# Code Scan Report-[socat\_tidy]

15/04/2021 23:07:37

# 1.Visual



# 2.Top Vulnrable Files

Rank	File Path
1	/home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang_test1.cpp
2	/socat.c
3	socat.c
4	/xio-openssl.c
5	/xio-named.c
6	/filan.c
7	xio-openssl.c
8	xio-named.c
9	filan.c
10	/xio-progcall.c
11	/xioopts.c
12	/xioinitialize.c
13	/xiowrite.c
14	/vsnprintf_r.c
15	xio-progcall.c
16	xioopts.c
17	xioinitialize.c

18	xiowrite.c
19	vsnprintf_r.c

# 3. Potential Vulnerabilities

## **DANGER**

# **WARNING**

- 1-cpp/potentially-dangerous-function
- -> [Path] : filan.c (Line) 983:11, 983:18
- -> [Message] : Call to asctime is potentially dangerous
- 2-cpp/potentially-dangerous-function
- -> [Path] : filan.c (Line) 983:19, 983:28
- -> [Message]: Call to localtime is potentially dangerous
- 3-cpp/potentially-dangerous-function
- -> [Path] : socat.c (Line) 1149:60, 1149:69
- -> [Message]: Call to localtime is potentially dangerous
- 4-cpp/constant-comparison
- -> [Path]: xio-named.c (Line) 72:7, 72:36
- -> [Message] : Comparison is always false because call to Umask >= 0.
- 5-cpp/constant-comparison
- -> [Path]: xio-openssl.c (Line) 1678:10, 1678:18
- -> [Message]: Comparison is always false because ret <= -1.
- 6-cpp/constant-comparison
- -> [Path] : xio-openssl.c (Line) 1619:10, 1619:18
- -> [Message]: Comparison is always false because ret <= -1.
- 7-Use of potentially dangerous function
- -> [Path] : /filan.c (Line) 983:11, 983:17
- -> [Message]: Call to asctime is potentially dangerous
- 8-Use of potentially dangerous function
- -> [Path] : /filan.c (Line) 983:19, 983:27
- -> [Message] : Call to localtime is potentially dangerous
- 9-Use of potentially dangerous function
- -> [Path] : /socat.c (Line) 1149:60, 1149:68
- -> [Message] : Call to localtime is potentially dangerous
- 10-Comparison result is always the same
- -> [Path] : /xio-named.c (Line) 72:7, 72:35
- -> [Message]: Comparison is always false because call to Umask >= 0.
- 11-Comparison result is always the same
- -> [Path]: /xio-openssl.c (Line) 1678:10, 1678:17
- -> [Message]: Comparison is always false because ret <= -1.
- 12-Comparison result is always the same
- -> [Path] : /xio-openssl.c (Line) 1619:10, 1619:17
- -> [Message] : Comparison is always false because ret <= -1.

#### 13-llvmlibc-restrict-system-libc-headers

- -> [Path]: /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 1:1
- -> [Message]: system include stdlib.h not allowed

#### 14-hicpp-deprecated-headers, modernize-deprecated-headers

- -> [Path]: /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 1:10
- -> [Message]: inclusion of deprecated C++ header 'stdlib.h'; consider using 'cstdlib' instead

#### 15-llvmlibc-restrict-system-libc-headers

- -> [Path] : /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 2:1
- -> [Message] : system include stdio.h not allowed

#### 16-hicpp-deprecated-headers, modernize-deprecated-headers

- -> [Path]: /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 2:10
- -> [Message]: inclusion of deprecated C++ header 'stdio.h'; consider using 'cstdio' instead

#### 17-llvmlibc-restrict-system-libc-headers

- -> [Path]: /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 3:1
- -> [Message] : system include string.h not allowed

#### 18-hicpp-deprecated-headers, modernize-deprecated-headers

- -> [Path]: /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 3:10
- -> [Message]: inclusion of deprecated C++ header 'string.h'; consider using 'cstring' instead

# 19-llvmlibc-implementation-in-namespace

- -> [Path] : /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 5:5
- -> [Message] : declaration must be declared within the '\_\_llvm\_libc' namespace

#### 20-modernize-use-trailing-return-type

- -> [Path]: /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 5:5
- -> [Message] : use a trailing return type for this function

#### 21-llvmlibc-implementation-in-namespace

- -> [Path]: /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 7:5
- -> [Message] : declaration must be declared within the '\_\_llvm\_libc' namespace

#### 22-modernize-use-trailing-return-type

- -> [Path]: /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 7:5
- -> [Message]: use a trailing return type for this function

#### 23-misc-unused-parameters

- -> [Path]:/home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 7:14
- -> [Message]: parameter 'argc' is unused

#### 24-misc-unused-parameters

- -> [Path]: /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 7:26
- -> [Message]: parameter 'argv' is unused

# 25-cpp coreguide lines-avoid-c-arrays, hicpp-avoid-c-arrays, modernize-avoid-c-arrays

- -> [Path] : /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 9:5
- -> [Message] : do not declare C-style arrays, use std::array<> instead

#### 26-cppcoreguidelines-avoid-magic-numbers, readability-magic-numbers

- -> [Path] : /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 9:17
- -> [Message] : 128 is a magic number; consider replacing it with a named constant

#### 27-cppcoreguidelines-pro-type-vararg,hicpp-vararg

-> [Path] : /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 10:5

-> [Message]: do not call c-style vararg functions

28-cppcoreguidelines-pro-bounds-array-to-pointer-decay,hicpp-no-array-decay

- -> [Path]: /home/heersin/Workspace/mine/SwarmRay/src/scanner-extern/tests/clang\_test1.cpp (Line) 11:12
- -> [Message]: do not implicitly decay an array into a pointer; consider using gsl::array\_view or an explicit cast instead

#### NOTE OR COMMENT

#### 1-cpp/empty-block

- -> [Path]: vsnprintf\_r.c (Line) 371:22, 373:8
- -> [Message] : Empty block without comment

#### 2-cpp/empty-block

- -> [Path] : xiowrite.c (Line) 103:14, 104:8
- -> [Message] : Empty block without comment

#### 3-cpp/local-variable-hides-global-variable

- -> [Path]: socat.c (Line) 1179:9, 1179:18
- -> [Message]: Local variable timestamp hides [a global variable](1) with the same name.

#### 4-cpp/local-variable-hides-global-variable

- -> [Path] : socat.c (Line) 1132:24, 1132:33
- -> [Message]: Parameter timestamp hides [a global variable](1) with the same name.

#### 5-cpp/local-variable-hides-global-variable

- -> [Path]: xio-named.c (Line) 104:9, 104:25
- -> [Message]: Local variable opt\_unlink\_early hides [a global variable](1) with the same name.

## 6-cpp/local-variable-hides-global-variable

- -> [Path] : xioinitialize.c (Line) 138:34, 138:38
- -> [Message]: Parameter sock hides [a global variable](1) with the same name.

#### 7-cpp/local-variable-hides-global-variable

- -> [Path]: xioopts.c (Line) 1768:29, 1768:40
- -> [Message]: Parameter optionnames hides [a global variable](1) with the same name.

#### 8-cpp/function-in-block

- -> [Path]: xio-progcall.c (Line) 228:6, 228:32
- -> [Message] : Functions should be declared at file scope, not inside blocks.

# STYLE ISSUE

#### **OTHER**

- 1-Empty branch of conditional
- -> [Path] : /vsnprintf\_r.c (Line) 371:22, 373:7
- -> [Message] : Empty block without comment

#### 2-Empty branch of conditional

- -> [Path] : /xiowrite.c (Line) 103:14, 104:7
- -> [Message] : Empty block without comment

#### 3-Local variable hides global variable

- -> [Path] : /socat.c (Line) 1179:9, 1179:17
- -> [Message] : Local variable timestamp hides [["a global variable"|"relative:///socat.c:74:19:74:27"]] with the same name
- 4-Local variable hides global variable

- -> [Path]:/socat.c (Line) 1132:24, 1132:32
- -> [Message] : Parameter timestamp hides [["a global variable"|"relative:///socat.c:74:19:74:27"]] with the same name.

#### 5-Local variable hides global variable

- -> [Path] : /xio-named.c (Line) 104:9, 104:24
- -> [Message] : Local variable opt\_unlink\_early hides [["a global variable"|"relative:///xio-named.c:21:22:21:37"]] with the same name.

## 6-Local variable hides global variable

- -> [Path]: /xioinitialize.c (Line) 138:34, 138:37
- -> [Message] : Parameter sock hides [["a global variable"|"relative:///xioinitialize.c:15:12:15:15"]] with the same name.

#### 7-Local variable hides global variable

- -> [Path] : /xioopts.c (Line) 1768:29, 1768:39
- -> [Message] : Parameter optionnames hides [["a global variable"|"relative:///xioopts.c:146:22:146:32"]] with the same name.

# 8-Function declared in block

- -> [Path] : /xio-progcall.c (Line) 228:6, 228:31
- -> [Message]: Functions should be declared at file scope, not inside blocks.