

## **NAF AUTOCON4, Austin, TX, USA**

### **WS: A4 - Open Tools for Automated and Scalable Network Testing**

Monday, November 17th, 9AM – 1PM

#### **Pre-workshop FAQ**

Workshop instructors:

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#### **Q: What will I learn from this workshop?**

- Introduction to open tools: - OTG (open traffic generator) / Ixia-c Community Edition for L2-3 Testing & Cyperf Community Edition(CE) for L4-7 Testing.
- Automate real world network topologies.
- Build test cases to run experiments on real world scenarios.
- Utilize open tools as part of production network operations.
- Expertise with network test automation tools emulating network nodes and send/receive traffic.
- Learn how we can utilize open tools in the modern day Agentic NetOps Use Cases.

#### **Q: What do I need to bring to the workshop?**

- A laptop with an SSH client and a web browser.
- A cloud based virtual environment will be provided for the labs. (dependencies pre-configured)

#### **Q: How do I login to my lab environment?**

- Email with login credentials will be sent to your email that you used to register for this workshop on the day of the workshop.
- These environments are timebound so please start the environment close to the start time of the workshop.

#### **Q: Can I access the lab document before the workshop?**

- Lab documentation will be available in GitHub on the day of the workshop.

#### **Q: What are the prerequisites for the workshop?**

- A basic understanding of coding (Python preferred) and networking is desirable.

- Workshop will involve working with Linux tools like Docker, Docker-Compose, Kubernetes, ContainerLab etc. No previous experience needed. We would provide a detailed step by step lab documentation for all to follow.

**Q: What is OTG and Ixia-c?**

- **Open Traffic Generator (OTG)** is an open standard, specifying declarative and vendor neutral API for testing Layer 2-7 network devices and applications (at any scale). OTG GitHub repo: <https://github.com/open-traffic-generator>
- **Ixia-c Community Edition.** Free for basic use-cases and distributed / deployed as a multi-container application consisting primarily of a `controller`, a `traffic-engine`, and a `protocol-engine`. Visit <https://ixia-c.dev/> website for documentation.

**Q: What is Cyperf CE?**

- **Cyperf Community Edition (CE)** is a free stateful network traffic generator derived from the award-winning commercial network application and security test solution – CyPerf. **CyPerf CE:** <https://github.com/Keysight/cyperf/tree/main/cyperf-ce>  
**Cyperf Website:** <https://www.cyperf.com/>

**Q: What tools will be used in the workshop?**

- **Virtual Device Under Test (DUT)** - NOS containerized images.
- **Standard Linux tools** (preinstalled and / or will be installed during hands-on sessions).

**Q: Do I need to have any applications installed on my laptop?**

- **A SSH client** like a Mac terminal, Windows PowerShell, etc.
- **IDE's** like VSCode, Cursor (for participants who want to do IDE driven test run and development)

**Q: Do I need pre-reading?**

- Pre-reading is not necessary but recommended. All documentation will be available in Workshop Github.

**Q: Will I have access to the workshop materials after the end of the session?**

- The instruction set can also be followed post workshop by anyone to redo the labs in any Ubuntu machine.

**Q: I have another question. Who can I contact?**

- Feel free to email any of the proctors mentioned at the top and we would be happy to answer your questions
- [Join the slack channel](#)