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**ARTIFICIAL INTELLIGENCE  
AGED CARE REAL TIME SOLUTION**





## ARTIFICIAL INTELLIGENCE VISUAL INVESTIGATOR

The aged sector is one of the largest growing industries globally, with an expected growth of 13% in the next 5 years. This is mainly due to the increase in the global aging population rate. In many age care facilities caring for the elders is a challenging task. Monitoring their behavioral movement and providing immediate medical assistance in an emergency is crucial.

By combining artificial intelligence with this industry these tasks are now simpler to manage than before. PNR Engineering, AIVI -CARE assists caretakers to monitor their patients and residents by helping them to provide immediate assistance when required in real-time.

# AIVI-CARE FEATURES

## Fall detection

Most age care facilities encourage residents to be mobile when possible, however caretakers due to work load often are unable to provide assistance causing unforeseen accidents that may lead to serious injuries.

AIVI -CARE monitors the residents abnormal behaviour such as critical falls, attempting to get out of bed without assistance and not getting back in to bed at a prescribed time. These emergency situations are alerted to the nurse stations in real time to provide a proactive care.



## Loitering detection

Loitering is a common issue that most age care facilities face. Patients suffering from Alzheimer disease tend to forget the purpose of their activity and find them self lost. At times depending on the condition they can hurt themselves and others in the facility. AIVI-CARE has the ability to detect residents loitering within the facility and alert security or nursing staff to be mindful of resident movements.



## Bedsore monitoring

Managing this issue is critical for the welfare of immobile resident and patients. AIVI-CARE detects and if forgotten alerts caretakers to turn over patients periodically to help prevent and manage bedsore.

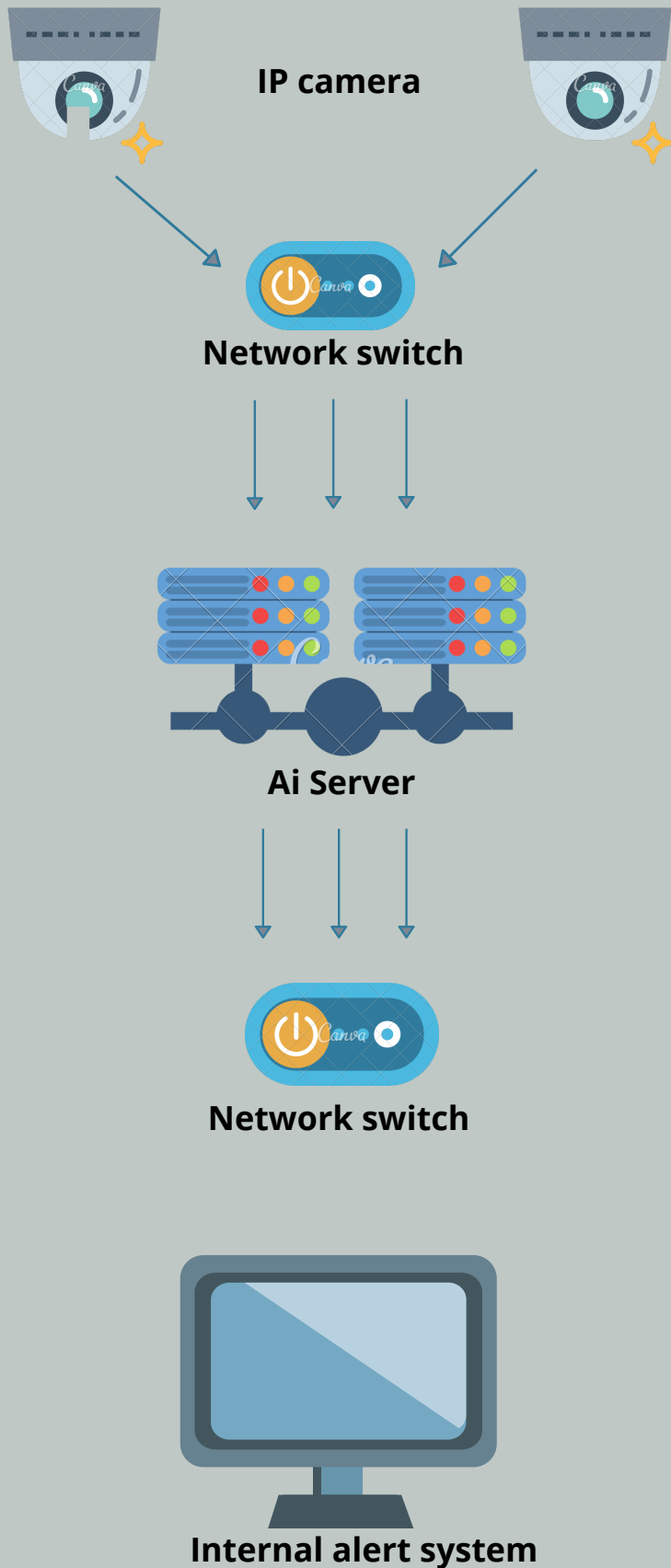


## Just in time assistance

AIVI-CARE can facilitate Just-In-Time assistance to provide proactive care. Our system will alert nursing and security staff immediately when residents and patients need help. All data is recorded in a structured manner for tanning and evidential purposes

# SYSTEM ARCHITECTURE

## INTERNAL NETWORK



### PRIVACY AND CONFIDENTIALITY

TO ADDRESS ANY PRIVACY AND CONFIDENTIALITY CONCERNS, OUR SYSTEM 100% DOES NOT RECORD ANY VIDEO FOOTAGE OR AUDIO.

THE AI SYSTEM PURELY USES THE CCTV DEVICE AS A SENSOR TO ANALYSE WHAT IT SEES TO IDENTIFY ABNORMAL ACTIVITY. ALERTS ARE THEN SENT TO STAFF FOR APPROPRIATE ACTION.

# INTERFACE - EXAMPLES

HOME

EVENT LOG

HELP

30/3/2020 Monday 2:47 PM

Camera	Status	Monitoring
Views		
Fall detection	Active	Off
Fall prevention	Got out alone   12s	ATTEND
Loitering	Loiter resident detected   50s	Off

Fall prevention

Fall prevention

Got out alone

12s

HOME

EVENT LOG

HELP

30/3/2020 Monday 2:43 PM

Camera	Status	Monitoring
Views		
Fall detection	Fall detected   44s	ATTEND
Fall prevention	Away   55s	Off
Loitering	Active	Off

Fall detection

Fall detection

Fall detected

44s

HOME

EVENT LOG

HELP

30/3/2020 Monday 2:46 PM

Camera	Status	Monitoring
Views		
Fall detection	Active	Off
Fall prevention	Got out alone   5s	ATTEND
Loitering	Active	Off

Fall prevention

Fall prevention

Got out alone

5s

HOME

EVENT LOG

HELP

30/3/2020 Monday 2:50 PM

Camera	Status	Monitoring
Views		
Fall detection	Active	Off
Fall prevention	Away   40s	Off
Loitering	Loitering (30min)   15s	ATTEND

Loitering

Loitering

Loitering (30min)

15s

HOME

EVENT LOG

HELP

30/3/2020 Monday 2:44 PM

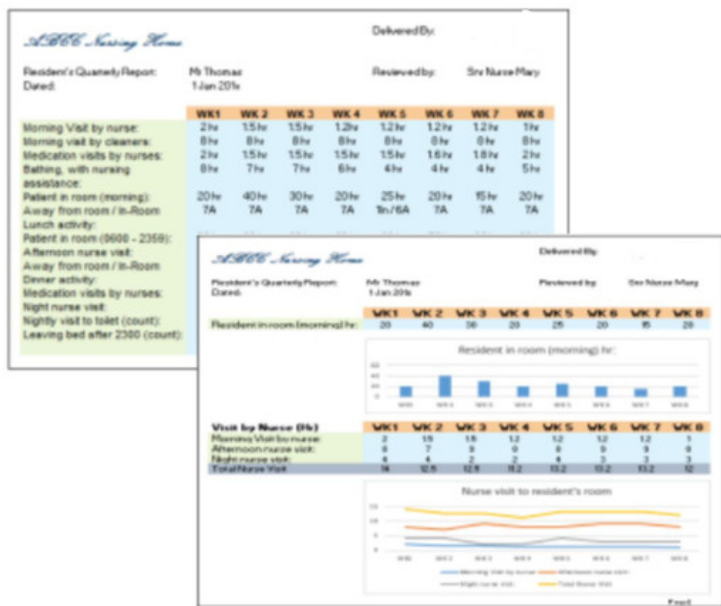
Camera	Status	Monitoring
Views		
Fall detection	Nurse visit   3s	Off
Fall prevention	Away   30s	Off
Loitering	Loiter resident detected   45s	Off

Fall detection

Fall detection

Nurse visit

# REPORT-EXAMPLES



With current existing systems, duty personnel need to scan multiple screens or do periodic physical visits to monitor critical issues. These issues need to be manually scanned across wards to identify and rectify critical needs for assistance. PNR Engineering AIVI-CARE ai algorithms are specifically designed for health-care to detect these critical incidents in real time by alerting them in a single console.

AIVI-CARE has now taken out human error and the manual labour element out of this process which then reduces cross contamination, increase efficiency and the level of care given to each resident .

				WK -2	WK -1	Curr WK
<b>Check out from System</b>						
	311	406	415			
	8 Jan	8 Jan	10 Jan	2	2	3
<b>Alerts</b>						
<b>Falls Detected</b>						
In-Room	4			6	4	4
	406	412				
	9 Jan	12 Jan				
In-Corridor						
In-Common Area						
	Area 2					
<b>Abuse Alerts (&gt; 1 person &amp; Shouting)</b>						
Morning	406 x 5	412	300 x 5	8	10	16
Evening						
Night	300 x 5					
<b>Bedsore Management</b>						
Late (30 min later)	300			3	2	1
Missing (more than 90 mins)	300 x 2			5	3	2
<b>Missing from Bed (during silent hours)</b>						
(longer than 30 mins during silent hours)		302		2	1	1
(longer than 60 mins during silent hours)		412		1	1	1

## CONTACT US

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