

## ANDROID STATIC ANALYSIS REPORT

## 2 SHARED LIBRARY BINARY ANALYSIS

NO	SHARED OBJECT	NX	STACK CANARY	RPATH	RUNPATH	FORTIFY	SYMBOLS STRIPPED
1	lib/armeabi-v7a/libmono- btlsshared.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	False warning Symbols are available.
2	lib/armeabi-v7a/libxa-internalapi.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	False warning Symbols are available.

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3	lib/armeabi- v7a/libsqlite3_xamarin.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	True info The shared object has the following fortified functions: ['memcpy_chk', 'strlen_chk', 'memset_chk']	True info Symbols are stripped.
4	lib/armeabi-v7a/libxamarinapp.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	False high This shared object does not have a stack canary value added to the stack. Stack canaries are used to detect and prevent exploits from overwriting return address. Use the option -fstackprotector-all to enable stack canaries.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	True info Symbols are stripped.

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5	lib/armeabi-v7a/libmononative.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	False warning Symbols are available.
6	lib/armeabi-v7a/libiconv.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	True info Symbols are stripped.

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7	lib/armeabi-v7a/libmonosgen- 2.0.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	False warning Symbols are available.
8	lib/armeabi-v7a/libzbarjni.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	True info Symbols are stripped.

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9	lib/armeabiv7a/libmonodroid.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	True info The shared object has the following fortified functions: ['umask_chk', 'memcpy_chk', 'ThumbV7PILongThunkumask_chk', 'umask_chk', 'memcpy_chk']	False warning Symbols are available.
10	lib/arm64-v8a/libmono- btlsshared.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	False warning Symbols are available.

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11	lib/arm64-v8a/libxa-internalapi.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	False warning Symbols are available.
12	lib/arm64- v8a/libsqlite3_xamarin.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	True info The shared object has the following fortified functions: ['memcpy_chk', 'strlen_chk', 'memset_chk']	True info Symbols are stripped.

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13	lib/arm64-v8a/libxamarinapp.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	False high This shared object does not have a stack canary value added to the stack. Stack canaries are used to detect and prevent exploits from overwriting return address. Use the option -fstackprotector-all to enable stack canaries.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	True info Symbols are stripped.
14	lib/arm64-v8a/libmononative.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	False warning Symbols are available.

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15	lib/arm64-v8a/libiconv.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	True info Symbols are stripped.
16	lib/arm64-v8a/libmonosgen- 2.0.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	True info The shared object has the following fortified functions: ['FD_ISSET_chk', 'FD_SET_chk']	False warning Symbols are available.

NO	SHARED OBJECT	NX	STACK CANARY	RPATH	RUNPATH	FORTIFY	SYMBOLS STRIPPED
17	lib/arm64-v8a/libzbarjni.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	False warning The shared object does not have any fortified functions. Fortified functions provides buffer overflow checks against glibc's commons insecure functions like strcpy, gets etc. Use the compiler option -D_FORTIFY_SOURCE=2 to fortify functions.	True info Symbols are stripped.
18	lib/arm64-v8a/libmonodroid.so	True info The shared object has NX bit set. This marks a memory page nonexecutable making attacker injected shellcode nonexecutable.	True info This shared object has a stack canary value added to the stack so that it will be overwritten by a stack buffer that overflows the return address. This allows detection of overflows by verifying the integrity of the canary before function return.	None info The shared object does not have run- time search path or RPATH set.	None info The shared object does not have RUNPATH set.	True info The shared object has the following fortified functions: ['umask_chk', 'read_chk', 'memcpy_chk', 'umask_chk', 'read_chk', 'memcpy_chk']	False warning Symbols are available.