



Document Control

Rev	Date	By	Comments
A	Jun'16	L.Davies	Technical review update
	Oct 17	A Gahagan	Full Review

Design Guidance

1. The University operates a centralised CCTV recording solution, any new requirement for CCTV should be capable of using this service and defined network structure as described in the 'Installation of CCTV at the University of Leicester' guidance document.
2. All CCTV equipment to be IP network enabled and connected back to the primary IT network infrastructure. During design stage this shall be discussed and agreed with the UOL Head of Business Systems, Security and IT departments.
3. Network points should be presented no more than 1 metre from the camera fixing point and provided in suitable containment for the installation location, ensuring the network connection point is none tamper. Power (if required) should be presented as a single unswitch fused spur within 1 metre of the camera fixing point.
4. All CCTV installations should be accompanied with an Operational Requirements document and Privacy Impact Assessment as detailed in the 'Installation of CCTV at the University of Leicester' guidance document, these should be agreed with the UoL Head of Security before tender.
5. Cameras should be classified as Critical, Important, or standard as defined in the guidance document.
6. All CCTV equipment to be POE capable, cameras defined as Critical should have a local power source as not to rely on the PoE, Critical Cameras should also have the capability to record locally to the device should the network be out of service for any reason. The use of POE facility shall be agreed with the University IT department. The use of PoE++ needs to be agreed prior to selection as this is not supported by the UoL standard network specification.
7. All CCTV equipment shall be Bosch. Alternative specifications to be agreed with the UOL Head of Business Systems prior to tender.
8. The implementation of video analytics shall be discussed and agreed with the UOL Head of Business Systems during the design stage.
9. All CCTV cameras to have auxiliary input/ output facilities where required to suit the risk assessment of the project.
10. External CCTV coverage shall be designed with due consideration given to external lighting including time scheduling, glare control and IR facilities to suit the security risk assessment established with UOL Head of Business Systems where required.
11. The selection of CCTV cameras shall be undertaken in conjunction with the UOL Head of Business Systems during the design stage based on the individual project security risk assessment.
12. All technical information for camera equipment must be provided prior to installation to the UOL Head of Business Systems for review with Security and IT. Liaison will need to take place with IT to ensure compliance with the University network.
13. The UOL Head of Business Systems should be provided with a storage calculation based on a 24/7 recording, 720p resolution, min frame rate 15 fps, 30% static, 40% standard and 30% busy basis, the UoL will then present the project a cost for providing this storage in its central repository.
14. The devices must meet the minimum security requirements as detailed in the 'Installation of CCTV at the University of Leicester' guidance document.
15. No Network Video Recording units should be included in the project costs unless a suitable case is made to the UOL Head of Business Systems, cases may include no network or unsuitable network connection back to the main University network.
16. If local view monitors are required this should be agreed with the UoL Head of Security and should be suitable devices for 24/7 viewing.



Design Components

Item	Manufacturer	Comments
Network Video Recording units (NVR) (Only required by Consent with the University)	Bosch	All new projects shall utilise rack mounted Bosch Divar IP6000 2U or 3U unit as required by the storage requirement. IP6000 modules shall be installed fully populated with hard disk drives to suit the storage requirements of the installed CCTV inclusive of 25% spare future capacity to provide a minimum of 30 days storage. Video compression format to be H.264.
Monitors	Bosch	UML series LED 19" flat screen.
Internal Cameras (Fixed)	Bosch Flexidome (HD) range (High risk areas requiring facial recognition)	1080p HDR RD lens options 1.8-3mm, 3.8-13mm or 9-40mm. Lens size/ focal range shall be selected to suit the operational requirement. Mounting type and bracketry detail shall be selected to suit the application.
Internal Cameras (PTZ)	Bosch Autodome (HD) range	1080p30 and 720p60 ips resolutions, 10x optical zoom and 16x digital zoom. Mounting type and bracketry detail shall be selected to suit the application.
Internal Cameras (Panoramic)	Bosch Flexidome IP panoramic 7000MP	12MP Fixed Lens focal range dependent upon 108° or 360° requirement. Location and use of the panoramic camera system to be provided based on the analytical requirements of the applicable space.
External Cameras (Fixed)	Bosch Flexidome (HD) External Range (External points of entry where facial recognition may be required)	1080p 3-9mm lens. Lens size/ focal range shall be selected to suit the operational requirement. Mounting type and bracketry detail shall be selected to suit the application. True Day/Night capable of working at low lighting levels.

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External Cameras (Fully Functional)	Bosch MIC IP (High risk Vandal resistant applications)	<p>Choice of optical 28x zoom (3.5-98mm) 36x zoom (3.4-122.4mm), both with 12x digital zoom selected to suit the application.</p> <p>Lens size/ focal range shall be selected to suit the operational requirement.</p> <p>Mounting type and bracketry detail shall be selected to suit the application.</p> <p>True Day/Night capable of working at low lighting levels.</p>
Camera Housing		<p>Full bodied CCTV housings shall come complete with condensation control. Mounting types shall vary dependent upon application.</p> <p>Specialist CCTV housings shall be considered for conservation type facilities as manufactured by Messrs. Mark Mercer</p>

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Service	Specialist	Address & Contact Details
CCTV	CVL Systems LTD	CVL Systems Ltd 8 Edison Close Park Farm Industrial Estate Wellingborough Northants NN8 6AH T: 01933 674100 F: 01933 677087