Contents

[States of the room 2](#_Toc449605114)

[Multiple occupied (>2) 2](#_Toc449605115)

[Dual occupied (2) 2](#_Toc449605116)

[Single occupied (1) 2](#_Toc449605117)

[Empty (0) 2](#_Toc449605118)

[Potential room users 2](#_Toc449605119)

[Un-authorised 2](#_Toc449605120)

[Some Permissions 2](#_Toc449605121)

[Fully Authorised 3](#_Toc449605122)

[Points of Interaction 3](#_Toc449605123)

[Console(s) 3](#_Toc449605124)

[Security Screen 3](#_Toc449605125)

[Entrance 3](#_Toc449605126)

[Camera Layout 4](#_Toc449605127)

## States of the room

### Multiple occupied (>2)

This is when the room is above standard operation capacity. We have set ourselves a max of 6 people in the room at any one time based on its size and function. This will include the at least one of the standard operators.

### Dual occupied (2)

This is the standard state of the room. At least one user needs to be an operator; if this is the case then the room will be set to warning state.

### Single occupied (1)

The room can have just a single user present. If this is the case this user must be an operator and the room will be set to warning state.

### Empty (0)

If the room is empty or if the room has no operators in it then the room will be set to an emergency state.

## Potential room users

These fall into 3 main categories

### Un-authorised

Visitor (Un-Cleared)

Can only view information that is shown to them by someone who is cleared to a higher level. Are not given any options when interacting with the system directly they are an ‘over the shoulder’ user of the system.

Unknown (Un-Authorised)

This is someone who either should not be in the room and has falsified their way in or is someone who has yet to identify themselves to the system (they may have tailgated in but actually be an authorised user)

### Some Permissions

Visitor (Cleared)

These users can interact with the system at a basic viewing level, able to view current information with some restriction; they do not have access to logs or controls.

Visitor (Technician/Inspector)

These two users have access to parts of the system but not all. The technician (assumed external or not an operator) may have access to a varying level of the controls depending on what they are there to fix/maintain/upgrade. They may also have limited access to logs.

The Inspector role would have full access to the logs but they would only have viewing rights to the controls.

Operators

These have full access to the controls on the system but have no access to the system logs. There is a requirement for there to be a minimum of one of these people or a higher level to be in the room at any one time.

### Fully Authorised

Admin

Is a user, who has access to everything on the system, they are the only other person who counts towards the operator tally for minimum number of people in the room.

## Points of Interaction

### Console(s)

Hardware:

* Screen
* Camera
* Secondary Authentication – USB, RFID, Finger print scanner

Software considerations:

* Must show a level of ‘intelligence’
* Processing of facial recognition could be done on this machine or on the security pc
* Add images and logon data (both pass and fail) to a log for security`

### Security Screen

Hardware:

* Screen
* Camera
* Printer
* ‘ID cards’

Software considerations:

* Show the video feeds from the kinect’s
* Show the door feed
* Show a 2D map of people in the room

### Entrance

Hardware:

* Camera
* Secondary Authentication – USB, RFID, Finger print scanner

Software considerations:

## Camera Layout

### Option 1

4 edges or corners mounted with cameras facing the centre of the room.

### Option 2

Cameras mounted on a central mount to cut out blind spots.

### Option 3

With 2 Kinect’s using the walls along one of the lines of the field of view you can get 100% coverage of the area. We are planning to use 4 so will mirror this setup in the other 2 corners of the room adding redundancy.

57°

57°

## Security Console Layouts