

Commit 244f3ee



Théophane Hufsch... committed on Mar 7, 2024

Copy the output of fixed-output derivations before registering them

It is possible to exfiltrate a file descriptor out of the build sandbox of FODs, and use it to modify the store path after it has been registered.

To avoid that issue, don't register the output of the build, but a copy of it (that will be free of any leaked file descriptor).

2.20-maintenance · 2.20.9 ... 2.20.5

1 parent [4645652](#) commit 244f3ee

3 files changed +18 -0 lines changed

Top

Filter files...

- src
 - libstore/build
 - local-derivation-goal.cc
 - libutil
 - file-system.cc
 - file-system.hh

3 files changed +18 -0 lines changed

Search within code

```

src/libstore/build/local-derivation-goal.cc
@@ -2527,6 +2527,12 @@ SingleDrvOutputs
LocalDerivationGoal::registerOutputs()
2527     2527         [&](const DerivationOutput::CAFixed & dof) {
2528     2528             auto & wanted = dof.ca.hash;

```

```

2529 2529
2530 + // Replace the output by a fresh copy of itself to make sure
2531 + // that there's no stale file descriptor pointing to it
2532 + Path tmpOutput = actualPath + ".tmp";
2533 + copyFile(actualPath, tmpOutput, true);
2534 + renameFile(tmpOutput, actualPath);
2535 +
2530 2536 auto newInfo0 = newInfoFromCA(DerivationOutput::CAFloating {
2531 2537     .method = dof.ca.method,
2532 2538     .hashAlgo = wanted.algo,

```

src/libutil/file-system.cc

```

@@ -628,6 +628,11 @@ void copy(const fs::directory_entry & from, const
fs::path & to, bool andDelete)
628 628     }
629 629     }
630 630
631 + void copyFile(const Path & oldPath, const Path & newPath, bool andDelete)
632 + {
633 +     return copy(fs::directory_entry(fs::path(oldPath)), fs::path(newPath),
        andDelete);
634 + }
635 +
631 636 void renameFile(const Path & oldName, const Path & newName)
632 637 {
633 638     fs::rename(oldName, newName);

```

src/libutil/file-system.hh

```

@@ -186,6 +186,13 @@ void renameFile(const Path & src, const Path & dst);
186 186     */
187 187 void moveFile(const Path & src, const Path & dst);
188 188
189 + /**
190 + * Recursively copy the content of `oldPath` to `newPath`. If `andDelete` is
191 + * `true`, then also remove `oldPath` (making this equivalent to `moveFile`,
        but
192 + * with the guaranty that the destination will be "fresh", with no stale inode

```

```
193 + * or file descriptor pointing to it).
194 + */
195 + void copyFile(const Path & oldPath, const Path & newPath, bool andDelete);
189 196
190 197 /**
191 198 * Automatic cleanup of resources.
```



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