Table of Contents

Pre	face		X
1.	Installa	tion	1
		Installing from Red Hat Linux's Packages	
		Installing from Debian Packages	2 3 4 7
	1.3	Installing Apache on Windows	4
	1.4	Downloading the Apache Sources	7
	1.5	Building Apache from the Sources	10
	1.6	Installing with ApacheToolbox	12
	1.7	Starting, Stopping, and Restarting Apache	15
	1.8	Uninstalling Apache	18
	1.9	Which Version of Apache to Use	19
		Upgrading Using config.nice	21
	1.11	Starting Apache at Boot	22
		Useful configure Options	22
	1.13	Finding Apache's Files	24
2.	Adding	Common Modules	27
	2.1	Installing a Generic Third-Party Module	28
	2.2	Installing mod_dav on a Unixish System	28
	2.3	Installing mod_dav on Windows	31
	2.4	Installing mod_perl on a Unixish System	33
	2.5	Installing <i>mod_php</i> on a Unixish System	35
	2.6	Installing <i>mod_php</i> on Windows	36
	2.7	Installing mod_ssl	37
	2.8	Finding Modules Using Modules.Apache.Org	38
	2.9	Installing mod_security	39
	2.10	Why Won't This Module Work?	40
3.	Loggin	q	43
		Getting More Details in Your Log Entries	46
		Getting More Detailed Errors	47
		-	

	3.3	Logging POST Contents	49
		Logging a Proxied Client's IP Address	50
		Logging Client MAC Addresses	51
	3.6	Logging Cookies	51
	3.7	Not Logging Image Requests from Local Pages	53
	3.8	Rotating logfiles at a particular time	54
	3.9	Rotating Logs on the First of the Month	55
	3.10	Logging Hostnames Instead of IP Addresses	56
	3.11	Maintaining Separate Logs for Each Virtual Host	57
	3.12	Logging Proxy Requests	58
	3.13	Logging Errors for Virtual Hosts to Multiple Files	59
	3.14	Logging Server IP Addresses	60
	3.15	Logging the Referring Page	61
	3.16	Logging the Name of the Browser Software	62
	3.17	Logging Arbitrary Request Header Fields	63
	3.18	Logging Arbitrary Response Header Fields	63
	3.19	Logging activity to a MySQL database	64
	3.20	Logging to syslog	65
	3.21	Logging user directories	67
4.	Virtual	Hosts	69
••		Setting Up Name-Based Virtual Hosts	70
		Designating One Name-Based Virtual Host as the Default	72
		Setting Up Address-Based Virtual Hosts	73
		Creating a Default Address-Based Virtual Host	73
		Mixing Address-Based and Name-Based Virtual Hosts	74
		Mass Virtual Hosting with mod_vhost_alias	75
		Mass Virtual Hosting Using Rewrite Rules	77
	4.8	Logging for Each Virtual Host	78
	4.9	Splitting Up a LogFile	79
	4.10	Port-Based Virtual Hosts	79
	4.11	Displaying the Same Content on Several Addresses	80
	4.12	Defining virtual hosts in a database	81
5.	Aliases	Redirecting, and Rewriting	83
		Mapping a URL to a Directory	83
		Creating a New URL for Existing Content	85
		Giving Users Their Own URLs	86
		Aliasing Several URLs with a Single Directive	89
		Mapping Several URLs to the Same CGI Directory	89
		Creating a CGI Directory for Each User	90
		Redirecting to Another Location	91
		Redirecting Several URLs to the Same Destination	93

	5.9	Permitting Case-Insensitive URLs	94			
		Showing Highlighted PHP Source without Symlinking	94			
	5.11	Replacing Text in Requested URLs	96			
	5.12	Rewriting Path Information to CGI Arguments	97			
	5.13	3 Denying Access to Unreferred Requests				
	5.14	Redirecting Unreferred Requests to an Explanation Page	99			
	5.15	Rewriting Based on the Query String	100			
	5.16	Redirecting All—or Part—of Your Server to SSL	100			
	5.17	Turning Directories into Hostnames	101			
	5.18	.18 Redirecting All Requests to a Single Host				
	5.19	19 Turning Document Names into Arguments				
	5.20	Rewriting Elements between Path and Query String	103			
	5.21	Rewriting a Hostname to a Directory	104			
	5.22	Turning URL Segments into Query Arguments	105			
	5.23	Using AliasMatch, ScriptAliasMatch, and RedirectMatch	105			
6.	Security	· · · · · · · · · · · · · · · · · · ·	107			
		Using System Account Information for Web Authentication	109			
		Setting Up Single-Use Passwords	110			
		Expiring Passwords	111			
		Limiting Upload Size	113			
	6.5	Restricting Images from Being Used Off-Site	115			
		Requiring Both Weak and Strong Authentication	116			
	6.7	Managing .htpasswd Files	117			
	6.8	Making Password Files for Digest Authentication	119			
	6.9	Relaxing Security in a Subdirectory	120			
	6.10	Lifting Restrictions Selectively	122			
	6.11	Authorizing Using File Ownership	124			
	6.12	Storing User Credentials in a MySQL Database	124			
	6.13	Accessing the Authenticated Username	126			
	6.14	Obtaining the Password Used to Authenticate	127			
		Preventing Brute-Force Password Attacks	128			
	6.16	Using Digest Versus Basic Authentication	129			
	6.17	Accessing Credentials Embedded in URLs	130			
	6.18	Securing WebDAV	130			
	6.19	Enabling WebDAV Without Making Files Writable by the Web User	131			
	6.20	Restricting Proxy Access to Certain URLs	132			
		Protecting Files with a Wrapper	134			
		Protecting Server Files from Malicious Scripts	136			
		Setting Correct File Permissions	136			
		Running a Minimal Module Set	139			
		Restricting Access to Files Outside Your Web Root	141			

	6.26	Limiting Methods by User	142
		Restricting Range Requests	143
	6.28	Rebutting DoS Attacks with <i>mod_evasive</i>	145
	6.29	chrooting Apache with mod_security	146
	6.30	Migrating to 2.2 Authentication	147
	6.31	Blocking Worms with <i>mod_security</i>	148
	6.32	Mixing Read-Only and Write Access to a Subversion Repository	
			149
	6.33	Using Permanent Redirects to Obscure Forbidden URLs	150
7.	SSL		153
		Installing SSL	153
		Installing SSL on Windows	155
		Generating Self-Signed SSL Certificates	155
		Generating a Trusted CA	160
	7.5	Serving a Portion of Your Site via SSL	161
	7.6	Authenticating with Client Certificates	163
		SSL Virtual Hosts	164
	7.8	Wildcard Certificates	166
8.	Dynam	ic Content	167
	•	Enabling a CGI Directory	167
	8.2	Enabling CGI Scripts in Non-ScriptAliased Directories	168
		Specifying a Default Document in a CGI Directory	169
	8.4	Using Windows File Extensions to Launch CGI Programs	171
	8.5	Using Extensions to Identify CGI Scripts	172
	8.6	Testing that CGI is Set up Correctly	173
	8.7	Reading Form Parameters	176
	8.8	Invoking a CGI Program for Certain Content Types	178
	8.9	Getting SSIs to Work	180
		Displaying Last Modified Date	182
		Including a Standard Header	182
		Including the Output of a CGI Program	183
		Running CGI Scripts as a Different User with suexec	184
		Installing a mod_perl Handler from CPAN	186
		Writing a mod_perl Handler	187
		Enabling PHP Script Handling	189
		Verifying PHP Installation	189
		Parsing CGI output for Server Side Includes	190
		Parsing ScriptAlias Script Output for Server Side Includes	191
		Getting mod_perl to handle all Perl scripts	192
	8.21	Enabling Python Script Handling	193

9.	Error Ha	andling	195	
	9.1 Handling a Missing Host Field			
		Changing the Response Status for CGI Scripts	196	
		Customized Error Messages	197	
		Providing Error Documents in Multiple Languages	198	
		Redirecting Invalid URLs to Some Other Page	199	
		Making Internet Explorer Display Your Error Page	200	
		Notification on Error Conditions	201	
10.	Proxies		203	
		Securing Your Proxy Server	203	
		Preventing Your Proxy Server from Being Used as an Open		
		Mail Relay	205	
	10.3	Forwarding Requests to Another Server	205	
		Blocking Proxied Requests to Certain Places	207	
		Proxying mod_perl Content to Another Server	207	
		Configuring a Caching Proxy Server	208	
		Filtering Proxied Content	209	
		Requiring Authentication for a Proxied Server	210	
		Load Balancing with mod_proxy_balancer	211	
		Proxied Virtual Host	212	
		Refusing to Proxy FTP	213	
11.	Perform	nance	215	
		Determining How Much Memory You Need	215	
		Benchmarking Apache with ab	217	
		Tuning Keepalive Settings	218	
		Getting a Snapshot of Your Site's Activity	219	
		Avoiding DNS Lookups	221	
		Optimizing Symbolic Links	222	
		Minimizing the Performance Impact of .htaccess Files	223	
		Disabling Content Negotiation	225	
		Optimizing Process Creation	227	
		Tuning Thread Creation	228	
		Caching Frequently Viewed Files	229	
		Distributing Load Evenly Between Several Servers	231	
		Caching Directory Listings	232	
		Speeding Up Perl CGI Programs with mod_perl	233	
		Caching Dynamic Content	235	
12.	Director	ry Listings	237	
		Generating Directory/Folder Listings	237	
		Display a Standard Header and Footer on Directory Listings	239	

	Indo	,		270
	В.	Trouble	shooting	271
	A.	Using R	egular Expressions in Apache	265
		13.11	Converting IBM/Lotus Server-Side Includes to Apache	263
actual title is fixed			Enabling .htaccess Files	263
automatically when	n the		Setting Up a Default "Favicon"	262
This will get fixed		13.8	Setting Up a Default "Favicon"	261
This will got fived			Alternate Default Document	260
			Handling Missing Host: Header Fields	259
			Setting the Content-Type According to Browser Capability	259
			Solving the "Trailing Slash" Problem	258
			Renaming .htaccess Files Generating Directory/Folder Listings	255 256
			Placing Directives Properly Penaming https://doi.org/10.1007/	253
	13.		nneous Topics	
			Aliases in Directory Listings	251
			Showing Forbidden Files	251
			Suppressing Certain Columns	250
			Complete User Control of Output Don't Allow the End User to Modify the Listing	248 249
			Allowing the End User to Specify Version Sorting	248
			Ordering by Version Number	247
			Listing the Directories First	247
			Changing the Listing Icons	246
			AutoGenerated Document Titles	245
			Adding Descriptions to Files	245
			Allowing the Client to Specify the Formatting	244
		12.8	Specifying How the List Will Be Formatted	243
		12.7	Allowing a Client-Specified Sort Order	242
		12.6	Sorting the List	241
		12.5	Searching for Certain Files in a Directory Listing	241
		12.4	Hiding Things from the Listing	240
		12.3	Applying a Style Sheet	240