New GTL Plugin to Debug Servers via I3C or JTAG Controlled by a Board Management Controller (BMC)

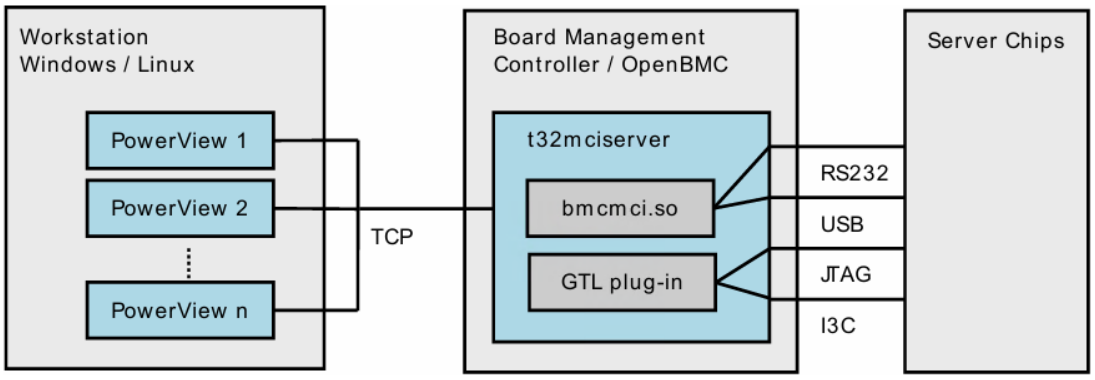
2026-06-17 - Comments (0) - Debug

Starting with release R.2026.02, Lauterbach introduces support for network-based debugging servers using I3C[1] or JTAG protocols. This enables large-scale debugging of closed-chassis targets via Debug-over-Network (DoN), eliminating the need for manual connections through onsite physical debugger probes.

This approach facilitates system state analysis across a wide range of scenarios and is particularly well suited for debugging blades deployed in platform system engineering (pre-production) labs. It also allows teams to reuse test content originally developed by silicon validation teams in bench-top or open-chassis environments, ensuring consistency and efficiency across validation and pre-production workflows.

The debug functionality can be executed either within the Board Management Controller (BMC) or on a remote debug host. A widely used BMC implementation is OpenBMC[2], a Linux-based distribution designed for management controllers in devices such as servers, top-of-rack switches, and RAID systems.

The following figure illustrates an example configuration with multiple TRACE32 PowerView instances running in Asymmetric Multiprocessing (AMP) mode on a workstation. In this setup, the debug driver runs as a separate process (t32mciserver) on an OpenBMC Linux system, enabling remote control of the target.



Further details about this configuration can be found in backend_gtl.pdf.

Refer also to the paper"Scalable Debugging for Data Centers"

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[1] MIPI Debug Over I3C Specification (https://www.mipi.org/specifications/debug-over-i3c)

[2] https://openbmc.org/

Attachments

- backend_gtl.pdf [355.35 KB]