WINDBLUE

Hospital Bintulu WindBlue

Building Management System (BMS)

WindBlue BMS for Healthcare

In healthcare buildings, it's becoming increasingly important not only to provide a comfortable and hygienic environment for patients, staff and visitors but also to reduce energy usage. WindBlue's knowledge and experience in this area allow us to control the environment to deliver a solution that fulfils this requirement.

WindBlue BMS

A **Building Management System** (**BMS**), otherwise known as a **Building Automation System** (**BAS**), is a computer-based control system installed in buildings that controls and monitors the building's mechanical and electrical equipment such as heat, ventilation, air conditioning, lighting, power system, fire systems, security system and etc.

WindBlue is the approved BAS by Kementerian Kesihatan Malaysia

By Houkinyau S/B

WINDBLUE

Building Management System

WindBlue is a platform created by HouKinYau Sdn Bhd, this platform focus to give better solution, sustainable and maintainable cost of operating the building. The WindBlue is designed based on modular hardware, distributed architecture, open protocol concept, multi-site, Cloud computing and IoT ready.

Benefits of Installing WindBlue BMS

Many benefits exist when a WindBlue BMS is installed in Hospital Bintulu, some of them are:

Operation theater air handling unit (OT AHU) monitoring
Temperature and humidity can be control and monitor. Can see the status of the room pressure and filter condition.

Chiller plant optimization and control
Chiller, pump and cooling tower can be control and monitor. Improved chiller plant reliability and life span.

Effective monitoring and targeting of energy consumption
Power meter and data can be analyzed and optimization can be carried out to decrease the energy consumption.

Improve hospital level and standard
Facilities managers can use the BMS to set parameters to keep control of their hospital environment within comfort, safe and efficient.

Save time and money during the maintenance
All parameters and information can be easily view in a single system. Early alarm and notification can effectively reduce service down time.

Real Time Monitoring System

- HVAC system play an very important role in hospital, Its IMPORTANT & PRIORITY in making the health institution running their daily operation in a control & manageable environment.
- WindBlue reflects **immediate current real time data**, without any delay of waiting report from PIC, engineer, technician etc, the data is on your palm thru any display from smartphone, tablet etc.
- **Error - free report** is always our priority to ensure correct action to be taken to solve any emergency break - down & increase efficiency. Handwriting mistake is no longer exist thru a real time report as accurate as hourly update.
- **Efficiency & Productivity is increase** with the real time data, which allow maintenance to be taken as soon as any unpredictable break down happen.

Multi Level Accessibility

- Before step into control system, monitoring is always a challenge for an big organization like KKM which involve thousands of floor staff. WindBlue enable the real time data to be deliver to the correct person with the terms that the internet connectivity is beside you.
- In a well structured Corp, WindBlue provides a dedicated monitoring system that allow different accessibility from top management until the end service crew.
- Its linking **Goverment - Hospital - Maintenance company** or even vendor that in necessary with secure data processing & transmitting.
- Its not only shorten the time of accurate data delivery, but also **reduce the manpower** which in charge of monitoring works.

Centralized Secure Cloud Storage

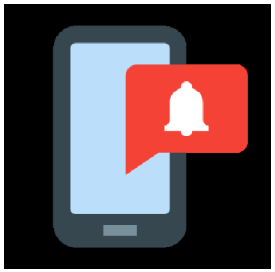
- In this 21st century, data storage had emerged from one personal computer, or one personal piece of paper, transform into centralized storage.
- WindBlue provides a **secure** cloud storage with end to end encryption & communication
- With centralized data, report submission work is no longer needed, which reduce the work load of both management & branches which generate additional **"FREE TIME"** to allow dedicated department to be more focus on thier major task.
- Ease of data processing will also enhanced management monitoring & analysis.

Intelligence Reports

- WindBlue concern the hard work of department that generate formal report periodically. therefore we provide a series of reports to be generated automatically.
- **Various of format** such as graph, pie chart, table contents or even graphical reports is possible upon request of users.
- Accuracy of data is as precise as hourly update which allow user download it anytime, anywhere

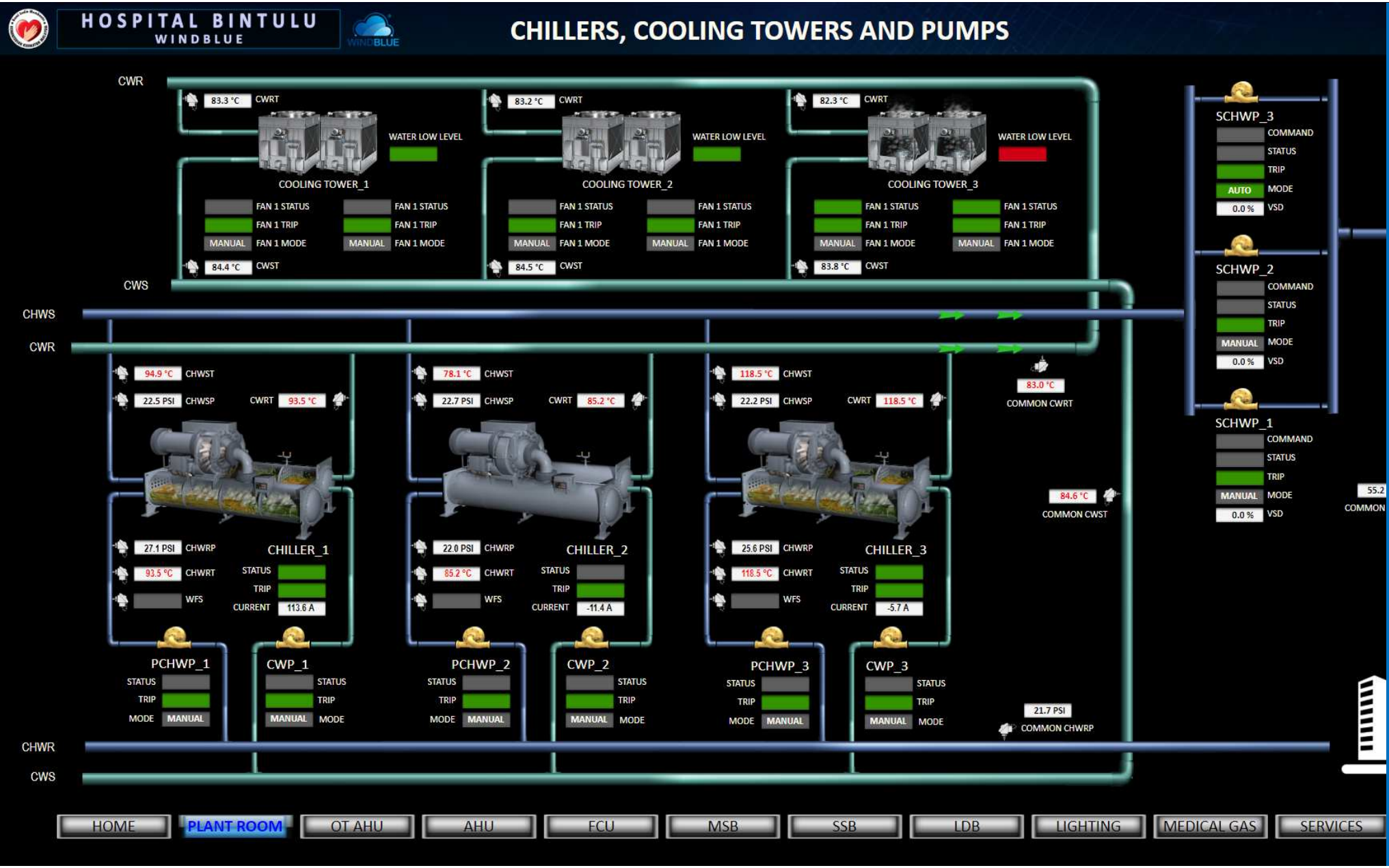
Automatic Notification

- Maintenance is not only carry periodic task but also attend break down when it happen. Among the process of complaint/request receive – solution – approval – action taken – close order, it will involve many department & key persons, lead time is always critical to achieve effective work flow.
- Time is valuable, with WindBlue, we will help to **shorten the LEAD TIME** over the process by send out notification automatically once system fail to operate within healthy range.
- Auto Notification is in the form of email, sms or even phone call is possible upon special request from users.



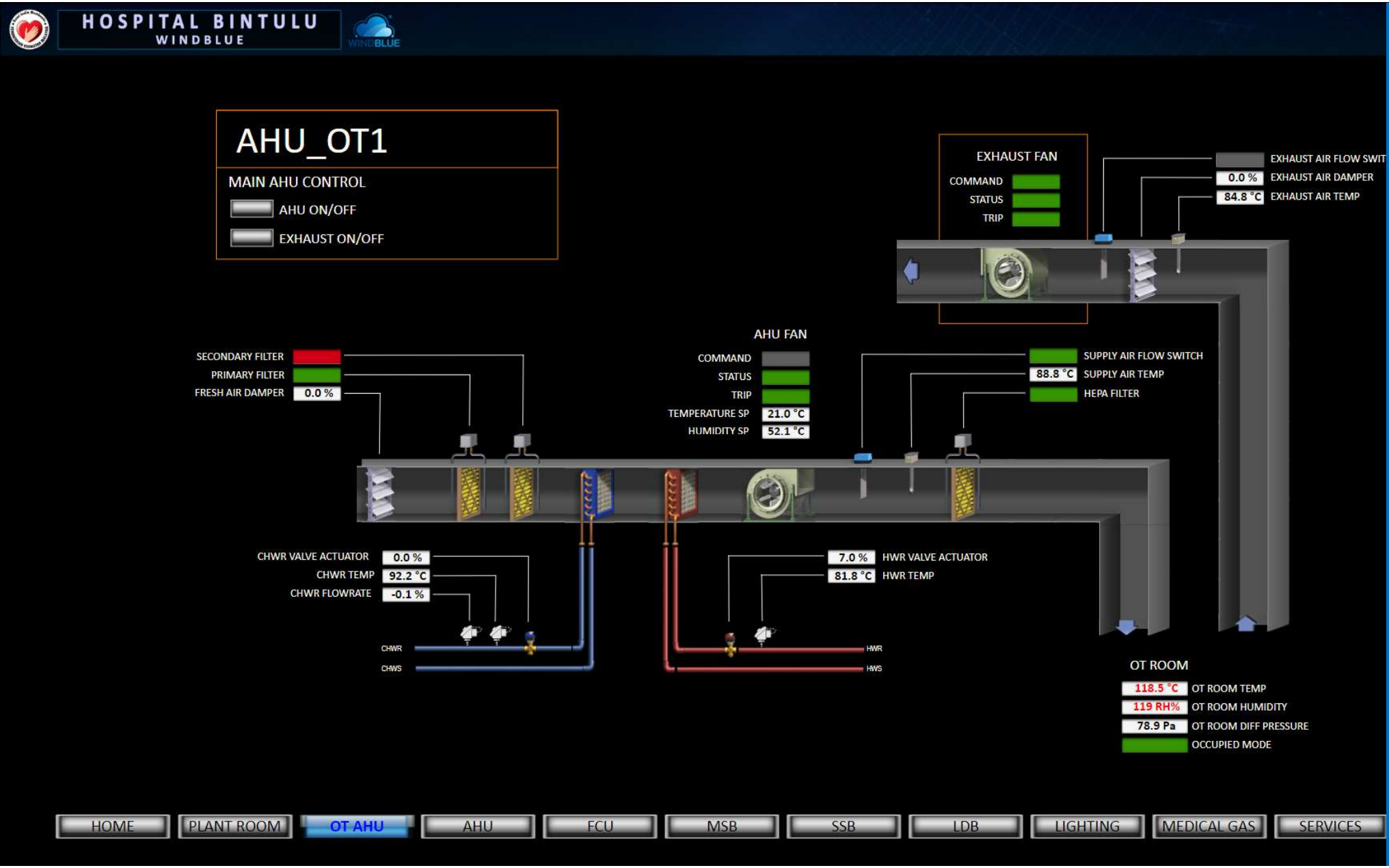
WindBlue Chiller Manager

WindBlue Chiller Manager has desired chilled water plant control strategies to support on achieving the **energy efficiency** on chiller plant by maximizing total plant efficiency (kW/ton), continuously minimize energy input while maximizing cooling output. The elements of control strategies involve chillers, chilled water & condenser water pumps, cooling towers. Combination with a quality control system, this enables coordination of all system aspects and facilitates access to the chiller's actual internal data. This allows the use of that data to create an efficient chiller control strategies.


HOSPITAL BINTULU
WINDBLUE
CHILLERS, COOLING TOWERS AND PUMPS
CWR
CWS
CHWS
CHWR
83.3 °C CWRT
COOLING TOWER_1
WATER LOW LEVEL
FAN 1 STATUS
FAN 1 TRIP
MANUAL FAN 1 MODE
84.4 °C CWST
83.2 °C CWRT
COOLING TOWER_2
84.5 °C CWST
82.3 °C CWRT
COOLING TOWER_3
83.8 °C CWST
SCHWP_3
COMMAND
STATUS
TRIP
AUTO MODE
0.0 % VSD
SCHWP_2
MANUAL MODE
SCHWP_1
94.9 °C CHWST
22.5 PSI CHWSP
CWRT 93.5 °C
27.1 PSI CHWRP
93.5 °C CHWRT
WFS
CHILLER_1
CURRENT 113.6 A
78.1 °C CHWST
22.7 PSI CHWSP
CWRT 85.2 °C
22.0 PSI CHWRP
85.2 °C CHWRT
CHILLER_2
CURRENT -11.4 A
118.5 °C CHWST
22.2 PSI CHWSP
CWRT 118.5 °C
25.6 PSI CHWRP
118.5 °C CHWRT
CHILLER_3
CURRENT -5.7 A
83.0 °C
COMMON CWRT
84.6 °C
COMMON CWST
55.2
COMMON
PCHWP_1
CWP_1
PCHWP_2
CWP_2
PCHWP_3
CWP_3
21.7 PSI
COMMON CHWRP
Chiller Plant
HOME
PLANT ROOM
OT AHU
AHU
FCU
MSB
SSB
LDB
LIGHTING
MEDICAL GAS
SERVICES

WindBlue OT Manager

In operating room, the priority is to control the indoor air quality to protect from airborne hazards and maintain indoor comfort conditions like temperature, humidity, ventilation and airflow. WindBlue OT Manager control strategies such as unoccupied setback, air change rates, air flow control, filter condition alarming, room relative pressure check, control set-points, continue verification of measurement, HVAC system breakdown warning are ensuring operating room environment always meet the indoor air quality standard.



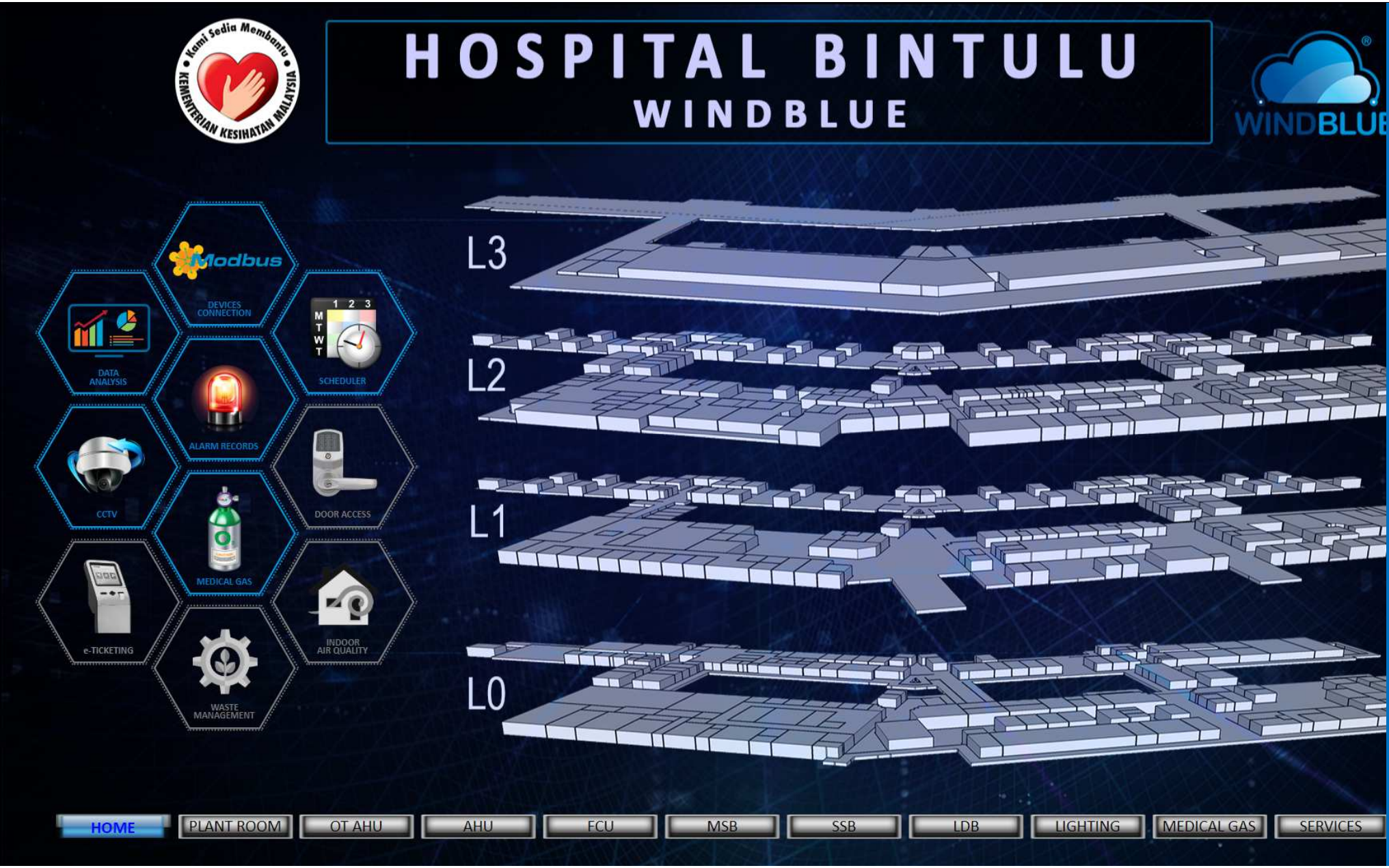
OT AHU Display


HOSPITAL BINTULU
10:42:42
2019-11-11
MAJOR OT2
°C
21.4
TEMPERATURE
21.2 °C
SET POINT
RH%
56.8
RELATIVE HUMIDITY
56.2 %
SET POINT
Pa
2.5
ROOM DIFF. PRESSURE
Pa
0
AHU DIFF. PRESSURE
WINDBLUE
Major OT Status

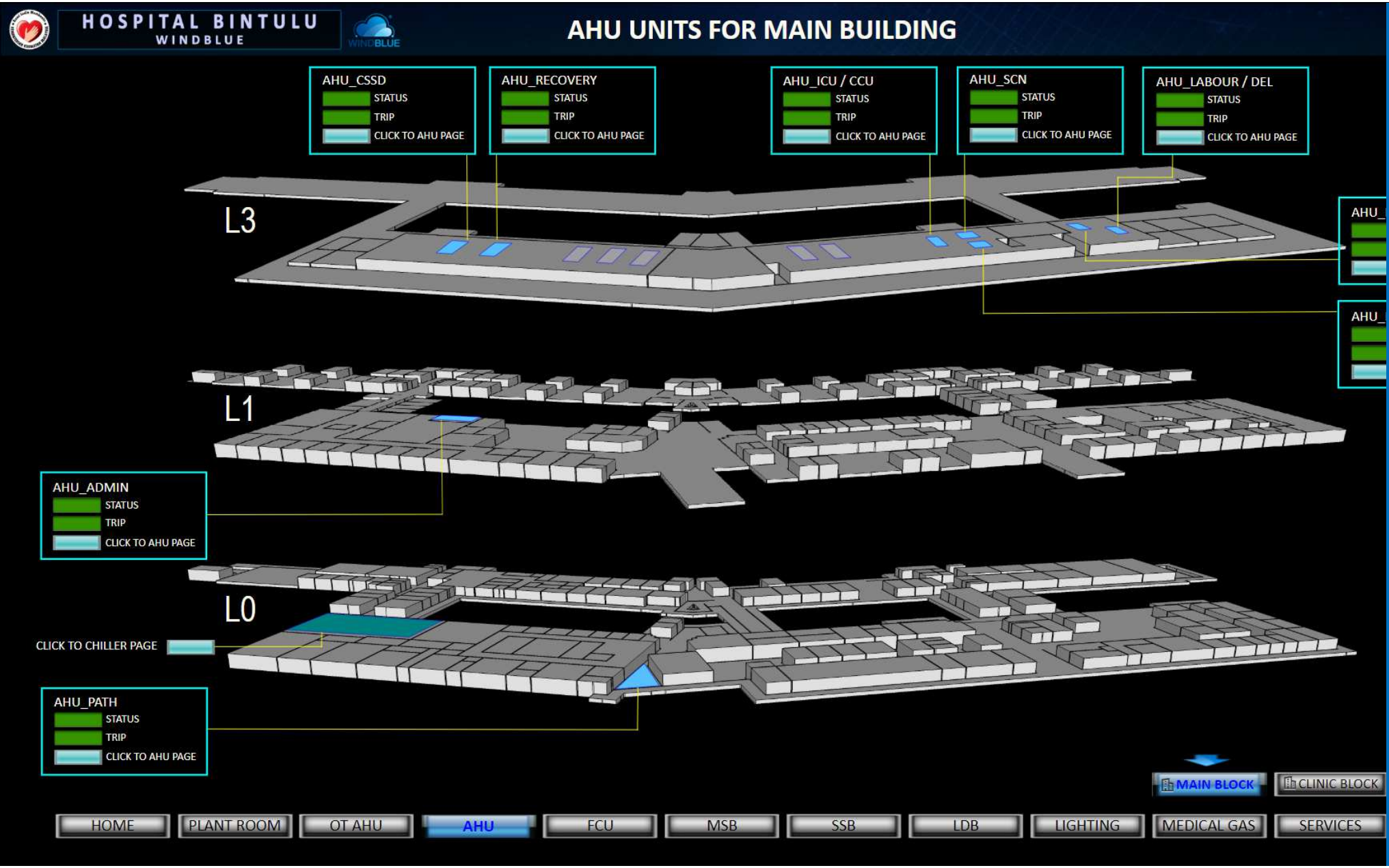

10:41:57
2019-11-11
MAJOR OT1
MAJOR OT2
MAJOR OT3
MINOR OT1
MINOR OT2
TEMPERATURE
21.3 °C
21.4 °C
21.3 °C
21.2 °C
21.3 °C
RELATIVE HUMIDITY
56.9 %
56.8 %
56.9 %
56.7 %
56.9 %
ROOM DIFFERENT PRESSURE
2.5 Pa
2.5 Pa
2.4 Pa
2.6 Pa
2.5 Pa
HEPA DIFFERENT PRESSURE
0 Pa
0 Pa
0 Pa
0 Pa
0 Pa
Kami Sedia Membantu
KEMENTERIAN KESIHATAN MALAYSIA
KEMENTERIAN KESIHATAN MALAYSIA
K A M I S E D I A M E M B A N T U
WINDBLUE

WindBlue Floor Manager

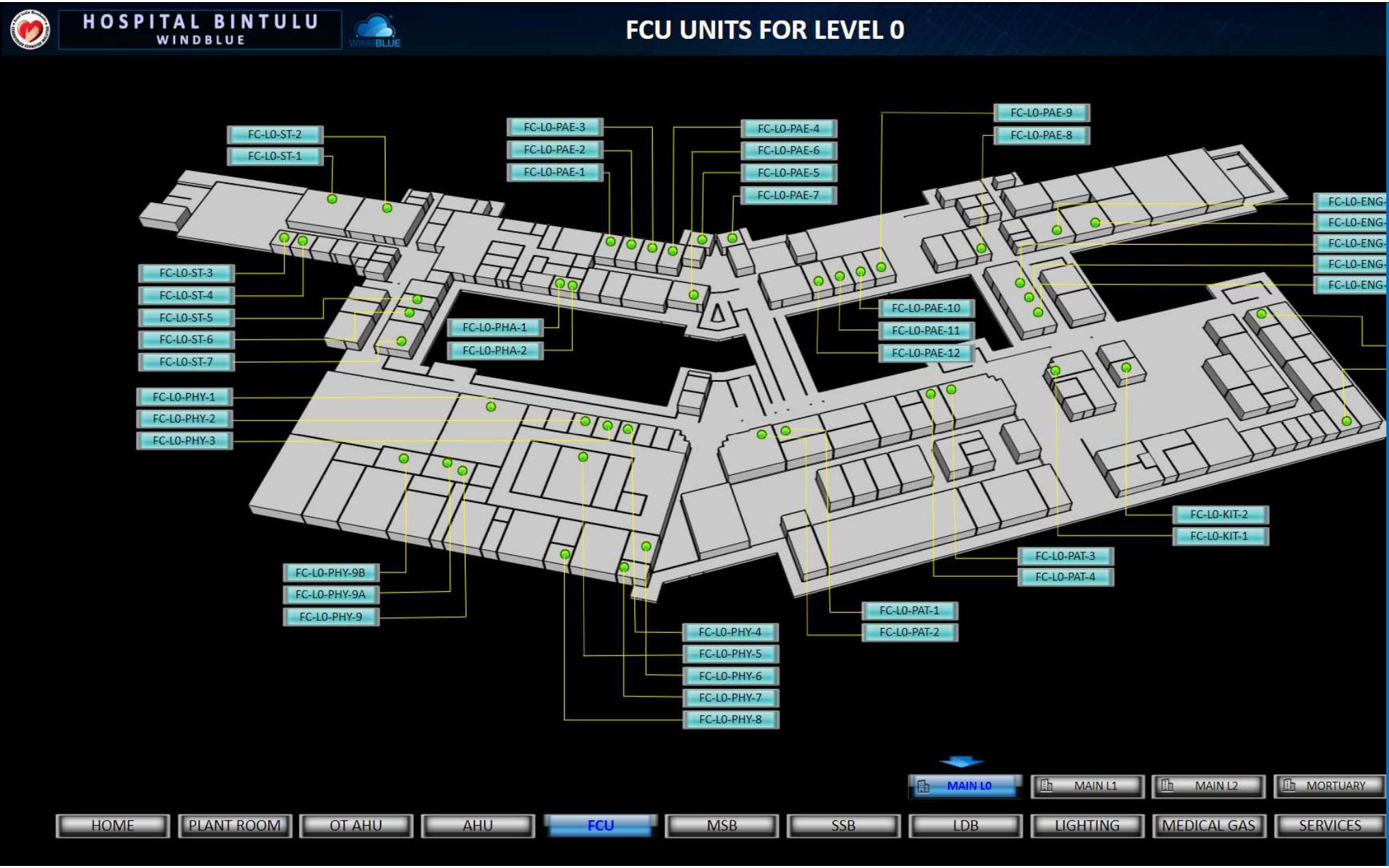
In WindBlue platform, a WindBlue Floor Manager concept created. WindBlue Floor Manager is a device like workstation but in smaller scale operate using touch screen display install at every floor or zone. WindBlue Floor Manager has the same functional as workstation but main focus to control that floor’s system and equipment like heating and ventilation air condition, lighting, power system, fire system, lifts and security system.



BMS Home Page



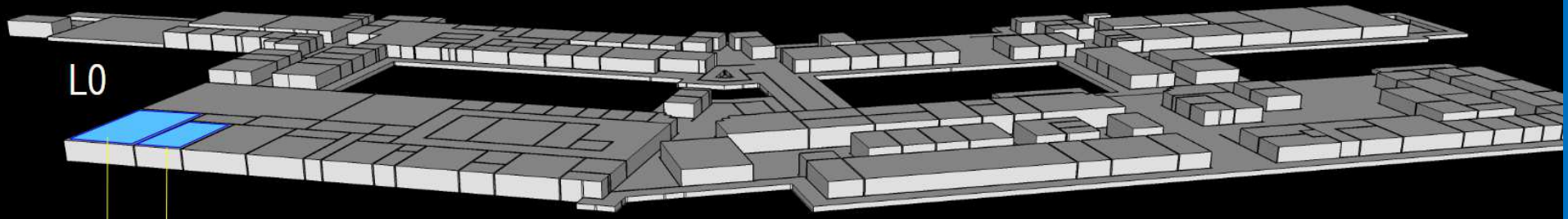
AHU Units Location



FCU Units Location

HOSPITAL BINTULU
WINDBLUE

STATUS FOR MSB



AMF-1	
4P Busbar Coupler	
Outgoing ACB Status	
ACB Status	
ACB E/F & O/C Trip	
Power Meter	0.0 kW

AMF-1 Voltage		AMF-1 Current	
Red/Yellow	0.0 V	Red	0.0 A
Red/Blue	0.0 V	Yellow	0.0 A
Yellow/Blue	0.0 V	Blue	0.0 A

AMF-2	
4P Busbar Coupler	
Outgoing ACB Status	
ACB Status	
ACB E/F & O/C Trip	
Power Meter	0.0 kW

AMF-2 Voltage		AMF-2 Current	
Red/Yellow	0.0 V	Red	0.0 A
Red/Blue	0.0 V	Yellow	0.0 A
Yellow/Blue	0.0 V	Blue	0.0 A

MSB-1	
4P Busbar Coupler	
Generator ACB Status	
ACB Status	
ACB E/F & O/C Trip	
Power Meter	0.0 kW

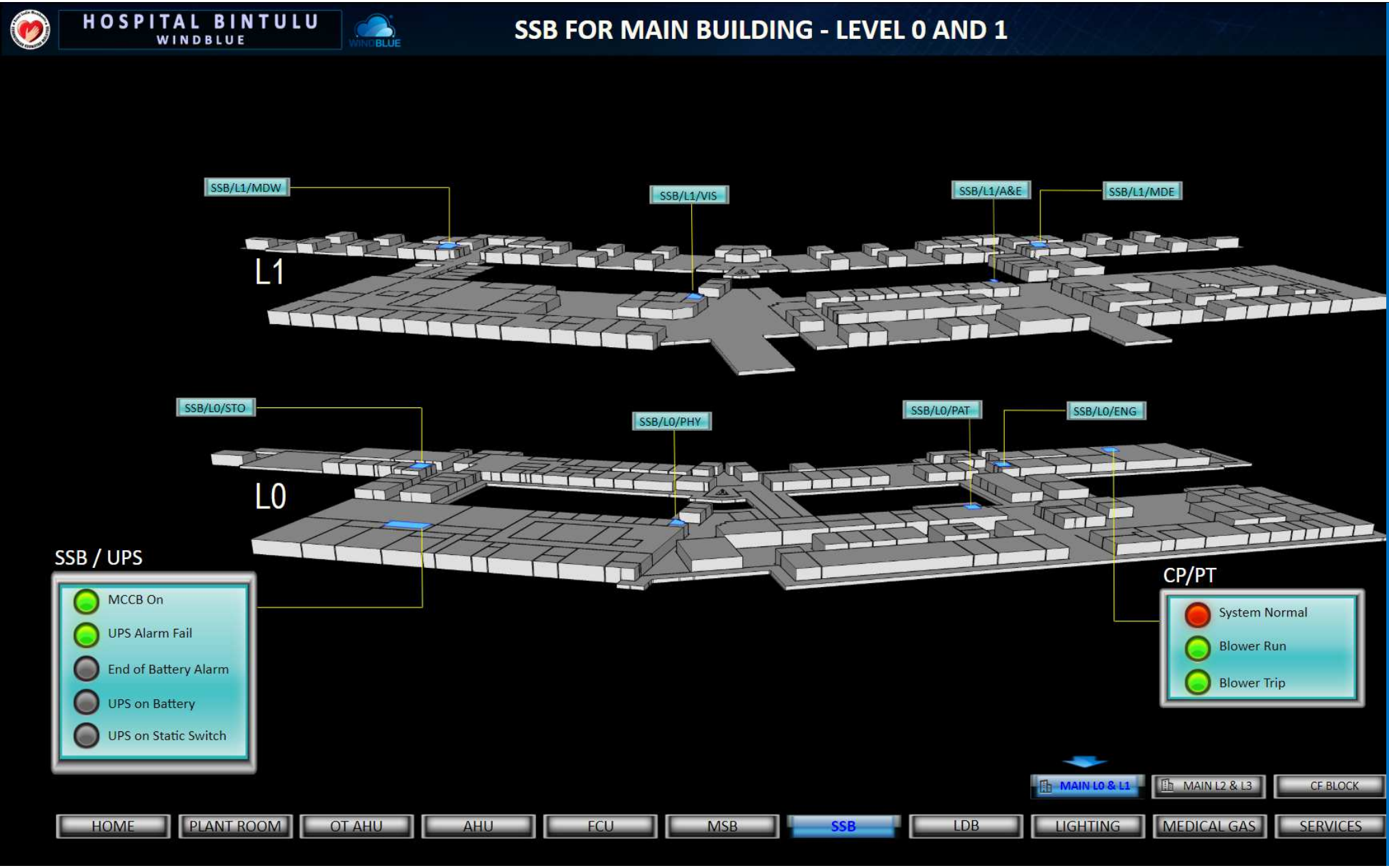
MSB-1 Voltage		MSB-1 Current	
Red/Yellow	28.3 V	Red	186.8 A
Red/Blue	35.8 V	Yellow	116.4 A
Yellow/Blue	46.0 V	Blue	187.9 A

MSB-2	
4P Busbar Coupler	
Generator ACB Status	
ACB Status	
ACB E/F & O/C Trip	
Power Meter	0.

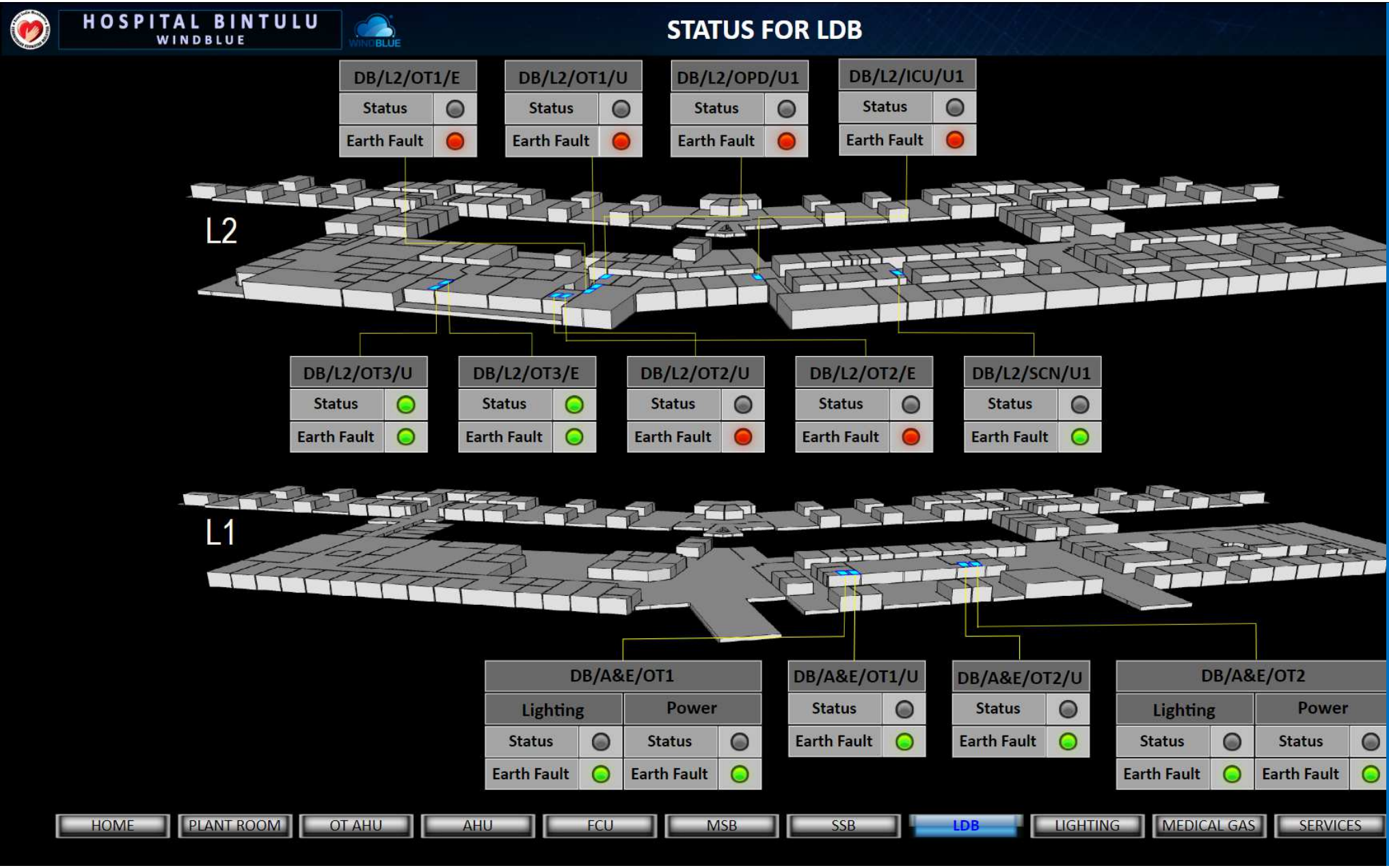
MSB-2 Voltage		MSB-2 Curr	
Red/Yellow	0.0 V	Red	
Red/Blue	0.0 V	Yellow	
Yellow/Blue	0.0 V	Blue	

HOME | PLANT ROOM | OT AHU | AHU | FCU | MSB | SSB | LDB | LIGHTING | MEDICAL GAS | SERVICES

MSB Status



SSB Units Location


HOSPITAL BINTULU
WINDBLUE
STATUS FOR LDB
DB/L2/OT1/E
Status
Earth Fault
DB/L2/OT1/U
Status
Earth Fault
DB/L2/OPD/U1
Status
Earth Fault
DB/L2/ICU/U1
Status
Earth Fault
L2
DB/L2/OT3/U
Status
Earth Fault
DB/L2/OT3/E
Status
Earth Fault
DB/L2/OT2/U
Status
Earth Fault
DB/L2/OT2/E
Status
Earth Fault
DB/L2/SCN/U1
Status
Earth Fault
L1
DB/A&E/OT1
Lighting
Status
Earth Fault
Power
Status
Earth Fault
DB/A&E/OT1/U
Status
Earth Fault
DB/A&E/OT2/U
Status
Earth Fault
DB/A&E/OT2
Lighting
Status
Earth Fault
Power
Status
Earth Fault
HOME
PLANT ROOM
OT AHU
AHU
FCU
MSB
SSB
LDB
LIGHTING
MEDICAL GAS
SERVICES

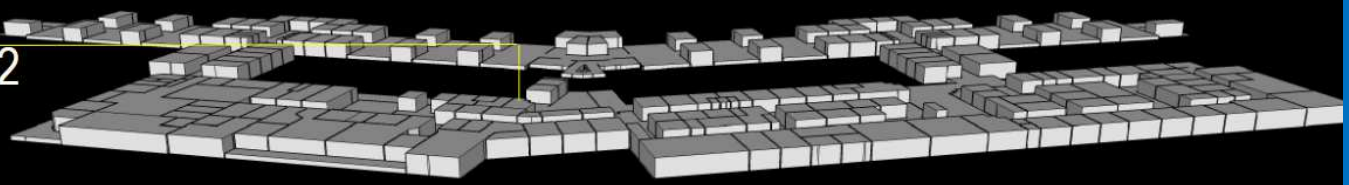
LDB Status

HOSPITAL BINTULU
WINDBLUE

STATUS FOR LIGHTING

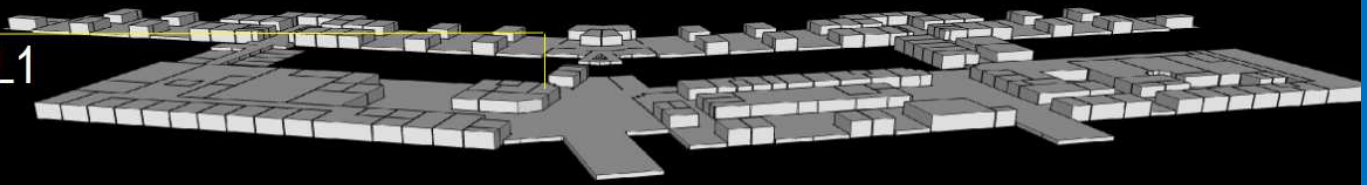
L2 Group A	DB/CL2/E1	DB/CL2/E2
L2 Group B	DB/CL2/N1	DB/CL2/N2

L2



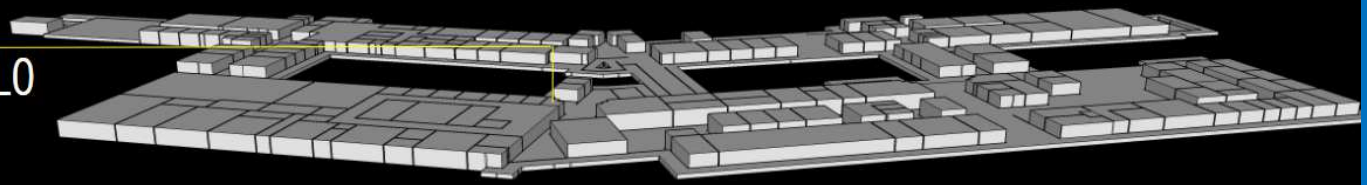
L1 Group A	DB/CL1/E1	DB/CL1/E2
L1 Group B	DB/CL1/N1	DB/CL1/N2

L1



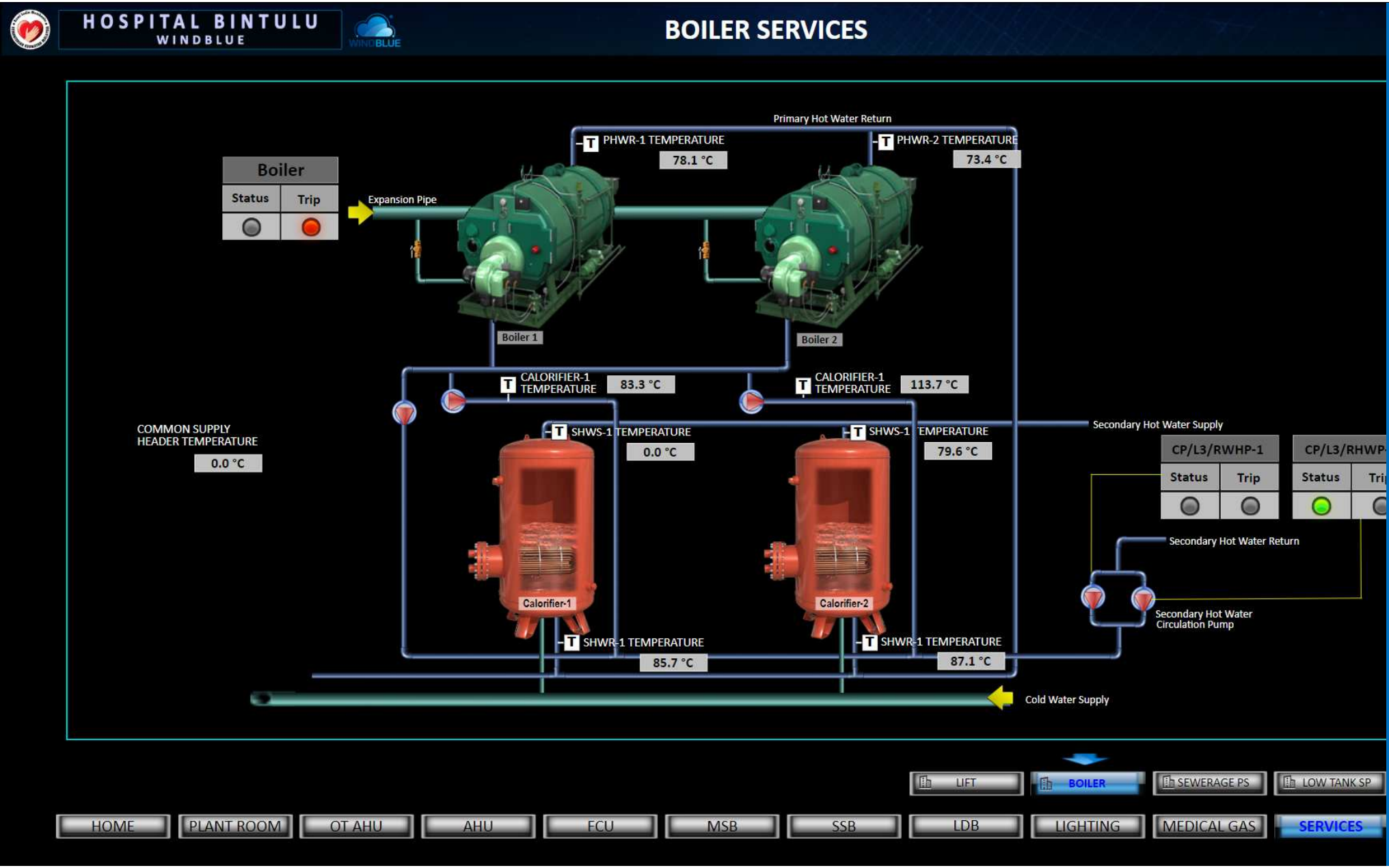
L0 Group A	DB/CLO/E1	DB/CLO/E2
L0 Group B	DB/CLO/N1	DB/CLO/N2

L0



HOME | PLANT ROOM | OT AHU | AHU | FCU | MSB | SSB | LDB | LIGHTING | MEDICAL GAS | SERVICES

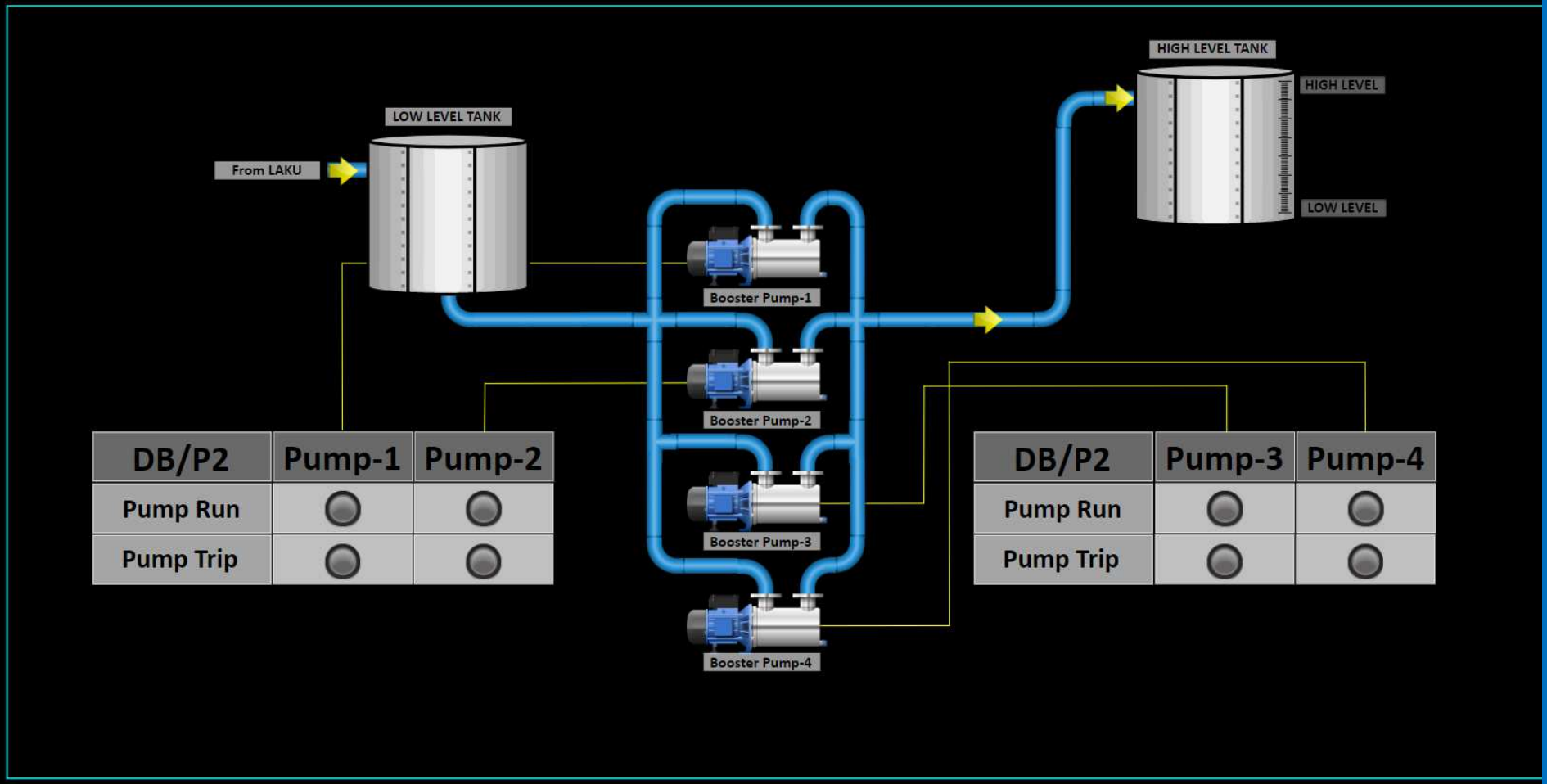
Lighting Control



Boiler Services

HOSPITAL BINTULU
WINDBLUE

LOW TANK PUMPING STATION SERVICES



DB/P2	Pump-1	Pump-2
Pump Run		
Pump Trip		

DB/P2	Pump-3	Pump-4
Pump Run		
Pump Trip		

LIFT | BOILER | SEWERAGE PS | LOW TANK SP

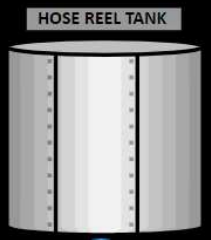
HOME | PLANT ROOM | OT AHU | AHU | FCU | MSB | SSB | LDB | LIGHTING | MEDICAL GAS | SERVICES

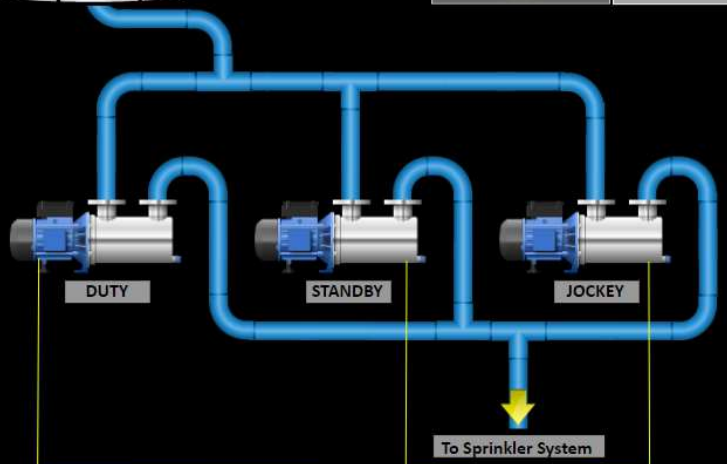
Tank & Pump Status

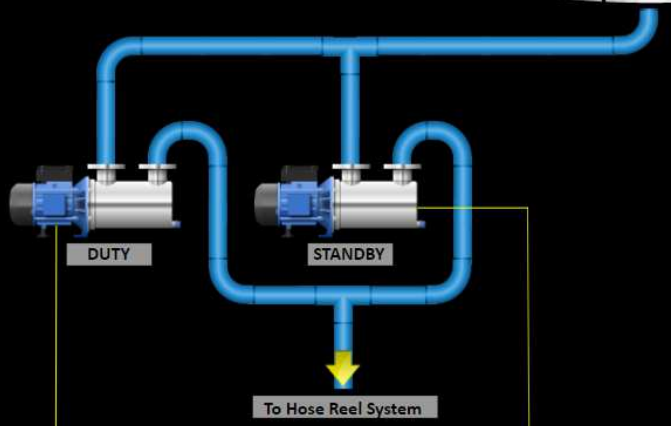
HOSPITAL BINTULU
WINDBLUE

FIRE FIGHTING PUMPING STATION SERVICES

SSB/P1				
FIRE TRIP	Voltage		Current	
	Red/Yellow	0.0 V	Red	0.0 A
MCCB STATUS	Red/Blue	0.0 V	Yellow	0.0 A
	Yellow/Blue	0.0 V	Blue	0.0 A







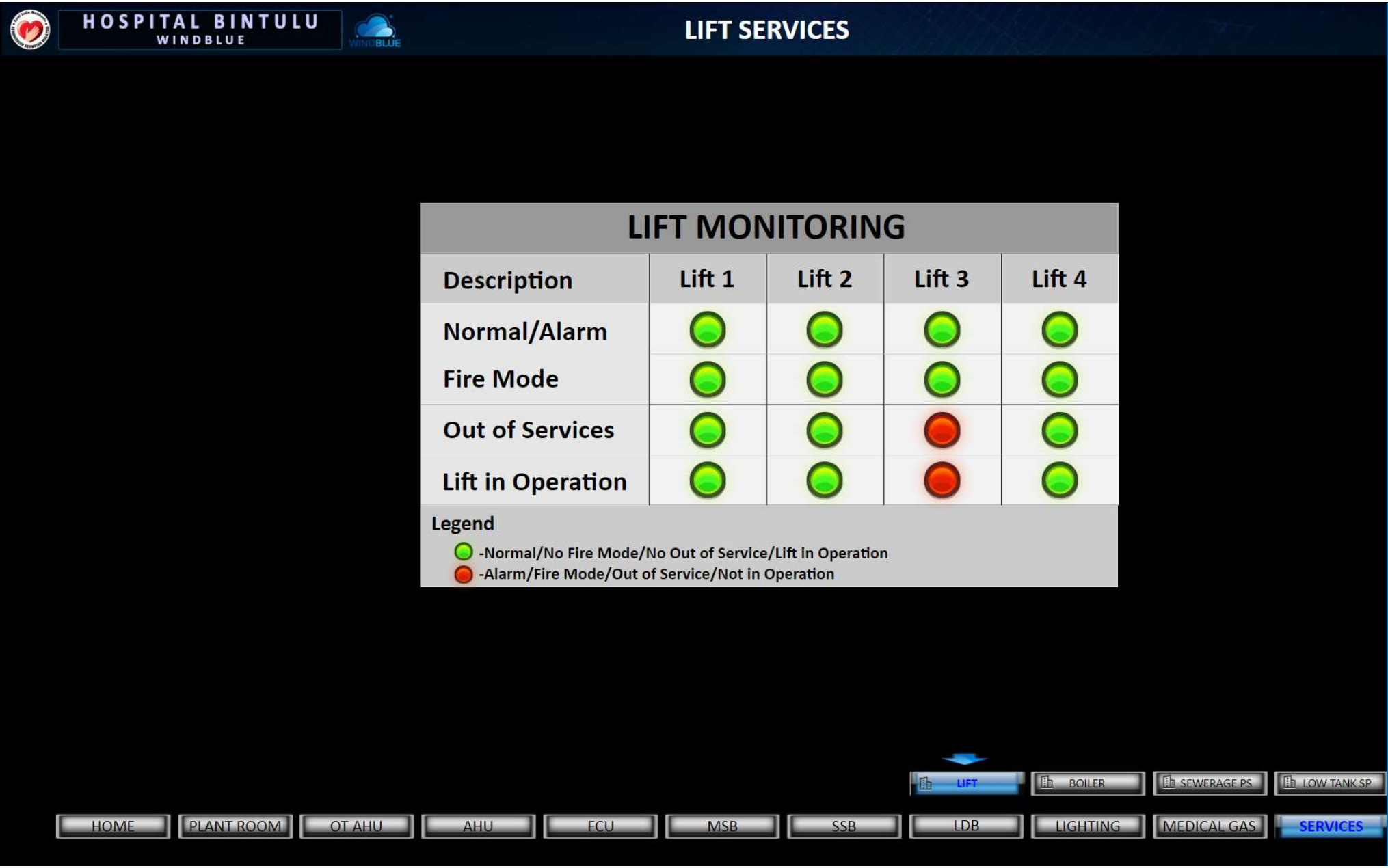
CP/SP	Duty	Standby	Jockey
Pump Run			
Pump Trip			

CP/HR	Duty	Standby
Pump Run		
Pump Trip		

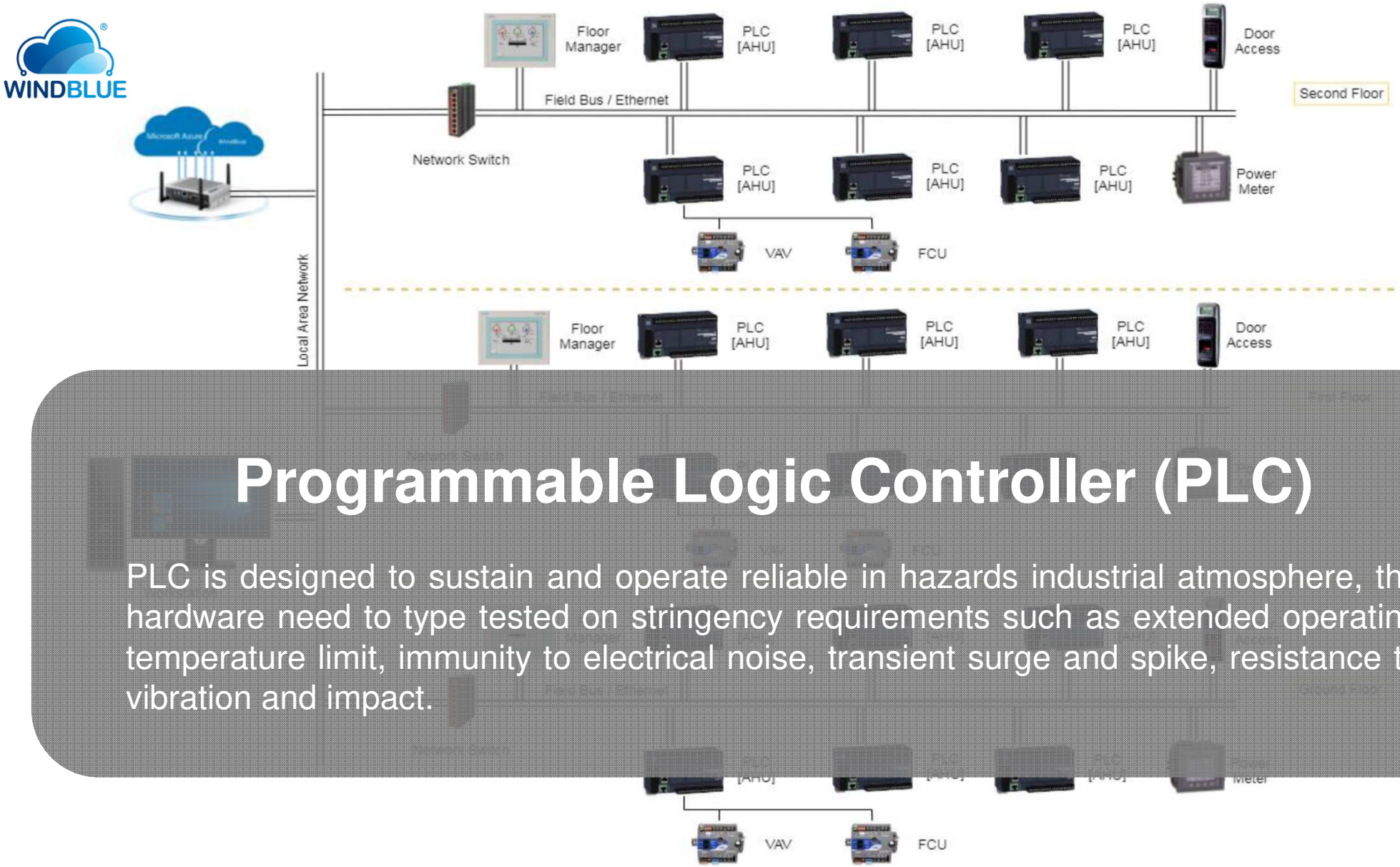
LIFT | BOILER | SEWERAGE PS | LOW TANK SP

HOME | PLANT ROOM | OT AHU | AHU | FCU | MSB | SSB | LDB | LIGHTING | MEDICAL GAS | SERVICES

Fire Fighting Pump

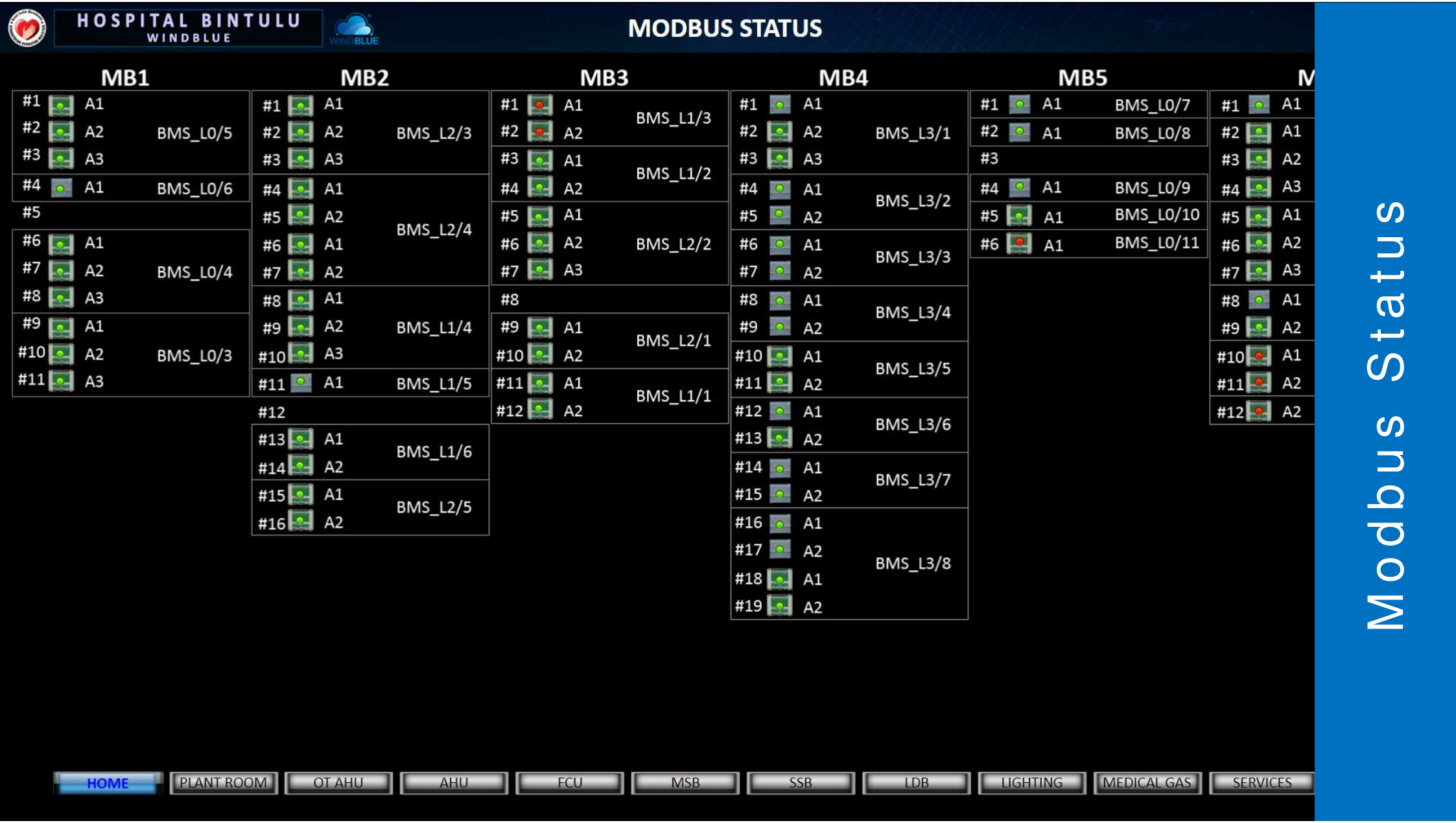


Lift Services



Programmable Logic Controller (PLC)

PLC is designed to sustain and operate reliable in hazards industrial atmosphere, the hardware need to type tested on stringency requirements such as extended operating temperature limit, immunity to electrical noise, transient surge and spike, resistance to vibration and impact.


HOSPITAL BINTULU
WINDBLUE
MODBUS STATUS
MB1
#1 A1
#2 A2
#3 A3
BMS_L0/5
#4 A1
BMS_L0/6
#5
#6 A1
#7 A2
#8 A3
BMS_L0/4
#9 A1
#10 A2
#11 A3
BMS_L0/3
MB2
#1 A1
#2 A2
#3 A3
BMS_L2/3
#4 A1
#5 A2
#6 A1
#7 A2
BMS_L2/4
#8 A1
#9 A2
#10 A3
BMS_L1/4
#11 A1
BMS_L1/5
#12
#13 A1
#14 A2
BMS_L1/6
#15 A1
#16 A2
BMS_L2/5
MB3
#1 A1
#2 A2
BMS_L1/3
#3 A1
#4 A2
BMS_L1/2
#5 A1
#6 A2
#7 A3
BMS_L2/2
#8
#9 A1
#10 A2
BMS_L2/1
#11 A1
#12 A2
BMS_L1/1
MB4
#1 A1
#2 A2
#3 A3
BMS_L3/1
#4 A1
#5 A2
BMS_L3/2
#6 A1
#7 A2
BMS_L3/3
#8 A1
#9 A2
BMS_L3/4
#10 A1
#11 A2
BMS_L3/5
#12 A1
#13 A2
BMS_L3/6
#14 A1
#15 A2
BMS_L3/7
#16 A1
#17 A2
#18 A1
#19 A2
BMS_L3/8
MB5
#1 A1
BMS_L0/7
#2 A1
BMS_L0/8
#3
#4 A1
BMS_L0/9
#5 A1
BMS_L0/10
#6 A1
BMS_L0/11
M
#1 A1
#2 A1
#3 A2
#4 A3
#5 A1
#6 A2
#7 A3
#8 A1
#9 A2
#10 A1
#11 A2
#12 A2
HOME
PLANT ROOM
OT AHU
AHU
FCU
MSB
SSB
LDB
LIGHTING
MEDICAL GAS
SERVICES
Modbus Status

HOSPITAL BINTULU
WINDBLUE

CENTRAL MONITORING DISPLAY FOR MEDICAL GAS SYSTEM

LEVEL 0		LEVEL 1		LEVEL 2		LEVEL 2		LEVEL
MEDICAL AIR COMPRESSOR (CP/MA)		OPERATING THEATRE 1 (GAP/A&E/OT)		OPERATING THEATRE 1 (GAP/OT/L2)		ICU WEST (AVSUM/ICU/CCU)		SCN ISOLATION & 6 COT V
SYSTEM NORMAL		SYSTEM NORMAL		SYSTEM NORMAL		SYSTEM NORMAL		SYSTEM NORMAL
PRESSURE FAULT		OYXGEN PRESSURE LOW		OYXGEN PRESSURE LOW		OYXGEN PRESSURE LOW		OYXGEN PRESSURE LOW
RESERVE FAULT		NITROUS OXIDE PRESSURE LOW		NITROUS OXIDE PRESSURE LOW		NITROUS OXIDE PRESSURE LOW		AIR PRESSURE LOW
PLANT EMERGENCY		AIR PRESSURE LOW		AIR 4 BAR PRESSURE LOW		VACUUM PRESSURE FAULT		VACUUM PRESSURE FAULT
PLANT FAULT		VACUUM PRESSURE FAULT		AIR 7 BAR PRESSURE LOW				
				VACUUM PRESSURE FAULT				
NITROUS OXIDE CYLINDERS (CP/N2O)		OPERATING THEATRE 2 (GAP/A&E/OT)		OPERATING THEATRE 2 (GAP/OT/L2)		ICU WEST & CCU (AVSUM/ICU/CCU)		SCN 6 COT EAST (AVSUM/
SYSTEM NORMAL		SYSTEM NORMAL		SYSTEM NORMAL		SYSTEM NORMAL		SYSTEM NORMAL
PRESSURE FAULT		OYXGEN PRESSURE LOW		OYXGEN PRESSURE LOW		OYXGEN PRESSURE LOW		OYXGEN PRESSURE LOW
RESERVE FAULT		NITROUS OXIDE PRESSURE LOW		NITROUS OXIDE PRESSURE LOW		AIR PRESSURE LOW		AIR PRESSURE LOW
CHANGE CYLINDER		AIR PRESSURE LOW		AIR PRESSURE LOW		VACUUM PRESSURE FAULT		VACUUM PRESSURE FAULT
CHANGE CYLINDER IMMEDIATELY		VACUUM PRESSURE FAULT		VACUUM PRESSURE FAULT				
OXYGEN SUPPLY (CP/O2)		A&E DAY WARD (GAP/A&E/OT)		OPERATING THEATRE 3 (GAP/OT/L2)		LABOUR-SOUTH (AVSUM/LABOUR)		
SYSTEM NORMAL		SYSTEM NORMAL		SYSTEM NORMAL		SYSTEM NORMAL		
PRESSURE FAULT		OYXGEN PRESSURE LOW		OYXGEN PRESSURE LOW		OYXGEN PRESSURE LOW		
LIQUID O2 LEVEL LOW		AIR PRESSURE LOW		NITROUS OXIDE PRESSURE LOW		NITROUS OXIDE PRESSURE LOW		
CHANGE CYLINDER		VACUUM PRESSURE FAULT		AIR PRESSURE LOW		AIR PRESSURE LOW		
REFILL LIQUID O2 IMMEDIATELY				VACUUM PRESSURE FAULT		VACUUM PRESSURE FAULT		
VACUUM SYSTEM (CP/V)				RECOVERY (GAP/OT/L2)		CP/MAT/L2		
SYSTEM NORMAL				SYSTEM NORMAL		SYSTEM NORMAL		
PLANT FAULT				OYXGEN PRESSURE LOW		CHANGE CYLINDER		
PLANT EMERGENCY				AIR PRESSURE LOW		CHANGE IMMEDIATELY		
PRESSURE FAULT				VACUUM PRESSURE FAULT		RESERVE FAULT		
SPARE						PRESSURE FAULT		

HOME | PLANT ROOM | OT AHU | AHU | FCU | MSB | SSB | LDB | LIGHTING | MEDICAL GAS | SERVICES

Medical Gas System

WindBlue IoT Revolution

- Internet of Things (IoT) is the network of physical devices embeded with electronics, sofware sensors & network connectivity which enable this objects to exchange data. Data recording and data analysis made easy.
- WindBlue is the first vendor implement OT solutions into Hospital OT in Hvac at Hospital Melaka, Kuala Terengganu, Kepala Batas & Kangar

Alarm Records

Alarm Record

* Maximum Points: 100 * Contain Boundary Value: * Time Frame: 2019-11-01 10:52:49 ~ 2019-11-01 11:52:49

Query | Alarm | Operate | Reset | Download

ID	TimeStamp	Content
1	2019-11-01 11:46:15	Normal@MC1.CP.AV_SUM_ICU_CCU.ICU_WEST_DIN_O2_Pres_Low:0
2	2019-11-01 11:46:15	Alarm@MC1.CP.AV_SUM_ICU_CCU.ICU_WEST_DIN_Air_Pres_Low:1
3	2019-11-01 11:46:15	Fault@MC1.CP.AV_SUM_ICU_CCU.ICU_WEST_DIN_Vacuum_Pres_Fault:1
4	2019-11-01 11:46:15	Alarm@MC1.CP.AV_SUM_ICU_CCU.ICU_EAST_CCU_DIN_Air_Pres_Low:1
5	2019-11-01 11:46:15	Fault@MC1.CP.AV_SUM_ICU_CCU.ICU_EAST_CCU_DIN_Vacuum_Pres_Fault:1
6	2019-11-01 11:46:15	Normal@MC1.CP.AV_SUM_SCN.SCN_ISO_6COT_WEST_DIN_O2_Pres_Low:0
7	2019-11-01 11:46:15	Alarm@MC1.CP.AV_SUM_SCN.SCN_ISO_6COT_WEST_DIN_Air_Pres_Low:1
8	2019-11-01 11:46:15	Fault@MC1.CP.AV_SUM_SCN.SCN_ISO_6COT_WEST_DIN_Vacuum_Pres_Fault:1
9	2019-11-01 11:46:15	Normal@MC1.CP.AV_SUM_SCN.SCN_6COT_EAST_DIN_O2_Pres_Low:0
10	2019-11-01 11:46:15	Alarm@MC1.CP.GAP_OT_L2.OT2_DIN_Air_Pres_Low:1

< 1 2 3 4 5 ...

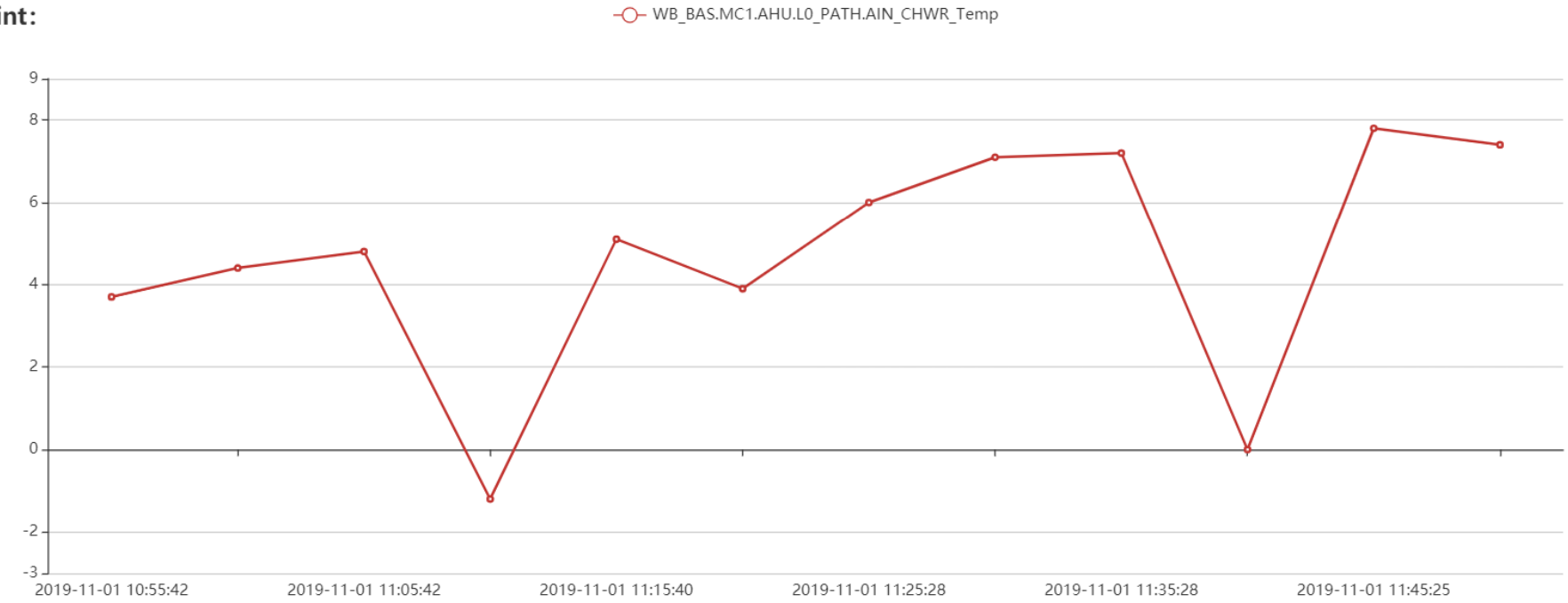
Query History

Storage Point: Select WB_BAS.MC1.AHU.L0_PATH.AIN_CHWR_Temp ×

* Maximum Points: 100 * Contain Boundary Value: * Time Frame: 2019-11-01 10:51:50 ~ 2019-11-01 11:51:50 Query Reset Download

Storage Point:

Total: 12



Data History

SCHEDULER

No	Scheduler Name	Enable	From time	To time	Action	Day							Update
						Mon	Tue	Wed	Thu	Fri	Sat	Sun	
1	Corridor Lighting L0 Group A	ON	5 : 45	18 : 0	OFF	✓	✓	✓	✓	✓	✓	✓	EDIT
2	Corridor Lighting L0 Group B	ON	5 : 45	18 : 0	OFF	✓	✓	✓	✓	✓	✓	✓	EDIT
3	Corridor Lighting L1 Group A	ON	5 : 45	18 : 0	OFF	✓	✓	✓	✓	✓	✓	✓	EDIT
4	Corridor Lighting L1 Group B	ON	5 : 45	18 : 0	OFF	✓	✓	✓	✓	✓	✓	✓	EDIT
5	Corridor Lighting L2 Group A	ON	5 : 45	18 : 0	OFF	✓	✓	✓	✓	✓	✓	✓	EDIT
6	Corridor Lighting L2 Group B	ON	5 : 45	18 : 0	OFF	✓	✓	✓	✓	✓	✓	✓	EDIT
7	AHU L0 PATH	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
8	AHU L1 ADM	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
9	AHU L3 CSSD	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
10	AHU L3 DCC	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
11	AHU L3 ICU CCU	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
12	AHU L3 IMAGING	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
13	AHU L3 LAB DEL	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
14	AHU L3 MAJOR OT1	OFF	0 : 0	0 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
15	AHU L3 MAJOR OT2	OFF	0 : 0	0 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
16	AHU L3 MAJOR OT3	OFF	0 : 0	0 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
17	AHU L3 MINOR OT1	OFF	0 : 0	0 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
18	AHU L3 MINOR OT2	OFF	0 : 0	0 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
19	AHU L3 SCN	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
20	AHU L3 RECOVERY	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
21	AHU L3 MED	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
22	AHU L3 MOR	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
23	AHU L3 O&G	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT
24	AHU L3 SURG	OFF	8 : 0	18 : 0	OFF	✗	✗	✗	✗	✗	✗	✗	EDIT

Scheduler and Setting

WindBlue BMS and Beyond

In the near furure, we are expanding our modules to door access security control, e-ticketing system, waste management and indoor air quality monitoring.

Expandable Features

HOSPITAL BINTULU
WINDBLUE

CCTV

PLANT ROOM

CCTV2

CCTV3

CCTV4

HOME | PLANT ROOM | OT AHU | AHU | FCU | MSB | SSB | LDB | LIGHTING | MEDICAL GAS | SERVICES

CCTV Monitoring

The Making of Hospital Bintulu WindBlue BMS

WindBlue is about Research, Development, Education and Developing New Ideas.

We built a Great Team because we Respect,
Trust and Care for each other

Big Dreams + Hardwork = Ultimate Success

Hospital Bintulu is Ready for the Next Level

Hospital Jasin is Ready for the Next Level

Hospital Sultanah Nur Zahirah is Ready for the Next Level

Perbadanan Harta Intelek Malaysia
Intellectual Property Corporation of Malaysia

TRADE MARKS ACT 1976
TRADE MARKS REGULATIONS 1997

CERTIFICATE OF REGISTRATION
(Regulation 56)

WINDBLUE

Trade mark no : **2017005191**

To : **Houkinyau Sdn. Bhd.**

I HEREBY CERTIFY THAT under the provisions of the Trade Marks Act 1976 and the Trade Marks Regulations 1997, the above-numbered trade mark has been registered in your name as proprietor of the said trade mark in the Register for a period of ten (10) years from 17/05/2017 to 17/05/2027 in Class 42 in respect of the following services:

DESIGN AND DEVELOPMENT OF COMPUTER HARDWARE AND SOFTWARE; ALL INCLUDED IN CLASS 42.

(DATO' SHAMSIAH KAMARUDDIN)
REGISTRAR OF TRADE MARKS
MALAYSIA

DATE ISSUED: 25/01/2018

Perbadanan Harta Intelek Malaysia
Intellectual Property Corporation of Malaysia

TRADE MARKS ACT 1976
TRADE MARKS REGULATIONS 1997

CERTIFICATE OF REGISTRATION
(Regulation 56)

WINDBLUE

Trade mark no : **2017005190**

To : **HOUKINYAU SDN. BHD.**

I HEREBY CERTIFY THAT under the provisions of the Trade Marks Act 1976 and the Trade Marks Regulations 1997, the above-numbered trade mark has been registered in your name as proprietor of the said trade mark in the Register for a period of ten (10) years from 17/05/2017 to 17/05/2027 in Class 9 in respect of the following goods:

DATA PROCESSING SOFTWARE; COMPUTER SOFTWARE; ALL INCLUDED IN CLASS 9.

(DATO' SHAMSIAH KAMARUDDIN)
REGISTRAR OF TRADE MARKS
MALAYSIA

DATE ISSUED: 30/01/2018

Perbadanan Harta Intelek Malaysia Certificate


WINDBLUE
Thank You