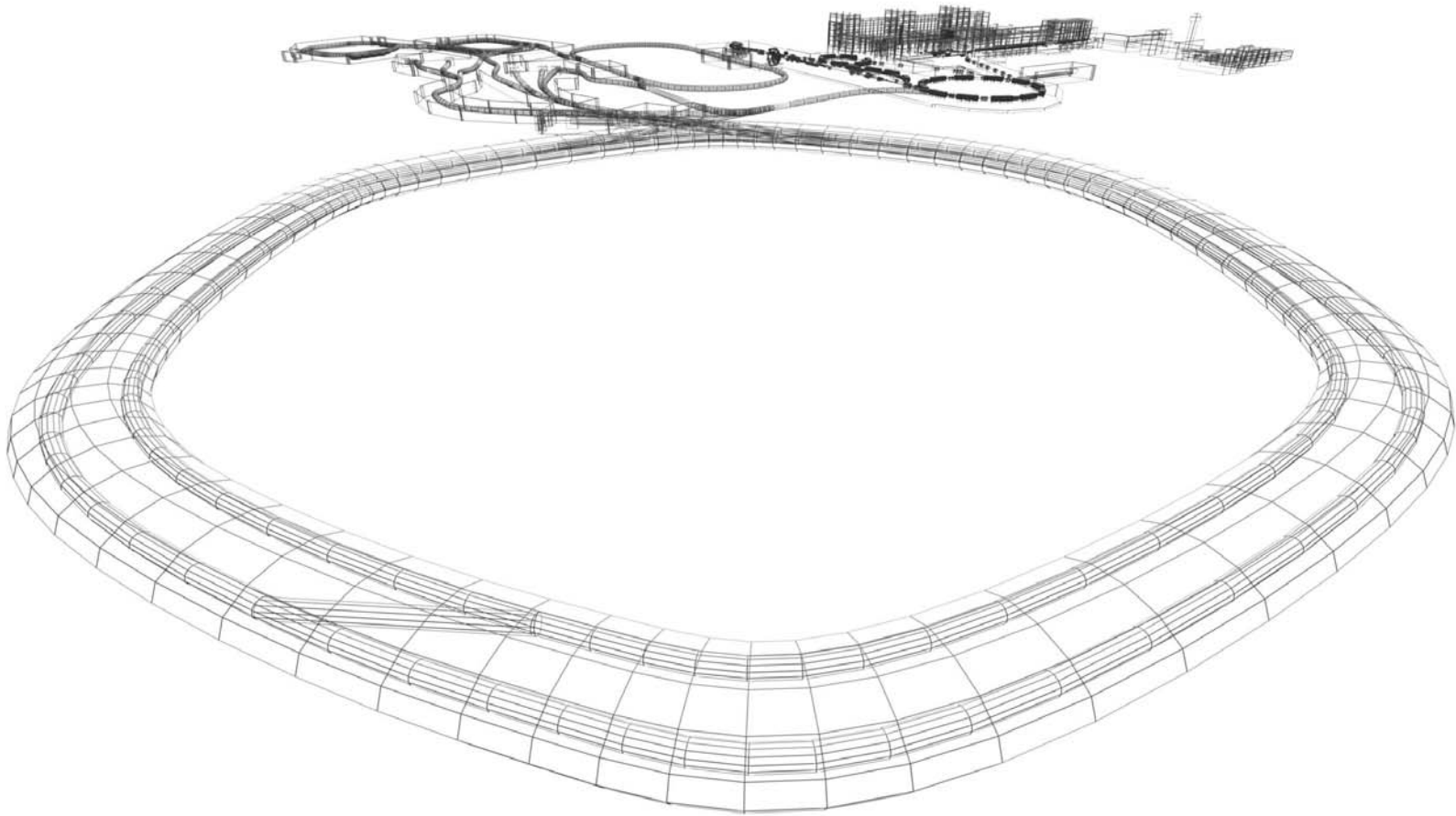
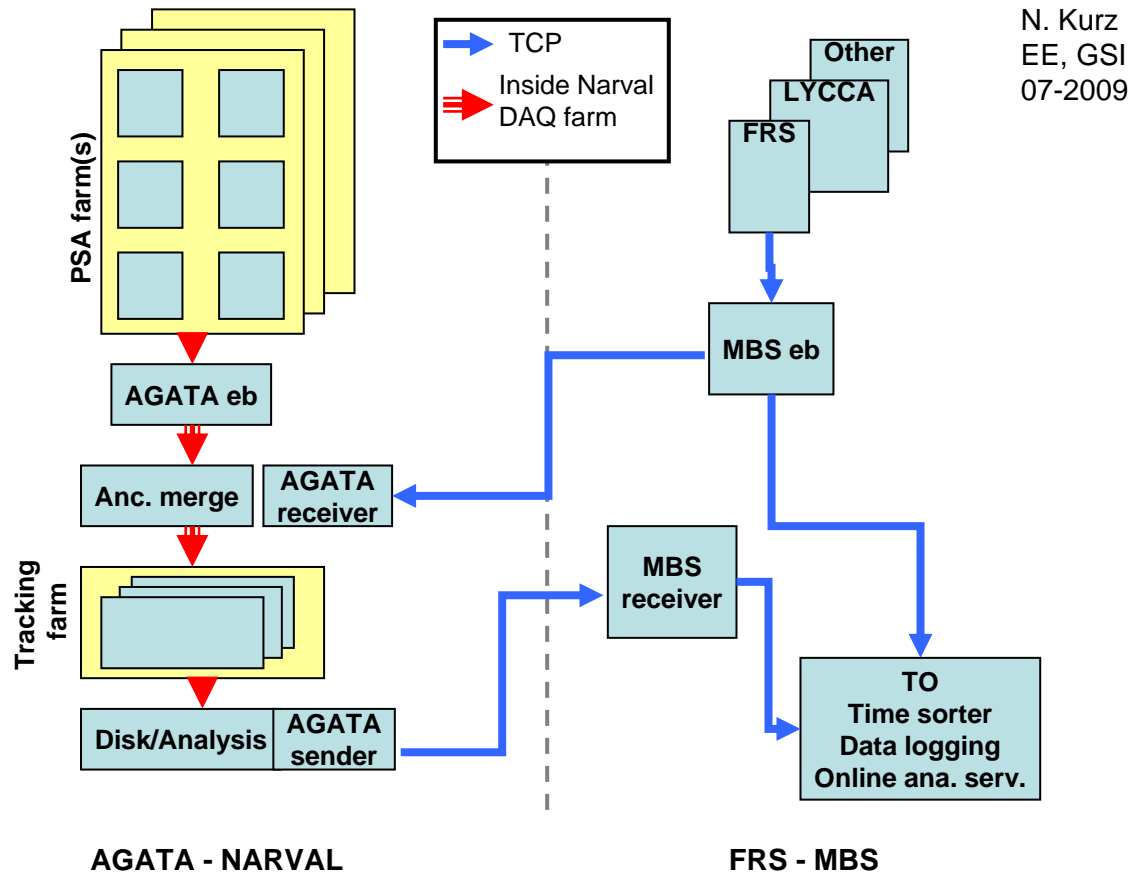


Data Path Coupling of NARVAL / AGATA with MBS / FRS



AGATA – MBS Data Path Coupling (1)



Libraries / Templates

MBS to AGATA Data Receiver:

provided library and template program to connect to MBS and get Data via TCP sockets.

AGATA to MBS Data Sender:

provided library and template program to connect to MBS
and send Data via TCP sockets.

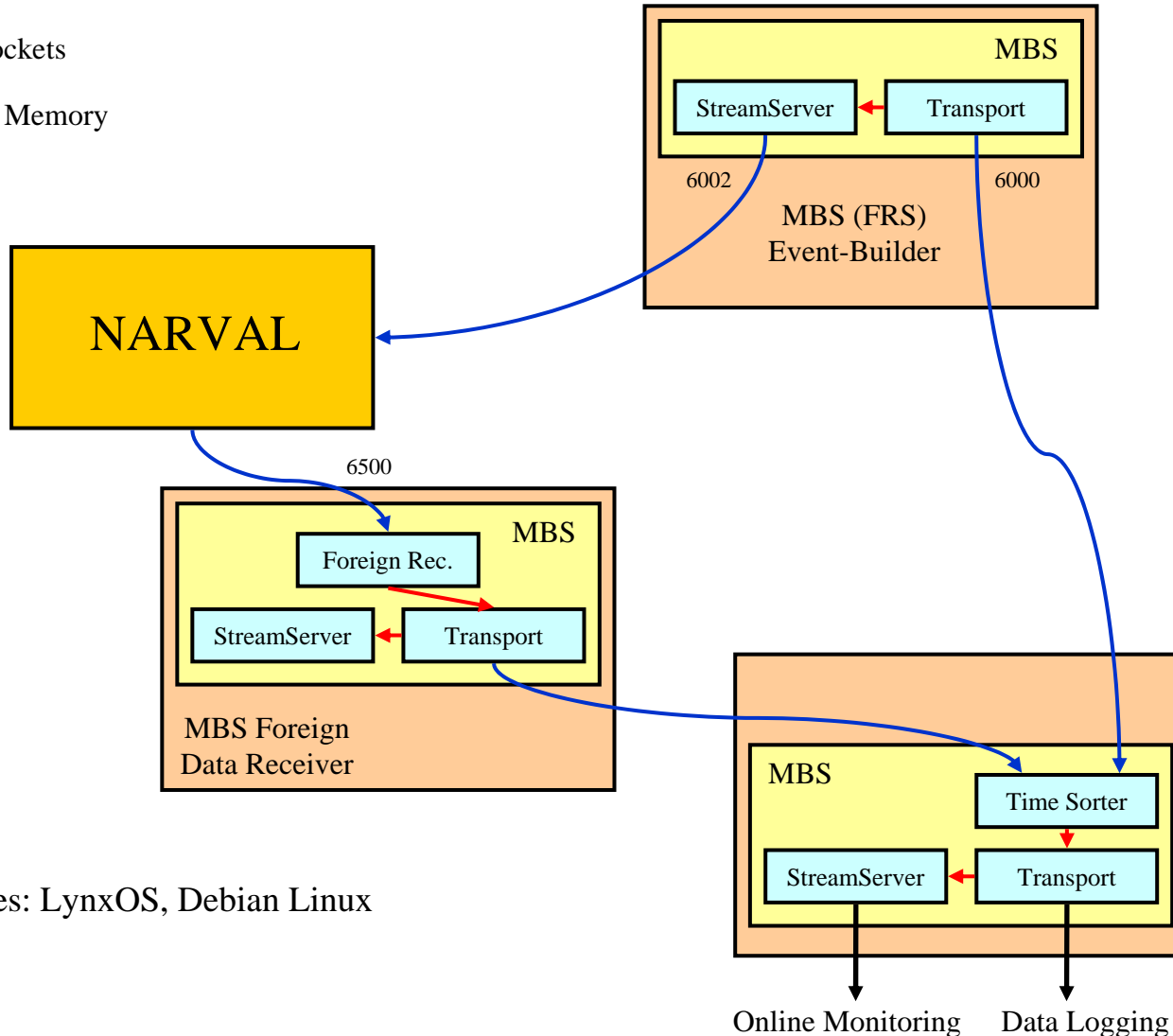
provided description of MBS sub-event data format

MBS note in Dec. 2010

Planned Solution showed Performance Problem

→ TCP Sockets

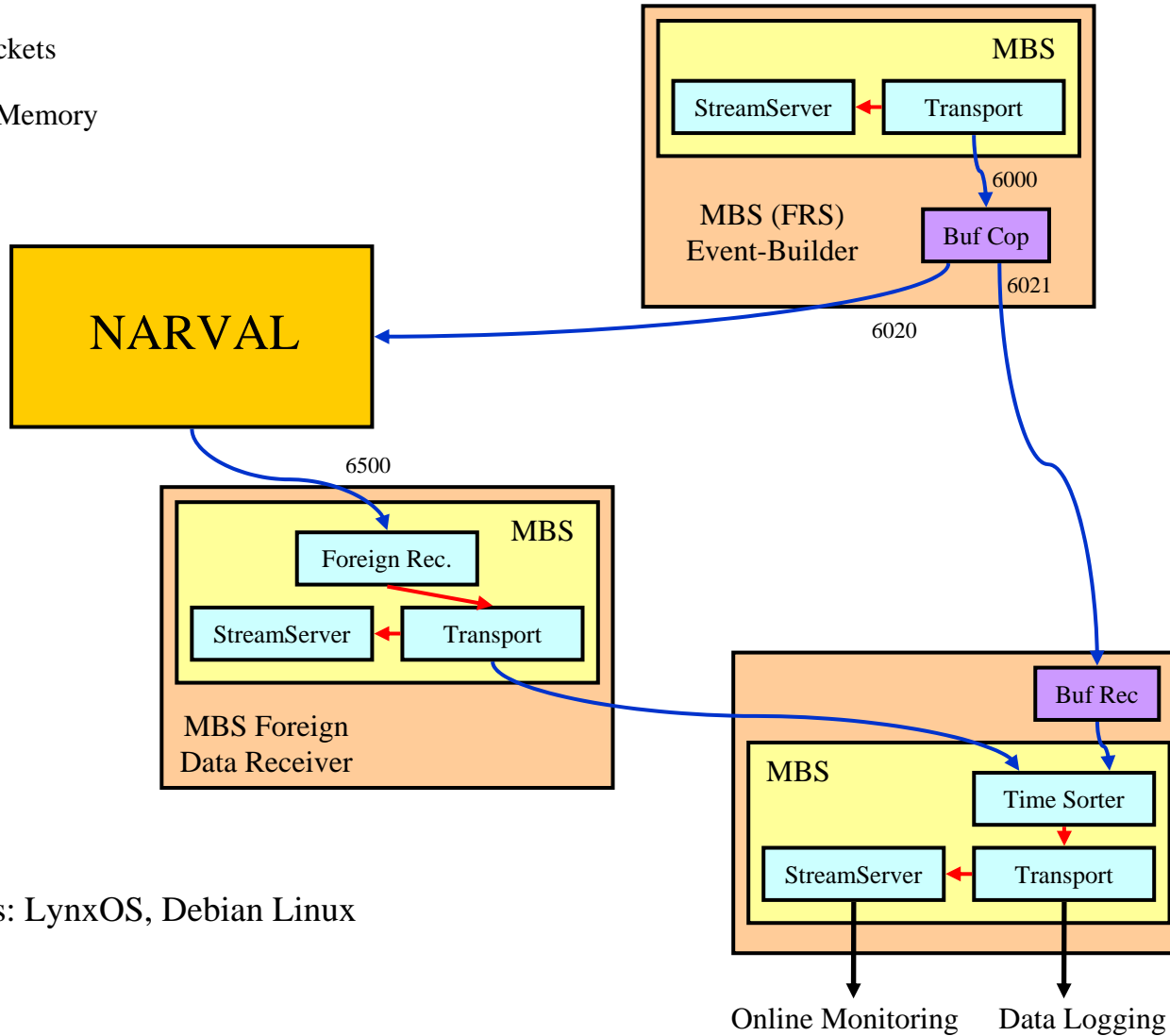
→ Shared Memory



MBS PC nodes: LynxOS, Debian Linux

Solution

- TCP Sockets
- Shared Memory



MBS PC nodes: LynxOS, Debian Linux

BUF_COP / BUF_REC

BUF_COP: (for data duplication and de-randomization)

- can connect to any MBS data source (transport, stream_server, event_server, remote event_server).
- reads buffers from source, manages queue of 1000 de-randomization buffers
- sends identical data in a push mode to the 2 connected receivers
- creates 2 TCP output sockets with ports 6020, 6021
- requests connection of both sockets from data receivers before sending data

BUF_REC: (for data de-randomization)

- can connect to any MBS data source (transport, stream_server, event_server, remote event_server).
- reads buffers from source, manages queue of 1000 de-randomization buffers
- creates 1 TCP output socket. port number can be specified
- once TCP connection is established: sends all buffer read to the output socket

Result of FULL Connection Tests

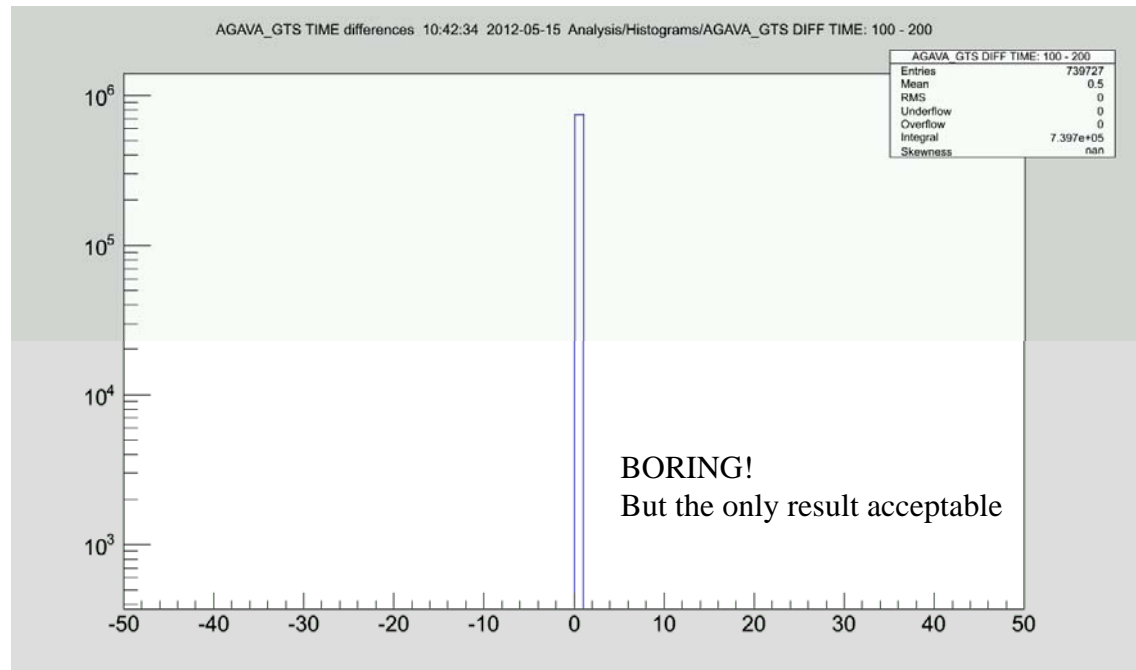
send events from MBS/ FRS event-builder to NARVAL and MBS time sorter

In NARVAL: flip sub-system id form 0x200 to 0x100, no other changes (local tag!),

send back events to MBS foreign receiver

MBS foreign receiver send events to MBS time sorter

MBS time sorter (sorts)



Conclusion

It is running