

AML errors in Siminn's network

Root cause found and remedy applied

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Siminn Mobile Network

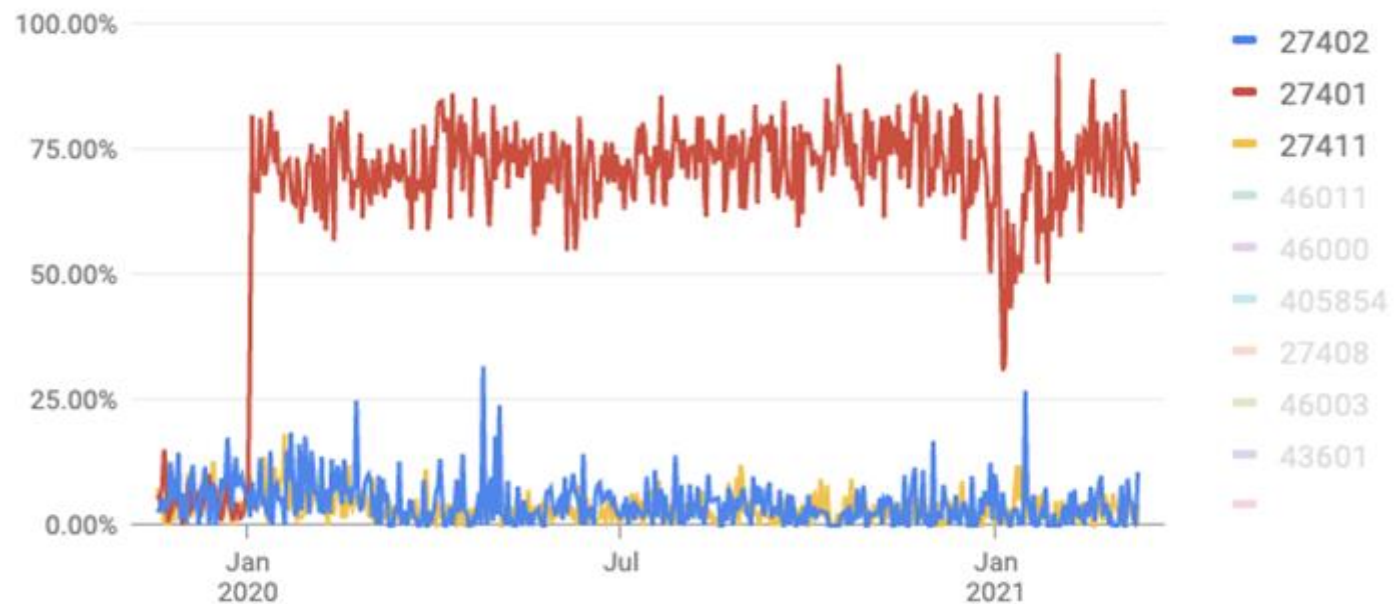
- Ericsson Core and RAN
 - Ericsson MSCs software version 18.1
 - Ericsson SGSN/MMEs
- 4G CSFB used for Emergency calls
- CSFB Accelerator feature active in MSCs



Background

- High error rate for AML SMS messages observed (75%). Starting in January 2020.
- Siminn was notified in March 2021 by local 112 authorities. Statistics provided by Google.

Reporter Error By Reporter





Background

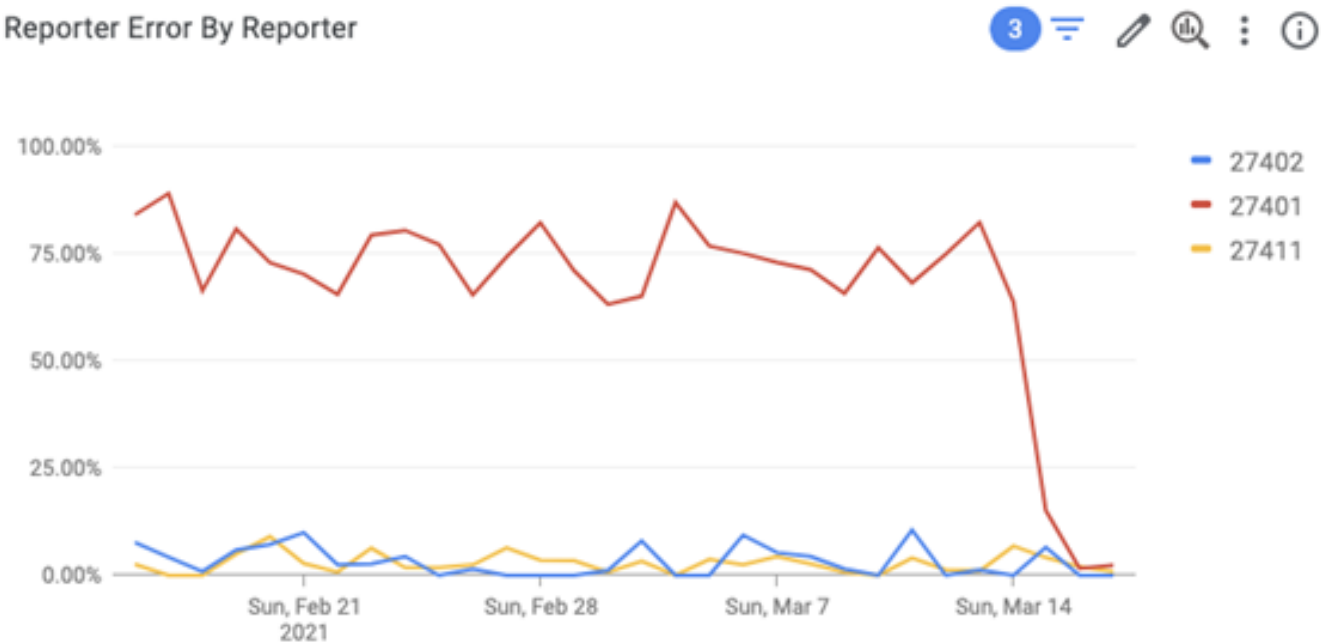
- In January 2020, we changed the value of MME parameter SupportsMoCsfbIndication
 - SupportsMoCsfbIndication changed to TRUE (default is FALSE)
 - When TRUE, the MME sends a SGsAP-MO-CSFB-INDICATION message to the MSC when the UE initiates an MO CSFB procedure
 - The idea is to prepare the MSC for the CSFB procedure to shorten the call setup time.
 - Ericsson MSC version 18.1 has a SW bug which is triggered by the SGsAP-MO-CSFB-INDICATION message. The MSC is not allowing the AML SMS to be sent as a parallel transaction to the emergency call.



Remedy

- Changed MME parameter SupportsMoCsfbIndication back to FALSE.
- AML error rate is now back to „normal“

Reporter Error By Reporter





Ericsson's response

- (most likely) fixed by MSC correction AC SNAXC-3706
- AC SNAXC-3706 Is included in EPA-75 and IPA-05 for MSC 18.2.
- Siminn has not loaded or tested the correction.



Conclusion

- If you have Ericsson MSC SW older than 18.2 EPA-75/IPA-05
 - Disable SGsAP-MO-CSFB-INDICATION messages from MME