Production Status

RIKEN/RBRC

Itaru Nakagawa

25cm Conversion Cable Status

New Order Plan	AC-Type	BD-Type
25cm μ-Coax Harness	75 bundles (1.5 CC/ROC)	75 bundles (1.5 CC/ROC)
GND/Power Cables	100 cables (1.5 CC/ROC)	100 cables (1.5 CC/ROC)

- Received the quote from Hayashi-REPIC company.
- PO to be issued from RIKEN soon.
- The lead time is at least 2 months due to the Chinese New Year break.
- Most likely, the expected delivery in March 2023.
- I try to push to get them available for the mid March INTT installation.

TLK2711 and ROC

TLK2711 Purchase Order Status

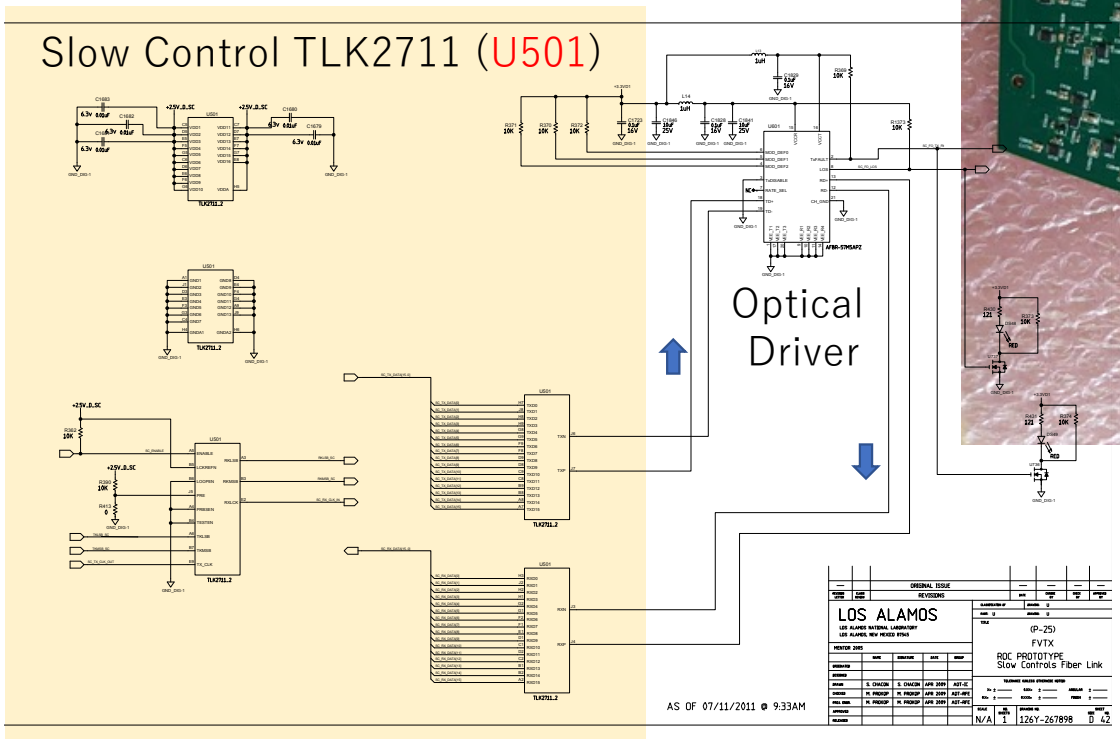
PO Date	Quantity	Status	Action
2022/11/24	20	Delivered	Repair work in Japan in progress
2022/12/7	30	Delivered to BNL on Jan. 4th	SC replacement work at BNL
2022/12/21	55	Expected delivery soon	Possible TLK replacement for fake hits?
?	145	Still searching	

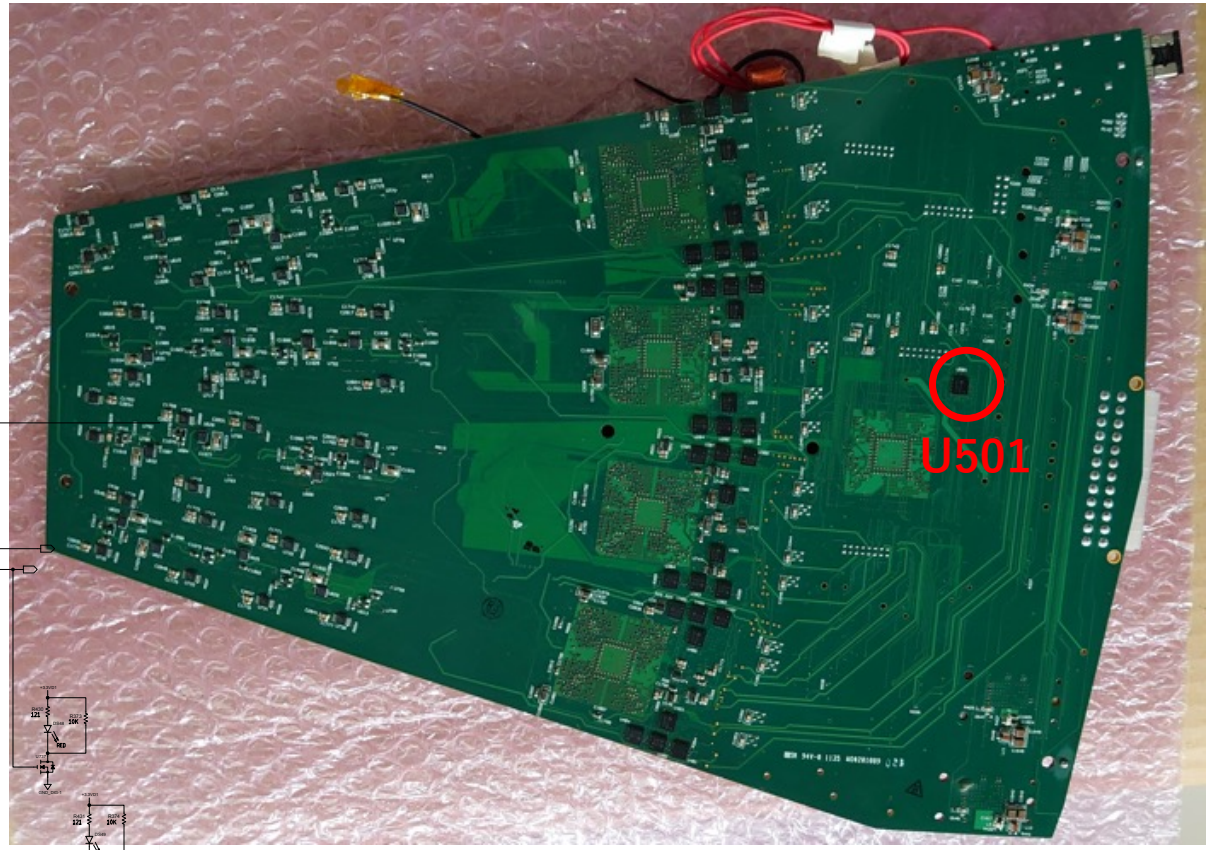
Not available in major vendors for sure. We are searching for minor parts vendors to check their stock room to see if there are any stocks not listed in the database. It is getting realistic that there were only 100 stocks in the market and we already bought them out.

Need to start thinking about plan-B…

Delivered to BNL on Jan 3rd

Slow Control TLK2711
(U501)





ROC Repair Status

https://docs.google.com/spreadsheets/d/11jsgrsI7pS02Ia_Huew4Fw-nbNwOzI6VhbI0nRYUX-w/edit#gid=1083896993

Index	ROC #	FVTX	Regulator Upgrade	Location	Class	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3	Issue	Status
1	6	NW2	✓	BNL	1														
2	13	NE4	✓	BNL	1														
3	18	NE1	✓	BNL	1														
4	26	SE3	✓	BNL	1														
5	28	SE0	✓	BNL	1														
6	29	-	✓	BNL	1														
7	20	SW5	✓	BNL	1														
8	22	SE2	✓	RPC	2	O													
9	23	SE1	✓	BNL	1														
10	31	NW1	✓	BNL	1	R	R	R											
11	32	NE2	✓	BNL	1							R	R	R					
12	9	-	✓	BNL	1			R										To be shipped to RIKEN	
13	10	-	✓	BNL	1					R		R							
14	27	SE5	✓	BNL	1							R			R	R	R		L12 Replaced at Column-D
15	19	NE5	✓	BNL	1										R				Fixed by TLK2711 Replacement
16	24	SE4	✓	RPC	2		O	R							R			Fiber Sync	A3,D1 TLKs replaced
17	16	NE3	✓	BNL	3				C	C	C							Calib Pulse	Waiting for SC-FPGA downlaod
18	15	NE0	✓	NWU	2	R									O	O		Fiber Sync	
19	7	-	✓	NWU	3		R	R		H	R	H			R	H			Replaced all DF18
20	2	NW4	✓	RPC	2					R		R			O	R		Fiber Sync	
21	21	-	✓	RPC	2	R			R		R		R	O	R			Fiber Sync	
22	17	NW3	✓	RPC	2				O							R		Fiber Sync	
23	3	NW5	✓	RPC	2	R		R							H	R	O	Fiber Sync	
24	14	NE1	✓	RPC	3					R		H	R	R					
25	5	-	-	RKN	3														

Calib multiplexer

Good

Good, but occasional failure

No data at all

C : Problem in **C**alibration pulse
O : Problem in **O**ptical link
P : Problem in **P**ower supply
H : **H**alf Entry
R : **R**ecovered

The ROC database updated by K. Fujiki

Under Repair (TLK replacement except for B1 port of NW4)

Leadtime : 2~3 weeks
Expected delivery next week at the earliest.

Delivered ROCs are to be tested in RIKEN immediately.

To be shipped to BNL new class-1 ROCs by the end of January

ROC Repair Status

Index	ROC #	FVTX	Regulator Upgrade	Location	Class	A1	A2	A3	B1	B2	B3	C1	C2	C3	D1	D2	D3	Issue	Status
1	6	NW2	✓	BNL	1														
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8	22	SE2	✓	RPC	2	O													
9	23	SE1	✓	BNL	1														
10	31	NW1	✓	BNL	1	R	R	R											
11	32	NE2	✓	BNL	1							R	R	R					
12	9	-	✓	BNL	1			R											
13	10	-	✓	BNL	1					R		R							
14	27	SE5	✓	BNL	1							R			R	R	R		L12 Replaced at Column-D
15	19	NE5	✓	BNL	1										R				Fixed by TLK2711 Replacement
16	24	SE4	✓	RPC	2		O	R							R			Fiber Sync	A3,D1 TLKs replaced
17	16	NE3	✓	BNL	3				C	C	C							Calib Pulse	Waiting for SC-FPGA downlaod
18	15	NE0	✓	NWU	2	R									O	O		Fiber Sync	
19	7	-	✓	NWU	3		R	R		H	R	H			R	H			Replaced all DF18
20	2	NW4	✓	RPC	2					R		R			O	R		Fiber Sync	
21	21	-	✓	RPC	2	R			R		R		R	O	R			Fiber Sync	
22	17	NW3	✓	RPC	2				O							R		Fiber Sync	
23	3	NW5	✓	RPC	2	R		R							H	R	O	Fiber Sync	
24	14	NE1	✓	RPC	3					R		H	R	R					
25	5	-	-	RKN	3														

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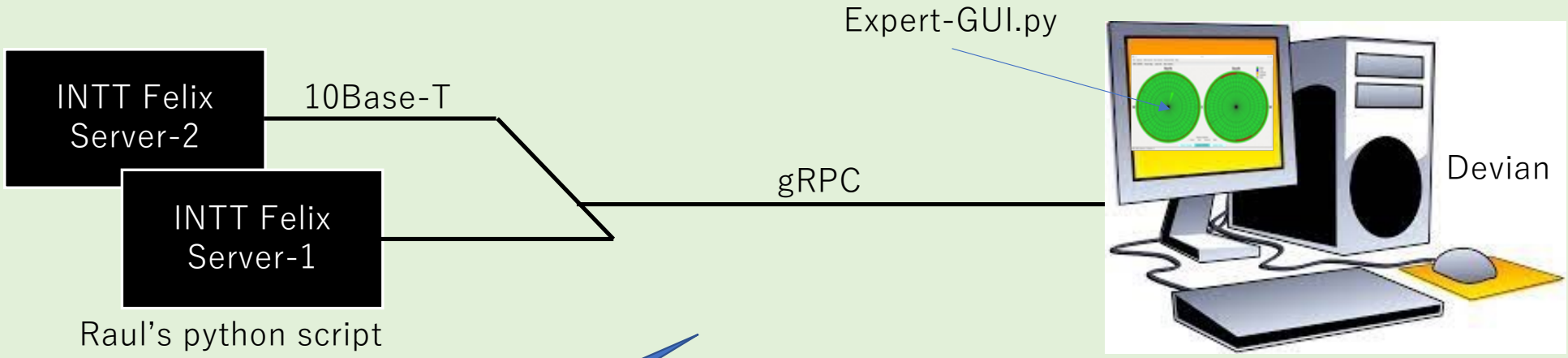
TLK replacement for fake hit study if fake hits disappears after the replacement. (To be reported by R. Shishikura)

1008 Environment for Expert GUI

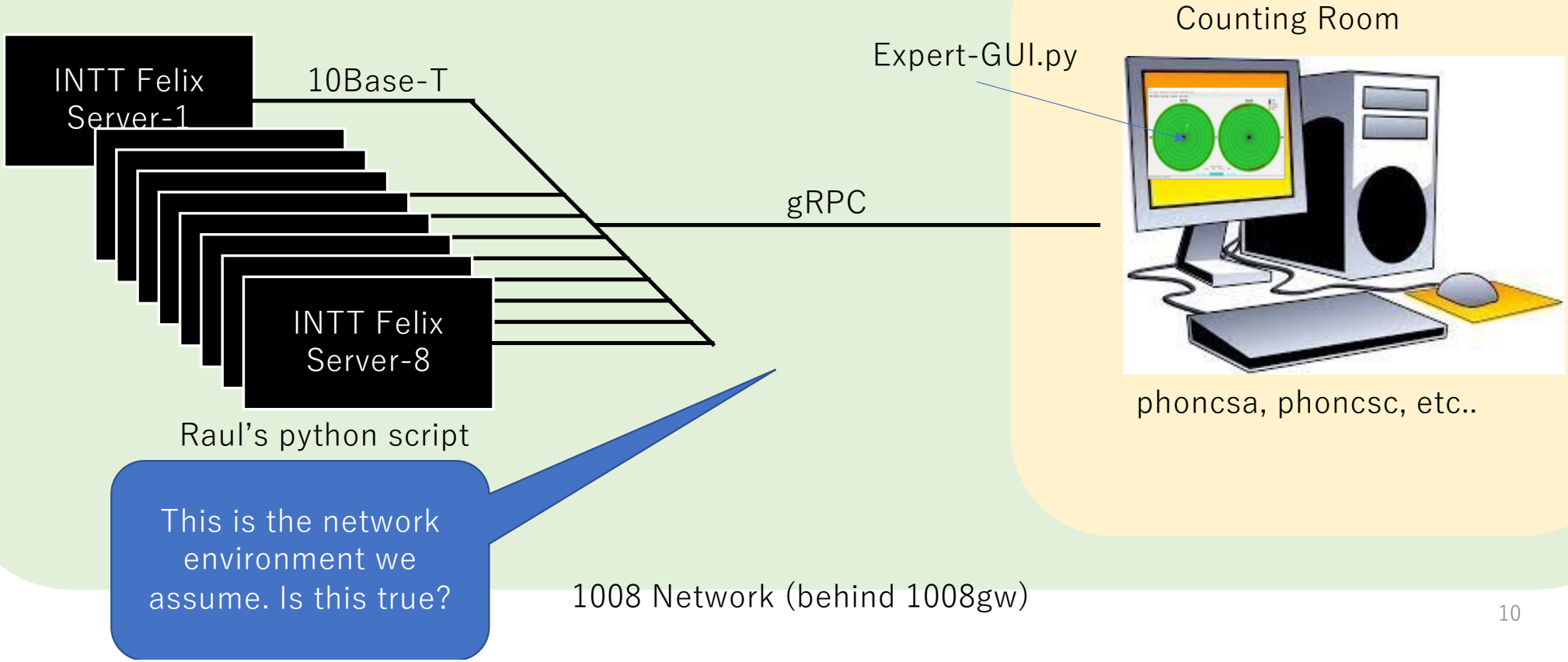
Expert GUI Development in Silicon Lab

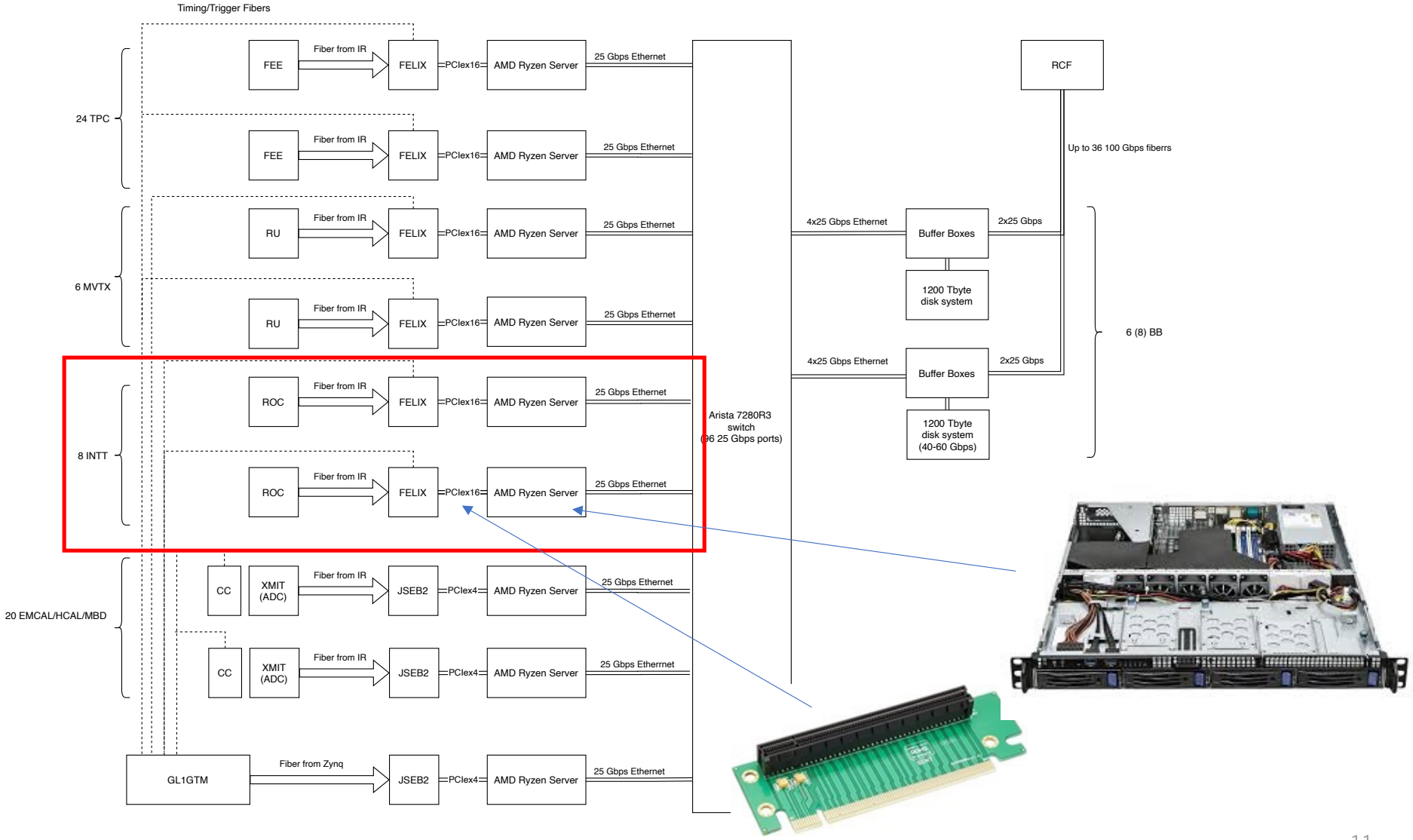


We are developing expert GUI in this environment assuming this framework works in 1008. Is this true?

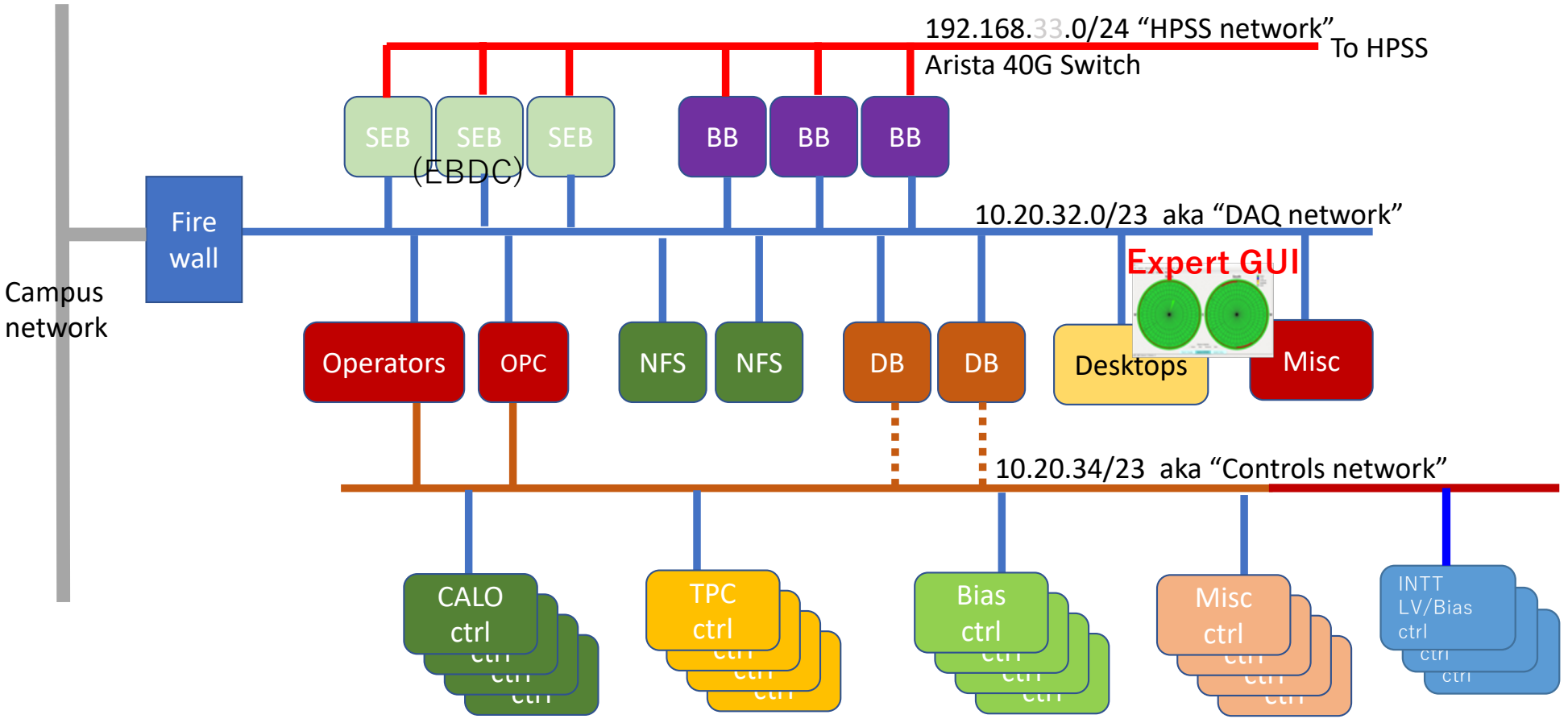
Silicon Lab Network (behind silicon.gw)

Expert GUI Design in 1008




Timing/Trigger Fibers
24 TPC
FEE
Fiber from IR
FELIX
PCIex16
AMD Ryzen Server
25 Gbps Ethernet
FEE
Fiber from IR
FELIX
PCIex16
AMD Ryzen Server
25 Gbps Ethernet
6 MVTX
RU
Fiber from IR
FELIX
PCIex16
AMD Ryzen Server
25 Gbps Ethernet
RU
Fiber from IR
FELIX
PCIex16
AMD Ryzen Server
25 Gbps Ethernet
8 INTT
ROC
Fiber from IR
FELIX
PCIex16
AMD Ryzen Server
25 Gbps Ethernet
ROC
Fiber from IR
FELIX
PCIex16
AMD Ryzen Server
25 Gbps Ethernet
20 EMCAL/HCAL/MBD
CC
XMIT (ADC)
Fiber from IR
JSEB2
PCIex4
AMD Ryzen Server
25 Gbps Ethernet
CC
XMIT (ADC)
Fiber from IR
JSEB2
PCIex4
AMD Ryzen Server
25 Gbps Ethernet
GL1GTM
Fiber from Zynq
JSEB2
PCIex4
AMD Ryzen Server
25 Gbps Ethernet
Arista 7280R3 switch (96 25 Gbps ports)
RCF
Up to 36 100 Gbps fiberrs
4x25 Gbps Ethernet
Buffer Boxes
2x25 Gbps
1200 Tbyte disk system
4x25 Gbps Ethernet
Buffer Boxes
2x25 Gbps
1200 Tbyte disk system (40-60 Gbps)
6 (8) BB

1008 network topology



Martin’s Response

On 2022/12/23 1:21, Martin Purschke wrote:

Hi Itaru,

yes, that's ok.

I need to make sure, though, that everyone understands that all this is an expert GUI and expert operation. For the shift crews in the end I need a script like "bring_up_the_INTT_to_running_state.sh" (it will have a different name :-)).

Remember, we had something similar in PHENIX (that was for the slow controls) where there had to be a command in the PATH hvcontrol_DETECTORNAME, such as hvcontrol_FVTX for the FVTX. Those would need to understand a common set of basic commands, we had things like "hvcontrol_FVTX on", "hvcontrol_FVTX standby", "hvcontrol_FVTX status", and the like.

Then the shift crew could go through all systems PBSC, PGBL, RICH, PADC, FVTX etc and execute "hvcontrol_XXXX on" for all, and each subsystem was free to do whatever it took for that particular system and still stand up a common "API".

We are not there yet to hash this out in much more detail, but you understand the approach.

Best,
Martin