

Do you need
to virtualize
the whole system
or just some processes?

Virtualization
whole system

Virtualization
some processes

What is your
main need?

What is your
main need?

Different
ISA

Hardware
Emulation

Through

Dynamic Binary
Translation

Like

- QEMU
- Simics
- Bochs

Portability

Easy
Implementation

Do you have a
dedicated computer?

No

yes

Isolation

High
Performance

Type2
Hypervisor

Type-1
Hypervisor

Do you have hardware
with support for
virtualization technology?

Yes

No

Hardware
Assisted

Dynamic Binary
Translation

Like

Like

- KVM
- VMware Workstation
- VMware Fusion
- Oracle VirtualBox
- Parallel Desktop

Do you have hardware
with support for
virtualization technology?

yes

No

Hardware
Assisted

Dynamic Binary
Translation

Like

Like

- KVM
- Hyper-V
- Xen
- VLX

- VMware ESX

Different
ISA

Dynamic
Translation

Through

ISA & ABI
Translator

Like

- FX!32

Portability

Easy
Implementation

OS
Virtualization

Like

- Docker

for
Scientific
uses
- Singularity

High
Performance

Different
OS

OS
Translators

Like

- WABI
- WINE