ARGYLL AND BUTE COUNCIL **Short Life Working Group – Media Platforms**
CUSTOMER SERVICES **19 DECEMBER 2012**

Current Video Conferencing Use and a UHI Managed Service

1. INTRODUCTION

1.1. The current Video Conferencing service is available from seventeen corporate locations which can connect directly to each other on a one-to-one basis. Multi-point conferences or conferences involving third parties use the two Virtual Meeting Rooms (VMR) leased to the Council by Videonations.

1.2. The service is based on the most cost-effective delivery and support model available where local site administrators provide first line support to local users and additional second line technical support is provided by a member of the IT Service. Members have raised concerns about the overall quality of VC calls, how faults are handled, and how the service might cope with an extension to include a larger number of sites and a potential requirement to support political meetings over VC. With such an expansion in mind members requested an approach to UHI to determine if an alternative VC managed service was available as a shared service. Discussions have taken place between Council and UHI staff and an outline proposal has now been received which covers the basics of the services available and the potential revenue costs. The costs are considerably greater than current costs and this paper looks more closely at what makes up the current service and the associated costs, reports on the alternative service available from the UHI VC team in Shetland and on the possibility of adopting a new internally supported model to deliver similar levels of support to those available from UHI without incurring the additional costs.

2. RECOMMENDATION

Members note the contents of this report, the background to VC deployment across the Council area, and determine if a redesign of the current VC delivery model to involve more hands on support from the IT Service should be trialled as a priority or decide if we should move forward to develop a formal set of VC requirements which we can then take to the market as a formal procurement exercise.

3. DETAIL

Video Conferencing Background

3.1. The Council was one of the early public sector adopters of Video Conferencing (VC) technology in 1997 and since then has worked within a variety of support models to help deliver an appropriate service. Previous models included the management of our own VC bridge which we stopped doing on economic grounds in 2004.

3.2. After years of working in a complex and unreliable ISDN based environment the current delivery model has been developed to provide the most reliable and cost effective service within the confines of the VC budget. HD equipment from Lifesize and desktop conferencing software from Mirial provide better video quality than previously available, while ISDN lines have been migrated to IP to ensure a more consistent and affordable level of service.

3.3. Videoconferencing was introduced in Argyll and Bute to support Social Work and Education users. This covered 10 corporate sites across Argyll including Helensburgh, Lochgilphead, Dunoon, Rothesay Oban, Campbeltown and Tiree. Service was subsequently expanded to include the Three Islands Partnership, Islay, Jura and Colonsay when the Council introduced Customer Service points at these locations.

3.4. The number of VC locations has varied over the years and some sites have been subject to office relocation projects or changed to accommodate new VC requirement. Some sites have been retired due to low usage or other local requirements.

3.5. VC usage has grown over the years with 3000 hours annual use across the sites. The introduction of MS Lync has meant more online conferencing and future VC room use is expected to decline. Annual VC usage has declined by about 25% since the introduction of Lync but the number of conference calls via Lync has increased significantly over the same period. Lync has introduced more dynamic, flexible and convenient ways of conferencing.

3.6. VC is used by all Council departments and by all levels of staff. Regular users of the VC systems include the Elected Members, CEO, Executive Directors, Heads of Service and Managers. Uses include team meetings, conferences, training, presentations and virtually any use that helps negate travel costs and time. Meetings are conducted directly between internal staff and often include external partner organisations in multipoint conferences, such as other Councils, Scottish Government, the NHS, Police and Fire services, and a range of community partnership organisations. Some organisations have a partnership agreement with Argyll and Bute which allow them to use our VC systems, such as NHS Highland and in return Argyll and Bute staff can use their systems. Other

organisations such as ACHA have a commercial agreement and are charged for VC use.

3.7. The issues with VC over the years have been wide ranging but overall the percentage of disrupted sessions is usually around the 5% mark. Typical issues arise over communication failures or local user issues and, on rare occasions, outright equipment failure.

3.8. The VC strategy has changed significantly over the years. Initially all VC systems operated over ISDN lines provided by BT and this was the only way to provide a reasonable quality standard video and audio conferencing experience. The Council operated an internal bridge which allowed multiple sites to conference together in one meeting, including any external organisations, but the bridge was a complex and unreliable piece of equipment.

3.9. In 2003 the Council moved from hosting our own internal multipoint conferencing bridge to an externally hosted bridging service provided by the Manchester based company Videonations. The service is referred to as the “Virtual Meeting Room” (VMR) and this partnership resolved many problems encountered at the time with the resource and technical demands of managing our own internal bridge.

3.10. Individual room based systems are targeted for renewal every 4 or 5 years from a capital budget and a revenue budget covers the cost of the VMR service from Videonations and also covers an equipment maintenance agreement. The total available from revenue for the supply and support of the VMR and the maintenance of equipment is £28,960.

3.11. Any new requests for room based VC systems are dealt with on an individual basis and departments are normally advised of the costs and asked to seek funding if a new VC system is required. The current VC budget is now limited to maintaining the existing units and the monthly VMR rentals. No plans exist to introduce any additional room based systems on the corporate network at present but Education colleagues are in the process of ordering a new system for each of the 10 secondary schools. Details of the current IT budgets and commitments are covered in Appendix 1.

3.12. As MS Lync usage grows the traditional room based use is expected to drop further. Lifesize have just announced a new software upgrade for the existing platform to be released in January 2013 which will allow integration between the Council’s Lifesize room systems and Microsoft Lync. IT Services

will aim to trial this major upgrade as soon as it becomes available.

3.13. Following a competitive tender the Council now uses Lifesize systems at 12 of the corporate locations and all are covered by a maintenance contract with Videonations – who are a UK support agent for LifeSize.

3.14. LifeSize are one of the leading 4 room based system suppliers alongside Polycom, Cisco, and Aethra and were the first to introduce IP based High Definition units.

3.15. One Polycom VSX unit remains operational in the Council Chamber. The unit is 6 years old now and has no warranty support. It was introduced 4 years ago to the Chamber as a temporary measure. There was no budget available to introduce a full sized, theatre based system required for such a large room. The system has remained in operational use between the chamber and committee room 1 and is used infrequently.

3.16. As part of the 2011 ICT Service Review for Customer and Support Services, a proposal was accepted to remove all ISDN circuits used for VC and introduce IP based connectivity. The proposal identified savings in excess of £24k per annum for line charges with a further saving on maintenance charges for ISDN network units and delivered an improved VC experience using high definition across IP. The ISDN lines were inherently unreliable and very expensive.

3.17. The LifeSize units and Polycom unit at the chamber were IP enabled and ISDN removed. A number of remote sites previously used old Polycom equipment (Jura, Islay small room, Colonsay, Coll, Tarbert, and Gigha) which were no longer supported by the suppliers and would not connect to the VMR via IP. In addition, some of the sites were connected on insufficient bandwidth levels.

3.18. A PC software based solution was introduced successfully at each of the remote sites which offered comparable quality over IP and allowed the removal of ISDN with no additional revenue commitment. The sites are using the Mirial VC software and are revenue neutral to the VC budget.

3.19. The Coll site was removed after negotiation with the local community company and the introduction of a new system from UHI. Gigha Heritage trust was issued with a PC with the Mirial software installed and utilise a local broadband circuit to connect to the VMR whenever a VC is required with the Council.

Current Support Issues

3.20. Each of the 17 corporate VC sites has a local contact for VC support. The local site administrator is expected to be the first port of call for assistance with VC problems. All have been trained to deal with the most common issues but not all are readily available. If the local site administrators are unavailable or if the problem is beyond their capability it should be reported to the IT Service Desk for further assistance.

3.21. From 1st November 2011 to 31st Oct 2012 the VC Service accommodated 1320 bookings with 3091 hours use and an average of 2.3 hours per session (full details are available in Appendix 2).

3.22. During the same period there were 20 calls reported to the IT Service Desk and logged in the HEAT system about issues with VC Meetings. A few additional calls were also received but they related to bookings with external suppliers who asked how they could connect to a Council VC. These additional calls were not registered as faults. The following provides a summary of the 20 logged fault calls:

- VC Configuration Issues – 3 calls
- Dialling Issues – 7 calls - Primarily due to users trying to dial old ISDN numbers.
- Booking Issues – 1 call – Staff did not turn up at one site, other meeting attendees could not contact them and assumed it was a tech issue.
- No Video/Audio components to a call – 2 – Occasionally, when connecting to another site or VM room, some calls experience a loss of Video or Audio.
- Equipment Failure – 3 calls – 2 Islay calls and 1 Mull call relating to equipment failures. Either a camera failing or VC Codec unit failure. Islay in particular had local power issues.
- Network Issues – 1 – During June this year a couple of VC sessions were cancelled due to network which affected the Housing Meeting Room in Kilmory.
- Test Call Issues with partners – 2 Test issues (Strathclyde Fire & Rescue and Scottish Govt) reported. Once correct settings for VM connection were provided, tests proved successful. Scottish Govt regularly connect to our VMR for meetings such as the Pathfinder North Board.
- ISDN – 1 call – Education VC unit at Dunoon used by corporate staff - tried to participate in a VM Call with other Corporate sites.

3.23. The above equates to less than one call every two weeks to the IT Service Desk but this does not take account of the additional calls for assistance made to local site administrators. There are also a number of users who call engineers directly when a problem arises. Local site administrators normally resolve dialling issues and other minor issues such as loss of picture (usually screens on incorrect channels) and these calls are not reported to the service desk. There may be a number of additional unreported calls where users have abandoned a VC session and not reported a fault to the service desk.

3.24. Local site administrators have estimated an additional 1 call per week on VC issues not reported to the service desk and therefore the service deals with a total of approximately 70 fault calls per annum. This equates to 5.3% of all bookings and the majority of these faults are resolved satisfactorily.

Alternative UHI Managed VC Service

3.25. The University of the Highlands and Islands operates one of the largest VC networks in the country. They have invested several million pounds in VC studios around the region and provide a centrally managed bridging service from their VC support team in Shetland. Following concerns about the quality of the VC service in use across the Council, Members requested the IT Infrastructure Manager approach IT contemporaries in UHI to determine if an alternative managed service could be provided by UHI to support the Council's VC infrastructure. UHI were provided with full details of our current VC use to help in their preparations but as they had not considered such a commercial offering previously they requested some additional time to provide a response. Discussions with UHI are on-going but an outline proposal was received on 12th December which covers a managed bridging service and is included in full in para 3.27 below.

3.26. UHI are hoping to develop a full shared IT service across the UHI partnership and would like to extend the service to other interested customers. Video Conferencing is only one of the services they would be interested in providing to other partners. They aim to establish a separate legal limited entity operating under the VAT Cost Sharing Exemption provisions introduced earlier this year and offer IT Services across the region.

3.27. UHI have yet to work up a detailed definition of the VC service but they provided a bullet point note to cover the basic principles of any agreement and an estimated annual cost to support the current 17 sites.

3.28. UHI also confirmed there is a team of three VC staff at the VC Network Operations Centre (VNOC) based in Shetland, together with business, development and technical support from senior managers in the LIS Department based in Inverness and Stornoway. The team employ a single IT Engineer for Argyll but site visits from the central team in Shetland can be arranged as required. Members should note that the proposed service covers standard business hours only. Out of hours support is available at additional cost.

3.29. The proposal includes a managed bridging support service available to all 17 Argyll and Bute sites for a cost of £45,100 per annum and has been compiled as follows:

This proposal is for a Managed VC Service for Argyll and Bute Council which would incorporate the following:

Video Conferencing:

- Bookings
- Call set-up
- Quality monitoring
- Conference management
- Virtual Room availability

VC Estate Management:

- End point monitoring and maintenance
- Software upgrades

Future provision:

- Consultancy and technical advice on future installations

Help and support:

- VC team available for support purposes 9-5, Monday-Friday, outside those hours at overtime costs
- On-site visits as required and agreed

Specifically excluded from the service would be:

- Studio/room access or booking at end-points at Argyll College or Argyll and Bute Council

- Streaming and recording of VCs (would need to be the subject of a separate discussion to determine exact requirements)
- ConferenceMe - if this is required then it would be subject to a separate support agreement.

The annual cost for such a service would be:

- Staffing - £15,000
- VC Equipment - £25,000
- Allowance for travel, etc. - £1,000
- Overhead - 10% - £4,100

Total: £45,100 + vat

It is assumed in the above that that the service would be managed on the same basis as for existing customers; that this would not be a bespoke service.

3.30. UHI also explained the way in which the costs were calculated to take the extent of the Council's VC 'estate' and to look at that as a proportion of the total UHI estate. The Council would make up about 10% of the total and they therefore proposed to make a charge equivalent to 10% of the cost of running the VC service. This provides some guidance on how the charges would increase if we added additional sites or reduce if we removed sites from our network.

3.31. The proposed service does not provide any additional equipment or any maintenance of existing equipment. These costs would continue to be met from existing budgets. Further clarification confirmed the reference to VC equipment in the costs section above related ONLY to the Council's share of the bridging equipment costs.

3.32. In summary the proposed service offers access to the dedicated UHI VC team in Shetland, a conference booking service (no room booking service), remote assistance for any VC unit to connect to a call, monitoring and management of the call and conference and access to a virtual meeting room for multi-point conferences. A consultancy service and technical advice will also be available to cover future installations.

3.33. Services to record and stream VC meetings on the Internet may be available at additional cost.

3.34. Members should be aware the costs at £45,100 per annum or £135,300 over three years are at a level where the Council will be expected to pursue a competitive tendering option for this service should members decide the service should be delivered externally.

Redesigned Internal VC Service

3.35. Notwithstanding the likelihood that the quality of the VC service from UHI would reach very high standards, Members are asked to consider if an alternative approach to the management of the service internally should be trialled before further decisions are made? The costs of the UHI service are considerably higher than expected and an alternative local model which could deliver equivalent services has been explored and could be implemented without increasing the costs.

3.36. Until now the Council has relied more on the local site administrators to provide the required support for those attending a video conference. At some sites such as Dalriada House or The Helensburgh Marriage Rooms, local admin support is not always available and the overall support service has proven to be unreliable. Further work has been completed to ensure all Lifesize installations have been upgraded to the latest firmware and the IT Service is now in a position to introduce the remote management of all Lifesize systems via the It Service Desk. Appropriate procedures have been put in place to provide a similar level of support from the existing IT teams to that offered by the UHI support team in Shetland. This includes an ability to remotely manage each device and offer the same remote assistance for any VC unit to connect to a call, monitoring and management of the conference. In addition, agreement has been reached with the front-line support team to provide access to the 16 local engineers based around Argyll and Bute to supplement the support offered by the local site administrators. The service will integrate with the new room booking system to provide a fully supported VC environment.

3.37. Proposals and procedures have been created and agreed internally to introduce this revised service on a trial basis from the start of January until the end of March 2013. There would be no additional costs to the Council to implement this significant change in support. At the same time every effort will be made to introduce the new Lifesize firmware upgrade which is expected to allow Lync integration with the Council's room based systems.

Additional Equipment

3.38. Members also raised concerns about the overall quality of the VC equipment the Council currently uses when compared with the equipment

used in more advanced installations. UHI were kind enough to provide an outline of the equipment they use in their VC sites. They categorise sites as compact studios, mid-size studios and lecture theatres with the suggestion that the lecture theatre style implementation is close to what we would need for the Council Chamber in Kilmory.

- Each category is equipped with an appropriate level of equipment as follows:
  Compact studio: Cisco C20 codec, 4x zoom camera, two 46" LCD screens (the odd room only has one as two isn't necessary depending on the size of the room) PC, VGA auto switcher, VGA input plate for a laptop.

- Mid-size Studio: Cisco C90 codec, 12x zoom camera, two 47" LCD screens, PC, VGA input plate for a laptop, Blu-ray player, Smart Podium, Crestron touch-panel control, induction loop, controllable power switch.

- Lecture Theatre: Cisco C90 codec, two 12x zoom cameras, electric projection screen, high definition projector, 22" ceiling mounted confidence monitor, lectern, Smart Podium, PC, Blu-ray player, VGA input plate for a laptop, Crestron touch-panel control, induction loop, lectern microphone, lapel microphone, hand-held microphone, ceiling mounted microphones, 7.1 surround sound for Blu-ray local viewing, ceiling and wall mounted speakers, controllable power switch.

3.39. Discussions are underway with suppliers to establish outline costs for the above and a budgetary quotation was provided by one of the four APOC approved suppliers of VC equipment to the University sector. The Lecture Theatre installation for the Council chamber would need additional cameras and could cost in excess of £90,000. The mid-size studio installation could cost £33,000 and the smallest compact-studio would cost £15,000. The Council currently spends approximately £6,000 per room installation.

4. IMPLICATIONS

4.1	Policy	Council policy is to use Video Conferencing in support of the Council's business and to minimise the time and costs associated with travel to meetings. The Council are considering extending use to include formal committee meetings.

4.2	Financial	The current 2 room bridging service costs £13,200 per annum against a proposed UHI cost of £45,100 per annum
4.3	Legal	With outline costs set at £135,300 for a 3 year managed VC bridge service, the Council would be obliged to consider a formal tender for this service
4.4	HR	Possible overtime requirement for additional out of hours VC support from the Council's IT Desktop and IT Communications Teams
4.5	Equalities	None
4.6	Risk	The current risk for the Council concerns our ability to manage an extended VC service to include internal committee and/or public meetings. Local support levels would need to improve to provide sufficient confidence that such meetings could progress incident free.
4.7	Customer Service	Potential for improved customer service if a more accomplished level of remote and local engineering support is available.

Gerry Wilson
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For further information please contact:
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Appendix 1 – Current Budgets

Capital Budget 2013/14 - £24,000

VC Revenue Budget 2012/13

25213 VC Maintenance Commitments – Budget Total £28,960	
Remaining Legacy ISDN Charges & Sundries(not required after 2012/13)	£10,920
Virtual Meeting Room Rental (2 Rooms) - £1100 per month	£13,300
VC Equipment Maintenance	£4,740
Total	£28,960

Appendix 2 - VC Usage Across Sites Nov 2011 to Oct 2012

Location	Equipment	No Of Bookings Nov2011-Oct2012	Total Hours Used Nov2011-Oct2012	Comment
Dunoon - Hill St	LifeSize Express	151	352	
Oban - Corran Halls	LifeSize Express	102	239	
Campbeltown - Burnet Building	LifeSize Express	87	179	
Rothesay - Union St	LifeSize Express	81	182	
Lochgilphead - Dalriada House	LifeSize Express	139	383	
Lochgilphead - Kilmory housing Meeting Room	LifeSize Express	212	474	
Lochgilphead - Kilmory Council Chamber/Committee Room 1	Polycom VX5000	25	50	Estimate, occasional use of system between rooms.
Jura - Servicepoint, Craighouse	Mirial PC Based VC Software	31	70	
Tarbert - Argyll House	Mirial PC Based VC Software	18	37	
Tiree - Business Centre, Crossapol	LifeSize Express	34	77	
Mull - Servicepoint, Tobermory - 2 systems	LifeSize Express & LifeSize Passport	30	62	2 Systems on Mull, one LifeSize Passport system is used for disabled access needs in downstairs meeting room
Colonsay - Servicepoint, Scalasaig	Mirial PC Based VC Software	23	55	
Helensburgh - Marriage Room, West King St.	LifeSize Express	205	537	
Islay - Conference Room, Servicepoint, Bowmore	LifeSize Express	113	254	
Islay - Small Meeting Room, Servicepoint, Bowmore	Mirial PC Based VC Software	57	116	
Gigha	Mirial PC Based VC Software	12	24	Estimated usage, system provided by ABC but not on ABC Network. Gigha Heritage Trust average monthly use

Total VC Booking hours to Service Desk			1813 hours	
Total Across Sites		1320 bookings	3091 hours use	When multiple sites are extracted and counted

				individually
Total Virtual Meeting Room (Multipoint Conference Bridge)		305	750	VM usage included in above total number of hours figure - reflects 23% of conferences made use of VM Room. 305 individual VM room instances totalling 750 hours use.