

Fast checkpointing with criu-image-streamer

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New cloud offerings such as Google preemptible VMs are up to 5x cheaper than regular machines. These VMs come with tight eviction deadlines (~30secs). This introduces a new goal: How can we evacuate an application from a machine as fast as possible?

Note that this problem is different from live migration, which aims at minimizing application downtime.

To do fast checkpointing, we developed criu-image-streamer. It enables streaming of images to and from CRIU during checkpoint/restore with low overhead.

The talk will cover the criu-image-streamer architecture, and shows the Linux mechanisms used to achieve checkpointing rates of 15GB/s and load-balance the checkpointed image output on an array of UNIX pipes.

The criu-image-streamer tool is open-source and can be found at <https://github.com/checkpoint-restore/criu-image-streamer>

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Primary author: VIENNOT, Nicolas (Two Sigma)

Presenter: VIENNOT, Nicolas (Two Sigma)

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