

Qubes OS

Tinfoil for Your Laptop

Qubes OS

A reasonably secure operating system.

Who am I?

Cody R Gardner

www.grammicals.com

@codyrgardner

What is Qubes OS?

- A reasonably secure operating system
 - Provides security through isolation
 - “Security through Distrusting”
- Created by Invisible Things Lab
 - Joanna Rutkowska
- Used and endorsed by Edward Snowden

What is Qubes OS?

- Linux Distro
 - Fedora Based
 - Xen Virtualization
 - XFCE
- Includes privacy features
 - Disposable VMs
 - Tor via Whonix

What isn't Qubes OS?

- Magic
- Unhackable
- A multiuser system
- Noob friendly – AT FIRST

Terminology

- Dom0
- Domain
- Qube
- AppVM
- TemplateVM
- SysVM
- DisposableVM

Domain/Qube

- Isolated VMs
- Types
 - Dom0
 - TemplateVM
 - AppVM
 - SysVM
 - Standalone/Hardware VM
 - DisposableVM

Dom0

- Management VM
- Isolated from the outside world
- What is displayed on screen

TemplateVM

- What AppVMs and SysVMs are based on
- Permanent between reboots
 - Install software here
- Debian and Fedora templates included

AppVMs

- Based on TemplateVMs
- Used for typical user tasks
- Semi-persistent

How do AppVMs work?

- Uses template's "system" files
 - Executables
 - Libraries
 - Changes NOT persistent
- Creates separate filesystem of "files"
 - Documents
 - Settings
 - Changes persistent

SysVMs

- VMs for running the Qubes system
- Networking
 - sys-net
 - sys-firewall
 - sys-whonix
- USB proxy
 - sys-usb

Standalone/Hardware VM

- Traditional VM
- Full OS
- Used for Windows

DisposableVMs

- AppVMs that disappear

DEMO TIME

So you want to try Qubes?

- Bare Metal
- Enterprise/Business Hardware Recommended
 - Dell Latitude
 - Lenovo ThinkPad
- 16GB RAM
- FAST SSD
- More threads the better
- Intel graphics
- TPM
- Specific CPU features – VT-x/AMD-v & VT-d/AMD-Vi

Installation

- Typical Fedora Install
- Used FDE
- Post install setup
- **READY TO GO**

References

- <https://www.qubes-os.org/>

Fin.

P.S. I brought stickers.