SCANIVERSE

UBUNTU SUMMIT 2023

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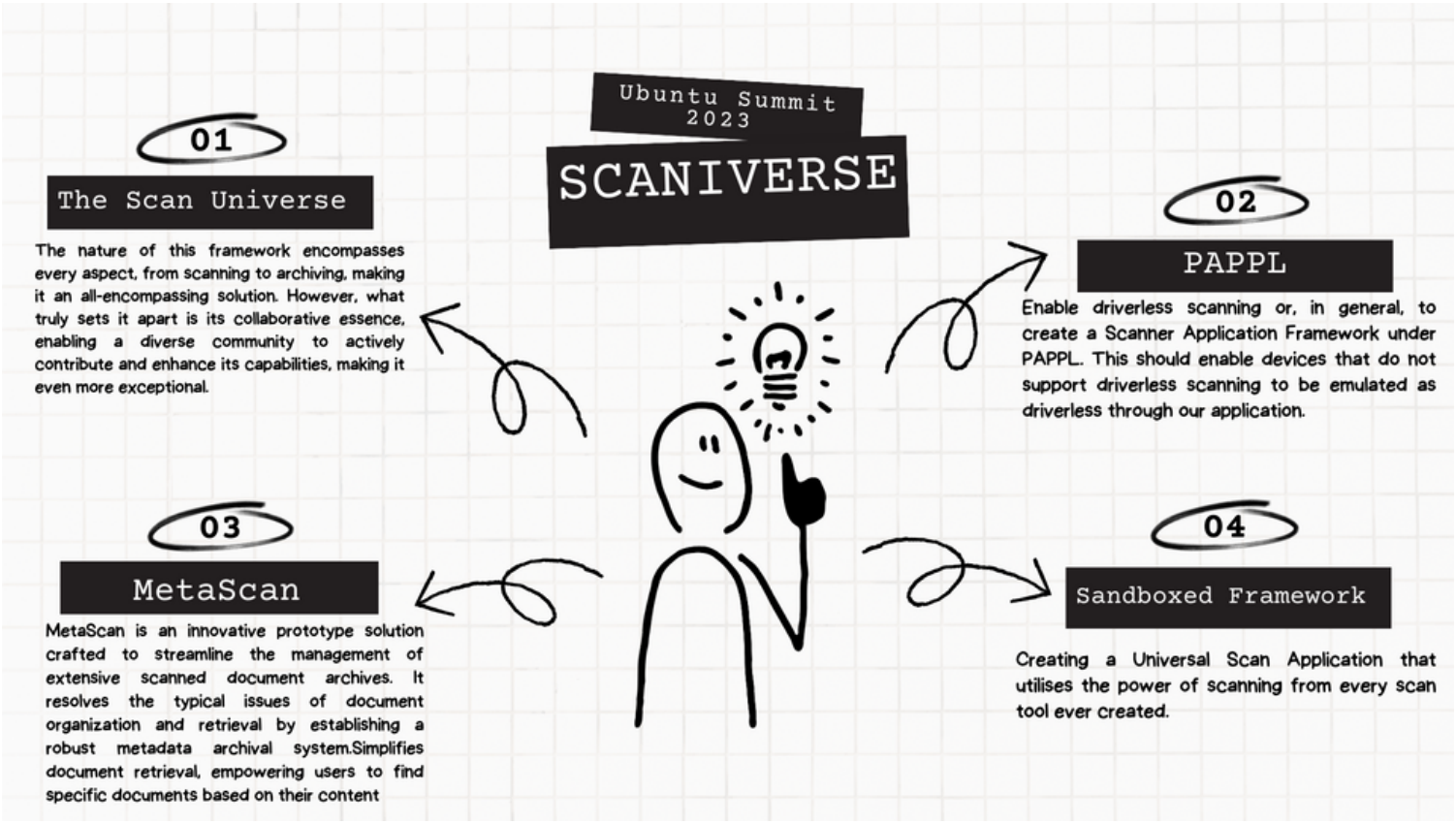
July 15, 2023



TALK SUMMARY

"ScaniVerse: A New Horizon in Unified Scanning for Linux Systems". In this fast-paced 25-minute talk, I will introduce ScaniVerse, a unique project poised to revolutionise the scanning landscape across all Linux systems.I will navigate through my journey of extending PAPPL, an open-source printing system, to embed scanning capabilities by metamorphosing non-ESCL scanners into ESCL servers. Furthermore, I will be illustrating an innovative MetaScan system, a smart data cataloguing module for scanned images. ScaniVerse is a testament to the power of open-source networking in crafting innovative, adaptable solutions, and heralds a new era in device interaction.

PROJECT DESCRIPTION

ScaniVerse is an innovative project set to revolutionize scanning technology, spearheaded in two directions. The first part, implemented by me in GSoC (Google Summer of Code) under the mentorship of **Mr. Till Kamppeter**, involves extending the Printer Application Framework, PAPPL, to support the eSCL (AirScan) protocol, thereby converting non-eSCL scanners into eSCL servers to significantly enhance their cross-platform interoperability and functionality. The second part, inspired by my GSoC work, is the development of **MetaScan**, an intelligent scanning frontend prototype that facilitates smart categorisation and archival of scanned images using a combination of OCR, machine-learning-based image recognition, and a dynamic metadata tagging system. When integrated, these components form the robust ScaniVerse framework—a sandboxed Scanner Application compatible with all Linux Systems. This project underscores the transformative potential of open-source networking in creating innovative, unified solutions, thus pioneering the next generation of scanning systems.

LEARNING OUTCOMES

Participants will gain insights into the process of working with and extending an open- source system from scratch through my GSoC Journey, the development and functionalities of MetaScan, and the exciting potential that lies in the convergence of scanning and printing technologies. You'll also learn about the transformative power of open-source networking and how it can innovate, unify, and streamline solutions. I invite passionate individuals to contribute and participate in this innovative journey. Upon completion of the session, those interested can get involved with ScaniVerse by contributing to the GitHub repository links, or directly reaching out to me.

LINKS

- Ongoing extension work with PAPPL
- MetaScan

*I WOULD LIKE TO EXPRESS MY PROFOUND GRATITUDE TO MY MENTOR, **MR. TILL KAMPPETER**, FOR HIS INVALUABLE GUIDANCE AND UNWAVERING SUPPORT IN MY OPEN SOURCE JOURNEY. HIS EXPERTISE AND GENEROSITY HAVE BEEN INSTRUMENTAL IN MY ADVANCEMENT, AND HE TRULY EXEMPLIFIES THE SPIRIT OF MENTORSHIP.*