Qubes virtual mini-summit 2021!

7-9 minutes ⋮ 7/29/2021

We are pleased to announce the third annual Qubes mini-summit co-hosted by 3mdeb and the Qubes OS Project. (For prior year summaries, agendas, and slides, see 2019 and 2020.) This year's event will take place across two virtual sessions on August 3 and 10. Each day, there will be four talks, intermixed with Q&A time. An abstract for each talk is provided below. The discussion section will be in a live meeting on Jitsi. The whole event will be also streamed on 3mdeb's YouTube channel, where we will also accept questions. We invite everyone interested to join!

Agenda for August 3

View the archived video on YouTube.

Time (UTC)	Event description
18:00 – 18:15	Welcome and introduction by Piotr Król
18:15 – 19:00	"Qubes OS 4.1 highlights" by Marek Marczykowski-Górecki
19:00 – 19:45	"First Impressions Count: Onboarding Qubes Users Through an Integrated Tutorial" by deeplow
19:45 – 20:15	Break
20:15 – 21:00	"Wyng-backups: revertible local and remote known safe Qubes OS states (including dom0)" by Thierry Laurion
21:00 – 21:45	"SRTM and Secure Boot for VMs" by Piotr Król
21:45	vPub, informal afterparty

Agenda for August 10

View the archived video on YouTube.

Time (UTC)	Event description
18:00 – 18:15	Welcome and introduction by Piotr Król
18:15 – 19:00	"Usability Within A Reasonably Secure, Multi-Environment System" by Nina Alter
19:00 – 19:45	"Qubes OS Native App Menu: UX Design and Implementation" by Marta Marczykowska-Górecka and Nina Alter
19:45 – 20:15	Break
20:15 – 21:00	"A brief history of USB camera support in Qubes OS" by Piotr Król
21:00 – 21:45	"How to setup BTC and XMR cold storage in Qubes OS" by Piotr Król
21:45	vPub, informal afterparty

Abstracts of the talks

"Qubes OS 4.1 highlights" by Marek Marczykowski-Górecki

The upcoming Qubes OS 4.1 release is full of new exciting features, ranging from a technology preview of the GUI domain to subtle, yet important, Qrexec improvements. In this talk I will give a brief overview of them and demo a select few.

“First Impressions Count: Onboarding Qubes Users Through an Integrated Tutorial” by deeplow

We may all relate to having a rough time when starting using Qubes — be that because we’re coming from Windows and everything is different or because we come from Linux and many things don’t work like we expect them to. Apart from the usual challenges of going into a different system, Qubes has the additional one of requiring a fundamentally different way of thinking about your computer (a hypervisor mental-model). Smoothing out this transition is particularly important as Qubes aims to target vulnerable populations that are less technically inclined and have less time to explore and read the documentation.

The solution proposed by deeplow is to implement an integrated onboarding tutorial. The idea is that a short tutorial (with optional extra parts) that guides the user through the essential mechanics of Qubes will make the transition simpler. That’s what deeplow’s been working on for his master’s dissertation. In this talk he’ll introduce the idea and give an update on the current progress and challenges.

“Wyng-backups: revertible local and remote known safe Qubes OS states (including dom0)” by Thierry Laurion

Wyng-backups is an incremental backup/restore tool for LVMs. For Qubes OS, this means even dom0 can be reverted to a known safe state; locally or remotely, applying changes only. This talk will be a deep dive into the possibilities of wyng-backups for deploying and maintaining up to date, revertible states of Qubes OS base systems.

“SRTM and Secure Boot for VMs” by Piotr Król

This talk is the continuation of the Qubes OS mini-summit presentation “SRTM for Qubes OS VMs”, where the theoretical background of the Static Root of Trust was presented and discussed. In this presentation, we will practically approach SRTM and Secure Boot for VMs. We will also explore potential use cases for self-decrypting storage and signed kernels using safeboot. Finally, we will discuss how to introduce this and other security mechanisms in Qubes OS.

“Usability Within A Reasonably Secure, Multi-Environment System” by Nina Alter

Nina is a UX design and research practicioner, who first became aware of Qubes OS when engaged to contribute to SecureDrop’s Workstation project. SecureDrop’s Workstation is built atop Qubes OS, yet exists for high-risk, non-technical journalist users. Folks unaccustomed to both Linux, and to multi-environment systems. This presentation will share findings from user research and design discovery work endeavored in support of both projects, though focused on Qubes OS itself. The joys, the pain-points, and the many opportunities since uncovered, to extend Qubes OS’ reach to some of our world’s most vulnerable digital citizens.

“Qubes OS Native App Menu: UX Design and Implementation” by Marta Marczykowska-Górecka and Nina Alter

A brief overview of the new Application Menu that’s being introduced in (at latest) Qubes 4.2; the process of creating it, and design and implementation challenges. Based on design work by Nina Alter and implementation by Marta Marczykowska-Górecka.

“A brief history of USB camera support in Qubes OS” by Piotr Król

The use of complex multi-endpoint isochronous USB devices in the presence of sys-usb was not always possible in Qubes OS. Luckily, the Qubes Video Companion project was created by Elliot Killick, which enabled users to use USB cameras on Qubes OS. The project is still in development and testing, but it is very promising and gives many USB camera users hope. This presentation will tell the story of using Qubes Video Companion with the Logitech C922.

“How to set up BTC and XMR cold storage in Qubes OS” by Piotr Król

Cold storage, also called offline wallets, provides the highest level of security for cryptocurrency. The critical characteristic of a computing environment that can be used as cold storage is the lack of network connectivity. Good examples of cold storage are spare computer devices or microcontroller-based devices like a hardware wallet. By leveraging the same architecture, Qubes OS domains can be used for cold storage. In such a case, one of the domains is disconnected from the network and runs a cryptocurrency wallet inside. Other domains may generate transactions files, which are sent to cold storage VM for signing. Signed transaction files are sent back to the online environment. All operations are performed using well-specified and secure Qubes RPCs. This presentation will show how to set up and use BTC and XMR cold storage with the most popular wallets for those cryptocurrencies. We will also discuss what other measures can be taken to secure offline wallet VMs.