

## **Tech Brief: Source Code Reviews**

## **Applicability**

Source code reviews as part of the RingCentral Security Development Lifecycle.

## Rationale

RingCentral incorporates source code reviews as part of the assessment of third-party risk associated with RingCentral and RingCentral products. Source code reviews are intended to find and fix mistakes overlooked in the initial development phase, including gaps in required functionality or even the potential for unintended "extra" code that may in turn introduce vulnerabilities by providing a backdoor into the code.

## **Process**

While source code reviews can be performed by automated tools, RingCentral performs both tool-based reviews as part of the overall build process, as well as additional manual reviews by a member of the CISO applications security team, who are independent of the overall development team.

Automated code reviews are included as part of the overall build process as part of our Static Code Analysis discipline.

If the manual review has findings, these are worked through remediation with the corresponding developer. Examples of findings from a source code review may include:

- **Potential Side Effects.** Does the changed code cause any issues in other features? Have unintended consequences?
- Exception Handling. Are exceptions handled in a safe and secure manner (fail safe)?
- Logging. Is all expected data included in logs, and no unexpected data included?
- Thread Safety. Is multi-threaded code free from race conditions?

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