

MEMORANDUM OF UNDERSTANDING

Between

Jedidiah R. Crandall, Ph.D

And

Arizona State University

This Memorandum of Understanding (“MOU”) is entered into effective as of November 5th , 2020 (the “Effective Date”), by and between Jedidiah R. Crandall (“Dr. Crandall”) and the Arizona Board of Regents for an on behalf of Arizona State University (“ASU”) (collectively, the “Parties”).

Background

This MOU relates to certain research that Dr. Crandall will perform on ASU’s Enterprise Network. That research will generally involve the following activities:

- Measuring the physical aspects of the Internet, such as geolocation of Internet infrastructure and data about physical links, IP tunnels, and other network features.
- Measuring connectivity between different parts of the Internet, e.g., if one network blocks a specific set of IP addresses.
- Measuring properties of Internet hosts and routers and the ways that they implement specific protocols, e.g., if they comply with all RFCs with respect to TCP initial sequence number generation.

Dr. Crandall’s research requires a contained network infrastructure to support this specialized need. To that end, Dr. Crandall will be utilizing services provided by ASU’s University Technology Office (“UTO”), Knowledge Enterprise (“KE”), and vendor Partner HyeTech.

Purpose

This MOU sets forth the parties’ mutual intent to collaborate to provide certain network services, access, and support for Dr. Crandall’s research.

Support

In support of Dr. Crandall’s research, ASU agrees to provide the following:

1. Two IPv4 /24 address ranges and an IPv6 /64 with as little identification to ASU as possible (ARIN, etc.). IPv6 /64 address space will be assigned and managed through SunCorridor and the KE Team as point of contact.

2. Two (for redundancy) 10gb links to the BioDesign Gateway, terminating in equipment owned by Dr. Crandall, in his Lab.
3. Network routing for the assigned address space via those to the Research Network / Science DMZ (addresses above assigned to VRF 130).
4. Network infrastructure.
 - Access to the Research Network/Science DMZ.
5. Research support.
 - Access to the RTS Help Desk.
 - Access to RTO Architecture/Security Team support.
6. RTO Architecture Team Point of Contact: Chris Kurtz to provide interface UTO NetCom/HyeTech.
7. VM infrastructure associated costs paid by Dr. Crandall to a VM in the Science DMZ.

Dr. Crandall Agrees to the following:

1. Subscribe to security alerts for the make/model of switch(es), hardware brought into the network and will upgrade code, as needed to mitigate any security flaws.
2. Ensure that Blacklists are maintained.
3. Respond to abuse complaints in a timely manner and remove offending host within 1 business day.
4. Maintain and Follow all Computer Standards set forth by the KE team, as these are designed specifically with Research Needs in mind.
5. Responsible for the actions of all team members and will act according to this MOU in addition to the KE's Responsible Conduct of Research (RCR) standards.

Bandwidth Charges

ASU does not charge for bandwidth but reserves the right to control the ASU network to support all of ASU. ASU will work with Dr. Crandall to address all concerns regarding the network's capabilities.

Duration

This MOU shall become effective upon signature by the Parties or their authorized officials. This MOU shall automatically end when Dr. Crandall is no longer actively engaged in Internet measurement research at ASU or Dr. Crandall's departure from ASU, whichever occurs first.

Prohibited Activities

Switch(es) or any end host hardware are prohibited from being dual-homed to both the UTO-provided network (VRF 130) and the Research network.

ASU Policy ACD 125

Dr. Crandall's research activities will be conducted in accord with ASU policy ACD 125: Computer, Internet and Electronic Communications Information Management Policy ("ACD 125"). ACD 125 provides, in part:

Prohibited Uses of ASU Computing and Communications Resources

8. Unauthorized anonymous and/or pseudonymous communications are prohibited. All users are required to cooperate with appropriate ASU personnel or other authorized personnel when investigating the source of anonymous messages.
19. Interference with or disruption of the computer or network accounts, services, or equipment of others is prohibited.
20. The propagation of computer "worms" and "viruses," the sending of electronic chain mail, denial of service attacks, and inappropriate "broadcasting" of messages to large numbers of individuals or hosts are prohibited.

Regarding #8, Dr. Crandall will not send out traffic without having it being traceable back to Dr. Crandall. Dr. Crandall will cooperate in any investigation regarding the source of traffic sent as part of his research.

Regarding #19, Dr. Crandall will not send traffic that interferes with normal network operations. Dr. Crandall will include an opt out process for those network administrators who perceive traffic as interfering.

Regarding #20, Dr. Crandall does not plan to broadcast any traffic.

Miscellaneous

This MOU is not a legally binding agreement and neither of the Parties shall have any legal obligation or liability to the other with respect to this MOU.

This MOU does not alter or otherwise affect Dr. Crandall's prior offer letter from ASU, Joint Appointment Memorandum of Understanding with ASU, or any amendments thereto.

IN WITNESS WHEREOF, the Parties hereto have caused this Memorandum of Understanding to be duly executed by their respective duly authorized representatives as of the date first above written.

The Arizona Board of Regents for and on
Behalf of Arizona State University

DocuSigned by:

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By: Lev Gonick
Its: Chief Information Officer, UTO

Jedidiah R. Crandall

DocuSigned by:

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