General questions for the two parallel sessions as well as the panels.

1. Given that the Exascale machine could look way different from what we know today, existing legacy applications will probably work, but will not run optimally; they will need to be optimized to realize the full potential. Please discuss and recommend what should be a compromise between legacy application, performance, energy, and system hardware.

2. From the perspective of back end transformations, please list top three features you wish you had, but don’t have today, that will make a major impact on the system performance and efficiency.

3. Operating systems are bloated with unnecessary features, making them inefficient, and we have been relying more and more on nimble runtime systems. Should X-Stack take the route of extremely light-weight system software? Maybe even lighter than the runtime?

4. Programming productivity should not be compromised. Yet, expect Exascale hardware to be simpler than today for efficiency, potentially impacting programming productivity. What is your recommendation to tradeoff %-of productivity to %-of efficiency?

5. Resiliency has become a popular buzz-word. Could the panel discuss and define the goals of a resilient Exascale system?

6. Bare hardware provides no resiliency, tri-modular redundancy provides full reliability, but at 3X the cost. What should be the tradeoffs in terms of %-of cost and energy?