# CVE Detail – CVE-2009-1603

src/tools/pkcs11-tool.c in pkcs11-tool in OpenSC 0.11.7, when used with unspecified third-party PKCS#11 modules, generates RSA keys with incorrect public exponents, which allows attackers to read the cleartext form of messages that were intended to be encrypted.

## Threat-Mapped Scoring

Score: 0.0

Priority: Unclassified

## EPSS

EPSS Score: N/A

Percentile: 0.76597

## CVSS Scoring

CVSS v3.1 Score: 7.5

Severity: HIGH

## Mapped CWE(s)

* CWE-312: Cleartext Storage of Sensitive Information

## CAPEC(s)

* CAPEC-37: Retrieve Embedded Sensitive Data

## ATT&CK Techniques

* T1005: Data from Local System
* T1552.004: Private Keys

## Used By (Actors/Tools)

* TrickBot (malware)
* BLINDINGCAN (malware)
* RCSession (malware)
* QuietSieve (malware)
* Bumblebee (malware)
* Amadey (malware)
* Proxysvc (malware)
* yty (malware)
* KOPILUWAK (malware)
* Sardonic (malware)
* Misdat (malware)
* Ursnif (malware)
* ThreatNeedle (malware)
* FrameworkPOS (malware)
* GravityRAT (malware)
* Bankshot (malware)
* SharpDisco (malware)
* xCaon (malware)
* Nebulae (malware)
* RainyDay (malware)
* AppleSeed (malware)
* TinyTurla (malware)
* CosmicDuke (malware)
* EnvyScout (malware)
* Crimson (malware)
* Tomiris (malware)
* DUSTTRAP (malware)
* Machete (malware)
* PowerLess (malware)
* Action RAT (malware)
* PingPull (malware)
* WellMess (malware)
* Woody RAT (malware)
* Mafalda (malware)
* AuTo Stealer (malware)
* Hildegard (malware)
* SombRAT (malware)
* FLASHFLOOD (malware)
* FlawedAmmyy (malware)
* LoFiSe (malware)
* MobileOrder (malware)
* InvisiMole (malware)
* P.A.S. Webshell (malware)
* Neoichor (malware)
* MarkiRAT (malware)
* Kazuar (malware)
* CHIMNEYSWEEP (malware)
* FatDuke (malware)
* DRATzarus (malware)
* Rising Sun (malware)
* ShimRat (malware)
* Chrommme (malware)
* BADFLICK (malware)
* Flagpro (malware)
* SpicyOmelette (malware)
* Green Lambert (malware)
* China Chopper (malware)
* ROKRAT (malware)
* DarkWatchman (malware)
* BlackMould (malware)
* Bisonal (malware)
* Rover (malware)
* LightNeuron (malware)
* Clambling (malware)
* DarkGate (malware)
* Mongall (malware)
* SVCReady (malware)
* FoggyWeb (malware)
* Hydraq (malware)
* CreepyDrive (malware)
* Caterpillar WebShell (malware)
* USBferry (malware)
* Latrodectus (malware)
* Saint Bot (malware)
* CharmPower (malware)
* Uroburos (malware)
* Bandook (malware)
* KONNI (malware)
* RAPIDPULSE (malware)
* DnsSystem (malware)
* KGH\_SPY (malware)
* Ixeshe (malware)
* BoxCaon (malware)
* NightClub (malware)
* Crutch (malware)
* SDBbot (malware)
* Hikit (malware)
* WellMail (malware)
* RawPOS (malware)
* ZxxZ (malware)
* Drovorub (malware)
* Shark (malware)
* Bazar (malware)
* BadPatch (malware)
* Cryptoistic (malware)
* MgBot (malware)
* ccf32 (malware)
* Cobalt Strike (malware)
* SUNBURST (malware)
* Samurai (malware)
* PinchDuke (malware)
* Milan (malware)
* OSX\_OCEANLOTUS.D (malware)
* Taidoor (malware)
* Cyclops Blink (malware)
* PoisonIvy (malware)
* TajMahal (malware)
* Raccoon Stealer (malware)
* IPsec Helper (malware)
* DanBot (malware)
* Calisto (malware)
* Ramsay (malware)
* Pillowmint (malware)
* MacMa (malware)
* FunnyDream (malware)
* SysUpdate (malware)
* OutSteel (malware)
* PUNCHTRACK (malware)
* GrimAgent (malware)
* StealBit (malware)
* ZxShell (malware)
* SLIGHTPULSE (malware)
* Troll Stealer (malware)
* Ebury (malware)
* Kinsing (malware)
* njRAT (malware)
* IceApple (malware)
* metaMain (malware)
* SideTwist (malware)
* Mis-Type (malware)
* XCSSET (malware)
* Octopus (malware)
* STARWHALE (malware)
* Pcexter (malware)
* Kevin (malware)
* Pasam (malware)
* POWERSTATS (malware)
* BADNEWS (malware)
* Linfo (malware)
* Goopy (malware)
* QakBot (malware)
* CookieMiner (malware)
* Gelsemium (malware)
* jRAT (malware)
* Dtrack (malware)
* Zox (malware)
* StrifeWater (malware)
* WarzoneRAT (malware)
* SLOTHFULMEDIA (malware)
* NPPSPY (tool)
* PowerSploit (tool)
* AADInternals (tool)
* Empire (tool)
* PcShare (tool)
* Brute Ratel C4 (tool)
* Out1 (tool)
* Forfiles (tool)
* MCMD (tool)
* Mimikatz (tool)
* esentutl (tool)
* Koadic (tool)
* QuasarRAT (tool)
* Wevtutil (tool)
* LuminousMoth (intrusion-set)
* Operation Wocao (campaign)
* Wizard Spider (intrusion-set)
* FIN7 (intrusion-set)
* Dragonfly (intrusion-set)
* OilRig (intrusion-set)
* Fox Kitten (intrusion-set)
* SolarWinds Compromise (campaign)
* Lazarus Group (intrusion-set)
* Aquatic Panda (intrusion-set)
* Inception (intrusion-set)
* Operation CuckooBees (campaign)
* Sandworm Team (intrusion-set)
* Turla (intrusion-set)
* Ember Bear (intrusion-set)
* CostaRicto (campaign)
* TeamTNT (intrusion-set)
* FIN6 (intrusion-set)
* Patchwork (intrusion-set)
* APT28 (intrusion-set)
* Ke3chang (intrusion-set)
* Volt Typhoon (intrusion-set)
* Magic Hound (intrusion-set)
* APT29 (intrusion-set)
* Operation Honeybee (campaign)
* Andariel (intrusion-set)
* HAFNIUM (intrusion-set)
* APT39 (intrusion-set)
* APT38 (intrusion-set)
* BRONZE BUTLER (intrusion-set)
* Kimsuky (intrusion-set)
* LAPSUS$ (intrusion-set)
* ToddyCat (intrusion-set)
* menuPass (intrusion-set)
* Operation Dream Job (campaign)
* Stealth Falcon (intrusion-set)
* APT37 (intrusion-set)
* APT41 (intrusion-set)
* FIN13 (intrusion-set)
* GALLIUM (intrusion-set)
* C0015 (campaign)
* Rocke (intrusion-set)
* Scattered Spider (intrusion-set)
* CURIUM (intrusion-set)
* Windigo (intrusion-set)
* RedCurl (intrusion-set)
* Frankenstein (campaign)
* Threat Group-3390 (intrusion-set)
* Gamaredon Group (intrusion-set)
* Night Dragon (campaign)
* Agrius (intrusion-set)
* Axiom (intrusion-set)
* Dark Caracal (intrusion-set)
* APT3 (intrusion-set)
* Operation MidnightEclipse (campaign)
* APT1 (intrusion-set)
* C0017 (campaign)
* Cutting Edge (campaign)
* C0026 (campaign)

## Affected Products

* cpe:2.3:a:opensc-project:opensc:0.11.7:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:fedoraproject:fedora:9:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:fedoraproject:fedora:10:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:fedoraproject:fedora:11:\*:\*:\*:\*:\*:\*:\*