

FILED UNDER SEAL

EXHIBIT 13

2021-03-04 Potential SEV affecting Reactive OS job creation in IIC Scaled Review

TL;DR

We hypothesize that we are failing to create and/or successfully route Messenger OS jobs escalated for grooming to Scaled Review. If this is true, this would mean that our IIC T1 DMArT review flow is broken at one of the earliest points of entry and that we are missing potential True Positive cases of user-reported grooming escalations.

Questions for CI

Please read the note below and confirm whether this appears to be a SEV. If so, Reva will file one. Specifically, we need your input on the following questions:

1. **Are the queries linked in the findings below reflecting the correct data and reporting flow logic?** Since Pouya identified earlier that there was a typo in the parameter, we want to do a gut check and make sure that's not happening elsewhere.
2. **Can you provide context on what changes you made to OS job routing before Christmas (T78110727)?** Lisa mentioned that Pouya changed OS job routing for English before Christmas and wasn't sure whether it was IIC Scaled Review or Escalations. Can you confirm – e.g. is a [Messages] English_US with groomer_escalation decision supposed to route to [IIC-Message] English (COVID-19) or [IIC-Message] [Escalations] English?
3. **What percentage of the drop-off that we're seeing could be explained by our auto-drop rules?** Below, I mention a 95-99% drop-off rate from OS jobs escalated for grooming to IIC Scaled Review jobs successfully created. This seems too steep to be explained exclusively by auto-drop rules (e.g. dropping users close in age) but please confirm.

Incident discovery

On March 3, 2021, CO Child Safety and COBRA (POCs Reva Abrol, Cassandra Bayer) were working on an external request from our Law Enforcement Outreach XFN to identify examples of E2EE-resilient NCMEC reports. This required linking back T1 IIC NCMEC reports to where the creation source was Messenger OS. While the [IIC T1 DMArT dash](#) measures successful job creations in Scaled Review from all OS jobs escalated for grooming, we opted to look under the hood and disaggregate the two. This led us to identify some troubling findings pointing to failed job creation or routing from Messenger OS queues, which we further investigated.

On March 8, using the correct parameters and queues upon consultation with CI, we confirmed the following findings:

1. **Out of 2,099 OS jobs escalated across markets for grooming in the last 90 days, 6,086 IIC Scaled Review jobs were successfully created. 5,955 of these jobs are in the [IIC-IG] [Proactive] Rest of the world queue** – or 98% of successful job creations in Scaled Review.
2. Since T1 IIC reporting to NCMEC is only fully operational for English, we also narrowed our search to English markets. In the last 90 days, **we found that 278 OS jobs were escalated for grooming in English queues, out of which only 2 Scaled Review jobs were successfully created**, both in [IIC-Message] English (COVID-19) and not in the IG Scaled Review queue. This is over a 99% drop-off from OS escalations to Scaled Review.
3. Of the OS jobs that were escalated for grooming, many resulted in duplicate jobs – **some of which landed in queues from other markets**. For example, one OS job escalated for grooming (SRT 103631344907953), which originated in [Messages] English_US, resulted in four jobs created in [IIC-IG] [Proactive] Rest of the world and no jobs created in the English Scaled Review queue.

Interpretation of findings

These findings suggest that a former SEV mitigated by CI in November 2020 ([T78110727](#); POC Pouya Yanki) resurfaced and grown in complexity.

There are three potential issues here:

1. **Failed job routing from OS:** OS jobs with groomer_escalation decision are getting routed to the wrong market Scaled Review queues, pointing to failed job routing.
2. **Duplicate jobs in Scaled Review for OS-escalated jobs, some of which land in the wrong queues:** For some OS jobs with groomer_escalation decision, multiple duplicate jobs are being created in Scaled Review. These duplicate jobs are sometimes created in the correct market, sometimes in the wrong one. This points to failed job creation AND routing problems. While the duplicate jobs problem maps to an existing bug ([T83022399](#); POC Shilpa Ramachandra Reddy), this bug was only made for ESLA and does not address the job routing problem.
3. **Failed job creation from OS:** OS jobs with groomer_escalation decision do not match job creation in IIC Scaled Review, pointing to failed job creation.

Impact of findings

While the gross number of affected jobs is not large, this is an impactful finding for two interrelated reasons:

1. **Failed job routing and creation from OS hinders DMArT.** While only 278 OS jobs were escalated for grooming in English, being unable to create and/or work these jobs in the correct Scaled Review queues prevents us from finding the needle in the haystack and reporting to NCMEC. Hypothetically in the short term, this could mean 278 groomers we are not catching and reporting to law enforcement to date.
2. **Improving reactive recall ahead of E2EE is a P1 roadmap item for H1.** [CIPCO is committed](#) to escalating X% of IIC T1 within 14 days. A breakdown in escalation from OS to the correct Scaled Review queues puts this goal at risk.

Recommendation from CO/COBRA partners

We recommend filing a new SEV or reopening the old one on job creation failures (S214841). In accordance with the [SEV guidelines](#), this would likely be a SEV 3 since reporting is broken for a major violation type that affects a small pool of users.

Timeline

- **March 4th:** Incident noticed by COBRA/CO

- **March 5th:** CO confirmed and filed a SEV3 for CI to fix IG routing from OS to Scaled Review (S224444) [POCs Aditya Gurunathan, Pouya Yanki, Reva Abrol, Cassandra Bayer]