

CONTROL SYSTEM SUITE FOR BEAM POSITION MONITORS AT MAX IV

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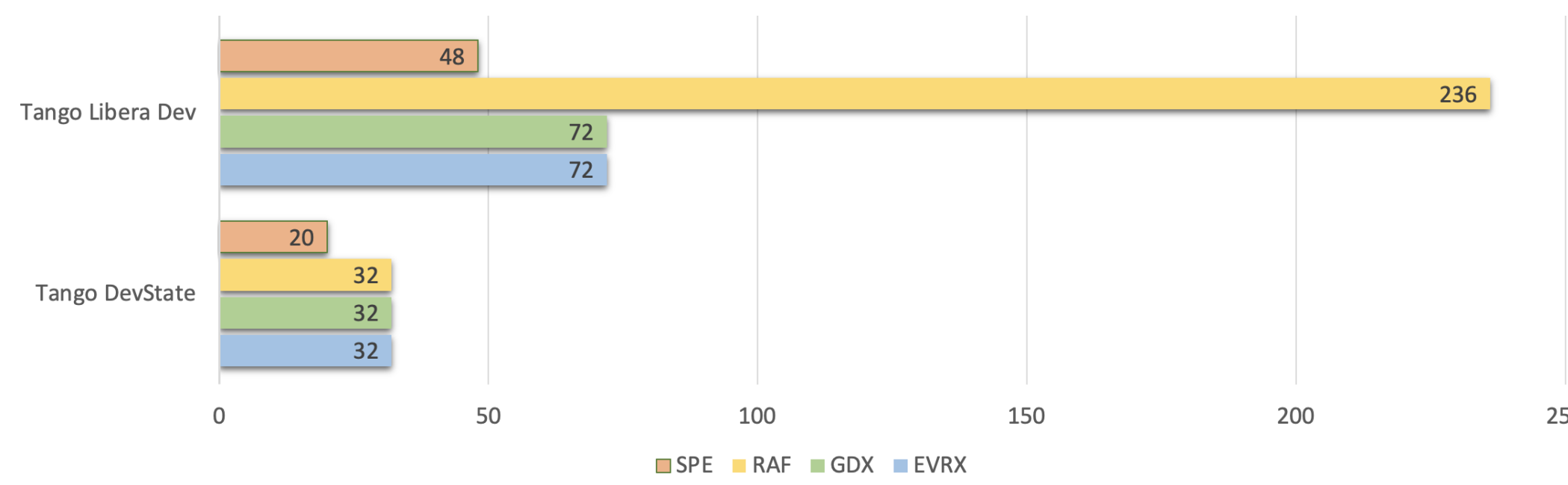


CONTROL SYSTEM AT MAX IV

The MAX IV Laboratory is a fourth generation light source and consists of a full energy linac, 1.5 GeV and 3 GeV storage rings and a short pulse facility. TANGO is used as a distributed control system, serving an estimated 24.000 devices that provides around 500.000 control points.

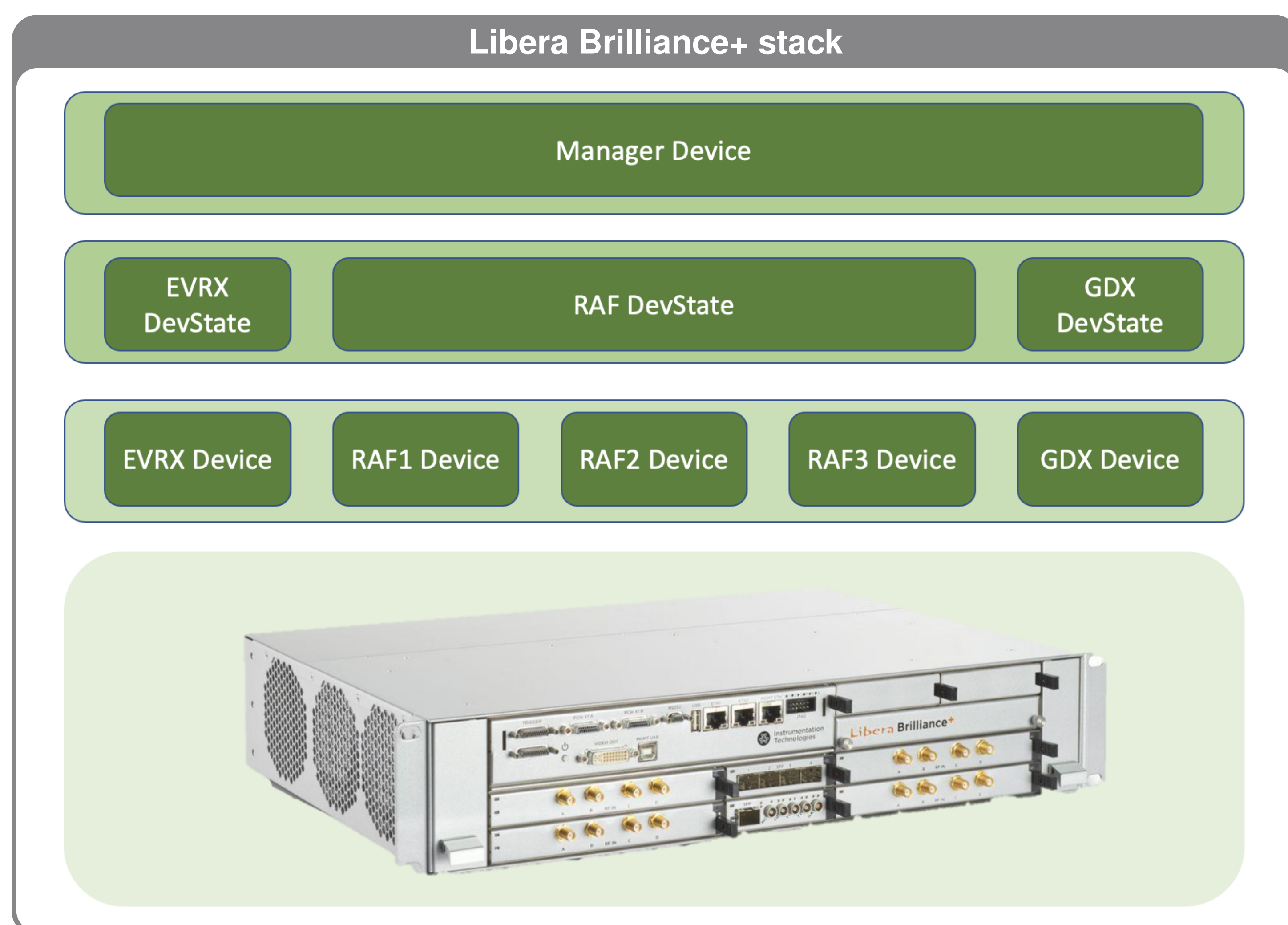
BEAM POSITION MONITORS AT MAX IV

- Libera Brilliance+: 72 units with a total of 236 BPMs;
- Libera Single-Pass E: 21 units with a total of 48 BPLs;
- Libera Manager: 1 TANGO device per accelerator;

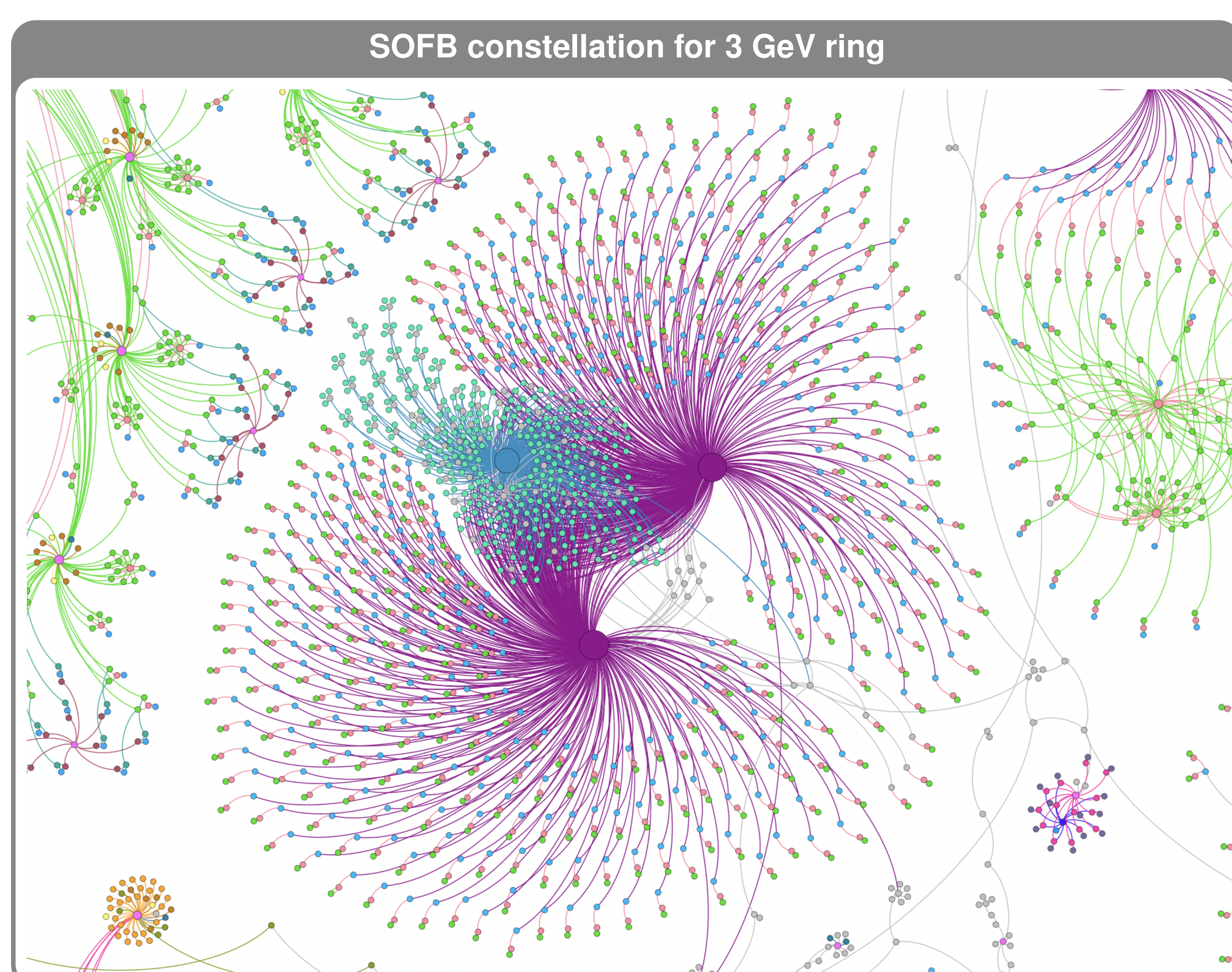


CONTROL SYSTEM SCHEMA FOR LIBERA BRILLIANCE+

The figure below describes the Libera Brilliance+ control system hierarchy at MAX IV. There is an average of 600 attributes per unit.

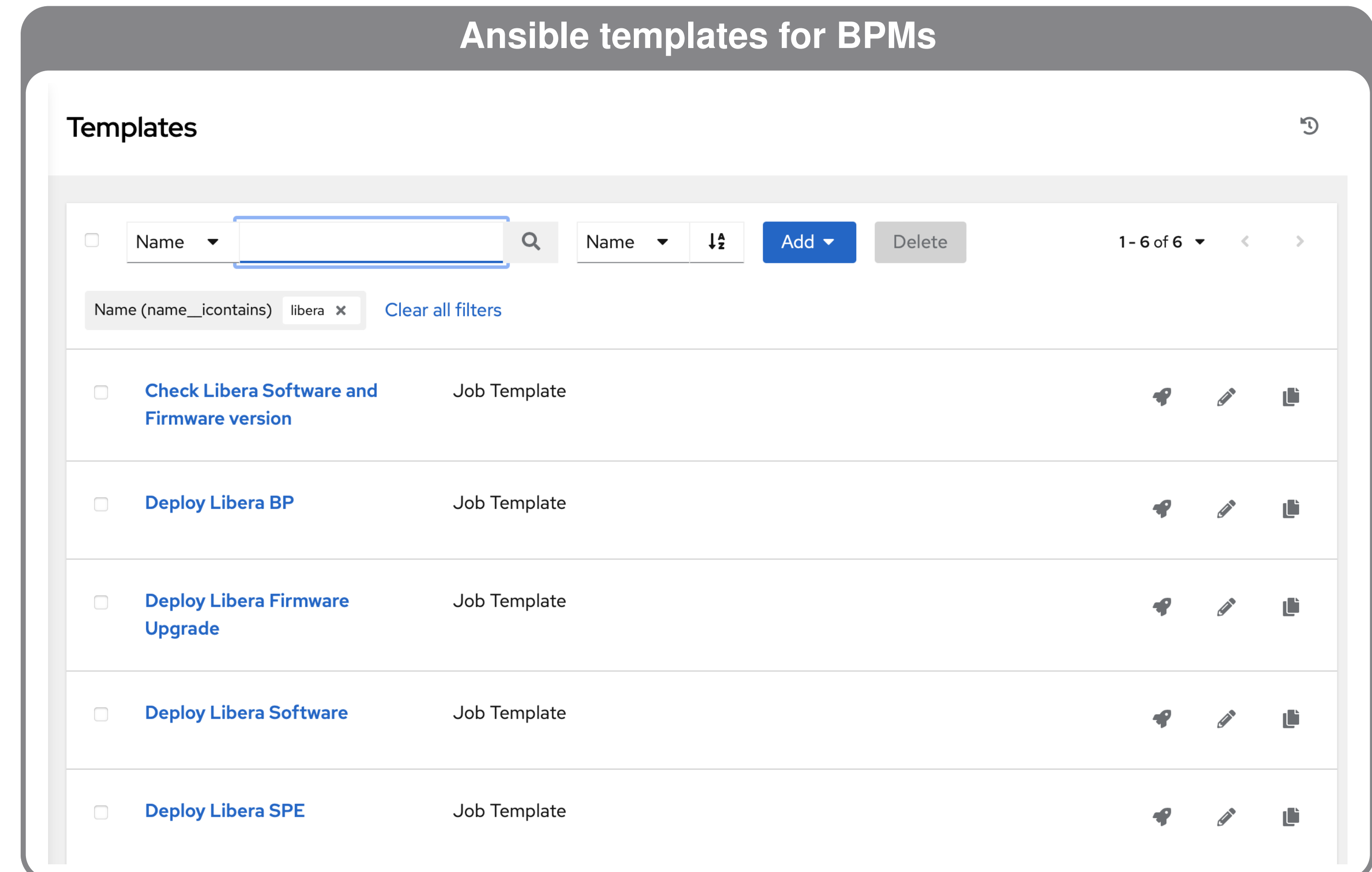


CONSTELLATION GRAPH

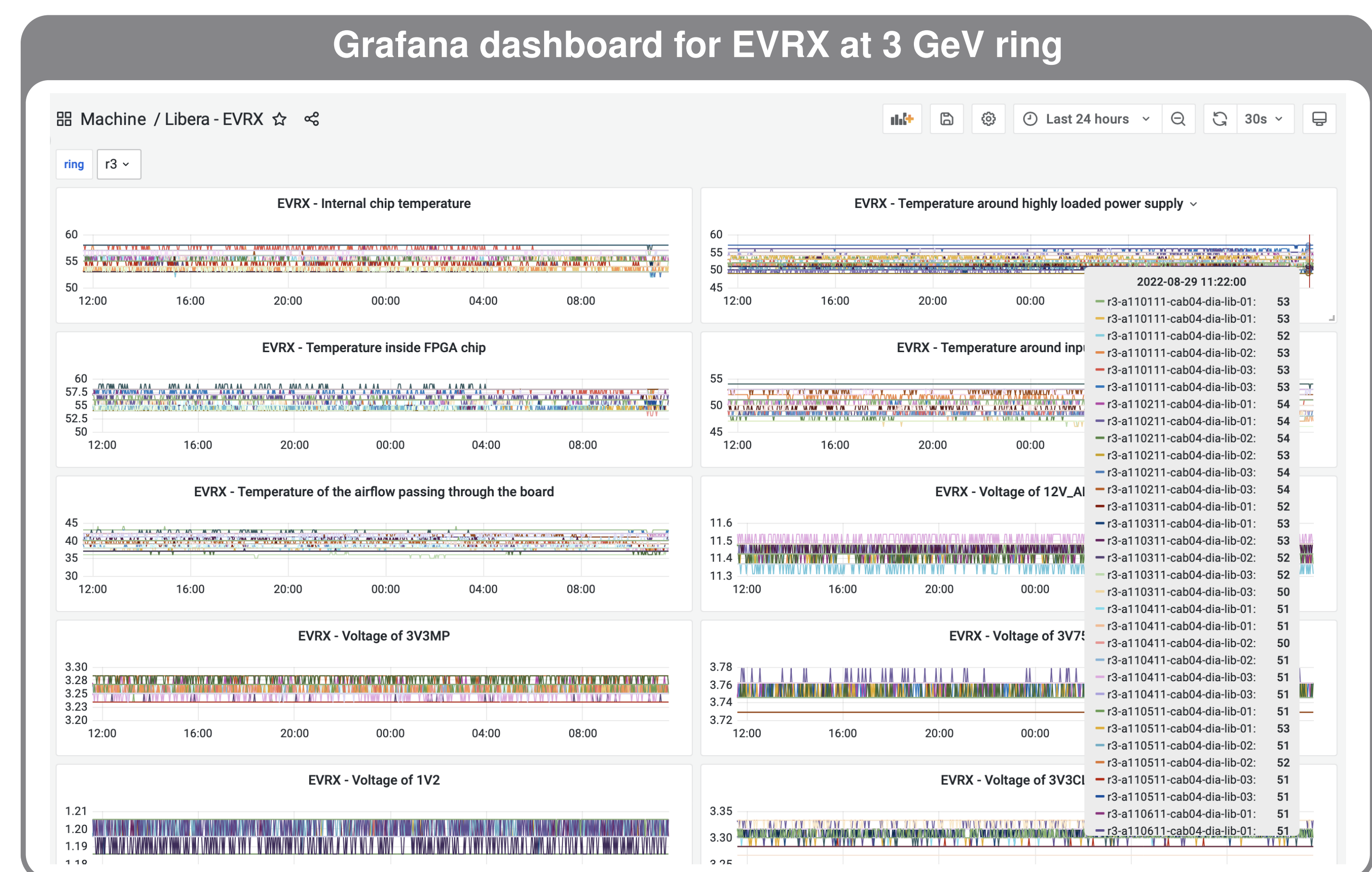


MAINTAINABILITY

Ansible is used to maintain software, firmware versions, calibration and configuration.



MONITORING



APPLICATIONS

Slow (10 Hz) and fast (10 KHz) data streaming, synchronized with SOFB and FOFB cycles, are available for several user interfaces applications and control loops. Slow rate data has a long term storage and fast data is archived for 15 days.

