

TITLE: Domain Controllers reboot when attempting a RADIUS login to a network device

TECHNOLOGY: ASTRO 25

SYMPTOMS:

Domain Controller reboots when a RADIUS authentication request is made. RHEL boxes may lose membership with the domain.

MODELS / SYSTEM RELEASES / KITS / DATECODES AFFECTED:

ASTRO 2019.x, ASTRO 2020.x

SEVERITY RECOMMENDATION:

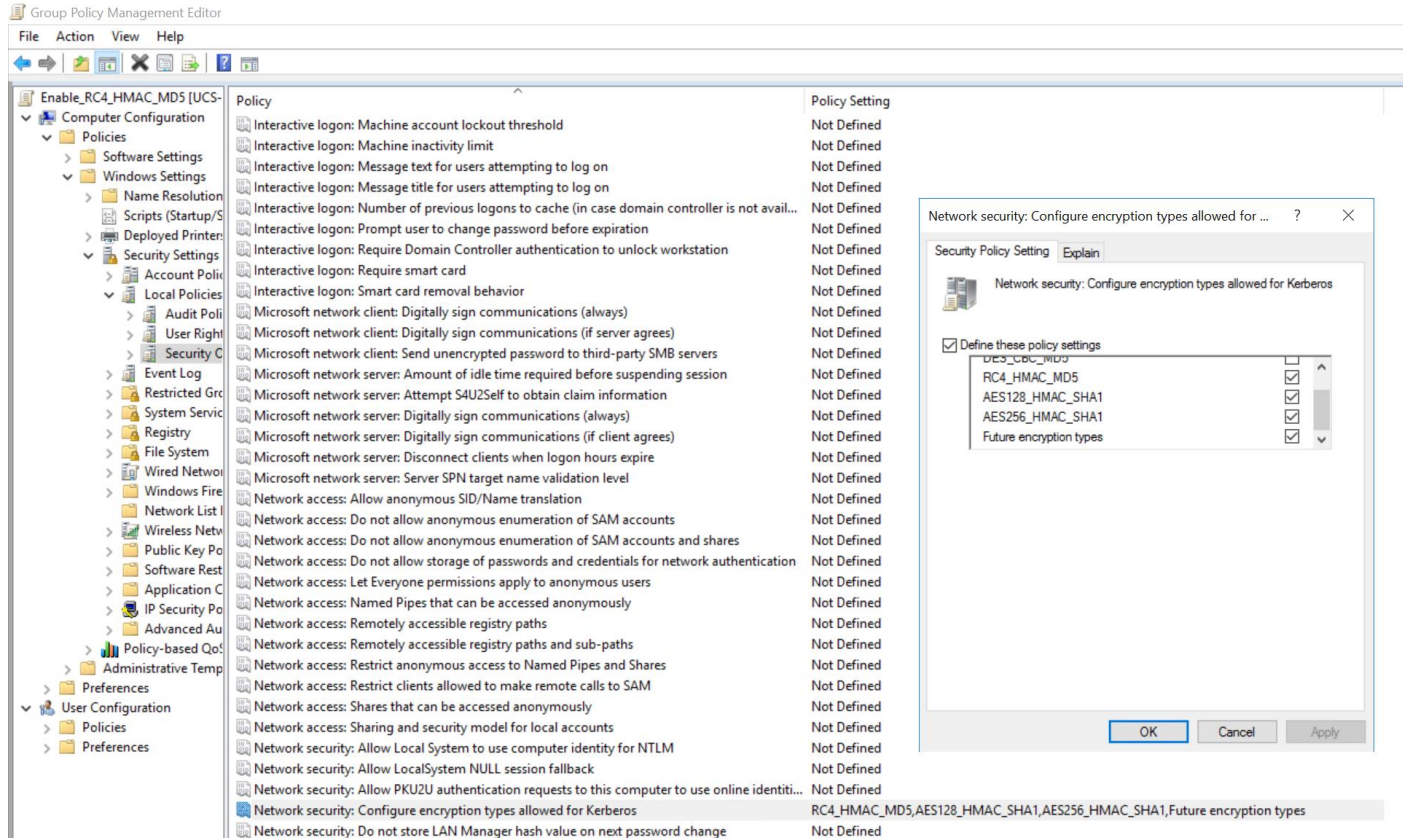
High / Safety - Perform Immediately

ROOT CAUSE / DEFINITIVE TEST:

Disabling obsolete RC4 encryption for Kerberos when upgrading the domain controller.

WORKAROUNDS AND CORRECTIVE ACTIONS:

1. Log in to the system-level DC as an Administrator.
2. Type the following command in the Search field and press Enter: gpmmc.msc
3. The Group Policy Management window appears.
4. Navigate to the following location: Group Policy Management\Forest:<Current Domain>\Domains\<Current Domain>
5. Right-click Group Policy Objects and select New
6. Type Name: Enable_RC4_HMAC_MD5 and click OK
7. Right-click on Enable_RC4_HMAC_MD5 and select Edit
8. Navigate to the following location in the navigation pane: Computer Configuration\Policies\Windows Settings\Security Settings\Local Policies\Security Options\
9. Double-click on "Network security: Configure encryption types allowed for Kerberos"
10. Check the Define these policy settings
11. Check RC4_HMAC_MD5, AES128_HMAC_SHA1, AES256_HMAC_SHA1, and Future encryption types (see the picture below) and click OK



12. Close the Group Policy Management Editor
13. Locate the following Organization Unit (OU): Domain Controllers
14. Right-click the OU.
15. Select Link an Existing GPO from the menu.
16. Select the Enable_RC4_HMAC_MD5 GPO from the list of Group Policy objects.
17. Click the double arrow button in the left pane of the window to move the linked GPO to the first position in the list.
18. Close Group Policy Management
19. Open the PowerShell command prompt as an Administrator
20. Type the following command at the prompt and press Enter: gpupdate /force

Note:

The replication time depends mainly on the number of domain controllers in the environment. By default, the replication time between one domain controller and the other takes place every 15 minutes, so it can be assumed that in the worst case scenario, the replication time will take 15 minutes multiplied by the number of domain controllers in the system. If there is a lot of data to replicate, the domain controller splits the data into pieces and replicates in portions.

21. After completing the whole upgrade (all boxes and network devices are upgraded) open Group Policy Management
22. Navigate to the following location: Group Policy Management\Forest:<Current Domain>\Domains\<Current Domain>
23. Select the Group Policy Objects.
24. Right-click on Enable_RC4_HMAC_MD5 and select Delete
25. Confirm removal of GPO
26. Close Group Policy Management

RESOLUTIONS AND REPAIR PROCEDURES:

1. For fresh installation or disaster recovery use below version:

Media Name	KC Number	Release
ASTRO DC Plugin	KC877C04C000200109 or later	A2020.x
Windows Supplemental Full Config	KC877V087000200106 or later	A2020.x
Windows Supplemental Trans Config	KC877V088000200106 or later	A2020.x
ASTRO DC Plugin	KC877C04C000190209 or later	A2019.x
Windows Supplemental Full Config	KC877V087000190205 or later	A2019.x
Windows Supplemental Trans Config	KC877V088000190205 or later	A2019.x

2. For systems that are already upgraded:
 1. If the upgrade of the whole system has not yet been completed, follow the procedure described in the section "WORKAROUNDS AND CORRECTIVE ACTIONS"

If the whole system has already been upgraded (all boxes and network devices are upgraded), no additional actions are required.

Upgrade to the appropriate version as listed in the "PARTS REQUIRED (HARDWARE/SOFTWARE):" section below, based on the model.

To obtain software:

1. Initiate a software request case through Motorola Solution, Inc. System Support Center (SSC) at 1-800-221-7144 (1-302-444-9800)
2. Await confirmation email from Motorola Solutions Software Factory with instructions
3. Complete the Motorola Solutions Software Factory Software Order Form:
 - a. Reference **MTN-XXX-XX-XX** in the 'Reason for Software/Hardware Change' section of the software order form.
 - b. List the part number (**KC #** as listed under "PARTS REQUIRED (HARDWARE/SOFTWARE):" below) in the 'Part # or Version #' section of the software order form.
4. Email completed Software Order Form to MSSF for processing

PARTS REQUIRED (HARDWARE/SOFTWARE):

Media Name	KC Number	Release
ASTRO DC Plugin	KC877C04C000200109 or later	A2020.x
Windows Supplemental Full Config	KC877V087000200106 or later	A2020.x
Windows Supplemental Trans Config	KC877V088000200106 or later	A2020.x
ASTRO DC Plugin	KC877C04C000190209 or later	A2019.x
Windows Supplemental Full Config	KC877V087000190205 or later	A2019.x
Windows Supplemental Trans Config	KC877V088000190205 or later	A2019.x

ADDITIONAL INFORMATION:

REFERENCE THE FOLLOWING DOCUMENTS/PROCESSES FOR INSTALLATION PROCEDURES:

In case of fresh installation or restoration, use mentioned document in following versions (or newer):

- A2019.x: [MN005934A01-D](#)
 - Fresh Installation – Chapter 5 - "AD/DNS Installation and Configuration"
 - Disaster Recovery – Chapter 14 - "Domain Controller Disaster Recovery"
- A2020.x: [MN007180A01-C](#)
 - Fresh Installation – Chapter 5 - "AD/DNS Installation and Configuration"
 - Disaster Recovery – Chapter 14 - "Domain Controller Disaster Recovery"

WHEN TO APPLY RESOLUTION:

- After reboot ___
- After (re)installation ___
- After upgrade ___
- After power cycle ___
- After database restoration ___
- After failure ___
- On FRU replacement ___
- During maintenance ___
- Immediately ___
- As instructed _X_
- Information only ___

LABOR ALLOWANCE:

This is an informational bulletin. No labor warranty is implied, intended or authorized for U.S. Domestic Partners/Customers. Other regions should follow their own standard procedures.

For assistance with this bulletin please contact your MSI Technical support center:

https://www.motorolasolutions.com/en_us/support.html

Motorola Solutions Software Factory

Software Order Form
Phone Number: (800) 221-7144

SECTION 1: General Information

NOTE: PRICE QUOTES GIVEN BY UOST ARE VALID FOR ONLY 90 DAYS

Date _____	Case Number _____
System ID _____	Site ID _____
System Name _____	Site Name _____
Customer Name _____	
Form Completed by _____	Field Contact _____
Organization _____	Organization _____
Phone Number _____	Phone Number _____
Pager Number _____	Pager Number _____
Fax Number _____	Fax Number _____

SECTION 2: Order Information

Product Type: _____ Serial Number _____

Reason for Software / Hardware Change:
Downgrade? If so, list current and target releases. _____

Software / Hardware Description: _____

Part # or Version # _____ Quantity _____

Date Required _____

SECTION 3: Shipping / Billing Information

Ship To: _____

Email: _____
Attn: _____

Phone: _____

Bill To: _____

Attn: _____

Phone: _____

Customer Billing

P.O. #: _____
CUST #: _____
TAG #: _____

Internal Billing

PROJECT #: _____
FSB #: _____
DEPT #: _____
APC #: _____

Software Order Form

Motorola Solutions Software Factory

Phone Number: (800) 221-7144

- This form has been sent to you because you have requested an order from the *Motorola Solutions Software Factory* Team.
- Please fill out the order form and email back to the *Motorola Solutions Software Factory* Team
- If desired, please provide your email address on the order form and we will provide a tracking number when your order ships for your convenience.
- Orders will normally be processed in 3-5 business days once all information has been received.
- If additional space is required for software information, please use the optional addendum on page 3 below in addition to the original order form. This form is for use with large orders with multiple part numbers.

NOTE:

- 1) If this is SSA CUSTOMER please order via Motorola factory order.
- 2) Limited Liability is Implied to the maximum of order amount.
- 3) Price quotes provided by SCHSWF are valid for 90 days

Thank you and have a good day!

Supplemental Order Information Addendum

(Optional)

Software Description

Part# or Version #

Quantity:

Software Description

Part# or Version #

Quantity:

Software Description

Part# or Version #

Quantity:

Software Description

Part# or Version #

Quantity:

Software Description

Part# or Version #

Quantity:
