# CVE Detail – CVE-2022-23607

treq is an HTTP library inspired by requests but written on top of Twisted's Agents. Treq's request methods (`treq.get`, `treq.post`, etc.) and `treq.client.HTTPClient` constructor accept cookies as a dictionary. Such cookies are not bound to a single domain, and are therefore sent to \*every\* domain ("supercookies"). This can potentially cause sensitive information to leak upon an HTTP redirect to a different domain., e.g. should `https://example.com` redirect to `http://cloudstorageprovider.com` the latter will receive the cookie `session`. Treq 2021.1.0 and later bind cookies given to request methods (`treq.request`, `treq.get`, `HTTPClient.request`, `HTTPClient.get`, etc.) to the origin of the \*url\* parameter. Users are advised to upgrade. For users unable to upgrade Instead of passing a dictionary as the \*cookies\* argument, pass a `http.cookiejar.CookieJar` instance with properly domain- and scheme-scoped cookies in it.

## Threat-Mapped Scoring

Score: 3.0

Priority: P2 - Serious (High)

## EPSS

EPSS Score: N/A

Percentile: 0.40351

## CVSS Scoring

CVSS v3.1 Score: 6.5

Severity: MEDIUM

## Mapped CWE(s)

* CWE-200: Exposure of Sensitive Information to an Unauthorized Actor
* CWE-425: Direct Request ('Forced Browsing')

## CAPEC(s)

* CAPEC-116: Excavation
* CAPEC-127: Directory Indexing
* CAPEC-13: Subverting Environment Variable Values
* CAPEC-143: Detect Unpublicized Web Pages
* CAPEC-144: Detect Unpublicized Web Services
* CAPEC-169: Footprinting
* CAPEC-22: Exploiting Trust in Client
* CAPEC-224: Fingerprinting
* CAPEC-285: ICMP Echo Request Ping
* CAPEC-287: TCP SYN Scan
* CAPEC-290: Enumerate Mail Exchange (MX) Records
* CAPEC-291: DNS Zone Transfers
* CAPEC-292: Host Discovery
* CAPEC-293: Traceroute Route Enumeration
* CAPEC-294: ICMP Address Mask Request
* CAPEC-295: Timestamp Request
* CAPEC-296: ICMP Information Request
* CAPEC-297: TCP ACK Ping
* CAPEC-298: UDP Ping
* CAPEC-299: TCP SYN Ping
* CAPEC-300: Port Scanning
* CAPEC-301: TCP Connect Scan
* CAPEC-302: TCP FIN Scan
* CAPEC-303: TCP Xmas Scan
* CAPEC-304: TCP Null Scan
* CAPEC-305: TCP ACK Scan
* CAPEC-306: TCP Window Scan
* CAPEC-307: TCP RPC Scan
* CAPEC-308: UDP Scan
* CAPEC-309: Network Topology Mapping
* CAPEC-310: Scanning for Vulnerable Software
* CAPEC-312: Active OS Fingerprinting
* CAPEC-313: Passive OS Fingerprinting
* CAPEC-317: IP ID Sequencing Probe
* CAPEC-318: IP 'ID' Echoed Byte-Order Probe
* CAPEC-319: IP (DF) 'Don't Fragment Bit' Echoing Probe
* CAPEC-320: TCP Timestamp Probe
* CAPEC-321: TCP Sequence Number Probe
* CAPEC-322: TCP (ISN) Greatest Common Divisor Probe
* CAPEC-323: TCP (ISN) Counter Rate Probe
* CAPEC-324: TCP (ISN) Sequence Predictability Probe
* CAPEC-325: TCP Congestion Control Flag (ECN) Probe
* CAPEC-326: TCP Initial Window Size Probe
* CAPEC-327: TCP Options Probe
* CAPEC-328: TCP 'RST' Flag Checksum Probe
* CAPEC-329: ICMP Error Message Quoting Probe
* CAPEC-330: ICMP Error Message Echoing Integrity Probe
* CAPEC-472: Browser Fingerprinting
* CAPEC-497: File Discovery
* CAPEC-508: Shoulder Surfing
* CAPEC-573: Process Footprinting
* CAPEC-574: Services Footprinting
* CAPEC-575: Account Footprinting
* CAPEC-576: Group Permission Footprinting
* CAPEC-577: Owner Footprinting
* CAPEC-59: Session Credential Falsification through Prediction
* CAPEC-60: Reusing Session IDs (aka Session Replay)
* CAPEC-616: Establish Rogue Location
* CAPEC-643: Identify Shared Files/Directories on System
* CAPEC-646: Peripheral Footprinting
* CAPEC-651: Eavesdropping
* CAPEC-668: Key Negotiation of Bluetooth Attack (KNOB)
* CAPEC-79: Using Slashes in Alternate Encoding
* CAPEC-87: Forceful Browsing

## ATT&CK Techniques

* T1033: System Owner/User Discovery
* T1592: Gather Victim Host Information
* T1574.007: Path Interception by PATH Environment Variable
* T1069: Permission Groups Discovery
* T1615: Group Policy Discovery
* T1036.005: Match Legitimate Resource Name or Location
* T1007: System Service Discovery
* T1135: Network Share Discovery
* T1120: Peripheral Device Discovery
* T1082: System Information Discovery
* T1217: Browser Information Discovery
* T1574.006: Dynamic Linker Hijacking
* T1595: Active Scanning
* T1016: System Network Configuration Discovery
* T1087: Account Discovery
* T1083: File and Directory Discovery
* T1049: System Network Connections Discovery
* T1134.001: Token Impersonation/Theft
* T1057: Process Discovery
* T1562.003: Impair Command History Logging
* T1590: Gather Victim Network Information
* T1550.004: Web Session Cookie
* T1565.002: Transmitted Data Manipulation
* T1111: Multi-Factor Authentication Interception
* T1018: Remote System Discovery
* T1046: Network Service Discovery
* T1124: System Time Discovery

## Used By (Actors/Tools)

* HDoor (malware)
* TrickBot (malware)
* cd00r (malware)
* PowerDuke (malware)
* EKANS (malware)
* BLINDINGCAN (malware)
* Ninja (malware)
* Pikabot (malware)
* RCSession (malware)
* Spark (malware)
* QuietSieve (malware)
* SynAck (malware)
* Bumblebee (malware)
* MURKYTOP (malware)
* AcidRain (malware)
* GRIFFON (malware)
* Amadey (malware)
* Proxysvc (malware)
* Orz (malware)
* Torisma (malware)
* NOKKI (malware)
* yty (malware)
* Backdoor.Oldrea (malware)
* Stuxnet (malware)
* RotaJakiro (malware)
* AvosLocker (malware)
* Get2 (malware)
* POWRUNER (malware)
* KOPILUWAK (malware)
* Chinoxy (malware)
* SharpStage (malware)
* COATHANGER (malware)
* Sardonic (malware)
* Smoke Loader (malware)
* HALFBAKED (malware)
* WindTail (malware)
* Misdat (malware)
* Linux Rabbit (malware)
* Emissary (malware)
* Exaramel for Linux (malware)
* KEYMARBLE (malware)
* BUBBLEWRAP (malware)
* HAWKBALL (malware)
* Ursnif (malware)
* ThreatNeedle (malware)
* RansomHub (malware)
* ZLib (malware)
* RedLeaves (malware)
* LITTLELAMB.WOOLTEA (malware)
* Felismus (malware)
* Zeus Panda (malware)
* GeminiDuke (malware)
* CARROTBAT (malware)
* FrameworkPOS (malware)
* GravityRAT (malware)
* Prestige (malware)
* Bankshot (malware)
* SharpDisco (malware)
* StrongPity (malware)
* HAPPYWORK (malware)
* xCaon (malware)
* PLAINTEE (malware)
* Pony (malware)
* WinMM (malware)
* Nebulae (malware)
* AuditCred (malware)
* UPSTYLE (malware)
* Kasidet (malware)
* OceanSalt (malware)
* Playcrypt (malware)
* Brave Prince (malware)
* RainyDay (malware)
* AppleSeed (malware)
* macOS.OSAMiner (malware)
* NETWIRE (malware)
* TinyTurla (malware)
* PyDCrypt (malware)
* J-magic (malware)
* iKitten (malware)
* OLDBAIT (malware)
* Bad Rabbit (malware)
* CosmicDuke (malware)
* EnvyScout (malware)
* SslMM (malware)
* IMAPLoader (malware)
* GreyEnergy (malware)
* Gomir (malware)
* Aria-body (malware)
* Emotet (malware)
* Olympic Destroyer (malware)
* BOLDMOVE (malware)
* Crimson (malware)
* TEARDROP (malware)
* DUSTTRAP (malware)
* Turian (malware)
* BADHATCH (malware)
* Machete (malware)
* PowerLess (malware)
* Action RAT (malware)
* Avenger (malware)
* DUSTPAN (malware)
* Prikormka (malware)
* Gootloader (malware)
* PingPull (malware)
* WellMess (malware)
* Dacls (malware)
* DropBook (malware)
* Woody RAT (malware)
* Mafalda (malware)
* KARAE (malware)
* Squirrelwaffle (malware)
* ELMER (malware)
* AuTo Stealer (malware)
* ShrinkLocker (malware)
* Hildegard (malware)
* Agent.btz (malware)
* SLOWDRIFT (malware)
* SHUTTERSPEED (malware)
* SombRAT (malware)
* ODAgent (malware)
* BlackByte 2.0 Ransomware (malware)
* FLASHFLOOD (malware)
* FlawedAmmyy (malware)
* Snip3 (malware)
* FYAnti (malware)
* Rifdoor (malware)
* LoFiSe (malware)
* HOPLIGHT (malware)
* Cuckoo Stealer (malware)
* MobileOrder (malware)
* WastedLocker (malware)
* InvisiMole (malware)
* P.A.S. Webshell (malware)
* QUIETEXIT (malware)
* Naid (malware)
* Apostle (malware)
* Volgmer (malware)
* WINERACK (malware)
* WhisperGate (malware)
* FruitFly (malware)
* ZeroT (malware)
* AcidPour (malware)
* RDAT (malware)
* Skidmap (malware)
* Okrum (malware)
* TRANSLATEXT (malware)
* Bonadan (malware)
* Line Dancer (malware)
* Neoichor (malware)
* Conti (malware)
* Raspberry Robin (malware)
* Mispadu (malware)
* Megazord (malware)
* Diavol (malware)
* Raindrop (malware)
* Doki (malware)
* Siloscape (malware)
* BlackCat (malware)
* Fysbis (malware)
* IcedID (malware)
* VERMIN (malware)
* UBoatRAT (malware)
* Nightdoor (malware)
* MarkiRAT (malware)
* PowerShower (malware)
* Kazuar (malware)
* NavRAT (malware)
* DarkComet (malware)
* NETEAGLE (malware)
* POORAIM (malware)
* CHIMNEYSWEEP (malware)
* Ragnar Locker (malware)
* FatDuke (malware)
* Lucifer (malware)
* BlackEnergy (malware)
* zwShell (malware)
* DCSrv (malware)
* DRATzarus (malware)
* Rising Sun (malware)
* NotPetya (malware)
* ShimRat (malware)
* Chrommme (malware)
* BADFLICK (malware)
* ObliqueRAT (malware)
* SHOTPUT (malware)
* Avaddon (malware)
* Conficker (malware)
* SocGholish (malware)
* Flagpro (malware)
* SpicyOmelette (malware)
* XAgentOSX (malware)
* Green Lambert (malware)
* China Chopper (malware)
* LightSpy (malware)
* PUNCHBUGGY (malware)
* GoldMax (malware)
* HELLOKITTY (malware)
* Cheerscrypt (malware)
* KeyBoy (malware)
* MiniDuke (malware)
* HyperBro (malware)
* Anchor (malware)
* Pteranodon (malware)
* DarkTortilla (malware)
* ROKRAT (malware)
* CORESHELL (malware)
* RunningRAT (malware)
* Babuk (malware)
* Exbyte (malware)
* DarkWatchman (malware)
* Dyre (malware)
* BlackMould (malware)
* Javali (malware)
* PACEMAKER (malware)
* LunarLoader (malware)
* BBSRAT (malware)
* PlugX (malware)
* Reaver (malware)
* Bisonal (malware)
* MultiLayer Wiper (malware)
* S-Type (malware)
* Lumma Stealer (malware)
* DustySky (malware)
* Duqu (malware)
* Remsec (malware)
* Industroyer2 (malware)
* Sykipot (malware)
* Explosive (malware)
* Xbash (malware)
* Rover (malware)
* Epic (malware)
* LightNeuron (malware)
* Peppy (malware)
* KEYPLUG (malware)
* Cuba (malware)
* DEATHRANSOM (malware)
* Clambling (malware)
* Akira (malware)
* DarkGate (malware)
* Mongall (malware)
* NanHaiShu (malware)
* LockBit 3.0 (malware)
* SVCReady (malware)
* ThiefQuest (malware)
* FoggyWeb (malware)
* NGLite (malware)
* Carbanak (malware)
* XTunnel (malware)
* Hydraq (malware)
* SHARPSTATS (malware)
* Ferocious (malware)
* CreepyDrive (malware)
* Caterpillar WebShell (malware)
* Netwalker (malware)
* Elise (malware)
* USBferry (malware)
* WannaCry (malware)
* Gazer (malware)
* TSCookie (malware)
* Latrodectus (malware)
* Saint Bot (malware)
* Pay2Key (malware)
* Chaes (malware)
* CharmPower (malware)
* TYPEFRAME (malware)
* 3PARA RAT (malware)
* Bundlore (malware)
* P8RAT (malware)
* EVILNUM (malware)
* KOMPROGO (malware)
* SMOKEDHAM (malware)
* QUADAGENT (malware)
* Sagerunex (malware)
* TAINTEDSCRIBE (malware)
* Sys10 (malware)
* Royal (malware)
* BendyBear (malware)
* Uroburos (malware)
* Metamorfo (malware)
* Spica (malware)
* Trojan.Karagany (malware)
* Bandook (malware)
* PipeMon (malware)
* MagicRAT (malware)
* TINYTYPHON (malware)
* KONNI (malware)
* T9000 (malware)
* gh0st RAT (malware)
* Shamoon (malware)
* DnsSystem (malware)
* MoleNet (malware)
* CORALDECK (malware)
* JHUHUGIT (malware)
* SPACESHIP (malware)
* BLUELIGHT (malware)
* KGH\_SPY (malware)
* down\_new (malware)
* Ixeshe (malware)
* Micropsia (malware)
* Kerrdown (malware)
* RARSTONE (malware)
* BPFDoor (malware)
* Black Basta (malware)
* ZeroCleare (malware)
* Catchamas (malware)
* StoneDrill (malware)
* OopsIE (malware)
* 4H RAT (malware)
* RogueRobin (malware)
* Attor (malware)
* LitePower (malware)
* MegaCortex (malware)
* StreamEx (malware)
* BoxCaon (malware)
* NightClub (malware)
* Crutch (malware)
* Akira \_v2 (malware)
* SDBbot (malware)
* Mosquito (malware)
* RTM (malware)
* QUIETCANARY (malware)
* Derusbi (malware)
* BlackByte Ransomware (malware)
* SodaMaster (malware)
* StrelaStealer (malware)
* Grandoreiro (malware)
* WellMail (malware)
* LiteDuke (malware)
* Starloader (malware)
* Sibot (malware)
* ZxxZ (malware)
* Tarrask (malware)
* GoBear (malware)
* WINDSHIELD (malware)
* Shark (malware)
* Bazar (malware)
* Kobalos (malware)
* BadPatch (malware)
* MESSAGETAP (malware)
* RATANKBA (malware)
* SUGARDUMP (malware)
* XLoader (malware)
* SOUNDBITE (malware)
* BADCALL (malware)
* MoonWind (malware)
* Ryuk (malware)
* Cryptoistic (malware)
* HermeticWiper (malware)
* Pysa (malware)
* Final1stspy (malware)
* MgBot (malware)
* ccf32 (malware)
* Kapeka (malware)
* LockBit 2.0 (malware)
* Zebrocy (malware)
* Pandora (malware)
* FinFisher (malware)
* SpeakUp (malware)
* LunarMail (malware)
* CrossRAT (malware)
* OwaAuth (malware)
* Cadelspy (malware)
* Cobalt Strike (malware)
* SampleCheck5000 (malware)
* SUNBURST (malware)
* EvilBunny (malware)
* Wingbird (malware)
* HotCroissant (malware)
* ServHelper (malware)
* Unknown Logger (malware)
* REvil (malware)
* Valak (malware)
* Samurai (malware)
* PinchDuke (malware)
* Milan (malware)
* USBStealer (malware)
* OSX\_OCEANLOTUS.D (malware)
* OilBooster (malware)
* Taidoor (malware)
* SUPERNOVA (malware)
* Kivars (malware)
* CaddyWiper (malware)
* Cyclops Blink (malware)
* Seasalt (malware)
* NanoCore (malware)
* TajMahal (malware)
* PLEAD (malware)
* Raccoon Stealer (malware)
* IPsec Helper (malware)
* Daserf (malware)
* Carbon (malware)
* Cardinal RAT (malware)
* DanBot (malware)
* BISCUIT (malware)
* Calisto (malware)
* Solar (malware)
* Pisloader (malware)
* GoldenSpy (malware)
* Gold Dragon (malware)
* RGDoor (malware)
* Ramsay (malware)
* Carberp (malware)
* NKAbuse (malware)
* Pillowmint (malware)
* Revenge RAT (malware)
* MacMa (malware)
* FunnyDream (malware)
* ROADSWEEP (malware)
* SUNSPOT (malware)
* More\_eggs (malware)
* SysUpdate (malware)
* OutSteel (malware)
* BackConfig (malware)
* PowGoop (malware)
* Kwampirs (malware)
* BoomBox (malware)
* DEADEYE (malware)
* Mango (malware)
* InnaputRAT (malware)
* Kessel (malware)
* GrimAgent (malware)
* LookBack (malware)
* Clop (malware)
* YAHOYAH (malware)
* Lokibot (malware)
* Egregor (malware)
* PoetRAT (malware)
* CHOPSTICK (malware)
* StealBit (malware)
* FELIXROOT (malware)
* ZxShell (malware)
* NDiskMonitor (malware)
* DDKONG (malware)
* Penquin (malware)
* BabyShark (malware)
* Cannon (malware)
* CreepySnail (malware)
* build\_downer (malware)
* Melcoz (malware)
* Winnti for Windows (malware)
* Troll Stealer (malware)
* BLACKCOFFEE (malware)
* Ebury (malware)
* Kinsing (malware)
* Meteor (malware)
* njRAT (malware)
* ZIPLINE (malware)
* Maze (malware)
* ComRAT (malware)
* TURNEDUP (malware)
* ChChes (malware)
* PowerStallion (malware)
* ANDROMEDA (malware)
* Manjusaka (malware)
* IceApple (malware)
* JPIN (malware)
* metaMain (malware)
* SideTwist (malware)
* KOCTOPUS (malware)
* MechaFlounder (malware)
* Psylo (malware)
* Heyoka Backdoor (malware)
* HTTPBrowser (malware)
* Mis-Type (malware)
* LunarWeb (malware)
* XCSSET (malware)
* Octopus (malware)
* KillDisk (malware)
* AppleJeus (malware)
* SoreFang (malware)
* STARWHALE (malware)
* MirageFox (malware)
* Industroyer (malware)
* DownPaper (malware)
* Socksbot (malware)
* Pcexter (malware)
* CozyCar (malware)
* Kevin (malware)
* Agent Tesla (malware)
* Pasam (malware)
* POWERSTATS (malware)
* BADNEWS (malware)
* Linfo (malware)
* Goopy (malware)
* ShadowPad (malware)
* Remexi (malware)
* Astaroth (malware)
* QakBot (malware)
* SYSCON (malware)
* CookieMiner (malware)
* Gelsemium (malware)
* jRAT (malware)
* Helminth (malware)
* Dridex (malware)
* Komplex (malware)
* OSX/Shlayer (malware)
* Denis (malware)
* INC Ransomware (malware)
* DEADWOOD (malware)
* Waterbear (malware)
* FIVEHANDS (malware)
* Comnie (malware)
* AutoIt backdoor (malware)
* OSInfo (malware)
* Lizar (malware)
* Dtrack (malware)
* SLOWPULSE (malware)
* LoudMiner (malware)
* Azorult (malware)
* BitPaymer (malware)
* BACKSPACE (malware)
* Zox (malware)
* UPPERCUT (malware)
* ADVSTORESHELL (malware)
* StrifeWater (malware)
* HiddenWasp (malware)
* WarzoneRAT (malware)
* SLOTHFULMEDIA (malware)
* FALLCHILL (malware)
* Small Sieve (malware)
* HermeticWizard (malware)
* Net (tool)
* RemoteUtilities (tool)
* Covenant (tool)
* BloodHound (tool)
* ShimRatReporter (tool)
* Sliver (tool)
* SILENTTRINITY (tool)
* PowerSploit (tool)
* Pacu (tool)
* ipconfig (tool)
* Tasklist (tool)
* Arp (tool)
* Empire (tool)
* ifconfig (tool)
* FRP (tool)
* dsquery (tool)
* PcShare (tool)
* netstat (tool)
* PoshC2 (tool)
* Rclone (tool)
* AsyncRAT (tool)
* ROADTools (tool)
* Brute Ratel C4 (tool)
* Peirates (tool)
* Remcos (tool)
* Systeminfo (tool)
* Imminent Monitor (tool)
* Forfiles (tool)
* MCMD (tool)
* Nltest (tool)
* Donut (tool)
* IronNetInjector (tool)
* nbtstat (tool)
* NBTscan (tool)
* Ping (tool)
* cmd (tool)
* route (tool)
* CrackMapExec (tool)
* Koadic (tool)
* Pupy (tool)
* QuasarRAT (tool)
* AdFind (tool)
* Indrik Spider (intrusion-set)
* C0027 (campaign)
* LuminousMoth (intrusion-set)
* Operation Wocao (campaign)
* Wizard Spider (intrusion-set)
* FIN7 (intrusion-set)
* Velvet Ant (intrusion-set)
* WIRTE (intrusion-set)
* FunnyDream (campaign)
* ArcaneDoor (campaign)
* Dragonfly (intrusion-set)
* OilRig (intrusion-set)
* Equation (intrusion-set)
* Fox Kitten (intrusion-set)
* SolarWinds Compromise (campaign)
* Lazarus Group (intrusion-set)
* Aquatic Panda (intrusion-set)
* Daggerfly (intrusion-set)
* TA505 (intrusion-set)
* Inception (intrusion-set)
* admin@338 (intrusion-set)
* BlackTech (intrusion-set)
* APT42 (intrusion-set)
* Malteiro (intrusion-set)
* Earth Lusca (intrusion-set)
* Operation CuckooBees (campaign)
* Juicy Mix (campaign)
* Play (intrusion-set)
* Sandworm Team (intrusion-set)
* Turla (intrusion-set)
* Suckfly (intrusion-set)
* Ember Bear (intrusion-set)
* CostaRicto (campaign)
* TeamTNT (intrusion-set)
* FIN6 (intrusion-set)
* Silence (intrusion-set)
* Patchwork (intrusion-set)
* APT28 (intrusion-set)
* Aoqin Dragon (intrusion-set)
* HEXANE (intrusion-set)
* Darkhotel (intrusion-set)
* Ke3chang (intrusion-set)
* Volt Typhoon (intrusion-set)
* Leafminer (intrusion-set)
* Magic Hound (intrusion-set)
* APT29 (intrusion-set)
* Operation Honeybee (campaign)
* 2016 Ukraine Electric Power Attack (campaign)
* Cobalt Group (intrusion-set)
* Andariel (intrusion-set)
* HAFNIUM (intrusion-set)
* APT39 (intrusion-set)
* MuddyWater (intrusion-set)
* APT38 (intrusion-set)
* Transparent Tribe (intrusion-set)
* APT32 (intrusion-set)
* BRONZE BUTLER (intrusion-set)
* APT5 (intrusion-set)
* BackdoorDiplomacy (intrusion-set)
* Kimsuky (intrusion-set)
* Storm-1811 (intrusion-set)
* Akira (intrusion-set)
* Mustang Panda (intrusion-set)
* LAPSUS$ (intrusion-set)
* RedDelta Modified PlugX Infection Chain Operations (campaign)
* Chimera (intrusion-set)
* TA2541 (intrusion-set)
* ToddyCat (intrusion-set)
* menuPass (intrusion-set)
* Tropic Trooper (intrusion-set)
* Mustard Tempest (intrusion-set)
* 2015 Ukraine Electric Power Attack (campaign)
* C0018 (campaign)
* APT19 (intrusion-set)
* Moses Staff (intrusion-set)
* Operation Dream Job (campaign)
* Molerats (intrusion-set)
* Stealth Falcon (intrusion-set)
* DarkVishnya (intrusion-set)
* APT37 (intrusion-set)
* APT41 (intrusion-set)
* INC Ransom (intrusion-set)
* FIN13 (intrusion-set)
* GALLIUM (intrusion-set)
* FIN10 (intrusion-set)
* C0015 (campaign)
* Winnti Group (intrusion-set)
* FIN8 (intrusion-set)
* Rocke (intrusion-set)
* Scattered Spider (intrusion-set)
* CURIUM (intrusion-set)
* Windigo (intrusion-set)
* Blue Mockingbird (intrusion-set)
* RedCurl (intrusion-set)
* Frankenstein (campaign)
* Sidewinder (intrusion-set)
* Outer Space (campaign)
* Higaisa (intrusion-set)
* Windshift (intrusion-set)
* Confucius (intrusion-set)
* BlackByte (intrusion-set)
* Threat Group-3390 (intrusion-set)
* Tonto Team (intrusion-set)
* Gamaredon Group (intrusion-set)
* Night Dragon (campaign)
* Agrius (intrusion-set)
* Sea Turtle (intrusion-set)
* Leviathan Australian Intrusions (campaign)
* Moonstone Sleet (intrusion-set)
* ShadowRay (campaign)
* Dark Caracal (intrusion-set)
* APT3 (intrusion-set)
* C0032 (campaign)
* ZIRCONIUM (intrusion-set)
* APT1 (intrusion-set)
* Naikon (intrusion-set)
* Sowbug (intrusion-set)
* Machete (intrusion-set)
* HomeLand Justice (campaign)
* C0017 (campaign)
* FIN5 (intrusion-set)
* Winter Vivern (intrusion-set)
* SideCopy (intrusion-set)
* Operation Sharpshooter (campaign)
* Cutting Edge (campaign)
* Lotus Blossom (intrusion-set)
* Whitefly (intrusion-set)
* APT18 (intrusion-set)
* Carbanak (intrusion-set)
* J-magic Campaign (campaign)
* Triton Safety Instrumented System Attack (campaign)
* Deep Panda (intrusion-set)
* KV Botnet Activity (campaign)
* The White Company (intrusion-set)
* Poseidon Group (intrusion-set)
* Star Blizzard (intrusion-set)
* PROMETHIUM (intrusion-set)
* Ferocious Kitten (intrusion-set)

## Affected Products

* cpe:2.3:a:twistedmatrix:treq:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:debian:debian\_linux:9.0:\*:\*:\*:\*:\*:\*:\*