

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/syuu1228/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