

BURNHAM-ON-CROUCH SITE SURVEY

On site Broadband:



Fibre connection to site with two Ubiquity AC Pro AP's for wireless access.



No apparent cabling or ports in the council chamber area resulting in no hard line internet connectivity being available.

There are no computers or cameras within the Council Chamber and with the current layout of the room a 360 degree area of coverage would be required.



Audio is amplified with four wireless microphones (mics) connected to a small mixer, this mixer would need additional hardware and cabling to be routed to a live stream computer.



Following a site survey there is currently no equipment on site that would support any collaborative meetings or live streaming.

CURRENT MDC CHAMBER EQUIPMENT FOR LIVE STREAM AND REMOTE ATTENDEES

Currently installed in the Council Chamber we have 3x Logitech MeetUp Camera's each costing £1,200. Two for the Live stream, one pointing towards the Chair and one towards the Chamber. The third camera is for the Microsoft Teams connection and links through a laptop with its own camera, speakers and mic. We have an Open Broadcaster Software (OBS) Capable laptop for the streaming that cost £1.5k. A presentation laptop costing £800 for Presenting and to facilitate remote attendees over Teams. We used the existing audio interface and presenting projector as well as having a fast wired network (1GBPS) for the devices to speak to each other efficiently.

This initial design whilst fairly simple, has grown over time to accommodate additional requirements through lockdown such as offsite streaming and remote attendance by Members, clerks and officers.

Each meeting requires a Live Stream specialist, currently Ben Harrison, employed through the Committee Clerks to stream all the Council Meetings with ICT Specialist support if required. One nominated IT Specialist on a rota basis is available (and often connected) for the duration of the meeting to provide this support.

Time used to provide support is taken back as Flexi from core MDC duties which should be dedicated to ICT strategy project work.

Hardware costs initially £6,000 to £8,000 for the new setup.

Resource costs around £10,000 per year.

BURNHAM-ON-CROUCH TOWN COUNCIL OFFICES STREAMING OPTIONS**Option 1 – Mobile setup**

(as used in Maldon Football Club but without Teams for remote attendees)

This would use existing equipment removed from MDC Council Chamber and relocated to Burnham-on-Crouch ahead of each meeting.

The Equipment would be removed from the Council Chamber two days before the meeting and installed on the day of the meeting to be removed the next day and installed back at MDC Offices the day afterwards.

Benefit: No hardware costs.

Drawback:... Resource required equates to roughly **16 Full Time (FT) Hours** for each meeting, not counting any support for the actual meeting. Does not support remote clerk or officers.

Risk:..... All of the equipment is set carefully; any move creates the risk that we have significant problems that will affect MDC live streamed meetings. Unlikely to have available IT resource for that amount of time. Any “close” meetings will have to be re-scheduled.

Overall: **Not recommended** due to the significant resource requirement and risk to equipment.

Option 2 – Mobile setup 2

(as used in Maldon Football Club but with Teams for remote attendees)

This would use existing equipment removed from MDC Council Chamber and relocated to Burnham-on-Crouch ahead of each meeting. This would include the Presentation laptop which is connected to the Teams camera and associated cabling – adds approximately 2 hours to each pack/install period.

The Equipment would be removed from the Council Chamber two days before the meeting and installed on the day of the meeting to be removed the next day and installed back at MDC Offices the day afterwards.

Benefit: No hardware costs- can support remote clerk / officer.

Drawback:... Resource required equates to roughly **24 FT Hours** for each meeting, not counting any support for the actual meeting. Adds more time/resource to each pack or install session as this was not part of the MFC Setup.

Risk:..... All of the equipment is set precisely; any move creates the risk that we have significant problems that will affect MDC live streamed meetings. Unlikely to have available IT resource for that amount of time. Any “close” meetings will have to be re-scheduled.

Overall: **Not recommended** due to the more significant resource requirement and risk to equipment.

Option 3 – The “Owl” Camera.

A: The “Owl” is a unique Meeting Camera with a 360 view and AI to crop to the person speaking. It is fairly suitable in small meeting rooms with a few participants where its Unique Selling Point (USP) feature of the 360 camera is fairly impressive. On its own it does nothing to facilitate MDC Council meetings at Burnham-on-Crouch as the device cannot be used to live stream.

It has a useful purpose as a Meeting Camera and could facilitate the Teams element of a meeting to allow communication with a remote Member, Officer or Clerk.

For use for live streaming the Owl cannot facilitate the meeting instead a streaming laptop at a cost of £1.5k would be need along with setup and resource to run the live streaming using separate additional software.

B: A second Owl could be added to facilitate larger meeting rooms.

Benefit: (Potentially) the 360 Camera would remove the requirement for 2x 180 (or less) cameras saving on cost.

Drawback:... No available streaming services. Owl can only run Teams or Zoom meetings.

Risk:..... Currently untested, expensive.

Overall: **Not recommended** due to the cost of hardware and limitations for live streaming.

Option 4 – Primary Custom design for Burnham-on-Crouch

The Atem Mini Extreme (£800) is an Audio / Visual Matrix capable of pull in up to eight sources, this device can also output up to two sources and a separate live stream simultaneously. Using the Atem, two Network Device Interface (NDI) Cameras (£650) can be setup as sources to view the meeting hall and attendees. Due to the network capabilities of the Atem, an IT resource can work remotely to run the meeting although with a static camera setup the meeting could be run without any IT resource. The setup would require a monitor to view content from the Atem and a laptop (£800) would be needed to run teams.

Benefit: Future proofed, simple setup and use, cost effective.

Drawback:... Not applicable.

Risk:..... Requires testing.

Overall: **Recommended** based on cost and features achieved. It is recommended that BTC’s IT service provider set this option up and support it. If the MDC IT service are required to do this Members are asked to provide the costs and resource illustrated in this report to complete this.

Option 5 – Secondary Custom design for Burnham-on-Crouch.

A: Minimum option is for Streaming ONLY, this will require a OBS capable PC / laptop with a good Graphics processor, cost of £1.5k for a Dell G7(or current G15 Ryzen 3060 at £1,029+VAT).

This needs camera’s that must either be NDI (network / wireless compatible) or connected via USB (which requires wiring directly to the OBS system. Minimum price for USB cameras is roughly £100 each for two very basic Logitech webcams. However better cameras are recommended to improve streaming quality (£600

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each). Then allowing for USB extension cabling and some cable clips allow roughly £50.

This would also require an interface to the audio to capture the sound possibly an Audio converter at around £100 and associated cabling at £20-50. This does not support remote Members / Clerk / Officers or Attendees.

B: If remote attendance is a requirement a second computer/laptop would be required to run Microsoft Teams alongside a third camera (Laptop £800 Camera (up to £600)).

(The above costings goes up based on better quality cameras).

This still requires five days (approx.) installation and configuration and will require a Specialist to stream the meetings remotely. Support will be at least 30 minutes away if there are any issues as well.

Benefit: Would allow for all requirements to be met.

Drawback:.... Costly, with the right equipment for live streaming this is the more expensive options.

Risk:..... Untested on current infrastructure, expensive.

Overall: **Not Recommended** due to the costs and untested.

Option 6 – chaired meeting at Burnham-on-Crouch without live streaming.

To hold meetings in Burnham-on-Crouch without a live streaming, this option would yield the lowest risk and resource usage, by removing the live stream from the currently ill equipped remote site.

There is a risk that meetings will not be equally accessible. However, meetings are infrequent and matters of business are lower. Access can be provided by attending the hall at the time of the meeting.

Overall: **Recommended** due to low cost, lower resource requirements and minimal risk.

COST BREAKDOWN TABLE:

	Option 1	Option 2	Option 3A	Option 3B	Option 4	Option 5A	Option 5B	Option 6
Streaming laptop (£1.5k)			£1,500	£1,500		£1,500	£1,500	
Teams laptop (£800)					£800		£800	
Atem Mini Extreme (£900)					£900			
Monitor (£150)			£150	£150	£150	£150	£150	
Owl camera (£1k)			£1,000	£2,000				

