



Index

- !, 34
- ", 34
- #, 14
- \$this**, 77
- \${}}, 14**
- &, 34
- (), 13, 34
- *, 18
- ., 34
- /etc/services, 43
- /usr/local/sbin, 8
- /var/cfengine, 9
- /var/cfengine/inputs, 40
- /var/cfengine/modules, 78, 80
- /var/cfengine/outputs, 12
- /var/cfengine/ppkeys, 10, 53
- /var/cfengine/state, 87
- /var/cfengine/state/allclasses, 79
- ::, 14
- :::, 34
- ?:, 18
- _:, 32
- \:, 31
- l, 34
- +, 79
- =, 79
- >, 23
- >!, 23
- :, 32, 79
- access**, 45
- access control lists, 22
- AccessedBefore**, 35
- acl**, 22
- action, 4, 21
- actionsequence**, 15, 19, 40–41, 67, 78
- addclasses**, 36
- AddInstallable**, 36
- admit, 44, 49
- alerts, 15, 36, 87, 93
- AllowAccessFrom**, 44
- AllowMultipleConnectionsFrom**, 44
- AllowUsers**, 49
- anomaly**, 89
- anomaly detection, 86
- any**, 35–36
- autonomic computing, 87
- autonomy, 6
- backup**, 26
- BerkeleyDB, 8
- bootstrap file, 47
- broadcast**, 19
- broadcast address, 20
- BSD security, 22
- build process, 8
- central repository, 26
- centralization process, 43
- centralized management, 42
- cf.preconf, 47–48
- cfagent**, 3, 7–8, 10, 32–33, 49, 51, 93
 - listing classes with, 32
 - options, 51
 - verbose mode, 10, 93

cfagent.conf, 9–10, 15, 37, 43, 45–46
 updating, 45–46
cfdisabled estension, 24
cfengine, 90
cfenvd, 7, 86–87, 90
cfenvgraph, 7, 91–93
cfexecd, 7–8
cfkey, 7, 10, 53
cfrun, 49–50
 options, 50
cfrun.hosts, 49
cfrunCommand, 49
cfruri, 7
cfsaved estension, 26
cfservd, 7, 42–44, 49, 52
cfservd.conf, 33, 43–44
cfshow, 7
ChangedBefore, 35
chdir, 30
checksum, 14, 21
checksum database, 14, 21
ChecksumDatabase, 21
ChecksumPurge, 21
ChecksumUpdates, 21
chroot, 30
class name suffixes, 67
classes, 5, 32–34, 90
 anomaly detective, 90
 host and domain names in, 32
 legal characters, 32
 logical expression, 34
comments, 14
comparison, 26
components, 7
CompressCommand, 22
compression, 22
configuration, 3, 19
control, 2, 11, 14, 18, 41, 58, 65
 example, 65
convergence, 4–5
copy, 15–16, 26, 27
 with encryption, 27
creating directories, 22
cron, 11, 45
declarative language, 5
default route, 20
DefaultCopyType, 26
DefaultPkgMgr, 30
defaultroute, 15, 19
defaults, 17
define, 16, 35
defining classes, 33
depth of recursion, 17
dev2, 89
dev1, 89
directories, 23, 61
disable, 15–16, 24
diskfree, 90
disks, 15–16, 28, 96
DMZ, 53–55
 policy mirror in, 55–56
dns, 90
DNS name servers, 20
double colon, 34
dynamic addressing, 51
DynamicAddresses, 52
editfiles, 15–16, 24–26, 59, 76
 example, 76
elsedefine, 16, 35
email, 11
EmptyResolvCont, 20
encrypt, 27
entropy classes, 91
error conditions, defining class when detected, 61
escaping quotes, 31
eTOM, 105
exclude, 16, 18
ExcludeCopy, 18
ExcludeLink, 18
expiration time, rule-specific, 67
expireafter, 16–17, 31
failover, 35
feedback classes, 35
file filters, 37–38
file system scans, 96, 99

- FileExists**, 35
- files**, 15–16, 20, 22
- filesystem**, checking presence of, 28
- filter**, 16, 18
- filters**, 37–40
- firewalls**, 53–56
 - tunnels through, 56
- flags**, 22
- force**, 26
- free space**, 28
- frequency plot**, 91
- FriendStatus**, 93–94
- ftp**, 90
- functions**, 35
- gathering data**, 77
- graphs**, 93, 97–99
 - example, 97–99
- group**, 21, 30
- hard links**, 23
- high**, 89
- home page**, 7
- host**, 3
- host monitoring**, 86
- hr**, 33
- icmp**, 90
- IExpireAfter**, 17
- ifelapsed**, 16–17
- IfElapsed**, 17
- ignore**, 16, 18, 67
 - example, 67
- imports**, 40–41
- in**, 89
- include**, 16, 18
- include files**, 40–41
- installation**, 8–9, 43
- interfaces**, 15
- IPRange**, 35
- irc**, 90
- IsDir**, 35
- IsHost**, 35
- IsLink**, 35
- IsNeverThan**, 35
- IsPlain**, 35
- iteration**, 77
- ITIL**, 105
- laptop computer example**, 58
- LastSeenExpireAfter**, 93
- libraries**, required, 8
- links**, 15–16, 20, 23
- lists**, 13–14
- loadavg**, 90
- locality**, 33
- loops**, 3, 77
- low**, 89
- management best practices**, 105
- MD5 checksum**, 14
- MethodName**, 81
- MethodParameters**, 81
- methods**, 79–80, 82
 - example, 82
 - remote execution, 80
- metrics**, 90
- min**, 33
- mode**, 21
- module**, 78
- modules**, 78–79, 82, 95
 - directory, 80
 - example, 82, 95
- monitoring**, 7
- netbiosns**, 90
- netbiosssn**, 90
- netconfig**, 15, 19
- netmask**, 19–20
- network interface**, 19
- nfsd**, 90
- NGOSS**, 105
- normal**, 89
- OpenSSL**, 8
- operation**, 4

operator precedence, 34
options, 26
otherprocs, 90
out, 89
overwriting files, 27
owner, 21, 30
ownership, 21

packages, 15–16, 30
permissions, 21
policy, 3–4, 6, 13, 42
 centralized, 42
policy master, 43
process filters, 39
process requirements, 105
processes, 15–16, 29
promises, 4, 34
public key exchange, 52
public keys, 51
public/private key pair, 10
pull vs. push, 49, 54, 56
 FAQs, 56
purge, 27

q, 33
quoting rules, 31

readlist, 83
recurse, 16–17
remote servers, multiple, 35
repository, 26
repository location, 26
resolv.conf, 15, 20
resolve, 15, 19
restart, 29–30
ReturnsZero, 35
ReturnsZeroShell, 35
revision control, 106
rmdirs, 29
rollback, 106–107
rootprocs, 90
rotating files, 24
router address, 20
RPMInstallCommand, 30

rule processing order, 40
rule types, 15–16
 general options, 16

sandboxing, 30, 80
scalability, 6
sensiblecount, 28
separator character, 14
SetOptionString, 29
shell commands, 30
shell wrappers, 31
shellcommands, 15–16, 31
ShowState, 90
signal, 29–30
signal processes, 29
site policy file suite example, 64
smtp, 90
soft classes, 33
source code, 8
 installing from, 8
SplayTime, 27–28
split, 14
ssh, 90
symbolic hard link, 20
symbolic links, 23
syntax, 13
Syslog, 16–17
SyslogFacility, 16–17

target address, 11
tcp, 90
TCP port 5308, 43
tcpack, 90
tcpfin, 90
tcpmisc, 90
tcpsyn, 90
tidy, 15–16, 28–29
timeout periods, 17
timestamps, 26
touching, 22
transaction locks, 10
truncating files, 25
trustkey, 53
TrustKeysFrom, 44, 53

type, 26
typecheck, 27

udp, 90
underscore, 32
`update.conf`, 43, 45–46
users, 90
useshell, 31

verify, 27
voluntary cooperation, 6, 42

Web server example, 60
wildcards, 18
work directory, 9
www, 90
wwws, 90

xdev, 16–17