

如何在 Cache Engine 中配置 TACACS+ 支持

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简介

本文描述如何配置终端访问控制器访问控制系统加上(TACACS+)支持为了访问Cisco缓存引擎。当您远程登录到Cache Engine时，在本文的说明允许您验证远程TACACS+服务器/数据库。如果服务器不包括您的用户ID的一个条目，检查本地有效访问信息。

先决条件

要求

本文档没有任何特定的要求。

使用的组件

本文档中的信息基于以下软件和硬件版本：

- 在实验室环境中的已清除配置的Cisco Cache Engine 505
- Cisco缓存引擎软件版本2.3.1
- UNIX的CiscoSecure

本文档中的信息都是基于特定实验室环境中的设备编写的。本文档中使用的所有设备最初均采用原始（默认）配置。如果您使用的是真实网络，请确保您已经了解所有命令的潜在影响。

规则

关于文件规则的信息，请参见[Cisco技术提示规则](#)。

配置

本部分提供有关如何配置本文档所述功能的信息。

注意： 使用[命令查找工具](#) ([仅限注册用户](#)) 可获取有关本部分所使用命令的详细信息。

网络图

本文档使用以下网络设置：

配置支持TACACS+的Cache Engine

完成这些步骤为了配置支持TACACS+的Cache Engine：

1. 配置WEB缓存通信协议(WCCP)各自版本的Cache Engine。
2. 请使用这些命令默认配置：
`authentication login local enable authentication configuration local enable`
3. 配置TACACS+服务器IP地址。如果地址主要的多个服务器指定，则辅助服务器被留下作为空白的选项。
4. 配置验证到TACACS+服务器如主要的。如果服务器不是可用的，则默认将是本地指定的验证。
5. 配置验证对TACACS+关键信息在必要时。

注意： 您必须启用在Cisco缓存引擎的TACACS+，因为Cisco Cache引擎使用PPP为了用TACACS服务器验证，不同于不需要PPP的路由器。为了启用在Cisco Cache引擎的TACACS+，开放Cisco Secure ACS 2.6，点击**GROUP SETUP**选项，并且检查在TACACS+设置地区查找的**PPP IP**复选框。

您的命令行应该看起来与此输出相似：

```
cepro(config)#tacacs server 172.18.124.114 cepro(config)#authentication login tacacs ena primary
cepro(config)#authen configuration tacacs enab
```

验证

使用本部分可确认配置能否正常运行。

[命令输出解释程序](#) ([仅限注册用户](#)) (OIT) 支持某些 **show** 命令。使用 OIT 可查看对 **show** 命令输出的分析。

- **show version** —显示在Cache Engine运行的软件，以及一些其他组件作为系统持续运行(例如代码以前启动的地方和日期，被编译了)。cepro#`show version` Cisco Cache Engine Copyright (c) 1986-2001 by Cisco Systems, Inc. Software Release: CE ver 2.31 (Build: FCS 02/16/01) Compiled: 11:20:14 Feb 22 2001 by bbalagot Image text-base 0x108000, data_base 0x437534 System restarted by Reload The system has been up for 20 hours, 42 minutes, 59 seconds. System booted from "flash"
- **show hardware** —显示信息和**show version**命令一样，以及Cache Engine的硬件组件。
cepro#`show hardware` Cisco Cache Engine Copyright (c) 1986-2001 by Cisco Systems, Inc. Software Release: CE ver 2.31 (Build: FCS 02/16/01) Compiled: 11:20:14 Feb 22 2001 by bbalagot Image text-base 0x108000, data_base 0x437534 System restarted by Reload The system has been up for 21 hours, 15 minutes, 16 seconds. System booted from "flash" Cisco Cache Engine CE505 with CPU AMD-K6 (model 8) (rev. 12) AuthenticAMD 2 Ethernet/IEEE 802.3 interfaces 1 Console interface. 134213632 bytes of Physical Memory 131072 bytes of ROM

memory. 8388608 bytes of flash memory. List of disk drives: /c0t0d0 (scsi bus 0, unit 0, lun 0)

- **show running-config** —显示在Cache Engine的运行的配置。 `cepro#show running-config`
Building configuration... Current configuration: !!! user add admin uid 0 password 1 "eeSdy9dcy" capability admin-access user add chbanks uid 5001 password 1 "eeSdy9dcy" capability admin-access !!! hostname cepro ! interface ethernet 0 ip address 10.27.2.2 255.255.255.0 ip broadcast-address 10.27.2.255 exit ! ! interface ethernet 1 exit ! ip default-gateway 10.27.2.1 ip route 0.0.0.0 0.0.0.0 10.27.2.1 cron file /local/etc/crontab ! wccp router-list 1 10.27.2.1 wccp web-cache router-list-num 1 ! authentication login tacacs enable primary authentication login local enable !--- on by default ---! authentication configuration tacacs enable authentication configuration local enable !---- on by default -- -! tacacs server 172.18.124.114 primary rule no-cache url-regex .*cgi-bin.* rule no-cache url-regex .*aw-cgi.* ! ! end cepro#
- **show tacacs** —显示TACACS+服务器的设置。 `cepro#show tacacs` Login Authentication for Console/Telnet Session: enabled (primary) Configuration Authentication for Console/Telnet Session: enabled TACACS Configuration: ----- Key = Timeout = 5 seconds Retransmit = 2 times Server Status ----- ----- 172.18.124.114 primary
- **show statistics tacacs** —显示TACACS+统计信息。 `cepro#show statistics tacacs` TACACS+ Statistics ----- Number of access requests: 13 Number of access deny responses: 7 Number of access allow responses: 0
- **show authentication** —显示当前TACACS+当前认证和授权配置。 `cepro#show authentication` Login Authentication: Console/Telnet Session ----- ----- local enabled tacacs enabled (primary) Configuration Authentication: Console/Telnet Session ----- ----- local enabled tacacs enabled cepro#

故障排除命令

本部分提供的信息可用于对配置进行故障排除。

[命令输出解释程序 \(仅限注册用户 \)](#) (OIT) 支持某些 **show** 命令。使用 OIT 可查看对 **show** 命令输出的分析。

注意： 使用 **debug** 命令之前，请参阅[有关 Debug 命令的重要信息](#)。

- **show debug** —显示启用的调试指令。 `cepro#show debug` Authentication debugging is on Tacacs debugging is on
- **终端监视器**—显示调试输出对屏幕。此输出显示**debug authentication**和**debug tacacs**命令的结果。 `cepro#terminal monitor` `cepro#authenticateUser(): Begin setRemoteIPAddress(): pRemoteAddress 172.18.124.193 bAuthentication(): Begin bAuthenticationIntersection(): Begin bAuthenticationIntersection(): telnet_access 1 setAuthenticatedService(): nServiceToAuthenticate 6 getAuthenticatedService(): Begin getAuthenticatedService(): nServiceToAuthenticate = 6 bAuthenticationIntersection() getAuthenticatedService 6 setErrorDisplayed(): Begin bStatus 0 getLocalLoginAuthEnable(): Begin getLocalLoginAuthEnable(): uiState = 1 getTacacsLoginAuthEnable(): Begin getTacacsLoginAuthEnable(): uiState = 1 getTacacsLoginAuthPrimary(): Begin getTacacsLoginAuthPrimary(): uiState = 1 IncrementTacacsStatRequest(): Begin tacacs_plus_login() Begin isConsole() Begin getAuthenticatedService(): Begin getAuthenticatedService(): nServiceToAuthenticate = 6 isConsole() nReturn 0 telnet tacacs_plus_login() sWhatService() tty = telnet getRemoteIPAddress(): Begin getRemoteIPAddress(): pRemoteAddress = 172.18.124.193 tacacs_plus_login() getRemoteIPAddress sHostIp 172.18.124.193 tacacs_malloc() Begin 164 tacacs_malloc() PSkmalloc ptr getUserStruct() malloc_named ustr tacacs_plus_login() allocated memory for ustruct aaa_update_user() Begin debug_authen_svc() Begin aaa_update_user(): user='admin' ruser='system' port='telnet' rem_addr='172.18.124.193' authen_type=1 tacacs_plus_login() updated user getNumTacacsLoginAttempts(): Begin getNumTacacsLoginAttempts(): ulRetransmit = 2 ##### tacacs_plus_login() num_tries 1 aaa_start_login() Begin debug_start_login() Begin`

```
debug_start_login()/AUTHEN/START (0): port='telnet' list='(null)' action=LOGIN service=LOGIN
aaa_randomize_id() Begin tacacs_plus_start_login() Begin tacacs_parse_server() Begin
user_str admin getTacacsDirectRequestEnable(): Begin getTacacsDirectRequestEnable():
cDirectRequestEnable = 0 printIpAddr() Begin printIpAddr() 0.0.0.0 tacacs_plus_start_login()
server.ip_addr 0.0.0.0 server.type 0 server.length 0 choose_version() Begin
create_authen_start() Begin create_authen_start() len 45 tacacs_malloc() Begin 45
tacacs_malloc() PSkmalloc ptr create_authen_start() malloc_named tac_pak
fill_tacacs_plus_hdr() Begin encrypt 1 fill_tacacs_plus_hdr() len 33, tac_pak->length 33
#### fill_tacacs_plus_hdr() tac_pak->encrypted 1 #### fill_tacacs_plus_hdr() TEST nTestLen
33 create_authen_start() len 33, tac_pak->length 33 create_authen_start() u->priv_lvl 15
start->priv_lvl 15 create_authen_start() start->action 1 create_authen_start() start-
>authen_type 1 create_authen_start() start->service 1 create_authen_start() user_len 5
create_authen_start() port_len 6 create_authen_start() addr_len 14 create_authen_start()
out_len 33 tacacs_plus_start_login() TACACS+: send AUTHEN/START packet ver=192 id=1541646967
tacacs_plus_start_login() login to TACACS+ server: printIpAddr() Begin printIpAddr() 0.0.0.0
tacacs_plus_get_conn() Begin server(0) printIpAddr() Begin printIpAddr() 0.0.0.0
tacacs_plus_get_conn() **pSocketHandleIndex 89434348 tacacs_plus_get_conn() Look at server
in the TACACS+ server list tacacs_plus_get_conn() TACACS+: This is a loop through server
list tacacs_plus_openconn() Begin printIpAddr() Begin printIpAddr() 172.18.124.114
open_handle() Begin tacacs_plus_socket() Begin tacacs_plus_socket Socket: return nSocket 784
nSockFdTbl[28] = 784 printIpAddr() Begin printIpAddr() 172.18.124.114 open_handle() TACACS+:
Opening TCP/IP connection to 172.18.124.114 open_handle() nSockFdTbl[28]= 784
setCurrentServer() Begin SaveCurrentServer->ip_addr 172.18.124.114
IncrementTacacsStatPerServerRequest(): Begin ##### IncrementTacacsStatPerServerRequest
Server->ip_addr 1920733868 tacacs_root.ulTacacsServerAddr open_handle() socket(28) 784
tacacs_plus_connect() Begin tacacs_plus_connect() socket(28) 784 tacacs_plus_connect() End
open_handle() is connected open_handle() *connection_handle 28 open_handle()
**pSocketHandleIndex 28 tacacs_plus_openconn() **pSocketHandleIndex 28 get_server() Begin
tacacs_plus_openconn() server->opens++ tacacs_plus_get_conn() **pSocketHandleIndex 28
tacacs_plus_get_conn() oldServerCount: 0, count:0 tacacs_plus_start_login() **pHandleIndex
28 tacacs_plus_send_receive() Begin tacacs_plus_proc_send_receive() Begin
tacacs_plus_proc_send_receive() length 33 copy_tac_plus_packet() Begin tacacs_malloc() Begin
45 tacacs_malloc() PSkmalloc ptr copy_tac_plus_packet() malloc_named copy
tacacs_plus_encrypt() Begin getTacacsKey(): Begin getTacacsKey(): sKey =
tacacs_plus_encrypt() key tacacs_plus_encrypt() sizeof(tacacs_plus_pkt_hdr) 12
tacacs_plus_encrypt() sizeof(uchar) 1 tacacs_plus_encrypt() tac_pak->encrypted 1
tacacs_plus_encrypt() tac_pak->encrypted = TAC_PLUS_CLEAR && key is empty
tacacs_plus_proc_send_receive() out_pak->encrypted 1 tacacs_plus_proc_send_receive()
out_pak->encrypted 1 tacacs_plus_proc_send_receive() PSkfree dump_pak
tacacs_plus_proc_send_receive() ntohl(out_pak->length) 33 dump_start_session() Begin
ntohl(out_pak->length) 33 getTacacsKey(): Begin getTacacsKey(): sKey = 0xc0 0x1 0x1 0x1 0x77
0xaa 0xe3 0x5b 0x0 0x0 0x0 0x21 0x1 0xf 0x1 0x1 0x5 0x6 0xe 0x0 0x61 0x64 0x6d
encrypt_md5_xor() Begin encrypt_md5_xor() no key dump_summarise_incoming_packet_type() Begin
Read AUTHEN/START size=45 dump_nas_pak() Begin dump_header() Begin PACKET: key= version 192
(0xc0), type 1, seq no 1, encrypted 1 session_id 2007688027 (0x77aae35b), Data length 33
(0x21) End header type=AUTHEN/START, priv_lvl = 15action=login authen_type=ascii
service=login user_len=5 port_len=6 (0x6), rem_addr_len=14 (0xe) data_len=0 User: port:
rem_addr: data: End packet dump_start_session() PSkfree test getTacacsTimeout(): Begin
getTacacsTimeout(): ulTimeout = 5 tacacs_plus_sockwrite() Begin
tacacs_plus_proc_send_receive() PSkfree out_pak getTacacsTimeout(): Begin
getTacacsTimeout(): ulTimeout = 5 sockread() Begin tacacs_plus_proc_send_receive() read
tacacs_malloc() Begin 18 tacacs_malloc() PSkmalloc ptr tacacs_plus_proc_send_receive()
malloc_named *in tacacs_plus_proc_send_receive() allocated memory getTacacsTimeout(): Begin
getTacacsTimeout(): ulTimeout = 5 sockread() Begin tacacs_plus_proc_send_receive() OK
tacacs_plus_decrypt() Begin getTacacsKey(): Begin getTacacsKey(): sKey =
tacacs_plus_decrypt() key tacacs_plus_decrypt() tac_pak->encrypted = TAC_PLUS_CLEAR && key
is empty authen_resp_sanity_check() Begin tacacs_plus_hdr_sanity_check() Begin
authen_debug_response() Begin authen_debug_response() TACACS+: ver=192 id=1541646967
received AUTHEN status = FAIL tacacs_plus_start_login() PSkfree out_tac_pak
unload_authen_resp() Begin tacacs_plus_start_login() PSkfree in_tac_pak
debug_authen_status() Begin TACACS+/AUTHEN (2007688027): status = FAIL tacacs_plus_login()
Authentication failed. tacacs_plus_login() labell aaa_cleanup_login() Begin
aaa_close_connection() Begin tacacs_plus_closeconn() Begin get_server() Begin close_handle()
Begin close_handle() nHandleIndex 28 nSockFdTbl[**handle] 784 aaa_set_password() Begin
```

```
aaa_free_user() Begin debug_authen_svc() Begin aaa_close_connection() Begin TACACS+/AUTHEN:
free user admin system telnet 172.18.124.193 authen_type=ASCII service=LOGIN priv_lv
aaa_free_user() PSkfree ustr ##### tacacs_plus_login() num_tries 2 aaa_start_login() Begin
debug_start_login() Begin debug_start_login()/AUTHEN/START (0): port='unknown' list='(null)'
action=LOGIN service=LOGIN TACACS+/AUTHEN/START aaa_start_login() (0): ERROR (no ustruct)
tacacs_plus_login() TACACS+: aaa_start aaa_free_user() Begin tacacs_plus_login()
try_local_login AUTHENTICATION_INTERNAL_ERROR IncrementTacacsStatDenyAccess(): Begin
localAuthentication(): Begin localAuthentication() userName admin localAuthentication()
passwd system localAuthentication() pUId 89435294 localAuthentication() telnet_access
localAuthentication() rc == TRUE AuthenticationIntersection(): bTacacsLogin 0
IncrementLocalLoginStat(): Begin getLocalConfigAuthEnable(): Begin
getLocalConfigAuthEnable(): uiState = 1 getTacacsConfigAuthEnable(): Begin
getTacacsConfigAuthEnable(): uiState = 1 getTacacsConfigAuthPrimary(): Begin
getTacacsConfigAuthPrimary(): uiState = 0 localAuthentication(): Begin localAuthentication()
userName admin localAuthentication() passwd system localAuthentication() pUId 89435294
localAuthentication() telnet_access localAuthentication() rc == TRUE
AuthenticationIntersection(): bTacacsConfig 0 AuthenticationIntersection(): Local Database
Authentication == IncrementLocalConfigStat(): Begin AuthenticationIntersection(): user has
been found AuthenticationIntersection(): bTacacsLogin pUId 89435294
AuthenticationIntersection(): GOT ACCESS capab 0 Admin 0 Ftp 0 Http 0 Telnet 0
authenticateUser() AUTHENTICATION IS OK authenticateUser() AUTHENTICATION #2
```

[相关信息](#)

- [Cisco Cache软件版本的2.3.0版本注释- FTP缓存](#)
- [Cisco 500系列Cache引擎产品与服务](#)
- [技术支持和文档 - Cisco Systems](#)