In this lab I explored the various options presented in the web interface of FreePBX. At the top there are 5 tabs: Admin, Applications, Connectivity, Reports, Settings, and Other. From the Admin tab, you can install or update various modules, including special modules that can be purchased from Digium. You can also manage FreePBX users/admins, manage feature codes, change system recordings, and add custom extensions. The Applications tab allows you to add and edit extensions through their web form. Extensions can be for SIP, IAX2, FXS, or custom. Although, the only difference seems to be in what command is used to dial the extensions. The Connectivity tab allows you to set up trunks, routes to utilize those trunks, both inbound and out, as well as DID management for FXO ports. A number of trunks are available to use, most notably SIP, IAX, and Zap/DAHDi. There is even a custom trunk that allows for a specified dial string. The Reports tab allows you to see a dashboard of the system’s status, including resource stats, service status, the status of calls, phones, and trunks, as well as any notices or warnings. This is the page that loads by default after login. The Settings tab has four sections: Advanced, General, Music on Hold, and Voicemail. Advanced has a number of options that specify how the system and GUI operates, what kind of log settings are used, and some default settings for devices and dialplans. It also has display settings that allow you to edit quite a bit more, such as what files and directories are used my the system. These options are not shown by default as most will have not use for the hidden settings, and changing them could easily break the system. The general settings are a lot more friendly, setting some global behavior settings for calls, voicemail, localization, and security. The voicemail administration area presents usage statistics, the ability to clear messages, and a plethora of settings for how voicemail will behave. The Music On Hold section allows for music to be added to category. A list of files already in the category is listed. However, I had two issues with uploading music. First, there was a rather small maximum to the file size. I also received an error when trying to upload mp3s, despite the page saying that mp3s were valid input. The last tab, Other, has settings for hardware cards, either analog or digital. These settings would allow you to configure how the server would interact with connections to phones or networks, either analog or digital. However, since my server is a VM, there are no hardware cards to allow a connection.

I then took a look at some of the modules under the Module Admin page. There were many that I had heard of, and many that I had not. The biggest complaint I had was the description sections of most of them had no information, and the few that did simply went to a help document, which while helpful in setting up, often gave no information on what the module actually accomplished. I installed a couple modules and applied the config. The Applications tab on top then showed links to the configuration pages of the modules I had installed. I took a look at IVR, Queues, Follow Me, and Ring Groups. The last three did essentially the same things, but had some specializations. The Ring Group was the simplest, as you submitted a list of extensions or numbers, and it would call them based on some strategy. Follow Me did the same thing, but is intended on finding a specific individual, rather than an individual within a group. As such, it announces what it is doing to the caller. Follow me also differed in that rather than having its own number, it uses the extension number of the individual it is trying to contact. Queues are the most complex, as rather listing a set of extensions, extension users can log into or log out of the queue. It does have a section where static extensions can be added, and you can implement a white list of members that can log into the queue, an additional security level to just the password. The IVR, however, allows you to construct a basic auto-attendant, as you can build a list of options for the IVR to give to callers.

It is clear that FreePBX provides a large array of options in a relatively easy format, despite the inherent limitations of the GUI interface. Even advanced customization seems possible, although it may be more difficult to pull off than with the CLI and plain configuration files. It certainly has many advantages in environments where an easy to use but powerful system is needed.