# CVE Detail – CVE-2021-44228

Apache Log4j2 2.0-beta9 through 2.15.0 (excluding security releases 2.12.2, 2.12.3, and 2.3.1) JNDI features used in configuration, log messages, and parameters do not protect against attacker controlled LDAP and other JNDI related endpoints. An attacker who can control log messages or log message parameters can execute arbitrary code loaded from LDAP servers when message lookup substitution is enabled. From log4j 2.15.0, this behavior has been disabled by default. From version 2.16.0 (along with 2.12.2, 2.12.3, and 2.3.1), this functionality has been completely removed. Note that this vulnerability is specific to log4j-core and does not affect log4net, log4cxx, or other Apache Logging Services projects.

## Threat-Mapped Scoring

Score: 1.8

Priority: P4 - Informational (Low)

## EPSS

EPSS Score: N/A

Percentile: 0.99954

## CVSS Scoring

CVSS v3.1 Score: 10.0

Severity: CRITICAL

## CISA KEV

KEV is present

## Mapped CWE(s)

* CWE-20: Improper Input Validation
* CWE-400: Uncontrolled Resource Consumption
* CWE-502: Deserialization of Untrusted Data
* CWE-917: Improper Neutralization of Special Elements used in an Expression Language Statement ('Expression Language Injection')

## CAPEC(s)

* CAPEC-10: Buffer Overflow via Environment Variables
* CAPEC-101: Server Side Include (SSI) Injection
* CAPEC-104: Cross Zone Scripting
* CAPEC-108: Command Line Execution through SQL Injection
* CAPEC-109: Object Relational Mapping Injection
* CAPEC-110: SQL Injection through SOAP Parameter Tampering
* CAPEC-120: Double Encoding
* CAPEC-13: Subverting Environment Variable Values
* CAPEC-135: Format String Injection
* CAPEC-136: LDAP Injection
* CAPEC-14: Client-side Injection-induced Buffer Overflow
* CAPEC-147: XML Ping of the Death
* CAPEC-153: Input Data Manipulation
* CAPEC-182: Flash Injection
* CAPEC-209: XSS Using MIME Type Mismatch
* CAPEC-22: Exploiting Trust in Client
* CAPEC-227: Sustained Client Engagement
* CAPEC-23: File Content Injection
* CAPEC-230: Serialized Data with Nested Payloads
* CAPEC-231: Oversized Serialized Data Payloads
* CAPEC-24: Filter Failure through Buffer Overflow
* CAPEC-250: XML Injection
* CAPEC-261: Fuzzing for garnering other adjacent user/sensitive data
* CAPEC-267: Leverage Alternate Encoding
* CAPEC-28: Fuzzing
* CAPEC-3: Using Leading 'Ghost' Character Sequences to Bypass Input Filters
* CAPEC-31: Accessing/Intercepting/Modifying HTTP Cookies
* CAPEC-42: MIME Conversion
* CAPEC-43: Exploiting Multiple Input Interpretation Layers
* CAPEC-45: Buffer Overflow via Symbolic Links
* CAPEC-46: Overflow Variables and Tags
* CAPEC-47: Buffer Overflow via Parameter Expansion
* CAPEC-473: Signature Spoof
* CAPEC-492: Regular Expression Exponential Blowup
* CAPEC-52: Embedding NULL Bytes
* CAPEC-53: Postfix, Null Terminate, and Backslash
* CAPEC-586: Object Injection
* CAPEC-588: DOM-Based XSS
* CAPEC-63: Cross-Site Scripting (XSS)
* CAPEC-64: Using Slashes and URL Encoding Combined to Bypass Validation Logic
* CAPEC-664: Server Side Request Forgery
* CAPEC-67: String Format Overflow in syslog()
* CAPEC-7: Blind SQL Injection
* CAPEC-71: Using Unicode Encoding to Bypass Validation Logic
* CAPEC-72: URL Encoding
* CAPEC-73: User-Controlled Filename
* CAPEC-78: Using Escaped Slashes in Alternate Encoding
* CAPEC-79: Using Slashes in Alternate Encoding
* CAPEC-8: Buffer Overflow in an API Call
* CAPEC-80: Using UTF-8 Encoding to Bypass Validation Logic
* CAPEC-81: Web Server Logs Tampering
* CAPEC-83: XPath Injection
* CAPEC-85: AJAX Footprinting
* CAPEC-88: OS Command Injection
* CAPEC-9: Buffer Overflow in Local Command-Line Utilities

## ATT&CK Techniques

* T1574.007: Path Interception by PATH Environment Variable
* T1539: Steal Web Session Cookie
* T1553.002: Code Signing
* T1574.006: Dynamic Linker Hijacking
* T1562.003: Impair Command History Logging
* T1027: Obfuscated Files or Information
* T1036.001: Invalid Code Signature
* T1499: Endpoint Denial of Service

## Used By (Actors/Tools)

* TrickBot (malware)
* EKANS (malware)
* BLINDINGCAN (malware)
* SynAck (malware)
* Bumblebee (malware)
* Amadey (malware)
* Orz (malware)
* NOKKI (malware)
* Stuxnet (malware)
* AvosLocker (malware)
* COATHANGER (malware)
* Sardonic (malware)
* WindTail (malware)
* Matryoshka (malware)
* StrongPity (malware)
* Janicab (malware)
* Ecipekac (malware)
* AppleSeed (malware)
* BUSHWALK (malware)
* NETWIRE (malware)
* OLDBAIT (malware)
* GreyEnergy (malware)
* TEARDROP (malware)
* Turian (malware)
* Action RAT (malware)
* Gootloader (malware)
* PolyglotDuke (malware)
* Hildegard (malware)
* SombRAT (malware)
* Snip3 (malware)
* RegDuke (malware)
* InvisiMole (malware)
* P.A.S. Webshell (malware)
* TRANSLATEXT (malware)
* Regin (malware)
* Line Dancer (malware)
* Conti (malware)
* Raspberry Robin (malware)
* Diavol (malware)
* Siloscape (malware)
* Kazuar (malware)
* CHIMNEYSWEEP (malware)
* FatDuke (malware)
* DRATzarus (malware)
* BOOSTWRITE (malware)
* SHOTPUT (malware)
* Avaddon (malware)
* Conficker (malware)
* Flagpro (malware)
* SpicyOmelette (malware)
* Green Lambert (malware)
* LockerGoga (malware)
* ISMInjector (malware)
* PUNCHBUGGY (malware)
* POSHSPY (malware)
* MiniDuke (malware)
* Anchor (malware)
* DarkTortilla (malware)
* ROKRAT (malware)
* CORESHELL (malware)
* PlugX (malware)
* Lumma Stealer (malware)
* DustySky (malware)
* Epic (malware)
* Cuba (malware)
* Clambling (malware)
* DarkGate (malware)
* SVCReady (malware)
* Carbanak (malware)
* XTunnel (malware)
* Hydraq (malware)
* Gazer (malware)
* Saint Bot (malware)
* Chaes (malware)
* Bundlore (malware)
* EVILNUM (malware)
* Metamorfo (malware)
* Spica (malware)
* Trojan.Karagany (malware)
* Bandook (malware)
* PipeMon (malware)
* Shamoon (malware)
* BLUELIGHT (malware)
* BPFDoor (malware)
* Black Basta (malware)
* ZeroCleare (malware)
* OopsIE (malware)
* StreamEx (malware)
* BoxCaon (malware)
* NightClub (malware)
* SDBbot (malware)
* RTM (malware)
* SodaMaster (malware)
* StrelaStealer (malware)
* Grandoreiro (malware)
* GoBear (malware)
* Drovorub (malware)
* Bazar (malware)
* Kobalos (malware)
* XLoader (malware)
* Ryuk (malware)
* HermeticWiper (malware)
* Final1stspy (malware)
* MgBot (malware)
* FinFisher (malware)
* Cobalt Strike (malware)
* SUNBURST (malware)
* Valak (malware)
* Samurai (malware)
* OnionDuke (malware)
* PoisonIvy (malware)
* NanoCore (malware)
* TajMahal (malware)
* Raccoon Stealer (malware)
* Daserf (malware)
* Carbon (malware)
* Pisloader (malware)
* Ramsay (malware)
* Pillowmint (malware)
* MacMa (malware)
* ROADSWEEP (malware)
* SUNSPOT (malware)
* More\_eggs (malware)
* SysUpdate (malware)
* BackConfig (malware)
* Nerex (malware)
* BoomBox (malware)
* PUNCHTRACK (malware)
* InnaputRAT (malware)
* GrimAgent (malware)
* Clop (malware)
* Lokibot (malware)
* PoetRAT (malware)
* ZxShell (malware)
* CoinTicker (malware)
* Troll Stealer (malware)
* Ebury (malware)
* Maze (malware)
* ComRAT (malware)
* ChChes (malware)
* PowerStallion (malware)
* JPIN (malware)
* HTTPBrowser (malware)
* XCSSET (malware)
* KillDisk (malware)
* AppleJeus (malware)
* SoreFang (malware)
* Industroyer (malware)
* Agent Tesla (malware)
* ECCENTRICBANDWAGON (malware)
* BADNEWS (malware)
* ShadowPad (malware)
* QakBot (malware)
* CookieMiner (malware)
* Hancitor (malware)
* Gelsemium (malware)
* jRAT (malware)
* Helminth (malware)
* Dridex (malware)
* Denis (malware)
* Comnie (malware)
* H1N1 (malware)
* SLOWPULSE (malware)
* ADVSTORESHELL (malware)
* HiddenWasp (malware)
* Small Sieve (malware)
* HermeticWizard (malware)
* ShimRatReporter (tool)
* Sliver (tool)
* SILENTTRINITY (tool)
* PowerSploit (tool)
* Empire (tool)
* PcShare (tool)
* CSPY Downloader (tool)
* CARROTBALL (tool)
* Brute Ratel C4 (tool)
* Remcos (tool)
* Out1 (tool)
* Imminent Monitor (tool)
* MCMD (tool)
* QuasarRAT (tool)
* LuminousMoth (intrusion-set)
* Wizard Spider (intrusion-set)
* FIN7 (intrusion-set)
* APT41 DUST (campaign)
* ArcaneDoor (campaign)
* OilRig (intrusion-set)
* SolarWinds Compromise (campaign)
* Lazarus Group (intrusion-set)
* Aquatic Panda (intrusion-set)
* Daggerfly (intrusion-set)
* TA505 (intrusion-set)
* APT42 (intrusion-set)
* Earth Lusca (intrusion-set)
* Sandworm Team (intrusion-set)
* Suckfly (intrusion-set)
* FIN6 (intrusion-set)
* Silence (intrusion-set)
* Patchwork (intrusion-set)
* Darkhotel (intrusion-set)
* Ke3chang (intrusion-set)
* Operation Honeybee (campaign)
* 2016 Ukraine Electric Power Attack (campaign)
* APT38 (intrusion-set)
* BackdoorDiplomacy (intrusion-set)
* Kimsuky (intrusion-set)
* Leviathan (intrusion-set)
* Mustang Panda (intrusion-set)
* RedDelta Modified PlugX Infection Chain Operations (campaign)
* menuPass (intrusion-set)
* Moses Staff (intrusion-set)
* Operation Dream Job (campaign)
* Molerats (intrusion-set)
* APT37 (intrusion-set)
* APT41 (intrusion-set)
* GALLIUM (intrusion-set)
* C0015 (campaign)
* Winnti Group (intrusion-set)
* Rocke (intrusion-set)
* Saint Bear (intrusion-set)
* Scattered Spider (intrusion-set)
* RedCurl (intrusion-set)
* Windshift (intrusion-set)
* Gamaredon Group (intrusion-set)
* Sea Turtle (intrusion-set)
* Moonstone Sleet (intrusion-set)
* APT3 (intrusion-set)
* C0017 (campaign)
* Lotus Blossom (intrusion-set)
* Evilnum (intrusion-set)
* APT-C-36 (intrusion-set)
* Gallmaker (intrusion-set)
* CopyKittens (intrusion-set)
* Star Blizzard (intrusion-set)
* PROMETHIUM (intrusion-set)
* BlackOasis (intrusion-set)

## Affected Products

* cpe:2.3:o:siemens:6bk1602-0aa12-0tp0\_firmware:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:siemens:6bk1602-0aa22-0tp0\_firmware:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:siemens:6bk1602-0aa32-0tp0\_firmware:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:siemens:6bk1602-0aa42-0tp0\_firmware:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:siemens:6bk1602-0aa52-0tp0\_firmware:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:apache:log4j:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:apache:log4j:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:apache:log4j:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:apache:log4j:2.0:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:apache:log4j:2.0:beta9:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:apache:log4j:2.0:rc1:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:apache:log4j:2.0:rc2:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:siemens:sppa-t3000\_ses3000\_firmware:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:capital:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:capital:2019.1:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:capital:2019.1:sp1912:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:comos:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:desigo\_cc\_advanced\_reports:3.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:desigo\_cc\_advanced\_reports:4.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:desigo\_cc\_advanced\_reports:4.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:desigo\_cc\_advanced\_reports:4.2:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:desigo\_cc\_advanced\_reports:5.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:desigo\_cc\_advanced\_reports:5.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:desigo\_cc\_info\_center:5.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:desigo\_cc\_info\_center:5.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:e-car\_operation\_center:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:energy\_engage:3.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:energyip:8.5:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:energyip:8.6:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:energyip:8.7:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:energyip:9.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:energyip\_prepay:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:gma-manager:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:head-end\_system\_universal\_device\_integration\_system:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:industrial\_edge\_management:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:industrial\_edge\_management\_hub:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:logo\!\_soft\_comfort:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:mendix:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:mindsphere:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:navigator:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:nx:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:opcenter\_intelligence:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:operation\_scheduler:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:sentron\_powermanager:4.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:sentron\_powermanager:4.2:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:siguard\_dsa:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:sipass\_integrated:2.80:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:sipass\_integrated:2.85:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:siveillance\_command:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:siveillance\_control\_pro:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:siveillance\_identity:1.5:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:siveillance\_identity:1.6:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:siveillance\_vantage:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:siveillance\_viewpoint:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:solid\_edge\_cam\_pro:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:solid\_edge\_harness\_design:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:solid\_edge\_harness\_design:2020:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:solid\_edge\_harness\_design:2020:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:solid\_edge\_harness\_design:2020:sp2002:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:spectrum\_power\_4:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:spectrum\_power\_4:4.70:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:spectrum\_power\_4:4.70:sp7:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:spectrum\_power\_4:4.70:sp8:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:spectrum\_power\_7:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:spectrum\_power\_7:2.30:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:spectrum\_power\_7:2.30:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:spectrum\_power\_7:2.30:sp2:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:teamcenter:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:vesys:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:vesys:2019.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:vesys:2019.1:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:vesys:2019.1:sp1912:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:vesys:2020.1:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:vesys:2021.1:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:xpedition\_enterprise:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:siemens:xpedition\_package\_integrator:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:intel:computer\_vision\_annotation\_tool:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:intel:datacenter\_manager:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:intel:genomics\_kernel\_library:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:intel:oneapi\_sample\_browser:-:\*:\*:\*:\*:eclipse:\*:\*
* cpe:2.3:a:intel:secure\_device\_onboard:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:intel:system\_studio:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:debian:debian\_linux:9.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:debian:debian\_linux:10.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:debian:debian\_linux:11.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:fedoraproject:fedora:34:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:fedoraproject:fedora:35:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:sonicwall:email\_security:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:netapp:active\_iq\_unified\_manager:-:\*:\*:\*:\*:linux:\*:\*
* cpe:2.3:a:netapp:active\_iq\_unified\_manager:-:\*:\*:\*:\*:vmware\_vsphere:\*:\*
* cpe:2.3:a:netapp:active\_iq\_unified\_manager:-:\*:\*:\*:\*:windows:\*:\*
* cpe:2.3:a:netapp:brocade\_san\_navigator:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:netapp:cloud\_insights:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:netapp:cloud\_manager:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:netapp:cloud\_secure\_agent:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:netapp:oncommand\_insight:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:netapp:ontap\_tools:-:\*:\*:\*:\*:vmware\_vsphere:\*:\*
* cpe:2.3:a:netapp:snapcenter:-:\*:\*:\*:\*:vmware\_vsphere:\*:\*
* cpe:2.3:a:netapp:solidfire\_\&\_hci\_storage\_node:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:netapp:solidfire\_enterprise\_sds:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:advanced\_malware\_protection\_virtual\_private\_cloud\_appliance:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:automated\_subsea\_tuning:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:broadworks:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:business\_process\_automation:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:business\_process\_automation:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:business\_process\_automation:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cloud\_connect:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cloudcenter:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cloudcenter\_cost\_optimizer:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cloudcenter\_suite\_admin:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cloudcenter\_workload\_manager:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:common\_services\_platform\_collector:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:common\_services\_platform\_collector:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_mobile\_experiences:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:contact\_center\_domain\_manager:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:contact\_center\_management\_portal:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_data\_gateway:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_data\_gateway:3.0.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_network\_controller:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_network\_controller:3.0.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_optimization\_engine:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_optimization\_engine:3.0.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_platform\_infrastructure:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_platform\_infrastructure:4.1.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_zero\_touch\_provisioning:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_zero\_touch\_provisioning:3.0.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:customer\_experience\_cloud\_agent:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cyber\_vision\_sensor\_management\_extension:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:data\_center\_network\_manager:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:data\_center\_network\_manager:11.3\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:dna\_center:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:dna\_center:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:dna\_center:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:dna\_spaces\:\_connector:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:emergency\_responder:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:enterprise\_chat\_and\_email:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:evolved\_programmable\_network\_manager:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:finesse:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:finesse:12.6\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:fog\_director:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:identity\_services\_engine:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:identity\_services\_engine:2.4.0:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:integrated\_management\_controller\_supervisor:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:intersight\_virtual\_appliance:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:iot\_operations\_dashboard:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_assurance\_engine:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_services\_orchestrator:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_services\_orchestrator:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_services\_orchestrator:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_services\_orchestrator:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:nexus\_dashboard:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:nexus\_insights:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:optical\_network\_controller:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:packaged\_contact\_center\_enterprise:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:packaged\_contact\_center\_enterprise:11.6\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:paging\_server:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:prime\_service\_catalog:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:smart\_phy:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_director:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:\*:\*:\*:\*:-:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:\*:\*:\*:\*:session\_management:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:11.5\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:11.5\(1\):\*:\*:\*:-:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:11.5\(1\):\*:\*:\*:session\_management:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:11.5\(1\)su3:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager\_im\_and\_presence\_service:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager\_im\_and\_presence\_service:11.5\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_enterprise:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_enterprise:11.6\(2\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_express:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_customer\_voice\_portal:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_customer\_voice\_portal:11.6:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_customer\_voice\_portal:12.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_customer\_voice\_portal:12.5:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unity\_connection:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:video\_surveillance\_operations\_manager:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:virtual\_topology\_system:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:virtualized\_infrastructure\_manager:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:virtualized\_infrastructure\_manager:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:virtualized\_voice\_browser:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:wan\_automation\_engine:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:maintenance\_release1:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:maintenance\_release2:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:maintenance\_release3:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:maintenance\_release3:-:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:maintenance\_release3\_security\_patch4:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:maintenance\_release3\_security\_patch5:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:maintenance\_release3\_service\_pack\_2:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:maintenance\_release3\_service\_pack\_3:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:maintenance\_release4:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:4.0:-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:4.0:maintenance\_release1:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:4.0:maintenance\_release2:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:4.0:maintenance\_release3:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:workload\_optimization\_manager:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:unified\_intelligence\_center:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:unified\_sip\_proxy:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:unified\_workforce\_optimization:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:fxos:6.2.3:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:fxos:6.3.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:fxos:6.4.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:fxos:6.5.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:fxos:6.6.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:fxos:6.7.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:fxos:7.0.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:o:cisco:fxos:7.1.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:automated\_subsea\_tuning:02.01.00:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:broadworks:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cloudcenter\_suite:4.10\(0.15\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cloudcenter\_suite:5.3\(0\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cloudcenter\_suite:5.4\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cloudcenter\_suite:5.5\(0\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cloudcenter\_suite:5.5\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:common\_services\_platform\_collector:002.009\(000.000\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:common\_services\_platform\_collector:002.009\(000.001\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:common\_services\_platform\_collector:002.009\(000.002\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:common\_services\_platform\_collector:002.009\(001.000\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:common\_services\_platform\_collector:002.009\(001.001\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:common\_services\_platform\_collector:002.009\(001.002\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:common\_services\_platform\_collector:002.010\(000.000\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:006.004.000.003:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:006.005.000.:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:006.005.000.000:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:007.000.001:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:007.001.000:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:007.002.000:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:7.3:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:007.003.000:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:007.003.001.001:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:007.003.003:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:008.000.000:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:connected\_analytics\_for\_network\_deployment:008.000.000.000.004:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_network\_automation:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_network\_automation:2.0.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_network\_automation:3.0.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_network\_automation:4.1.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:crosswork\_network\_automation:4.1.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cx\_cloud\_agent:001.012:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cyber\_vision:4.0.2:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:cyber\_vision\_sensor\_management\_extension:4.0.2:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:dna\_center:2.2.2.8:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:dna\_spaces:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:dna\_spaces\_connector:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:emergency\_responder:11.5:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:emergency\_responder:11.5\(4.65000.14\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:emergency\_responder:11.5\(4.66000.14\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:enterprise\_chat\_and\_email:12.0\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:enterprise\_chat\_and\_email:12.5\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:enterprise\_chat\_and\_email:12.6\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:evolved\_programmable\_network\_manager:3.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:evolved\_programmable\_network\_manager:3.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:evolved\_programmable\_network\_manager:4.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:evolved\_programmable\_network\_manager:4.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:evolved\_programmable\_network\_manager:5.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:evolved\_programmable\_network\_manager:5.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:finesse:12.5\(1\):su1:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:finesse:12.5\(1\):su2:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:finesse:12.6\(1\):-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:finesse:12.6\(1\):es01:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:finesse:12.6\(1\):es02:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:finesse:12.6\(1\):es03:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:firepower\_threat\_defense:6.2.3:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:firepower\_threat\_defense:6.3.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:firepower\_threat\_defense:6.4.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:firepower\_threat\_defense:6.5.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:firepower\_threat\_defense:6.6.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:firepower\_threat\_defense:6.7.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:firepower\_threat\_defense:7.0.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:firepower\_threat\_defense:7.1.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:identity\_services\_engine:002.004\(000.914\):-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:identity\_services\_engine:002.006\(000.156\):-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:identity\_services\_engine:002.007\(000.356\):-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:identity\_services\_engine:003.000\(000.458\):-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:identity\_services\_engine:003.001\(000.518\):-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:identity\_services\_engine:003.002\(000.116\):-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:integrated\_management\_controller\_supervisor:002.003\(002.000\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:integrated\_management\_controller\_supervisor:2.3.2.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:intersight\_virtual\_appliance:1.0.9-343:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:mobility\_services\_engine:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_assurance\_engine:6.0\(2.1912\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_dashboard\_fabric\_controller:11.0\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_dashboard\_fabric\_controller:11.1\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_dashboard\_fabric\_controller:11.2\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_dashboard\_fabric\_controller:11.3\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_dashboard\_fabric\_controller:11.4\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_dashboard\_fabric\_controller:11.5\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_dashboard\_fabric\_controller:11.5\(2\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_dashboard\_fabric\_controller:11.5\(3\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_insights\_for\_data\_center:6.0\(2.1914\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:network\_services\_orchestrator:-:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:optical\_network\_controller:1.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:paging\_server:8.3\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:paging\_server:8.4\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:paging\_server:8.5\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:paging\_server:9.0\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:paging\_server:9.0\(2\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:paging\_server:9.1\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:paging\_server:12.5\(2\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:paging\_server:14.0\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:prime\_service\_catalog:12.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:20.3:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:20.4:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:20.5:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:20.6:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:20.6.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:20.7:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:sd-wan\_vmanage:20.8:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:smart\_phy:3.1.2:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:smart\_phy:3.1.3:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:smart\_phy:3.1.4:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:smart\_phy:3.1.5:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:smart\_phy:3.2.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:smart\_phy:21.3:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0\(1a\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0\(1b\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0\(1c\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0\(1d\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0\(1e\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0\(1f\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0\(1g\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0\(1h\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0\(1k\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:ucs\_central\_software:2.0\(1l\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:11.5\(1.17900.52\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:11.5\(1.18119.2\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:11.5\(1.18900.97\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:11.5\(1.21900.40\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager:11.5\(1.22900.28\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager\_im\_\&\_presence\_service:11.5\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_communications\_manager\_im\_\&\_presence\_service:11.5\(1.22900.6\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_computing\_system:006.008\(001.000\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_enterprise:11.6\(2\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_enterprise:12.0\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_enterprise:12.5\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_enterprise:12.6\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_enterprise:12.6\(2\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_express:12.5\(1\):-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_express:12.5\(1\):su1:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_express:12.6\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_express:12.6\(2\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_contact\_center\_management\_portal:12.6\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_customer\_voice\_portal:11.6\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_customer\_voice\_portal:12.0\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_customer\_voice\_portal:12.5\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_customer\_voice\_portal:12.6\(1\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_intelligence\_center:12.6\(1\):-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_intelligence\_center:12.6\(1\):es01:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_intelligence\_center:12.6\(1\):es02:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_intelligence\_center:12.6\(2\):-:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_sip\_proxy:010.000\(000\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_sip\_proxy:010.000\(001\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_sip\_proxy:010.002\(000\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_sip\_proxy:010.002\(001\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unified\_workforce\_optimization:11.5\(1\):sr7:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unity\_connection:11.5:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:unity\_connection:11.5\(1.10000.6\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:video\_surveillance\_manager:7.14\(1.26\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:video\_surveillance\_manager:7.14\(2.26\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:video\_surveillance\_manager:7.14\(3.025\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:video\_surveillance\_manager:7.14\(4.018\):\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:virtual\_topology\_system:2.6.6:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:wan\_automation\_engine:7.1.3:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:wan\_automation\_engine:7.2.1:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:wan\_automation\_engine:7.2.2:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:wan\_automation\_engine:7.2.3:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:wan\_automation\_engine:7.3:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:wan\_automation\_engine:7.4:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:wan\_automation\_engine:7.5:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:wan\_automation\_engine:7.6:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:3.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:cisco:webex\_meetings\_server:4.0:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:snowsoftware:snow\_commander:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:snowsoftware:vm\_access\_proxy:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:bentley:synchro:\*:\*:\*:\*:pro:\*:\*:\*
* cpe:2.3:a:bentley:synchro\_4d:\*:\*:\*:\*:pro:\*:\*:\*
* cpe:2.3:a:percussion:rhythmyx:\*:\*:\*:\*:\*:\*:\*:\*
* cpe:2.3:a:apple:xcode:\*:\*:\*:\*:\*:\*:\*:\*