

## Motorola Solutions Technical Notification (MTN)

**TITLE:** Zone Controller resets in various circumstances

**TECHNOLOGY:** ASTRO 25

**SYMPTOMS:**

1. McAfee in the Zone Controller VM took up CPU resources due to many rogue processes and caused the zone controller to reset.
2. The Zone Controller resets due to memory leak due to ISSI call termination by the ZC when the talkgroup's home zone is a non ISGW zone.
3. ZoneController reset as seen in the UEM alarm 'CRITICAL MALFUNCTION, SOFTWARE ERROR' due to an application incorrectly accessing memory - accessing invalid memory address when processing ISSI calls.

**MODELS / SYSTEM RELEASES / KITS / DATECODES AFFECTED:**

- A7.17.2, A7.17.3, A7.18, A2019.2
- A7.17.2, A7.17.3, A7.18, A2019.2 with multizone ISSI configuration
- A7.17.2, A7.17.3, A7.18, A2019.2 with ISSI configuration
- A7.17.2: any release older than Zone Controller SW Version: ZC-Astro-07.17.00.48-02
- A7.17.3: any release older than Zone Controller SW Version: ZC-Astro-07.17.03.13-01
- A7.18: any release older than Zone Controller SW Version: ZC-Astro-07.18.00.40-01
- A2019.2: any release older than Zone Controller SW Version: ZC-Astro-30.02.01.59-01

**SEVERITY RECOMMENDATION:**

High / Safety - Perform Immediately

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### **ROOT CAUSE / DEFINITIVE TEST:**

1. McAfee antivirus application does a weekly update, however sometimes the processes that are responsible for the update do not get terminated and overtime, the number of such processes increases to over several thousands and this causes CPU starvation on the Zone Controller's real time processes. McAfee was not able to fully root cause this issue, however we wrote a cleanup cron job in order to clean up the McAfee rogue processes and their leftover log files on a weekly basis.
2. When an ISSI talkgroup call starts at talkgroup's home system and talkgroup's home zone is different from the zone that ISGW is located and the call is terminated by the zone controller due to for example if the "hang time" expires and the home system has a different hangtime configuration compared to foreign system hangtime, if the ISGW does not respond to the call end indication from the zone controller in such cases, the zone controller does not free the memory for the buffer that is allocated for that call. Over a period of time, the memory leaks reach to the point that the zone controller runs out of buffer for the ISSI calls and it resets.
3. When an ISSI call starts at the talkgroup's home system, the ZC tries to retrieve radio's alias if this is the requesting radio home system. While the ZC is retrieving the radio's alias, if some other event happens for the call that resulted in the ZC and the ZC needs to terminate the current PTT event from the radio, the ZC cleans up all pending actions including the alias retrieval. However, the ZC does not clean up a pointer that is pointing to the memory in a proper way and some internal queues still point to that portion of memory. If the freed memory is allocated again, upon cleanup the standard third party library throws an error for double freeing the memory and the ZC resets.

### **WORKAROUNDS AND CORRECTIVE ACTIONS:**

N/A

### **RESOLUTIONS AND REPAIR PROCEDURES:**

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-0043-21-NA** 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):**

KC877V04Z000190204 Zone Controller SW Version A2019.2: ZC-Astro-30.02.01.59-01  
KC877V04Z000071805 Zone Controller SW Version A7.18: ZC-Astro-07.18.00.40-01  
KC877V04Z000717304 Zone Controller SW Version A7.17.3: ZC-Astro-07.17.03.13-01  
KC877V04Z000071709 Zone Controller SW Version A7.17.2: ZC-Astro-07.17.00.48-02

### **ADDITIONAL INFORMATION:**

### **REFERENCE THE FOLLOWING DOCUMENTS/PROCESSES FOR INSTALLATION PROCEDURES:**

<https://learning.motorolasolutions.com/installation-guide/6703enus>

**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](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 \_\_\_\_\_  
System ID \_\_\_\_\_  
System Name \_\_\_\_\_  
Customer  
Name \_\_\_\_\_

Case Number \_\_\_\_\_  
Site ID \_\_\_\_\_  
Site Name \_\_\_\_\_

Form  
Completed by \_\_\_\_\_  
Organization \_\_\_\_\_  
Phone  
Number \_\_\_\_\_  
Pager  
Number \_\_\_\_\_  
Fax Number \_\_\_\_\_

Field Contact  
Organization \_\_\_\_\_  
Phone Number \_\_\_\_\_  
Pager Number \_\_\_\_\_  
Fax Number \_\_\_\_\_

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## 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

\_\_\_\_\_

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### SECTION 3: Shipping / Billing Information

Ship To:

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Email:

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Attn:

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Phone:

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#### Customer Billing

P.O. #:

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CUST #:

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TAG #:

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Bill To:

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Attn:

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Phone:

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#### Internal Billing

PROJECT #:

---

FSB #:

---

DEPT #:

---

APC #:

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## **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

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Part# or Version #

---

Quantity:

---

Software Description

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Part# or Version #

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Quantity:

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Software Description

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Part# or Version #

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Quantity:

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Software Description

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Part# or Version #

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Quantity:

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Software Description

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Part# or Version #

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Quantity:

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