Abstract. High Performance Computing (HPC) is a popular buzzword commonly found in the computing industry today. It seems that every organization, vendor, or laboratory has a different approach, and possibly definition, to HPC. In this talk, Dr. Marcel Fallet will present an argument for HPC as a "lifestyle" in which every decision, product, or system integration must focus on performance. He will present a definition of HPC consistent with values built by working on the hardest mission problems, how we build systems, and how looking towards the future helps guide new system development. The discussion will focus on hardware, software, and system management principles at a high level, while providing some examples of novel approaches to HPC.

Biography. Dr. Marcel Fallet is a STEM Technical Leader at the National Security Agency, specializing in high performance computing (HPC). A chemist at heart, Dr. Fallet's eclectic career has granted him experience as a computational simulation researcher, as well as a technical leader for large scale system design, production, delivery, and support. Dr. Fallet received his Master's Degree in chemistry from Northwestern University in 2007, and his Ph.D in computational chemistry from Clemson University in 2013. Prior to joining the NSA, Dr. Fallet was a Research Assistant Professor at the United States Naval Academy, working to advance the state of the art in tribological simulations using molecular dynamics code..