

Linux TCP-IP stack Training Syllabus

Eligibility : 2 years of exp with Linux and C as a student or as a professional and a BE/MCA or equivalent degree.

Course content:

1. Introduction to TCP/IP protocol internals

- ✚ TCP connection hand-shakes - windowing and flow control - congestion - reliable data delivery - statemachines.
- ✚ TCP packet format and TCP evolution and application delivery experience.
- ✚ IP addressing and architecture - IP routing concepts - OSPF and BGP .
IP fragmentation/re-assembly.

2. Linux Sockets

- ✚ Concepts of Sockets - Socket system calls - Kernel entry to Socket interfaces .

3. User-kernel interfaces of Networking stack.

4. Socket buffers and Linux kernel network buffer handling

- ✚ sk_buff structures - skb_xxx macros/functions for memory handling - kernel data structures for buffers.

5. Transmission of data through UDP and TCP sockets and Reception of data through UDP and TCP sockets

- ✚ Explanation of Protocol stack functions involved in transmission and reception.

6. Linux Networking interfaces and Network driver functions and entry point.

- ✚ Net_device structure. DMA and Network interrupt processing. NAPI.

7. QoS queueing and Netfilter hooks.
8. Netlink sockets.
9. Invoking network functions within the kernel.
10. High Performance networking concepts - zero copy data transfer.
11. Introduction to SCTP and MP-TCP protocols.
12. Interfaces to Kernel facilities.

Contact Us:

NetDiox R&D Team

Netdiox Computing System Pvt. Ltd.

Address: #1514, First Floor, 19th Main Road,
HSR Layout Sector-1, Bangalore 102,
Karnataka, India

Contact No: 08289884406, 09946711160

E-mail: info.netdiox@gmail.com