System-on-Module Survey

This is a survey on the use of System-on-Module (SoM), i.e. a System-on-Chip (SoC) on a mezzanine. The motivation for this survey is to get a better understanding of the CERN community's usages of SoMs, to establish an overview of the different projects' design choices, as well as to adjust the content provided in the SoC interest group meetings and workshops, according to the community's needs.

Input provided for:
Experiment/Project *(e.g. ATLAS/MUCTPI, CMS/HGCal, or CERN CROME):*
Click or tap here to enter text.

1. Choice of SoM

Type of SoM
- Are you using/planning to use a SoM?
Click or tap here to enter text.
- What is you projected schedule for the use of SoM? *(e.g. already using, Phase-I upgrade, or Phase-II upgrade):*
Click or tap here to enter text.
- Which SoM are you using/will you use?
    - Are you using Enclustra, Trenz, or Xilinx (Kria), your own home built one?
    - Are there other SoM manufacturers you have heard of? *('exotic' designs are also interesting to learn about, please add a reference):*
Click or tap here to enter text.
- If you are not using a SoM, are you planning to use a SoC directly on your module? And if so, what are your reasons?
Click or tap here to enter text.

1.2 Reasons for selection of SoM
- Why did you choose/are you planning to use that particular SoM? Please answer the questions in section 2, "Criteria for the selection of SoM".
Click or tap here to enter text.
- Which are for you the most important criteria to decide which SoM to choose?
Click or tap here to enter text.
- Had you already used a SoM before, and have you moved to a different one? If so, why did you move?
Click or tap here to enter text.
- Have you changed your choice of SoM following the SoC workshop?
    - If so, what were the old vs new choices?
    - What was the main motivation for the change?
Click or tap here to enter text.

2. Criteria for the selection of SoM

2.1 Use of SoM
- What is the expected usage of the SoM, e.g. hardware control/monitoring, run control application, event/trigger data processing/readout/monitoring?
  Click or tap here to enter text.
- Are you using the programmable logic and/or the processor system in the data path, e.g. for trigger or readout?
  Click or tap here to enter text.
- Are you expecting any particular challenges? Or do you foresee issues with the SoM for its intended usage?
  Click or tap here to enter text.

2.2 Choice of SoC
- What SoC do you chose for your SoM? Xilinx Zynq, ZynqMP, Versal? Altera? Others? Can you elaborate why specifically that type?
  Click or tap here to enter text.

2.3 Multi-Gigabit Links
- How many MGTs do you foresee? *(0 is a valid answer):*
  Click or tap here to enter text.

2.4 Other Input/Outputs
- How many GPIOs do you foresee?
  Click or tap here to enter text.
- How many communication buses do you need, e.g. for UART, I2C, SPI, JTAG, etc.?
  Click or tap here to enter text.

2.5 Programmable Logic
- What are your requirements on the use of the programmable logic?
  Click or tap here to enter text.

2.6 Operating System
- Which operating system are you using or planning to use?
  - If Linux is not your choice, please elaborate why?
  - Do you foresee a reason why a common Linux solution will not work?
  - Do you have real-time requirements?
  Click or tap here to enter text.
- If known already, for which particular device/feature types will you need support within the operating system kernel?
  Click or tap here to enter text.

2.7 Memory
- What are your requirements on memory? *(details are welcome):*
  Click or tap here to enter text.

2.8 Network
- What are your requirements on network? *(details are welcome):*

Click or tap here to enter text.
- Do you have a preference concerning how to connect the SoC to the network? I.e. direct connection to the technical control network? Or you would like to have it protected behind some gateway PC or LAN DB set? *(please elaborate)*
  Click or tap here to enter text.

2.9 Limitations

- Limitations to consider: form factor, connectors, power?
  Click or tap here to enter text.

2.10 Customer Support

- Are you happy with the customer support?
  Click or tap here to enter text.

2.11 Wish list

- Do you have a particular wishes or features that would be good to have?
  Click or tap here to enter text.

3. Any other remark?

Click or tap here to enter text.