

Metrics:

Total lines of code: 123039

Total lines skipped (#nosec): 0

Skipped files:

./server_mesh.py **reason:** syntax error while parsing AST from file

blacklist: Use of possibly insecure function - consider using safer ast.literal_eval.

Test ID: B307

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-78](#)

File: [./venv/lib/python3.13/site-packages/cffi/recompiler.py](#)

Line number: 78

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b307-eval

```
77         def as_python_expr(self):
78             flags = eval(self.flags, G_FLAGS)
79             fields_expr = [c_field.as_field_python_expr()
```

exec_used: Use of exec detected.

Test ID: B102

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-78](#)

File: [./venv/lib/python3.13/site-packages/cffi/setuptools_ext.py](#)

Line number: 26

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b102_exec_used.html

```
25         code = compile(src, filename, 'exec')
26         exec(code, glob, glob)
27
```

blacklist: Use of insecure MD2, MD4, MD5, or SHA1 hash function.

Test ID: B303

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/hazmat/_oid.py](#)

Line number: 128

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b303-md5

```
127     _SIG_OIDS_TO_HASH: dict[ObjectIdentifier, hashes.HashAlgorithm | None] = {
128         SignatureAlgorithmOID.RSA_WITH_MD5: hashes.MD5(),
129         SignatureAlgorithmOID.RSA_WITH_SHA1: hashes.SHA1(),
```

blacklist: Use of insecure MD2, MD4, MD5, or SHA1 hash function.

Test ID: B303

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/hazmat/_oid.py](#)

Line number: 129

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b303-md5

```
128         SignatureAlgorithmOID.RSA_WITH_MD5: hashes.MD5(),
129         SignatureAlgorithmOID.RSA_WITH_SHA1: hashes.SHA1(),
130         SignatureAlgorithmOID._RSA_WITH_SHA1: hashes.SHA1(),
```

blacklist: Use of insecure MD2, MD4, MD5, or SHA1 hash function.

Test ID: B303

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/hazmat/_oid.py](#)

Line number: 130

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b303-md5

```
129         SignatureAlgorithmOID.RSA_WITH_SHA1: hashes.SHA1(),
130         SignatureAlgorithmOID._RSA_WITH_SHA1: hashes.SHA1(),
131         SignatureAlgorithmOID.RSA_WITH_SHA224: hashes.SHA224(),
```

blacklist: Use of insecure MD2, MD4, MD5, or SHA1 hash function.

Test ID: B303

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/hazmat/_oid.py](#)

Line number: 139

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b303-md5

```
138         SignatureAlgorithmOID.RSA_WITH_SHA3_512: hashes.SHA3_512(),
139         SignatureAlgorithmOID.ECDSA_WITH_SHA1: hashes.SHA1(),
140         SignatureAlgorithmOID.ECDSA_WITH_SHA224: hashes.SHA224(),
```

blacklist: Use of insecure MD2, MD4, MD5, or SHA1 hash function.

Test ID: B303

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/hazmat/_oid.py](#)

Line number: 148

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b303-md5

```
147         SignatureAlgorithmOID.ECDSA_WITH_SHA3_512: hashes.SHA3_512(),
148         SignatureAlgorithmOID.DSA_WITH_SHA1: hashes.SHA1(),
149         SignatureAlgorithmOID.DSA_WITH_SHA224: hashes.SHA224(),
```

blacklist: Use of insecure cipher mode cryptography.hazmat.primitives.ciphers.modes.ECB.

Test ID: B305

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/hazmat/primitives/keywrap.py](#)

Line number: 21

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b304-b305-ciphers-and-modes

```
20         # RFC 3394 Key Wrap - 2.2.1 (index method)
21         encryptor = Cipher(AES(wrapping_key), ECB()).encryptor()
22         n = len(r)
```

blacklist: Use of insecure cipher mode cryptography.hazmat.primitives.ciphers.modes.ECB.

Test ID: B305

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/hazmat/primitives/keywrap.py](#)

Line number: 64

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b304-b305-ciphers-and-modes

```
63         # Implement RFC 3394 Key Unwrap - 2.2.2 (index method)
64         decryptor = Cipher(AES(wrapping_key), ECB()).decryptor()
65         n = len(r)
```

blacklist: Use of insecure cipher mode cryptography.hazmat.primitives.ciphers.modes.ECB.

Test ID: B305

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/hazmat/primitives/keywrap.py](#)

Line number: 97

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b304-b305-ciphers-and-modes

```
96         # RFC 5649 - 4.1 - exactly 8 octets after padding
97         encryptor = Cipher(AES(wrapping_key), ECB()).encryptor()
98         b = encryptor.update(aiv + key_to_wrap)
```

blacklist: Use of insecure cipher mode cryptography.hazmat.primitives.ciphers.modes.ECB.

Test ID: B305

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/hazmat/primitives/keywrap.py](#)

Line number: 119

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b304-b305-ciphers-and-modes

```
118         # RFC 5649 - 4.2 - exactly two 64-bit blocks
119         decryptor = Cipher(AES(wrapping_key), ECB()).decryptor()
120         out = decryptor.update(wrapped_key)
```

blacklist: Use of insecure MD2, MD4, MD5, or SHA1 hash function.

Test ID: B303

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/hazmat/primitives/serialization/ssh.py](#)

Line number: 1007

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b303-md5

```
1006         if self._inner_sig_type == _SSH_RSA:
1007             hash_alg = hashes.SHA1()
1008         elif self._inner_sig_type == _SSH_RSA_SHA256:
```

hashlib: Use of weak SHA1 hash for security. Consider usedforsecurity=False

Test ID: B324

Severity: HIGH

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/cryptography/x509/extensions.py](#)

Line number: 72

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b324_hashlib.html

```
71
72         return hashlib.sha1(data).digest()
73
```

subprocess_popen_with_shell_equals_true: subprocess call with shell=True identified, security issue.

Test ID: B602

Severity: HIGH

Confidence: HIGH

CWE: [CWE-78](#)

File: [./venv/lib/python3.13/site-packages/pip/_internal/commands/configuration.py](#)

Line number: 247

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b602_subprocess_popen_with_shell_equals_true.html

```
246         try:
247             subprocess.check_call(f'{editor} "{fname}"', shell=True)
248         except FileNotFoundError as e:
```

blacklist: Using xmlrpc.client to parse untrusted XML data is known to be vulnerable to XML attacks. Use defusedxml.xmlrpc.monkey_patch() function to monkey-patch xmlrpclib and mitigate XML vulnerabilities.

Test ID: B411

Severity: HIGH

Confidence: HIGH

CWE: [CWE-20](#)

File: [./venv/lib/python3.13/site-packages/pip/_internal/commands/search.py](#)

Line number: 7

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_imports.html#b411-import-xmlrpclib

```
6         import textwrap
7         import xmlrpc.client
8         from collections import OrderedDict
```

blacklist: Using xmlrpc.client to parse untrusted XML data is known to be vulnerable to XML attacks. Use defusedxml.xmlrpc.monkey_patch() function to monkey-patch xmlrpclib and mitigate XML vulnerabilities.

Test ID: B411

Severity: HIGH

Confidence: HIGH

CWE: [CWE-20](#)

File: [./venv/lib/python3.13/site-packages/pip/_internal/network/xmlrpc.py](#)

Line number: 5

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_imports.html#b411-import-xmlrpclib

```
4         import urllib.parse
5         import xmlrpc.client
6         from typing import TYPE_CHECKING
```

blacklist: Using _HostType to parse untrusted XML data is known to be vulnerable to XML attacks. Use defusedxml.xmlrpc.monkey_patch() function to monkey-patch xmlrpclib and mitigate XML vulnerabilities.

Test ID: B411

Severity: HIGH

Confidence: HIGH

CWE: [CWE-20](#)

File: [./venv/lib/python3.13/site-packages/pip/_internal/network/xmlrpc.py](#)

Line number: 13

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_imports.html#b411-import-xmlrpclib

```
12         if TYPE_CHECKING:
13             from xmlrpc.client import _HostType, _Marshallable
14
```

tarfile_unsafe_members: tarfile.extractall used without any validation. Please check and discard dangerous members.

Test ID: B202

Severity: HIGH

Confidence: HIGH

CWE: [CWE-22](#)

File: [./venv/lib/python3.13/site-packages/pip/_internal/utils/unpacking.py](#)

Line number: 245

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b202_tarfile_unsafe_members.html

```
244
245         tar.extractall(location, filter=pip_filter)
246
```

blacklist: Using xmlrpclib to parse untrusted XML data is known to be vulnerable to XML attacks. Use defusedxml.xmlrpc.monkey_patch() function to monkey-patch xmlrpclib and mitigate XML vulnerabilities.

Test ID: B411

Severity: HIGH

Confidence: HIGH

CWE: [CWE-20](#)**File:** [./venv/lib/python3.13/site-packages/pip/_vendor/distlib/compat.py](#)**Line number:** 42**More info:** https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_imports.html#b411-import-xmlrpclib

```
41         import httpplib
42         import xmlrpclib
43         import Queue as queue
```

blacklist: Using xmlrpc.client to parse untrusted XML data is known to be vulnerable to XML attacks. Use defusedxml.xmlrpc.monkey_patch() function to monkey-patch xmlrpclib and mitigate XML vulnerabilities.

Test ID: B411**Severity:** HIGH**Confidence:** HIGH**CWE:** [CWE-20](#)**File:** [./venv/lib/python3.13/site-packages/pip/_vendor/distlib/compat.py](#)**Line number:** 81**More info:** https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_imports.html#b411-import-xmlrpclib

```
80         import urllib.request as urllib2
81         import xmlrpc.client as xmlrpclib
82         import queue
```

tarfile_unsafe_members: tarfile.extractall used without any validation. Please check and discard dangerous members.

Test ID: B202**Severity:** HIGH**Confidence:** HIGH**CWE:** [CWE-22](#)**File:** [./venv/lib/python3.13/site-packages/pip/_vendor/distlib/util.py](#)**Line number:** 1285**More info:** https://bandit.readthedocs.io/en/1.8.6/plugins/b202_tarfile_unsafe_members.html

```
1284
1285         archive.extractall(dest_dir)
1286
```

blacklist: Use of possibly insecure function - consider using safer ast.literal_eval.

Test ID: B307**Severity:** MEDIUM**Confidence:** HIGH**CWE:** [CWE-78](#)**File:** [./venv/lib/python3.13/site-packages/pip/_vendor/packaging/licenses/_init_.py](#)**Line number:** 100**More info:** https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b307-eval

```
99         try:
100             invalid = eval(python_expression, globals(), locals())
101         except Exception:
```

exec_used: Use of exec detected.

Test ID: B102**Severity:** MEDIUM**Confidence:** HIGH**CWE:** [CWE-78](#)**File:** [./venv/lib/python3.13/site-packages/pip/_vendor/pkg_resources/_init_.py](#)**Line number:** 1714**More info:** https://bandit.readthedocs.io/en/1.8.6/plugins/b102_exec_used.html

```
1713         code = compile(source, script_filename, 'exec')
1714         exec(code, namespace, namespace)
1715     else:
```

exec_used: Use of exec detected.

Test ID: B102

Severity: MEDIUM**Confidence:** HIGH**CWE:** [CWE-78](#)**File:** [./venv/lib/python3.13/site-packages/pip/_vendor/pkg_resources/__init__.py](#)**Line number:** 1725**More info:** https://bandit.readthedocs.io/en/1.8.6/plugins/b102_exec_used.html

```
1724         script_code = compile(script_text, script_filename, 'exec')
1725         exec(script_code, namespace, namespace)
1726
```

hardcoded_tmp_directory: Probable insecure usage of temp file/directory.**Test ID:** B108**Severity:** MEDIUM**Confidence:** MEDIUM**CWE:** [CWE-377](#)**File:** [./venv/lib/python3.13/site-packages/pip/_vendor/platformdirs/unix.py](#)**Line number:** 182**More info:** https://bandit.readthedocs.io/en/1.8.6/plugins/b108_hardcoded_tmp_directory.html

```
181         if not Path(path).exists():
182             path = f"/tmp/runtime-{getuid()}" # noqa: S108
183         else:
```

exec_used: Use of exec detected.**Test ID:** B102**Severity:** MEDIUM**Confidence:** HIGH**CWE:** [CWE-78](#)**File:** [./venv/lib/python3.13/site-packages/pip/_vendor/pygments/formatters/__init__.py](#)**Line number:** 103**More info:** https://bandit.readthedocs.io/en/1.8.6/plugins/b102_exec_used.html

```
102         with open(filename, 'rb') as f:
103             exec(f.read(), custom_namespace)
104         # Retrieve the class `formattername` from that namespace
```

exec_used: Use of exec detected.**Test ID:** B102**Severity:** MEDIUM**Confidence:** HIGH**CWE:** [CWE-78](#)**File:** [./venv/lib/python3.13/site-packages/pip/_vendor/pygments/lexers/__init__.py](#)**Line number:** 154**More info:** https://bandit.readthedocs.io/en/1.8.6/plugins/b102_exec_used.html

```
153         with open(filename, 'rb') as f:
154             exec(f.read(), custom_namespace)
155         # Retrieve the class `lexername` from that namespace
```

hashlib: Use of weak MD5 hash for security. Consider usedforsecurity=False**Test ID:** B324**Severity:** HIGH**Confidence:** HIGH**CWE:** [CWE-327](#)**File:** [./venv/lib/python3.13/site-packages/pip/_vendor/requests/auth.py](#)**Line number:** 148**More info:** https://bandit.readthedocs.io/en/1.8.6/plugins/b324_hashlib.html

```
147         x = x.encode("utf-8")
148         return hashlib.md5(x).hexdigest()
149
```

hashlib: Use of weak SHA1 hash for security. Consider usedforsecurity=False

Test ID: B324

Severity: HIGH

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/pip/_vendor/requests/auth.py](#)

Line number: 156

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b324_hashlib.html

```
155             x = x.encode("utf-8")
156         return hashlib.sha1(x).hexdigest()
157
```

hashlib: Use of weak SHA1 hash for security. Consider usedforsecurity=False

Test ID: B324

Severity: HIGH

Confidence: HIGH

CWE: [CWE-327](#)

File: [./venv/lib/python3.13/site-packages/pip/_vendor/requests/auth.py](#)

Line number: 205

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b324_hashlib.html

```
204
205         cnonce = hashlib.sha1(s).hexdigest()[:16]
206         if _algorithm == "MD5-SESS":
```

blacklist: Deserialization with the marshal module is possibly dangerous.

Test ID: B302

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-502](#)

File: [./venv/lib/python3.13/site-packages/pip/_vendor/rich/style.py](#)

Line number: 475

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b302-marshal

```
474         """Get meta information (can not be changed after construction)."""
475         return {} if self._meta is None else cast(Dict[str, Any], loads(self._meta))
476
```

exec_used: Use of exec detected.

Test ID: B102

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-78](#)

File: [./venv/lib/python3.13/site-packages/pip/_vendor/urllib3/packages/six.py](#)

Line number: 787

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b102_exec_used.html

```
786         _locs_ = _globs_
787         exec ("""exec _code_ in _globs_, _locs_""")
788
```

blacklist: Use of possibly insecure function - consider using safer ast.literal_eval.

Test ID: B307

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-78](#)

File: [./venv/lib/python3.13/site-packages/pycparser/ply/cpp.py](#)

Line number: 600

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b307-eval

```
599         try:
600             result = eval(expr)
601         except Exception:
```

exec_used: Use of exec detected.

Test ID: B102

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-78](#)

File: [./venv/lib/python3.13/site-packages/pycparser/ply/lex.py](#)

Line number: 215

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b102_exec_used.html

```
214         else:
215             exec('import %s' % tabfile)
216             lxtab = sys.modules[tabfile]
```

exec_used: Use of exec detected.

Test ID: B102

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-78](#)

File: [./venv/lib/python3.13/site-packages/pycparser/ply/lex.py](#)

Line number: 1039

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b102_exec_used.html

```
1038             pkgname = '.'.join(parts[:-1])
1039             exec('import %s' % pkgname)
1040             srcfile = getattr(sys.modules[pkgname], '__file__', '')
```

blacklist: Use of possibly insecure function - consider using safer ast.literal_eval.

Test ID: B307

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-78](#)

File: [./venv/lib/python3.13/site-packages/pycparser/ply/yacc.py](#)

Line number: 1562

More info: https://bandit.readthedocs.io/en/1.8.6/blacklists/blacklist_calls.html#b307-eval

```
1561         try:
1562             c = eval(s)
1563             if (len(c) > 1):
```

exec_used: Use of exec detected.

Test ID: B102

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-78](#)

File: [./venv/lib/python3.13/site-packages/pycparser/ply/yacc.py](#)

Line number: 1982

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b102_exec_used.html

```
1981         else:
1982             exec('import %s' % module)
1983             parsetab = sys.modules[module]
```

exec_used: Use of exec detected.

Test ID: B102

Severity: MEDIUM

Confidence: HIGH

CWE: [CWE-78](#)

File: [./venv/lib/python3.13/site-packages/pycparser/ply/yacc.py](#)

Line number: 3254

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b102_exec_used.html


```
3253         pkgname = '.'.join(parts[:-1])
3254         exec('import %s' % pkgname)
3255         srcfile = getattr(sys.modules[pkgname], '__file__', '')
```

hashlib: Use of weak SHA1 hash for security. Consider usedforsecurity=False

Test ID: B324

Severity: HIGH

Confidence: HIGH

CWE: [CWE-327](#)

File: [./ws.py](#)

Line number: 8

More info: https://bandit.readthedocs.io/en/1.8.6/plugins/b324_hashlib.html

```
7         import hashlib
8         return hashlib.sha1(data).digest()
9
```