



## ASTERISK ADVANCED

### Expand your knowledge of Asterisk.

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 his or her job. It is a combination of both lectures and labs designed to give the students both the theory behind the concepts and the hands-on experience to be able to effectively deploy Asterisk-based solutions. This course is the successor to the wildly popular Asterisk Bootcamp, which was retired in 2008.

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 insight into VoIP. Students will also explore connecting Asterisk to a variety of devices, including analog phones and phone lines, digital phone lines, VoIP phones and VoIP providers.

### Course Topics

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 Analog telephony, and how to connect Asterisk to the PSTN
- Digital telephony using T1s and E1s
- SIP and IAX protocols
- Connecting Asterisk to a VoIP 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
- Troubleshooting your Asterisk system
- Asterisk and Linux Security to maintain a secure system.



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## Course Format

The Asterisk Advanced course is a five-day course. Class will begin at 9:30 AM on the first day and each day thereafter at 8:30 AM. The class will consist of a combination of lectures and lab exercises. Class typically runs until 5:00 PM, depending on circumstances in the classroom. On Friday, class typically runs until 12:00 noon if you are not taking the dCAP. If you plan to take the dCAP, expect class to run until at least 4:00 PM.

## Class Materials and Cool Stuff

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

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

## Is this the right class for me?

Asterisk Advanced is a fast-paced technical course that assumes students have completed either the Asterisk Fast Start instructor-led course or the Asterisk Essentials online course; or possess the equivalent real world experience (3 to 24 months hands-on). To help you determine which class will be most helpful to you, you may take the free, online dCAA certification test. If you pass this test then you are most likely ready for the Asterisk Advanced Class. If not, then Asterisk Fast Start or Asterisk Essentials should be completed prior to taking Asterisk Advanced.

## 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.



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### 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, Perl, etc.

### Certification Offered

The dCAP exam is offered at the end of each Asterisk Advanced training course. Students registering for the course may also register for the exam. Please note that taking the Advanced course does not guarantee that you will pass the dCAP exam. Please visit the [Digium Certified Asterisk Professional](#) page to find out more about Digium certification.