ruby-virtualmachine
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What is ruby-virtualmachine?

- You can implement userland part of hypervisor by using libvmmapi
  - replacement of /usr/sbin/bhyve
  - Another OS Loader
- If you implement binding for libvmmapi, you don’t have to use C/C++
  → Maybe you can implement userland part of hypervisor using Lightweight Language
- Okay, let’s do it
But, why?

- Just for fun!
- Also it’s good for learning Virtualization
ruby-virtualmachine

- https://github.com/syuul228/ruby-virtualmachine
- https://rubygems.org/gems/virtualmachine
What I implemented on ruby-virtualmachine?

- Guest program loader
- Initialize for 64bit protected mode
- Assemble user program, copy assembled binary to guest memory area
- Tiny replacement of /usr/sbin/bhyve
- VM_RUN API, VMExit info API
demo
More Ideas

- Memory access API
- VM Initialization in Ruby side
- More interesting sample code