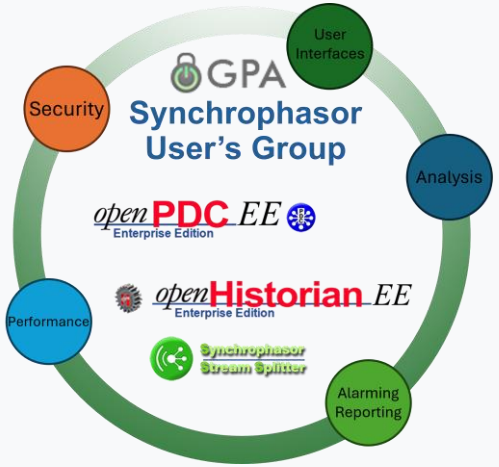
GRID PROTECTION ALLIANCE



Archiving Features & Improvements

Codebase Update

Update in technologies for all Synchrophasor apps provides…

- Support over a longer term
- Includes the latest security updates
- Better read/write performance

What does this mean for the user?

- Less need to maintain legacy code = reduced developer load = **more time to focus on features and improvements**
- Protection against the latest threats
- Reduced resource requirements = **more calculation capacity!!!**

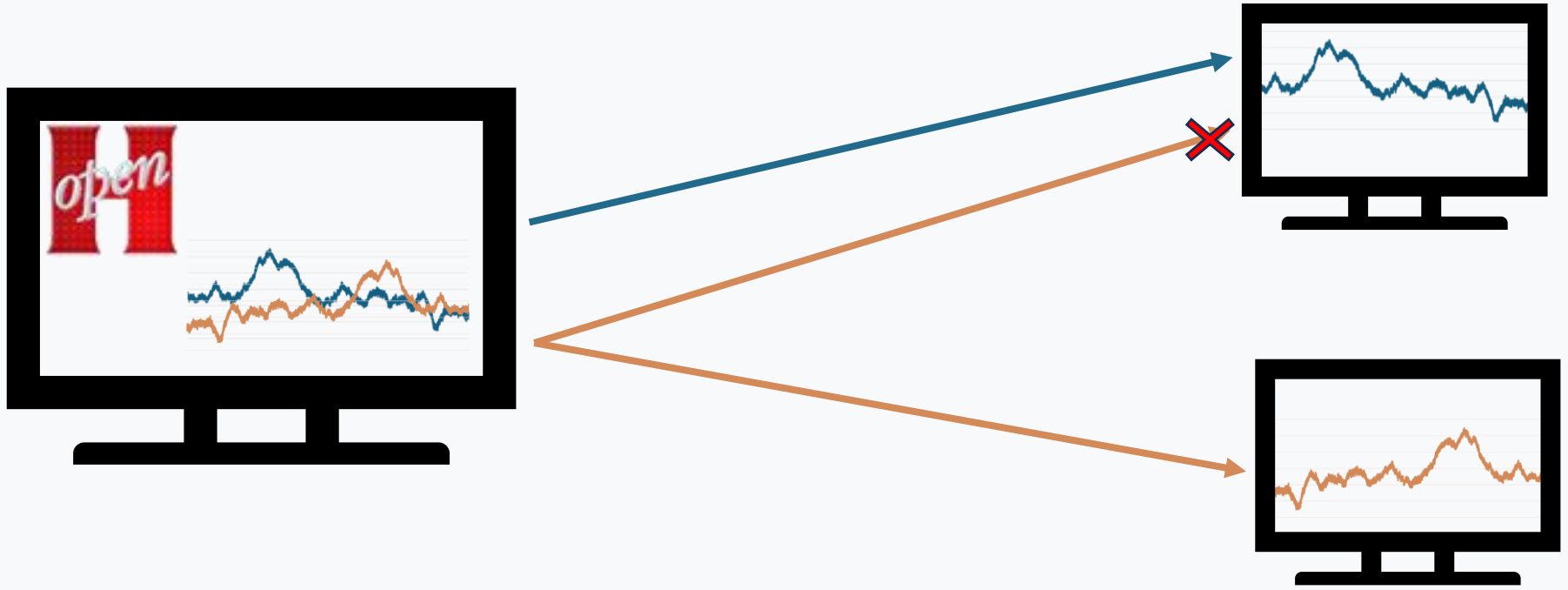
Data Encryption

openHistorian is the only synchrophasor historian to allow encryption

- Actual data
- Metadata
- Point-by-point

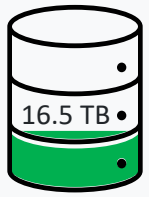
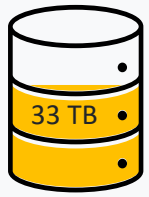
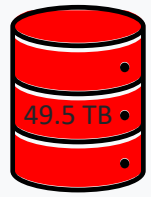
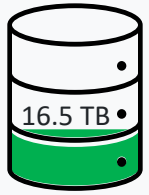
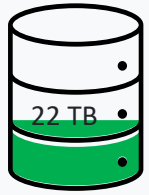
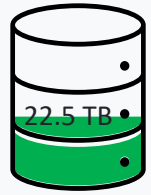
Example:

- Engineer A needs Signal A, Engineer B needs Signal B, but neither needs visibility into the other's data



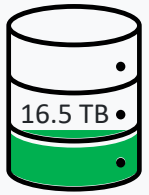
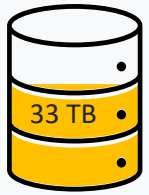
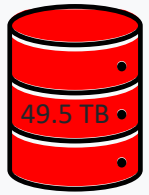
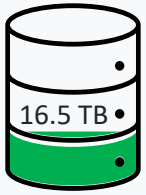
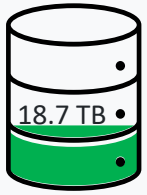
Automatic Down-sampling

Automatically down-sample data after a specified period

Full Resolution	1 Year @ 30 fps =	946,080,000 points/year 	2 Years @ 30 fps =	1,892,160,000 points/year 	3 Years @ 30 fps =	2,838,240,000 points/year 
3 years down-sampled after year 1 (10 fps) and year 2 (1 fps)	1 Year @ 30 fps =	946,080,000 points/year 	1 year @ 30 fps + 1 year @ 10 fps =	1,261,440,000 points/year 	1 year @ 30 fps + 1 year @ 10 fps + 1 year @ 1 fps =	1,292,976,000 points/year 

Storage estimates based on 600 PMU system storage requirements vs. a 50 TB hard drive

3 Years Full Resolution vs. 10 Years Down-sampled

Full Resolution	1 Year @ 30 fps =	946,080,000 points/year 	2 Years @ 30 fps =	1,892,160,000 points/year 	3 Years @ 30 fps =	2,838,240,000 points/year 
10 years down-sampled after year 1 (10 fps) and year 5 (1 fps)	1 Year @ 30 fps =	946,080,000 points/year 	1 year @ 30 fps + 4 years @ 10 fps =	2,207,520,000 points/year 	1 year @ 30 fps + 4 years @ 10 fps + 5 years @ 1 fps =	2,365,200,000 points/year 

Retain Full Fidelity for Events

Configure timeframe surrounding events to retain full fidelity data, even while taking advantage of automatic down-sampling