presents a professional development course

Software Defined Networking

in Fall & Spring semesters

Instructor:  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) 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. Incidentally, SDN is a paradigm shift in telecommunications and network that presents one of the rare tectonic shifts in an industry. 30 years of traditional switch/router development by large equipment vendors will be turned upside down in the next decade leveling the playing field and lowering the barriers to entry into the switch/router marketplace. One of the goals of this class is to prepare students for a market that is going to demand computer scientists and software engineers to deliver the next generation of network switches.

Student Learning Outcomes:

After successful completion of this course,

- Students will develop knowledge of historical switching and networks and the knowledge of the evolution to SDN, benefits to companies and carriers.
- Students will have a knowledge of the technology evolution leading to SDN as well as the Open Source role in SDN
- Students will have a knowledge of how SDN works as well as the OpenFlow specifications
- Students gain a knowledge of the advantages and disadvantages of SDN, API approaches, Hypervisor overlays, and Data Center SDN
- Students gain a knowledge of SDN in different environments ranging from WANs to mobile networks
- Students gain knowledge of the SDN ecosystems
- Students get an industry survey of vendor approaches to implementing SDN
- Students understand the economics of SDN and impacts to the marketplace
- Students have a survey of OPNFV (adopted by AT&T, NTT, and many other carriers) and the Telemanagement Forum’s ZOOM approach and create a class project.
- Students have at least two industry visits of carriers and SDN vendors to get a current industry perspective on the reality of SDN.