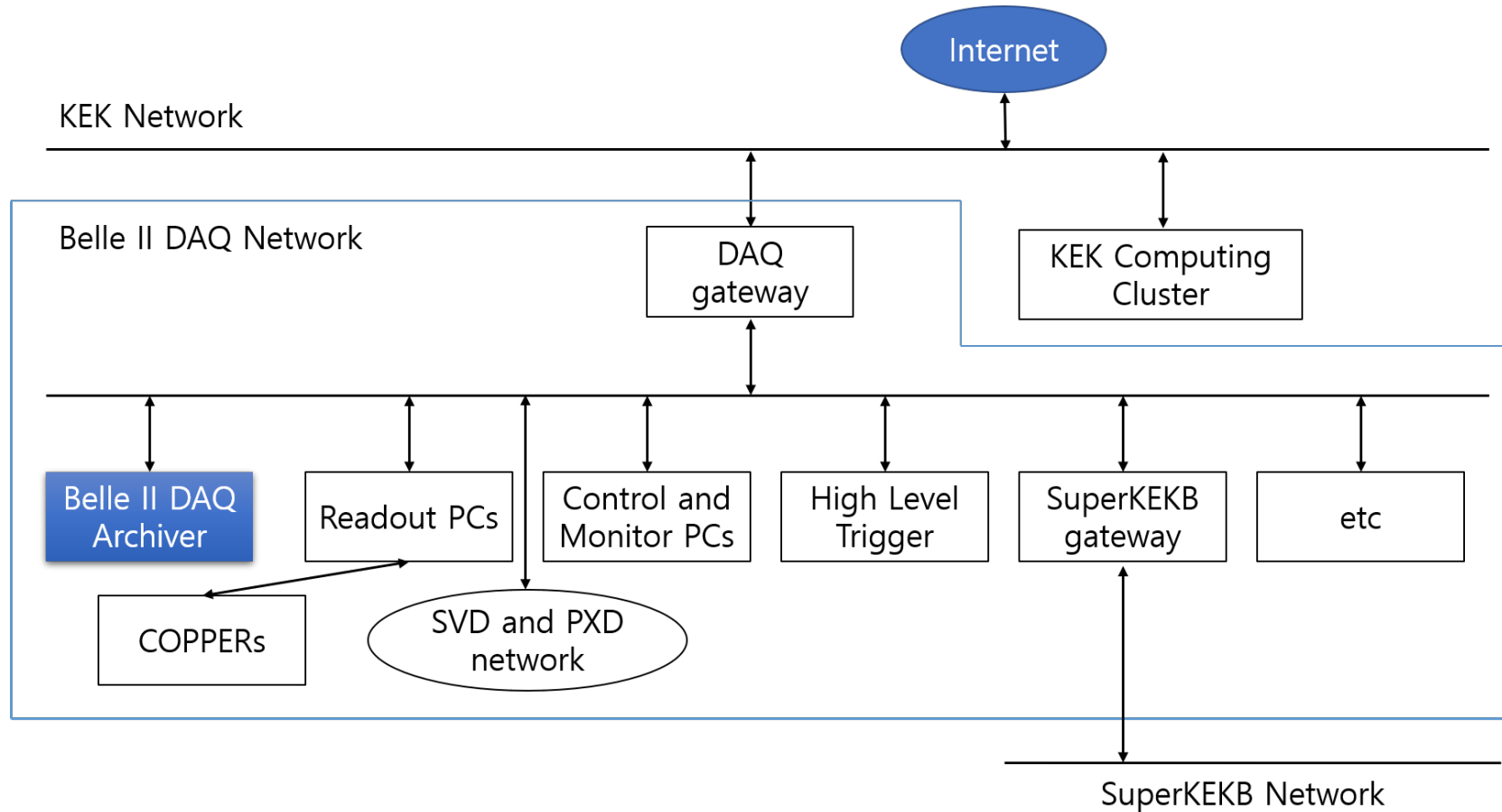


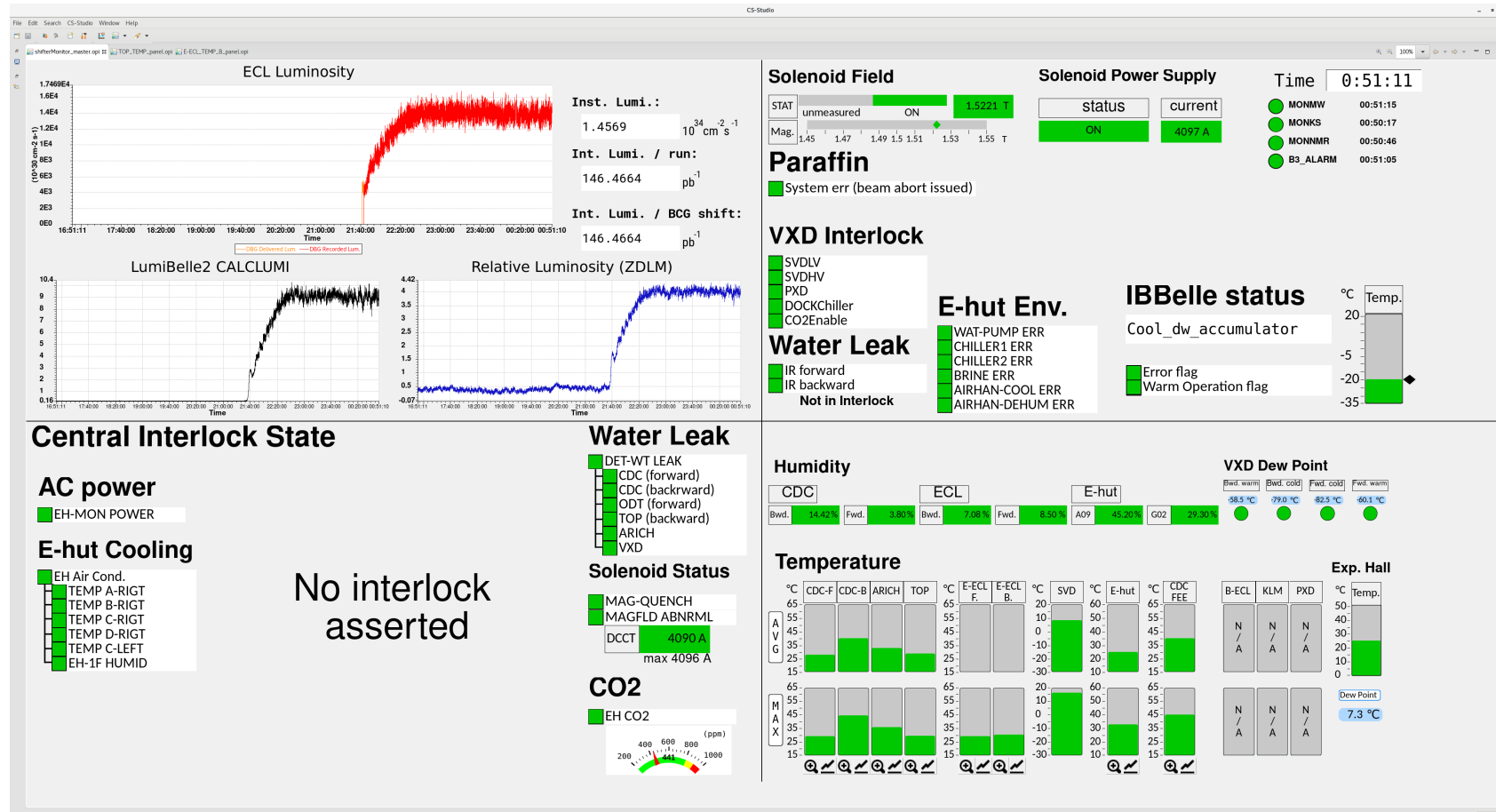
# Archiver System Management for Belle II Detector Operation

Yongkyu Kim

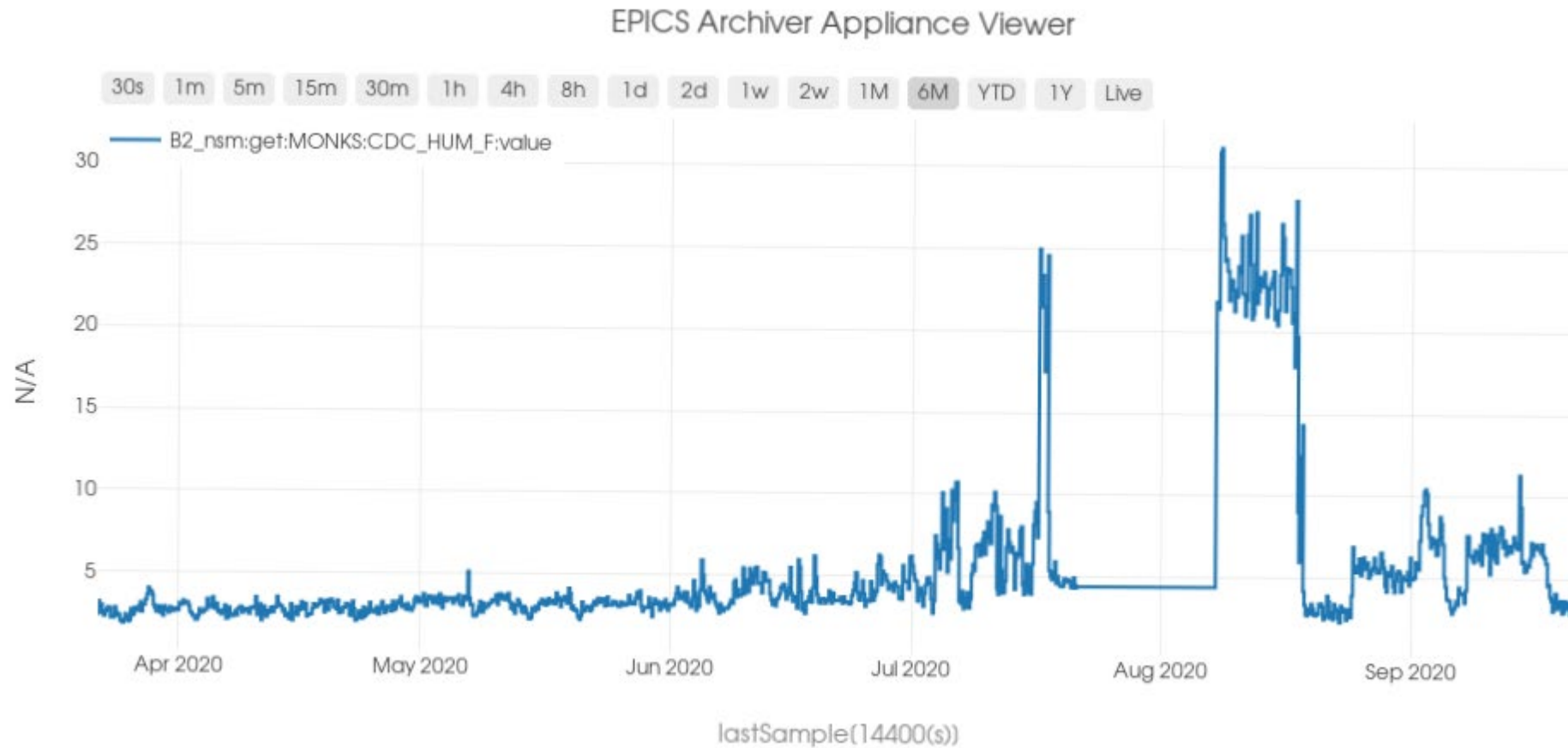
# Belle II DAQ network



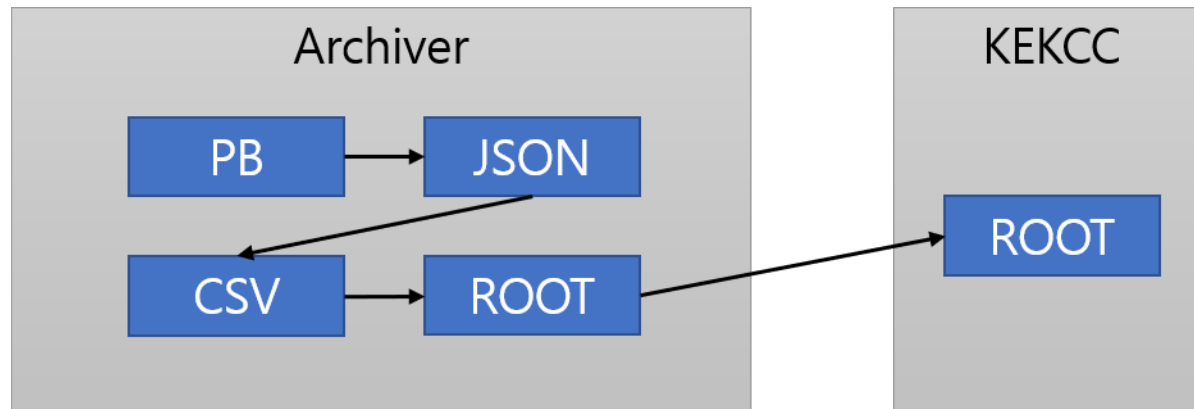
# Monitoring System



# Retrieval Webapp




# PB to ROOT




EPICS archiver supports archiver specific format called P B, and only can be accessible in Belle II D AQ network.


we developed a chain of conversion programs to convert the PB data into the ROOT format by combining existing tools. We convert our monthly PB file in LTS and transfer it to KEKCC.

# Archiver Status Notification

 **b2archbot** @seokhee.park Bot 오후 11시 0분  
Retrevel webapp seems not available. Please check status of <http://b2arch1.daqnet.kek.jp:17668>

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 **b2archbot** @seokhee.park Bot 오후 6시 15분  
B2ARCH:status seems not changing for 1470 min. Please check Archiver Its status

 **b2archbot** @seokhee.park Bot 오후 6시 41분  
B2ARCH:status seems not changing for 90 min. Please check Archiver mts status

[B2ARCH] Alarm from b2arch1 Its  Inbox x

**b2arch-b2arch1.daqnet@bpost.kek.jp** [via yonsei.ac.kr](mailto:b2arch-b2arch1.daqnet@bpost.kek.jp)  
to yjk1401, seokhee.park ▾

**B2ARCH**:status seems not changing for 1470 min. Please check Archiver Its status

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**b2arch-b2arch1.daqnet@bpost.kek.jp** [via yonsei.ac.kr](mailto:b2arch-b2arch1.daqnet@bpost.kek.jp)  
to yjk1401, seokhee.park ▾

**B2ARCH**:status seems not changing for 25hr. Please check Archiver Its status

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**b2arch-b2arch1.daqnet@bpost.kek.jp** [via yonsei.ac.kr](mailto:b2arch-b2arch1.daqnet@bpost.kek.jp)  
to yjk1401, seokhee.park ▾

**B2ARCH**:status seems not changing for 29hr. Please check Archiver Its status

# Disconnected PV check

[B2ARCH] Note on disconnected PVs > Inbox x

b2arch-b2arch1.daqnet@bpost.kek.jp via yonsei.ac.kr

[Redacted]

This mail contains notification on disconnected PVs.  
Here is summary of disconnected PVs

```
1 BEAST:CLAWS:RATE:FRAC:BWD_Z0_1:
32 BEAST:CLAWS
3 BEAST:DAQ
6 BEAST:TPCMASTER
```

[B2ARCH] There is no disconnected PV > Inbox x

b2arch-b2arch1.daqnet@bpost.kek.jp via yonsei.ac.kr

[Redacted]

This mail contains notification on disconnected PVs.  
Here is summary of disconnected PVs

There is no disconnected PV.

Work done by crontab

This mail comes every  
morning 7:10 KST

using Shell and Python script.

# PV List Consistency check

PXD (Contact person: [pxd@belle2.org](mailto:pxd@belle2.org) )

DHP

#	PV name	Description	Unit	Comment
20	PXD:H<nnnn>:dhp_data:OCC:cur	PXD occupancies	Byte/Ev	<nnnn> = 1011,1012,1021,1022,1031,1032,1041,1042,1051,1052,1061,1062,1071,1072,1081,1082,2041,2042,2051,2052

SVD (Contact person: [@Yin Hao](https://twitter.com/YinHao) or [svd-sc@belle2.org](mailto:svd-sc@belle2.org) )

QM (28)

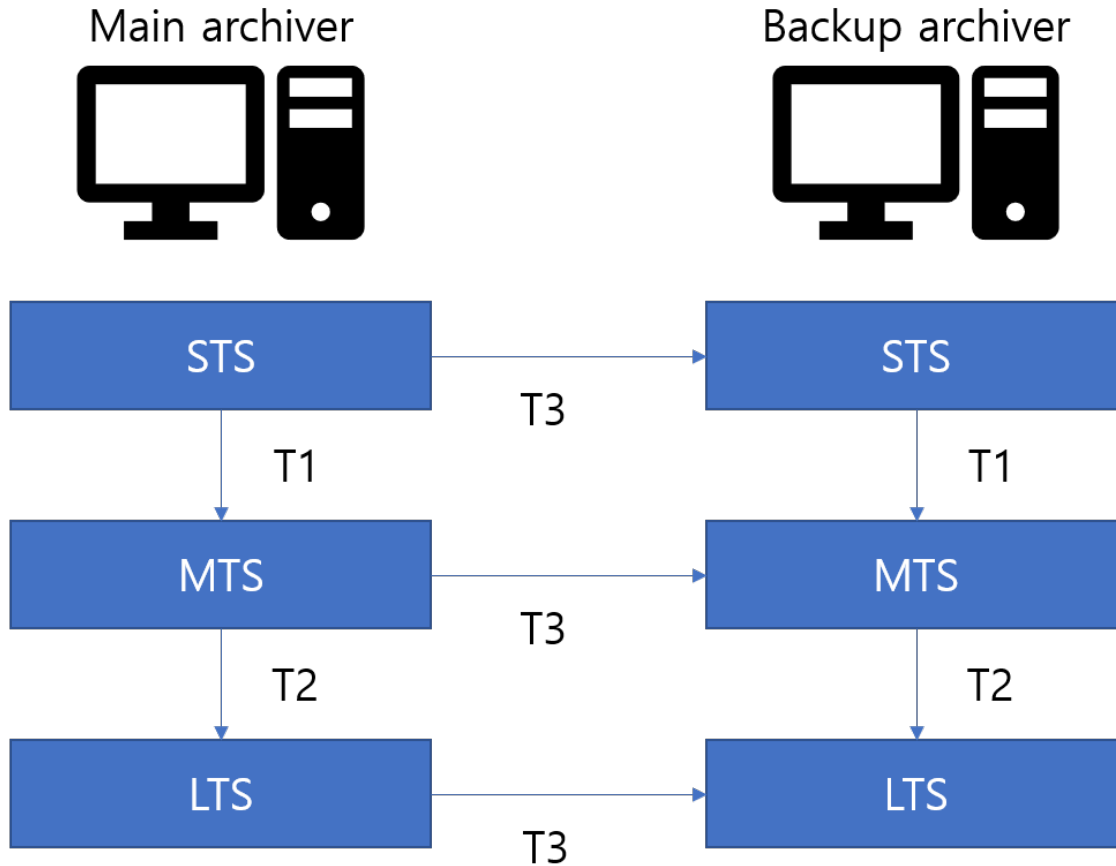
#	PV name	Description	Unit	Comment
28	SVD:QM:Monitor3:<i>:<j>:<k>:HWOccupancy	SVD layer3 occupancy	%	<i> = 1-7 , <j> = 1,2 <k> = 0,1 i: ladder, j: 0 = forward ~ (layer - 1) = backward, k: 0 = p-side, 1 = n-side
60	SVD:QM:Monitor4:<i>:<j>:<k>:HWOccupancy	SVD layer4 occupancy	%	<i> = 1-10 , <j> = 1,2,3 <k> = 0,1
96	SVD:QM:Monitor5:<i>:<j>:<k>:HWOccupancy	SVD layer5 occupancy	%	<i> = 1-12 , <j> = 1,2,3,4 <k> = 0,1
160	SVD:QM:Monitor6:<i>:<j>:<k>:HWOccupancy	SVD layer6 occupancy	%	<i> = 1-16 , <j> = 1,2,3,4,5 <k> = 0,1
4	SVD:OccMon:L<i>:Max	Max. occupancy of layer <i>	%	i: layer <i> = 3-6
4	SVD:OccMon:L<i>:Avg	Avg. occupancy of layer <i>	%	i: layer <i> = 3-6
4	SVD:OccMon:L<i>:AvgNorm	Avg. occupancy of layer <i> re-normalized to the alarm limit at 2%	%	i: layer <i> = 3-6

Parsed by Python script.

If there is difference, Archiver experts will notify subdetector experts.



# Archiver Backup



STS uses SSD  
MTS and LTS uses HDD

T1 : < 3 days  
T2 : < 1 week  
T3 : every 20 min