presents a professional development course

Software Defined Networking

in Fall & Spring semesters by

Tim Culver

Director, AT&T Strategic Program Office (ASPO)

Special fee $500 applies for professionals only – can be completed online (UTD Students should register for the course for college credit)

SDN (a.k.a. Software Defined Networking) is a paradigm shift in telecommunications and network that presents one of the rare tectonic shifts in an industry. SDN will be reviewed in the class along with technology being leveraged in creating today’s SDN applications. Students will get hands on experience with OpenFlow and will deliver a group project for review at the end of the course.

Register @ bit.ly/sdn-utd
Flyer @ bit.ly/sdn-pdf

Center for Computer Science Education & Outreach
Description of Course Content:
SDN (a.k.a. Software Defined Networking) initiated a new era in networking where software is the new network. SDN will be reviewed in the class along with other software technology (Network Function Virtualization, Machine Learning, Analytics, etc.) that is influencing the modern network as well as changing the future of networks and services. Attendees will get hands on experience with OpenFlow and related technology. They will have an option to participate in a group project implementing software-based network applications. SDN started a paradigm shift in telecommunications and networking that is one of the rare tectonic shifts in an industry. 30 years of traditional switch / router development by large equipment vendors is being turned upside down. This is leveling the playing field for small software vendors by lowering the barriers to entry for the switch / router marketplace. One of the goals of this class is to prepare attendees for a market that is going to demand computer scientists and software engineers to deliver the next generation of software centric networks.

Learning Outcomes:
After successful completion of this course, attendees will develop knowledge of

- Historical switching and networks and the knowledge of the evolution to a software centric network, benefits to companies and carriers.
- Technology evolution started with SDN as well as the Open Source and its role in the software centric network.
- Software-based technologies like SDN, NFV, and evolving software technology as well as specifications like OpenFlow and the ETSI NFV MANO compliance.
- Advantages and disadvantages of alternative software approaches including but not limited to SDN, API approaches, Hypervisor overlays, and Data Center SDN.
- Current software centric products and services in the marketplace (e.g. SD-WAN)
- Different vendor approaches to implementing software centric solutions.
- Open Source organizations (examples: Open Networking Foundation, ONAP, ONOS, OpenFlow, ETSI NFV, OPNFV, and others).