Conceptual overview

Endpoint, Dialplan, Session

From pg. 10 of FreeSWITCH 1.0.6 book:

"Endpoint modules are critically important and add some of the key features which make FreeSWITCH the powerful platform it is today. The primary role of these modules is to take certain common communication technologies and normalize them into a common abstract entity which we refer to as a session. A session represents a connection between FreeSWITCH and a particular protocol. There are several Endpoint modules that come with FreeSWITCH, which implement several protocols such as SIP, H.323, Jingle (Google Talk), and some others. We will spend some time examining one of the more popular modules named mod_sofia.

"Sofia-SIP (http://sofia-sip.sourceforge.net) is an open source project sponsored by Nokia, which is determined to make a programming interface to the Session Initiation Protocol or SIP. We use this library in FreeSWITCH in a module we call mod_sofia. This module registers to all the hooks in FreeSWITCH necessary to make an Endpoint module, and translates the native FreeSWITCH constructs into SIP constructs and back again. Configuration information is taken from the central FreeSWITCH configuration files, which allows mod_sofia to load user-defined preferences and connection details. This allows FreeSWITCH to accept registration from SIP phones and devices, register to other SIP Endpoints such as service providers, send notifications, and provide services to the phones such as voicemail.

"When a SIP call is established between FreeSWITCH and another SIP device, it will show up in FreeSWITCH as an active session. If the call is inbound, it can be transferred or bridged to interactive voice response (IVR) menus, hold music, or one or more extensions, though numerous other options are available. Let's examine a typical scenario where a SIP phone registered as extension 2000 calls extension 2001, with the hope of establishing a call.