

# System-on-Chip (SoC) Interest Group Meeting

- Results of SoM survey
- News from Linux Future Committee
- CERN ATS-IT Collaboration Proposal

# SoM Survey

- **SoM survey:**

A questionnaire on the use/planned use of SoM was sent out to all members of the SoC interest group in April, and feedback was collected until June.

- **Aim of the survey:**

The aim of the survey is to establish an overview of what SoMs exist, and what the projects consider to be the important criteria for the selection of a SoM, in terms of technical requirements and limiting factors.

- **We received 26 replies:**

ATLAS: 8, CMS: 8, ATLAS&CMS: 1, CERN-ATS&HSE-RP: 9

**Big thanks to all those who have replied!**

- **SoM survey status:**

- The analysis of the replies is well advanced.
- A draft of a summary report was written, and was circulated among the respondents to get their feedback.
- The proposal is to make the summary report available as a CERN Open Document soon.

# Linux Future Committee

- CERN Linux Future Committee [Meeting of 28 October 2022](#)
- CERN ITUM-37, [37<sup>th</sup> IT Technical Users Meeting of 31 October 2022](#)

## Linux Future Strategy

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- The original recommendation to use CentOS Stream 8 is being re-evaluated, due to bugs seen only in Stream and the lack of a structured release process for security vulnerabilities. For details, see the [Linux Future Committee Meeting](#) (28 Oct 2022).
- Potential alternatives:
  - **RHEL** — CERN has a site license, other sites may not
  - **RHEL rebuild** Alma or Rocky Linux — No site license required
  - **Both RHEL and a rebuild** — Optimal use of CERN site license, all sites have a distro available, but CERN IT need to support multiple distros
  - **Continue with CentOS Stream** and live with the problems
- ...
- CentOS Stream 8 still supported for now, but it is recommended to postpone deployment of new CentOS Stream 8 systems. RHEL8 is available (EOL 31.05.2029)
- CC7 is supported until 30.06.2024. **Minimal** extended support for CC7 will be offered by CERN IT until 30.06.2026. **However**, this is a **last resort** option aimed at the ATS sector and will not support all software packages (e.g. Puppet).



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**It was confirmed by IT that whatever solution will be chosen, IT will also provide support for aarch64.**

# ATS-IT Collaboration Proposal (1/3)

- **The proposal:**

The ATS (CERN Accelerator & Technology Sector) Electronics Forum proposes to IT EDA services to provide **infrastructure and support for Gitlab CI for FPGA/SoC synthesis and simulation**, in particular:

- A scalable set of performant virtual machines for FPGA/SoC design projects;
- Providing Docker images with simulation and synthesis tools and their licenses, as well as user support;
- Monitoring and diagnosis of the infrastructure;
- User instructions and training.

For more details, see the presentation by Adrian (next presentation).

The original proposal was also attached to the email to the SoC Interest Group on 10 November.

# ATS-IT Collaboration Proposal (2/3)

- **IT are seeking feedback:**

In their words:

“In order, to decide if we are going to materialize this project, we need to prepare a **Project Scope Objective (PSO) document** that will be proposed to the ATS-IT Technical Committee (TC).

The ATS-IT engagement team and the engineering project colleagues in IT are targeting the next TC on the **22nd of November**, which means that they envision the 15th of November as a deadline to finalize the PSO document for this project ...

If you are interested in using such a service, provided by the IT department, could you please come back to us relatively shortly? It will be nice if we can **include the Research and Computing Sector (of CERN, RCS) requirements for such an infrastructure** in this initial version of the PSO.

...”

# ATS-IT Collaboration Proposal (3/3)

- **SoC interest group:**

Members of the SoC organizing committee received the invitation to provide feedback. Because of the rather short timescale, we replied to IT, that considering the SoC community and its projects, we believe that there could be interest, but that we first need to consult our community, hence our **email of 10 November**.

**We want to hear your feedback.**

But I propose to listen first to Adrian's presentation, which will provide more details on the proposal.