An Overview of LTTng and LTTV

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LTTng key aspects

- Low overhead
- Architecture independent core
- Instrumentation: Linux Kernel Markers
- Very good reentrancy
- Solid monotonic timebase
**LTTng key aspects (2)**

- Atomic, buffered, flight recorder or zero-copy write to disk
- Integration into the mainline Linux kernel in progress
  - Low level primitives: *merged*
  - Kernel Markers: *merged (2.6.24)*
  - Instrumentation: *pending*
  - Tracer: *pending*
LTTV (Viewer)

- Modular, plugin-based
- Handles huge traces
- Views:
  - Raw events
  - Control flow
  - Histogram
  - Statistics
  - ...

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Control flow view
High level view of a compilation
Control flow view (2)
Zoom into a process: What's that long system call? (blue)
Control flow view (3)

It's execve()!
What's new?

- Resource viewer
  - CPUs
  - IRQs
  - softIRQs
  - traps
- View traces of virtual machines and their host
Resource view

“Zoomed out”
Resource view (2)

Zoomed in: activity after a timer interrupt
Resource view (3)

Multiple CPUs
Virtual machine and host