

RADIUS 認証および認可が設定されていると、 リモート アクセス VPN が機能しない

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概要

このドキュメントでは、認証と認可の両方が設定されている場合の、VPNユーザの拡張認証(XAUTH)の動作について説明します。

前提条件

要件

次の項目に関する知識があることが推奨されます。

- 認証、許可、アカウントिंग (AAA)
- リモート アクセス VPN

使用するコンポーネント

このドキュメントの情報は、Cisco IOS® XEソフトウェアを実行するCiscoアグリゲーションサービスルータ(ASR)1000シリーズに基づいています。

このドキュメントの情報は、特定のラボ環境にあるデバイスに基づいて作成されました。このド

キュメントで使用するすべてのデバイスは、初期（デフォルト）設定の状態から起動しています。対象のネットワークが実稼働中である場合には、どのようなコマンドについても、その潜在的な影響について確実に理解しておく必要があります。

問題

VPNユーザは、RADIUSサーバによって認証および認可されるように設定されます。ASRの設定を次に示します。

```
aaa group server radius ACS-Rad
server-private 10.88.171.27 key cisco123
ip vrf forwarding Mgmt-intf
aaa group server tacacs+ ACS-Tac
server-private 10.88.171.27 key cisco123
ip vrf forwarding Mgmt-intf
aaa authentication login VPN_Client group ACS-Rad
aaa authentication login login_local local
aaa authorization network VPN_Client group ACS-Rad
aaa authorization network login_local local
aaa accounting network VPN_Client start-stop group ACS-Rad
aaa accounting network login_local start-stop group ACS-Rad
aaa session-id common
```

ただし、認証を試みるたびに、資格情報の入力を求められることはありません。クライアントでは、次のエラーメッセージがログメッセージに表示されます。

```
Unable to establish Phase 1 SA with server "X.X.X.X" because of
"DEL_REASON_PEER_NOT_RESPONDING"
```

ASR上のデバッグは、VPNグループ名が認証の試行にUser-Nameとして使用されていることを示します。

```
Sep 26 20:01:49.298: RADIUS(000025EA): Sending a IPv4 Radius Packet
Sep 26 20:01:49.298: RADIUS(000025EA): Send Access-Request to X.X.X.X id
1645/88,len 123
Sep 26 20:01:49.298: RADIUS: authenticator 0B 18 41 30 23 35 91 D5 - C3 DE 78
4E BB AC 30 4C
Sep 26 20:01:49.298: RADIUS: User-Name [1] 19 "vpnclient.cisco.com"
Sep 26 20:01:49.298: RADIUS: User-Password [2] 18 *
Sep 26 20:01:49.298: RADIUS: Calling-Station-Id [31] 16 "X.X.X.X"
Sep 26 20:01:49.298: RADIUS: NAS-Port-Type [61] 6 Virtual [5]
Sep 26 20:01:49.298: RADIUS: NAS-Port [5] 6 0
Sep 26 20:01:49.299: RADIUS: NAS-Port-Id [87] 16 "X.X.X.X"
Sep 26 20:01:49.299: RADIUS: Service-Type [6] 6 Outbound [5]
Sep 26 20:01:49.299: RADIUS: NAS-IP-Address [4] 6 192.168.0.55
Sep 26 20:01:49.299: RADIUS: Acct-Session-Id [44] 10 "00002CD6"
Sep 26 20:01:49.299: RADIUS(000025EA): Started 5 sec timeout
Sep 26 20:01:49.326: RADIUS: Received from id 1645/88 X.X.X.X:1812, Access-Accept,
len 26
Sep 26 20:01:49.326: RADIUS: authenticator D3 9D 20 7E 09 89 68 BD - 1A DF A3
B6 6E 25 8D 77
Sep 26 20:01:49.326: RADIUS: Service-Type [6] 6 Framed [2]
Sep 26 20:01:49.326: RADIUS(000025EA): Received from id 1645/88
Sep 26
iacc02.crt#20:01:49.326: ISAKMP:(0):ISAKMP/tunnel: received callback from AAA
Sep 26 20:01:49.326: ISAKMP/tunnel: received tunnel atts
Sep 26 20:01:49.326: ISAKMP:Error - skey id.
```

注：ただし、ローカル認証が設定されている場合は、すべて正常に動作します。

解決方法

報告された動作は予期されており、バグではありません。リモートアクセスVPNには2つの認証プロセスがあります。

1. ユーザが接続するトンネルの事前共有キー認証。
2. 個々のユーザを認証するXAUTH。

XAUTHはフェーズ1.5であり、事前共有キー認証がフェーズ1で成功した後にのみ発生します。パスワードのユーザプロンプトが表示されない理由は、フェーズ1がまだ完了していないためです。デバッグで送信されるユーザ名は、実際にはフェーズ1事前共有キー認証に使用されます。

ローカル認可とRADIUS認可

ローカル認証が設定されると、VPNヘッドエンドはグループ設定で設定されたキー値をピックアップして、フェーズ1を完了します。これにより、フェーズ1が完了し、ルータはXAUTHに進むことができます。

```
*Dec 26 12:42:13.926: ISAKMP:(0):ISAKMP/tunnel: setting up tunnel vpnclient
pw request
*Dec 26 12:42:13.926: AAA/AUTHOR (0x12): Pick method list 'login_local'
*Dec 26 12:42:13.926: ISAKMP:(0):ISAKMP/tunnel: Tunnel vpnclient PW Request
successfully sent to AAA
*Dec 26 12:42:13.926: ISAKMP:(0):Input = IKE_MESG_FROM_PEER, IKE_AM_EXCH
*Dec 26 12:42:13.926: ISAKMP:(0):Old State = IKE_READY New State =
IKE_R_AM_AAA_AWAIT

*Dec 26 12:42:13.927: ISAKMP:(0):ISAKMP/tunnel: received callback from AAA
AAA/AUTHOR/IKE: Processing AV tunnel-password
AAA/AUTHOR/IKE: Processing AV default-domain
AAA/AUTHOR/IKE: Processing AV addr-pool
AAA/AUTHOR/IKE: Processing AV dns-servers
AAA/AUTHOR/IKE: Processing AV wins-servers
AAA/AUTHOR/IKE: Processing AV route-metric
AAA/AUTHOR/IKE: Processing AV max-users
AAA/AUTHOR/IKE: Processing AV max-logins
AAA/AUTHOR/IKE: Processing AV netmask
*Dec 26 12:42:13.927: ISAKMP/tunnel: received tunnel atts
*Dec 26 12:42:13.927: ISAKMP:(35002): constructed NAT-T vendor-02 ID
*Dec 26 12:42:13.927: ISAKMP:(35002):SA is doing pre-shared key authentication
plus XAUTH using id type ID_IPV4_ADDR
*Dec 26 12:42:13.927: ISAKMP (35002): ID payload
next-payload : 10
type : 1
address : 172.16.161.24
protocol : 0
port : 0
length : 12
*Dec 26 12:42:13.927: ISAKMP:(35002):Total payload length: 12
*Dec 26 12:42:13.927: ISAKMP:(35002): sending packet to X.X.X.X my_port 500
peer_port 65328 (R) AG_INIT_EXCH
*Dec 26 12:42:13.927: ISAKMP:(35002):Sending an IKE IPv4 Packet.
```

*Dec 26 12:42:13.927: ISAKMP:(35002):Input = IKE_MSG_FROM_AAA, PRESHARED_KEY_REPLY
*Dec 26 12:42:13.927: ISAKMP:(35002):Old State = IKE_R_AM_AAA_AWAIT New State =
IKE_R_AM2

*Dec 26 12:42:14.017: ISAKMP (35002): received packet from X.X.X.X dport 4500 sport
59464 Mgmt-intf (R) AG_INIT_EXCH
*Dec 26 12:42:14.017: ISAKMP:(35002): processing HASH payload. message ID = 0
*Dec 26 12:42:14.017: ISAKMP:(35002): processing NOTIFY INITIAL_CONTACT protocol 1
spi 0, message ID = 0, sa = 0x7F7796C1DDC0
*Dec 26 12:42:14.018: ISAKMP:received payload type 20
*Dec 26 12:42:14.018: ISAKMP (35002): His hash no match - this node outside NAT
*Dec 26 12:42:14.018: ISAKMP:received payload type 20
*Dec 26 12:42:14.018: ISAKMP (35002): His hash no match - this node outside NAT
*Dec 26 12:42:14.018: ISAKMP:(35002):SA authentication status:
authenticated
*Dec 26 12:42:14.018: ISAKMP:(35002):SA has been authenticated with X.X.X.X
*Dec 26 12:42:14.018: ISAKMP:(35002):Detected port,floating to port = 59464
*Dec 26 12:42:14.018: ISAKMP: Trying to find existing peer
X.X.X.X/X.X.X.X/59464/Outside
*Dec 26 12:42:14.018: ISAKMP:(35002):SA authentication status:
authenticated

*Dec 26 12:42:14.018: ISAKMP AAA: Profile vpnclient.cisco.com in use with AAA list
VPN_Client for peer X.X.X.X
*Dec 26 12:42:14.018: ISAKMP AAA: No peer record for address X.X.X.X, port 59464.
Create Accounting Record
*Dec 26 12:42:14.018: ISAKMP: Attempting to insert peer index node : 0x2
*Dec 26 12:42:14.018: ISAKMP AAA: Create Accounting Record 0x7F779645B5E0 for peer
X.X.X.X/59464 - peer-index 0x2
*Dec 26 12:42:14.018: ISAKMP AAA: NAS Port Id is already set to X.X.X.X
*Dec 26 12:42:14.018: ISAKMP AAA: crypto_ikmp_aaa_acct_rec_create: pki_sd 0

*Dec 26 12:42:14.018: ISAKMP:(35002):Input = IKE_MSG_FROM_PEER, IKE_AM_EXCH
*Dec 26 12:42:14.018: ISAKMP:(35002):Old State = IKE_R_AM2 New State =
IKE_P1_COMPLETE

*Dec 26 12:42:14.018: ISAKMP:(35002):Need XAUTH
*Dec 26 12:42:14.018: ISAKMP: set new node 2793554424 to CONF_XAUTH
*Dec 26 12:42:14.018: ISAKMP/xauth: request attribute XAUTH_USER_NAME_V2
*Dec 26 12:42:14.018: ISAKMP/xauth: request attribute XAUTH_USER_PASSWORD_V2
*Dec 26 12:42:14.018: ISAKMP:(35002): initiating peer config to X.X.X.X.
ID = 2793554424
*Dec 26 12:42:14.018: ISAKMP:(35002): sending packet to X.X.X.X my_port 4500
peer_port 59464 (R) CONF_XAUTH
*Dec 26 12:42:14.018: ISAKMP:(35002):Sending an IKE IPv4 Packet.
*Dec 26 12:42:14.018: ISAKMP:(35002):Input = IKE_MSG_INTERNAL,
IKE_PHASE1_COMPLETE
*Dec 26 12:42:14.018: ISAKMP:(35002):Old State = IKE_P1_COMPLETE New State =
IKE_XAUTH_REQ_SENT

*Dec 26 12:42:21.572: ISAKMP (35002): received packet from X.X.X.X dport 4500
sport 59464 Mgmt-intf (R) CONF_XAUTH
*Dec 26 12:42:21.572: ISAKMP:(35002):processing transaction payload from
X.X.X.X. message ID = 2793554424
*Dec 26 12:42:21.572: ISAKMP: Config payload REPLY
*Dec 26 12:42:21.572: ISAKMP/xauth: reply attribute XAUTH_USER_NAME_V2
*Dec 26 12:42:21.572: ISAKMP/xauth: reply attribute XAUTH_USER_PASSWORD_V2
*Dec 26 12:42:21.572: ISAKMP AAA: NAS Port Id is already set to X.X.X.X
*Dec 26 12:42:21.572: ISAKMP/Authen: unique id = 19
*Dec 26 12:42:21.572: ISAKMP:(35002):AAA Authen: setting up authen_request
*Dec 26 12:42:21.572: AAA/AUTHEN/LOGIN (00000013): Pick method list 'VPN_Client'
*Dec 26 12:42:21.572: ISAKMP:(35002):AAA Authen: Successfully sent authen
info to AAA

*Dec 26 12:42:21.572: ISAKMP:(35002):deleting node 2793554424 error FALSE
reason "Done with xauth request/reply exchange"
*Dec 26 12:42:21.572: ISAKMP:(35002):Input = IKE_MSG_FROM_PEER, IKE_CFG_REPLY
*Dec 26 12:42:21.572: ISAKMP:(35002):Old State = IKE_XAUTH_REQ_SENT New
State = IKE_XAUTH_AAA_CONT_LOGIN_AWAIT
*Dec 26 12:42:21.573: RADIUS/ENCODE(00000013):Orig. component type = VPN IPSEC
*Dec 26 12:42:21.573: RADIUS: AAA Unsupported Attr: interface [221]
13 32631
*Dec 26 12:42:21.573: RADIUS/ENCODE(00000013): dropping service type,
"radius-server attribute 6 on-for-login-auth" is off
*Dec 26 12:42:21.573: RADIUS(00000013): Config NAS IP: 0.0.0.0
*Dec 26 12:42:21.573: RADIUS(00000013): Config NAS IPv6: ::
*Dec 26 12:42:21.573: Getting session id for EXEC(00000013) : db=7F7792DEEAB8
*Dec 26 12:42:21.573: RADIUS/ENCODE(00000013): acct_session_id: 8
*Dec 26 12:42:21.573: RADIUS(00000013): sending
*Dec 26 12:42:21.573: RADIUS/ENCODE: Best Local IP-Address X.X.X.X for
Radius-Server X.X.X.X
*Dec 26 12:42:21.573: RADIUS(00000013): Sending a IPv4 Radius Packet
*Dec 26 12:42:21.573: RADIUS(00000013): Send Access-Request to 10.88.171.27:1645
id 1645/1,len 95
*Dec 26 12:42:21.573: RADIUS: authenticator B6 8C 79 D9 91 0C 79 50 - CB B0
2A 87 2A 61 03 E8
*Dec 26 12:42:21.573: RADIUS: User-Name [1] 10 "vpnclient-user"
*Dec 26 12:42:21.573: RADIUS: User-Password [2] 18 *
*Dec 26 12:42:21.573: RADIUS: Calling-Station-Id [31] 14 "X.X.X.X"
*Dec 26 12:42:21.573: RADIUS: NAS-Port-Type [61] 6 Virtual [5]
*Dec 26 12:42:21.573: RADIUS: NAS-Port [5] 6 0
*Dec 26 12:42:21.573: RADIUS: NAS-Port-Id [87] 15 "X.X.X.X"
*Dec 26 12:42:21.573: RADIUS: NAS-IP-Address [4] 6 X.X.X.X
*Dec 26 12:42:21.573: RADIUS(00000013): Started 5 sec timeout
*Dec 26 12:42:21.671: RADIUS: Received from id 1645/1 X.X.X.X:1645, Access-Accept,
len 56
*Dec 26 12:42:21.671: RADIUS: authenticator E7 C1 B1 3D 04 59 48 22 - 4B 80 9D
1A 5E CA 0A A6
*Dec 26 12:42:21.671: RADIUS: User-Name [1] 10 "vpnclient-user"
*Dec 26 12:42:21.671: RADIUS: Class [25] 26
*Dec 26 12:42:21.671: RADIUS: 43 41 43 53 3A 41 43 53 2D 35 78 2F 31 37 33 32
[CACS:ACS-5x/1732]
*Dec 26 12:42:21.671: RADIUS: 37 32 35 30 33 2F 31 34 [72503/14]
*Dec 26 12:42:21.671: RADIUS(00000013): Received from id 1645/1
*Dec 26 12:42:21.672: ISAKMP:(35002):ISAKMP/author: Class attribute (len=24)
'CACS:ACS-5x/173272503/14'
*Dec 26 12:42:21.672: ISAKMP:(35002):AAA Authen: No group attrs added
*Dec 26 12:42:21.672: ISAKMP: set new node 1771945814 to CONF_XAUTH
*Dec 26 12:42:21.672: ISAKMP:(35002): initiating peer config to X.X.X.X. ID =
1771945814
*Dec 26 12:42:21.672: ISAKMP:(35002): sending packet to X.X.X.X my_port 4500
peer_port 59464 (R) CONF_XAUTH
*Dec 26 12:42:21.672: ISAKMP:(35002):Sending an IKE IPv4 Packet.
*Dec 26 12:42:21.672: ISAKMP:(35002):Input = IKE_MSG_FROM_AAA,
IKE_AAA_CONT_LOGIN
*Dec 26 12:42:21.672: ISAKMP:(35002):Old State = IKE_XAUTH_AAA_CONT_LOGIN_AWAIT
New State = IKE_XAUTH_SET_SENT
*Dec 26 12:42:21.759: ISAKMP (35002): received packet from X.X.X.X dport 4500 sport
59464 Mgmt-intf (R) CONF_XAUTH
*Dec 26 12:42:21.759: ISAKMP:(35002):processing transaction payload from X.X.X.X.
message ID = 1771945814
*Dec 26 12:42:21.759: ISAKMP: Config payload ACK
*Dec 26 12:42:21.759: ISAKMP:(35002): (blank) XAUTH ACK Processed
*Dec 26 12:42:21.759: ISAKMP:(35002):deleting node 1771945814 error FALSE reason
"Transaction mode done"
*Dec 26 12:42:21.759: ISAKMP:(35002):Talking to a Unity Client

*Dec 26 12:42:21.759: ISAKMP:(35002):Input = IKE_MSG_FROM_PEER, IKE_CFG_ACK
*Dec 26 12:42:21.759: ISAKMP:(35002):Old State = IKE_XAUTH_SET_SENT New State =
IKE_P1_COMPLETE

*Dec 26 12:42:21.759: ISAKMP:(35002):Input = IKE_MSG_INTERNAL, IKE_PHASE1_COMPLETE
*Dec 26 12:42:21.759: ISAKMP:(35002):Old State = IKE_P1_COMPLETE New State =
IKE_P1_COMPLETE

*Dec 26 12:42:21.763: ISAKMP (35002): received packet from X.X.X.X dport 4500 sport
59464 Mgmt-intf (R) QM_IDLE
*Dec 26 12:42:21.763: ISAKMP: set new node 3504137478 to QM_IDLE
*Dec 26 12:42:21.763: ISAKMP:(35002):processing transaction payload from X.X.X.X.
message ID = 3504137478
*Dec 26 12:42:21.763: ISAKMP: Config payload REQUEST
*Dec 26 12:42:21.763: ISAKMP:(35002):checking request:
*Dec 26 12:42:21.763: ISAKMP: IP4_ADDRESS
*Dec 26 12:42:21.763: ISAKMP: IP4_NETMASK
*Dec 26 12:42:21.763: ISAKMP: IP4_DNS
*Dec 26 12:42:21.763: ISAKMP: IP4_NBNS
*Dec 26 12:42:21.763: ISAKMP: ADDRESS_EXPIRY
*Dec 26 12:42:21.763: ISAKMP: MODECFG_BANNER
*Dec 26 12:42:21.763: ISAKMP: MODECFG_SAVEPWD
*Dec 26 12:42:21.763: ISAKMP: DEFAULT_DOMAIN
*Dec 26 12:42:21.763: ISAKMP: SPLIT_INCLUDE
*Dec 26 12:42:21.763: ISAKMP: SPLIT_DNS
*Dec 26 12:42:21.763: ISAKMP: PFS
*Dec 26 12:42:21.763: ISAKMP: MODECFG_BROWSER_PROXY
*Dec 26 12:42:21.763: ISAKMP: BACKUP_SERVER
*Dec 26 12:42:21.763: ISAKMP: MODECFG_SMARTCARD_REMOVAL_DISCONNECT
*Dec 26 12:42:21.763: ISAKMP: APPLICATION_VERSION
*Dec 26 12:42:21.763: ISAKMP: Client Version is : Cisco Systems VPN Client
5.0.07.0440:WinNTp
*Dec 26 12:42:21.763: ISAKMP: FW_RECORD
*Dec 26 12:42:21.763: ISAKMP: MODECFG_HOSTNAME
*Dec 26 12:42:21.763: ISAKMP:(35002):ISAKMP/author: setting up the authorization
request for vpnclient
*Dec 26 12:42:21.763: AAA/AUTHOR (0x13): Pick method list 'login_local'
***Dec 26 12:42:21.763: ISAKMP/author: Author request for group vpnclientsuccessfully
sent to AAA**
*Dec 26 12:42:21.763: ISAKMP:(35002):Input = IKE_MSG_FROM_PEER, IKE_CFG_REQUEST
*Dec 26 12:42:21.763: ISAKMP:(35002):Old State = IKE_P1_COMPLETE New State =
IKE_CONFIG_AUTHOR_AAA_AWAIT

*Dec 26 12:42:21.764: ISAKMP:(0):ISAKMP/author: received callback from AAA
AAA/AUTHOR/IKE: Processing AV tunnel-password
AAA/AUTHOR/IKE: Processing AV default-domain
AAA/AUTHOR/IKE: Processing AV addr-pool
AAA/AUTHOR/IKE: Processing AV dns-servers
AAA/AUTHOR/IKE: Processing AV wins-servers
*Dec 26 12:42:21.764:
AAA/AUTHOR/IKE: no WINS addresses
AAA/AUTHOR/IKE: Processing AV route-metric
AAA/AUTHOR/IKE: Processing AV max-users
AAA/AUTHOR/IKE: Processing AV max-logins
AAA/AUTHOR/IKE: Processing AV netmask
*Dec 26 12:42:21.764: ISAKMP:(35002):ISAKMP/author: No Class attributes
*Dec 26 12:42:21.764: ISAKMP:(35002):attributes sent in message:
*Dec 26 12:42:21.764: Address: 0.2.0.0
*Dec 26 12:42:21.766: ISAKMP:(35002):allocating address X.X.X.X
*Dec 26 12:42:21.766: ISAKMP: Sending private address: X.X.X.X
*Dec 26 12:42:21.766: ISAKMP: Sending subnet mask: 255.255.255.0
*Dec 26 12:42:21.766: ISAKMP: Sending IP4_DNS server address: X.X.X.X
*Dec 26 12:42:21.766: ISAKMP: Sending ADDRESS_EXPIRY seconds left to use the
address: 86392

```

*Dec 26 12:42:21.766: ISAKMP: Sending save password reply value 0
*Dec 26 12:42:21.766: ISAKMP: Sending DEFAULT_DOMAIN default domain name:
vpncient.cisco.com
*Dec 26 12:42:21.766: ISAKMP: Sending smartcard_removal_disconnect reply
value 0
*Dec 26 12:42:21.766: ISAKMP: Sending APPLICATION_VERSION string: Cisco IOS Software,
IOS-XE Software (X86_64_LINUX_IOSD-ADVENTERPRISEK9-M), Version 15.2(4)S,
RELEASE SOFTWARE (fc4)
Technical Support: http://www.cisco.com/techsupport
Copyright (c) 1986-2012 by Cisco Systems, Inc.
Compiled Mon 23-Jul-12 20:02 by mcpre
*Dec 26 12:42:21.766: ISAKMP:(35002): Unknown Attr: MODECFG_HOSTNAME (0x700A)
*Dec 26 12:42:21.766: ISAKMP:(35002): responding to peer config from 72.163.84.76.
ID = 3504137478
*Dec 26 12:42:21.766: ISAKMP: Marking node 3504137478 for late deletion
*Dec 26 12:42:21.766: ISAKMP:(35002): sending packet to X.X.X.X my_port 4500 peer_port
59464 (R) CONF_ADDR
*Dec 26 12:42:21.766: ISAKMP:(35002):Sending an IKE IPv4 Packet.
*Dec 26 12:42:21.766: ISAKMP:(35002):Talking to a Unity Client
*Dec 26 12:42:21.766: ISAKMP:(35002):Input = IKE_MESG_FROM_AAA, IKE_AAA_GROUP_ATTR
*Dec 26 12:42:21.766: ISAKMP:(35002):Old State = IKE_CONFIG_AUTHOR_AAA_AWAIT New
State = IKE_P1_COMPLETE

*Dec 26 12:42:21.766: ISAKMP:FSM error - Message from AAA grp/user.

*Dec 26 12:42:21.766: ISAKMP:(35002):Input = IKE_MESG_INTERNAL, IKE_PHASE1_COMPLETE
*Dec 26 12:42:21.766: ISAKMP:(35002):Old State = IKE_P1_COMPLETE New State =
IKE_P1_COMPLETE

```

ルータがRADIUSサーバに対して認可するように設定されている場合、キーを取得するには（事前共有認証の場合）、RADIUSサーバに対してアクセス要求クエリを実行する必要があるため、機能しません。ただし、アクセス要求クエリではRADIUSAに送信するユーザ名が必要です。XAUTHはまだ実行されていないため、クライアントユーザ名を使用することはできません。この場合、代わりにグループ名をユーザ名として使用します。ただし、RADIUSサーバは、そのIDによってユーザを確認するように設定されていないため、要求を拒否します。このため、フェーズ1は完了せず、ユーザはクレデンシャルの入力を求められることはありません。

動作設定

ルータの設定

ルータの設定を次に示します。

```

aaa group server radius Radius-Server
server-private X.X.X.X auth-port 1812 acct-port 1813 key 7 <removed>

```

```

aaa authentication login VPN_Client group Radius-Server
aaa authorization network VPN_Client Radius-Server
aaa accounting network VPN_Client start-stop group Radius-Server

```

```

crypto isakmp policy 10
encr 3des
authentication pre-share
group 2

```

```
crypto isakmp client configuration group vpnclient
key <removed>
dns x.x.x.x
wins x.x.x.x
domain cisco.com
pool VPN_Pool
acl 101
group-lock
```

```
crypto isakmp profile vpnclient.cisco.com
match identity group vpnclinet
client authentication list VPN_Client
isakmp authorization list VPN_Client
client configuration address respond
accounting VPN_Client
```

```
crypto ipsec transform-set TRANS-DES esp-des esp-md5-hmac
mode tunnel
```

```
crypto dynamic-map DYN-MAP 10
set transform-set TRANS-DES
set isakmp-profile vpnclient.cisco.com
reverse-route
```

```
crypto map VPN local-address TenGigabitEthernet 0/0/0
crypto map VPN 10 ipsec-isakmp dynamic DYN-MAP
```

```
interface TenGigabitEthernet0/0/0
ip address X.X.X.X 255.255.255.0
crypto map VPN
```

RADIUS サーバの設定

RADIUSサーバを設定するには、次の手順を実行します。

1. Groupnameユーザーを構成します。

General

Name: vpnclient.cisco.com Status: Enabled

Description: Profile por VPN Clients

Identity Group: All Groups

Password Information

Password must:

- Contain 4 - 32 characters

Password:

Confirm Password:

Change password on next login

Enable Password Information

Enable Password Information Password must:

- Contain 4 - 32 characters

Enable Password:

Confirm Password:

User Information

ACS-RESERVED-Never-Expired:

= Required fields

2. すべての属性値(AV)ペアを付与するように認可プロファイルを設定します。

General | Common Tasks | **RADIUS Attributes**

Name: vpnclient.cisco.com

Description: Profile por VPN Clients

= Required fields

Policy Elements > Authorization and Permissions > Network Access > Authorization Profiles > Create

***General** | Common Tasks | **RADIUS Attributes**

Common Tasks Attributes

Attribute	Type	Value

Manually Entered

Attribute	Type	Value
CVPN3000/ASA/PIX7.x-IPSec-Authentication	Enumeration	Internal
CVPN3000/ASA/PIX7.x-Group-Based-Address	String	VPN_Pool
CVPN3000/ASA/PIX7.x-Access-List-Inbound	String	101
CVPN3000/ASA/PIX7.x-IPSec-Group-Name	String	vpnclient.cisco.com
CVPN3000/ASA/PIX7.x-IPSec-Split-DNS-Nan	String	X.X.X.X

Dictionary Type: RADIUS-Cisco VPN 3000/ASA/PIX 7.x


RADIUS Attribute:


Attribute Type:

Attribute Value: Static

= Required fields





3. 接続を許可し、そのプロファイルを使用するようにアクセスポリシーを設定します。

General
Name: Status: 

 The Customize button in the lower right area of the policy rules screen controls which policy conditions and results are available here for use in policy rules.

Conditions
 NDG:Location:
 Time And Date:
 Device IP Address:

Results
Authorization Profiles:

You may select multiple authorization profiles. Attributes defined in multiple profiles will use the value from the first profile defined.

トラブルシューティング

アウトプット インタープリタ ツール (登録ユーザ専用) は、特定の show コマンドをサポートしています。show コマンドの出力の分析を表示するには、Output Interpreter Tool を使用します。

注 : debug コマンドを使用する前に、[「デバッグ コマンドの重要な情報」を参照してください。](#)

VPNヘッドエンドで次のデバッグが有効になります。

Internet Security Association and Key Management Protocol(ISAKMP)デバッグ

```
debug crypto isakmp
```

AAAデバッグ

```
debug aaa authentication  
debug aaa authorization  
debug aaa accounting  
debug radius authentication
```