

cppTango event system
performance monitoring
39th Tango Community Meeting



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The new QueryEventSystem() DServer command

- a) What is it?
- b) ska-tango-event-monitor
- c) Demo

Usage at SKA



The new QueryEventSystem() DServer command

- cppTango 10.1 introduces two new DServer commands:
 - QueryEventSystem()
 - EnableEventSystemPerfMon()
- Aimed at debugging systems making heavy use of the Tango event system
- QueryEventSystem() returns a JSON object with details about the event system internals
- Can optionally collect performance metrics for the event system
- Documentation available at https://tango-controls.gitlab.io/cppTango/10.1.0-dev/query_event_system.html



- Very basic script that calls QueryEventSystem() periodically on multiple device servers
- Outputs a summary of the difference in the response between each call
- When performance monitoring is enabled, it outputs statistics about the event system performance
- Also, provides patched 9.5.0 and 9.5.1 pytango wheels with QueryEventSystem()
 - Not exactly the same as the version coming in 10.1.0
 - These wheels will be removed when 10.1.0 releases



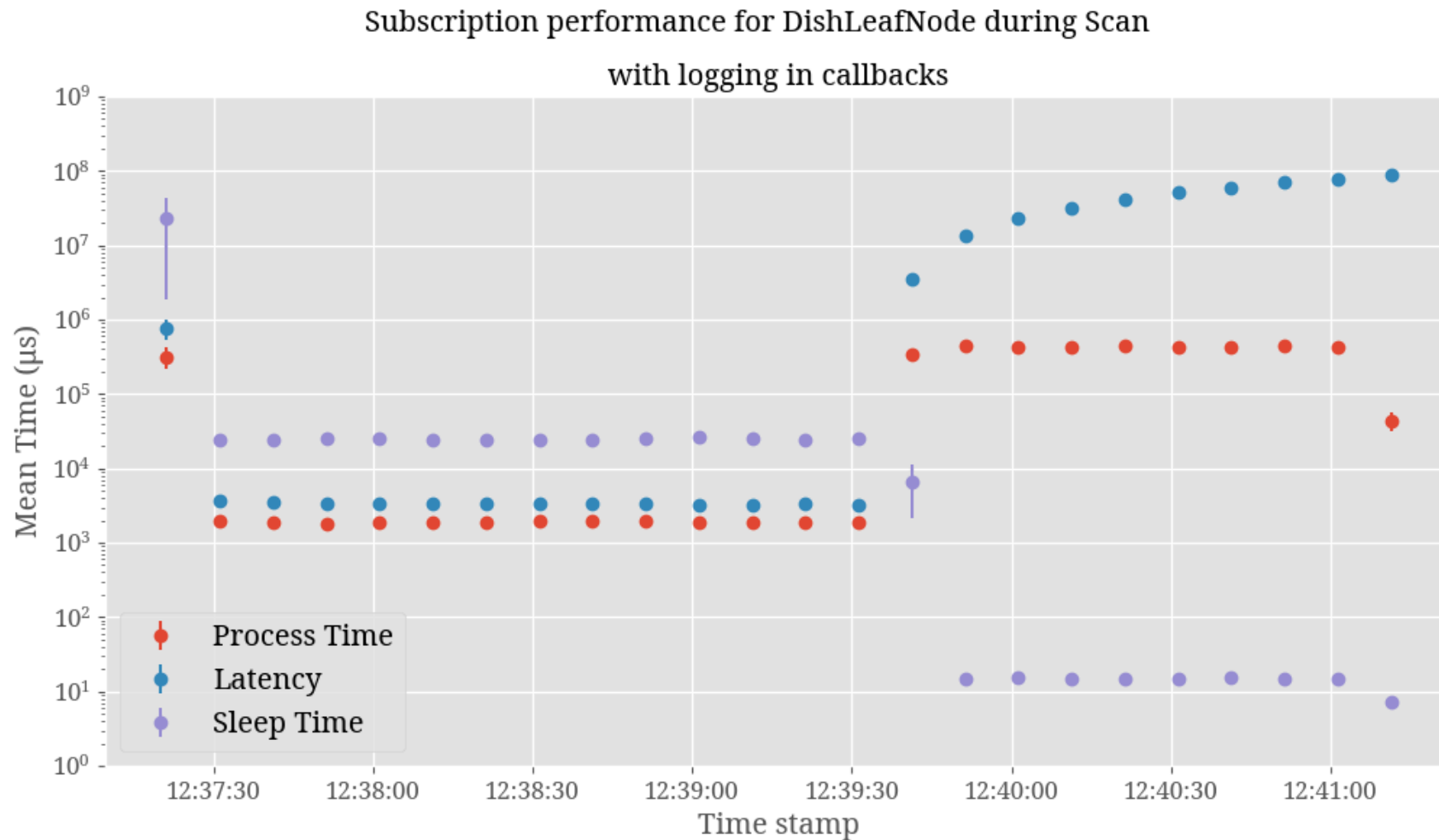
DEMO



Usage at SKA

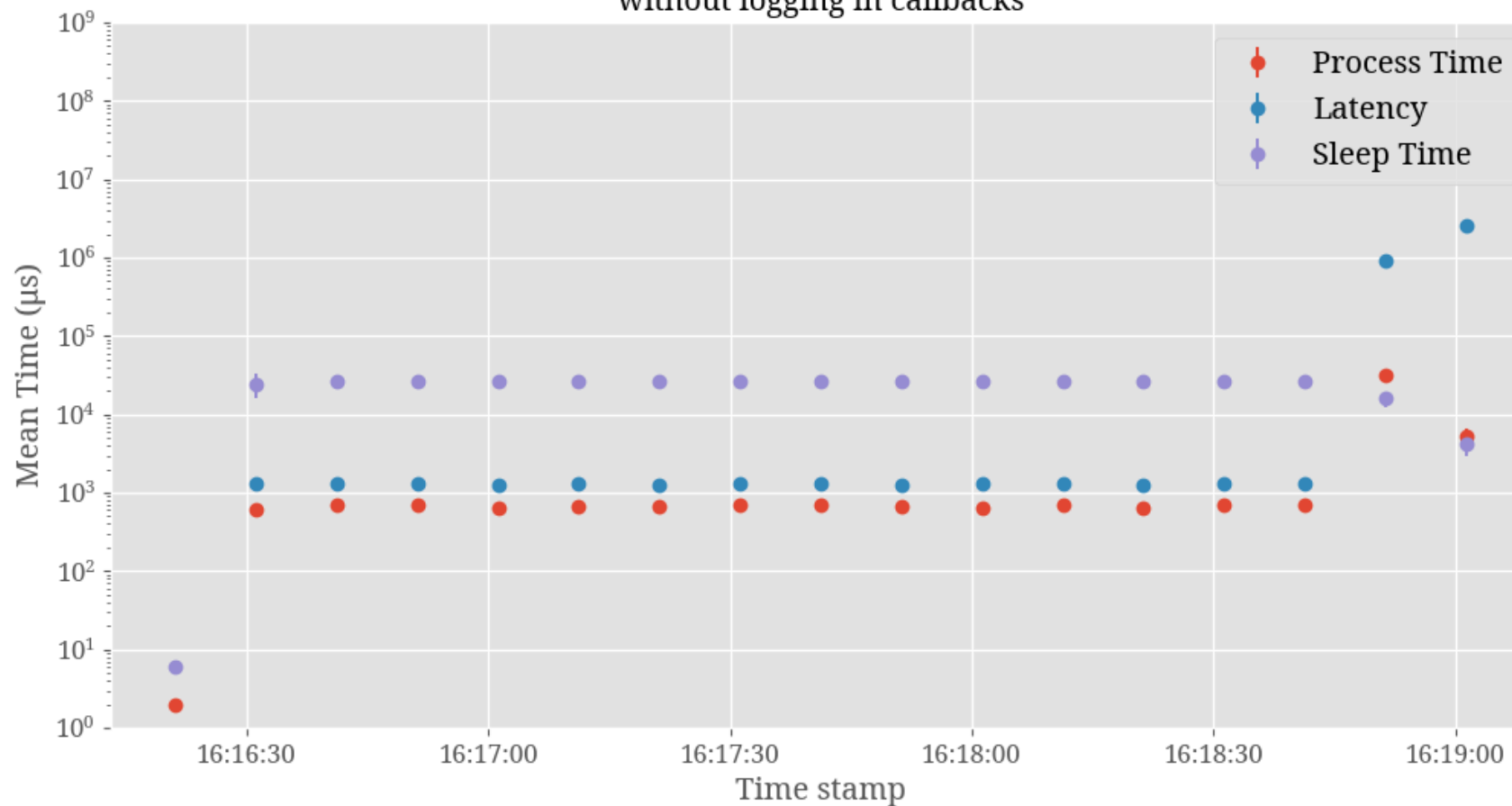
- We had a “missing event” bug at SKA in the MID ITF
- DishLeafNode subscribed to change events for the `dishMode` of the DishManager
- For a scan, DishManager changes `dishMode` to `TRACKING` for the duration of the scan, then back to `IDLE`
- DishLeafNode received the first transition at the start of the scan, but not the final transition at the end
- Other clients subscribed to change events for the `dishMode` received both events
- It looks like the second event has gone missing on its way to DishLeafNode





Subscription performance for DishLeafNode during Scan

without logging in callbacks



Thank you to

Samuel Twum
Thomas Juerges
Akhil Joseph

Any questions?

