Digital Solutions Division

ACT Government | ACT Health

St-08 Addendum - Security ICT Standard for CCTV and NVR

Version 2020.1.0- Approved

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Please Read

IMPORTANT COMPLIANCE REQUIREMENTS

Note: The following instruction applies to all documents in this library.

This is a controlled document and is reviewed on an annual basis. The last review was carried out on September 2019. If you are viewing this document after September 2020, you will need to contact the sender to confirm you are working from the latest revision.

It is the responsibility of the contractor/vendor to read and adhere to the procedures, processes and guidelines set out in the following document when quoting for or carrying out work for ACT Health Directorate (ACTHD).

If you have questions or require clarification of any of the procedures, processes or guidelines in the following document please contact the sender of the document in writing with your questions so that a formal response can be provided. If any specific requirement is unclear, it is expected that clarification will be sought from the Health Digital Solutions Division (DSD) - ICT architect(s), rather than a decision made and a design implemented and based on unclarified assumptions.

These standards are applicable to ALL Canberra Health Services (CHS) and ACTHD sites or any work funded by ACTHD (e.g. Calvary, ACTHD provided NGO sites) unless specifically exempt.

All Greenfield Health sites are expected to be fully compliant with all appropriate standards.

Brownfield Health sites undergoing refurbishment should be fully compliant unless an exemption is provided by DSD Infrastructure Hub.

In the event of any design non-compliance issues, a Departures document must be completed and submitted to DSD Infrastructure Hub. These issues should be resolved, in consultation with DSD Infrastructure Hub, as soon as possible within the project process and explicitly prior to site handover.

While some test cases have been cited within these documents as examples, the list is not exhaustive, and all appropriate test procedures shall be formulated, approved prior to testing and testing shall be performed by the client system administrators before full acceptance can be signed off by the Director of ICT Infrastructure Hub.

IMPORTANT:

Any departure from the standard, whether intentional or in error shall require a completed Departures Document to be submitted to DSD infrastructure Hub for approval.

Any non-compliant designs without a pre-approved Departures Document by completion of the project or a nominated milestone or gateway, will require remediation by the Head Contractor at the Head Contractors cost.

Document review high level

(to review detailed document updates, click on References and Amendment Log)

Version	Summary of Changes	Author	Date
2020.1.0	Release version.	Nitin Saxena	30/03/2020

Document references

Document	Version	Location
St-08 Security ICT Standard	2019	DSD Internal Folder

Document default review cycle

(to be review every 12 months from the release date)

Date	Version	Comments
Mar 2020	2020.1.0	Original release date
Mar 2021		(Next review date)

Document Owner

Name	Location
Senior Director, Critical Systems & Infrastructure Hub	DSD, Future Capability & Governance, ACT Health

Contents

1. Introduction

1.1. Context and Background

This document forms part of a suite of documents that describe ICT specifications for the ACT Health Directorate support systems. It is an adjunct to the 'St-08 Security ICT Standard' providing the specifications and model numbers for the Closed-Circuit Television (CCTV) cameras and the Network Video Recorder (NVR) which are applicable to the green-field and refurbished brown-field sites.

1.2. Assumed Knowledge

The information provided in the following document:

- St-08 Security ICT Standard 2019.

1.3. Disclaimer

The following document provides ICT ONLY specifications and requirements for the CCTV and NVR devices at the Health Directorate and is by no means intended to cover all the comprehensive requirements for the Security System. Additional business and user requirements will be presented in project specific documentation such as Business Requirements, Solution and Detailed designs.

2. Executive Summary

The specifications for various security systems, that are provisioned at The Canberra Hospital (TCH), are described in a standard 'St-08 Security ICT Standard'. The Security ICT Standard document outlines enterprise architecture and integration for each security system across all the Health Directorate sites. This architecture provides the building blocks for a consistent implementation of systems for the Health Directorate. Additionally, it provides the benefit of standardised installation and configurations within the Directorate, enabling reusable patterns and repeatable system implementation. The consistent architecture will minimise the risks associated with ongoing support for disparate implementations, simplifying the installations whilst reducing the ongoing maintenance costs.

This document specifically provides the CCTV cameras and NVR models that will be adopted at the Health Directorate sites. The CCTV camera models have been provided for the analytics and non-analytics capable cameras.

The infrastructure required for the CCTV cameras such as structured cabling and data outlets will be provisioned by the head contractor. Additionally, CCTV camera installation and setup will be the head contractor's responsibility.

3. CCTV Cameras

3.1. Introduction

The architecture for the CCTV system and the feature requirements for the CCTV camera is outlined in the Security Standard mentioned in section 1.2 Assumed Knowledge. Following sections specify the model numbers and key features for CCTV cameras.

Note: The CCTV camera model numbers may change over a period. It is the head contractor's responsibility to contact DSD Infrastructure Hub for the latest recommended models that are being used at the Health Directorate sites prior to purchasing the cameras.

3.2. Scope

3.2.1. Head Contractor

CCTV cameras will be procured and installed by the head-contractor. The location of the CCTV cameras is specified in the security drawings. The CCTV cameras will be commissioned by the head contractor's security sub-contractor.

Provide licenses to support CCTV cameras.

3.2.2. DSD

Allocate appropriate number of network switch ports for the CCTV cameras.

3.3. External CCTV Camera Models

There are two types of cameras with different capabilities, analytics or non-analytics capable.

3.3.1. External Analytics Camera

This camera has the following key features:

- Model - **2.0C-H5A-DO1-IR;**
- Resolution - 2Mp Progressive CMOS;
- IR Capability - 15m (full wide) – 35m (full tele);
- Day/Night technology; - Triple Exposure Ultra-Wide Dynamic Range (WDR) and LightCatcher® technology;
- Power - Power over Ethernet (PoE) maximum 13W with IR on;
- Mounting - Outdoor surface mount only. Cannot be pendant mounted; and
- Security - Password protection, HTTPS encryption, digest authentication;
  - WS authentication. 802.1x port-based authentication.

3.3.2. External Non-Analytics Camera

This camera has the following key features:

- Model - **2.0C-H5SL-DO1-IR;**
- Resolution - 2 Mp TVL resolution;
- IR Capability - Maximum 30m reach;

- Day/Night - Triple Exposure WDR and LightCatcher® technology;
- Power - PoE maximum 8W;
- Mounting - Surface, In-ceiling or Pendant mount; and
- Security - Password protection, HTTPS encryption, digest authentication;
  - WS authentication. 802.1x port-based authentication.

3.4. Internal CCTV Camera Models

3.4.1. Internal Analytics camera

This camera has the following key features:

- Model - **2.0C-H5A-D1-IR;**
- Resolution - 2Mp Progressive CMOS;
- IR Capability - 15m (full wide) – 35m (full tele);
- Day/Night - Video analytics WDR and LightCatcher® technology;
- Power - PoE maximum 13W with IR on;
- Mounting - Outdoor surface mount only. Cannot be pendant mounted; and
- Security - Password protection, HTTPS encryption, digest authentication;
  - WS authentication. 802.1x port-based authentication.

3.4.2. Internal Non-Analytics camera

This camera has the following key features:

- Model - **2.0C-H5SL-D1-IR;**
- Resolution - 2 MP Progressive CMOS;
- IR Capability - 20-30m. Content adaptive IR;
- Day/Night - WDR and LightCatcher® technology;
- Power - PoE maximum 5W;
- Mounting - Surface, In-ceiling or Pendant mount; and
- Security - Password protection, HTTPS encryption, digest authentication;
  - WS authentication. 802.1x port-based authentication.

4. Network Video Recorder

4.1. Introduction

The architecture for the CCTV system and the features for the NVR is outlined in the Security Standard mentioned in section 1.2 Assumed Knowledge. The following sections specify the model numbers and key features for the NVR.

Note: The NVR model numbers may change over a period. It is the head contractor's responsibility to contact DSD Infrastructure Hub for the latest recommended models that are being used at the Health Directorate sites, prior to purchasing the NVR.

4.2. Scope

4.2.1. Head Contractor

The head-contractor will provide NVR for a project as required.

The head-contractor **must** consult with DSD prior to procuring NVR as there are two options for procurement of NVR:

1. Head-contractor to purchase a physical NVR; or
2. DSD will determine capacity available on an existing NVR which can potentially be leveraged for the project. If it is determined that capacity is available on an existing NVR, the head-contractor will need to "purchase" the required capacity through DSD Critical Systems and Infrastructure Hub.

4.3. Standard NVR with 24TB Storage

This NVR has the following key features:

- Model - **HD-NVR4-STD-24TB-AU**;
- Redundant Power Supply Unit - HD-NVR4-STD-2NDPS-AU;
- Storage Capacity - 24TB;
- Maximum Cameras per Unit - 35;
- Hot Swappable Component - Yes;
- Network Interfaces - 4 x 1 GbE RJ-45;
- Recording Rate - 450 Mbps;
- Playback/Live - 450Mbps (whilst maintaining recording);
- Data Cabinet - 2 Rack Unit (RU); and
- Power Consumption - Average: 270W (921.3 BTU/h)
  - Maximum: 750W (2560.8 BTU/h).

4.4. Standard NVR with 48TB Storage

This NVR has the following key features:

- Model - **HD-NVR4-STD-48TB-AU**;
- Redundant Power Supply Unit - HD-NVR4-STD-2NDPS-AU;

- Storage Capacity - 48TB;
- Maximum Cameras per Unit - 70;
- Hot Swappable Component - Yes;
- Network Interfaces - 4 x 1 GbE RJ-45;
- Recording Rate - 450 Mbps;
- Playback/Live - 450Mbps (whilst maintaining recording);
- Data Cabinet - 2 Rack Unit (RU); and
- Power Consumption - Average: 270W (921.3 BTU/h)
  - Maximum: 750W (2560.8 BTU/h).

Appendix A : References and Amendment Log

Glossary of terms

Glossary of Term	Definition
ACT	Australian Capital Territory
BTU	British Thermal Unit
CCTV	Closed Circuit Television
DSD	Digital Solutions Division
GbE	Gigabit Ethernet
Gbps	Gigabits per second
HTTPS	Hypertext Transfer Protocol Secure
ICT	Information and Communications Technology
MGN	Medical Grade Network
NVR	Network Video Recorder
POE	Power over Ethernet
PSU	Power Supply Unit
RU	Rack Unit
TB	Terabyte
TCH	The Canberra Hospital
WDR	Wide Dynamic Range

Table 1 - Glossary of terms

Amendment history

Version	Summary of Changes	Author	Date
2019.0.1	Document creation	Nitin Saxena	11/11/2019
2019.0.2	Update to scope based on feedback	Nitin Saxena	25/11/2019

Table 2 - Amendment History

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