

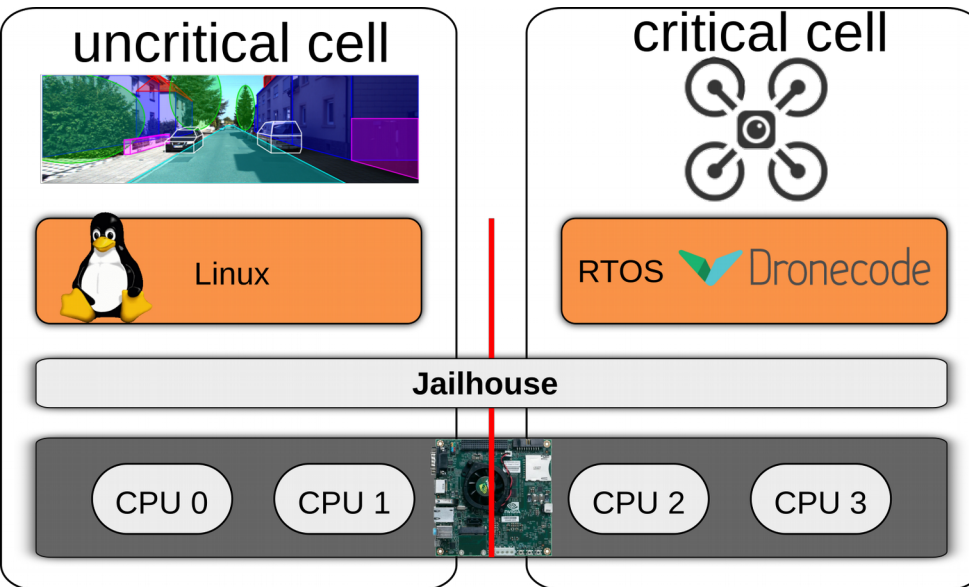


## Japter – Octocopter Platform Based on Siemens Jailhouse

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### What is demonstrated

- Real-world use case of the Linux-based partitioning hypervisor **Jailhouse**
- Consolidation of safety, real-time critical and uncritical workloads on a single SoC



### What was improved

Key features:

- Safe separation of critical and uncritical hardware
- Low hypervisor influence (Goal: even *no* hypervisor influence)
- Partition CPUs of a SoC
  - Two CPUs for uncritical tasks: OpenCV, live streaming, telemetry submission, WiFi, ...
  - Two CPUs for RT-critical tasks: Ardupilot flight control
- Hardware-assisted separation of systems
- Virtual ethernet device between critical and uncritical cell

Source code or detail technical information availability

<https://github.com/siemens/jailhouse>

Tegra K1 SoC, 4xCortex-A15 (ARMv7)