

Technical Note

Intel® SGX Attestation Technical Details



Intel® SGX Technical Details for INTEL-SA-00320 and INTEL-SA-00329

One way to ensure that Intel® SGX platforms have been appropriately updated is through the process of attestation. The attestation process verifies that the platform is a valid Intel® SGX platform and the platform components meet a defined set of security requirements. In addition, the attestation process enables the application provider to verify the security version of the application.

Intel will perform a TCB Recovery operation to enable parties utilizing Intel® SGX to determine whether the updates (microcode) for these vulnerabilities have been applied on the platform from which the attestation request originated.

- On June 16, 2020, the updates listed below will be enabled in the IAS Development Environment (DEV), and on July 14, 2020 they will be enabled in the IAS Production Environment (LIV).
- A "GROUP_OUT_OF_DATE" response is returned for platforms without the required, BIOS-applied microcode update.
- An attestation response may still report "SW_HARDENING_NEEDED", "CONFIGURATION_NEEDED" or "CONFIGURATION_AND_SW_HARDENING_NEEDED". This happens for attestation requests originating from Intel® SGX-enabled platforms that have applied the microcode update, but where the platform's configuration does not meet requirements identified in [INTEL-SA-00161](#), [INTEL-SA-00233](#), [INTEL-SA-00219](#) and [INTEL-SA-00289](#) or where the platform is affected by [INTEL-SA-00334](#)

For Intel® SGX environments that are supporting the construction of their own attestation infrastructure with the Intel® SGX Platform Certificate Retrieval Service, updated verification collateral will be provided.

Further [TCB Recovery Guidance](#) for developers is available.

Revision	Date	Description
1.0	6/9/2020	Initial release

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