

# Re: IAS as RADIUS

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*Source:*

<http://www.tech-archive.net/Archive/Windows/microsoft.public.windows.server.networking/2006-09/msg00216.html>

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- *From:* "the" <[shirtrippa@xxxxxxxxxxxx](mailto:shirtrippa@xxxxxxxxxxxx)>
  - *Date:* Mon, 11 Sep 2006 16:56:19 -0600
- 

not sure exactly what the deal is, but i noticed auto enrollment errors in the local winxp event viewer, i forced a gpupdate locally and it worked!!! im so happy!!!!!!! thank all of you so much for your help!

"the" <[shirtrippa@xxxxxxxxxxxx](mailto:shirtrippa@xxxxxxxxxxxx)> wrote in message [news:Ocbg8lf1GHA.1288@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:Ocbg8lf1GHA.1288@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)

hey guys,

just cant seem to get this licked. It seems i got everything talk to each other, i just cant seem to get it to authenticate. I went through this sheet <http://technet2.microsoft.com/WindowsServer/en/library/8f5c89d5-fdaf-430c-9ef4-318f8c15baf11033.msp?mfr=true> to make as certain as i'm able that my authentication is set up, but it seems my ability is sub par. My current lab configuration is a single win 2k3 enterprise server at 10.1.1.2, a cisco 2950 12 port switch at 10.1.1.1 and a windows xp machine at 10.1.1.3 My authentication for the server is set up for Peap- mschap2 same as the client, PEAP using EAP- mschap2. I've tried md5 challenge and this method to no avail, i always get rejected. i'm not familiar with certificate based authentication, and am doing as much reading as i can on it, but for giggles here is my system error log, the debug readout from the switch, and a packet capture from the client machine. if anyone has any ideas that 'd be great. i feel like im right there on the verge of getting this to work. This lab is in an AD environment, and is set to up users from AD, its also a CA and DC running IAS. the lab has no inet access. the user is forrest\_greene@xxxxxxxxxxxx and is a member of wiredusers and administrators, the user and computer both are allowed dial in access, and the computer is also a member of WiredUsers. the only access policy i have in IAS is to be in the wiredusers group, and have an ethernet connection. the only connection request policy is to have an ethernet connection. anything im unaware of would be greatly appreciated. thanks again guys. the following is event viewer, followed by corresponding cisco "debug radius" followed by corresponding packet capture from the winxp machine.

Event Type: Information

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Event Source: IAS

Event Category: None

Event ID: 5050

Date: 9/11/2006

Time: 3:09:42 PM

User: N/A

Computer: MOTO-AD

Description:

A LDAP connection with domain controller MOTO-AD.motosat.int for domain MOTOSAT is established.

For more information, see Help and Support Center at <http://go.microsoft.com/fwlink/events.asp>.

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Event Type: Information

Event Source: IAS

Event Category: None

Event ID: 20190

Date: 9/11/2006

Time: 3:09:42 PM

User: N/A

Computer: MOTO-AD

Description:

Because no certificate has been configured for clients dialing in with EAP-TLS, a default certificate is being sent to user motosat\forrest\_greene. Please go to the user's Remote Access Policy and configure the Extensible Authentication Protocol (EAP).

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For more information, see Help and Support Center at  
<http://go.microsoft.com/fwlink/events.asp>.

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Event Type: Information

Event Source: IAS

Event Category: None

Event ID: 20190

Date: 9/11/2006

Time: 3:09:42 PM

User: N/A

Computer: MOTO-AD

Description:

Because no certificate has been configured for clients dialing in with EAP-TLS, a default certificate is being sent to user motosat\forrest\_greene. Please go to the user's Remote Access Policy and configure the Extensible Authentication Protocol (EAP).

For more information, see Help and Support Center at  
<http://go.microsoft.com/fwlink/events.asp>.

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Event Type: Warning

Event Source: IAS

Event Category: None

Event ID: 2

Date: 9/11/2006

Time: 3:10:20 PM

User: N/A

Computer: MOTO-AD

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Description:

User MOTOSAT\forrest\_greene was denied access.

Fully-Qualified-User-Name = motosat.int/employees/Forrest Greene

NAS-IP-Address = 10.1.1.1

NAS-Identifier = <not present>

Called-Station-Identifier = 00-15-62-9D-CA-41

Calling-Station-Identifier = 00-03-6D-00-67-CA

Client-Friendly-Name = radius test

Client-IP-Address = 10.1.1.1

NAS-Port-Type = Ethernet

NAS-Port = 50001

Proxy-Policy-Name = test

Authentication-Provider = Windows

Authentication-Server = <undetermined>

Policy-Name = test2

Authentication-Type = PEAP

EAP-Type = <undetermined>

Reason-Code = 262

Reason = The supplied message is incomplete. The signature was not verified.

For more information, see Help and Support Center at <http://go.microsoft.com/fwlink/events.asp>.

Data:

0000: 18 03 09 80 ...?

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cisco capture as follows:

otocol debugging is on

Switch#

06:38:55: RADIUS: ustruct sharecount=1

06:38:55: RADIUS: EAP-login: length of radius packet = 159 code = 1

06:38:55: RADIUS: Initial Transmit FastEthernet0/1 id 57 10.1.1.2:1812, Access-Request, len 159

06:38:55: Attribute 4 6 0A010101

06:38:55: Attribute 5 6 0000C351

06:38:55: Attribute 61 6 0000000F

06:38:55: Attribute 1 24 4D4F544F

06:38:55: Attribute 30 19 30302D31

06:38:55: Attribute 31 19 30302D30

06:38:55: Attribute 6 6 00000002

06:38:55: Attribute 12 6 000005DC

06:38:55: Attribute 79 29 0200001B

06:38:55: Attribute 80 18 3BB4CCE0

06:38:55: RADIUS: Received from id 57 10.1.1.2:1812, Access-Challenge, len 77

06:38:55: Attribute 27 6 0000001E

06:38:55: Attribute 79 8 01010006

06:38:55: Attribute 24 25 0C7B02AA

06:38:55: Attribute 80 18 9277991A

06:38:55: RADIUS: EAP-login: length of eap packet = 6

06:38:55: RADIUS: EAP-login: got challenge from radius

06:38:55: RADIUS: ustruct sharecount=1

06:38:55: RADIUS: EAP-login: length of radius packet = 237 code = 1

06:38:55: RADIUS: Initial Transmit FastEthernet0/1 id 58 10.1.1.2:1812, Access-Request, len 237

06:38:55: Attribute 4 6 0A010101

06:38:55: Attribute 5 6 0000C351

06:38:55: Attribute 61 6 0000000F

06:38:55: Attribute 1 24 4D4F544F

06:38:55: Attribute 30 19 30302D31

06:38:55: Attribute 31 19 30302D30

06:38:55: Attribute 6 6 00000002

06:38:55: Attribute 12 6 000005DC

06:38:55: Attribute 24 25 0C7B02AA

06:38:55: Attribute 79 82 02010050

06:38:55: Attribute 80 18 7F965216

06:38:55: RADIUS: Received from id 58 10.1.1.2:1812, Access-Challenge, len 1577

06:38:55: Attribute 27 6 0000001E

06:38:55: Attribute 79 255 010205D8

06:38:55: Attribute 79 255 2D41442E

06:38:55: Attribute 79 255 03020730

06:38:55: Attribute 79 255 7361742C

06:38:55: Attribute 79 255 433D696E

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06:38:55: Attribute 79 233 82010100  
06:38:55: Attribute 24 25 0C7B02AA  
06:38:55: Attribute 80 18 101AADBDB  
06:38:55: RADIUS: EAP-login: length of eap packet = 1496  
06:38:55: RADIUS: EAP-login: got challenge from radius  
06:38:55: RADIUS: ustruct sharecount=1  
06:38:55: RADIUS: EAP-login: length of radius packet = 163 code = 1  
06:38:55: RADIUS: Initial Transmit FastEthernet0/1 id 59 10.1.1.2:1812,  
Access-Request, len 163  
06:38:55: Attribute 4 6 0A010101  
06:38:55: Attribute 5 6 0000C351  
06:38:55: Attribute 61 6 0000000F  
06:38:55: Attribute 1 24 4D4F544F  
06:38:55: Attribute 30 19 30302D31  
06:38:55: Attribute 31 19 30302D30  
06:38:55: Attribute 6 6 00000002  
06:38:55: Attribute 12 6 000005DC  
06:38:55: Attribute 24 25 0C7B02AA  
06:38:55: Attribute 79 8 02020006  
06:38:55: Attribute 80 18 8FB98B08  
06:38:55: RADIUS: Received from id 59 10.1.1.2:1812, Access-Challenge, len  
1577  
06:38:55: Attribute 27 6 0000001E  
06:38:55: Attribute 79 255 010305D8  
06:38:55: Attribute 79 255 55040613  
06:38:55: Attribute 79 255 0355040A  
06:38:55: Attribute 79 255 66696361  
06:38:55: Attribute 79 255 03550406  
06:38:55: Attribute 79 233 61737320  
06:38:55: Attribute 24 25 0C7B02AA  
06:38:55: Attribute 80 18 3F925939  
06:38:55: RADIUS: EAP-login: length of eap packet = 1496  
06:38:55: RADIUS: EAP-login: got challenge from radius  
06:38:55: RADIUS: ustruct sharecount=1  
06:38:55: RADIUS: EAP-login: length of radius packet = 163 code = 1  
06:38:55: RADIUS: Initial Transmit FastEthernet0/1 id 60 10.1.1.2:1812,  
Access-Request, len 163  
06:38:55: Attribute 4 6 0A010101  
06:38:55: Attribute 5 6 0000C351  
06:38:55: Attribute 61 6 0000000F  
06:38:55: Attribute 1 24 4D4F544F  
06:38:55: Attribute 30 19 30302D31  
06:38:55: Attribute 31 19 30302D30  
06:38:55: Attribute 6 6 00000002  
06:38:55: Attribute 12 6 000005DC  
06:38:55: Attribute 24 25 0C7B02AA  
06:38:55: Attribute 79 8 02030006  
06:38:55: Attribute 80 18 46F3A4E1  
06:38:55: RADIUS: Received from id 60 10.1.1.2:1812, Access-Challenge, len  
1577  
06:38:55: Attribute 27 6 0000001E

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06:38:55: Attribute 79 255 010405D8  
06:38:55: Attribute 79 255 27302506  
06:38:55: Attribute 79 255 62657254  
06:38:55: Attribute 79 255 7574686F  
06:38:55: Attribute 79 255 6C696320  
06:38:55: Attribute 79 233 0B300906  
06:38:55: Attribute 24 25 0C7B02AA  
06:38:55: Attribute 80 18 C0DD9730  
06:38:55: RADIUS: EAP-login: length of eap packet = 1496  
06:38:55: RADIUS: EAP-login: got challenge from radius  
06:38:55: RADIUS: ustruct sharecount=1  
06:38:55: RADIUS: EAP-login: length of radius packet = 163 code = 1  
06:38:55: RADIUS: Initial Transmit FastEthernet0/1 id 61 10.1.1.2:1812,  
Access-Request, len 163  
06:38:55: Attribute 4 6 0A010101  
06:38:55: Attribute 5 6 0000C351  
06:38:55: Attribute 61 6 0000000F  
06:38:55: Attribute 1 24 4D4F544F  
06:38:55: Attribute 30 19 30302D31  
06:38:55: Attribute 31 19 30302D30  
06:38:55: Attribute 6 6 00000002  
06:38:55: Attribute 12 6 000005DC  
06:38:55: Attribute 24 25 0C7B02AA  
06:38:55: Attribute 79 8 02040006  
06:38:55: Attribute 80 18 AEB33779  
06:38:55: RADIUS: Received from id 61 10.1.1.2:1812, Access-Challenge, len  
286  
06:38:55: Attribute 27 6 0000001E  
06:38:55: Attribute 79 217 010500D7  
06:38:55: Attribute 24 25 0C7B02AA  
06:38:55: Attribute 80 18 65079E42  
06:38:55: RADIUS: EAP-login: length of eap packet = 215  
06:38:55: RADIUS: EAP-login: got challenge from radius  
06:38:57: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to up  
06:39:33: RADIUS: ustruct sharecount=1  
06:39:33: RADIUS: EAP-login: length of radius packet = 163 code = 1  
06:39:33: RADIUS: Initial Transmit FastEthernet0/1 id 62 10.1.1.2:1812,  
Access-Request, len 163  
06:39:33: Attribute 4 6 0A010101  
06:39:33: Attribute 5 6 0000C351  
06:39:33: Attribute 61 6 0000000F  
06:39:33: Attribute 1 24 4D4F544F  
06:39:33: Attribute 30 19 30302D31  
06:39:33: Attribute 31 19 30302D30  
06:39:33: Attribute 6 6 00000002  
06:39:33: Attribute 12 6 000005DC  
06:39:33: Attribute 24 25 0C7B02AA  
06:39:33: Attribute 79 8 02050006  
06:39:33: Attribute 80 18 11C024A3  
06:39:33: RADIUS: Received from id 62 10.1.1.2:1812, Access-Reject, len 44  
06:39:33: Attribute 79 6 04060004

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06:39:33: Attribute 80 18 3098D63E  
06:39:33: RADIUS: EAP-login: length of eap packet = 4  
06:39:33: RADIUS: EAP-login: got reject from radius  
06:39:33: RADIUS: ustruct sharecount=1  
06:39:33: RADIUS: EAP-login: length of radius packet = 159 code = 1  
06:39:33: RADIUS: Initial Transmit FastEthernet0/1 id 63 10.1.1.2:1812, Access-Request, len 159  
06:39:33: Attribute 4 6 0A010101  
06:39:33: Attribute 5 6 0000C351  
06:39:33: Attribute 61 6 0000000F  
06:39:33: Attribute 1 24 4D4F544F  
06:39:33: Attribute 30 19 30302D31  
06:39:33: Attribute 31 19 30302D30  
06:39:33: Attribute 6 6 00000002  
06:39:33: Attribute 12 6 000005DC  
06:39:33: Attribute 79 29 0206001B  
06:39:33: Attribute 80 18 2CFED399  
06:39:33: RADIUS: Received from id 63 10.1.1.2:1812, Access-Challenge, len 77  
06:39:33: Attribute 27 6 0000001E  
06:39:33: Attribute 79 8 01070006  
06:39:33: Attribute 24 25 0C7D02AB  
06:39:33: Attribute 80 18 3BC7969A  
06:39:33: RADIUS: EAP-login: length of eap packet = 6  
06:39:33: RADIUS: EAP-login: got challenge from radius  
06:39:33: RADIUS: ustruct sharecount=1  
06:39:33: RADIUS: EAP-login: length of radius packet = 237 code = 1  
06:39:33: RADIUS: Initial Transmit FastEthernet0/1 id 64 10.1.1.2:1812, Access-Request, len 237  
06:39:33: Attribute 4 6 0A010101  
06:39:33: Attribute 5 6 0000C351  
06:39:33: Attribute 61 6 0000000F  
06:39:33: Attribute 1 24 4D4F544F  
06:39:33: Attribute 30 19 30302D31  
06:39:33: Attribute 31 19 30302D30  
06:39:33: Attribute 6 6 00000002  
06:39:33: Attribute 12 6 000005DC  
06:39:33: Attribute 24 25 0C7D02AB  
06:39:33: Attribute 79 82 02070050  
06:39:33: Attribute 80 18 0517879B  
06:39:33: RADIUS: Received from id 64 10.1.1.2:1812, Access-Challenge, len 1577  
06:39:33: Attribute 27 6 0000001E  
06:39:33: Attribute 79 255 010805D8  
06:39:33: Attribute 79 255 2D41442E  
06:39:33: Attribute 79 255 03020730  
06:39:33: Attribute 79 255 7361742C  
06:39:33: Attribute 79 255 433D696E  
06:39:33: Attribute 79 233 82010100  
06:39:33: Attribute 24 25 0C7D02AB  
06:39:33: Attribute 80 18 6C62010D

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06:39:33: RADIUS: EAP-login: length of eap packet = 1496  
06:39:33: RADIUS: EAP-login: got challenge from radius  
06:39:33: RADIUS: ustruct sharecount=1  
06:39:33: RADIUS: EAP-login: length of radius packet = 163 code = 1  
06:39:33: RADIUS: Initial Transmit FastEthernet0/1 id 65 10.1.1.2:1812, Access-Request, len 163  
06:39:33: Attribute 4 6 0A010101  
06:39:33: Attribute 5 6 0000C351  
06:39:33: Attribute 61 6 0000000F  
06:39:33: Attribute 1 24 4D4F544F  
06:39:33: Attribute 30 19 30302D31  
06:39:33: Attribute 31 19 30302D30  
06:39:33: Attribute 6 6 00000002  
06:39:33: Attribute 12 6 000005DC  
06:39:33: Attribute 24 25 0C7D02AB  
06:39:33: Attribute 79 8 02080006  
06:39:33: Attribute 80 18 8E5F5B1D  
06:39:33: RADIUS: Received from id 65 10.1.1.2:1812, Access-Challenge, len 1577  
06:39:33: Attribute 27 6 0000001E  
06:39:33: Attribute 79 255 010905D8  
06:39:33: Attribute 79 255 55040613  
06:39:33: Attribute 79 255 0355040A  
06:39:33: Attribute 79 255 66696361  
06:39:33: Attribute 79 255 03550406  
06:39:33: Attribute 79 233 61737320  
06:39:33: Attribute 24 25 0C7D02AB  
06:39:33: Attribute 80 18 E55B00D2  
06:39:33: RADIUS: EAP-login: length of eap packet = 1496  
06:39:33: RADIUS: EAP-login: got challenge from radius  
06:39:33: RADIUS: ustruct sharecount=1  
06:39:33: RADIUS: EAP-login: length of radius packet = 163 code = 1  
06:39:33: RADIUS: Initial Transmit FastEthernet0/1 id 66 10.1.1.2:1812, Access-Request, len 163  
06:39:33: Attribute 4 6 0A010101  
06:39:33: Attribute 5 6 0000C351  
06:39:33: Attribute 61 6 0000000F  
06:39:33: Attribute 1 24 4D4F544F  
06:39:33: Attribute 30 19 30302D31  
06:39:33: Attribute 31 19 30302D30  
06:39:33: Attribute 6 6 00000002  
06:39:33: Attribute 12 6 000005DC  
06:39:33: Attribute 24 25 0C7D02AB  
06:39:33: Attribute 79 8 02090006  
06:39:33: Attribute 80 18 15D32075  
06:39:33: RADIUS: Received from id 66 10.1.1.2:1812, Access-Challenge, len 1577  
06:39:33: Attribute 27 6 0000001E  
06:39:33: Attribute 79 255 010A05D8  
06:39:33: Attribute 79 255 27302506  
06:39:33: Attribute 79 255 62657254

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06:39:33: Attribute 79 255 7574686F  
06:39:33: Attribute 79 255 6C696320  
06:39:33: Attribute 79 233 0B300906  
06:39:33: Attribute 24 25 0C7D02AB  
06:39:33: Attribute 80 18 01E4BCC9  
06:39:33: RADIUS: EAP-login: length of eap packet = 1496  
06:39:33: RADIUS: EAP-login: got challenge from radius  
06:39:33: RADIUS: ustruct sharecount=1  
06:39:33: RADIUS: EAP-login: length of radius packet = 163 code = 1  
06:39:33: RADIUS: Initial Transmit FastEthernet0/1 id 67 10.1.1.2:1812, Access-Request, len 163  
06:39:33: Attribute 4 6 0A010101  
06:39:33: Attribute 5 6 0000C351  
06:39:33: Attribute 61 6 0000000F  
06:39:33: Attribute 1 24 4D4F544F  
06:39:33: Attribute 30 19 30302D31  
06:39:33: Attribute 31 19 30302D30  
06:39:33: Attribute 6 6 00000002  
06:39:33: Attribute 12 6 000005DC  
06:39:33: Attribute 24 25 0C7D02AB  
06:39:33: Attribute 79 8 020A0006  
06:39:33: Attribute 80 18 DD9793A0  
06:39:33: RADIUS: Received from id 67 10.1.1.2:1812, Access-Challenge, len 286  
06:39:33: Attribute 27 6 0000001E  
06:39:33: Attribute 79 217 010B00D7  
06:39:33: Attribute 24 25 0C7D02AB  
06:39:33: Attribute 80 18 60DBBA04  
06:39:33: RADIUS: EAP-login: length of eap packet = 215  
06:39:33: RADIUS: EAP-login: got challenge from radius  
06:39:33: RADIUS: ustruct sharecount=1  
06:39:33: RADIUS: EAP-login: length of radius packet = 163 code = 1  
06:39:33: RADIUS: Initial Transmit FastEthernet0/1 id 68 10.1.1.2:1812, Access-Request, len 163  
06:39:33: Attribute 4 6 0A010101  
06:39:33: Attribute 5 6 0000C351  
06:39:33: Attribute 61 6 0000000F  
06:39:33: Attribute 1 24 4D4F544F  
06:39:33: Attribute 30 19 30302D31  
06:39:33: Attribute 31 19 30302D30  
06:39:33: Attribute 6 6 00000002  
06:39:33: Attribute 12 6 000005DC  
06:39:33: Attribute 24 25 0C7D02AB  
06:39:33: Attribute 79 8 020B0006  
06:39:33: Attribute 80 18 8B4C429D  
06:39:33: RADIUS: Received from id 68 10.1.1.2:1812, Access-Reject, len 44  
06:39:33: Attribute 79 6 040C0004  
06:39:33: Attribute 80 18 FB33306B  
06:39:33: RADIUS: EAP-login: length of eap packet = 4  
06:39:33: RADIUS: EAP-login: got reject from radius  
Switch#askl;djfhakl;sfnasd

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% Unknown command or computer name, or unable to find computer address  
Switch#  
06:39:59: %LINK-3-UPDOWN: Interface FastEthernet0/1, changed state to down  
06:40:01: %LINK-3-UPDOWN: Interface FastEthernet0/2, changed state to up  
06:40:03: %LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2,  
changed state to up

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ethreal packet captuer as follows:

No. Time Source Destination Protocol  
Info  
1 0.000000 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
EAP Failure

Frame 1 (60 bytes on wire, 60 bytes captured)  
Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol  
Info  
2 0.000836 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
EAP Request, Identity [RFC3748]

Frame 2 (60 bytes on wire, 60 bytes captured)  
Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol  
Info  
3 0.005753 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAP Response, Identity [RFC3748]

Frame 3 (45 bytes on wire, 45 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol  
Info  
4 0.008519 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
EAP Request, Identity [RFC3748]

Frame 4 (60 bytes on wire, 60 bytes captured)  
Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)

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802.1X Authentication

No. Time Source Destination Protocol

Info

5 0.008741 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAP Response, Identity [RFC3748]

Frame 5 (45 bytes on wire, 45 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)

802.1X Authentication

No. Time Source Destination Protocol

Info

6 0.047893 Intel\_fe:25:23 Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.2

Frame 6 (60 bytes on wire, 60 bytes captured)

Ethernet II, Src: Intel\_fe:25:23 (00:03:47:fe:25:23), Dst: Broadcast  
(ff:ff:ff:ff:ff:ff)

Address Resolution Protocol (request)

No. Time Source Destination Protocol

Info

7 0.056808 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
EAP Request, PEAP [Palekar]

Frame 7 (60 bytes on wire, 60 bytes captured)

Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)

802.1X Authentication

No. Time Source Destination Protocol

Info

8 0.066766 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
SSL Client Hello

Frame 8 (98 bytes on wire, 98 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)

802.1X Authentication

No. Time Source Destination Protocol

Info

9 0.097897 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
TLSv1 Server Hello, Certificate, Certificate Request, Server Hello Done

Frame 9 (1514 bytes on wire, 1514 bytes captured)

Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)

802.1X Authentication

Re: IAS as RADIUS

No. Time Source Destination Protocol

Info

10 0.100568 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAP Response, PEAP [Palekar]

Frame 10 (24 bytes on wire, 24 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol

Info

11 0.130651 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
TLSv1 Server Hello, Certificate, Certificate Request, Server Hello Done

Frame 11 (1514 bytes on wire, 1514 bytes captured)

Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol

Info

12 0.130989 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAP Response, PEAP [Palekar]

Frame 12 (24 bytes on wire, 24 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol

Info

13 0.162726 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
TLSv1 Server Hello, Certificate, Certificate Request, Server Hello Done

Frame 13 (1514 bytes on wire, 1514 bytes captured)

Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol

Info

14 0.163036 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAP Response, PEAP [Palekar]

Frame 14 (24 bytes on wire, 24 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

Re: IAS as RADIUS

No. Time Source Destination Protocol

Info

15 0.186343 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
TLSv1 Server Hello, Certificate, Certificate Request, Server Hello Done

Frame 15 (233 bytes on wire, 233 bytes captured)

Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:

Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)

802.1X Authentication

No. Time Source Destination Protocol

Info

16 0.238289 10.1.1.3 10.1.1.2 TCP 3107 >

ldap [SYN] Seq=0 Len=0 MSS=1460

Frame 16 (62 bytes on wire, 62 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)

Transmission Control Protocol, Src Port: 3107 (3107), Dst Port: ldap  
(389), Seq: 0, Len: 0

No. Time Source Destination Protocol

Info

17 3.280398 10.1.1.3 10.1.1.2 TCP 3107 >

ldap [SYN] Seq=0 Len=0 MSS=1460

Frame 17 (62 bytes on wire, 62 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)

Transmission Control Protocol, Src Port: 3107 (3107), Dst Port: ldap  
(389), Seq: 0, Len: 0

No. Time Source Destination Protocol

Info

18 9.296643 10.1.1.3 10.1.1.2 TCP 3107 >

ldap [SYN] Seq=0 Len=0 MSS=1460

Frame 18 (62 bytes on wire, 62 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)

Transmission Control Protocol, Src Port: 3107 (3107), Dst Port: ldap  
(389), Seq: 0, Len: 0

No. Time Source Destination Protocol

Info

19 9.904564 10.1.1.2 10.1.1.255 BROWSER

Become Backup Browser

Re: IAS as RADIUS

Frame 19 (223 bytes on wire, 223 bytes captured)  
Ethernet II, Src: Intel\_fe:25:23 (00:03:47:fe:25:23), Dst: Broadcast  
(ff:ff:ff:ff:ff:ff)  
Internet Protocol, Src: 10.1.1.2 (10.1.1.2), Dst: 10.1.1.255 (10.1.1.255)  
User Datagram Protocol, Src Port: netbios-dgm (138), Dst Port: netbios-dgm  
(138)  
NetBIOS Datagram Service  
SMB (Server Message Block Protocol)  
SMB MailSlot Protocol  
Microsoft Windows Browser Protocol

No. Time Source Destination Protocol  
Info  
20 15.224844 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 20 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1026 (1026), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
21 15.240165 10.1.1.3 10.1.1.2 TCP 3108 >  
ldap [SYN] Seq=0 Len=0 MSS=1460

Frame 21 (62 bytes on wire, 62 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
Transmission Control Protocol, Src Port: 3108 (3108), Dst Port: ldap  
(389), Seq: 0, Len: 0

No. Time Source Destination Protocol  
Info  
22 16.219286 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 22 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1026 (1026), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
23 17.219401 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Re: IAS as RADIUS

Frame 23 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1026 (1026), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
24 17.240852 10.1.1.3 10.1.1.2 DNS  
Standard query SRV  
\_ldap.\_tcp.Default-First-Site-Name.\_sites.dc.\_msdcs.motosat.int

Frame 24 (123 bytes on wire, 123 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 3109 (3109), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
25 18.235199 10.1.1.3 10.1.1.2 DNS  
Standard query SRV  
\_ldap.\_tcp.Default-First-Site-Name.\_sites.dc.\_msdcs.motosat.int

Frame 25 (123 bytes on wire, 123 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 3109 (3109), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
26 19.219905 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 26 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1026 (1026), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
27 19.219993 Runtop\_00:67:ca Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.3

Re: IAS as RADIUS

Frame 27 (42 bytes on wire, 42 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast  
(ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info  
28 19.235236 10.1.1.3 10.1.1.2 DNS  
Standard query SRV  
\_ldap.\_tcp.Default-First-Site-Name.\_sites.dc.\_msdcs.motosat.int

Frame 28 (123 bytes on wire, 123 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 3109 (3109), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
29 21.235422 10.1.1.3 10.1.1.2 DNS  
Standard query SRV  
\_ldap.\_tcp.Default-First-Site-Name.\_sites.dc.\_msdcs.motosat.int

Frame 29 (123 bytes on wire, 123 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 3109 (3109), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
30 22.748168 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 30 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
31 23.220587 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 31 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)

Re: IAS as RADIUS

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1026 (1026), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
32 23.220678 Runtop\_00:67:ca Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.3

Frame 32 (42 bytes on wire, 42 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast  
(ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info  
33 23.735688 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 33 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
34 24.735772 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 34 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
35 24.767902 10.1.1.3 10.1.1.255 NBNS Name  
query NB ENGIN\_LASER<00>

Frame 35 (92 bytes on wire, 92 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast  
(ff:ff:ff:ff:ff:ff)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.255 (10.1.1.255)  
User Datagram Protocol, Src Port: netbios-ns (137), Dst Port: netbios-ns  
(137)  
NetBIOS Name Service

Re: IAS as RADIUS

No. Time Source Destination Protocol  
Info  
36 25.235952 10.1.1.3 10.1.1.2 DNS  
Standard query SRV  
\_ldap.\_tcp.Default-First-Site-Name.\_sites.dc.\_msdcs.motosat.int

Frame 36 (123 bytes on wire, 123 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 3109 (3109), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
37 25.517054 10.1.1.3 10.1.1.255 NBNS Name  
query NB ENGIN\_LASER<00>

Frame 37 (92 bytes on wire, 92 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast (ff:ff:ff:ff:ff:ff)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.255 (10.1.1.255)  
User Datagram Protocol, Src Port: netbios-ns (137), Dst Port: netbios-ns (137)  
NetBIOS Name Service

No. Time Source Destination Protocol  
Info  
38 26.267154 10.1.1.3 10.1.1.255 NBNS Name  
query NB ENGIN\_LASER<00>

Frame 38 (92 bytes on wire, 92 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast (ff:ff:ff:ff:ff:ff)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.255 (10.1.1.255)  
User Datagram Protocol, Src Port: netbios-ns (137), Dst Port: netbios-ns (137)  
NetBIOS Name Service

No. Time Source Destination Protocol  
Info  
39 26.735962 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 39 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

Re: IAS as RADIUS

No. Time Source Destination Protocol  
Info  
40 26.736049 Runtop\_00:67:ca Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.3

Frame 40 (42 bytes on wire, 42 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast  
(ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info  
41 30.188507 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
TLSv1 Continuation Data, [Malformed Packet]

Frame 41 (233 bytes on wire, 233 bytes captured)  
Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication  
[Malformed Packet: SSL]

No. Time Source Destination Protocol  
Info  
42 30.736381 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 42 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
43 30.736469 Runtop\_00:67:ca Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.3

Frame 43 (42 bytes on wire, 42 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast  
(ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info  
44 37.741998 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAP Response, PEAP [Palekar]

Frame 44 (24 bytes on wire, 24 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)

Re: IAS as RADIUS

802.1X Authentication

No. Time Source Destination Protocol

Info

45 37.742263 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAPOL Start

Frame 45 (19 bytes on wire, 19 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:

Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)

802.1X Authentication

No. Time Source Destination Protocol

Info

46 37.747510 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
EAP Request, Identity [RFC3748]

Frame 46 (60 bytes on wire, 60 bytes captured)

Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:

Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)

802.1X Authentication

No. Time Source Destination Protocol

Info

47 37.747954 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAP Response, Identity [RFC3748]

Frame 47 (45 bytes on wire, 45 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:

Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)

802.1X Authentication

No. Time Source Destination Protocol

Info

48 37.759367 10.1.1.1 10.1.1.2 RADIUS  
Access-Request(1) (id=80, l=163)

Frame 48 (205 bytes on wire, 205 bytes captured)

Ethernet II, Src: Cisco\_9d:ca:40 (00:15:62:9d:ca:40), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)

Internet Protocol, Src: 10.1.1.1 (10.1.1.1), Dst: 10.1.1.2 (10.1.1.2)

User Datagram Protocol, Src Port: radius (1812), Dst Port: radius (1812)

Radius Protocol

No. Time Source Destination Protocol

Info

49 39.907183 10.1.1.2 10.1.1.255 BROWSER  
Become Backup Browser

Frame 49 (223 bytes on wire, 223 bytes captured)

Ethernet II, Src: Intel\_fe:25:23 (00:03:47:fe:25:23), Dst: Broadcast

Re: IAS as RADIUS

(ff:ff:ff:ff:ff:ff)

Internet Protocol, Src: 10.1.1.2 (10.1.1.2), Dst: 10.1.1.255 (10.1.1.255)

User Datagram Protocol, Src Port: netbios-dgm (138), Dst Port: netbios-dgm (138)

NetBIOS Datagram Service

SMB (Server Message Block Protocol)

SMB MailSlot Protocol

Microsoft Windows Browser Protocol

No. Time Source Destination Protocol

Info

50 41.274392 10.1.1.3 10.1.1.2 DNS

Standard query A wpad.motosat.int

Frame 50 (76 bytes on wire, 76 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)

User Datagram Protocol, Src Port: 1026 (1026), Dst Port: domain (53)

Domain Name System (query)

No. Time Source Destination Protocol

Info

51 41.274954 10.1.1.3 10.1.1.2 DNS

Standard query A wpad.motosat.int

Frame 51 (76 bytes on wire, 76 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)

User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)

Domain Name System (query)

No. Time Source Destination Protocol

Info

52 42.268816 Runtop\_00:67:ca Broadcast ARP

Who has 10.1.1.1? Tell 10.1.1.3

Frame 52 (42 bytes on wire, 42 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast (ff:ff:ff:ff:ff:ff)

Address Resolution Protocol (request)

No. Time Source Destination Protocol

Info

53 43.268933 10.1.1.3 10.1.1.2 DNS

Standard query A wpad.motosat.int

Frame 53 (76 bytes on wire, 76 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)

Re: IAS as RADIUS

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1026 (1026), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
54 43.269042 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 54 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
55 45.269154 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 55 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1026 (1026), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
56 45.269280 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 56 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
57 47.244542 10.1.1.3 10.1.1.2 DNS  
Standard query SRV  
\_ldap.\_tcp.Default-First-Site-Name.\_sites.dc.\_msdcs.motosat.int

Frame 57 (123 bytes on wire, 123 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 3111 (3111), Dst Port: domain (53)

Re: IAS as RADIUS

Domain Name System (query)

No. Time Source Destination Protocol  
Info  
58 48.238191 Runtop\_00:67:ca Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.3

Frame 58 (42 bytes on wire, 42 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast  
(ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info  
59 49.238269 10.1.1.3 10.1.1.2 DNS  
Standard query SRV  
\_ldap.\_tcp.Default-First-Site-Name.\_sites.dc.\_msdcs.motosat.int

Frame 59 (123 bytes on wire, 123 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 3111 (3111), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
60 49.269518 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Frame 60 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23  
(00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1026 (1026), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
61 49.269593 Runtop\_00:67:ca Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.3

Frame 61 (42 bytes on wire, 42 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast  
(ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info  
62 49.269683 10.1.1.3 10.1.1.2 DNS  
Standard query A wpad.motosat.int

Re: IAS as RADIUS

Frame 62 (76 bytes on wire, 76 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
63 51.238471 10.1.1.3 10.1.1.2 DNS  
Standard query SRV  
\_ldap.\_tcp.Default-First-Site-Name.\_sites.dc.\_msdcs.motosat.int

Frame 63 (123 bytes on wire, 123 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 3111 (3111), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
64 51.238561 Runtop\_00:67:ca Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.3

Frame 64 (42 bytes on wire, 42 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast (ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info  
65 55.238887 10.1.1.3 10.1.1.2 DNS  
Standard query SRV  
\_ldap.\_tcp.Default-First-Site-Name.\_sites.dc.\_msdcs.motosat.int

Frame 65 (123 bytes on wire, 123 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 3111 (3111), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
66 55.238977 Runtop\_00:67:ca Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.3

Frame 66 (42 bytes on wire, 42 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast

Re: IAS as RADIUS

(ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info  
67 56.272203 10.1.1.3 10.1.1.2 DNS  
Standard query A www.download.windowsupdate.com

Frame 67 (90 bytes on wire, 90 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
68 56.275814 10.1.1.3 10.1.1.2 TCP 3112 >  
http [SYN] Seq=0 Len=0 MSS=1460

Frame 68 (62 bytes on wire, 62 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
Transmission Control Protocol, Src Port: 3112 (3112), Dst Port: http (80),  
Seq: 0, Len: 0

No. Time Source Destination Protocol  
Info  
69 58.270506 10.1.1.3 10.1.1.2 DNS  
Standard query A www.download.windowsupdate.com

Frame 69 (90 bytes on wire, 90 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info  
70 59.286104 10.1.1.3 10.1.1.2 TCP 3112 >  
http [SYN] Seq=0 Len=0 MSS=1460

Frame 70 (62 bytes on wire, 62 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
Transmission Control Protocol, Src Port: 3112 (3112), Dst Port: http (80),  
Seq: 0, Len: 0

Re: IAS as RADIUS

No. Time Source Destination Protocol  
Info

71 60.270657 10.1.1.3 10.1.1.2 DNS  
Standard query A www.download.windowsupdate.com

Frame 71 (90 bytes on wire, 90 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info

72 60.270747 Runtop\_00:67:ca Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.3

Frame 72 (42 bytes on wire, 42 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast (ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info

73 64.271067 10.1.1.3 10.1.1.2 DNS  
Standard query A www.download.windowsupdate.com

Frame 73 (90 bytes on wire, 90 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)  
Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)  
User Datagram Protocol, Src Port: 1027 (1027), Dst Port: domain (53)  
Domain Name System (query)

No. Time Source Destination Protocol  
Info

74 64.271149 Runtop\_00:67:ca Broadcast ARP  
Who has 10.1.1.1? Tell 10.1.1.3

Frame 74 (42 bytes on wire, 42 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast (ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info

75 64.490210 10.1.1.3 10.1.1.255 NBNS Name  
query NB MOTOSAT<1c>

Frame 75 (92 bytes on wire, 92 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast

Re: IAS as RADIUS

(ff:ff:ff:ff:ff:ff)

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.255 (10.1.1.255)

User Datagram Protocol, Src Port: netbios-ns (137), Dst Port: netbios-ns (137)

NetBIOS Name Service

No. Time Source Destination Protocol

Info

76 65.239869 10.1.1.3 10.1.1.255 NBNS Name

query NB MOTOSAT<1c>

Frame 76 (92 bytes on wire, 92 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast (ff:ff:ff:ff:ff:ff)

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.255 (10.1.1.255)

User Datagram Protocol, Src Port: netbios-ns (137), Dst Port: netbios-ns (137)

NetBIOS Name Service

No. Time Source Destination Protocol

Info

77 65.989930 10.1.1.3 10.1.1.255 NBNS Name

query NB MOTOSAT<1c>

Frame 77 (92 bytes on wire, 92 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast (ff:ff:ff:ff:ff:ff)

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.255 (10.1.1.255)

User Datagram Protocol, Src Port: netbios-ns (137), Dst Port: netbios-ns (137)

NetBIOS Name Service

No. Time Source Destination Protocol

Info

78 66.748982 10.1.1.3 10.1.1.2 DNS

Standard query SRV

\_ldap.\_tcp.Default-First-Site-Name.\_sites.dc.\_msdcs.motosat.int

Frame 78 (123 bytes on wire, 123 bytes captured)

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Intel\_fe:25:23 (00:03:47:fe:25:23)

Internet Protocol, Src: 10.1.1.3 (10.1.1.3), Dst: 10.1.1.2 (10.1.1.2)

User Datagram Protocol, Src Port: 3113 (3113), Dst Port: domain (53)

Domain Name System (query)

No. Time Source Destination Protocol

Info

79 67.740145 Runtop\_00:67:ca Broadcast ARP

Who has 10.1.1.1? Tell 10.1.1.3

Frame 79 (42 bytes on wire, 42 bytes captured)

Re: IAS as RADIUS

Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Broadcast (ff:ff:ff:ff:ff:ff)  
Address Resolution Protocol (request)

No. Time Source Destination Protocol  
Info

80 67.755839 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAPOL Start

Frame 80 (19 bytes on wire, 19 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol  
Info

81 67.758595 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
EAP Request, Identity [RFC3748]

Frame 81 (60 bytes on wire, 60 bytes captured)  
Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst: Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol  
Info

82 67.758805 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAP Response, Identity [RFC3748]

Frame 82 (45 bytes on wire, 45 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst: Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol  
Info

83 67.785922 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
EAP Request, PEAP [Palekar]

Frame 83 (60 bytes on wire, 60 bytes captured)  
Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst: Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol  
Info

84 67.787219 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
SSL Client Hello

Frame 84 (98 bytes on wire, 98 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:

Re: IAS as RADIUS

Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol  
Info

85 67.818378 Cisco\_9d:ca:41 Spanning-tree-(for-bridges)\_03  
TLSv1 Server Hello, Certificate, Certificate Request, Server Hello Done

Frame 85 (1514 bytes on wire, 1514 bytes captured)  
Ethernet II, Src: Cisco\_9d:ca:41 (00:15:62:9d:ca:41), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol  
Info

86 67.818702 Runtop\_00:67:ca Spanning-tree-(for-bridges)\_03  
EAP Response, PEAP [Palekar]

Frame 86 (24 bytes on wire, 24 bytes captured)  
Ethernet II, Src: Runtop\_00:67:ca (00:03:6d:00:67:ca), Dst:  
Spanning-tree-(for-bridges)\_03 (01:80:c2:00:00:03)  
802.1X Authentication

No. Time Source Destination Protocol  
Info

87 67.849206 Cisco\_9d:ca:41 Span