP) on top of the building, but the majority of the circuits can be diverted once alternative route is identified.

The new policy is to route via the public highway, as these routes do not tend to change, whereas the University or Colleges regularly build on private land.

RW – Asked for an update on negotiations on connecting the college boat houses.

RC – No update, looking at PIA and delivering via BT's network, similar to method used at Madingley Hall. Hope this will be the quicker and cheaper option.

RW – In terms of legislation and regulation, are City Fibre vulnerable to PIA in the same way as BT?

RC – Yes. However, this is not the method GBN are intending to use, instead they will lease the fibre, ultimately to the customer it is point to point fibre.

Wireless

GR - WPA3 is the latest item the department are looking to enable. Authentication protocol which has been around for quite a few years already. Most devices already support it, WPA3 will be enabled, WPA2 will not be disabled. Will look to get stats in the future to see what devices do not support WPA3.

The current operating system and hardware has a hard limit of 10,000 APs which we are approaching. Looking to move to a more cloud-based system or running multiple wireless systems which presents other technical problems which the department would like to avoid.

RW – are we Aruba's largest customer?

GR – one of the largest single system customers, which is why they listen to our feedback. We also have good access to their tech support.

GR - Standard IT issue of lead times which are still challenging, trying to manage as best they can.

Requesting computing officers to work with the dept and ask questions, to agree a way forward that is sensible for both parties.

RW – Transition to Wi-Fi 6, is there any danger that Institutions will need to increase their density of APs.

GR – This is a constant challenge as there is increased use of the wireless system. It was an issue with the increase from 2.4GHz to 5GHz, when institutions declined a new survey. Each model of access point has its own subtle differences which is why regular refresh of surveys are strongly recommended.

EK – Are you engaging with colleges regarding the findings with Wi-Fi 6E, the fabric of college is very different

GR – Experience in RNB may be irrelevant to old College buildings which is another reason to encourage regular surveys.

RW – We introduced a guest Wi-Fi network in the pandemic when there were no guests, are there stats on the use of this network?

GR – Does not have stats but will look to provide some.

Action point GR to get statistics

RF – 2 new developers will be starting shortly to assist with the wireless console, guest use statistics could be added to this.

EK – How will the network respond to rolling blackouts if they happen in January?

JH – Spoken to Gary Moss who is the Estates Division Director of Operations. During the pandemic a list was created of critical buildings and infrastructure, this was predicated on what the need was at the time, this may no longer be accurate.

Power to individual building is not a large issue, it would more concerning if the distribution core routers go down as these feed multiple sites. UIS should produce a clear list of locations that are critical or represent critical infrastructure and communicate this to Gary who will append this to his list.

The communication regarding the possibility of black outs is issued every year, due to global circumstances it has gained more attention than usual.

RF – Janet connectivity may be particularly vulnerable, the 2x border routers are in same portion of the city, it would be better to move one location, but the connection can only be moved when Jisc procure it, which is due in the next year or two but to do so early will cost £100,000's.

RC – Data centre has resiliency, but it is undesirable to be relying on generators. Jisc has raised this and Ritchie has forwarded the query on to Estates and is awaiting a comment. Comments received so far are that the UKPN do not feel that there will be an issue in or around Cambridge.

EK – There is no definitive answer but worth beginning the discussion.

Telecoms

No updates.

Discussion Topics

- Replacement of JNMC with JIG ISC(JNMC)(2022)200
- Joint Infrastructure Group ISC(JNMC)(2022)201

JP – The origins of this proposal come from a cyber security incident at Kings in the early part of this year. This led to a conversation between bursars in relation to; cybersecurity, standards relating to IT, confidence that colleges are maintaining a common and adequate standard.

Suggestion that we do not currently have a forum in which we can evolve common standards so IT managers do not have to find their own solutions, they could come to a standard recommended “menu” and try to follow that route. There is not an intent to dictate to colleges, they need to be legally free to do what they choose to do, but a desire to provide a road map. There was a concern that if a college was failing to meet a minimum standard that we all operate off a common network in the GBN and consequentially if any risk could be perceived to the GBN that there should be the ability to go to that college and say there is a standard and you are failing to meet it.

Colleges found that it would benefit bursars, and IT managers to have somewhere where convergence of standards could be discussed.

Where are these items placed? Does not seem sensible to set up another committee, the JNMC seems to be nearest common equivalent. Discussions have taken place over the summer to discuss the history and strategic purpose of the group. The proposed terms of reference for the Joint Infrastructure Group were drafted by Ian Cooper.

Proposed terms of reference:

- Act as a critical friend on new ideas, which may overlap with other areas.
- Agree technical standards – supporting convergence is important language, this is not de-fragmentation which might be imposed on departments. It is a more positively minded attempt to support convergence to bring people together by choice.
- Monitor the provision of infrastructure services – so there is a forum in which those things can be discussed.

We should not lose the things that the JNMC has been doing. Should still support the infrastructure service development conversations and still overseeing the jointly funded items.

Hopes the aim is useful, welcomes feedback on who should be a member, the University is large and complex Colleges may never want to be defragmented but may be more willing to converge.

RB – Has been part of the discussions over the summer. Part of this has emerged to make the chain of communication between college technical staff such as the CITMG, college bursars and the UIS more effective. Where can they be simplified or strengthened. Somewhere to create a shared understanding of why we do something primarily focussed around academic experience whether this be in a college, school, or elsewhere in the University. JNMC seemed to include most of the people who should be involved in that discussion already. Alexander's Wi-Fi paper was an excellent example of people coming together for discussion and coming to an agreement. Seems beneficial not to add additional committee.

JS – Would like to know what is broken with the JNMC?

RB – Nothing is necessarily broken, it is a successful model and would like to expand this to fix some problems perceived in the collegiate relationship with UIS.

JS – This has not come across in the papers. If it is a small expansion to involve representatives from across the collegiate University for greater involvement, then it is a good idea but this is not how the paper comes across.

AB – See this is a benefit. Will be interesting to see who comes on board and can add value.

RW – The papers provide a clue as to the benefits of a new structure, is there a feeling of what might be lost from existing structure of JNMC?

RF – If more items are added to this committee, it may dilute what it does which may make it harder to deal with some issues.

JP – In terms of things JNMC might lose, the only terms of reference which could be located suggest it was set up to look after the GBN, CUDN and telephone network. The telephone network is starting to ease its way out of existence. Feeling that the JNMC could do with becoming more relevant to where we are headed rather than where we have been.

Discussions suggest that common standards and convergence agenda is of more relevance to more people and is more strategically forward thinking and important to the University than details of where cables are laid for example in an already successful network.

JH – This is a procedural action that has not come from an issue. The areas in the JNMC rarely have issues, this is a good thing we want to take into other areas of the service where we do not necessarily have the same level of confidence. Security and security on the network is relevant and does not currently sit under a committee but it should.

RW – JNMC concern was mainly financial, to give comfort that computing service its successor UIS was distributing resources with a fair balance between the University and Colleges. That past history led to the appropriate membership of the group being primarily administrative members and not IT technical staff. What is the appropriate level on institutional representation on the JIG? Should it be bursars, bursars who are computer literate, computing officers? Where is the aim?

JP – The success of the JNMC is because of the balance. Bursarial understanding should improve, the technical conversations will be a challenge. The proposal that the JIG shift in focus sits side by side with work Jon Holgate's team will be doing to be more present and go to College IT manager's group and discussing about their technical roadmaps. Alexander's Wi-Fi paper talks about emerging standards and were not contentious, and everyone was happy as an outcome. The hope is that these same types of conversations can deliver similar outcomes in other areas of infrastructure.

RW – Is it correct that the technical staff of UIS and colleges would come together in another forum, to do the leg work and bring this forward to the budget controlling group which would be the JIG?

JP - Believes this is correct. JNMC spends a pot of money that the University and Colleges had put money into. This is slightly different, there could be 3 levels of standards for example gold, silver & bronze. We would be asking UIS staff go to the CITMG meeting to understand a little more about the range of economic and technical positions of colleges and agree a set of standards including what they are aiming for and what will be an acceptable level. This should be written up, discussed in this group, and then brought forward to the collegiate University as an agreed set of standards.

RF – Technical conversations would take place separately such as a 'Wireless User Forum' and bring these findings back to the committee, stating the outcome from a budgetary point of view.

JP – Yes, then bursars can go away and share this with the 31 other bursars why they will need to find room in their budget to remain on a safe and credible network.

RF – Should membership include departments?

RB – Composition of makeup of the committee should be discussed. 2 or more CITMG members should be representing, also from the schools.

RW – Top-down policy making, there will be issues in the future where the need doesn't filter up from the tech side but is a top-down requirement. A way will be needed to root the top-down policy into implementation. This should be a part of what the new JNMC should do. Not all new requirements will come along as Alexander's Wi-Fi paper has.

EK – Should the group have responsibility for making sure conversations around technical standards are happening?

JP – Terms of ref for the JNMC are quite vague, a complexity of governance is that you should not tie them down so tightly that you cannot flex with circumstance over time. Which is what Ian Cooper has attempted to achieve. 3 areas of potential feedback are:

- More explicit recognition of cybersecurity as a network concern.
- More explicit recognition up front that all infrastructure leads to academic experience
- Expand on "Agreeing technical standards to support convergence" to include something along the lines of "encouraging the generation of these from other fora" leaving it vague so that members of the committee can discover the best ways to do this as things evolve.

RF – There is some overlap between JNMC and IPTAG, technical standards would be outside these two committees, IPTAG more to manage resource and plan?

JH - Agrees.

RF - Worth noting in terms of reference the distinctions between the two committees.

JH – Technical service managers will have to see a way of delivering what is being asked of them within the new forum. Are Bob, Gordon & Ritchie comfortable with this proposal? Agreement that they are.

Main take aways and action points JP & JH:

- Feed commentary back to Ian Cooper and ask for a review.
- To add:
 - o More explicit recognition of cybersecurity as a network concern within the terms of reference.
 - o To add more explicit recognition up front in the remit. “Consultative body to help standardise IT infrastructure across the collegiate university”. To add something along the lines of “Remembering that the purpose of said infrastructure is to support a seamless academic experience across multiple sites and colleges”.
 - o To end with language saying “Encourage consultation at linked fora”
- To make it clear that this committee endorses standards and the IPTAG manages resource allocation which needs to be in a covering letter to ISC rather than within the terms of reference specifically.

RB - Include financial responsibilities of the JIG, currently the draft says to review and support the use of jointly funded items. If this is staying with JIG? Clarify required on meaning of “Review and support”.

JH – This is a question for someone from the finance dept, there should be very clear clarification of who owns the money, who is approving the money and what role the committee has. Official terminology is required.

RW - Identify specifically the two elements of capital deriving from the joint telephone charging and joint GBN charging. Someone needs to have the authority to spend from those accumulated surpluses.

JP – Use the word “Authorise” and propose to Ian Cooper for feedback.

RB – Earlier comment from Espen on whether this committee should have oversight of technical engagement with colleges, this is probably more a role for CITC.

EK – If we do not feel enough consultation has happen perhaps this committee should ask for that to happen.

RF – After all the terms of reference are agreed we need to confirm membership.

JP – The suggestion is 3x bursar’s reps, 3x school reps, this allows someone to not attend and conversations to continue. This was included on original paper to Ian Cooper which has been simplified.

Action Point JP – to send CG original paper

RF – Need to decide how departmental reps are appointed. Are we including technical reps as well?

JP – Infrastructure Portfolio board will appoint people.

RW – Is the view people have of the new group primarily UIS and colleges or is it UIS and institutions, depts, schools. If so, we should also include DITMG if it still exists.

RF – DITMG is less formal. They are very different as they organise their own IT, it is possible that if defragmentation unification proceeds, then they may not need as much representation as it will be managed by UIS as a standard service. At the moment they may need to be involved in things, but this may be tailing off.

JH – Portfolios at the moment invite 3 reps to represent the 6 schools. There is no DITMG representation but sometimes the representatives of the school could be an IT person.

RW – Depends on Convergence, departmentally controlled IT and collegiate IT and it's need to converge. If there is a directive that all colleges and depts need to match the same standards like for like, how would that top-down policy be managed?

RB – That would be the job of this group, if there is an agreed common good this is where it would be thrashed out and taken back to CITC and bursars committee to make it happen.

EK – Services standards need to be addressed. Sometimes, UIS does not understand what the service needs to deliver in that context. There is a question of SLA which are absent at the moment but also the customer relationship and how this group will fit in with that.

JP – These are perhaps steps to where we would like to be in two or three years time, at the moment we need to focus on getting things started and using it for a time. SLAs may be part of that, they may not.

Subject to the suggested amendments to the terms of reference, members of the Joint Network Management Committee are content to be reformed as the Joint Infrastructure Group.

Next ISC meeting where this is due for consideration at is the 22nd November.

AOB

Next meeting, Thursday 19th January 2023 at 2.15pm