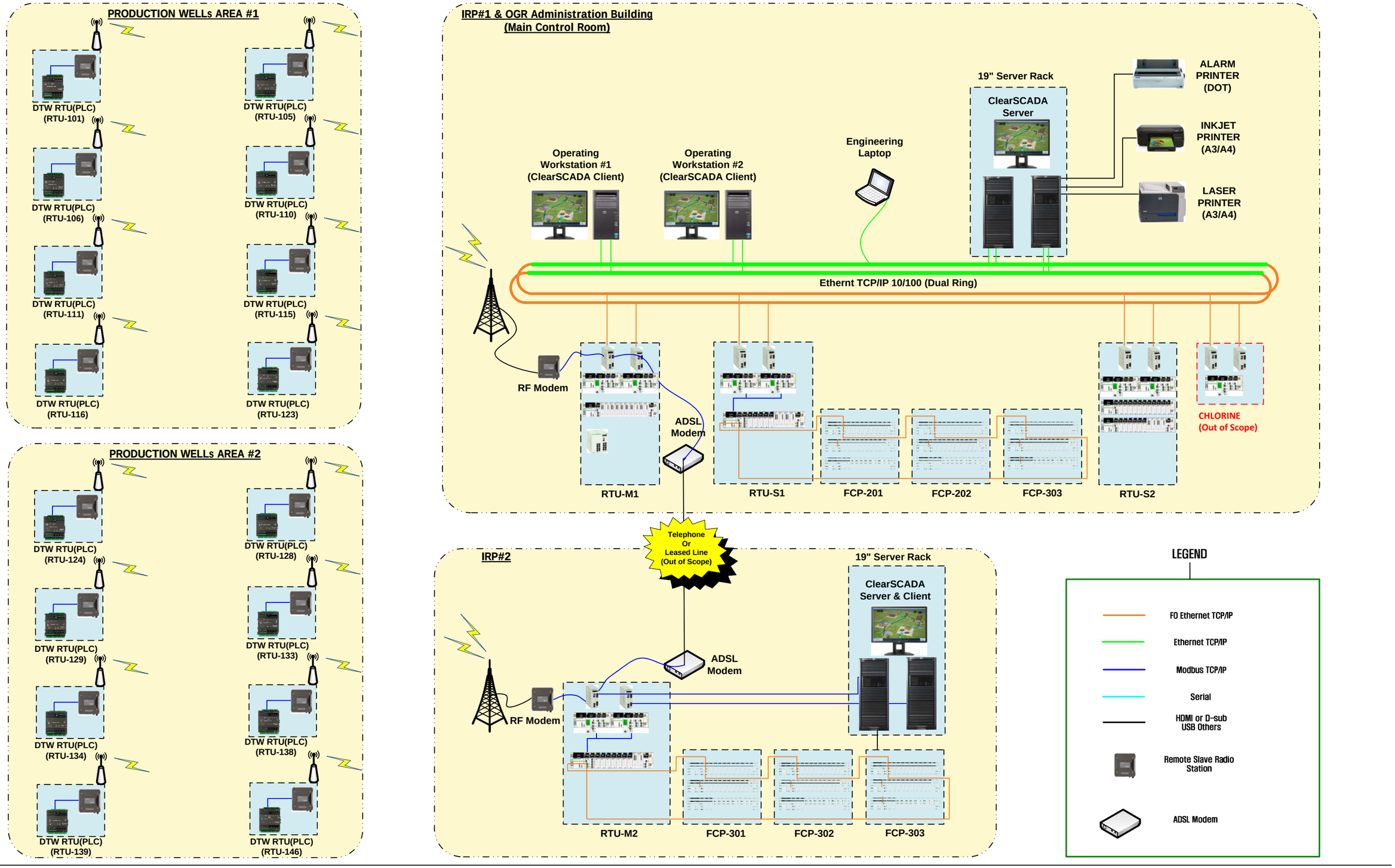
7. System Configuration Diagram

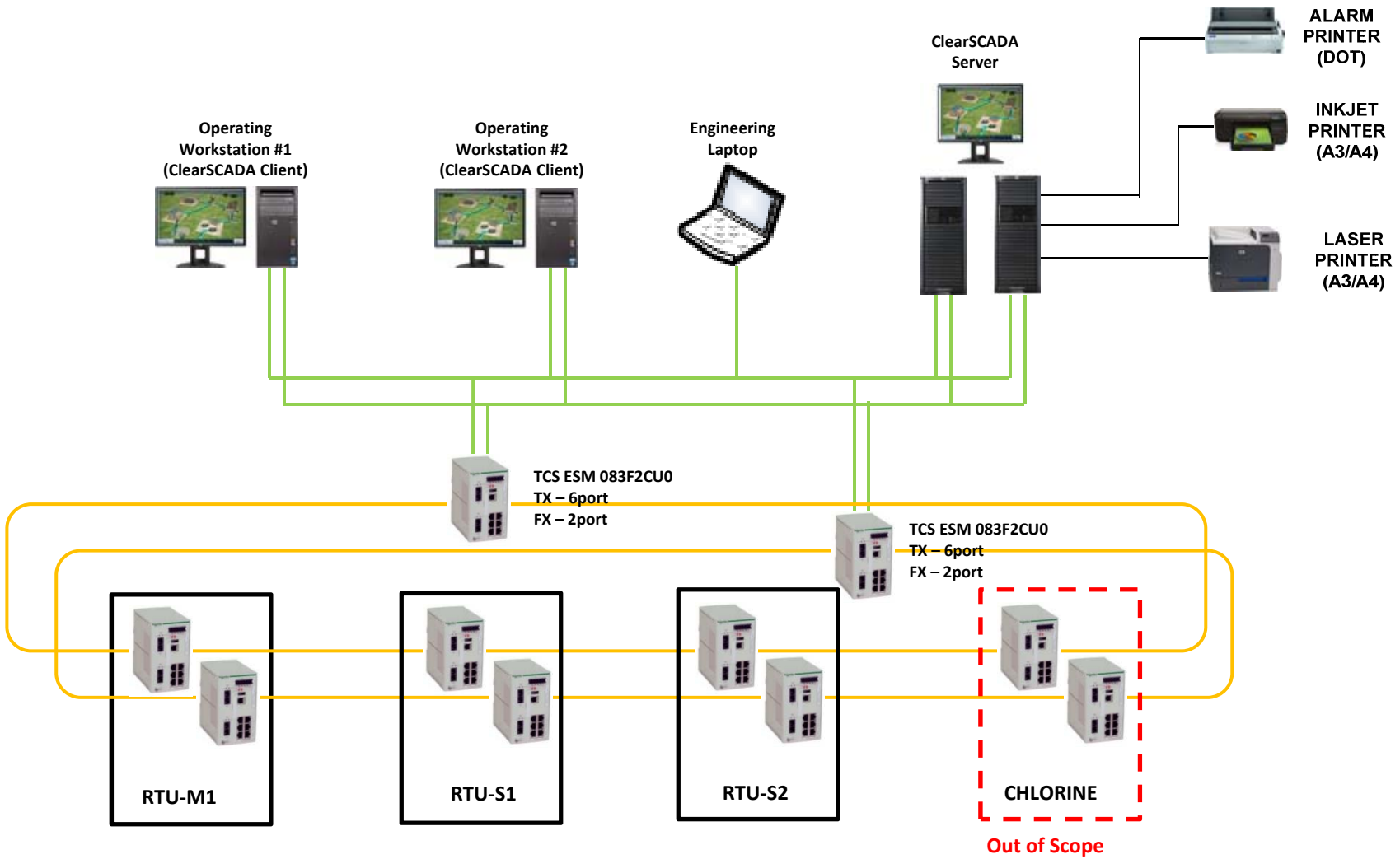
Revision History

Page	Revision	Description	Remark
	A	New Document	
	B	AS BUILT	

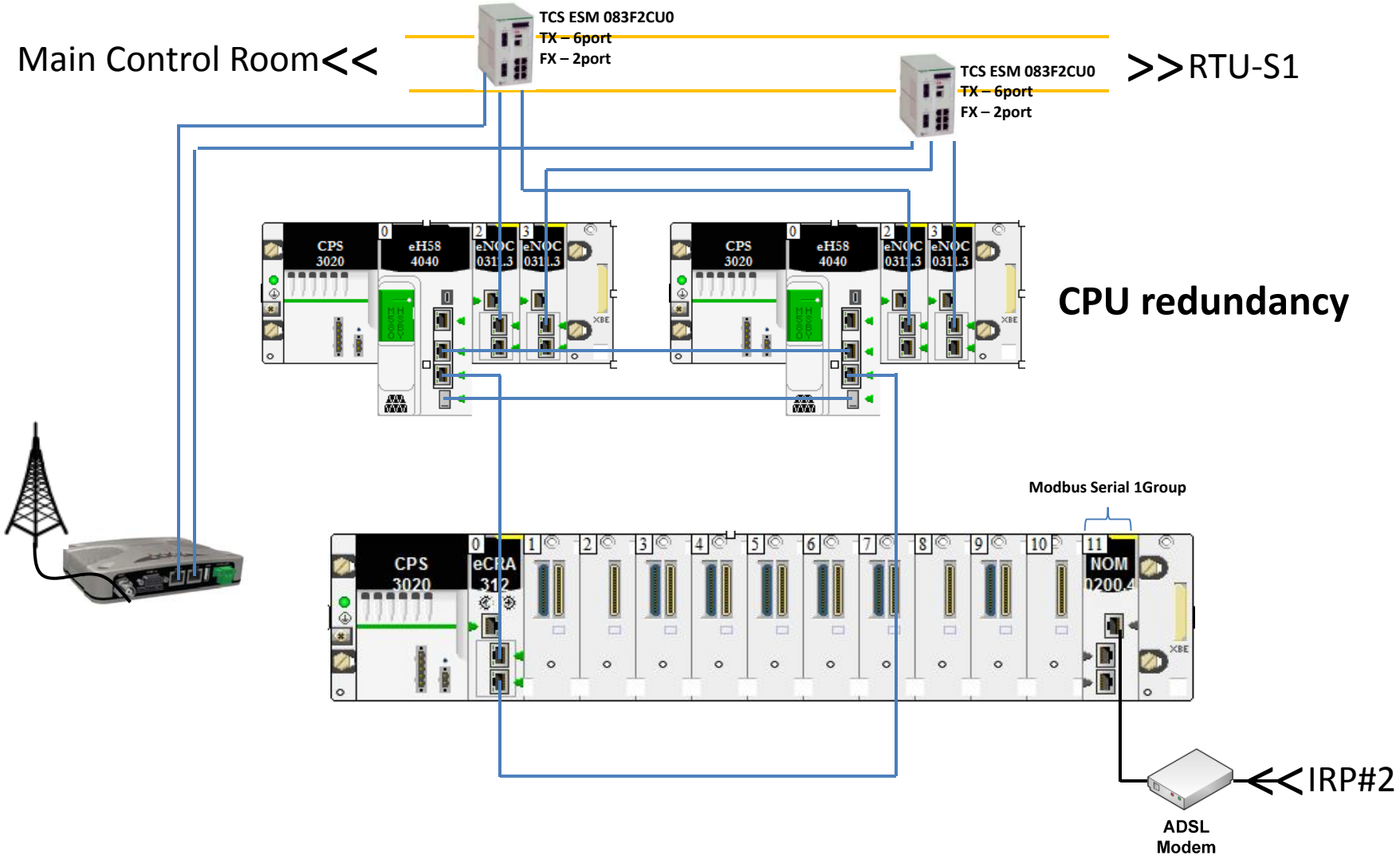
Bangladesh Well Field Construction Project SCADA System



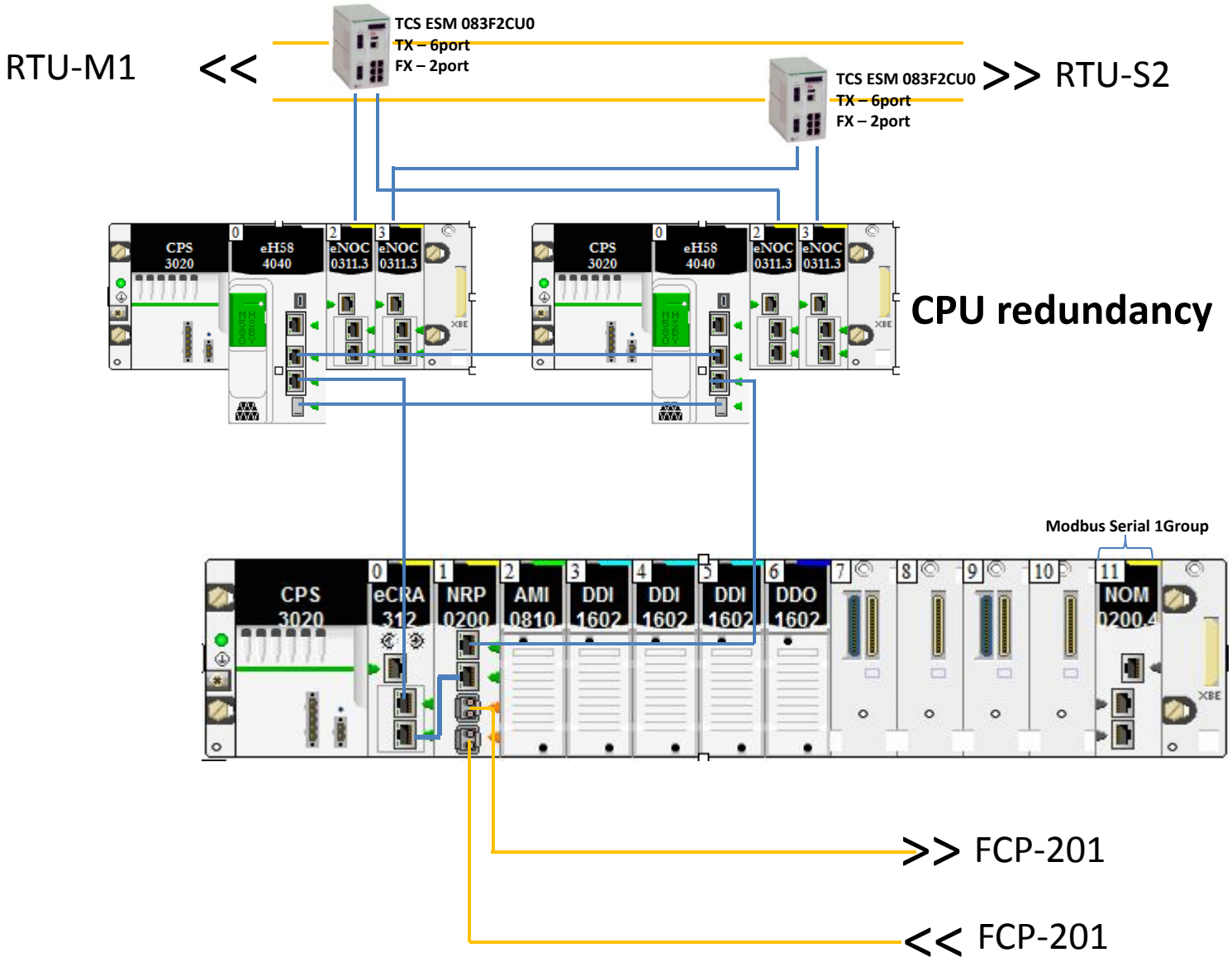
IRP#1 Main Control Room and network



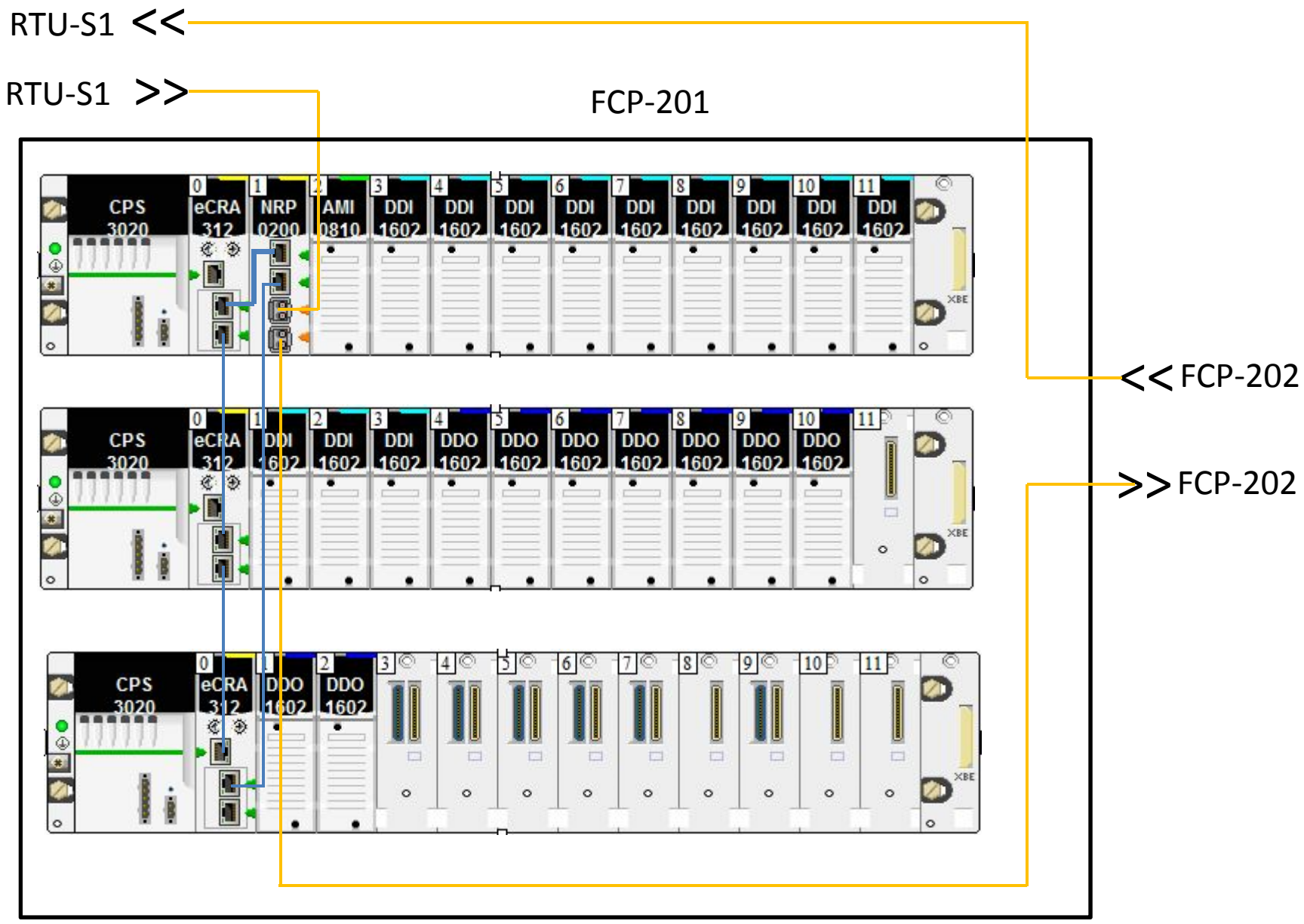
IRP#1 RTU-M1


Main Control Room<<
TCS ESM 083F2CU0
TX – 6port
FX – 2port
TCS ESM 083F2CU0
TX – 6port
FX – 2port
>>RTU-S1
CPS 3020
eH58 4040
eNOC 0311.3
eNOC 0311.3
CPS 3020
eH58 4040
eNOC 0311.3
eNOC 0311.3
CPU redundancy
Modbus Serial 1Group
CPS 3020
eCRA 312
NOM 0200.4
<<IRP#2
ADSL Modem

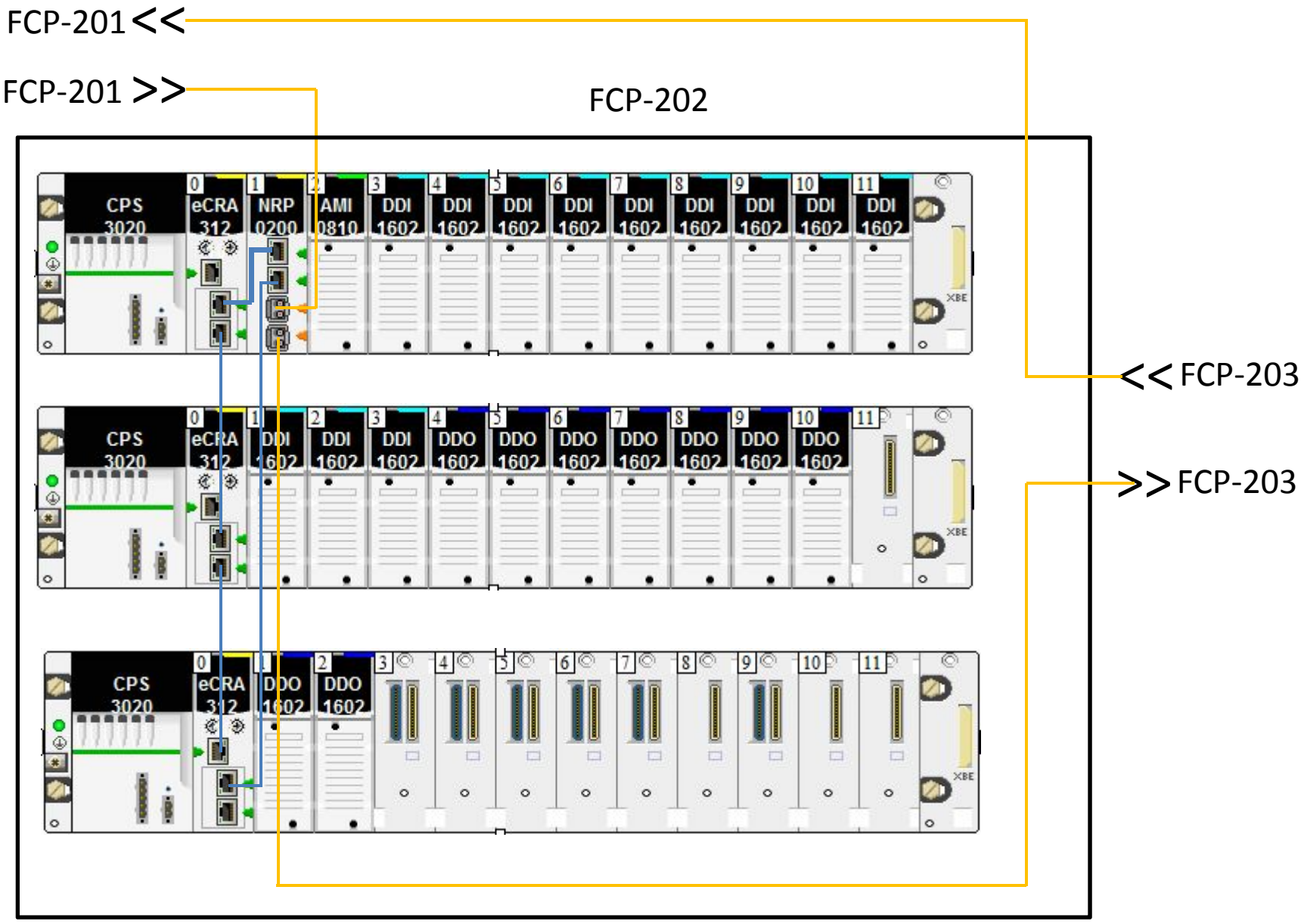
IRP#1 RTU-S1


RTU-M1
<<
TCS ESM 083F2CU0
TX – 6port
FX – 2port
TCS ESM 083F2CU0
TX – 6port
FX – 2port
>> RTU-S2
CPS 3020
eH58 4040
eNOC 0311.3
eNOC 0311.3
CPS 3020
eH58 4040
eNOC 0311.3
eNOC 0311.3
CPU redundancy
Modbus Serial 1Group
CPS 3020
eCRA 312
NRP 0200
AMI 0810
DDI 1602
DDI 1602
DDI 1602
DDO 1602
NOM 0200.4
>> FCP-201
<< FCP-201

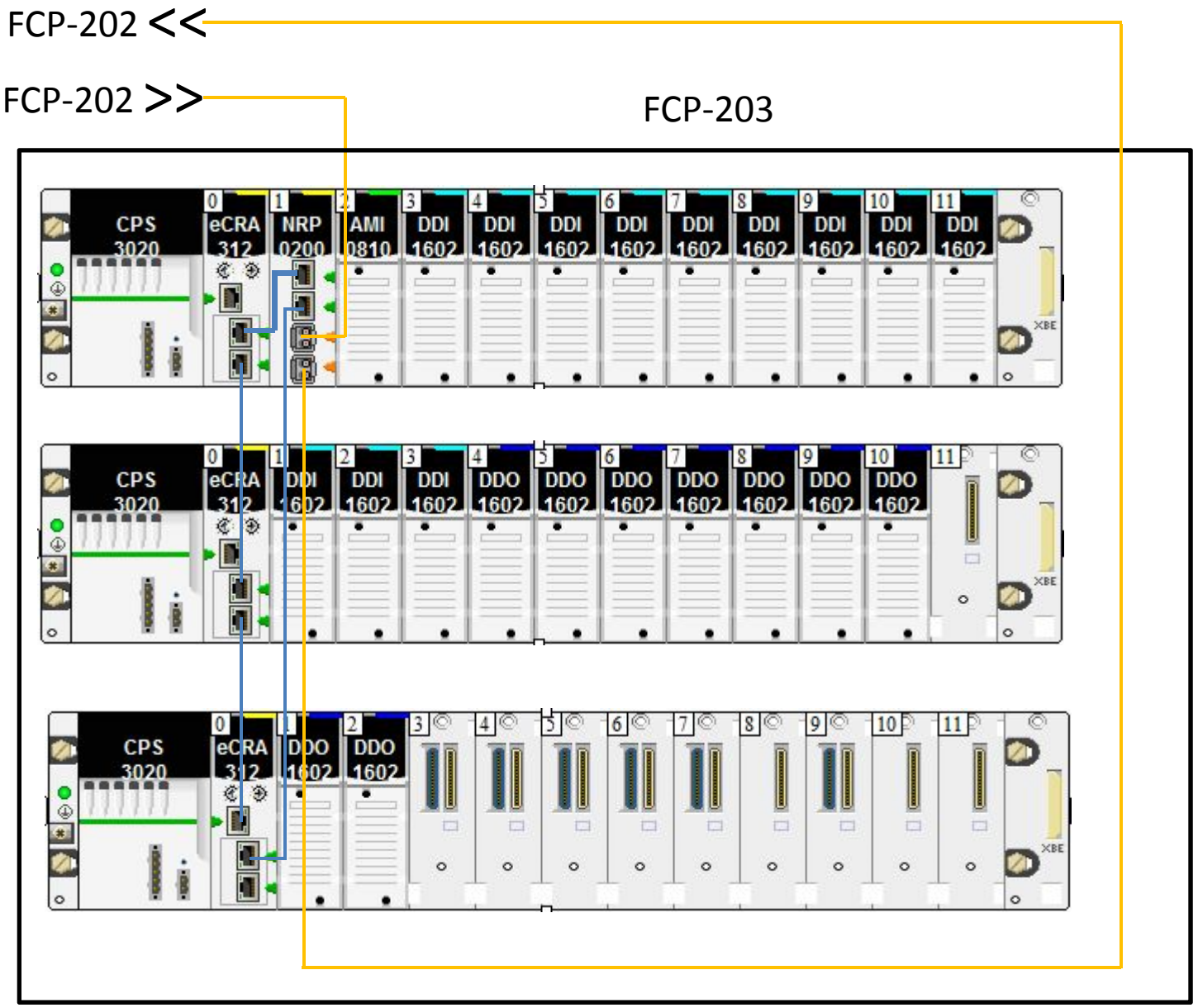
IRP#1 FCP-201


RTU-S1 <<
RTU-S1 >>
FCP-201
<< FCP-202
>> FCP-202
CPS 3020
eCRA 312
NRP 0200
AMI 0810
DDI 1602
DDO 1602
XBE

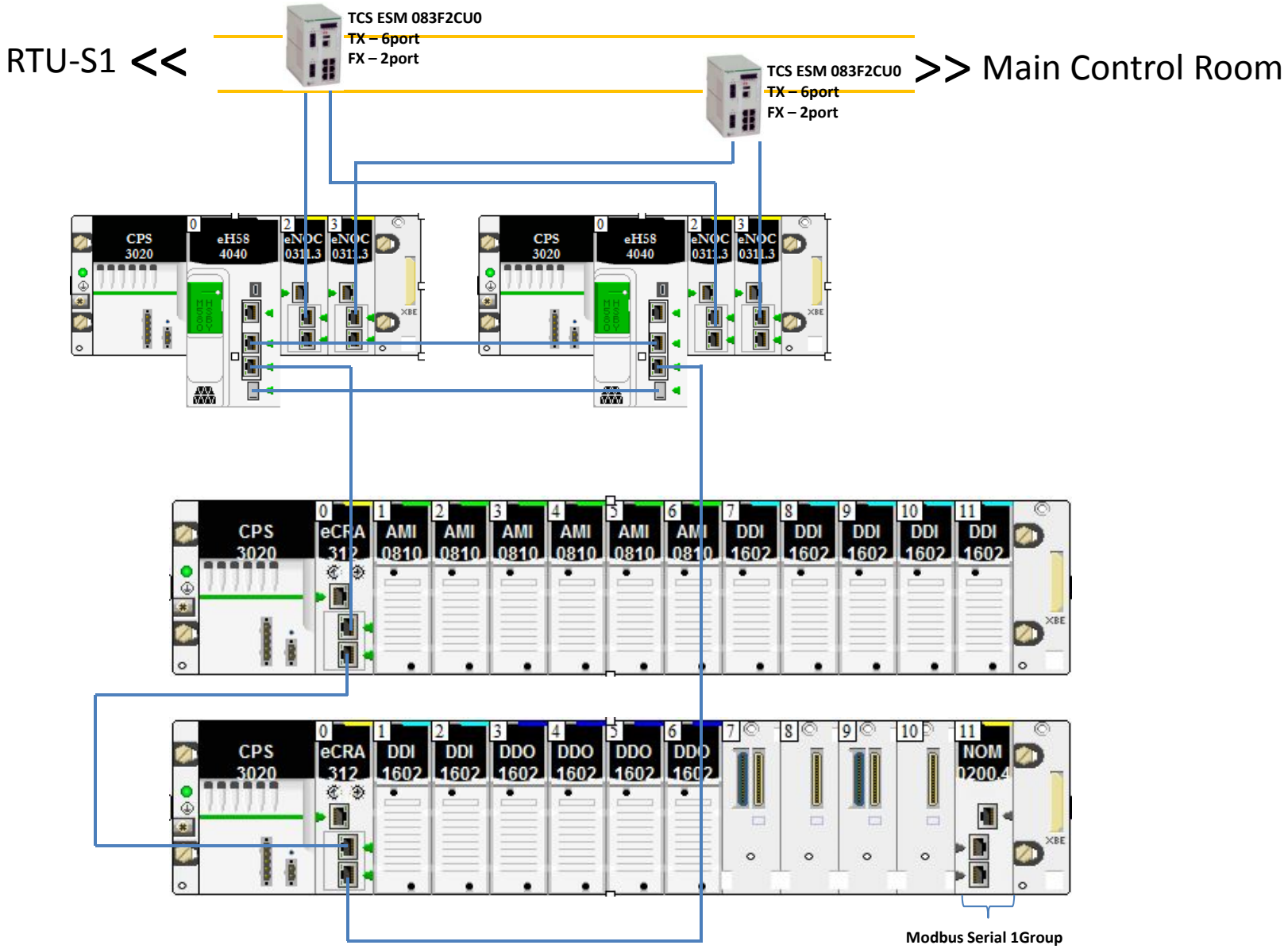
IRP#1 FCP-202


FCP-201 <<
FCP-201 >>
FCP-202
<< FCP-203
>> FCP-203
CPS 3020
eCRA 312
NRP 0200
AMI 0810
DDI 1602
DDO 1602
XBE

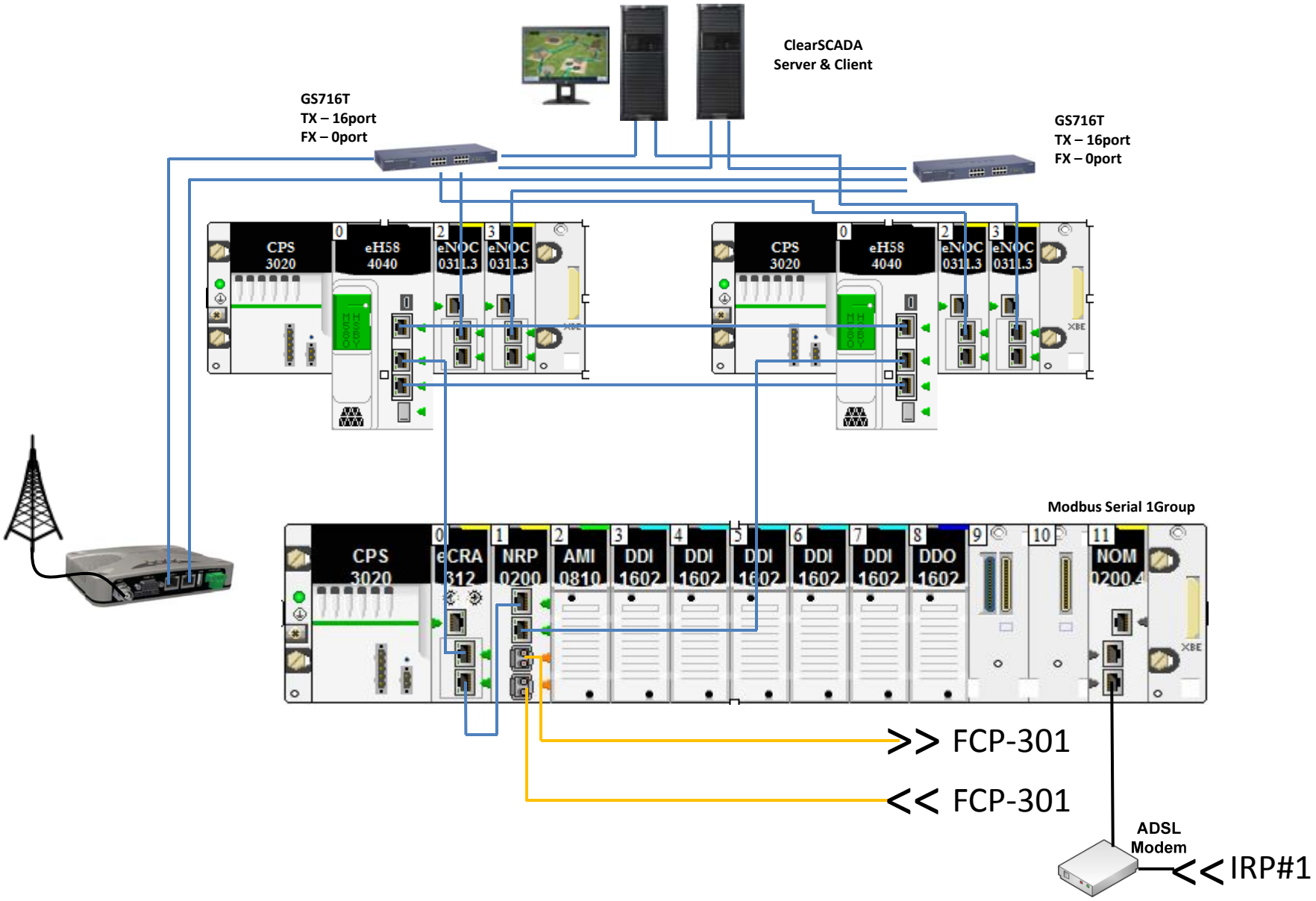
IRP#1 FCP-203


FCP-202 <<
FCP-202 >>
FCP-203
CPS 3020
eCRA 312
NRP 0200
AMI 0810
DDI 1602
DDO 1602
XBE

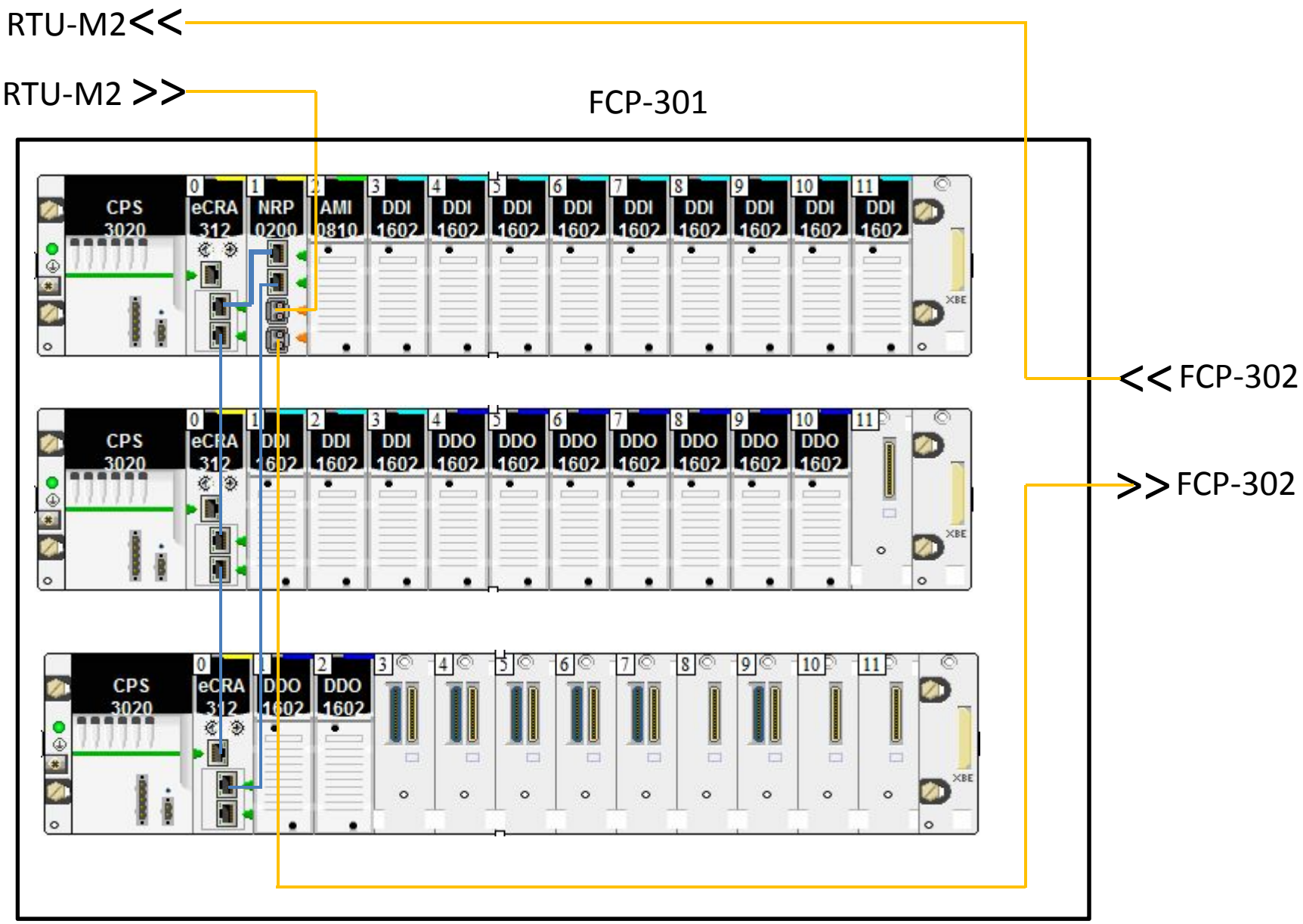
IRP#1 RTU-S2


RTU-S1 <<
TCS ESM 083F2CU0
TX – 6port
FX – 2port
TCS ESM 083F2CU0
TX – 6port
FX – 2port
>> Main Control Room
CPS 3020
eH58 4040
eNOC 0311.3
eNOC 0311.3
CPS 3020
eH58 4040
eNOC 0311.3
eNOC 0311.3
CPS 3020
eCRA 312
AMI 0810
AMI 0810
AMI 0810
AMI 0810
AMI 0810
AMI 0810
DDI 1602
DDI 1602
DDI 1602
DDI 1602
DDI 1602
CPS 3020
eCRA 312
DDI 1602
DDI 1602
DDO 1602
DDO 1602
DDO 1602
DDO 1602
NOM 0200.4
Modbus Serial 1Group

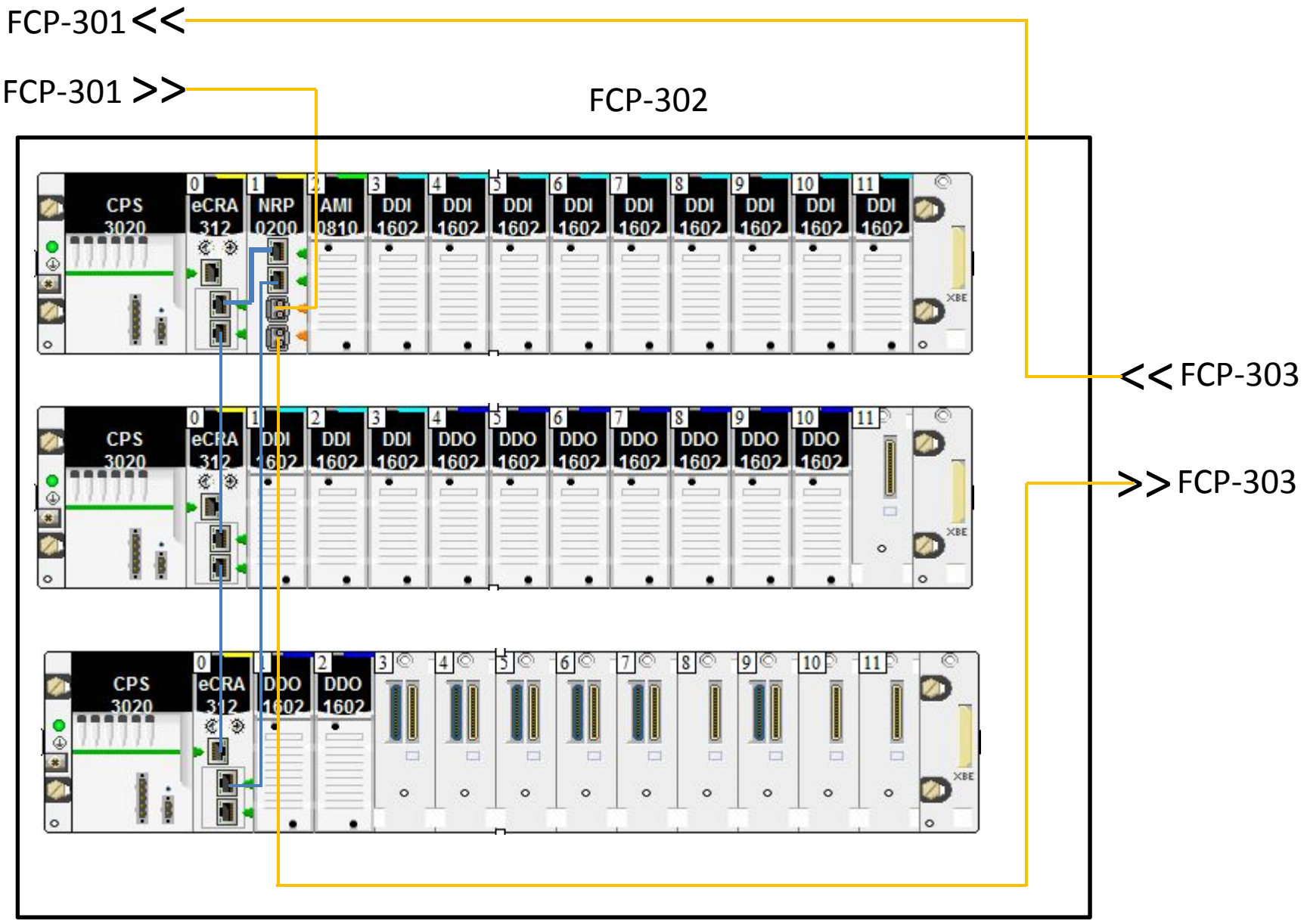
IRP#2 RTU-M2


ClearSCADA
Server & Client
GS716T
TX – 16port
FX – 0port
GS716T
TX – 16port
FX – 0port
CPS
3020
eH58
4040
eNOC
0311.3
eNOC
0311.3
CPS
3020
eH58
4040
eNOC
0311.3
eNOC
0311.3
Modbus Serial 1Group
CPS
3020
eCRA
312
NRP
0200
AMI
0810
DDI
1602
DDI
1602
DDI
1602
DDI
1602
DDI
1602
DDO
1602
NOM
0200.4
>> FCP-301
<< FCP-301
ADSL
Modem
<< IRP#1

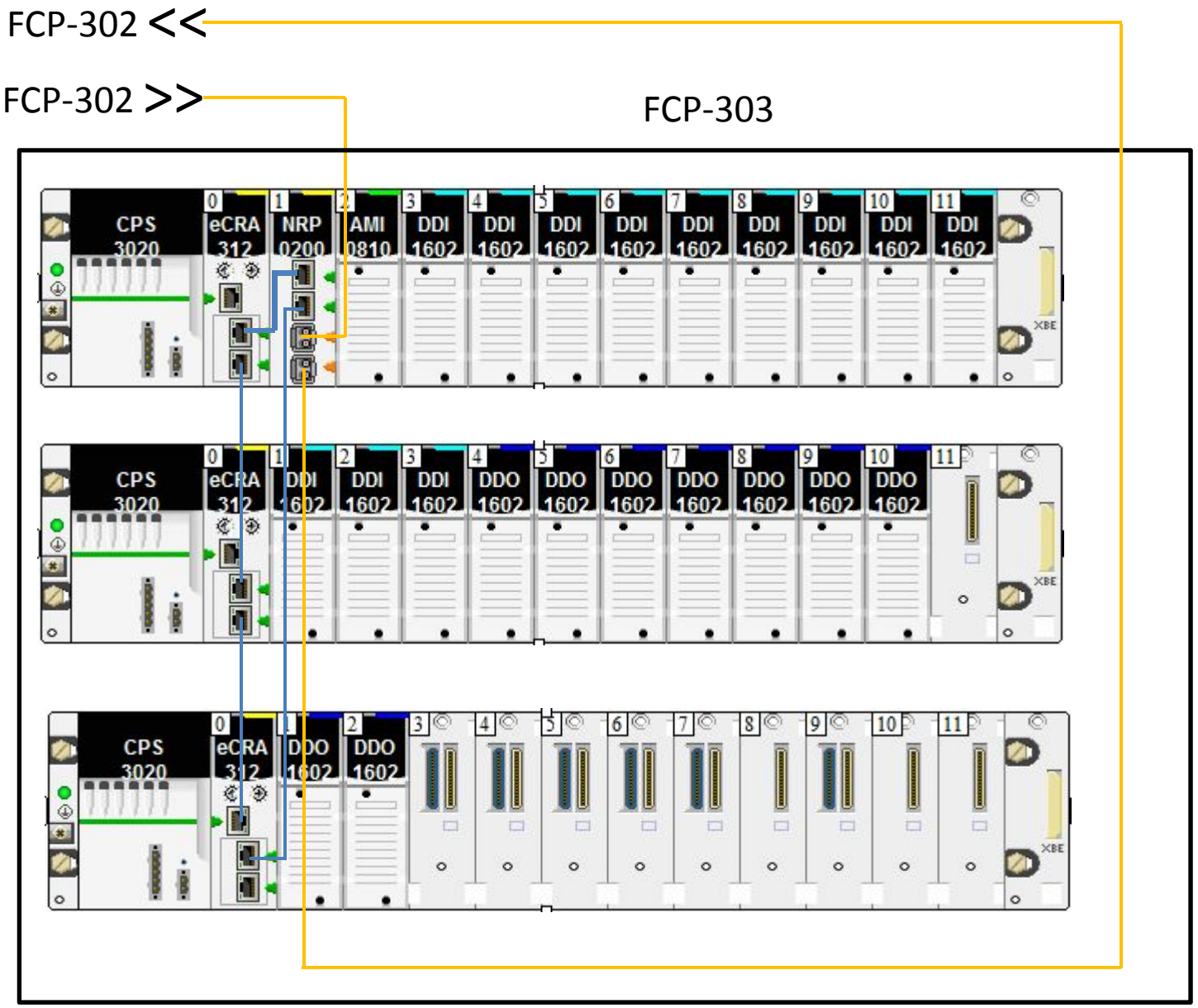
IRP#2 FCP-301


RTU-M2<<
RTU-M2 >>
FCP-301
CPS 3020
eCRA 312
NRP 0200
AMI 0810
DDI 1602
DDO 1602
XBE
<< FCP-302
>> FCP-302

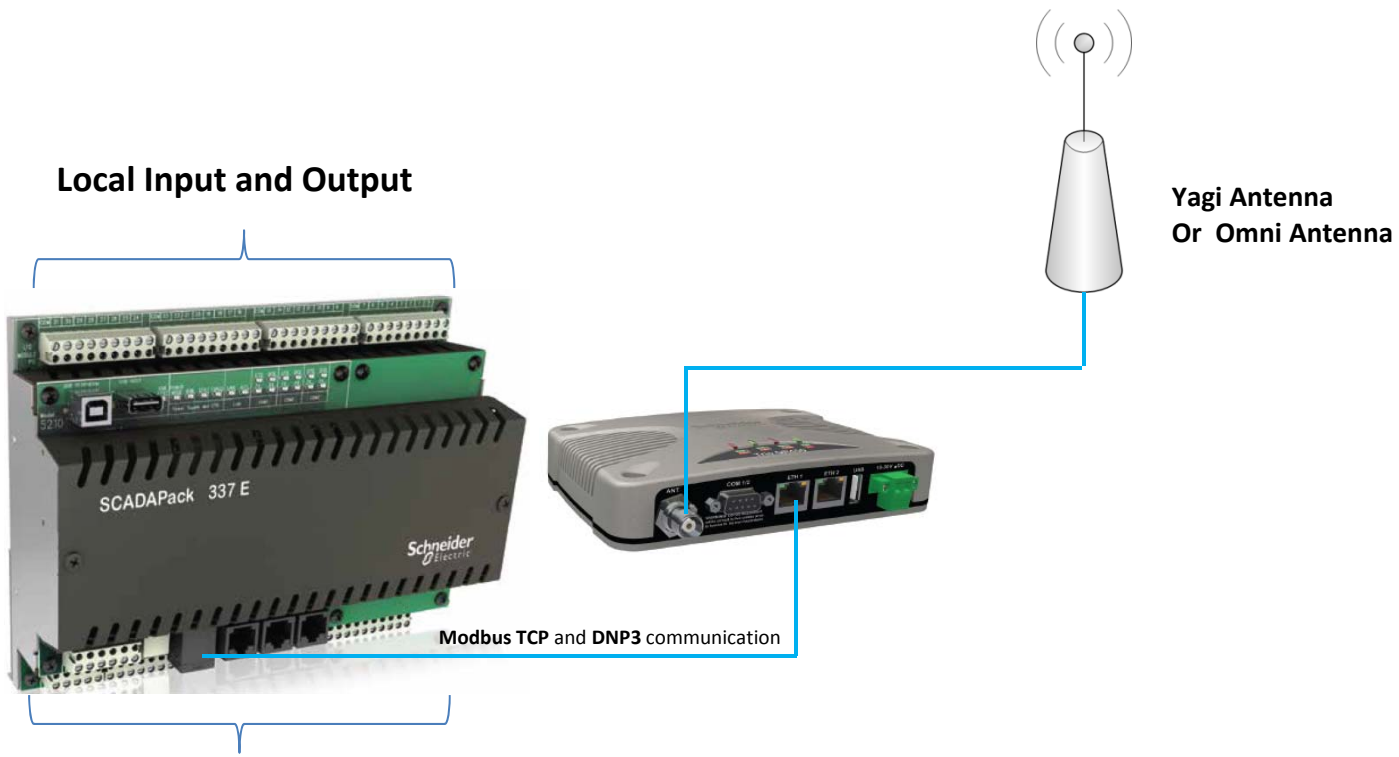
IRP#2 FCP-302


FCP-301 <<
FCP-301 >>
FCP-302
<< FCP-303
>> FCP-303
CPS 3020
eCRA 312
NRP 0200
AMI 0810
DDI 1602
DDO 1602
XBE

IRP#2 FCP-303


FCP-302 <<
FCP-302 >>
FCP-303
CPS 3020
eCRA 312
NRP 0200
AMI 0810
DDI 1602
DDO 1602
XBE

DTW RTU (PLC)(46 sets)

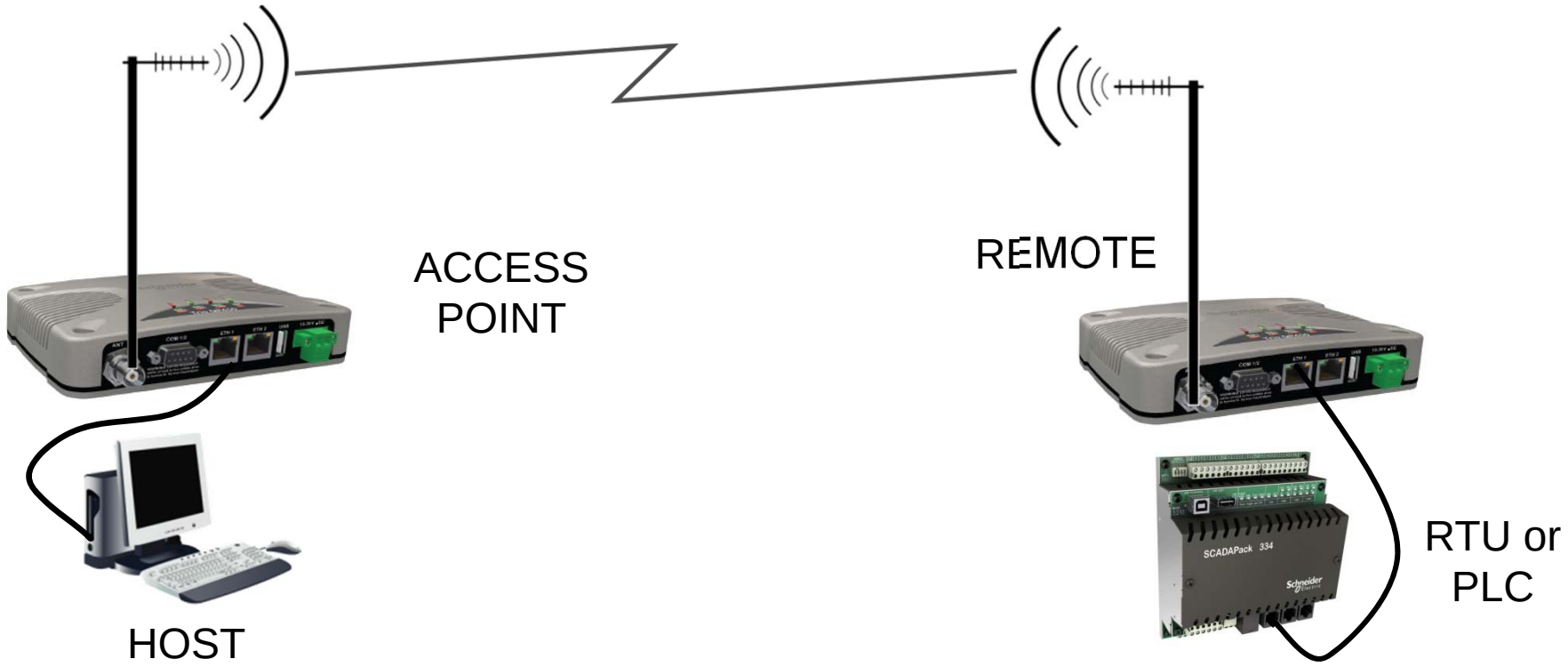


Local Input and Output

Analog Input : 8 points
Digital Input : 32 Points
Digital Output : 16 Points
Accumulators : 3 Points

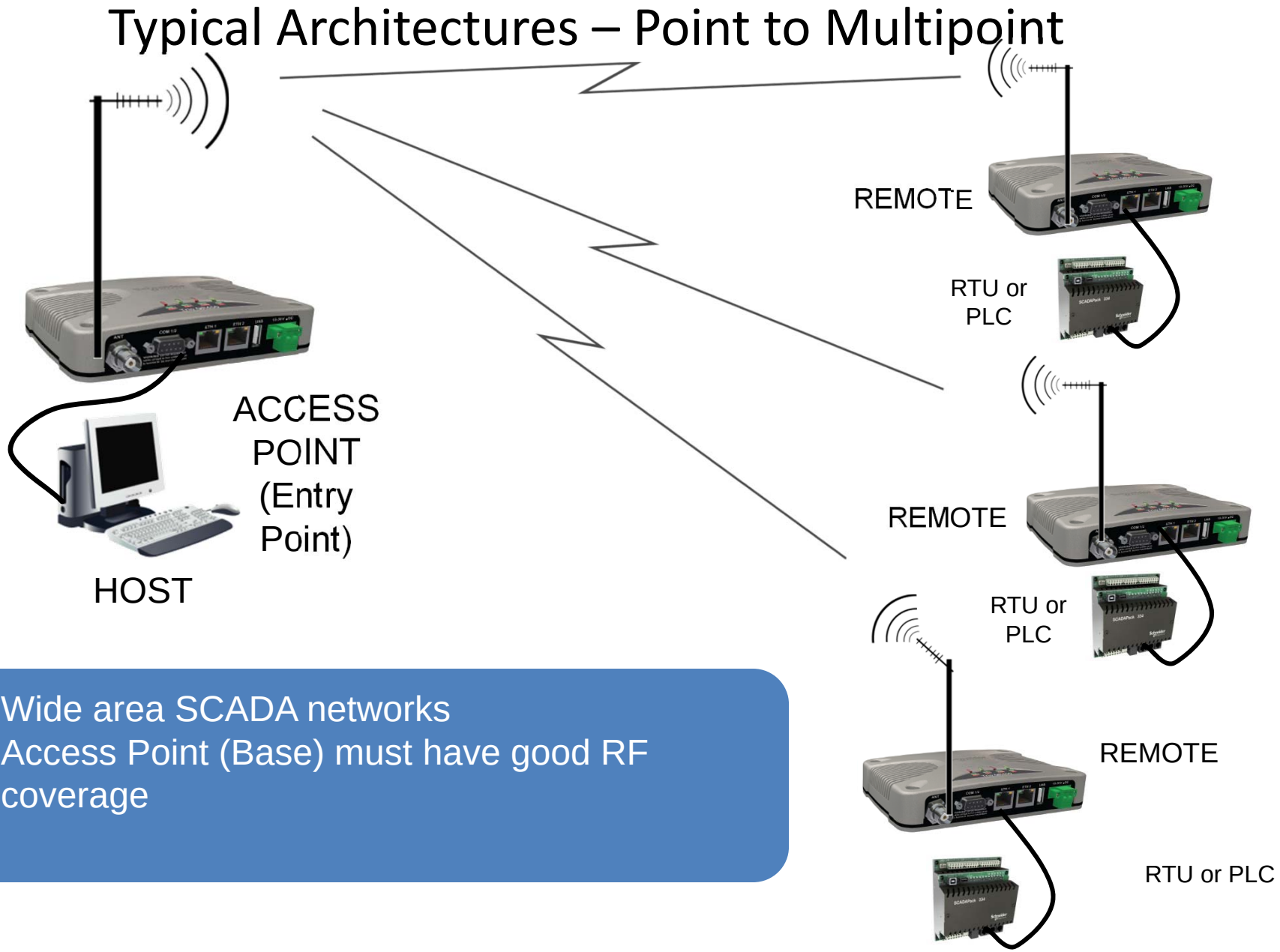
Communication concept - 1

Typical Architectures – Point to Point



- Direct cable replacements
- Applications requiring continuous communication in both directions (aka full duplex)

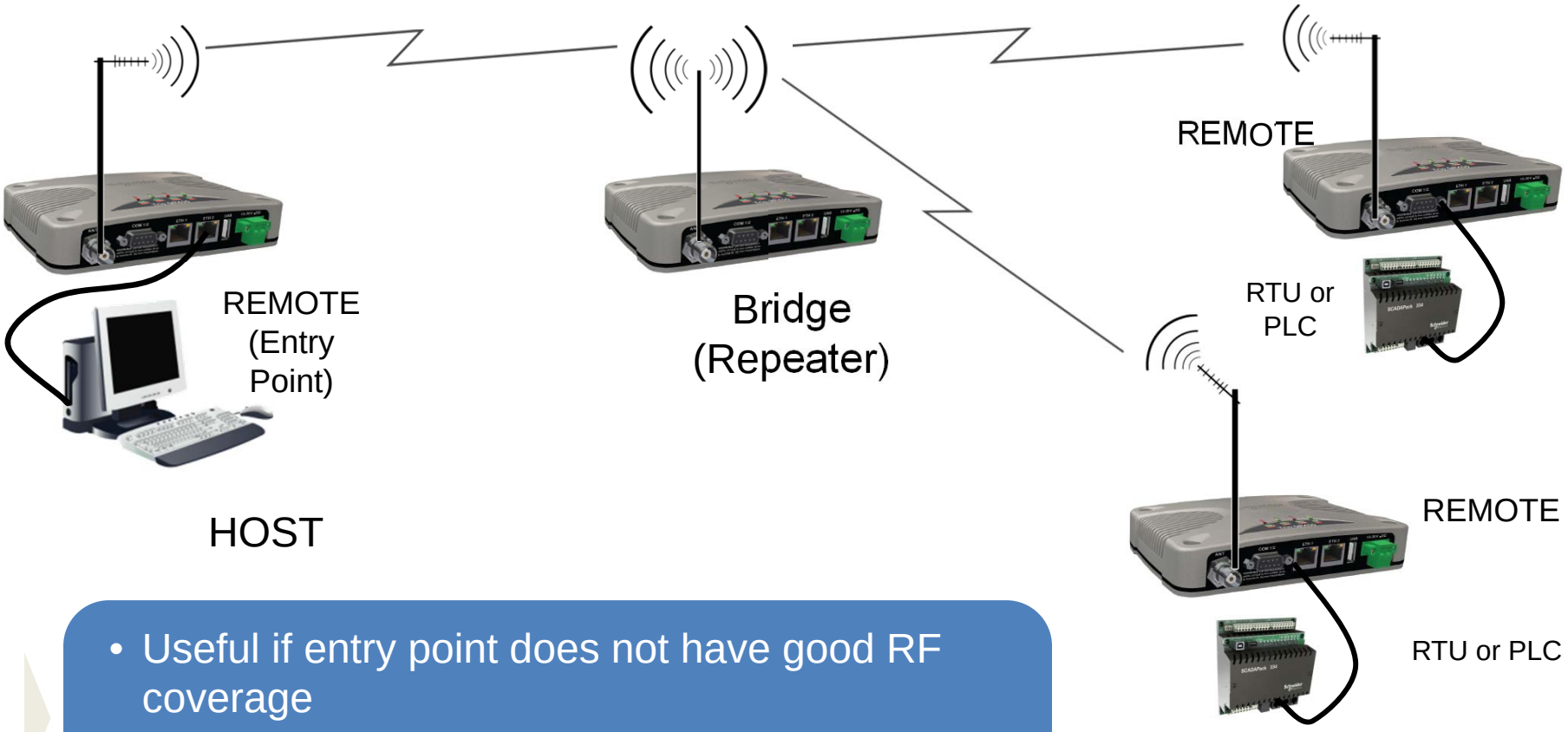
Communication concept - 2



- Wide area SCADA networks
- Access Point (Base) must have good RF coverage

Communication concept - 3

Typical Architectures – Point to Multipoint via Repeater



- Useful if entry point does not have good RF coverage
- Repeater located at high site (Water Tank, Mountain Top) for maximum RF coverage