





# HCL Plant Control System

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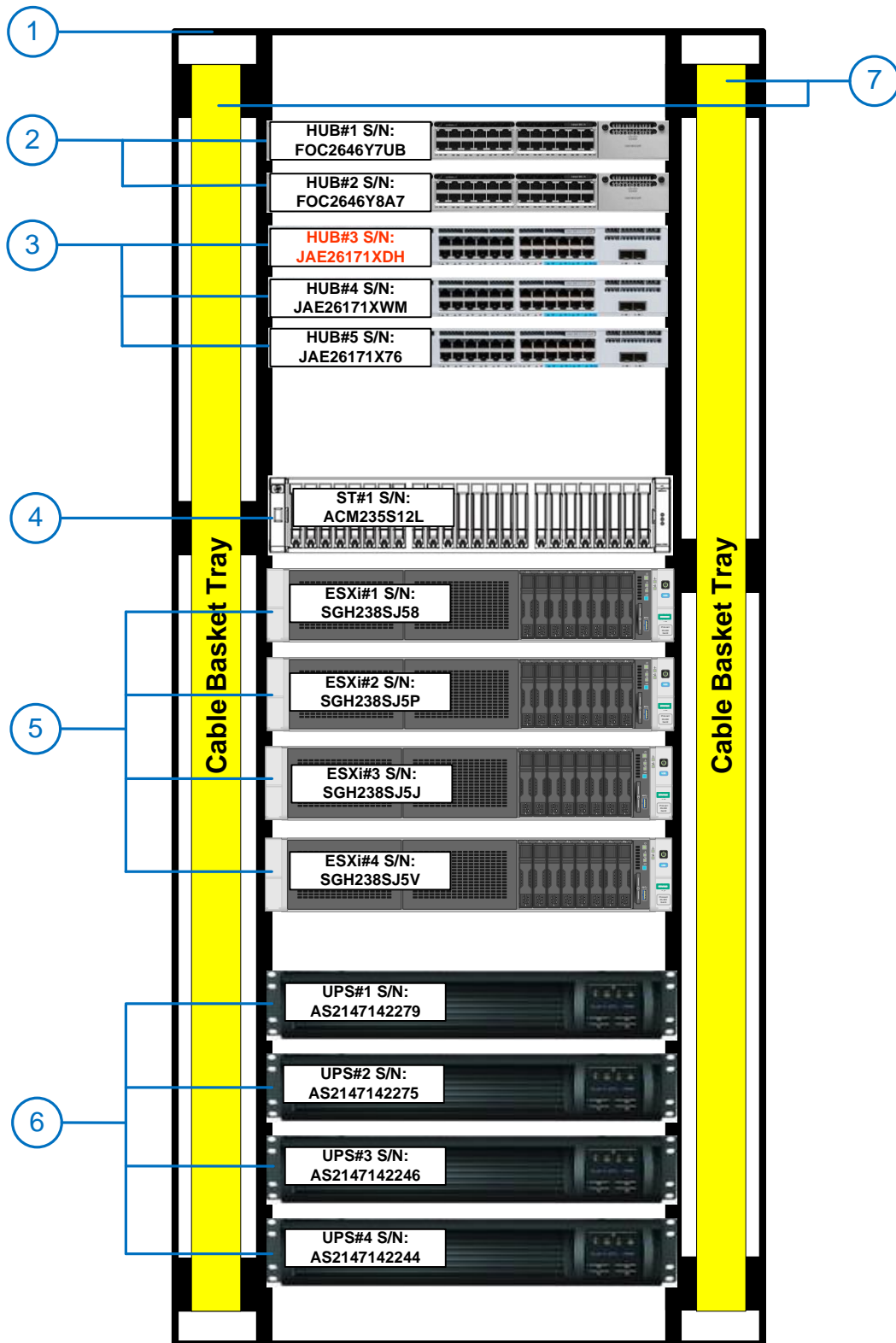
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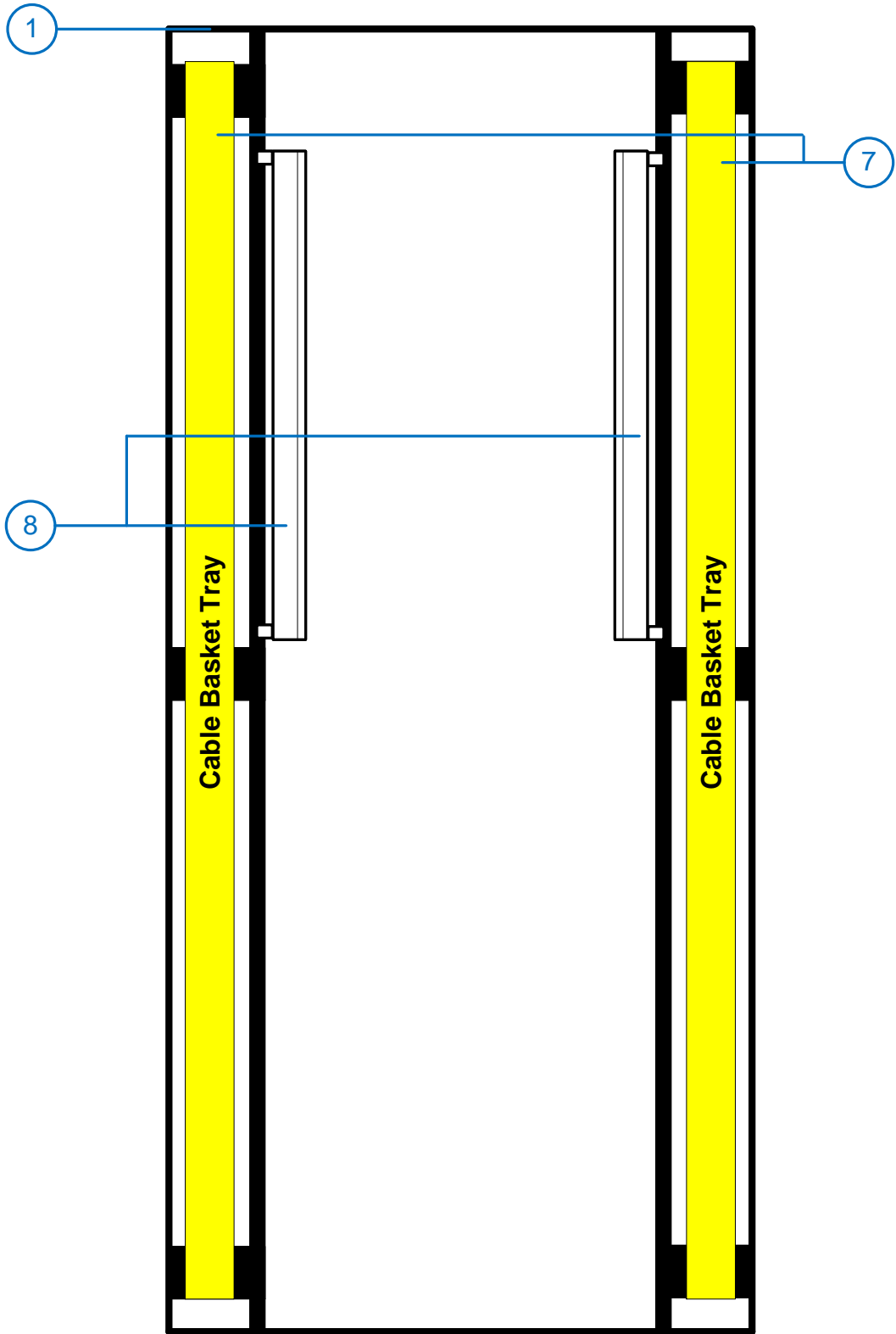
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# FRONT VIEW



	Creation by :	Foster	Date :	06-01-2023	Title :  Rack Server Front View	REV.	Date	Description
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	Project Name : HCL Plant Control System							

REAR VIEW



**FOSTER**  
ENGINEERING

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Title :  
  
Rack Server Rear View

REV.	Date	Description
B1	06-01-2023	Initial Issue




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Project Name : HCL Plant Control System

Page number : 5/-

## Hardware Equipment List



Item No.	Equipment Name	Model Number	Serial Number	Description	Qt'y
1	Rack Server	HP-8042	N/A	19' High Perforation export Server Rack 42U 80x100 cm.	1
	Ventilating fan	VA-6602	N/A	Description	1
2	HUB#1	Catalyst 9300	FOC2646Y7UB	CISCO Switch HUB 24 Port, P/N : C9300-24T-E	1
	HUB#2	Catalyst 9300	FOC2646Y8A7	CISCO Switch HUB 24 Port, P/N : C9300-24T-E	1
3	HUB#3	Catalyst 9200L	JAE26171XDH	CISCO Switch HUB 24 Port, P/N : C9200L-24T-4G-E	1
	HUB#4	Catalyst 9200L	JAE26171XWM	CISCO Switch HUB 24 Port, P/N : C9200L-24T-4G-E	1
	HUB#5	Catalyst 9200L	JAE26171X76	CISCO Switch HUB 24 Port, P/N : C9200L-24T-4G-E	1
4	ST#1	MSA 2060	ACM235S12L	HPE MSA 2060 16Gb FC SFF Storage, P/N : R0Q74A	1
		HPE MSA 1.92TB	N/A	HPE MSA 1.92TB SAS 12G Read Intensive SFF (2.5in) M2	10
		Fibre Transceiver	N/A	HPE MSA 16Gb Short Wave Fibre Channel SFP+ 4-pack Transceiver, P/N : C8R24B	2
5	ESXi#1	HPE ProLiant DL385 Gen10+ 8SFF CTO	SGH238SJ58	HP Server AMD EPYC 7543 2.8GHz 32-core P/N : P38411-B21	1
	ESXi#2	HPE ProLiant DL385 Gen10+ 8SFF CTO	SGH238SJ5P	HP Server AMD EPYC 7543 2.8GHz 32-core P/N : P38411-B21	1
	ESXi#3	HPE ProLiant DL385 Gen10+ 8SFF CTO	SGH238SJ5J	HP Server AMD EPYC 7543 2.8GHz 32-core P/N : P38411-B21	1
	ESXi#4	HPE ProLiant DL385 Gen10+ 8SFF CTO	SGH238SJ5V	HP Server AMD EPYC 7543 2.8GHz 32-core P/N : P38411-B21	1
6	UPS#1	SMC RM 2U	AS2147142279	APC Smart-UPS C 3000, P/N : SMC3000RMI2U	1
	UPS#2	SMC RM 2U	AS2147142275	APC Smart-UPS C 3000, P/N : SMC3000RMI2U	1
	UPS#3	SMC RM 2U	AS2147142246	APC Smart-UPS C 3000, P/N : SMC3000RMI2U	1
	UPS#4	SMC RM 2U	AS2147142244	APC Smart-UPS C 3000, P/N : SMC3000RMI2U	1
7	Cable Tray	N/A	N/A	Stainless Steel Basket Cable Trays	4
8	BPA-6612	N/A	N/A	AC. Power Distribution 12 Universal Outlet	2

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	Project Name : HCL Plant Control System							

## Software List

Item No.	Part Number	Description	Qt'y
1	VS7-STD-C	VMware vSphere 7 Standard for 1 processor	8
	VCS7-STD-C	VMware vCenter Server 7 Standard for vSphere 7 (Per Instance)	1

2	359-06866	SQLCAL 2017 SNGL OLP NL UshrCAL	6
	228-11477	SQLSvrStd 2017 SNGL OLP NL	2
3	R18-05768	WinSvrCAL 2019 SNGL OLP NL UshrCAL	1
	9EM-00652	WinSvrSTDCore 2019 SNGL OLP 16Lic NL CoreLic	5

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 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				<b>Page number : 8/-</b>			
	Project Name : HCL Plant Pre-Weight System							

# VMware

## License Purchase Information

VMware Order Number: 25687108

License Confirm Date: JULY 06, 2022

VST ECS Purchase Order: 20220701083

Reseller:

**IT Focus Co.,Ltd**

Reseller Ref: POSW6507002L



Issued to:

**Unilever Thai Holdings Ltd**

Ladkrabung Industrial Estate 63 Moo 4 Chalongkrung Road, Lamplatiw, Lardkrabung,  
Bangkok 10520

**Product(s) Purchased:**

Product	SKU	Qty.
VMware vSphere 7 Standard for 1 processor	VS7-STD-C	8
Serial Numbers/Activation Code (s):	M168K-8MH1J-P8VG8-05CKP-3NN10	
VMware vCenter Server 7 Standard for vSphere 7 (Per Instance)	VCS7-STD-C	1
Serial Numbers/Activation Code (s):	0N080-A90D4-68VGA-0J9RP-21Q00	

	Creation by :	Foster	Date :	06-01-2023	Title :  VMWare Licenses	REV.	Date	Description
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Project Name :	HCL Plant Pre-Weight System
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**Title :**

## Microsoft Licenses

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# Sever Host System Overview

	Creation by :	Foster	Date :	06-01-2023	 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited	REV.	Date	Description	Title : Server Host System Overview Cover Sheet
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## System IP Address Summary List

Item No.	Equipment Name	IP Address	Subnet mask	Gateway	DNS server	Description
1	RBS_SERVER	172.16.1.1	255.255.255.0	172.16.1.254	N/A	
2	RBS_IB01	172.16.1.12	255.255.255.0	172.16.1.254	N/A	
3	RBS_PW01	172.16.1.36	255.255.255.0	172.16.1.254	N/A	
4	RBS_SC01	172.16.1.41	255.255.255.0	172.16.1.254	N/A	
5	RBS_SC02	172.16.1.42	255.255.255.0	172.16.1.254	N/A	
6	SCADA-1	172.16.1.71	255.255.255.0	172.16.1.254	N/A	Client for monitoring RBS_SC01
7	SCADA-2	172.16.1.72	255.255.255.0	172.16.1.254	N/A	Client for monitoring RBS_SC02
8	Server	172.16.1.75	255.255.255.0	172.16.1.254	N/A	Client for monitoring RBS_SERVER
9	InBatch	172.16.1.76	255.255.255.0	172.16.1.254	N/A	Client for monitoring RBS_IB01
10	Pre-Weight1	172.16.1.77	255.255.255.0	172.16.1.254	N/A	Client for monitoring Pre-Weight system
11	Host#1 / Esx#1	172.16.1.211	255.255.255.0	172.16.1.254	N/A	Managemant IP
		172.16.1.61	255.255.255.0	172.16.1.254	N/A	iLO Port IP
12	Host#2 / Esx#2	172.16.1.212	255.255.255.0	172.16.1.254	N/A	Managemant IP
		172.16.1.62	255.255.255.0	172.16.1.254	N/A	iLO Port IP
13	Host#3 / Esx#3	172.16.1.213	255.255.255.0	172.16.1.254	N/A	Managemant IP
		172.16.1.63	255.255.255.0	172.16.1.254	N/A	iLO Port IP
14	vCenter	172.16.1.214	255.255.255.0	172.16.1.254	N/A	
15	ST#1	172.16.1.215	255.255.255.0	172.16.1.254	N/A	(P/N: 81-00000122-01-01) HP SAN Storage Port 1
		172.16.1.216	255.255.255.0	172.16.1.254	N/A	(P/N: 81-00000122-01-01) HP SAN Storage Port 2
16	HUB#5	172.16.1.219	255.255.255.0	172.16.1.254	N/A	PLC HUB
17	HUB#4	172.16.1.220	255.255.255.0	172.16.1.254	N/A	Pre-Weight HUB
18	HUB#3	172.16.1.221	255.255.255.0	172.16.1.254	N/A	SCADA HUB
19	HUB#1	N/A	N/A	N/A	N/A	Gate Way HUB
20	HUB#2	N/A	N/A	N/A	N/A	Gate Way HUB
21	M015-1	172.16.2.70	255.255.255.0	172.16.2.254	N/A	NaOH Supply Pump Inverter
22	WT015-1	172.16.2.80	255.255.255.0	172.16.2.254	N/A	NaOH Load Cell Controller
23	OIT-MX081	172.16.2.81	255.255.255.0	172.16.2.254	N/A	MX081 Touch Screen
24	U3	172.16.2.90	255.255.255.0	172.16.2.254	N/A	PLC Utility & Mixing Line#3
25	L12	172.16.2.91	255.255.255.0	172.16.2.254	N/A	PLC Mixing Line#1 & 2
26	L4	172.16.2.94	255.255.255.0	172.16.2.254	N/A	PLC Mixing Line#4
27	FP100	172.16.2.100	255.255.255.0	172.16.2.254	N/A	Flow Plate Touch Screen
28	OIT-MX101	172.16.2.111	255.255.255.0	172.16.2.254	N/A	MX101 Touch Creen
29	OIT-MX103	172.16.2.113	255.255.255.0	172.16.2.254	N/A	MX103 & MX104 Touch Creen
30	OIT-MX105	172.16.2.115	255.255.255.0	172.16.2.254	N/A	MX103 & MX104 Touch Creen
31	OIT-MX201	172.16.2.121	255.255.255.0	172.16.2.254	N/A	MX201 Touch Creen

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	Project Name : HCL Plant Pre-Weight System							


## System IP Address Summary List

Item No.	Equipment Name	IP Address	Subnet mask	Gateway	DNS server	Description
32	OIT-MX203	172.16.2.123	255.255.255.0	172.16.2.254	N/A	MX203 & MX204 Touch Creen
33	OIT-MX205	172.16.2.125	255.255.255.0	172.16.2.254	N/A	MX205 & MX206 Touch Creen
34	OIT-MX301	172.16.2.131	255.255.255.0	172.16.2.254	N/A	MX301 Touch Creen
35	OIT-MX303-1	172.16.2.133	255.255.255.0	172.16.2.254	N/A	MX303 Vessel Touch Creen
36	OIT-MX303-2	172.16.2.137	255.255.255.0	172.16.2.254	N/A	MX303 In-Line Mixer Touch Screen
37	OIT-MX304	172.16.2.134	255.255.255.0	172.16.2.254	N/A	MX304 Touch Screen
38	OIT-MX305	172.16.2.135	255.255.255.0	172.16.2.254	N/A	MX305 & MX306 Touch Creen
39	Pre-Weight2	172.16.4.77	255.255.255.0	172.16.4.254	N/A	Client for monitoring PreWeight system
40	Inventory	172.16.4.78	255.255.255.0	172.16.4.254	N/A	Client for monitoring Inventory system
41	OIT-PWS-01	172.16.4.201	255.255.255.0	172.16.4.254	N/A	Operating interface terminal for Pre-weight scale#1
42	OIT-PWS-02	172.16.4.202	255.255.255.0	172.16.4.254	N/A	Operating interface terminal for Pre-weight scale#2
43	OIT-PWS-03	172.16.4.203	255.255.255.0	172.16.4.254	N/A	Operating interface terminal for Pre-weight scale#3
44	OIT-PWS-04	172.16.4.204	255.255.255.0	172.16.4.254	N/A	Operating interface terminal for Pre-weight scale#4
45	PNT-PWS-01	172.16.4.211	255.255.255.0	172.16.4.254	N/A	Barcode Printer for Pre-weight scale#1
46	PNT-PWS-02	172.16.4.212	255.255.255.0	172.16.4.254	N/A	Barcode Printer for Pre-weight scale#2
47	PNT-PWS-03	172.16.4.213	255.255.255.0	172.16.4.254	N/A	Barcode Printer for Pre-weight scale#3
48	PNT-PWS-04	172.16.4.214	255.255.255.0	172.16.4.254	N/A	Barcode Printer for Pre-weight scale#4
49	PNT-INV-01	172.16.4.215	255.255.255.0	172.16.4.254	N/A	Barcode Printer for Inventory system
50	WT-PWS-01	172.16.4.221	255.255.255.0	N/A	N/A	Load cell for Pre-weight scale#1
51	WT-PWS-02	172.16.4.222	255.255.255.0	N/A	N/A	Load cell for Pre-weight scale#2
52	WT-PWS-03	172.16.4.223	255.255.255.0	N/A	N/A	Load cell for Pre-weight scale#3
53	WT-PWS-04	172.16.4.224	255.255.255.0	N/A	N/A	Load cell for Pre-weight scale#4
54	Veeam	172.16.5.218	255.255.255.0	N/A	8.8.8.8	Veeam Backup OS
55	L4_EN2T_RIO	172.16.94.1	N/A	N/A	N/A	PLC Mixing Line#4 Ethernet Card for Remote I/O
56	CP401_01	172.16.94.2	N/A	N/A	N/A	CP401 Mixing Line#4 Remote I/O number 1
57	CP402_01	172.16.94.3	N/A	N/A	N/A	CP402 Mixing Line#4 Remote I/O number 2
58	CP403_01	172.16.94.4	N/A	N/A	N/A	CP403 Mixing Line#4 Remote I/O number 3
59	CP403_02	172.16.94.5	N/A	N/A	N/A	CP403 Mixing Line#4 Remote I/O number 4
60	WT401_01	172.16.94.41	255.255.255.0	N/A	N/A	MX401 Weight Transmitter
61	WT403_01	172.16.94.43	255.255.255.0	N/A	N/A	MX403 Weight Transmitter
62	WT404_01	172.16.94.44	255.255.255.0	N/A	N/A	MX404 Weight Transmitter
63	OIT-MX401	172.16.94.141	255.255.255.0	N/A	N/A	MX401 Touch Screen
64	OIT-MX403	172.16.94.143	255.255.255.0	N/A	N/A	MX403 Touch Screen
65	OIT-MX404	172.16.94.144	255.255.255.0	N/A	N/A	MX404 Touch Screen
66	OIT-MX405	172.16.94.145	255.255.255.0	N/A	N/A	MX405 Touch Screen
67	OIT-MX406	172.16.94.146	255.255.255.0	N/A	N/A	MX406 Touch Screen

<div><div>FOSTER</div><div>ENGINEERING</div></div>	Creation by :	Foster	Date :	06-01-2023	Title :  System IP Adress Summary List 2	REV.	Date	Description
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<div><div></div><div>Unilever</div><div>Unilever Thai Holding Limited</div></div>	Customer : Unilever Thai Holding Limited				Page number : 17/-			
	Project Name : HCL Plant Pre-Weight System							


## System IP Address Summary List (192.168.10.xxx)

Iteem NO.	Equiment Name	IP address	Subnet mask	Gateaway	DNS server	Description
1	NHC_SERVER	192.168.10.1	255.255.255.0	192.168.10.254	N/A	Server SCADA
2	NHC_IB01	192.168.10.11	255.255.255.0	192.168.10.254	N/A	VM INBATH
3	NHC_PW01	192.168.10.32	255.255.255.0	192.168.10.254	N/A	VM Pre-weigh
4	NHC_SC01	192.168.10.41	255.255.255.0	192.168.10.254	N/A	VM SCADA 1
5	NHC_SC02	192.168.10.42	255.255.255.0	192.168.10.254	N/A	VM SCADA 2
6	NHC_SC03	192.168.10.43	255.255.255.0	192.168.10.254	N/A	VM SCADA 3
7	NHC_SC04	192.168.10.44	255.255.255.0	192.168.10.254	N/A	VM SCADA 4
8	NHC_SC05	192.168.10.45	255.255.255.0	192.168.10.254	N/A	VM SCADA 5
9	NHC_SC06	192.168.10.46	255.255.255.0	192.168.10.254	N/A	VM SCADA 6
10	NHC_IO01	192.168.10.51	255.255.255.0	192.168.10.254	N/A	VM SCADA IO 1
11	NHC_IO02	192.168.10.52	255.255.255.0	192.168.10.254	N/A	VM SCADA IO 2
12	ESXi#1	192.168.10.61	255.255.255.0	192.168.10.254	N/A	ESXi#1 ILO Port
13	ESXi#2	192.168.10.62	255.255.255.0	192.168.10.254	N/A	ESXi#2 ILO Port
14	ESXi#3	192.168.10.63	255.255.255.0	192.168.10.254	N/A	ESXi#3 ILO Port
15	ESXi#4	192.168.10.64	255.255.255.0	192.168.10.254	N/A	ESXi#4 ILO Port
16	NHC_CL01	192.168.10.71	255.255.255.0	192.168.10.254	N/A	Thin Client Computer No. 01
17	NHC_CL02	192.168.10.72	255.255.255.0	192.168.10.254	N/A	Thin Client Computer No. 02
18	NHC_CL03	192.168.10.73	255.255.255.0	192.168.10.254	N/A	Thin Client Computer No. 03
19	NHC_CL04	192.168.10.74	255.255.255.0	192.168.10.254	N/A	Thin Client Computer No. 04
20	NHC_CL05	192.168.10.75	255.255.255.0	192.168.10.254	N/A	Thin Client Computer No. 05
21	NHC_CL06	192.168.10.76	255.255.255.0	192.168.10.254	N/A	Thin Client Computer No. 06
22	NHC_CL07	192.168.10.77	255.255.255.0	192.168.10.254	N/A	Thin Client Computer No. 07
23	NHC_REPORT	192.168.10.81	255.255.255.0	192.168.10.254	N/A	Thin Client Computer report
24	ESXi#1	192.168.10.211	255.255.255.0	192.168.10.254	N/A	Management
25	ESXi#2	192.168.10.212	255.255.255.0	192.168.10.254	N/A	Management
26	ESXi#3	192.168.10.213	255.255.255.0	192.168.10.254	N/A	Management
27	ESXi#4	192.168.10.214	255.255.255.0	192.168.10.254	N/A	Management
28	Vcenter	192.168.10.216	255.255.255.0	192.168.10.254	N/A	
29	Storage( ST #1)	192.168.10.217	255.255.255.0	192.168.10.254	N/A	SAN Storage (ST #1)
30	Storage( ST #1)	192.168.10.218	255.255.255.0	192.168.10.254	N/A	SAN Storage (ST #1)
31	DNS Server	192.168.10.219	255.255.255.0	192.168.10.254	N/A	
32	Engineering Computer	192.168.10.241	255.255.255.0	192.168.10.254	N/A	engineering service
33	Engineering Computer	192.168.10.242	255.255.255.0	192.168.10.254	N/A	engineering service
34	Engineering Computer	192.168.10.243	255.255.255.0	192.168.10.254	N/A	engineering service
35	Engineering Computer	192.168.10.244	255.255.255.0	192.168.10.254	N/A	engineering service
36	Engineering Computer	192.168.10.245	255.255.255.0	192.168.10.254	N/A	engineering service
37	VPN Computer	192.168.10.246	255.255.255.0	192.168.10.254	N/A	IP VPN
38	VPN Host	192.168.10.247	255.255.255.0	192.168.10.254	N/A	VPN Host
39	VPN Sharing	192.168.10.248	255.255.255.0	192.168.10.254	N/A	VPN service
40	VPN Sharing	192.168.10.249	255.255.255.0	192.168.10.254	N/A	VPN service
41	VPN Sharing	192.168.10.250	255.255.255.0	192.168.10.254	N/A	VPN service
42	HUB#3	192.168.10.251	255.255.255.0	192.168.10.254	N/A	WEB Browser Setting
43	HUB#4	192.168.10.252	255.255.255.0	192.168.10.254	N/A	WEB Browser Setting
44	HUB#5	192.168.10.253	255.255.255.0	192.168.10.254	N/A	WEB Browser Setting
45	server HUB cisco	192.168.10.254	255.255.255.0	192.168.10.254	N/A	WEB Browser Setting

<div>FOSTER ENGINEERING</div>	Creation by :	Foster	Date :	06-01-2023	Title :  System IP Adress Summary List 1	REV. B	Date	Description
	Checked by :	Foster	Date :	06-01-2023		1	06-01-2023	Initial Issue
	Approved by :	Jamra s	Date :	06-01-2023				
<div> Unilever Unilever Thai Holding Limited</div>	Customer : Unilever Thai Holding Limited							
	Project Name : HCL Plant Pre-Weight System				Page number : 16/-			


## System IP Address Summary List (192.168.11.xxx)

Iteem NO.	Equiment Name	IP address	Subnet mask	Gateway	DNS server	Description
1	PLC Utinity	192.168.11.150	255.255.255.0	192.168.11.254	N/A	This PLC Utinity
2	PLC Mixsing#1	192.168.11.151	255.255.255.0	192.168.11.254	N/A	This PLC PLC Mixsing#1
3	PLC Mixsing#3	192.168.11.153	255.255.255.0	192.168.11.254	N/A	This PLC PLC Mixsing#3
4	PLC Mixsing#5	192.168.11.155	255.255.255.0	192.168.11.254	N/A	This PLC PLC Mixsing#5
5	PLC Mixsing#6	192.168.11.156	255.255.255.0	192.168.11.254	N/A	This PLC PLC Mixsing#6
6	Server HUB cisco	192.168.11.254	255.255.255.0	192.168.11.254	N/A	WEB Browser Setting

<div>FOSTER</div> <div>ENGINEERING</div>	Creation by :	Foster	Date :	06-01-2023	Title :  System IP Address Summary List 1	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B 1	06-01-2023	Initial Issue
	Aproved by :	Jamra s	Date :	06-01-2023				
<div></div> <div>Unilever</div> <div>Unilever Thai Holding Limited</div>	Customer : Unilever Thai Holding Limited				Page number 16/- :			
	Project Name : HCL Plant Pre-Weight System							

## System IP Adress Summary List (192.168.12.xxx)

Iteem NO.	Equiment Name	IP address	Subnet mask	Gateaway	DNS server	Description
1	OIT-PWS-01	192.168.12.201	255.255.255.0	192.168.12.254	N/A	
2	OIT-PWS-02	192.168.12.202	255.255.255.0	192.168.12.254	N/A	
3	PNT-PWS-01	192.168.12.211	255.255.255.0	192.168.12.254	N/A	
4	PNT-INV-01	192.168.12.214	255.255.255.0	192.168.12.254	N/A	Barcode Printer at Inventory Room
5	NHC_CL09	192.168.12.215	255.255.255.0	192.168.12.254	N/A	Thin Client Computer No. 09
6	NHC_CL08	192.168.12.216	255.255.255.0	192.168.12.254	N/A	Thin Client Computer No. 08
7	WT-PWS-01	192.168.12.221	255.255.255.0	192.168.12.254	N/A	
8	WT-PWS-02	192.168.12.222	255.255.255.0	192.168.12.254	N/A	

<div>FOSTER ENGINEERING</div>	Creation by :	Foster	Date :	06-01-2023	Title :  System IP Adress Summary List 1	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
	Aproved by :	Jamra s	Date :	06-01-2023				
	Customer : Unilever Thai Holding Limited							
<div> Unilever Unilever Thai Holding Limited</div>	Project Name : HCL Plant Pre-Weight System				Page number : 16/-			



Server Host 1 : ESXi1.HCL  
IP : 192.168.10.211



1. CPU : 3.1 GHz 18 Cores x 2  
2. RAM : 192 GB  
3. HPE Stoarge : 11.38 TB  
4. Data Store1 (1) : 319 GB  
5. Host Name : ESXi1  
6. vmk0 / vSwitch0 : Management  
- VLAN ID : 1821  
- TCP/IP Stack : Default  
- Enabled services : Management  
- DHCP : Disable  
- IPv4 address : 172.16.1.211  
- Subnet mask : 255.255.255.0  
- Default gateway : 172.16.1.254

Host Configuration :

- Network Port 1 & 5 (Management)  
- Network Speed : 1,000 Mbps  
- IPv6 DHCP : Disabled  
- IPv6 auto-configuration : Enabled  
- IPv6 address : fe80::b67a:f1ff:fe3f:89c  
7. vmk1 / vSwitch1 : vMotion  
- TCP/IP Stack : Default  
- Enabled services : vMotion  
- DHCP Disable  
- IPv4 address : 10.0.0.1  
- Subnet mask : 255.255.255.0  
- Default gateway : 172.16.1.254  
- Network Port 2 & 6 (vMotion)  
- Network Speed : 1,000 Mbps

- IPv6 DHCP : Disabled  
- IPv6 auto-configuration : Disabled  
- IPv6 address : fe80::250:56ff:fe67:b38e  
8. vSwitch2 : Veeam Backup  
- VLAN ID : 1825  
- Network Port 3 & 7 (Management)  
- Network Speed : 1,000 Mbps  
9. Vmware Version : 6.7.0 Update 3 (Build 14320388)  
10. Client Version : 1.33.4 (Build 14093553)

vCenter.HCL



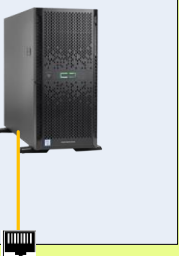
172.16.1.1

RBS\_IB01



172.16.1.11

RBS\_SC02



172.16.1.42

1. CPU:333 Mhz 4 Core  
2. Memory : 19 GB  
3. Host Name : vCenter.HCL  
4. Storage : 719.29 GB  
5. VLAN Network  
- Speed : 1,000 Mbps  
- Management IP: 192.168.10.211  
- ILO Port IP: 192.168.10.61  
- Subnet mask : 255.255.255.0  
- Gateway : 192.168.10.254  
6. Operating System (OS)  
- Guest OS : Other 3.x or later  
Linux (64-bit)

1. CPU : 18 Mhz 2 Core  
2. Memory:4 GB

1. CPU : 3.1 Ghz 16 Core  
2. RAM : 4 GB  
3. Hard Disk  
- C : 50 GB  
- D : 30 GB  
4. VDO Adapter 1 & 2 : 1024 x 768  
5. Computer Name : RBS\_SC02  
6. VLAN Network  
- Speed : 1,000 Mbps  
- IP Address : 172.16.1.42  
- Subnet mask : 255.255.255.0  
- Gateway : 172.16.1.254  
7. Operating System (OS)  
- Microsoft Widows XP Professional  
Version 2002 32 Bit  
Service pack 3.  
8. Application software  
- Wonderware :  
- InTouch Version 7,11,007,040924  
- InBatch Runtime Client 8.1 SP1  
(8,1,100,124)  
- Wonderware DA Server :  
DASABCIP Version 4.1 SP3  
- Microsoft SQL server Service Manager  
Version 8.00.194  
- Microsoft NetFramework 4.0



Creation by :	Foster	Date :	06-01-2023
Checked by :	Foster	Date :	06-01-2023
Aproved by :	Jamras	Date :	06-01-2023



Customer : Unilever Thai Holding Limited

Project Name : HCL Plant Pre-Weight System

REV.	Date	Description
B1	06-01-2023	Initial Issue

Title :  
Server Host 1:VMWARE  
ESXi-1

Page number : 18/-

## Server Host 2 : VMWARE ESXi 2

IP : 172.16.1.212



### Host Configuration :

1. CPU : 3.1 GHz 18 Cores x 2
2. RAM : 192 GB
3. HPE Storage : 11.38 TB
4. Data Store1 (1) : 319 GB.
5. Host Name : ESXi2
6. vmk0 / vSwitch0 : Management
  - VLAN ID : 1821
  - TCP/IP Stack : Default
  - Enabled services : Management
  - DHCP : Disable
  - IPv4 address : 172.16.1.212
  - Subnet mask : 255.255.255.0
  - Default gateway : 172.16.1.254

- Network Port 1 & 5 (Management)
- Network Speed : 1,000 Mbps
- IPv6 DHCP : Disabled
- IPv6 auto-configuration : Enabled
- IPv6 address : fe80::b67a:f1ff:fe3f:500
- 7. vmk1 / vSwitch1 : vMotion
  - TCP/IP Stack : Default
  - Enabled services : vMotion
  - DHCP Disable
  - IPv4 address : 10.0.0.2
  - Subnet mask : 255.255.255.0
  - Default gateway : 172.16.1.254
  - Network Port 2 & 6 (vMotion)
  - Network Speed : 1,000 Mbps

- IPv6 DHCP : Disabled
- IPv6 auto-configuration : Enabled
- IPv6 address : fe80::250:56ff:fe60:1b16
- 8. vSwitch2 : Veeam Backup
  - VLAN ID : 1825
  - Network Port 3 & 7 (Management)
  - Network Speed : 1,000 Mbps
- 9. VMware Version : 6.7.0 Update 3 (Build 14320388)
- 10. Client Version : 1.33.4 (Build 14093553)

### RBS\_SC01



172.16.1.41

### RBS\_PW01



172.16.1.36

### vCenter



172.16.1.214

1. CPU : 3.1 Ghz 16 Core
2. RAM : 4 GB
3. Hard Disk
  - C : 50 GB
  - D : 30 GB
4. VDO Adapter 1 & 2 : 1024 x 768
5. Computer Name : RBS\_SC02
6. VLAN Network
  - Speed : 1,000 Mbps
  - IP Address : 172.16.1.41
  - Subnet mask : 255.255.255.0
  - Gateway : 172.16.1.254
7. Operating System (OS)
  - Microsoft Windows XP Professional Version 2002 32 Bit Service pack 3.
8. Application software
  - Wonderware :
    - InTouch Version 7,11,007,040924
    - InBatch Runtime Client 8.1 SP1 (8,1,100,124)
    - Wonderware DA Server : DASABCIP Version 4.1 SP3
  - Microsoft SQL server Service Manager Version 8.00.194
  - Microsoft NetFramework 4.0

1. CPU : 3.1 Ghz 16 Core
2. RAM : 32 GB
3. Hard Disk
  - C : 500 GB
  - D : 500 GB
4. VDO Adapter : 1024 x 768
5. Computer Name : RBS\_PW01
6. VLAN Network
  - Speed : 1,000 Mbps
  - IP Address : 172.16.1.36
  - Subnet mask : 255.255.255.0
  - Gateway : 172.16.1.254
7. Operating System (OS)
  - Ubuntu Linux (64 bits)
8. Application software
  - Microsoft SQL server standard 2017 (64 bits)
  - Pre-weight software
  - Inventory software

1. CPU : 3.1 Ghz 4 Core
2. RAM : 16 GB
3. Hard Disk
  - C : 100 GB
4. VDO Adapter : 1024 x 768
5. Computer Name : vCenter
6. VLAN Network
  - Speed : 1,000 Mbps
  - IP Address : 172.16.1.214
  - Subnet mask : 255.255.255.0
  - Gateway : 172.16.1.254
7. Operating System (OS)
  - Microsoft windows server 2016 standard (64 bits)
8. Application software
  - vCenter 6.7.0.4000

**FOSTER**  
ENGINEERING

Creation by :	Foster	Date :	06-01-2023
Checked by :	Foster	Date :	06-01-2023
Approved by :	Jamras	Date :	06-01-2023



Customer : Unilever Thai Holding Limited

Project Name : HCL Plant Pre-Weight System

REV.	Date	Description
B1	06-01-2023	Initial Issue

Title :  
Server Host 2:VMWARE  
ESXi-2

Page number : 19/-

## Server Host 3 : VMWARE ESXi 3

IP : 172.16.1.213



Veeam Backup

### Host Configuration :

1. CPU : 3.0 GHz 18 Cores x 1
2. RAM : 128 GB
3. Data Store1 (2) : 6.98 TB
4. Host Name : ESXi3
5. vmk0 / vSwitch0 : Management Network
  - VLAN ID : 1821 (Management Network)
  - TCP/IP Stack : Default
  - Enabled services : Management
  - DHCP : Disable
  - IPv4 address : 172.16.1.213
  - Subnet mask : 255.255.255.0
  - Default gateway : 172.16.1.254



- Network Port 1 & 2
- Network Speed : 1,000 Mbps
- IPv6 DHCP : Disabled
- IPv6 auto-configuration : Disable
- IPv6 address : N/A
- 7. vmk1 / vSwitch0 : Veam Backup Manage
  - VLAN ID : 1825 (vlan1825Manage)
  - TCP/IP Stack : Default
  - Enabled services : Management
  - DHCP Disable
  - IPv4 address : 172.16.5.213
  - Subnet mask : 255.255.255.0
  - Default gateway : 172.16.5.254

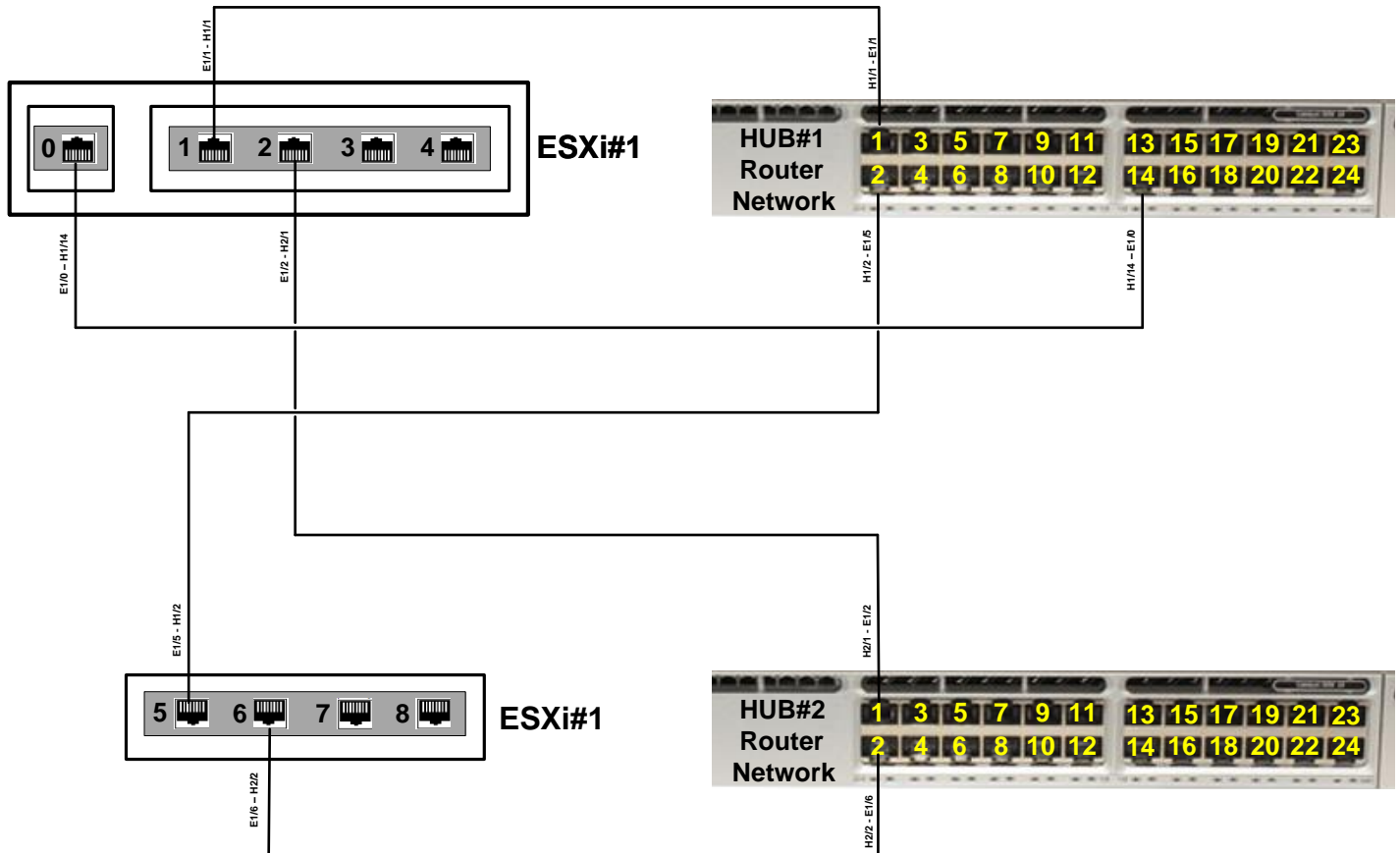
- Network Port 1 & 2 (vMotion)
- Network Speed : 1,000 Mbps
- IPv6 DHCP : Disabled
- IPv6 auto-configuration : Disable
- IPv6 address : N/A
- 8. Vmware Version : 6.7.0 Update 3 (Build 14320388)
- 9. Client Version : 1.33.4 (Build 14093553)



1. CPU : 3.0 Ghz 4 Core
2. RAM : 12 GB
3. Hard Disk
  - C : 100 GB
4. VDO Adapter : 1024 x 768
5. Computer Name : vCenter
6. VLAN Network
  - Speed : 1,000 Mbps
  - IP Address : 172.16.5.218
  - Subnet mask : 255.255.255.0
  - Gateway : 172.16.5.254
7. Operating System (OS)
  - Microsoft widows server 2016 standard (64 bits)
8. Application software
  - Veeam Backup & Replication 10.0



# Rack Server Network Internal Connection

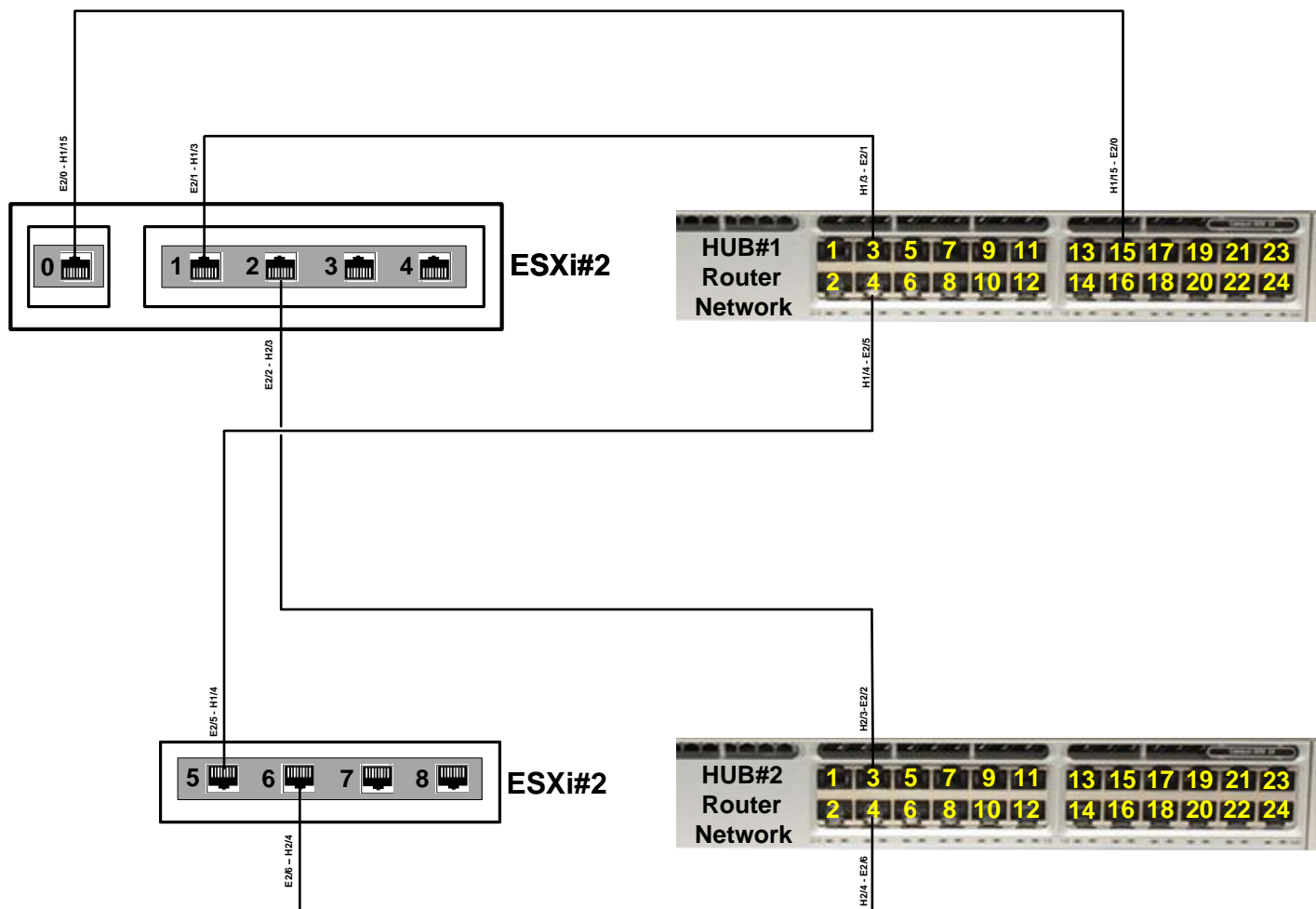
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	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
	Aproved by :	Jamras	Date :	06-01-2023				
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				Page number : 21/-			
	Project Name : HCL Plant Pre-Weight System							



**Note :**

1. Switching HUB#1 & HUB#2
- 1.1 Port 1 - 16 trunk allow VLAN: 1922, 1923 and 1924
- 1.2 Port 21 Access VLAN 1922
- 1.3 Port 22 trunk all to switch access VLAN 1922
- 1.4 Port 23 trunk all to switch access VLAN 1923
- 1.5 Port 24 trunk all to switch access VLAN 1924

	Creation by :	Foster	Date :	06-01-2023	Title :  Router 1Gb Network Connection to ESXi#1	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
	Aproved by :	Jamras	Date :	06-01-2023				
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited							
	Project Name : HCL Plant Pre-Weight System				Page number : 22/-			



**Note :**

1. Switching HUB#1 & HUB#2
- 1.1 Port 1 - 16 trunk allow VLAN: 1922, 1923 and 1924
- 1.2 Port 21 Access VLAN 1922
- 1.3 Port 22 trunk all to switch access VLAN 1922
- 1.4 Port 23 trunk all to switch access VLAN 1923
- 1.5 Port 24 trunk all to switch access VLAN 1924

**FOSTER**  
ENGINEERING

Creation by :	Foster	Date :	06-01-2023
Checked by :	Foster	Date :	06-01-2023
Approved by :	Jamras	Date :	06-01-2023

**Title :**

**Router 1Gb Network  
Connection to ESXi#2**

REV.	Date	Description
B1	06-01-2023	Initial Issue

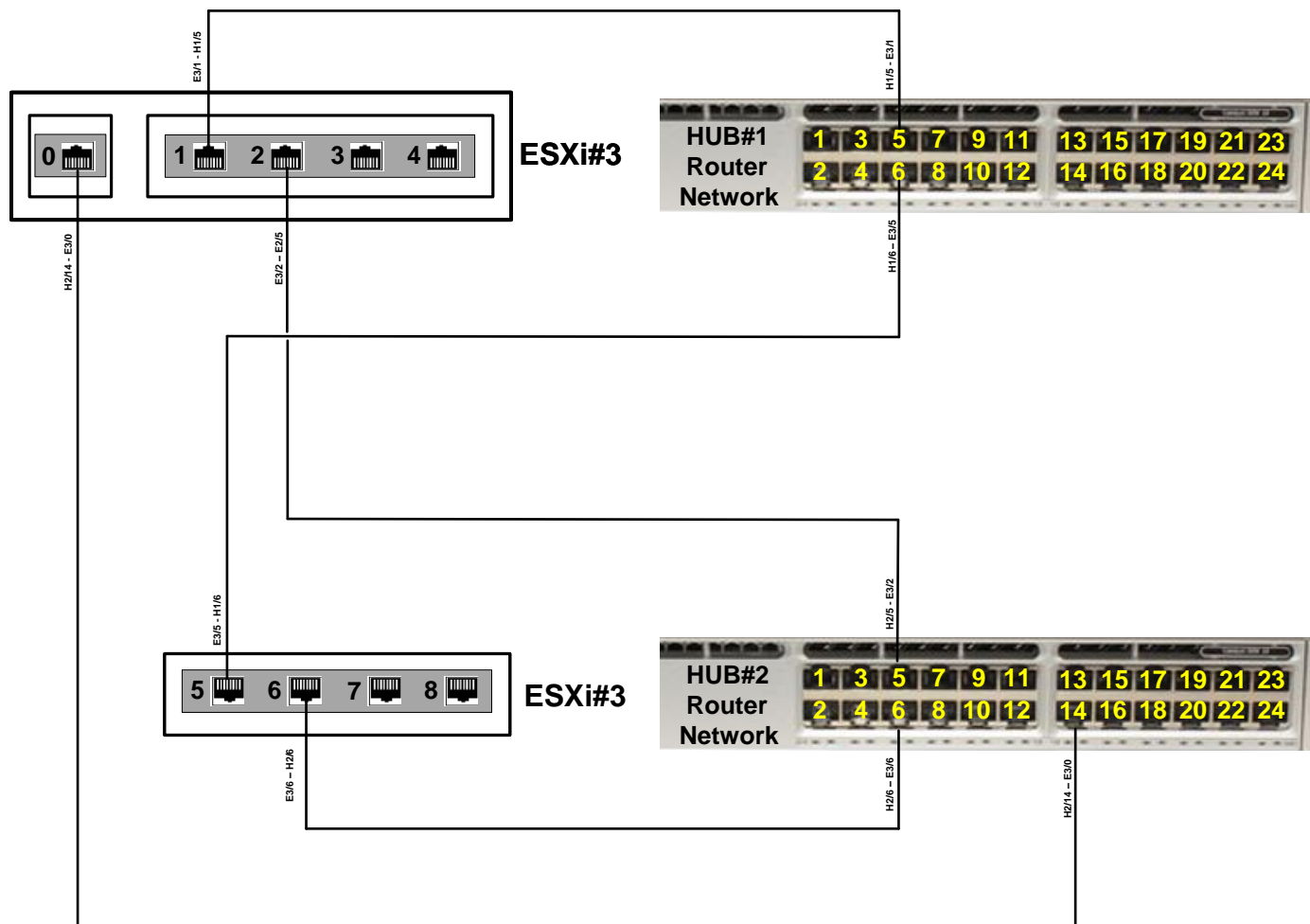


Unilever  
Unilever Thai Holding Limited

**Customer :** Unilever Thai Holding Limited



**Project Name :** HCL Plant Pre-Weight  
System

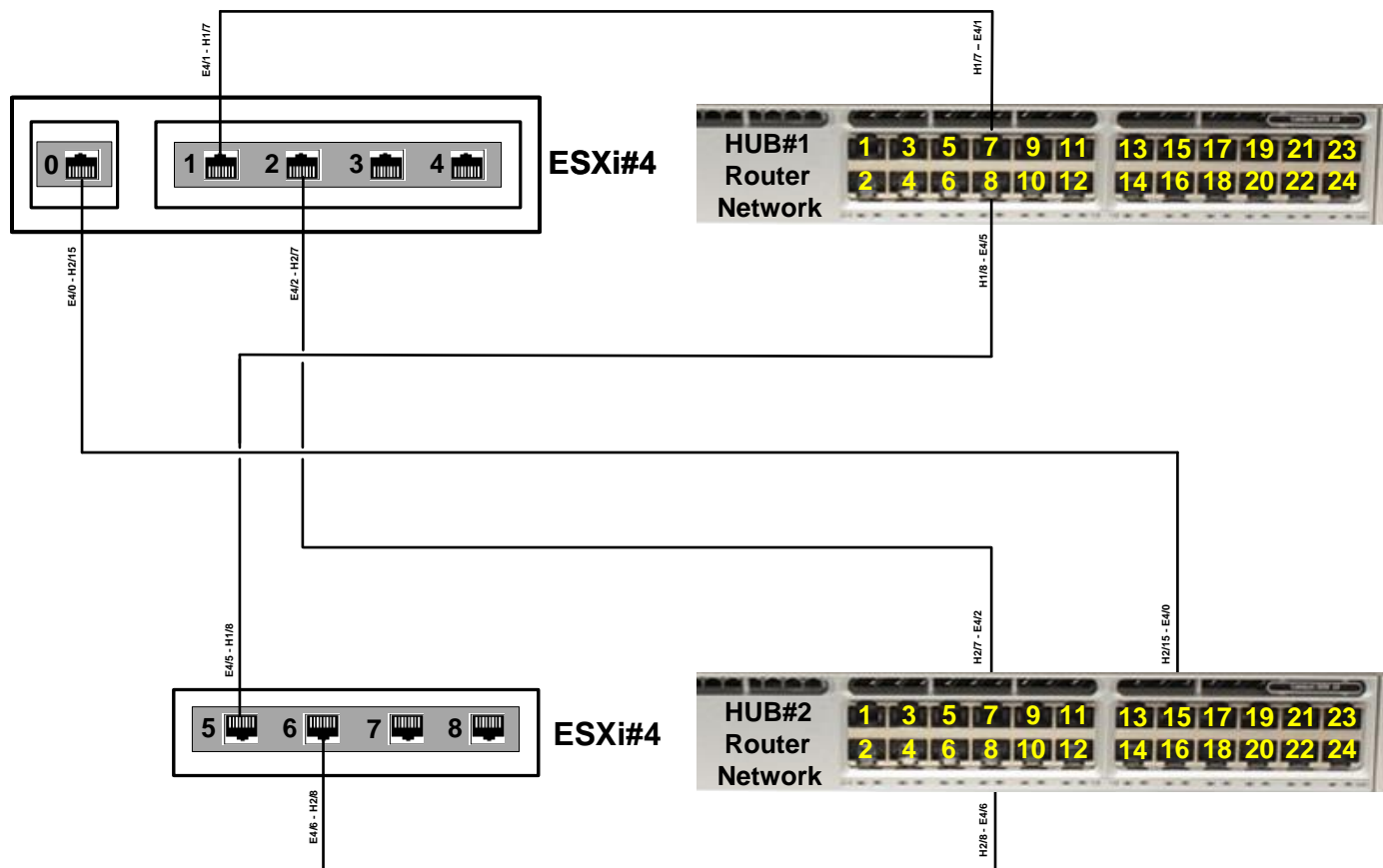
**Page number :** 23/-



**Note :**



1. Switching HUB#1 & HUB#2
- 1.1 Port 1 - 16 trunk allow VLAN: 1922, 1923 and 1924
- 1.2 Port 21 Access VLAN 1922
- 1.3 Port 22 trunk all to switch access VLAN 1922
- 1.4 Port 23 trunk all to switch access VLAN 1923
- 1.5 Port 24 trunk all to switch access VLAN 1924

	Creation by :	Foster	Date :	06-01-2023	Title :  Router 1Gb Network Connection to ESXi#3	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				Page number : 23/-			
	Project Name : HCL Plant Pre-Weight System							

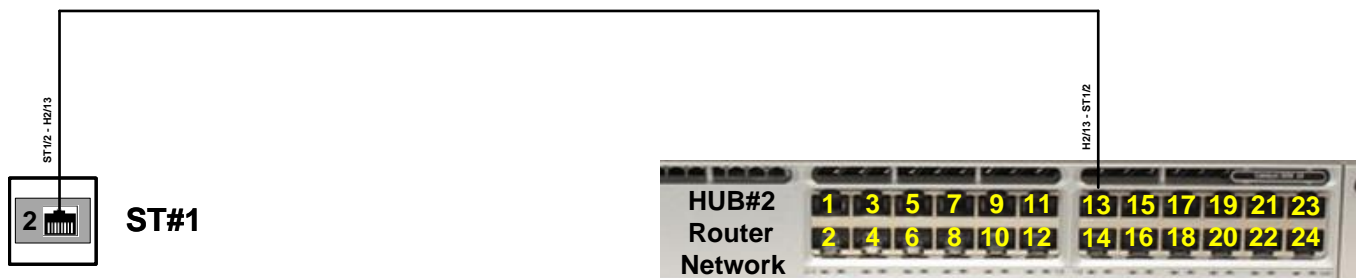
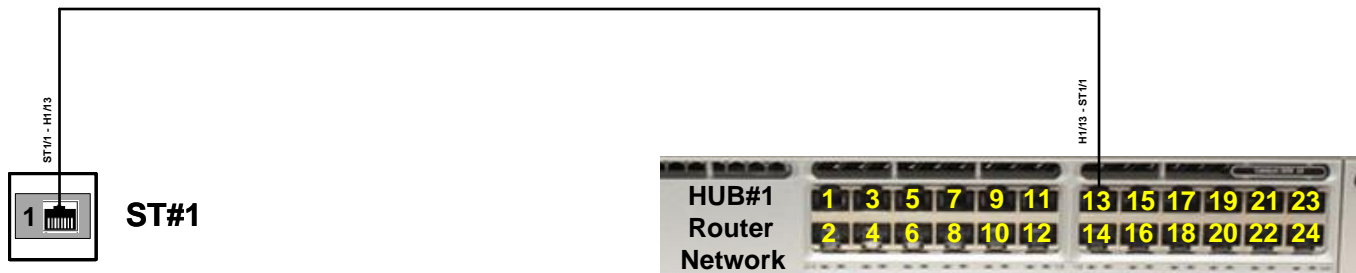


**Note :**

1. Switching HUB#1 & HUB#2
- 1.1 Port 1 - 16 trunk allow VLAN: 1922, 1923 and 1924
- 1.2 Port 21 Access VLAN 1922
- 1.3 Port 22 trunk all to switch access VLAN 1922
- 1.4 Port 23 trunk all to switch access VLAN 1923
- 1.5 Port 24 trunk all to switch access VLAN 1924



	Creation by :	Foster	Date :	06-01-2023	Title :  Router 1Gb Network Connection to ESXi#3	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
	Approved by :	Jamras	Date :	06-01-2023				
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited							
	Project Name : HCL Plant Pre-Weight System				Page number : 23/-			

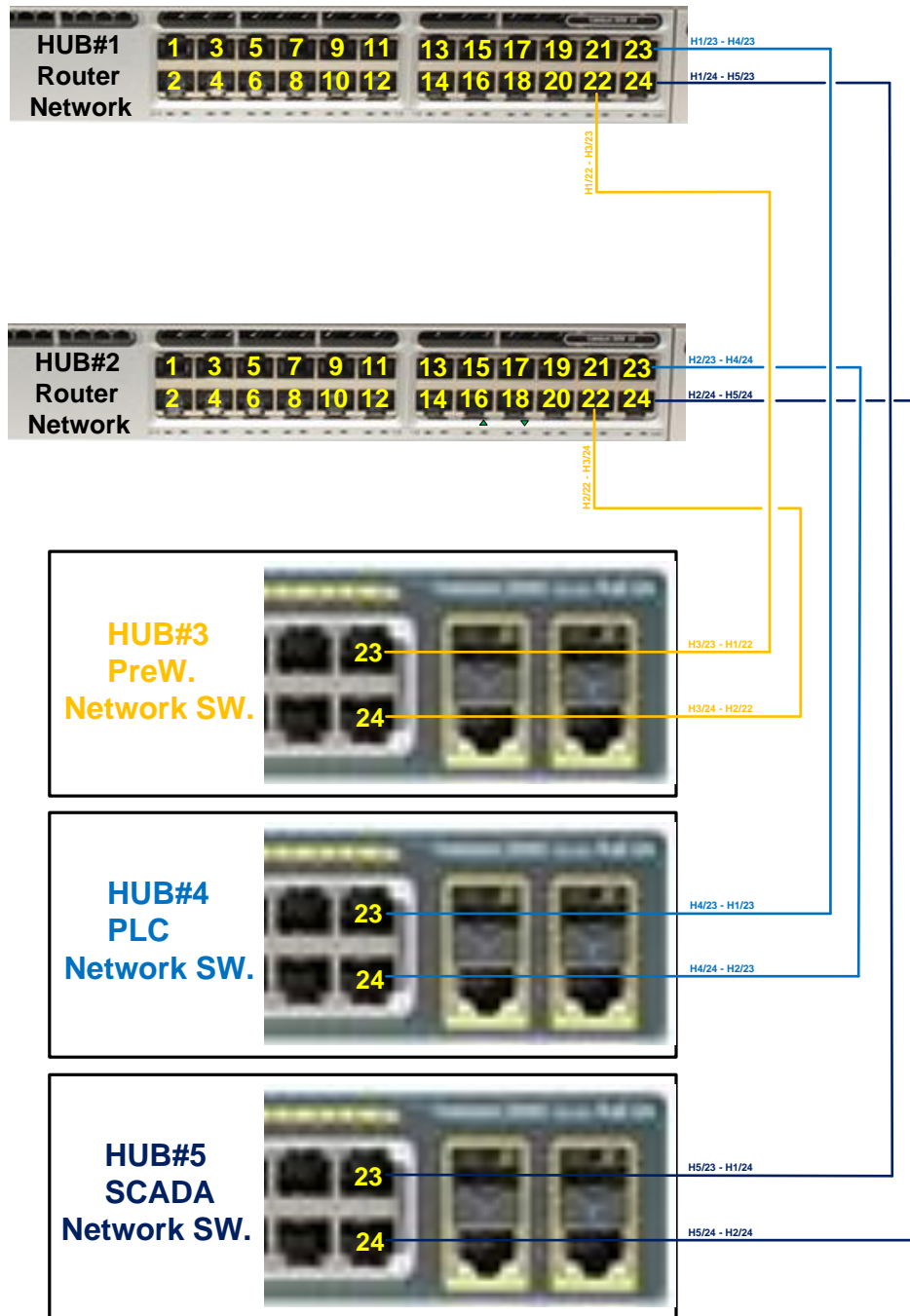




**Note :**

1. Switching HUB#1 & HUB#2
  - 1.1 Port 1 - 16 trunk allow VLAN: 1922, 1923 and 1924
  - 1.2 Port 21 Access VLAN 1922
  - 1.3 Port 22 trunk all to switch access VLAN 1922
  - 1.4 Port 23 trunk all to switch access VLAN 1923
  - 1.5 Port 24 trunk all to switch access VLAN 1924

<div></div>	Creation by :	Foster	Date :	06-01-2023	Title :  Router 1Gb Network Connection to ESXi#4	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
	Aproved by :	Jamras	Date :	06-01-2023				
<div> Unilever Unilever Thai Holding Limited</div>	Customer : Unilever Thai Holding Limited				Page number : 23/-			
	Project Name : HCL Plant Pre-Weight System							



**Note :**

1. Switching HUB#1 & HUB#2
- 1.1 Port 1 - 16 trunk allow VLAN: 1922, 1923 and 1924
- 1.2 Port 21 Access VLAN 1922
- 1.3 Port 22 trunk all to switch access VLAN 1922
- 1.4 Port 23 trunk all to switch access VLAN 1923
- 1.5 Port 24 trunk all to switch access VLAN 1924

	Creation by :	Foster	Date :	06-01-2023	<b>Title :</b>  <b>Router 1Gb Network Connection to SCADA, Prew., PLC network HUB</b>	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
 Unilever Thai Holding Limited	Approved by :	Jamras	Date :	06-01-2023	<b>Customer :</b> Unilever Thai Holding Limited  <b>Project Name :</b> HCL Plant Pre-Weight System  <b>Page number :</b> 25/-			

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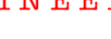
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1 2 3

1 2 3



1 2 3

0 1

	Creation by :	Foster	Date :	06-01-2023	<b>Title :</b>  <b>Server SAN Storage</b> <b>Fibre Optic 16 GB Network</b>	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
	Aproved by :	Jamras	Date :	06-01-2023				
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				<b>Page number : 26/-</b>			
	Project Name : HCL Plant Pre-Weight System							



## HUB#1 Router Network Connection List (1GB speed)

Item No.	Source Port Number	Source LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	HUB#1 Port 1	H1/1 - E1/1	ESXi#1 Port 1	E1/1 - H1/1	
2	HUB#1 Port 2	H1/2 - E1/5	ESXi#1 Port 5	E1/5 - H1/2	
3	HUB#1 Port 3	H1/3 - E2/1	ESXi#2 Port 1	E2/1 - H1/3	
4	HUB#1 Port 4	H1/4 - E2/5	ESXi#2 Port 5	E2/5 - H1/4	
5	HUB#1 Port 5	H1/5 - E3/1	ESXi#3 Port 1	E3/1 - H1/5	
6	HUB#1 Port 6	E3/5 - H1/6	ESXi#3 Port 5	E3/5 - H1/6	
7	HUB#1 Port 7	H1/7 - E4/1	ESXi#4 Port 1	E4/1 - H1/7	
8	HUB#1 Port 8	E4/5 - H1/8	ESXi#4 Port 5	E4/5 - H1/8	
9	HUB#1 Port 9	None	None	None	Spare
10	HUB#1 Port 10	None	None	None	Spare
11	HUB#1 Port 11	None	None	None	Spare
12	HUB#1 Port 12	None	None	None	Spare
13	HUB#1 Port 13	H1/13 - ST1/1	ST#1 Port 1	ST1/1 - H1/13	
14	HUB#1 Port 14	H1/14 - E1/0	ESXi#1 Port 0	E1/0 - H1/14	
15	HUB#1 Port 15	H1/15 - E2/0	ESXi#2 Port 0	E2/0 - H1/15	
16	HUB#1 Port 16	None	None	None	Spare
17	HUB#1 Port 17	None	None	None	Spare
18	HUB#1 Port 18	None	None	None	Spare
19	HUB#1 Port 19	None	None	None	Spare
20	HUB#1 Port 20	None	None	None	Spare
21	HUB#1 Port 21	None	None	None	Spare
22	HUB#1 Port 22	H1/22 - H5/47	HUB#5 Port 47	H5/47 - H1/22	
23	HUB#1 Port 23	H1/23 - H3/23	HUB#3 Port 23	H3/23 - H1/23	
24	HUB#1 Port 24	H1/24 - H4/23	HUB#4 Port 23	H4/23 - H1/24	

	Creation by :	Foster	Date :	25-03-2022	Title :  <b>HUB#1 Connection List</b>	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Approved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				Page number : 27/65			
	Project Name : HCL Plant Control System							

## HUB#2 Router Network Connection List (1GB speed)



Item No.	Source Port Number	Source LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	HUB#2 Port 1	H2/1 - E1/2	ESXi#1 Port 2	E1/2 - H2/1	
2	HUB#2 Port 2	H2/2 - E1/6	ESXi#1 Port 6	E2/2 - H1/6	
3	HUB#2 Port 3	H2/3 - E2/2	ESXi#2 Port 2	E2/2 - H2/3	
4	HUB#2 Port 4	H2/4 - E2/6	ESXi#2 Port 6	E2/6 - H2/4	
5	HUB#2 Port 5	H2/5 - E3/2	ESXi#3 Port 2	E3/2 - H2/5	
6	HUB#2 Port 6	H2/6 - E3/6	ESXi#3 Port 6	E3/6 - H3/6	
7	HUB#2 Port 7	H2/7 - E4/2	ESXi#4 Port 2	E4/2 - H2/7	
8	HUB#2 Port 8	H2/8 - E4/6	ESXi#4 Port 6	E4/6 - H2/8	
9	HUB#2 Port 9	None	None	None	Spare
10	HUB#2 Port 10	None	None	None	Spare
11	HUB#2 Port 11	None	None	None	Spare
12	HUB#2 Port 12	None	None	None	Spare
13	HUB#2 Port 13	H2/13 - ST1/2	ST#1 Port 2	ST1/2 - H2/13	
14	HUB#2 Port 14	H2/14 - E3/0	ESXi#3 Port 0	H3/0 - H2/14	
15	HUB#2 Port 15	H2/15 - E4/0	ESXi#4 Port 0	H2/15 - E4/0	
16	HUB#2 Port 16	None	None	None	Spare
17	HUB#2 Port 17	None	None	None	Spare
18	HUB#2 Port 18	None	None	None	Spare
19	HUB#2 Port 19	None	None	None	Spare
20	HUB#2 Port 20	None	None	None	Spare
21	HUB#2 Port 21	None	None	None	Spare
22	HUB#2 Port 22	H2/22 - H5/48	HUB#5 Port 48	H5/48 - H2/22	
23	HUB#2 Port 23	H2/23 - H3/24	HUB#3 Port 24	H3/24 - H2/23	
24	HUB#2 Port 24	H2/24 - H4/24	HUB#4 Port 24	H4/24 - H2/24	

	Creation by :	Foster	Date :	25-03-2022	<b>Title :</b>  <b>HUB#2 Connection List</b>	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Approved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
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	Project Name : HCL Plant Control System							





## HUB#4 PLC Connection List (1GB speed)

Item No.	Source Port Number	Source LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	HUB#4 Port 1	MIX#1 PLC	MIX#1 PLC	MIX#1 PLC	To Mixer 1 PLC
2	HUB#4 Port 2	MIX#3 PLC	MIX#3 PLC	MIX#3 PLC	To Mixer 3 PLC
3	HUB#4 Port 3	MIX#5 PLC	MIX#5 PLC	MIX#5 PLC	To Mixer 5 PLC
4	HUB#4 Port 4	MIX#6 PLC	MIX#6 PLC	MIX#6 PLC	To Mixer 6 PLC
5	HUB#4 Port 5	Utility PLC	Utility PLC	Utility PLC	To Utility PLC
6	HUB#4 Port 6	None	None	None	Spare
7	HUB#4 Port 7	None	None	None	Spare
8	HUB#4 Port 8	None	None	None	Spare
9	HUB#4 Port 9	None	None	None	Spare
10	HUB#4 Port 10	None	None	None	Spare
11	HUB#4 Port 11	None	None	None	Spare
12	HUB#4 Port 12	None	None	None	Spare
13	HUB#4 Port 13	None	None	None	Spare
14	HUB#4 Port 14	None	None	None	Spare
15	HUB#4 Port 15	None	None	None	Spare
16	HUB#4 Port 16	None	None	None	Spare
17	HUB#4 Port 17	None	None	None	Spare
18	HUB#4 Port 18	None	None	None	Spare
19	HUB#4 Port 19	None	None	None	Spare
20	HUB#4 Port 20	None	None	None	Spare
21	HUB#4 Port 21	None	None	None	Spare
22	HUB#4 Port 22	None	None	None	Spare
23	HUB#4 Port 23	H4/23 - H1/23	HUB#1 Port 23	H1/23 - H4/23	To HUB#1 Port 23
24	HUB#4 Port 24	H4/24 - H2/23	HUB#2 Port 23	H2/23 - H4/24	To HUB#2 Port 23

<div></div>	Creation by :	Foster	Date :	25-03-2022	Title :  <b>HUB#4 Connection List</b>	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Aproved by :	Jamra s	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
<div> Unilever Unilever Thai Holding Limited.</div>	Customer :	Unilever Thai Holding Limited			Page number : 30/65			
	Project Name :	HCL Plant Control System						



### HUB#3 Pre-weight Connection List (1GB speed)

Item No.	Source Port Number	Source LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	HUB#3 Port 1	H3/1 - H7/1	HUB#7 Port 1	H7/1 - H3/1	To HUB#7 Port 1
2	HUB#3 Port 2	H3/2 - H10/9	HUB#10 Port 9	H10/9 - H3/2	To HUB#10 Port 9
3	HUB#3 Port 3	None	None	None	Spare
4	HUB#3 Port 4	None	None	None	Spare
5	HUB#3 Port 5	None	None	None	Spare
6	HUB#3 Port 6	None	None	None	Spare
7	HUB#3 Port 7	None	None	None	Spare
8	HUB#3 Port 8	None	None	None	Spare
9	HUB#3 Port 9	None	None	None	Spare
10	HUB#3 Port 10	None	None	None	Spare
11	HUB#3 Port 11	None	None	None	Spare
12	HUB#3 Port 12	None	None	None	Spare
13	HUB#3 Port 13	None	None	None	Spare
14	HUB#3 Port 14	None	None	None	Spare
15	HUB#3 Port 15	None	None	None	Spare
16	HUB#3 Port 16	None	None	None	Spare
17	HUB#3 Port 17	None	None	None	Spare
18	HUB#3 Port 18	None	None	None	Spare
19	HUB#3 Port 19	None	None	None	Spare
20	HUB#3 Port 20	None	None	None	Spare
21	HUB#3 Port 21	None	None	None	Spare
22	HUB#3 Port 22	None	None	None	Spare
23	HUB#3 Port 23	H3/23 - H1/22	HUB#1 Port 22	H1/22 - H3/23	To HUB#1 Port 22
24	HUB#3 Port 24	H3/24 - H2/22	HUB#2 Port 22	H2/22 - H3/24	To HUB#2 Port 22

<div></div>	Creation by :	Foster	Date :	25-03-2022	Title :  <b>HUB#4 Connection List</b>	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Approved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
<div> Unilever Unilever Thai Holding Limited</div>	Customer : Unilever Thai Holding Limited							
	Project Name : HCL Plant Control System				Page number : 30/65			

## HUB#5 SCADA Connection List (1GB speed)

Item No.	Source Port Number	Source LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	HUB#5 Port 1	H5/1 - H6/1	HUB#6 Port 1	H6/1 - H5/1	To HUB#6 Port 1
2	HUB#5 Port 2	None	None	None	Spare
3	HUB#5 Port 3	None	None	None	Spare
4	HUB#5 Port 4	None	None	None	Spare
5	HUB#5 Port 5	None	None	None	Spare
6	HUB#5 Port 6	None	None	None	Spare
7	HUB#5 Port 7	None	None	None	Spare
8	HUB#5 Port 8	None	None	None	Spare
9	HUB#5 Port 9	None	None	None	Spare
10	HUB#5 Port 10	None	None	None	Spare
11	HUB#5 Port 11	None	None	None	Spare
12	HUB#5 Port 12	None	None	None	Spare
13	HUB#5 Port 13	None	None	None	Spare
14	HUB#5 Port 14	None	None	None	Spare
15	HUB#5 Port 15	None	None	None	Spare
16	HUB#5 Port 16	None	None	None	Spare
17	HUB#5 Port 17	None	None	None	Spare
18	HUB#5 Port 18	None	None	None	Spare
19	HUB#5 Port 19	None	None	None	Spare
20	HUB#5 Port 20	None	None	None	Spare
21	HUB#5 Port 21	None	None	None	Spare
22	HUB#5 Port 22	None	None	None	Spare
23	HUB#5 Port 23	H5/23 - H1/24	HUB#1 Port 24	H1/24 - H5/23	To HUB#1 Port 24
24	HUB#5 Port 24	H5/24 - H2/24	HUB#2 Port 24	H2/24 - H5/24	To HUB#2 Port 24

	Creation by :	Foster	Date :	25-03-2022	<b>Title :</b>  <b>HUB#5 Connection List</b>	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Aproved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
 Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				<b>Page number : 31/65</b>			
	Project Name : HCL Plant Control System							



## HUB#6 SCADA Control Room Network Connection List (1GB speed)

Item No.	Source Port Number	Source LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	HUB#6 Port 1	H6/1 - H5/1	HUB#5 Port 1	H5/1 - H6/1	To HUB#5 Port 1
2	HUB#6 Port 2	SCADA#1	SCADA#1	SCADA#1	To SCADA#1 Thin Client at Control Room
3	HUB#6 Port 3	SCADA#2	SCADA#2	SCADA#2	To SCADA#2 Thin Client at Control Room
4	HUB#6 Port 4	SCADA#3	SCADA#3	SCADA#3	To SCADA#3 Thin Client at Control Room
5	HUB#6 Port 5	SCADA#4	SCADA#4	SCADA#4	To SCADA#4 Thin Client at Control Room
6	HUB#6 Port 6	SCADA#5	SCADA#5	SCADA#5	To SCADA#5 Thin Client at Control Room
7	HUB#6 Port 7	SCADA#6	SCADA#6	SCADA#6	To SCADA#6 Thin Client at Control Room
8	HUB#6 Port 8	INBATCH#1	INBATCH#1	INBATCH#1	To INBATCH#1 Thin Client at Control Room
9	HUB#6 Port 9	REPORT#1	REPORT#1	REPORT#1	Report
10	HUB#6 Port 10	None	None	None	Spare
11	HUB#6 Port 11	None	None	None	Spare
12	HUB#6 Port 12	None	None	None	Spare
13	HUB#6 Port 13	None	None	None	Spare
14	HUB#6 Port 14	None	None	None	Spare
15	HUB#6 Port 15	None	None	None	Spare
16	HUB#6 Port 16	None	None	None	Spare
17	HUB#6 Port 17	None	None	None	Spare
18	HUB#6 Port 18	None	None	None	Spare
19	HUB#6 Port 19	None	None	None	Spare
20	HUB#6 Port 20	None	None	None	Spare
21	HUB#6 Port 21	None	None	None	Spare
22	HUB#6 Port 22	None	None	None	Spare
23	HUB#6 Port 23	None	None	None	Spare
24	HUB#6 Port 24	None	None	None	Spare

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Customer : Unilever Thai Holding Limited

Project Name : HCL Plant Pre-Weight System

Title :



### HUB#6 Connection List

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REV.	Date	Description
B1	31-07-2020	Initial Issue
C1	19-05-2021	Construction
D1	25-03-2022	As built



## HUB#6 Pre-Weight Network Connection List (1GB speed)

Item No.	Source Port Number	Source LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	HUB#7 Port 1	H7/1 - H3/1	HUB#3 Port 1	H3/1 - H7/1	To HUB#7 Port 1
2	HUB#7 Port 2	PRE-WEIGHT#1	PRE-WEIGHT#1	PRE-WEIGHT#1	To PRE-WEIGHT#1 Thin Client at Control Room
3	HUB#7 Port 3	INV ROOM			Inventory Room 192.168.1.243/248
4	HUB#7 Port 4	PRE-W ROOM			Pre-weight Room 192.168.1.130/141/142/161/162
5	HUB#7 Port 5	None	None	None	Spare
6	HUB#7 Port 6	None	None	None	Spare
7	HUB#7 Port 7	None	None	None	Spare
8	HUB#7 Port 8	None	None	None	Spare
9	HUB#7 Port 9	None	None	None	Spare
10	HUB#7 Port 10	None	None	None	Spare
11	HUB#7 Port 11	None	None	None	Spare
12	HUB#7 Port 12	None	None	None	Spare
13	HUB#7 Port 13	None	None	None	Spare
14	HUB#7 Port 14	None	None	None	Spare
15	HUB#7 Port 15	None	None	None	Spare
16	HUB#7 Port 16	None	None	None	Spare

<div></div>	Creation by :	Foster	Date :	25-03-2022	<div>Title :</div> <div>HUB#7</div> <div>Connection List</div>	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Approved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
<div><div>Unilever</div><div>Unilever Thai Holding Limited</div></div>	Customer : Unilever Thai Holding Limited							
	Project Name : HCL Plant Pre-Weight System				Page number : 33/65			



## HUB#8 192.168.1.X Control Room Connection List (1GB speed)

Item No.	Source Port Number	Source LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	HUB#6 Port 1	H6/1 - H5/1	HUB#5 Port 1	H5/1 - H6/1	To HUB#5 Port 1
2	HUB#6 Port 2	SCADA#1	SCADA#1	SCADA#1	To SCADA#1 Thin Client at Control Room
3	HUB#6 Port 3	SCADA#2	SCADA#2	SCADA#2	To SCADA#2 Thin Client at Control Room
4	HUB#6 Port 4	SCADA#3	SCADA#3	SCADA#3	To SCADA#3 Thin Client at Control Room
5	HUB#6 Port 5	SCADA#4	SCADA#4	SCADA#4	To SCADA#4 Thin Client at Control Room
6	HUB#6 Port 6	SCADA#5	SCADA#5	SCADA#5	To SCADA#5 Thin Client at Control Room
7	HUB#6 Port 7	SCADA#6	SCADA#6	SCADA#6	To SCADA#6 Thin Client at Control Room
8	HUB#6 Port 8	INBATCH#1	INBATCH#1	INBATCH#1	To INBATCH#1 Thin Client at Control Room
9	HUB#6 Port 9	REPORT#1	REPORT#1	REPORT#1	Report
10	HUB#6 Port 10	None	None	None	Spare
11	HUB#6 Port 11	None	None	None	Spare
12	HUB#6 Port 12	None	None	None	Spare
13	HUB#6 Port 13	None	None	None	Spare
14	HUB#6 Port 14	None	None	None	Spare
15	HUB#6 Port 15	None	None	None	Spare
16	HUB#6 Port 16	None	None	None	Spare
17	HUB#6 Port 17	None	None	None	Spare
18	HUB#6 Port 18	None	None	None	Spare
19	HUB#6 Port 19	None	None	None	Spare
20	HUB#6 Port 20	None	None	None	Spare
21	HUB#6 Port 21	None	None	None	Spare
22	HUB#6 Port 22	None	None	None	Spare
23	HUB#6 Port 23	None	None	None	Spare
24	HUB#6 Port 24	None	None	None	Spare

	Creation by :	Foster	Date :	25-03-2022	<b>Title :</b>  <b>HUB#8 Connection List</b>	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Approved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
 Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				Page number : 33/65			
	Project Name : HCL Plant Pre-Weight System							



## HUB#10 Pre-weight Room Connection List (1GB speed)

Item No.	Source Port Number	Source LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	HUB#10 Port 1	White LAN Cable			
2	HUB#10 Port 2	White LAN Cable			
3	HUB#10 Port 3	White LAN Cable			
4	HUB#10 Port 4	OIT-PWS-01			
5	HUB#10 Port 5	WT-PWS-01			
6	HUB#10 Port 6	PNT-PWS-01			
7	HUB#10 Port 7	OIT-PWS-02			
8	HUB#10 Port 8	WT-PWS-02			
9	HUB#10 Port 9	H10/9 - H3/2	HUB#3 Port 2	H3/2 - H10/9	To HUB#3 Port 2
10	HUB#10 Port 10	None	None	None	Sprae
11	HUB#10 Port 11	None	None	None	Sprae
12	HUB#10 Port 12	None	None	None	Sprae
13	HUB#10 Port 13	None	None	None	Sprae
14	HUB#10 Port 14	None	None	None	Sprae
15	HUB#10 Port 15	None	None	None	Sprae
16	HUB#10 Port 16	None	None	None	Sprae

<div></div>	Creation by :	Foster	Date :	25-03-2022	Title :  <b>HUB#10 Connection List</b>	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Approved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
<div> Unilever Unilever Thai Holding Limited</div>	Customer : Unilever Thai Holding Limited				Page number : 33/65			
	Project Name : HCL Plant Pre-Weight System							

## SAN Stoarge Network Connection List

Item No.	Souce Port Number	Souce LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	ST#1 Port 1	ST1/1-H3/21	HUB#3 Port 21	H3/21-ST1/1	Port RJ45 : Management Network
2	HUB#6 Port 2	ST1/2-H3/22	HUB#3 Port 22	H3/22-ST1/2	Port RJ45 : Management Network
3	HUB#6 Port 3	ST1/3-E1/9	ESXi#1 Port 9	E1/9-ST1/3	Port Fiber optic : VLAN Network
4	HUB#6 Port 4	ST1/4-E2/9	ESXi#2 Port 9	E2/9-ST1/4	Port Fiber optic : VLAN Network
5	HUB#6 Port 5	ST1/5-E1/10	ESXi#1 Port 10	E1/10-ST1/5	Port Fiber optic : VLAN Network
6	HUB#6 Port 6	ST1/6-E2/10	ESXi#2 Port 10	E2/10-ST1/6	Port Fiber optic : VLAN Network

	Creation by :	Foster	Date :	25-03-2022	Title :  <b>SAN Storage Network Connection List</b>	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Aproved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
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	Project Name : HCL Plant Pre-Weight System							

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<b>Project Name :</b>	<b>HCL Plant Pre-Weight System</b>
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Title :	Control room network cover Sheet
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## Control Room

SCADA#1



INBATCH



Pre - weight



SCADA#5



KVM Receiver

KVM Receiver

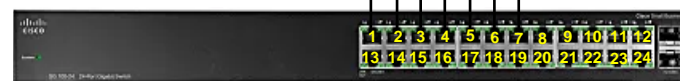
KVM Receiver

## Existing Switching HUB Rack At MCC

HUB#5 SCADA Network Switch 1Gb



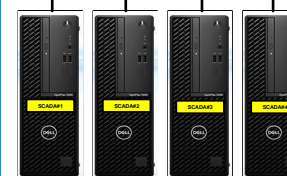
## HUB Rack At MCC Room



KVM Sender

KVM Sender

KVM Sender



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Project Name : HCL Plant Pre-Weight System

REV.	Date	Description
B1	31-07-2020	Initial Issue
C1	19-05-2021	Construction
D1	25-03-2022	As built

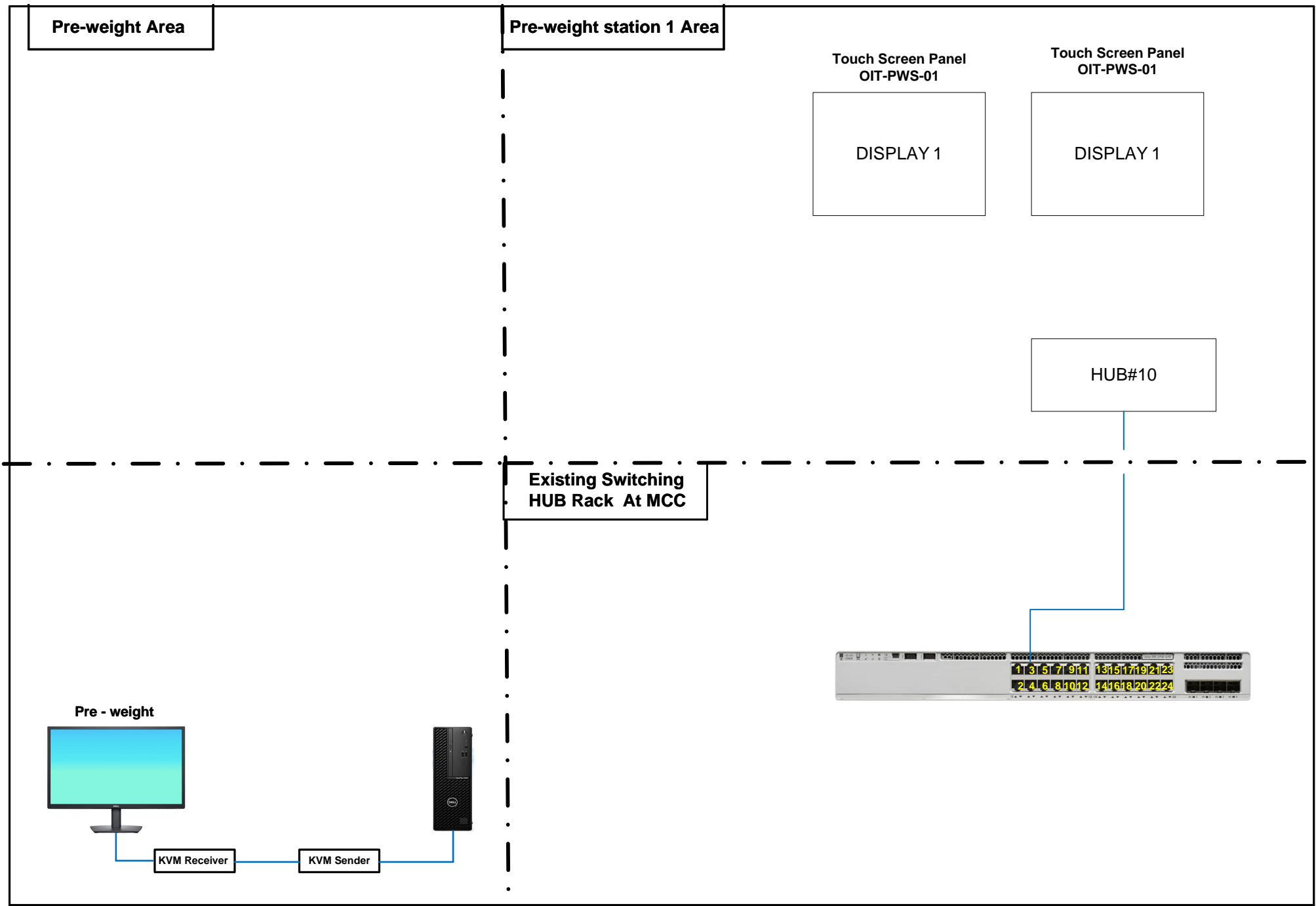
Title : Control Room Network

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# Pre-weight Station Network

	Creation by :	Foster	Date :	25-03-2022	 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited	REV.	Date	Description	Title : Pre-weight station network cover Sheet
	Checked by :	Foster	Date :	25-03-2022			B1	31-07-2020	Initial Issue	
							C1	19-05-2021	Construction	
	Aproved by :	Jamras	Date :	25-03-2022		Project Name : CO Plant Pre-Weight System	D1	25-03-2022	As built	Page number : 37/65





# Pre-weight station 2 Area

Touch Screen Panel  
OIT-PWS-02



Barcode Printer  
PNT-PWS-02



Scaller #2 (WT-PWS-02)

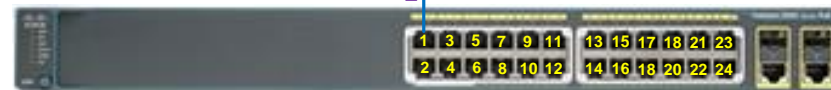
# Pre-weight Area



HUB#6 Switch 1Gb in the explosion box

Existing Switching  
HUB Rack at MCC

HUB#4 PreW Network Switch 1Gb



## Pre-weight station 2 Area

Touch Screen Panel  
OIT-PWS-03



Barcode Printer  
PNT-PWS-03



Scaller #3 (WT-PWS-03)

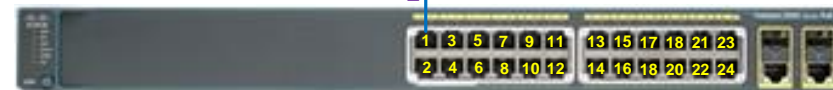
## Pre-weight Area



HUB#6 Switch 1Gb in the explosion box

Existing Switching  
HUB Rack at MCC

HUB#4 PreW Network Switch 1Gb



# Pre-weight station 2 Area

Touch Screen Panel  
OIT-PWS-04



OIT4-H6/11

Barcode Printer  
PNT-PWS-04



PNT4-H6/12



172.16.4.224

WT4-H6/13

Scaller #4 (WT-PWS-04)

# Pre-weight Area



H6/13-WT4

H6/11-OIT4

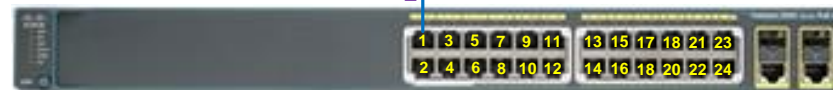
H6/1-H4/1

PNT4-H6/12

HUB#6 Switch 1Gb in the explosion box



Existing Switching  
HUB Rack at MCC

HUB#4 PreW Network Switch 1Gb



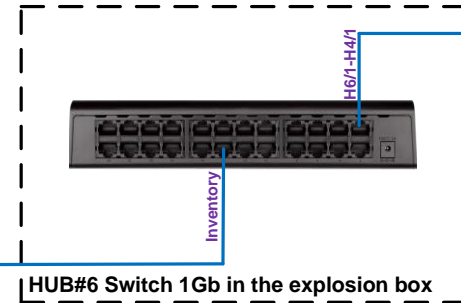
H4/1-H6/1

# Inventory Station Network

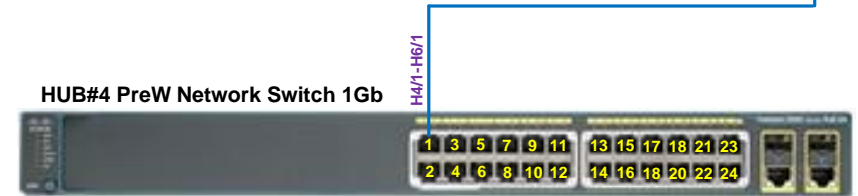
	Creation by :	Foster	Date :	25-03-2022	 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited	REV.	Date	Description	Title : Inventory station network cover Sheet
	Checked by :	Foster	Date :	25-03-2022			B1	31-07-2020	Initial Issue	
							C1	19-05-2021	Construction	
	Aproved by :	Jamras	Date :	25-03-2022		Project Name : CO Plant Pre-Weight System	D1	25-03-2022	As built	Page number : 42/65

# Warehouse Officer



# Pre-weight Area



# Existing Switching HUB Rack at MCC



# PLC Network

	Creation by :	Foster	Date :	25-03-2022	Title :  PLC Network Cover Sheet	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Aproved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited							
	Project Name : CO Plant Pre-Weight System				Page number : 44/65			

# MCC Room

PLC : Mix#1  
(PLC Mixing Line#1)



H5/1 - Mix#1

PLC : Mix#5  
(PLC Mixing Line#5)



H5/3-Mix#5

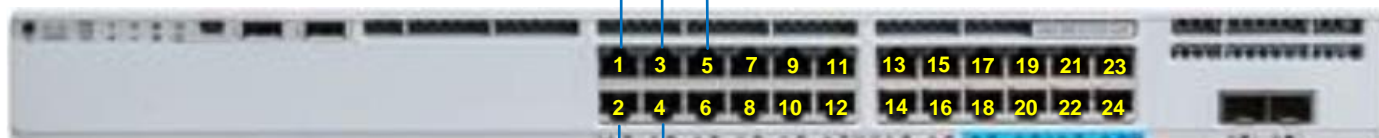
PLC : Utility Mixers  
(PLC Utility Mixers)



H5/5-Utility

Existing Switching  
HUB Rack at MCC

HUB#5 PLC Network Switch 1Gb



H5/1-Mix#1

H5/3-mix#5

H5/5-Utility

Mix#3 - H5/2

Mix#6 - H5/4

PLC : Mix#3  
(PLC Mixing Line#3)



H5/2 - Mix#3

PLC : Mix#6  
(PLC Mixing Line#6)



H5/4 - Mix#6

**FOSTER**  
ENGINEERING

Creation by :	Foster	Date :	25-03-2022
Checked by :	Foster	Date :	25-03-2022
Approved by :	Jamras	Date :	25-03-2022

Title :

PLC Network Connection

REV.	Date	Description
B1	31-07-2020	Initial Issue
C1	19-05-2021	Construction
D1	25-03-2022	As built



Unilever  
Unilever Thai Holding Limited



Customer : Unilever Thai Holding Limited

Project Name : CO Plant Pre-Weight System

Page number : 45/65

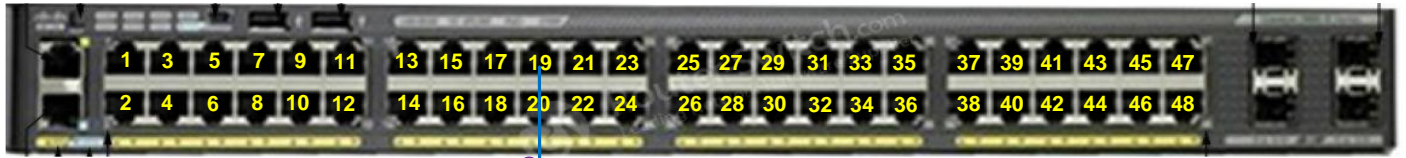


# Touch Screen Network

	Creation by :	Foster	Date :	25-03-2022	Title :  Touch Screen Network Cover Sheet	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Aproved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited							
	Project Name : CO Plant Pre-Weight System				Page number : 46/65			

Existing Switching  
HUB Rack at MCC

HUB#5 PLC Network Switch 1Gb



FP100

Ground Floor

FP100

FP100  
Flow Plate
**FOSTER**  
ENGINEERING

Creation by :	Foster	Date :	25-03-2022
Checked by :	Foster	Date :	25-03-2022
Aproved by :	Jamras	Date :	25-03-2022

Title :

Touch Screen Network  
Ground Floor

REV.	Date	Description
B1	31-07-2020	Initial Issue
C1	19-05-2021	Construction
D1	25-03-2022	As built



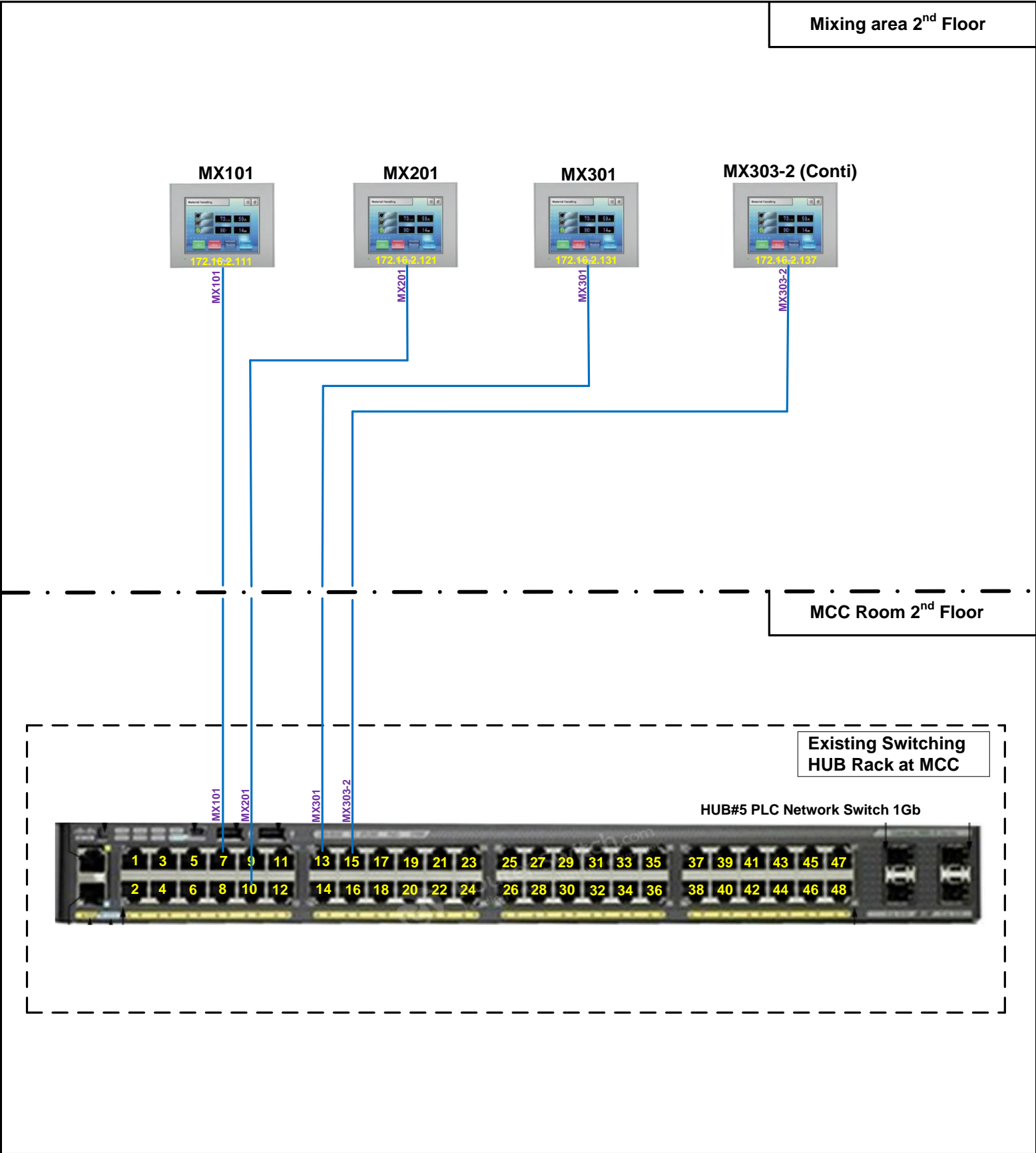
Unilever

Unilever Thai Holding Limited

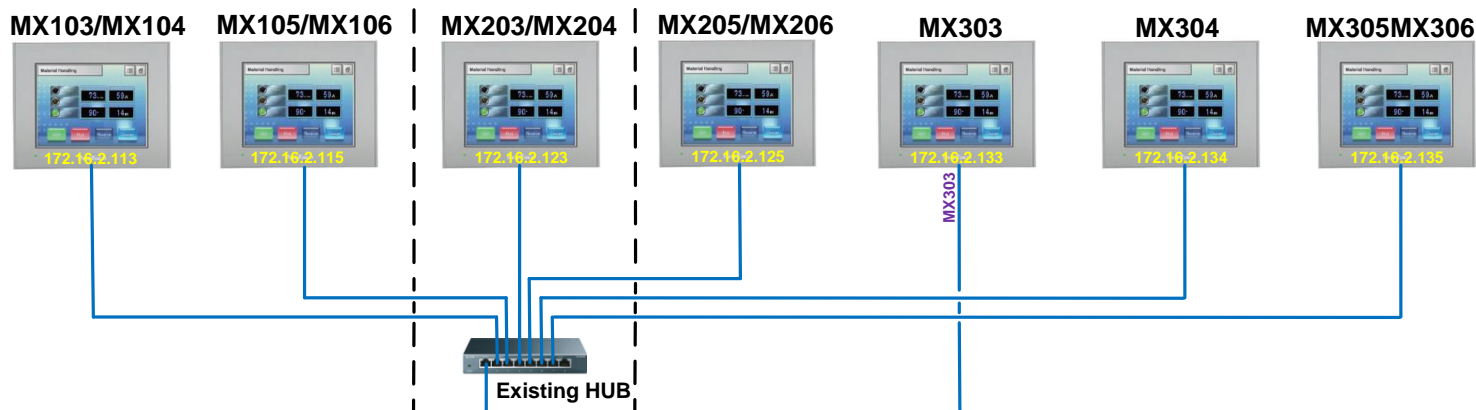
Customer : Unilever Thai Holding Limited

Project Name : CO Plant Pre-Weight System

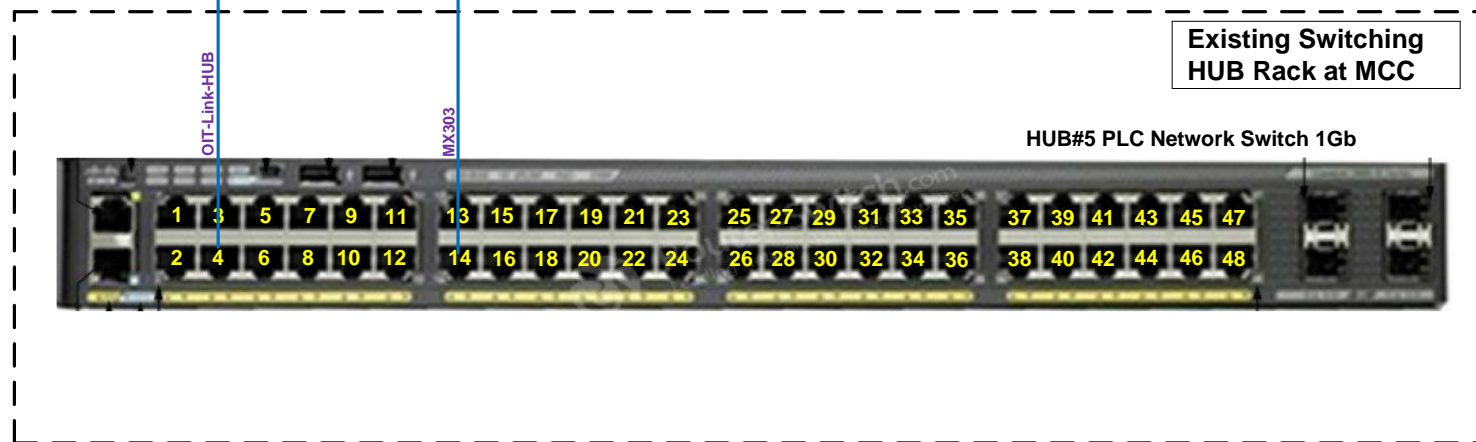
Page number : 47/65



# Mixing area 3<sup>rd</sup> Floor



# MCC Room 2<sup>nd</sup> Floor



**FOSTER**  
ENGINEERING

Creation by :	Foster	Date :	25-03-2022
Checked by :	Foster	Date :	25-03-2022
Approved by :	Jamras	Date :	25-03-2022

Title :  
  
Touch Screen Network 3<sup>rd</sup> Floor

REV.	Date	Description
B1	31-07-2020	Initial Issue
C1	19-05-2021	Construction
D1	25-03-2022	As built



Unilever  
Unilever Thai Holding Limited

Customer : Unilever Thai Holding Limited

Project Name : CO Plant Pre-Weight System

Page number : 49/65

MX081



MX081

Existing Switching  
HUB Rack at MCC

HUB#5 PLC Network Switch 1Gb



MX081

**FOSTER**  
ENGINEERING

Creation by :	Foster	Date :	25-03-2022
Checked by :	Foster	Date :	25-03-2022
Approved by :	Jamras	Date :	25-03-2022

Title :  
  
Touch Screen Network 4<sup>th</sup> Floor

REV.	Date	Description
B1	31-07-2020	Initial Issue
C1	19-05-2021	Construction
D1	25-03-2022	As built



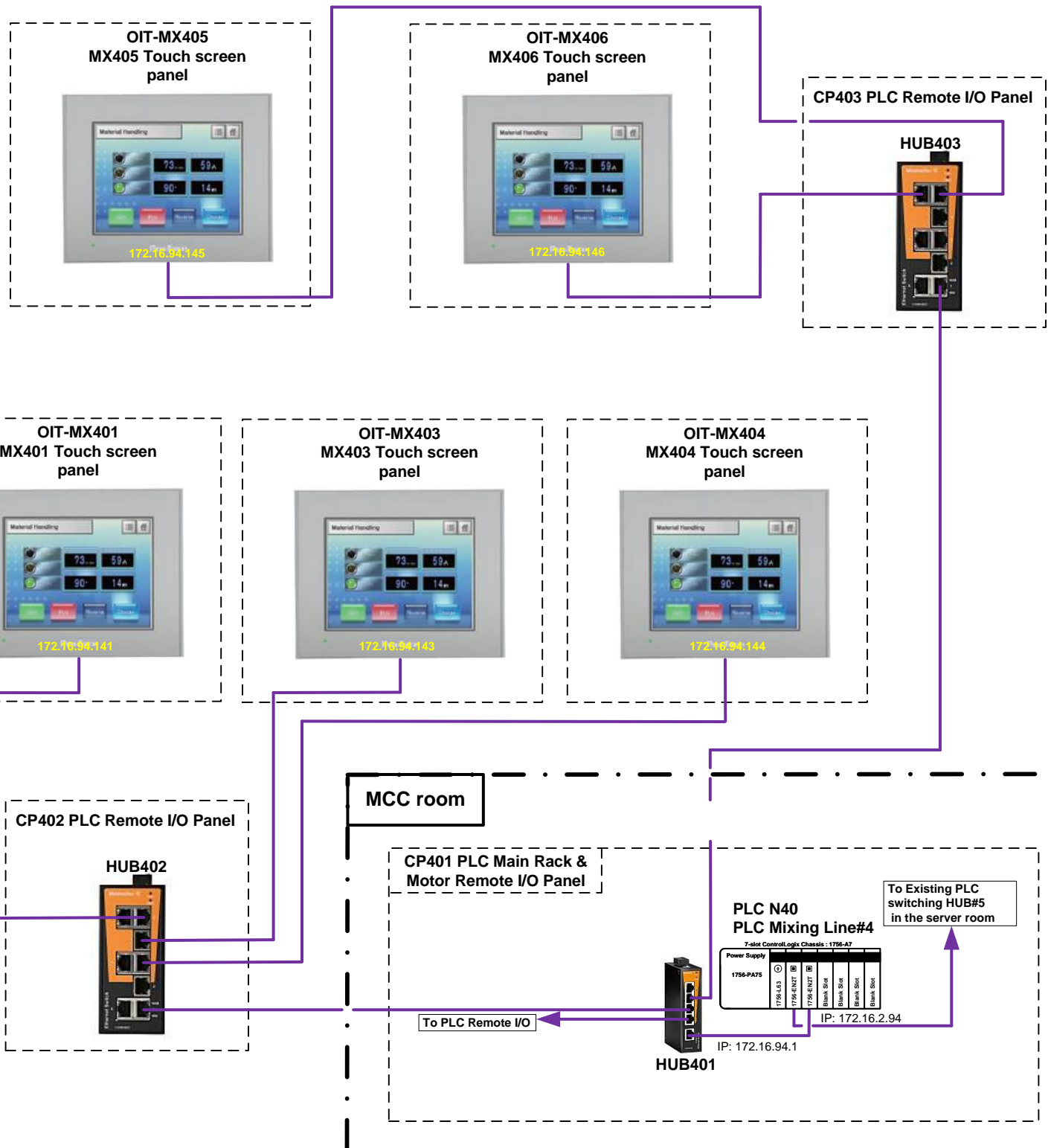
Unilever  
Unilever Thai Holding Limited



Customer : Unilever Thai Holding Limited

Project Name : CO Plant Pre-Weight System



Page number : 50/65

**Third floors  
Main & Side Mixer Area**

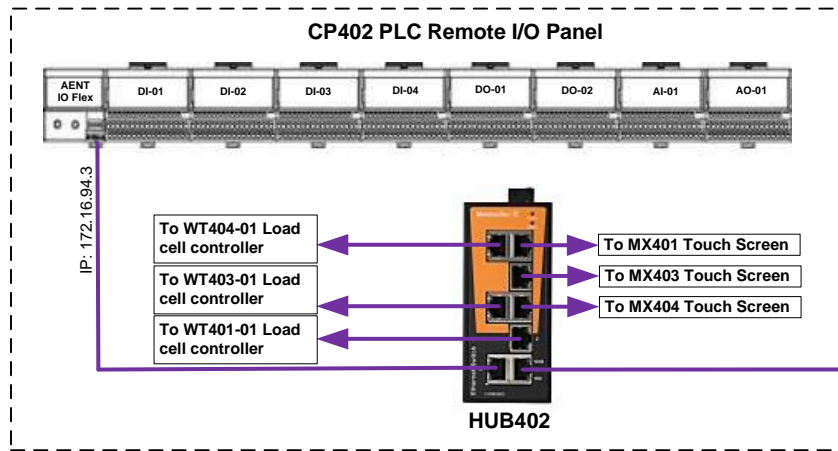


	Creation by :	Foster	Date :	25-03-2022	Title :  Mixing line 4 Touch screen network	REV.	Date	Description
						B1	31-07-2020	Initial Issue
	Checked by :	Foster	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				Page number : 51/65			
	Project Name : CO Plant Pre-Weight System							

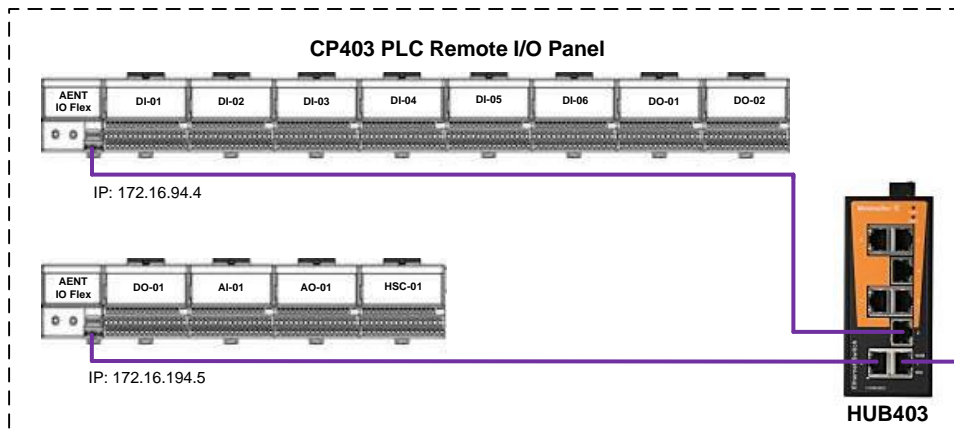
# Mixing Line 4 Remote I/O and Load Cell Network

	Creation by :	Foster	Date :	25-03-2022	Title :  Mixing Line 4 Remote I/O and Load Cell Network Cover Sheet	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Aproved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited							
	Project Name : CO Plant Pre-Weight System				Page number : 52/65			

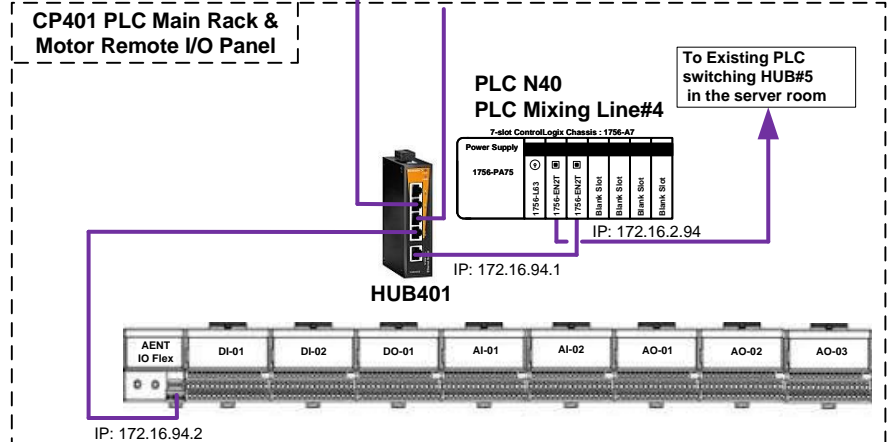
### Third floors Main & Side Mixer Area



### Second floor Recirculation Area



### MCC room



**FOSTER**  
ENGINEERING



Unilever Thai Holding Limited

Creation by :	Foster	Date :	25-03-2022
Checked by :	Foster	Date :	25-03-2022
Approved by :	Jamras	Date :	25-03-2022

Customer : Unilever Thai Holding Limited

Project Name : CO Plant Pre-Weight System

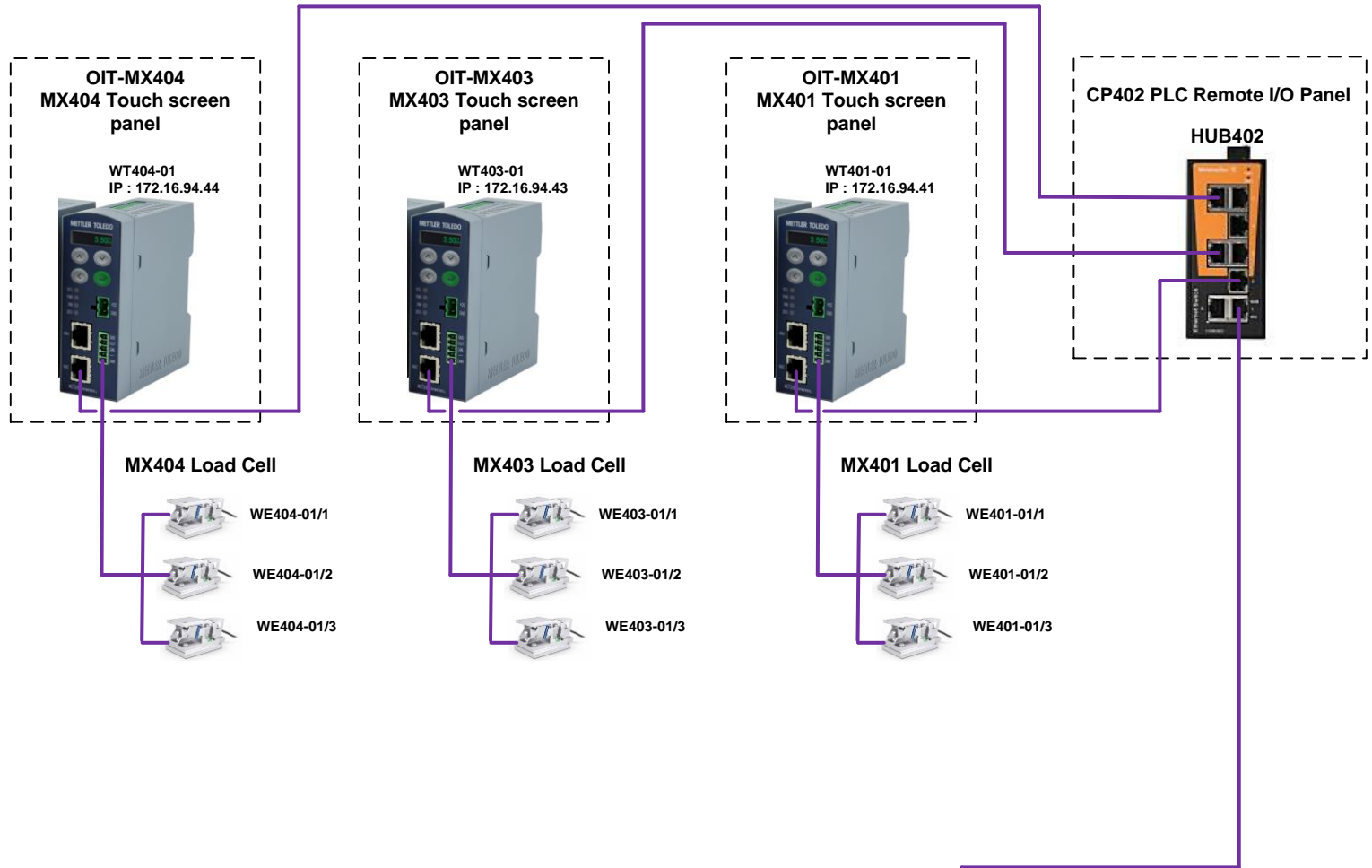
Title :  
  
Mixing Line 4 Remote I/O network

Page number : 53/65

REV.	Date	Description
B1	31-07-2020	Initial Issue
C1	19-05-2021	Construction
D1	25-03-2022	As built



**Third floors**  
**Main & Side Mixer Area**



**MCC room**

**CP401 PLC Main Rack & Motor Remote I/O Panel**

**PLC N40 PLC Mixing Line#4**

To Existing PLC switching HUB#5 in the server room

To HUB403  
To PLC Remote I/O

**HUB401**

**FOSTER**  
ENGINEERING

Creation by :	Foster	Date :	25-03-2022
Checked by :	Foster	Date :	25-03-2022
Aproved by :	Jamras	Date :	25-03-2022

**Title :**  
  
**Mixing line#4 load cell controller network**

REV.	Date	Description
B1	31-07-2020	Initial Issue
C1	19-05-2021	Construction
D1	25-03-2022	As built



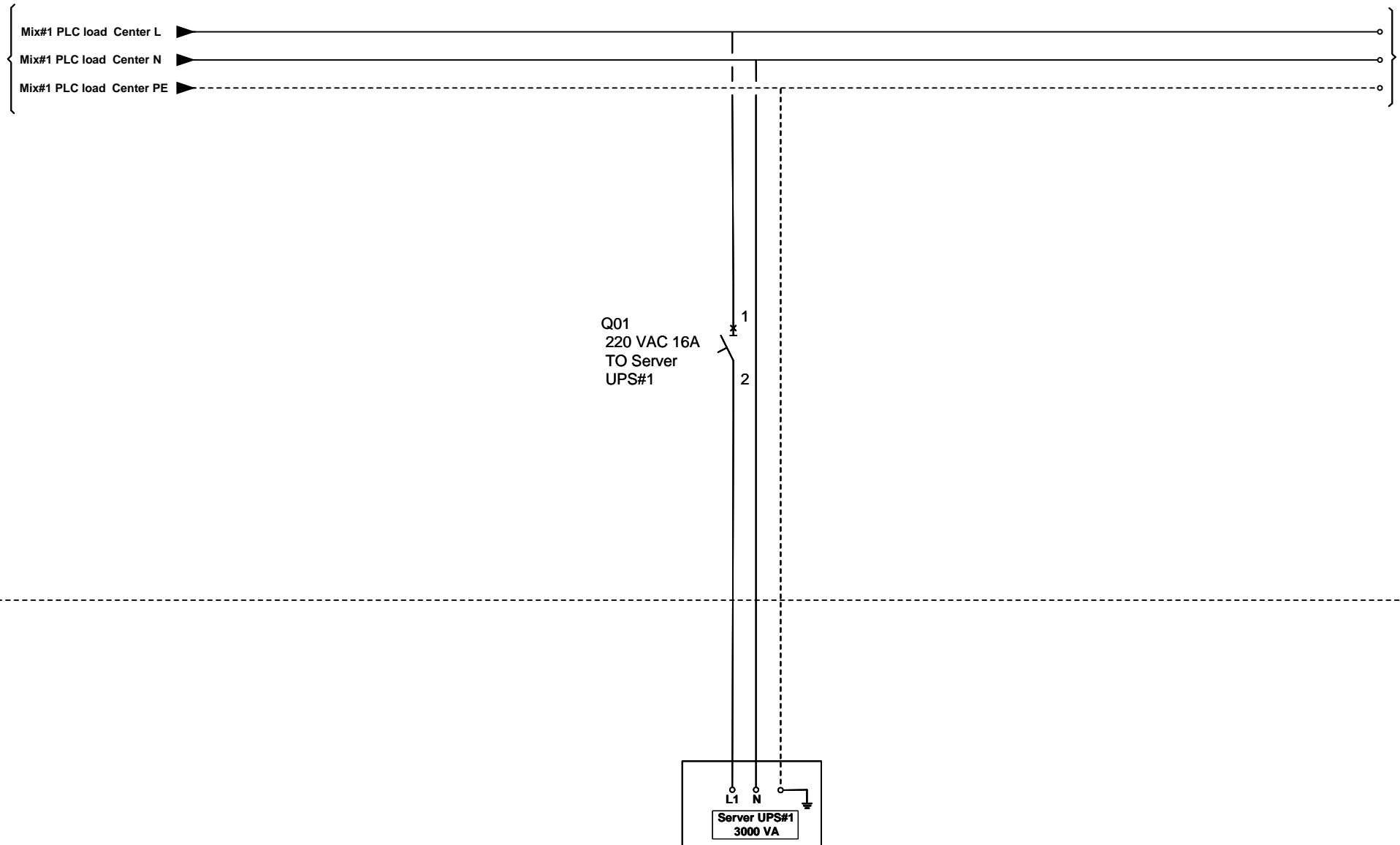
Unilever  
Unilever Thai Holding Limited

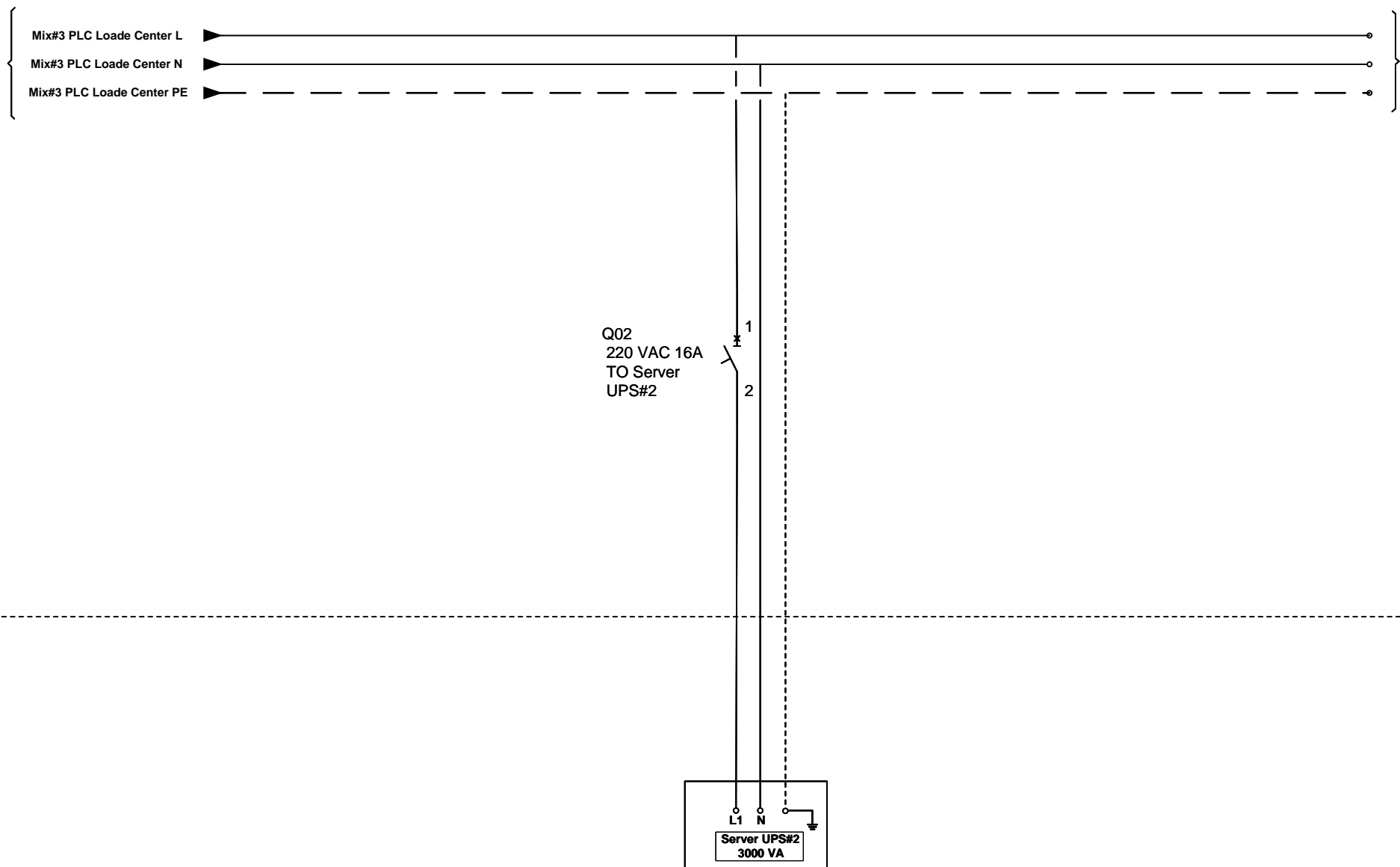
**Customer : Unilever Thai Holding Limited**

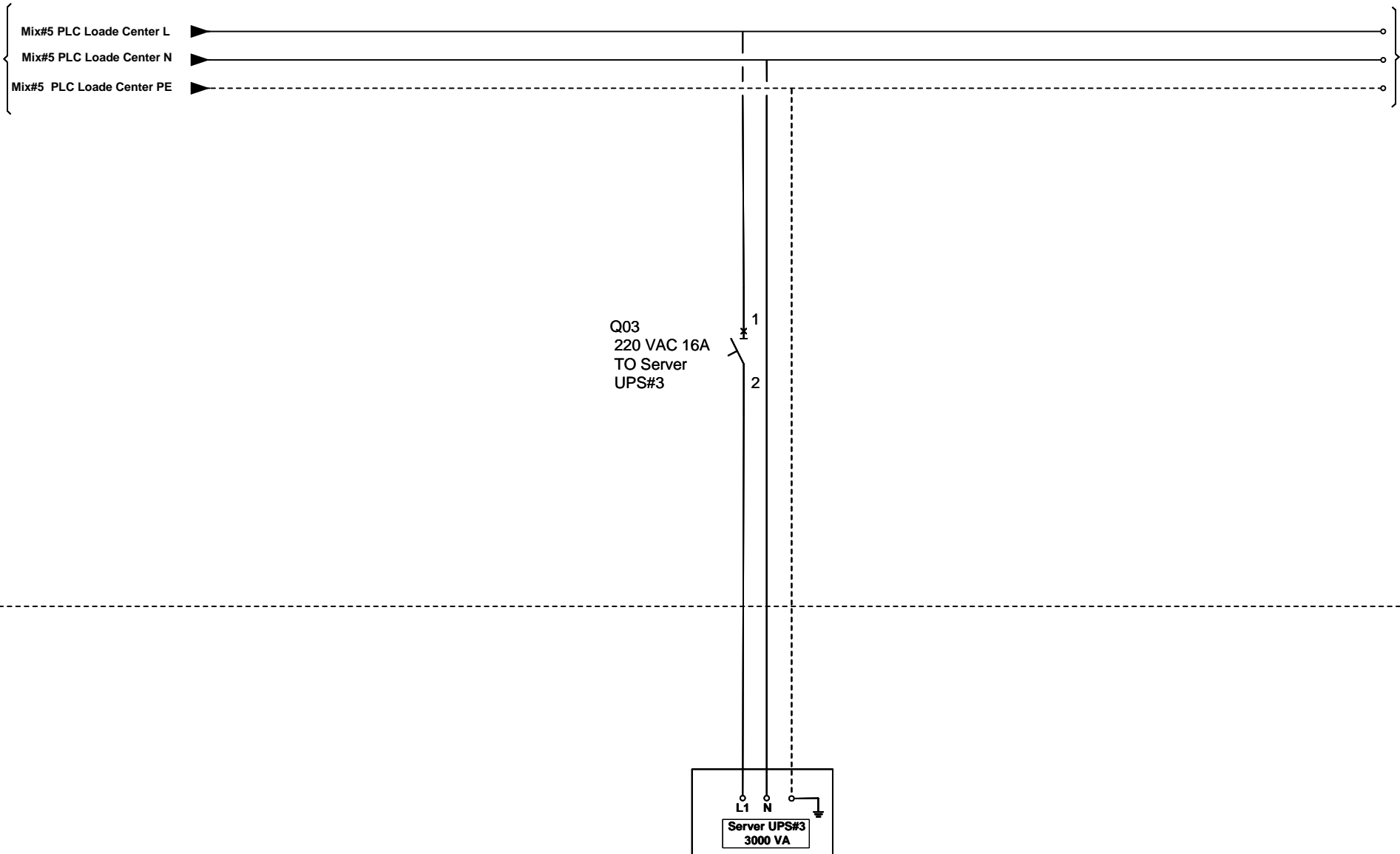
**Project Name : CO Plant Pre-Weight System**

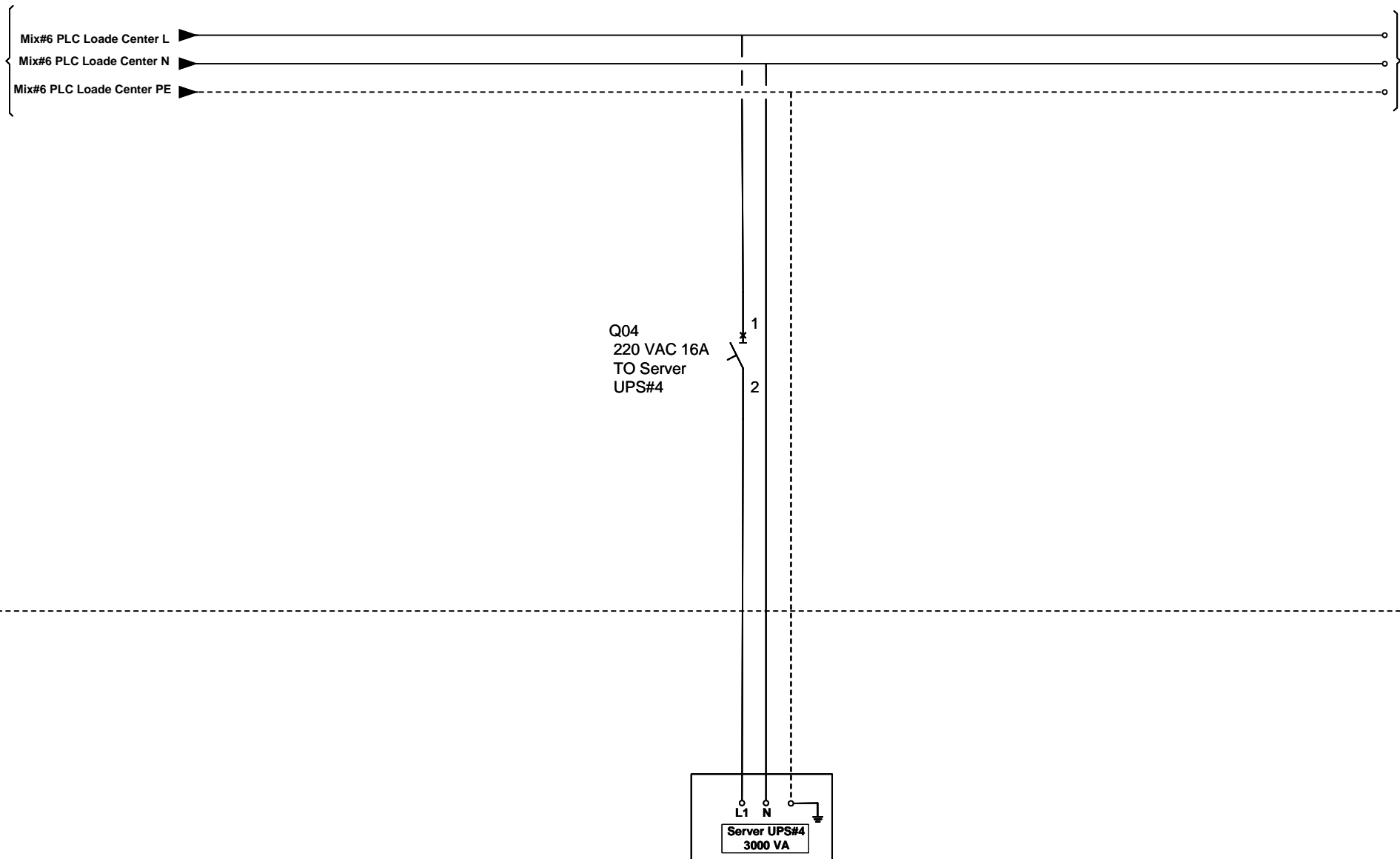
**Page number : 54/65**

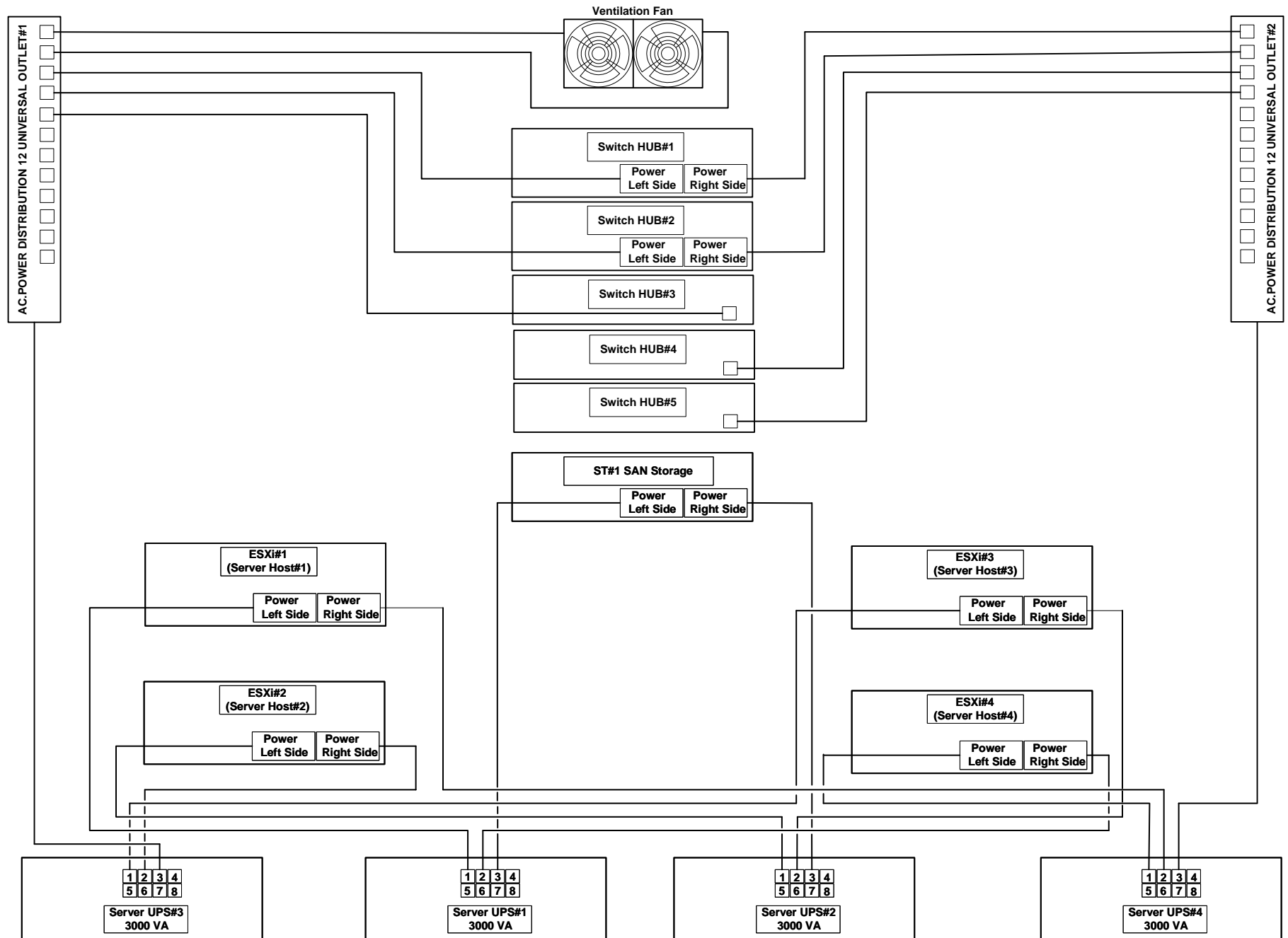
# Power Distribution

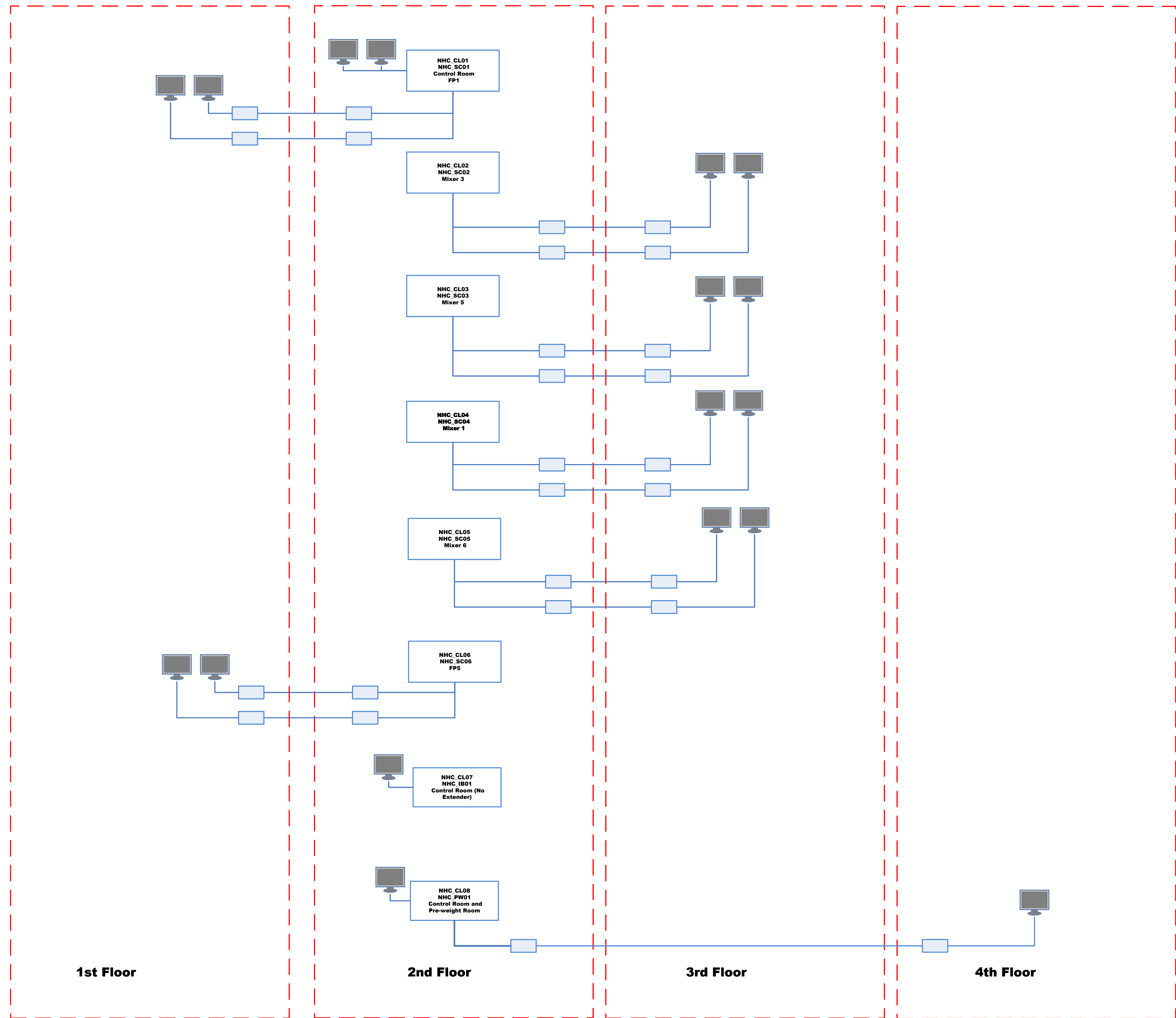














## Diagram KVM EXTender

