

## ***EE/CprE/SE 492 STATUS REPORT 1***

***Start Date – End Date: 05/04/2024 - 09/5/2024***

***Group number: 9***

***Project title: Multicore Operational Analysis Tooling***

***Client &/Advisor: Steve Vanderleest/Joe Zambreno***

***Team Members/Role: Alexander Bashara – Embedded Engineer, Joseph Dicklin – Hardware Design Engineer, Hankel Haldin – OS/Tooling Engineer, Anthony Manschula – Project Coordinator/Engineer***

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### **Tri-Monthly Summary:**

This report covers the team's activities during the summer and this past week of classes. Over the summer, the team continued with a little more research into some characteristics of Xen hypervisor and how we might use them for some more advanced stress generation tasks. Furthermore, the team also defined our control and communication software framework and has begun work on implementing it. We hope to be at a usable state within the next two weeks.

### **Past week accomplishments:**

As this is the first report submitted, there is nothing to comment on from a client/advisor meeting standpoint with Boeing. The team, however, met with our academic advisor, Joe Zambreno, and discussed the next few weeks tasks as stated below in the pending issues portion. This meeting also included the development of a flow diagram to visualize the signal path from the PC control terminal to the ZCU core's including the stress DomU cores, as well as the base program portion.

### **Pending issues:**

- Create DomU in Xen Environment
- Boot Linux in DomU
- Establish Communication with DomU from Dom0
- Develop Host and Target Control/Communication Programs
  - Establish a connection between the programs
- Pass Config data between Host and Target
- Launch DomU's with XL Commands

**Individual contributions:**

<b><u>NAME</u></b>	<b><u>Individual Contributions</u></b>	<b><u>Hours this week</u></b>	<b><u>HOURS cumulative</u></b>
Alexander Bashara	Defined Software architecture	4	69
Joseph Dicklin	Defined software architecture	4	68
Hankel Haldin	Defined software architecture	4	69
Anthony Manschula	Defined software architecture	4	72

**Plans for the upcoming week:**

- Present summer's progress to Boeing client
- Propose our semester plan and software design
- Determine how to create a DOMU on ZCU106
- Verify communication with DOMU on ZCU106
- Boot Linux image in DOMU

**Summary of weekly advisor meeting:**

We discussed the status of the project in terms of concrete implementation and received input from our ISU advisor about how to structure our software.