

# HCL Plant Control System

	Creation by :	Foster	Date :	06-01-2023	 <b>Unilever</b> Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited	REV.	Date	Description	Title : HCL Plant Control System Cover Sheet
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue		
	Aproved by :	Jamras	Date :	06-01-2023		-	-	-		
						-	-	-		
Project Name : <b>HCL Plant Control System</b>										Page number : 1/-

Item No.	Description	Page No.	Item No.	Description	Page No.
1	CO Plant Control System Cover Sheet	1	32	HUB#5 Connection List 2	32
2	Index 1	2	33	HUB#6 Connection List	33
3	Index 2	3	34	SAN Storage Network Connection List	34
4	Rack Server Front View	4	35	Control Room Network Cover Sheet	35
5	Rack Server Rear View	5	36	Control Room Network	36
6	Hardware Equipment List 1	6	37	Pre-weight station network cover Sheet	37
7	Hardware Equipment List 2	7	38	Pre-weight Station 1 Network	38
8	Software List	8	39	Pre-weight Station 2 Network	39
9	VMWare Licenses 1	9	40	Pre-weight Station 3 Network	40
10	VMWare Licenses 2	10	41	Pre-weight Station 4 Network	41
11	VMWare & Veeam Licenses 1	11	42	Inventory Station Network Cover Sheet	42
12	VMWare & Veeam Licenses 2	12	43	Inventory Network	43
13	Microsoft Licenses	13	44	PLC Network Cover Sheet	44
14	Server Host System Overview Cover Sheet	14	45	PLC Network Connection	45
15	Server Host System Overview	15	46	Touch Screen Network Cover Sheet	46
16	System IP Adress Summary List 1	16	47	Touch Screen Network Ground Floor	47
17	System IP Adress Summary List 2	17	48	Touch Screen Network 2 <sup>nd</sup> Floor	48
18	Server Host 1:VMWARE ESXi-1	18	49	Touch Screen Network 3 <sup>rd</sup> Floor	49
19	Server Host 2:VMWARE ESXi-2	19	50	Touch Screen Network 4 <sup>th</sup> Floor	50
20	Server Host 3:VMWARE ESXi-3	20	51	Mixing line 4 Touch screen network	51
21	Rack Server Network Internal Connection	21	52	Mixing Line 4 Remote I/O and Load Cell Network Cover Sheet	52
22	Router 1Gb Network Connection to ESXi#1	22	53	Mixing Line 4 Remote I/O network	53
23	Router 1Gb Network Connection to ESXi#2	23	54	Mixing line#4 load cell controller network	54
24	Router 1Gb Network Connection to ESXi#3	24	55	Power Distribution Cover Sheet	55
25	Router 1Gb Network Connection to SCADA, Prew., PLC network HUB	25	56	Main Power Distribution 380 VAC	56
26	Server SAN Storage Fibre Optic 16 GB Network	26	57	MCC Load Center Power Distribution 1	57
27	HUB#1 Connection List	27	58	MCC Load Center Power Distribution 2	58
28	HUB#2 Connection List	28	59	MCC Load Center Power Distribution 3	59
29	HUB#3 Connection List	29	60	MCC Load Center Power Distribution 4	60
30	HUB#4 Connection List	30	61	MCC Load Center Power Distribution 5	61
31	HUB#5 Connection List 1	31	62	UPS#1 - UPS#3 Power Distribution	62

Item No.	Description				Page No.	Item No.	Description				Page No.
63	PreW Load Center Power Distribution 1				63	94					
64	PreW Load Center Power Distribution 2				64	95					
65	PreW Load Center Power Distribution 3				65	96					
66						97					
67						98					
68						99					
69						100					
70						101					
71						102					
72						103					
73						104					
74						105					
75						106					
76						107					
77						108					
78						109					
79						110					
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83						114					
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85						116					
86						117					
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88						119					
89						120					
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91						122					
92						123					
93						124					

**FOSTER**  
ENGINEERING

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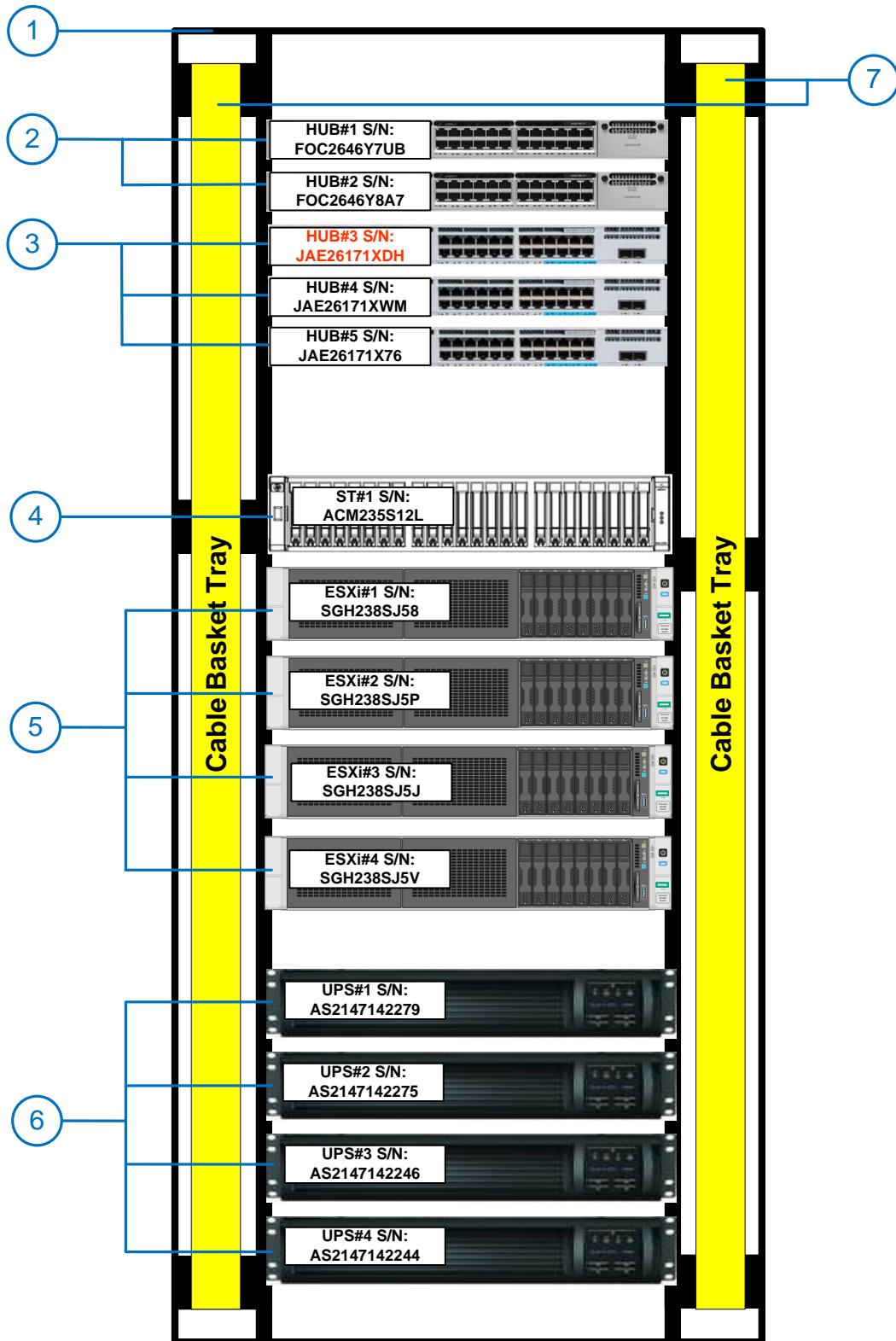
Customer : Unilever Thai Holding Limited  
Project Name : HCL Plant Pre-Weight System

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

Title :  
Index 2

Page number : 3/-

## FRONT VIEW



**FOSTER**  
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Title :

Rack Server Front View

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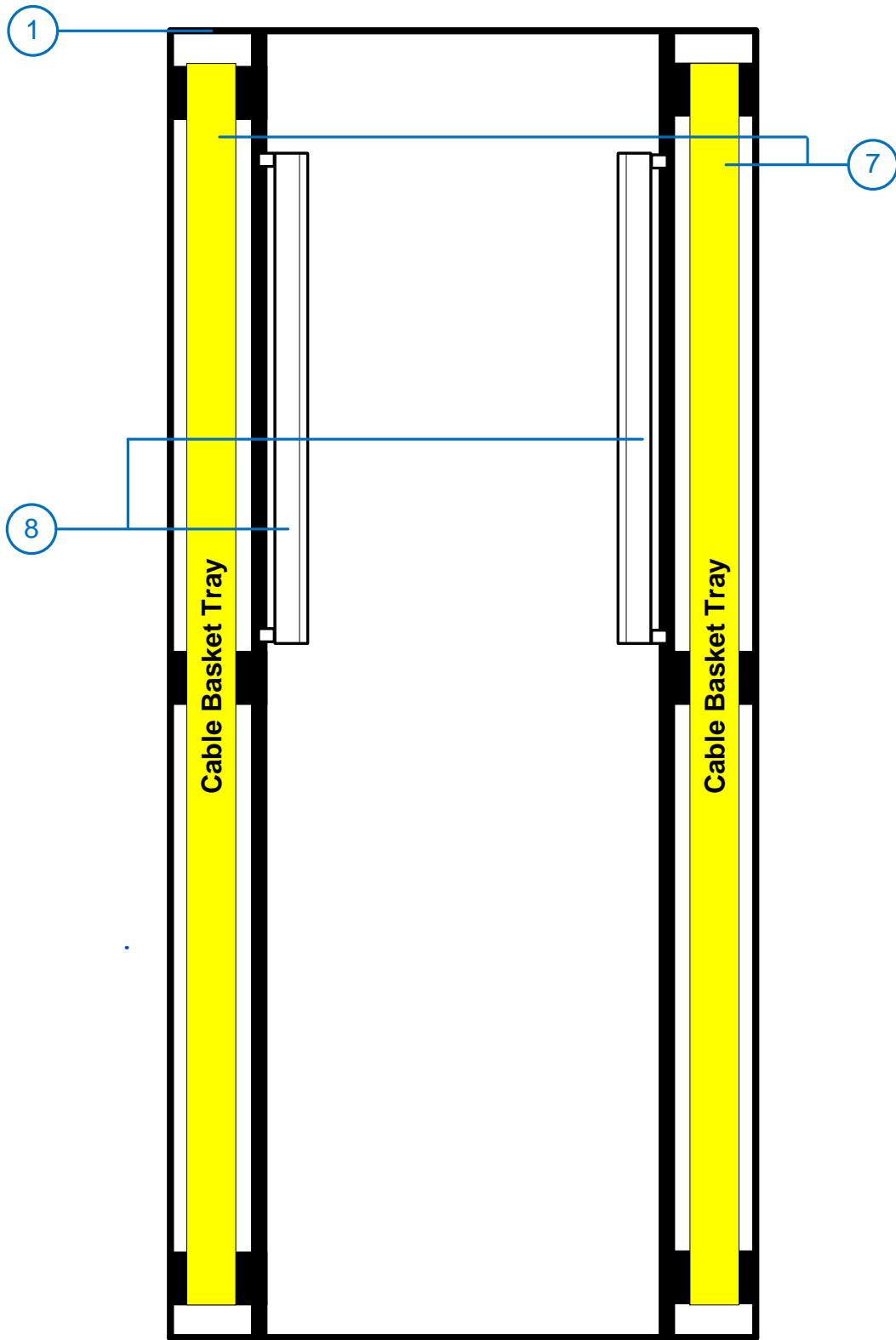
Unilever  
Unilever Thai Holding Limited

Customer : Unilever Thai Holding Limited

Project Name : HCL Plant Control System

Page number : 4/-

## REAR VIEW



<b>FOSTER</b> <b>ENGINEERING</b>	Creation by :	Foster	Date :	06-01-2023	<b>Title :</b>  <b>Rack Server Rear View</b>	REV.	Date	Description	
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 <b>Unilever</b> Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited								
	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 Transceive, 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	Page number : 6/-			

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



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## VMware License Purchase Information

VMware Order Number: 25687108  
License Confirm Date: JULY 06, 2022  
VST ECS Purchase Order: 20220701083

**Reseller:**  
**I T Focus Co.,Ltd**  
Reseller Ref: POSW6507002L

**Issued to:**  
**Unilever Thai Holdings Ltd**  
Ladkrabung Industrial Estate 63 Moo 4 Chalongkrung Road, Lamplatiaw, 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	



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Microsoft Licenses

REV.

Date

Description

B1 06-01-2023 Initial Issue

Customer : Unilever Thai Holding Limited

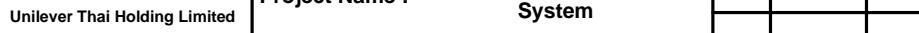
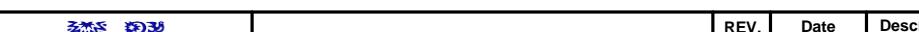
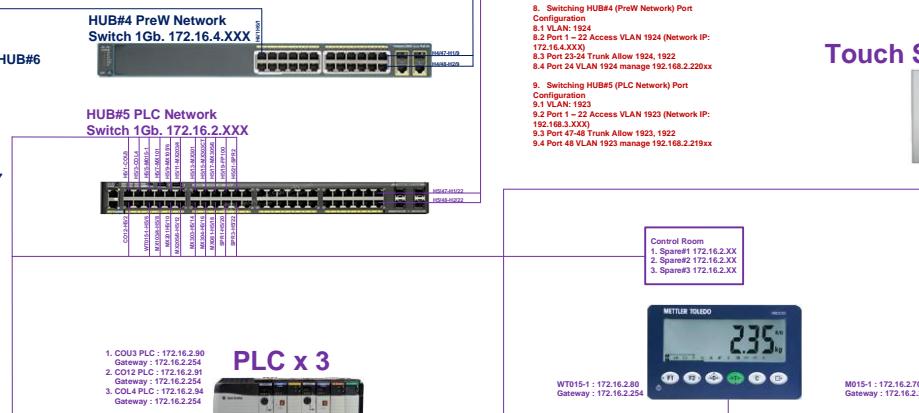
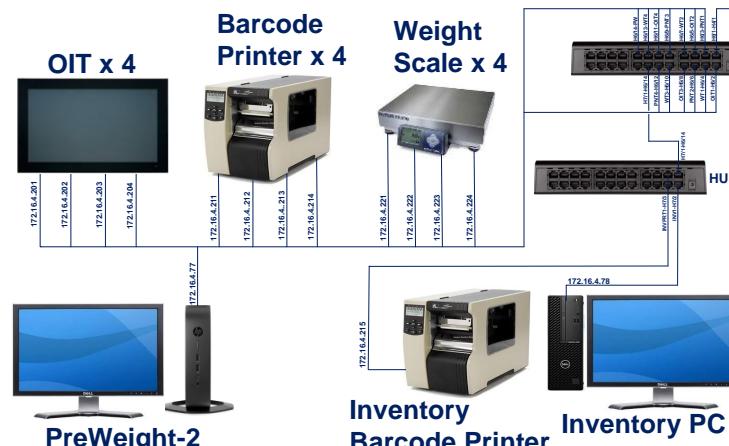
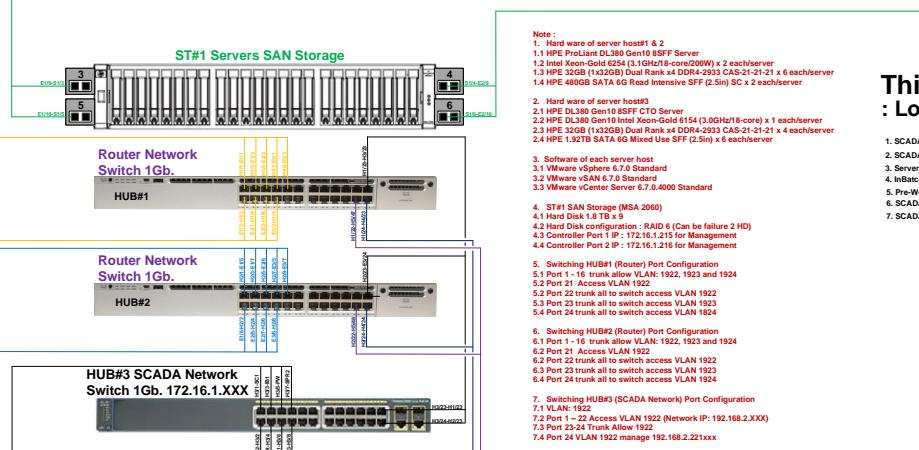
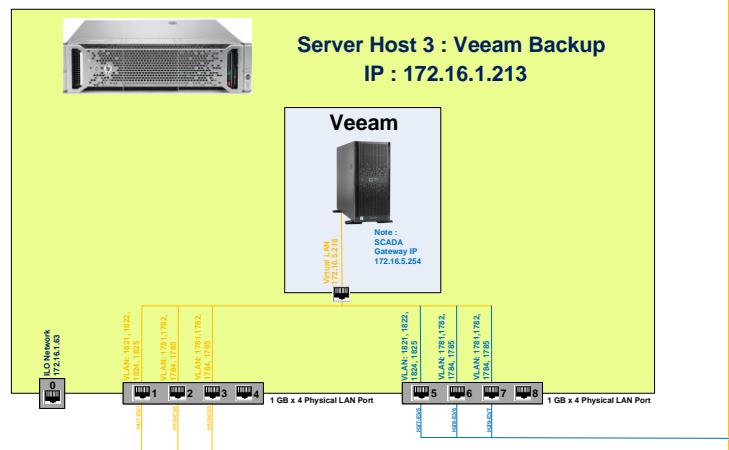
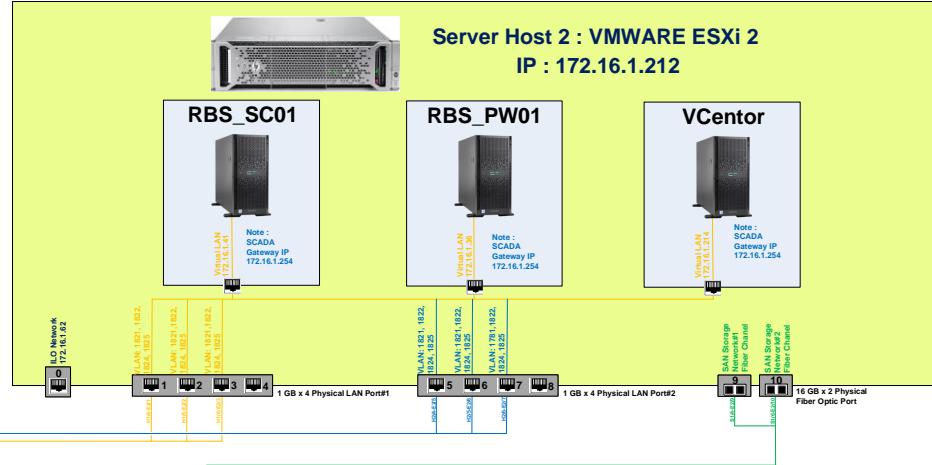
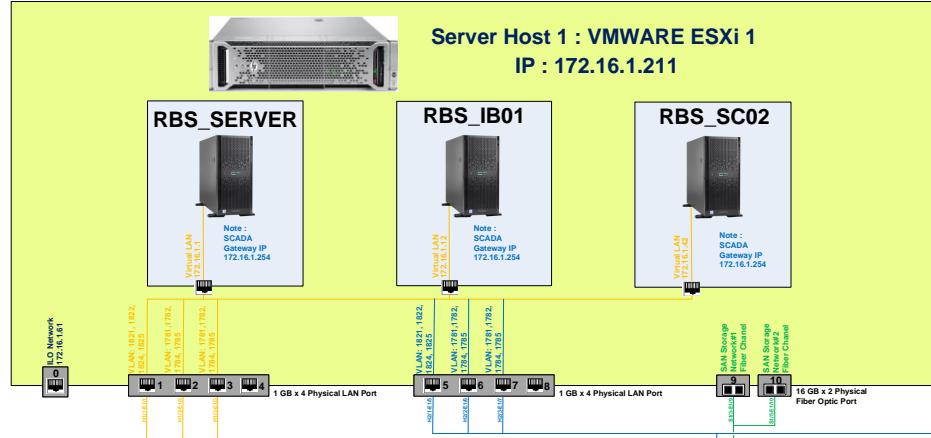
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Project Name : HCL Plant Pre-Weight System

# Sever Host System Overview

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REV.	Date	Description	Title :
B1	06-01-2023	Initial Issue	Server Host System Overview Cover Sheet
			Page number : 14/-



## System IP Adress 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	Management 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	Management 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	Management 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



 <b>Unilever</b> Unilever Thai Holding Limited	Creation by :	Foster	Date :	06-01-2023	<b>Title :</b>  <b>System IP Adress Summary List 1</b>	REV.	Date	Description	
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 <b>Unilever</b> Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited								
	Project Name : HCL Plant Pre-Weight System					Page number : 16/-			

## System IP Adress Summary List

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Item No.	Equiment 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



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Aproved by :	Jamras	Date :	06-01-2023				



Unilever Thai Holding Limited

Customer : Unilever Thai Holding Limited	Project Name : HCL Plant Pre-Weight System	Page number : 17/-		

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

Iteem NO.	Equiment Name	IP address	Subnet mask	Gateway	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

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



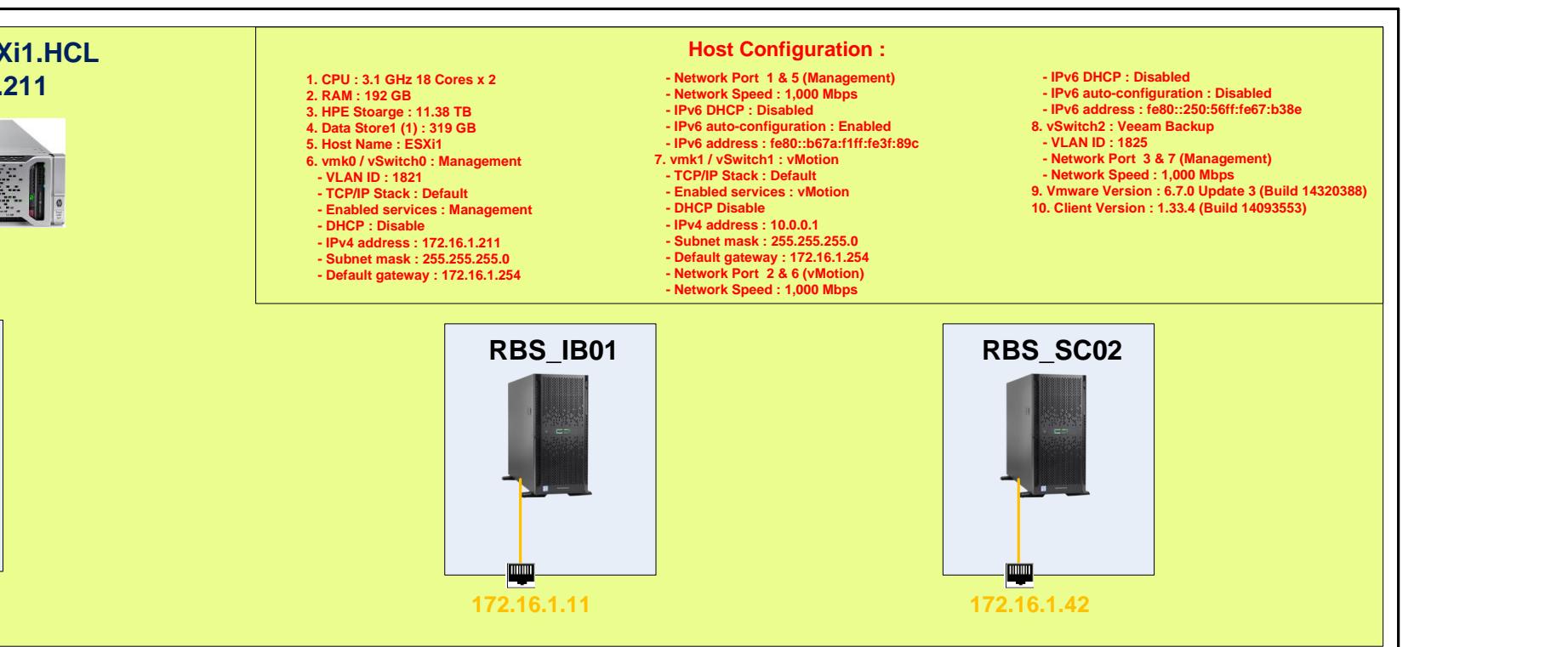
## System IP Adress Summary List (192.168.12.xxx)

Iteem NO.	Equipment Name	IP address	Subnet mask	Gateway	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	



Unilever  
Unilever Thai Holding Limited

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



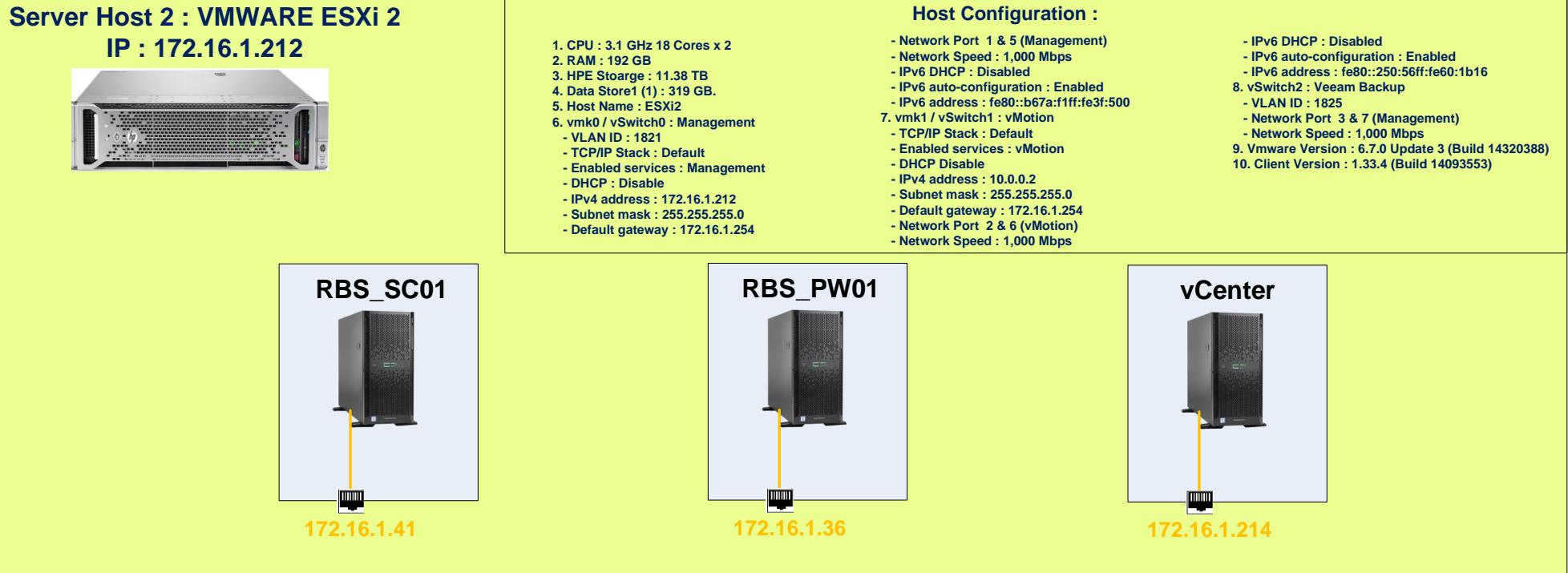
1. CPU:333 MHz 4 Core  
2. Memory : 19 GB  
3. Host Name : vCenter.HCL  
4. Storage : 719.29 GB  
5. VLAN Network  
- Speed : 1,000 Mbps  
- Management IP: 192.168.10.211  
- ILO Port IP: 192.168.10.61  
- Subnet mask : 255.255.255.0  
- Gateway : 192.168.10.254  
6. Operating System (OS)  
- Guest OS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

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

FOSTER ENGINEERING	Creation by :	Foster	Date :	06-01-2023	 Unilever Unilever Thai Holding Limited	Customer :	Unilever Thai Holding Limited	REV.	Date	Description	Title :	
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue				Server Host 1:VMWARE
	Aproved by :	Jamras	Date :	06-01-2023								ESXi-1
	Project Name :	HCL Plant Pre-Weight System			Page number :	18/-						

## Server Host 2 : VMWARE ESXi 2

IP : 172.16.1.212



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 Adress : 172.16.1.41  
     - 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

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 Adress : 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 Adress : 172.16.1.214  
     - Subnet mask : 255.255.255.0  
     - Gateway : 172.16.1.254  
 7. Operating System (OS)  
     - Microsoft widows server 2016 standard (64 bits)  
 8. Application software  
     - vCenter 6.7.0.4000

## Server Host 3 : VMWARE ESXi 3

IP : 172.16.1.213



Veeam Backup

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

## Host Configuration :

- Network Port 1 & 2 (vMotion)
  - 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
8. Vmware Version : 6.7.0 Update 3 (Build 14320388)  
 9. Client Version : 1.33.4 (Build 14093553)



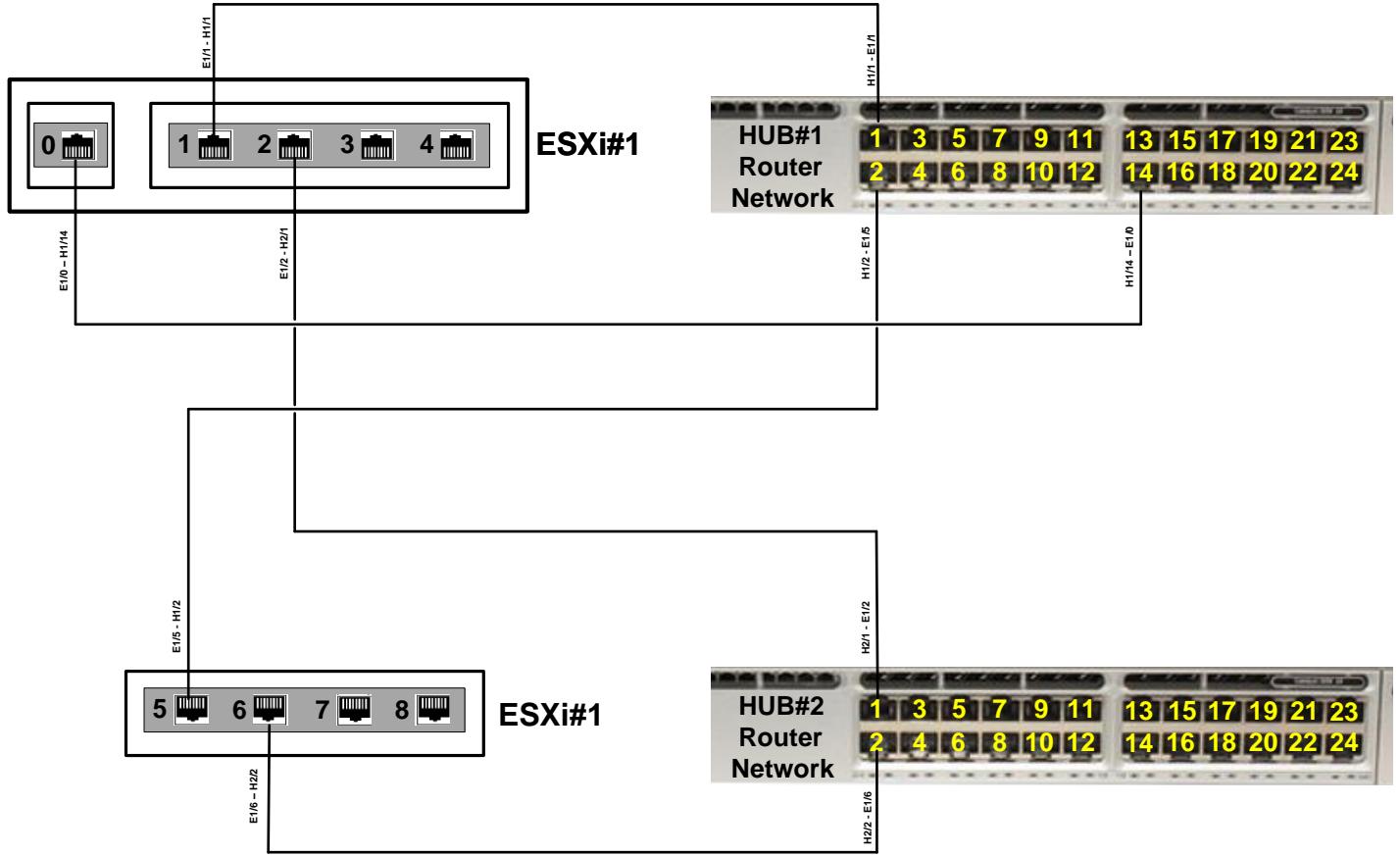
172.16.5.218

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 windows server 2016 standard (64 bits)
8. Application software
  - Veeam Backup & Replication 10.0

# Rack Server Network Internal Connection

<b>FOSTER</b> ENGINEERING

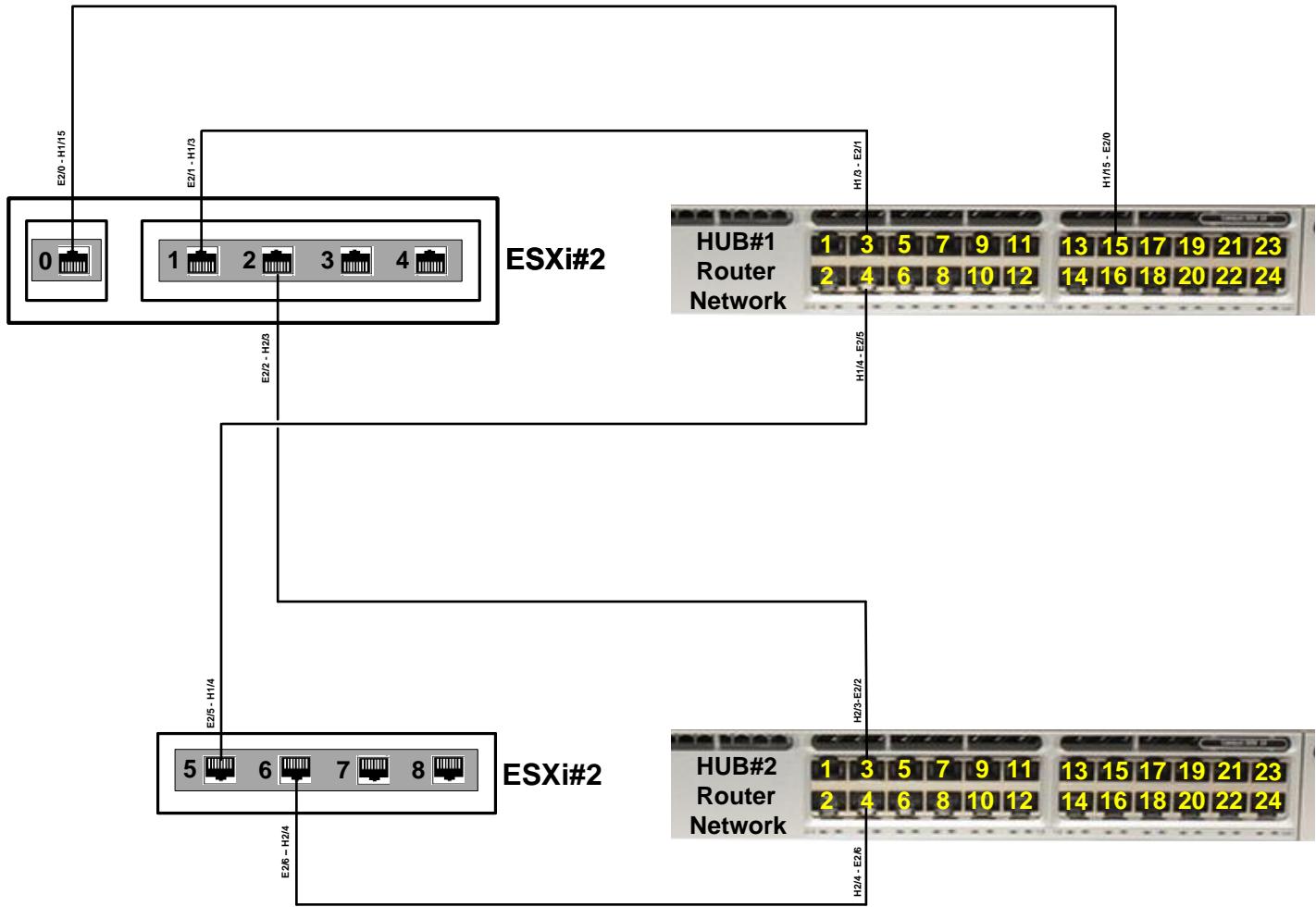
 <b>Unilever</b> Unilever Thai Holding Limited	Creation by :	Foster	Date :	06-01-2023	Title :  Rack Server Network Internal Connection	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
	Aproved by :	Jamras	Date :	06-01-2023				
	Customer : Unilever Thai Holding Limited							
	Project Name : HCL Plant Pre-Weight System				Page number : 21/-			



**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

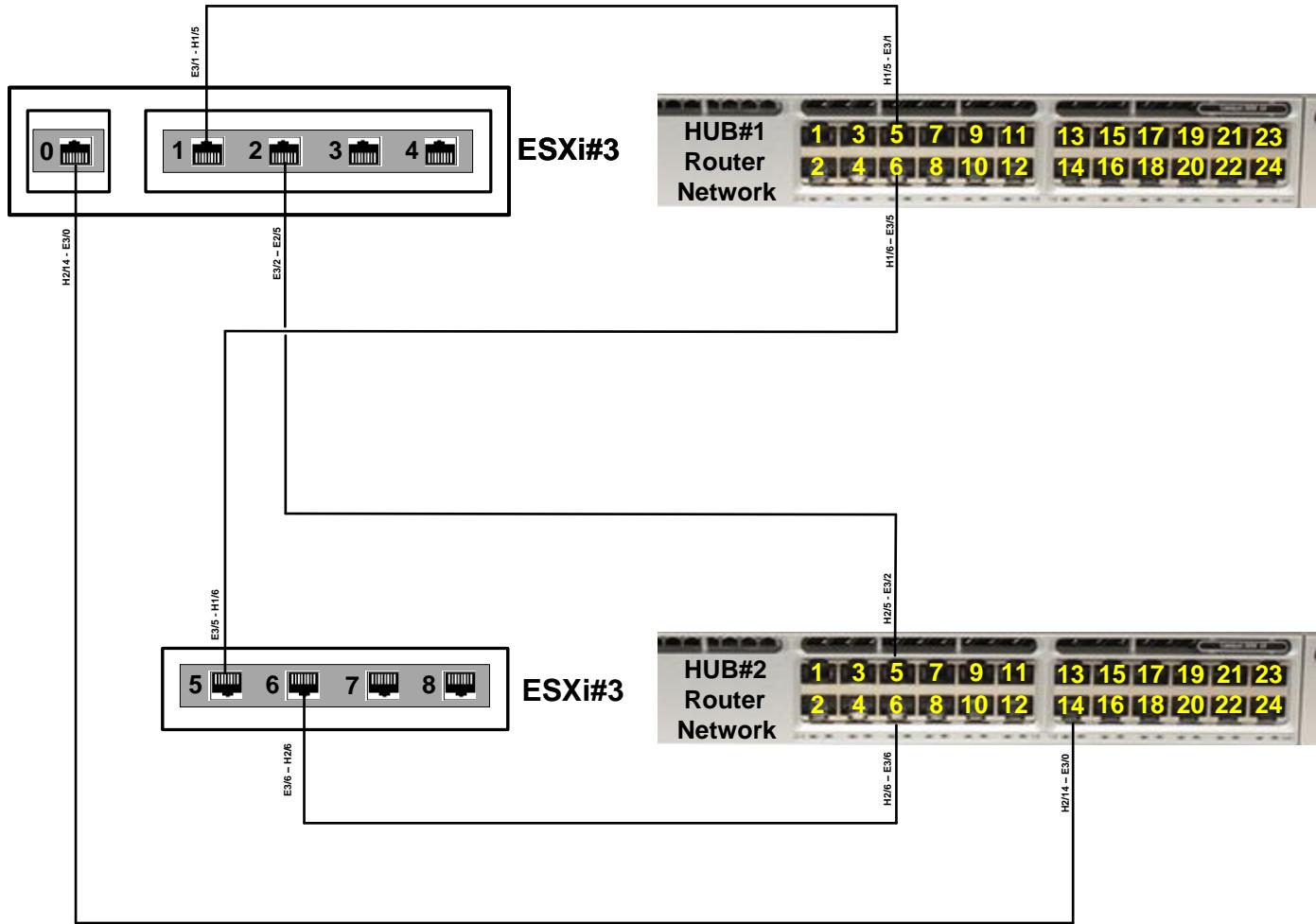
<b>FOSTER</b> ENGINEERING	Creation by :	Foster	Date :	06-01-2023	Title :  Router 1Gb Network Connection to ESXi#1	REV.	Date	Description	
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue	
	Aproved by :	Jamras	Date :	06-01-2023					
Customer : Unilever Thai Holding Limited  Project Name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

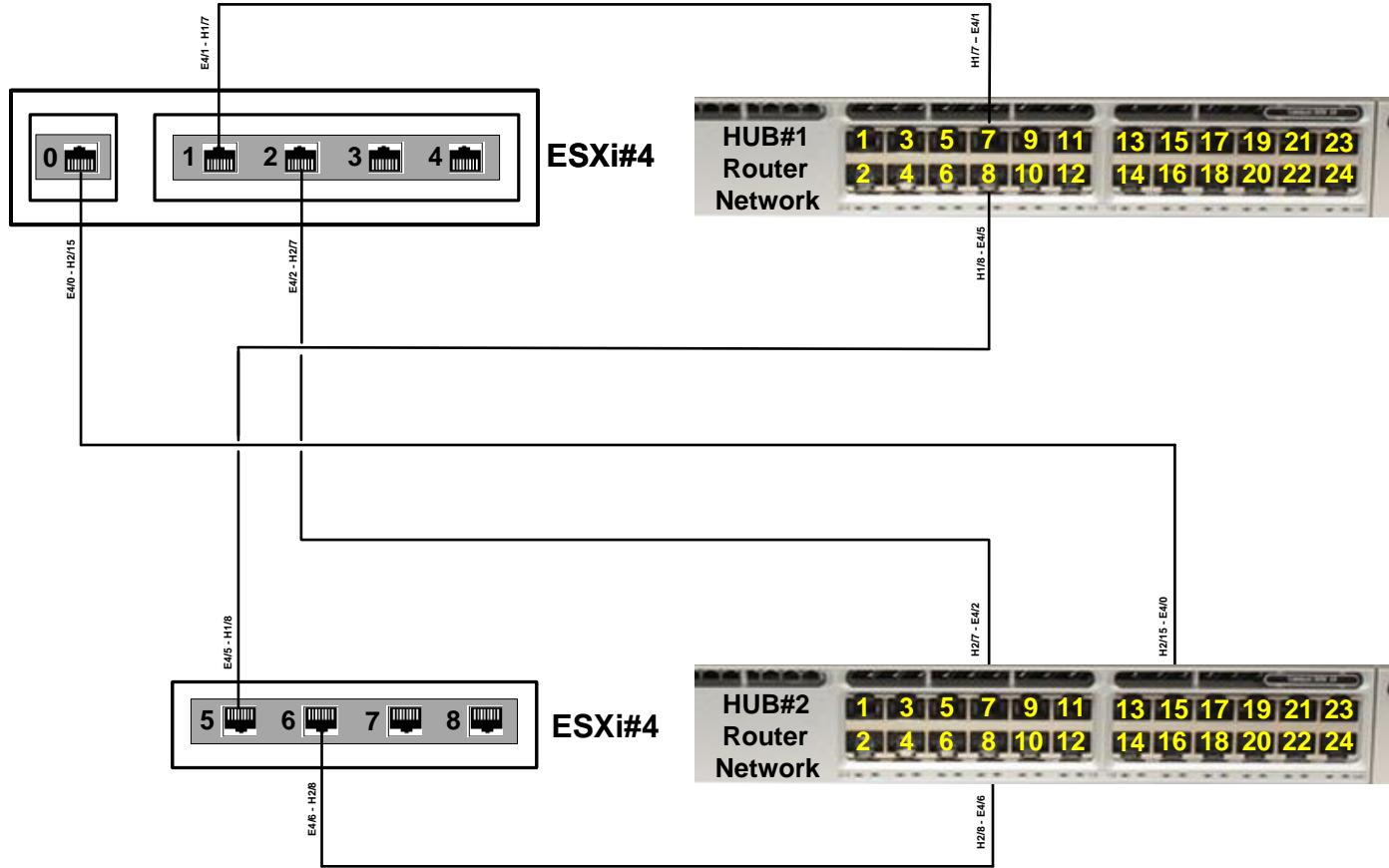
<b>FOSTER</b> ENGINEERING	Creation by :	Foster	Date :	06-01-2023	Title :  Router 1Gb Network Connection to ESXi#2	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
	Aproved by :	Jamras	Date :	06-01-2023				
	Customer : Unilever Thai Holding Limited							
Unilever 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

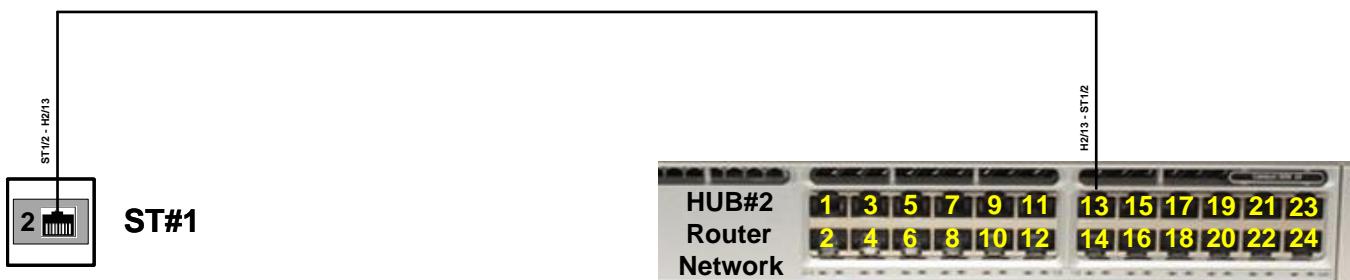
<b>FOSTER</b> ENGINEERING	Creation by :	Foster	Date :	06-01-2023	Title :  Router 1Gb Network Connection to ESXi#3	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
	Aproved by :	Jamras	Date :	06-01-2023				
 Unilever Unilever Thai Holding Limited	Customer : Unilever 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

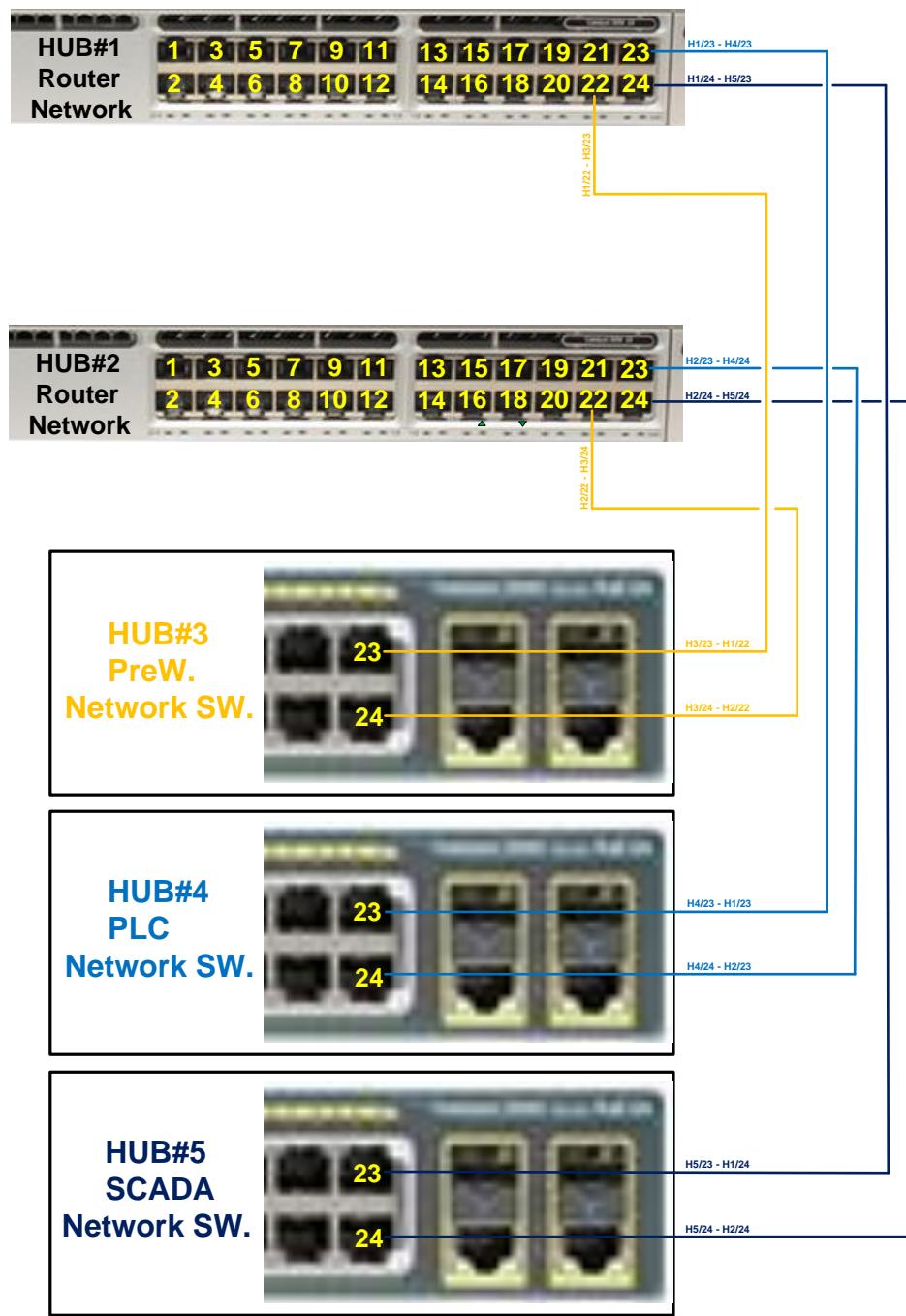
<b>FOSTER</b> ENGINEERING	Creation by :	Foster	Date :	06-01-2023	Title :  Router 1Gb Network Connection to ESXi#3	REV.	Date	Description
	Checked by :	Foster	Date :	06-01-2023		B1	06-01-2023	Initial Issue
	Aproved by :	Jamras	Date :	06-01-2023				
 Unilever Unilever Thai Holding Limited	Customer : Unilever 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

<b>FOSTER</b> <b>ENGINEERING</b>	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					
 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

Checked by : Foster Date : 06-01-2023

Aproved by : Jamras Date : 06-01-2023

Title :  
Router 1Gb Network Connection to SCADA, Prew., PLC network HUB

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



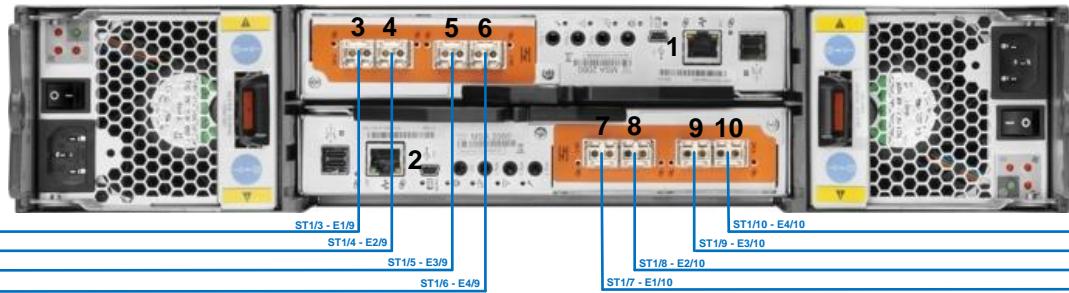
Unilever Thai Holding Limited

Customer : Unilever Thai Holding Limited

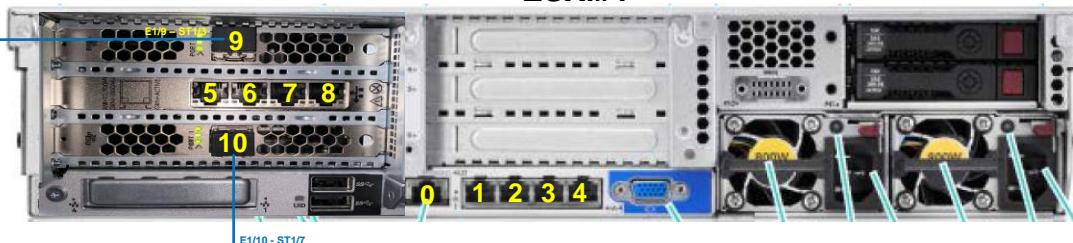
Project Name : HCL Plant Pre-Weight System

Page number : 25/-

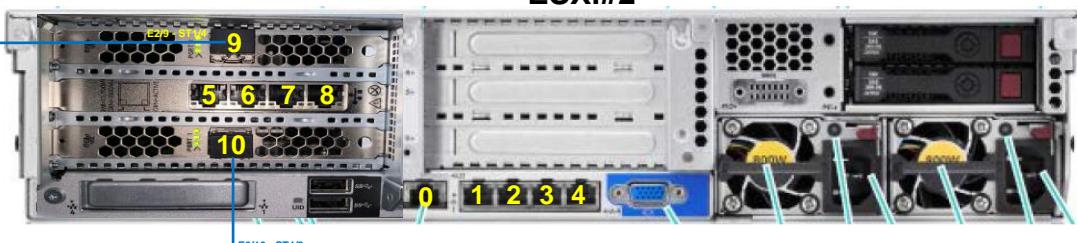
## ST#1 SAN Storage Rear Side



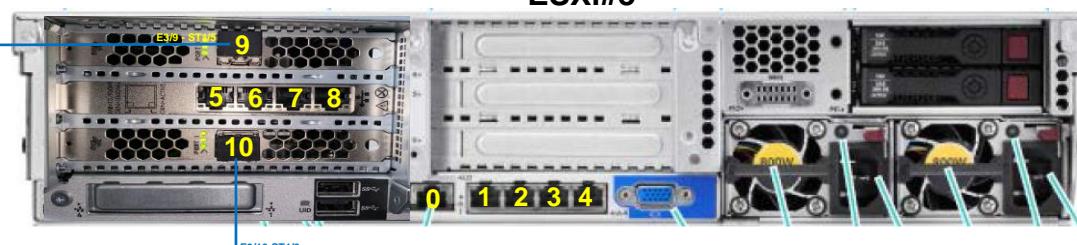
**ESXi#1**



**ESXi#2**



**ESXi#3**



**ESXi#4**



Creation by : Foster Date : 06-01-2023

Checked by : Foster Date : 06-01-2023

Aproved by : Jamras Date : 06-01-2023

Title :

Server SAN Storage  
Fibre Optic 16 GB Network

REV.

B1

Date

06-01-2023

Description

Initial Issue



Unilever

Unilever Thai Holding Limited

Customer : Unilever Thai Holding Limited

Project Name : HCL Plant Pre-Weight  
System

Page number : 26/-

✓

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

Item No.	Souce Port Number	Souce 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 :

**HUB#1  
Connection List**

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 : HCL Plant Control System

Page number : 27/65

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

Item No.	Souce Port Number	Souce 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

Checked by :

Foster

Date :

25-03-2022

Aproved by :

Jamras

Date :

25-03-2022

Title :

### HUB#2 Connection List

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



Unilever Thai Holding Limited

Customer : Unilever Thai Holding Limited

Project Name : HCL Plant Control System

Page number : 28/65

## 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

  Unilever Unilever Thai Holding Limited	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 :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
 Customer Unilever Thai Holding Limited	Project Name :	HCL Plant Control System			Page number : 30/65			
		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

  Unilever Unilever Thai Holding Limited	Creation by :	Foster	Date :	25-03-2022	Title : <b>HUB#4</b> <b>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
	Customer : Unilever Thai Holding Limited							
	Project Name : HCL Plant Control System				Page number : 30/65			



## 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

 <b>FOSTER</b> ENGINEERING	Creation by :	Foster	Date :	25-03-2022	<b>Title :</b>  <b>HUB#6</b> <b>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
 <b>Unilever</b> Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited					D1	25-03-2022	As built
	Project Name : HCL Plant Pre-Weight System							
					Page number : 32/65			

7  
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

  Unilever Thai Holding Limited	Creation by :	Foster	Date :	25-03-2022	Title : <b>HUB#7 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
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

  Unilever Unilever Thai Holding Limited	Creation by :	Foster	Date :	25-03-2022	<b>Title :</b>  <b>HUB#8</b> <b>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
	Customer : Unilever Thai Holding Limited							
	Project Name : HCL Plant Pre-Weight System				Page number : 33/65			

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

<b>Item No.</b>	<b>Source Port Number</b>	<b>Source LAN Cable Mark</b>	<b>Destination Port Number</b>	<b>Destination LAN Cable Mark</b>	<b>Description</b>
1	HUB#10 Port 1	<del>White LAN Cable</del>			
2	HUB#10 Port 2	<del>White LAN Cable</del>			
3	HUB#10 Port 3	<del>White LAN Cable</del>			
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

  Unilever Thai Holding Limited	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
	Aproved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
						D1	25-03-2022	As built
Customer : Unilever Thai Holding Limited								
Project Name : HCL Plant Pre-Weight System					Page number : 33/65			

**SAN Stoarge Network Connection List**

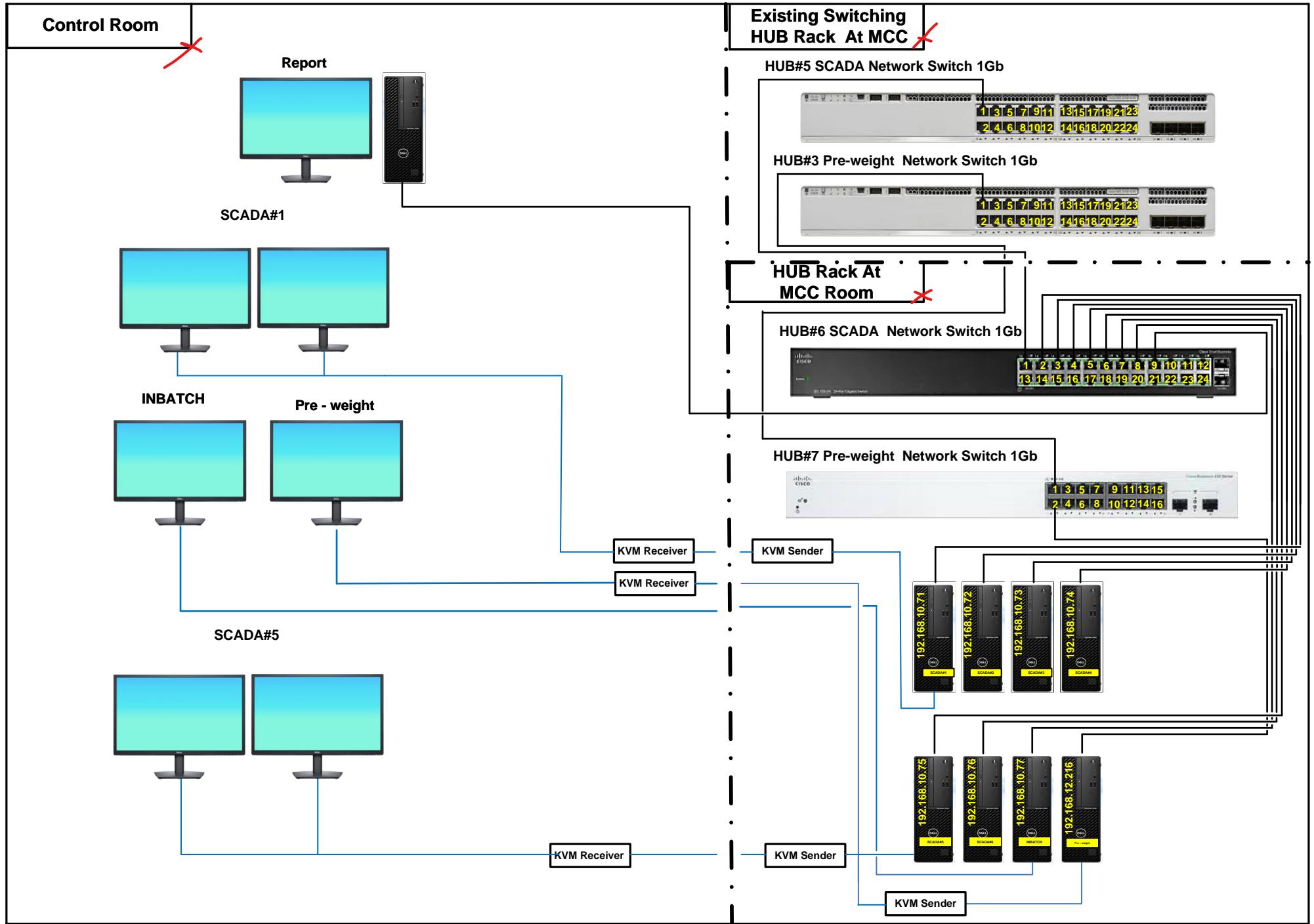
Item No.	Souce Port Number	Souce LAN Cable Mark	Destination Port Number	Destination LAN Cable Mark	Description
1	ST#1 Port 1	ST1/1-H3/21	HUB#3 Port 21	H3/21-ST1/1	Port RJ45 : Management Network
2	HUB#6 Port 2	ST1/2-H3/22	HUB#3 Port 22	H3/22-ST1/2	Port RJ45 : Management Network
3	HUB#6 Port 3	ST1/3-E1/9	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

<b>FOSTER</b> ENGINEERING	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
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				Project Name : HCL Plant Pre-Weight System	D1	25-03-2022	As built
Page number : 34/65								

# Control Room Network

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

REV.	Date	Description	Title :
B1	31-07-2020	Initial Issue	Control room network cover Sheet
C1	19-05-2021	Construction	
D1	25-03-2022	As built	
			Page number : 35/65



# Pre-weight Station Network



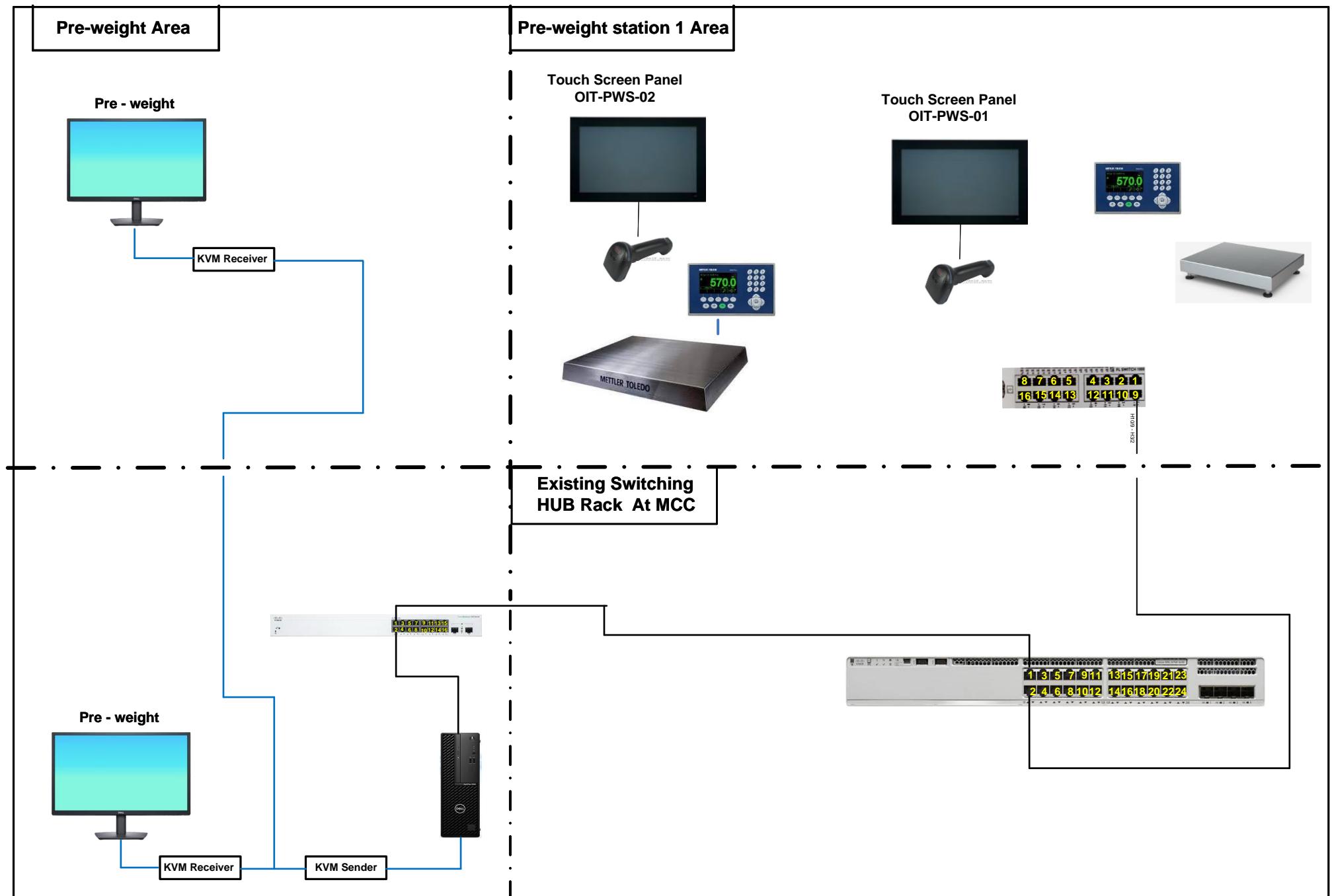
Creation by :	Foster	Date :	25-03-2022
Checked by :	Foster	Date :	25-03-2022
Aproved by :	Jamras	Date :	25-03-2022



Customer : Unilever Thai Holding Limited  
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 : Pre-weight station network cover Sheet  
Page number : 37/65



**Pre-weight station 2 Area**

**Touch Screen Panel**

OIT-PWS-02



OIT2-H6/5

**Barcode Printer**

PNT-PWS-02



PNT2-H6/6

**Pre-weight Area**



**Pre-weight Area**

H6/7-WT2

H6/5-OIT2

H6/6-PNT2

HUB#6 Switch 1Gb in the explosion box

H6/1-HM/1

**Existing Switching HUB Rack at MCC**

HUB#4 PreW Network Switch 1Gb

H4/H6/1



Scaller #2 (WT-PWS-02)

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

**Pre-weight station 2 Area**

Touch Screen Panel  
OIT-PWS-03



172.16.4.203

OIT3-H6/8



Barcode Printer  
PNT-PWS-03



172.16.4.213

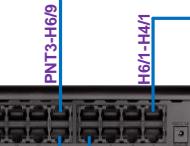
PNT3-H6/9

**Pre-weight Area**

PNT3-H6/9

WT3-H6/10

OIT3-H6/8



HUB#6 Switch 1Gb in the explosion box

Existing Switching  
HUB Rack at MCC

HUB#4 PreW Network Switch 1Gb

H4/1-H6/1



WT3-H6/10

Scaller #3 (WT-PWS-03)

Pre-weight station 2 Area

Touch Screen Panel  
OIT-PWS-04



Pre-weight Area

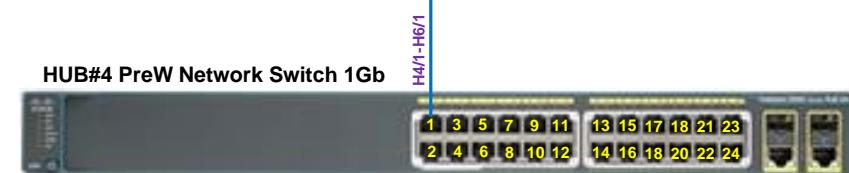
Barcode Printer  
PNT-PWS-04



Scaller #4 (WT-PWS-04)

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

HUB#4 PreW Network Switch 1Gb



H4/H6/1

H6/13-NET4  
H6/11-OIT4

H6/1-H4/1

HUB#6 Switch 1Gb in the explosion box

Existing Switching  
HUB Rack at MCC

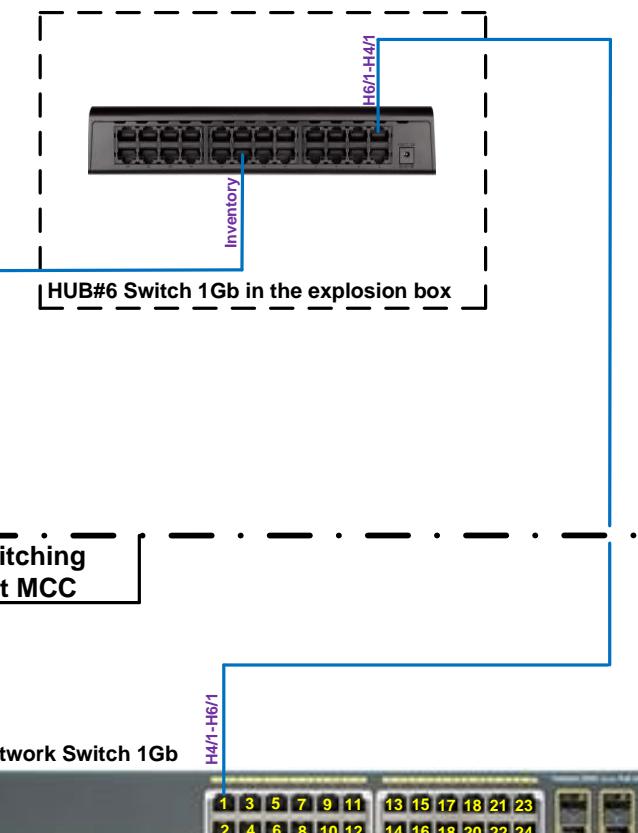
# Inventory Station Network

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

**Warehouse Officer**



**Pre-weight Area**



# PLC Network

 <b>FOSTER</b> ENGINEERING	Creation by :	Foster	Date :	25-03-2022	<b>Title :</b>  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
 <b>Unilever</b> Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				Page number : 44/65	D1	25-03-2022	As built
	Project Name : CO Plant Pre-Weight System							

## 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



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



H5/2 – Mix#3

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



H5/4 – Mix#6

**FOSTER**  
ENGINEERING

Unilever

Unilever Thai Holding Limited

Creation by :

Foster

Date :

25-03-2022

Checked by :

Foster

Date :

25-03-2022

Aproved 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

Customer : Unilever Thai Holding Limited

Project Name : CO Plant Pre-Weight System

Page number : 45/65

# Touch Screen Network

<b>FOSTER</b> ENGINEERING

Title :  Touch Screen Network Cover Sheet	REV.	Date	Description
	B1	31-07-2020	Initial Issue
	C1	19-05-2021	Construction
	D1	25-03-2022	As built
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



**Ground Floor**



**FP100  
Flow Plate**

**FOSTER**  
ENGINEERING

  
Unilever  
Unilever Thai Holding Limited

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

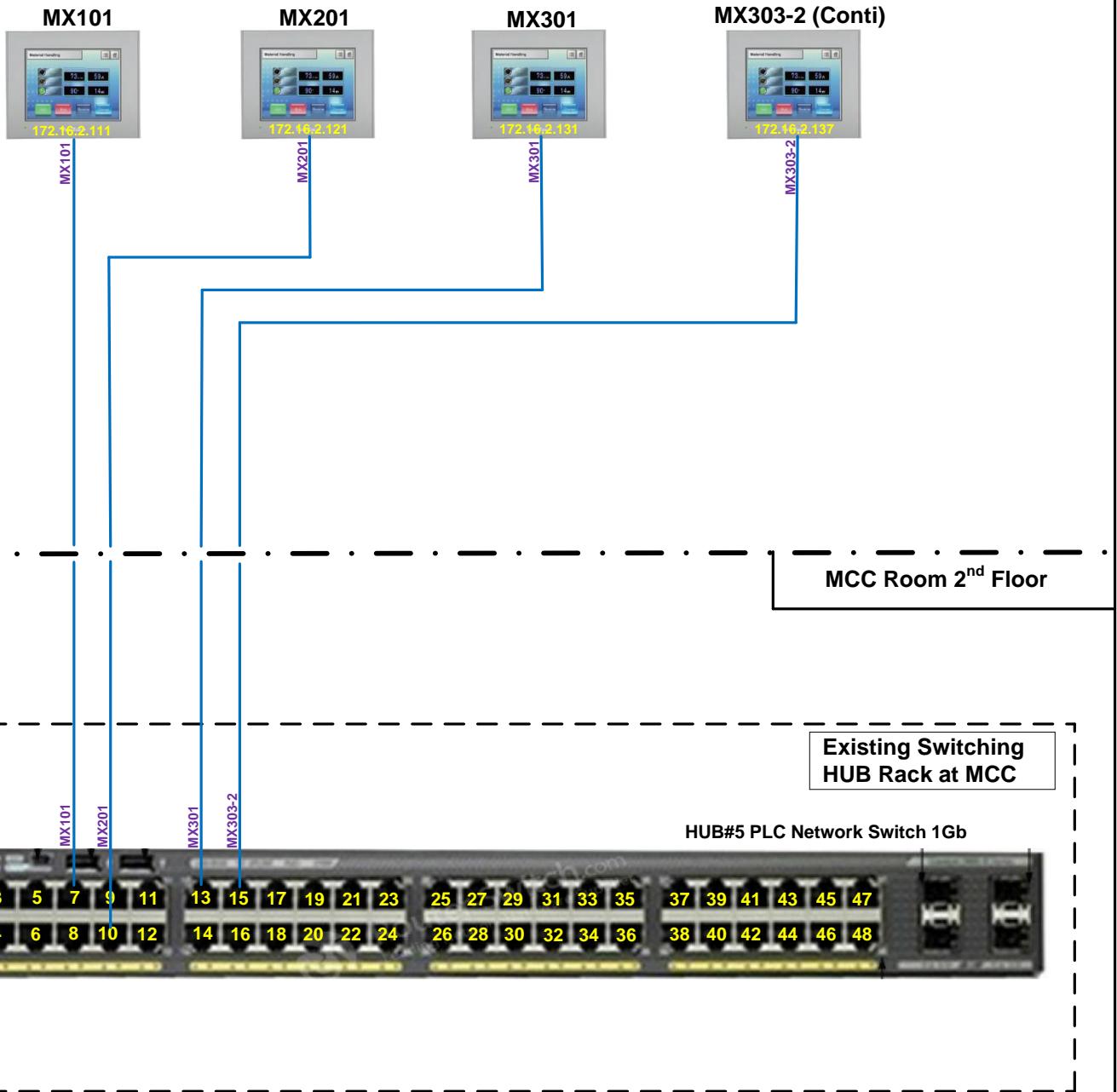
As built

Customer : Unilever Thai Holding Limited

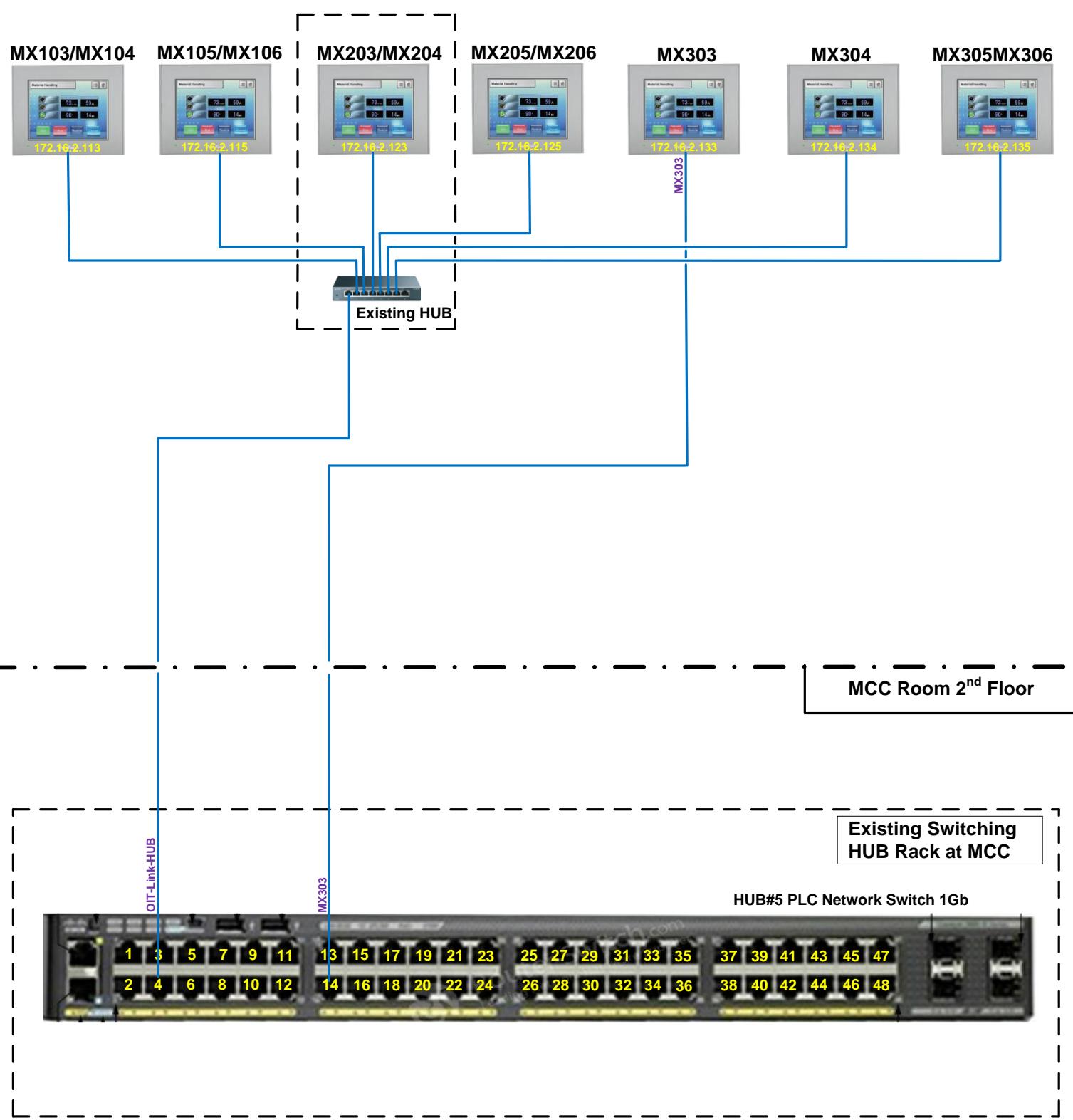
Project Name : CO Plant Pre-Weight System

Page number : 47/65

Mixing area 2<sup>nd</sup> Floor



<b>FOSTER ENGINEERING</b>	Creation by :	Foster	Date :	25-03-2022	Title :  Touch Screen Network 2 <sup>nd</sup> Floor	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
 Unilever Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				Page number : 48/65	D1	25-03-2022	As built
	Project Name : CO Plant Pre-Weight System							



 <b>FOSTER</b> ENGINEERING	Creation by :	Foster	Date :	25-03-2022	Title :  Touch Screen Network 3 <sup>rd</sup> Floor	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
 <b>Unilever</b> Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				Page number : 49/65	D1	25-03-2022	As built
	Project Name : CO Plant Pre-Weight System							



MX081

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

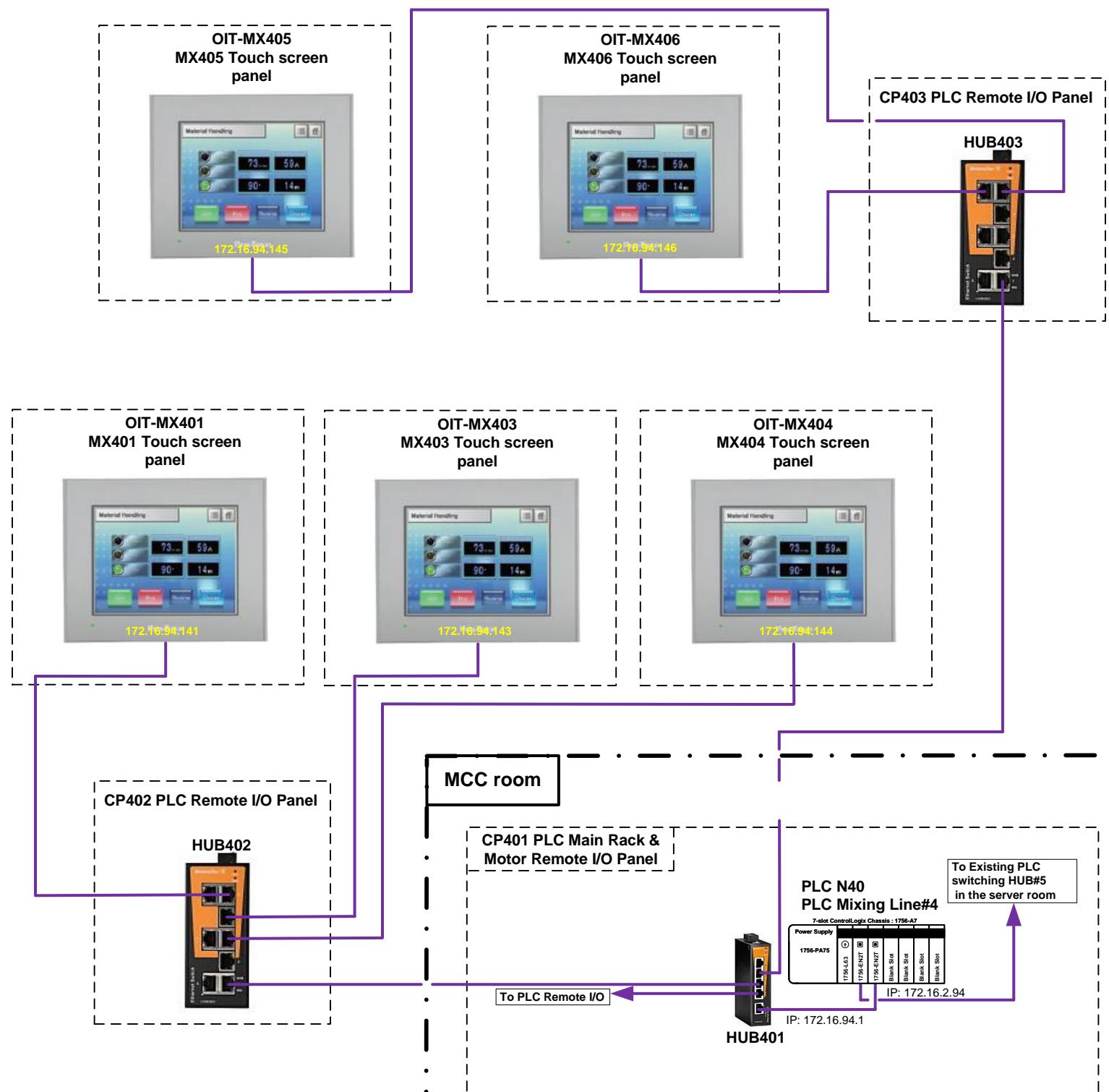
Existing Switching HUB Rack at MCC

HUB#5 PLC Network Switch 1Gb


**FOSTER**  
**ENGINEERING**
  
Unilever

Creation by :	Foster	Date :	25-03-2022	Title :  Touch Screen Network 4 <sup>th</sup> Floor	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
Customer : Unilever Thai Holding Limited							
Project Name : CO Plant Pre-Weight System				Page number : 50/65			

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



**FOSTER**  
ENGINEERING

  
Unilever  
Unilever Thai Holding Limited

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

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



  
Unilever  
Unilever Thai Holding Limited

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 Remote I/O  
and  
Load Cell Network  
Cover Sheet

REV.

Date

Description

B1 31-07-2020

Initial Issue

C1 19-05-2021

Construction

D1 25-03-2022

As built

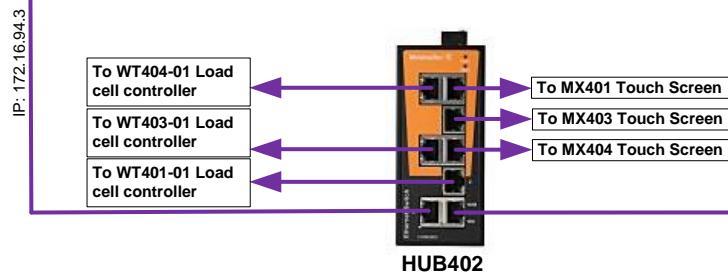
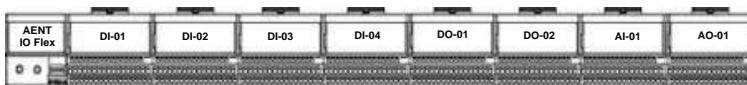
Customer : Unilever Thai Holding Limited

Project Name : CO Plant Pre-Weight System

Page number : 52/65

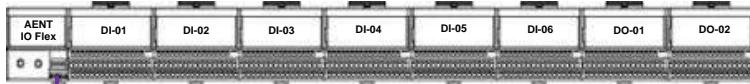
**Third floors**  
**Main & Side Mixer Area**

CP402 PLC Remote I/O Panel

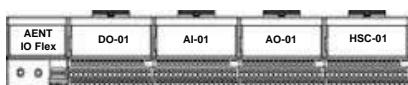


**Second floor**  
**Recirculation Area**

CP403 PLC Remote I/O Panel



IP: 172.16.94.4



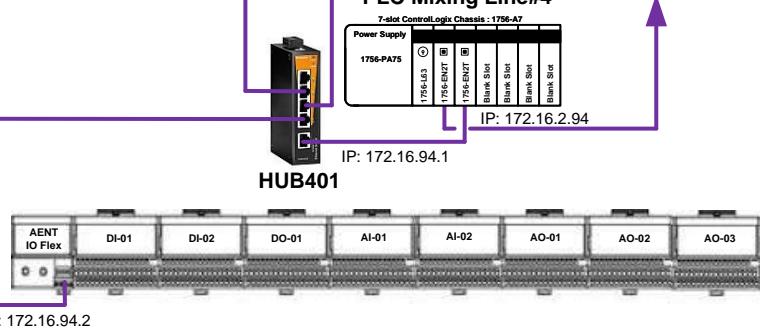
IP: 172.16.194.5



HUB403

**MCC room**

CP401 PLC Main Rack & Motor Remote I/O Panel



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 Remote I/O network

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



Unilever Thai Holding Limited

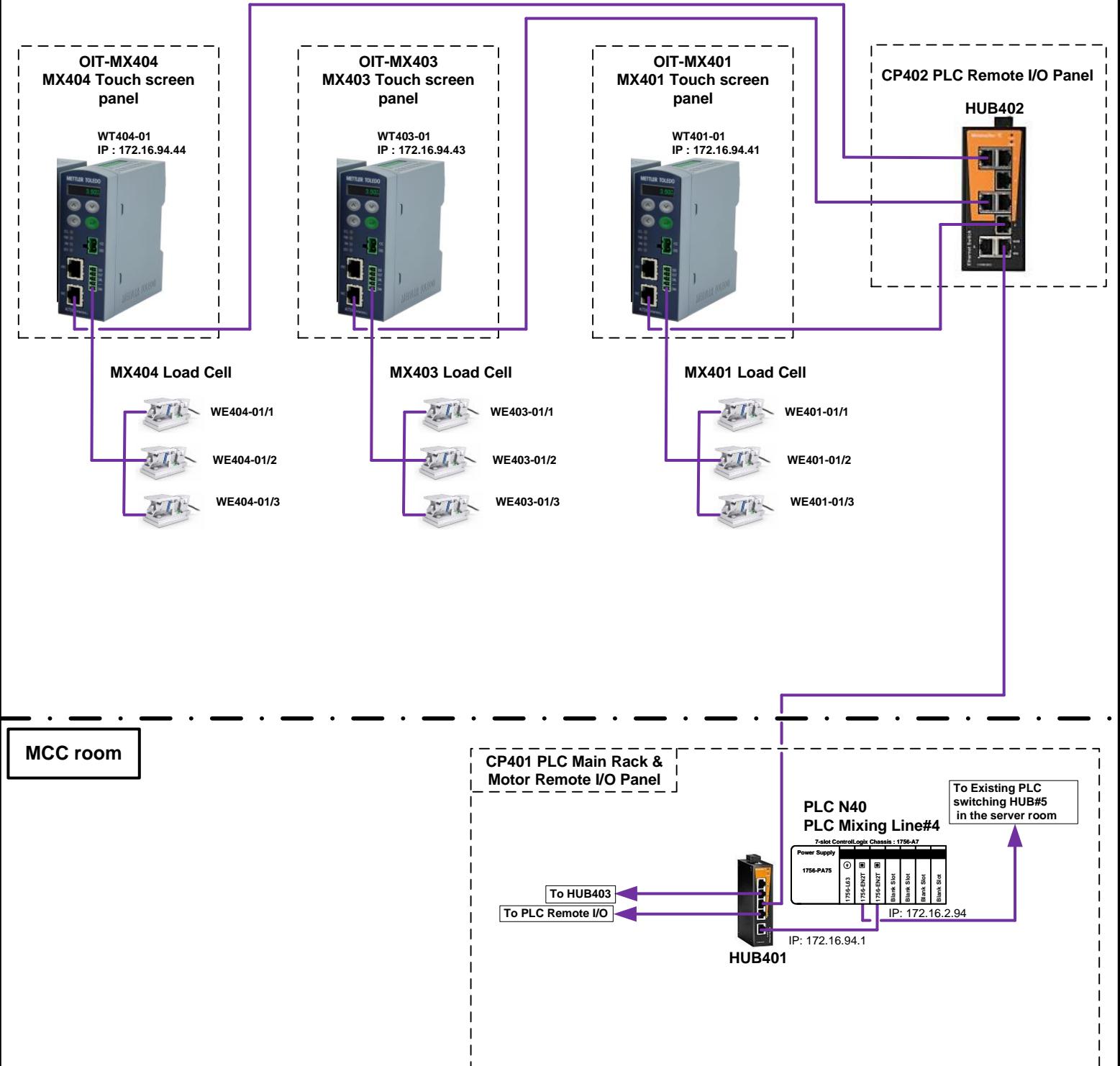
Customer : Unilever Thai Holding Limited

Project Name : CO Plant Pre-Weight System

Page number : 53/65

## **Third floors**

### **Main & Side Mixer Area**





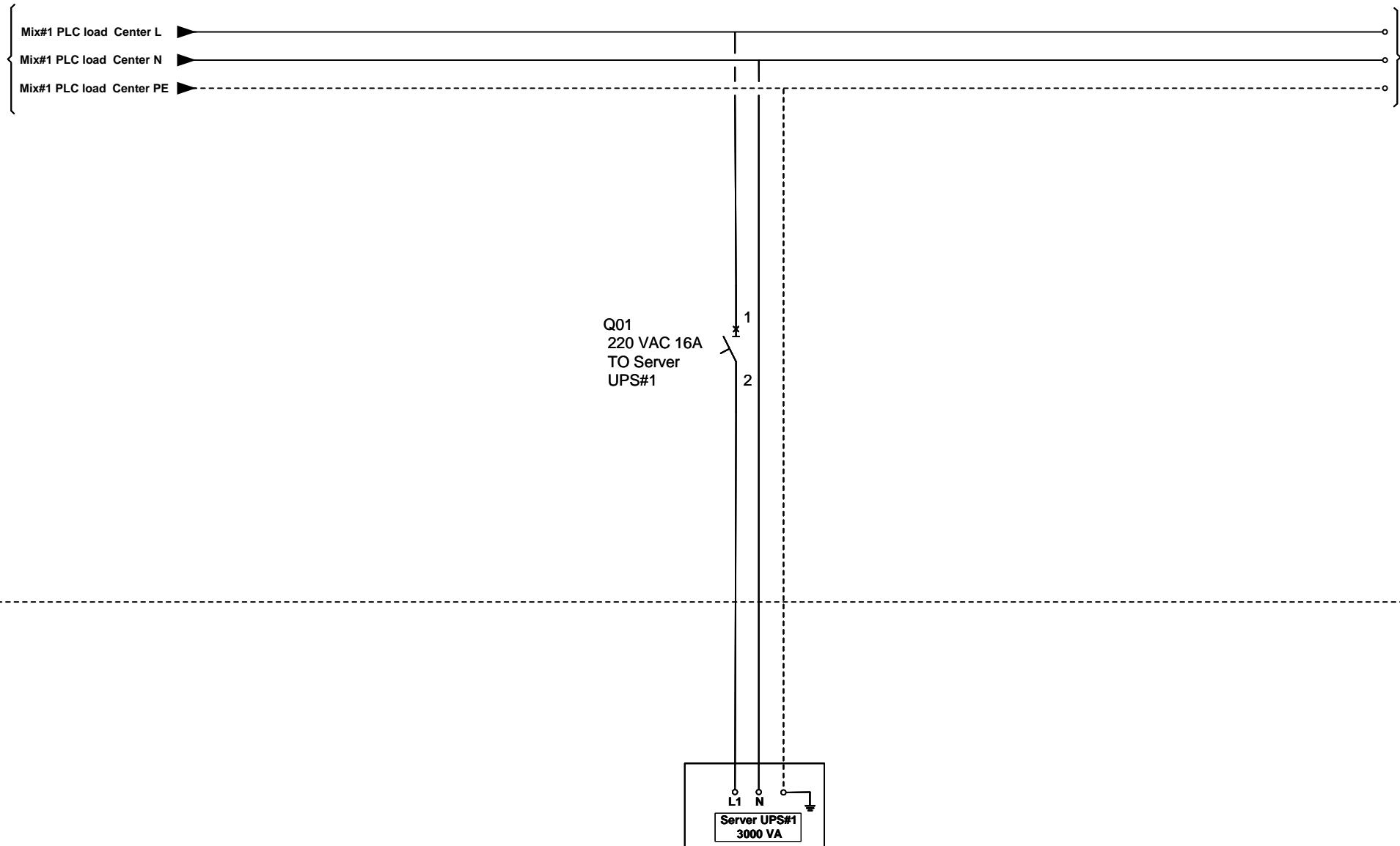
Unilever  
Unilever Thai Holding Limited

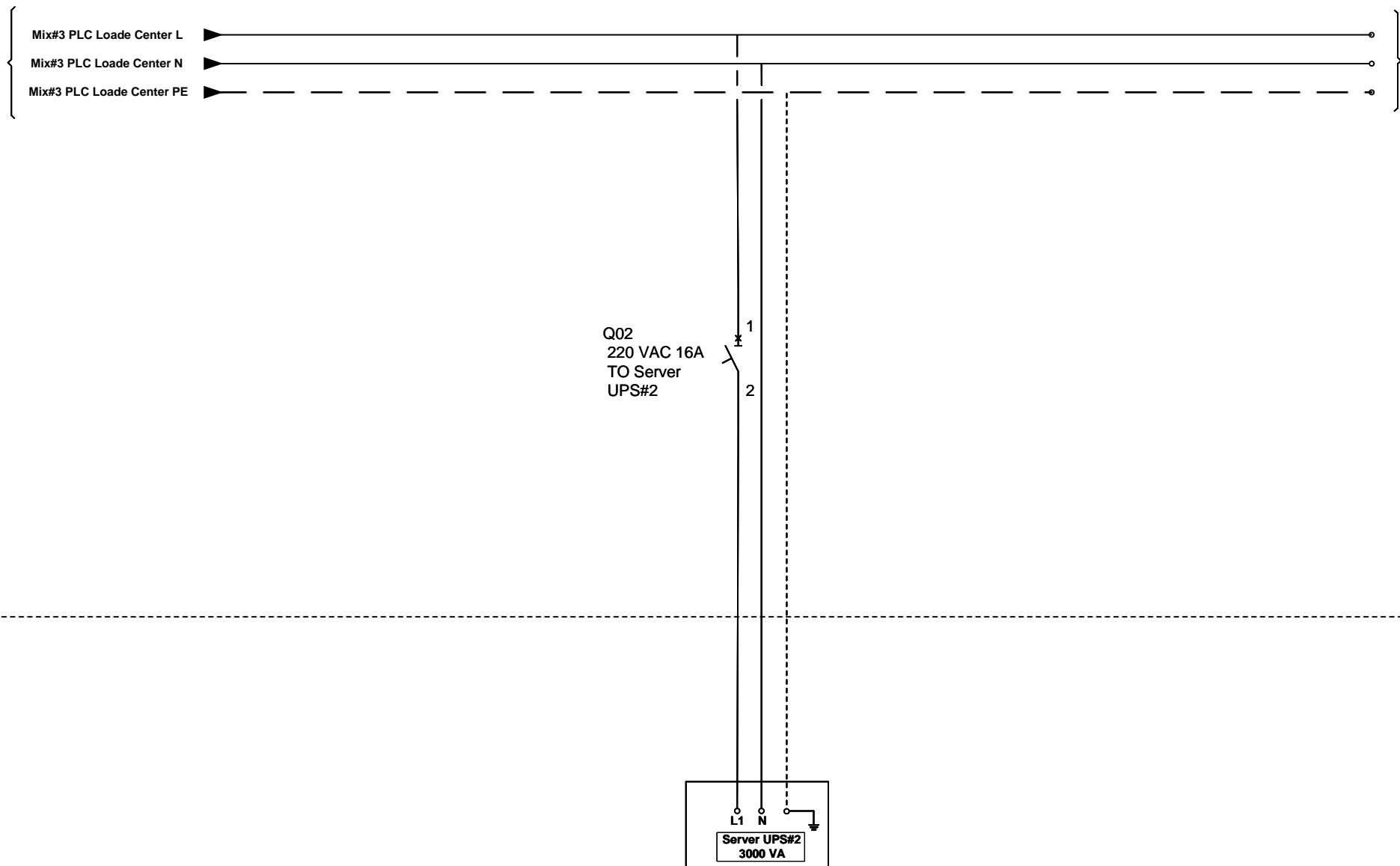
<b>FOSTER ENGINEERING</b>	Creation by :	Foster	Date :	25-03-2022	Title :  Mixing line#4 load cell controller network	REV.	Date	Description
	Checked by :	Foster	Date :	25-03-2022		B1	31-07-2020	Initial Issue
	Aproved by :	Jamras	Date :	25-03-2022		C1	19-05-2021	Construction
 <b>Unilever</b> Unilever Thai Holding Limited	Customer : Unilever Thai Holding Limited				Project Name : CO Plant Pre-Weight System	D1	25-03-2022	As built

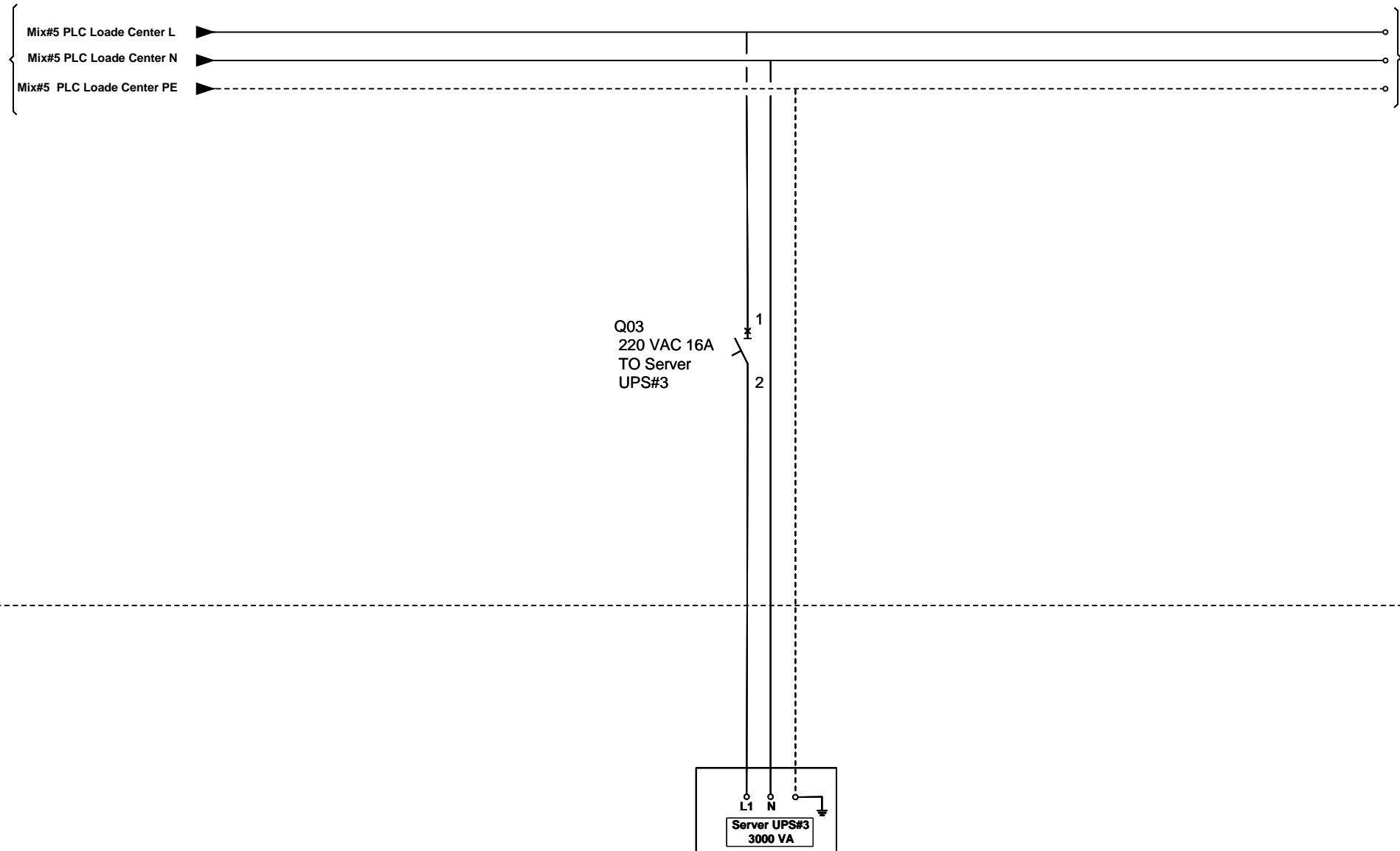
# Power Distribution

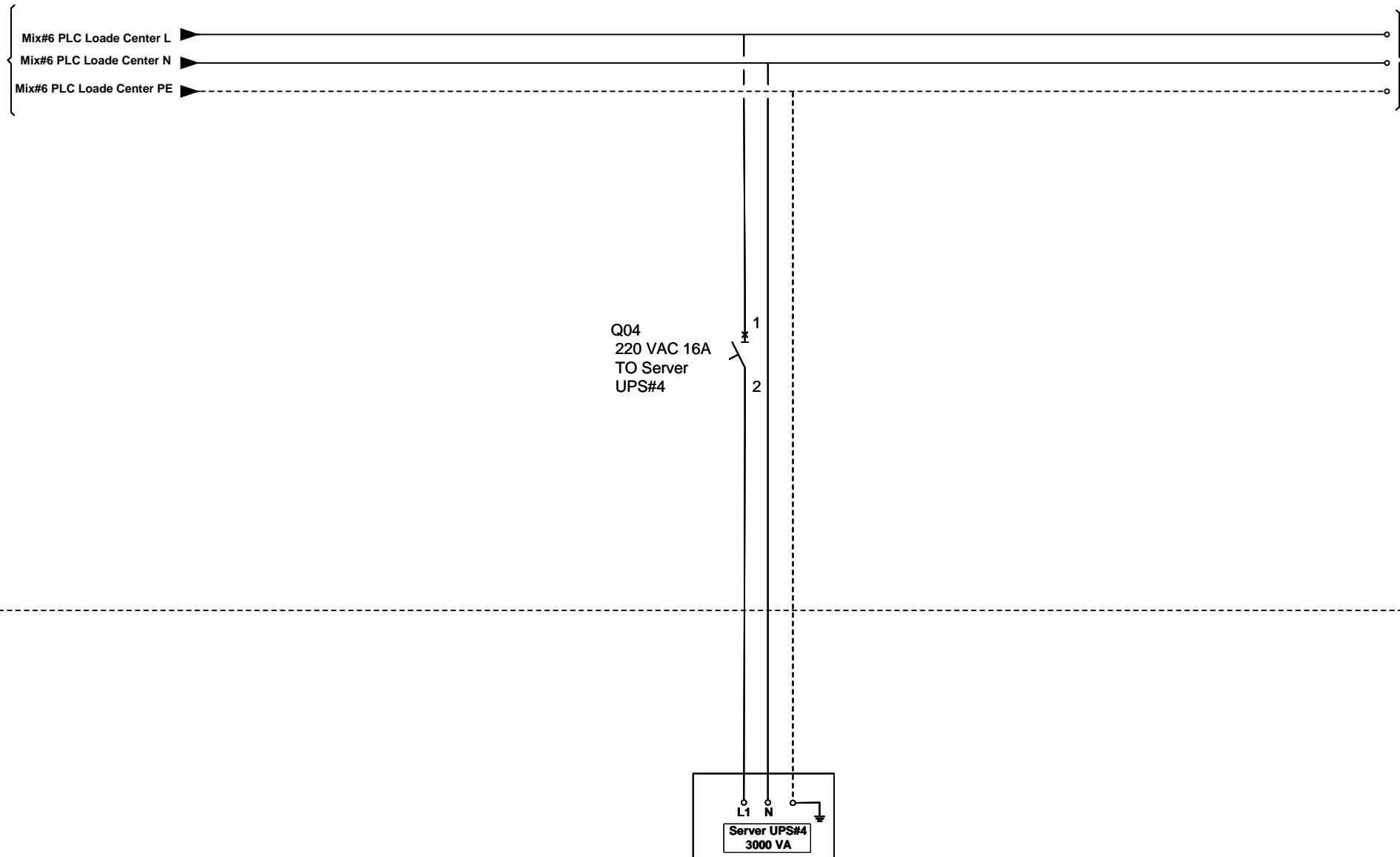
Creation by :	Foster	Date :	25-03-2022
Checked by :	Foster	Date :	25-03-2022
Aproved by :	Jamras	Date :	25-03-2022

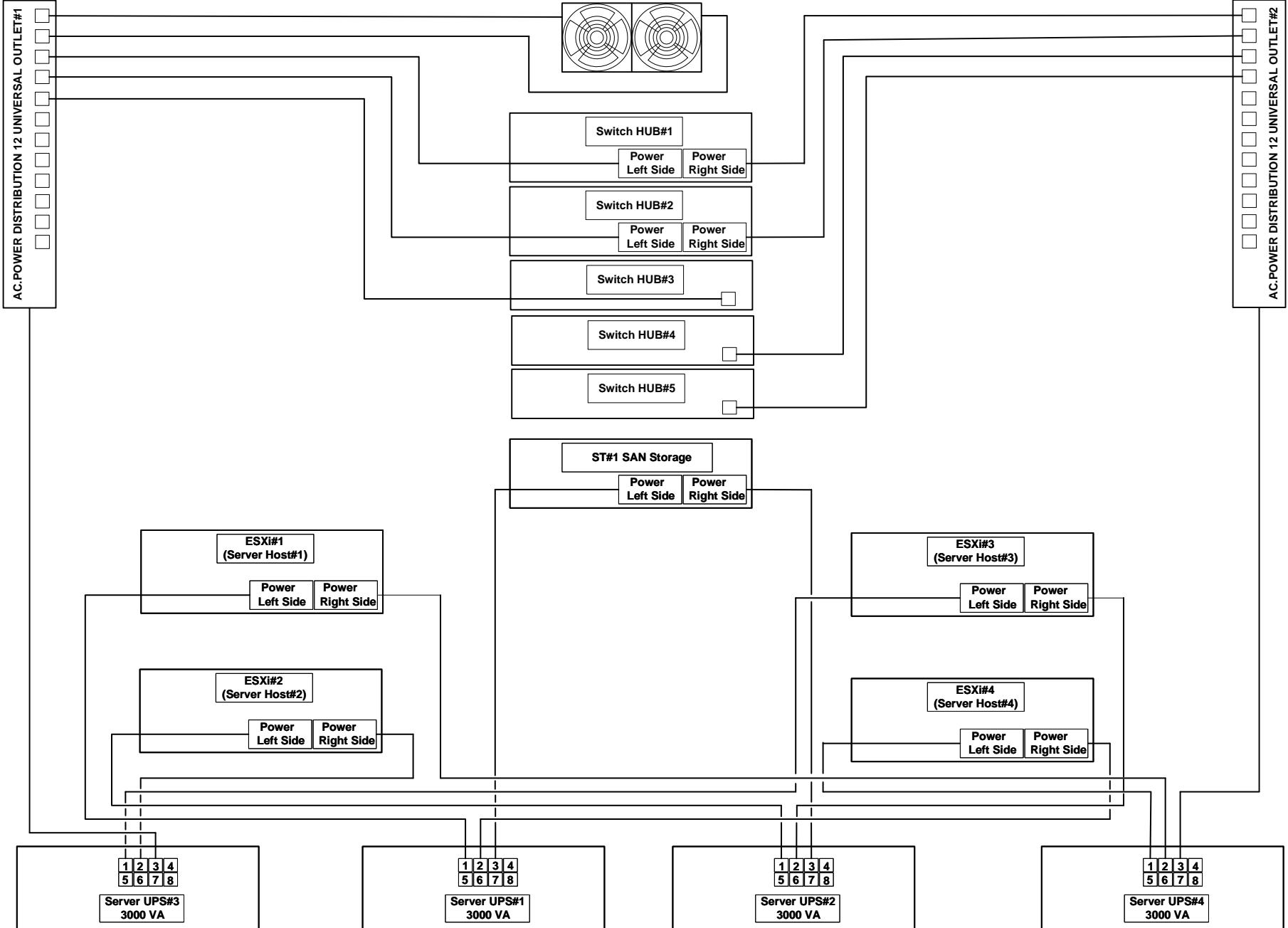
REV.	Date	Description
B1	31-07-2020	Initial Issue
C1	19-05-2021	Construction
D1	25-03-2022	As built

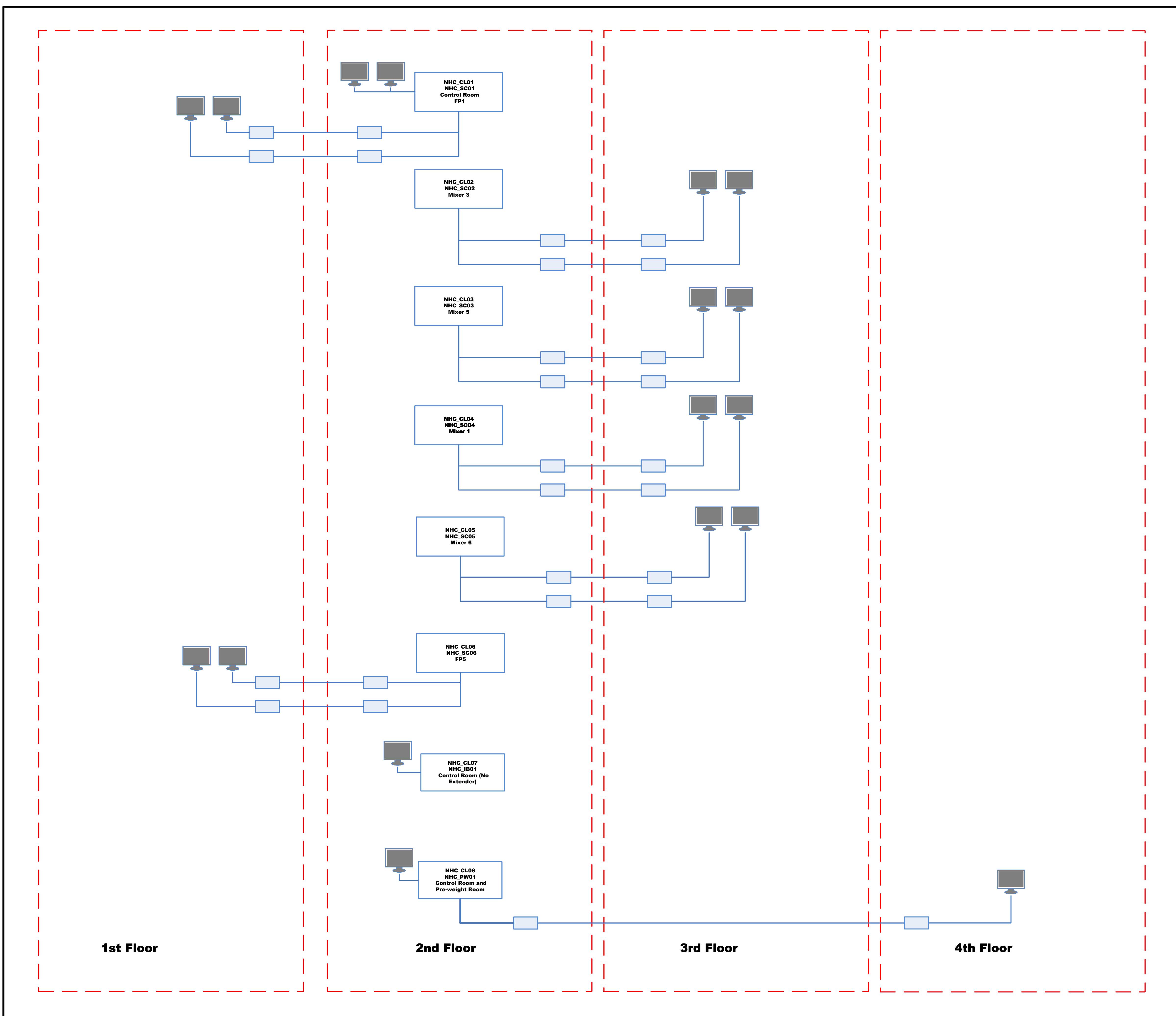












### Diagram KVM EXtender

