Asterisk Advanced Course

The Asterisk Advanced training is a five-day hands-on course that covers the knowledge and skills an advancing Asterisk administrator should know to be effective at their job. It is a combination of both lectures and labs designed to give the delegates both the theory behind the concepts and the hands-on experience to be able to effectively deploy Asterisk-based solutions.

In Asterisk Advanced training, students will learn to create advanced dial plans and innovative telephony solutions by using the features of Asterisk. Along the way, students will also get important insights into VoIP. Delegates will also explore connecting Asterisk to a variety of devices, including analogue phones and phone lines, digital phone lines, VoIP phones and VoIP network providers.

The Asterisk Advanced training course is designed to prepare Linux/Unix consultants, interconnect vendors, enterprise IT personnel, and ITSP/telco systems administrators to configure, manage and troubleshoot Asterisk-based VoIP systems.

Topics covered in the course include:

- Asterisk dialplan syntax and constructs
- Effective use of Asterisk features, such as call parking, audio conferencing, and DTMF feature codes
- Call monitoring and recording
- Theory of Analogue telephony, and how to connect Asterisk to the PSTN
- Digital telephony using T1s and E1s
- SIP and IAX protocols
- Connecting Asterisk to a VoIP network provider
- Configuring and manipulating CDR (Call Detail Records) as well as CEL (Channel Event Logging)
- Call queues and ACD with Asterisk
- Using AMI (Asterisk Manager Interface) to control Asterisk from an external program
- Using AGI (Asterisk Gateway Interface) to execute external scripts and connect Asterisk to external APIs
- Connecting Asterisk to a relational database such as MySQL
- Faxing with both traditional and T.38 as well as Fax to PDF using Asterisk
- Troubleshooting your Asterisk system
- Asterisk and Linux Security to maintain a secure system

Prerequisites

Linux Knowledge:

- Have installed and worked in a Linux environment
- Know how to manipulate files and perform basic administrative tasks from the command line
- Know how to use a text editor to modify configuration files

Asterisk Experience:

- Have installed Asterisk and DAHDI from source
- Know where Asterisk configs are located, and how to read and use sample config files
- Know the general format/syntax of the Asterisk dialplan and the basic dialplan applications
- Asterisk CLI: Know how to connect to remote Asterisk sessions and administer them using basic CLI commands
- Know how to register and use VoIP devices (phones) and providers with Asterisk

Recommended Skills:

- Have general knowledge of VoIP protocols, especially SIP and IAX including generally how they work and what ports they use
- Programming and scripting experience: Have some familiarity with programming and scripting languages such as C, C++, Bash or Perl

The following Digium hardware and course materials are included in the price of the course:

- Digium TDM411B Analogue card (1 FXO port + 1 FXS port)
- Digium TE122P T1/E1/J1 card
- Digium D40 SIP Desk Phone
- Training Courseware
- Asterisk Computer Laptop Backpack

Note: The Digium Certified Asterisk Professional (dCAP) test can be taken on the last day of any advanced class. The dCAP price for students on the advanced class is £250 in UK, or €300 elsewhere in Europe. Please note that taking the advanced course does not guarantee that you will pass the dCAP exam.