



CVE-2017-12240

[MITRE](#)[NVD](#)[CVE.ORG](#)[JSON API](#)[Print: PDF](#)

Summary

CVE	CVE-2017-12240
State	PUBLISHED
Assigner	cisco
Source Priority	CVE Program / NVD first with legacy fallback
Published	2017-09-29 01:34:49 UTC
Updated	2026-04-21 18:07:55 UTC
Description	The DHCP relay subsystem of Cisco IOS 12.2 through 15.6 and Cisco IOS XE Software contains a vulnerability that could

Risk And Classification

Primary CVSS: v3.1 9.8 CRITICAL from nvd@nist.gov

CVSS: 3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H

EPSS: 0.136110000 probability, percentile 0.942690000 (date 2026-04-22)

CISA KEV: Listed on 2022-03-03; due 2022-03-24; ransomware use Unknown

Problem Types: CWE-20 | CWE-119 | CWE-20 CWE-20

Version	Source	Type	Score	Severity	Vector
3.1	nvd@nist.gov	Primary	9.8	CRITICAL	CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H
3.1	ADP	DECLARED	9.8	CRITICAL	CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H
3.1	134c704f-9b21-4f2e-91b3-4a467353bcc0	Secondary	9.8	CRITICAL	CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H
2.0	nvd@nist.gov	Primary	10		AV:N/AC:L/Au:N/C:C/I:C/A:C

CVSS v3.1 Breakdown

Attack Vector

Network

Attack Complexity

Low

Privileges Required

None

User Interaction

None

Scope

Unchanged

Confidentiality

High

Integrity

High

Availability

High

CVSS:3.1/AV:N/AC:L/PR:N/UI:N/S:U/C:H/I:H/A:H

CVSS v2.0 Breakdown

Access Vector

Network

Access Complexity

Low

Authentication

None

Confidentiality

Complete

Integrity

Complete

Availability

Complete

AV:N/AC:L/Au:N/C:C/I:C/A:C

CISA Known Exploited Vulnerability

Vendor	Cisco
Product	IOS and IOS XE Software
Name	Cisco IOS and IOS XE Software DHCP Remote Code Execution Vulnerability
Required Action	Apply updates per vendor instructions.
Notes	https://nvd.nist.gov/vuln/detail/CVE-2017-12240

NVD Known Affected Configurations (CPE 2.3)

Type	Vendor	Product	Version	Update	Edition	Language
Hardware	Cisco	1000 Integrated Services Router	-	All	All	All
Hardware	Cisco	1100-4gltgeb Integrated Services Router	-	All	All	All
Hardware	Cisco	1100-4gltena Integrated Services Router	-	All	All	All
Hardware	Cisco	1100-4g Integrated Services Router	-	All	All	All
Hardware	Cisco	1100-4p Integrated Services Router	-	All	All	All
Hardware	Cisco	1100-6a Integrated Services Router	-	All	All	All

Hardware	Cisco	1100-8p Integrated Services Router	-	All	All	All
Hardware	Cisco	1100-8p Integrated Services Router	-	All	All	All
Hardware	Cisco	1100-lte Integrated Services Router	-	All	All	All
Hardware	Cisco	1100 Integrated Services Router	-	All	All	All
Hardware	Cisco	1101-4p Integrated Services Router	-	All	All	All
Hardware	Cisco	1101 Integrated Services Router	-	All	All	All
Hardware	Cisco	1109-2p Integrated Services Router	-	All	All	All
Hardware	Cisco	1109-4p Integrated Services Router	-	All	All	All
Hardware	Cisco	1109 Integrated Services Router	-	All	All	All
Hardware	Cisco	1111x-8p Integrated Services Router	-	All	All	All
Hardware	Cisco	1111x Integrated Services Router	-	All	All	All
Hardware	Cisco	111x Integrated Services Router	-	All	All	All
Hardware	Cisco	1120 Integrated Services Router	-	All	All	All
Hardware	Cisco	1131 Integrated Services Router	-	All	All	All
Hardware	Cisco	1160 Integrated Services Router	-	All	All	All
Hardware	Cisco	1801 Integrated Service Router	-	All	All	All
Hardware	Cisco	1802 Integrated Service Router	-	All	All	All
Hardware	Cisco	1803 Integrated Service Router	-	All	All	All
Hardware	Cisco	1811 Integrated Service Router	-	All	All	All
Hardware	Cisco	1812 Integrated Service Router	-	All	All	All
Hardware	Cisco	1841 Integrated Service Router	-	All	All	All
Hardware	Cisco	1861 Integrated Service Router	-	All	All	All
Hardware	Cisco	1905 Integrated Services Router	-	All	All	All
Hardware	Cisco	1906c Integrated Services Router	-	All	All	All
Hardware	Cisco	1921 Integrated Services Router	-	All	All	All
Hardware	Cisco	1941w Integrated Services Router	-	All	All	All
Hardware	Cisco	1941 Integrated Services Router	-	All	All	All
Hardware	Cisco	4000 Integrated Services Router	-	All	All	All
Hardware	Cisco	4221 Integrated Services Router	-	All	All	All
Hardware	Cisco	422 Integrated Services Router	-	All	All	All
Hardware	Cisco	8101-32fh	-	All	All	All
Hardware	Cisco	8101-32h	-	All	All	All
Hardware	Cisco	8102-64h	-	All	All	All
Hardware	Cisco	8201	-	All	All	All
Hardware	Cisco	8201-32fh	-	All	All	All
Hardware	Cisco	8202	-	All	All	All

Hardware	Cisco	8208	-	All	All	All
Hardware	Cisco	8212	-	All	All	All
Hardware	Cisco	8218	-	All	All	All
Hardware	Cisco	8800 12-slot	-	All	All	All
Hardware	Cisco	8800 18-slot	-	All	All	All
Hardware	Cisco	8800 4-slot	-	All	All	All
Hardware	Cisco	8800 8-slot	-	All	All	All
Hardware	Cisco	8804	-	All	All	All
Hardware	Cisco	8808	-	All	All	All
Hardware	Cisco	8812	-	All	All	All
Hardware	Cisco	8818	-	All	All	All
Hardware	Cisco	8831	-	All	All	All
Hardware	Cisco	9800-40	-	All	All	All
Hardware	Cisco	9800-80	-	All	All	All
Hardware	Cisco	9800-cl	-	All	All	All
Hardware	Cisco	9800-l	-	All	All	All
Hardware	Cisco	Asr 1000	-	All	All	All
Hardware	Cisco	Asr 1000-esp100	-	All	All	All
Hardware	Cisco	Asr 1000-esp100-x	-	All	All	All
Hardware	Cisco	Asr 1000-esp200-x	-	All	All	All
Hardware	Cisco	Asr 1000-x	-	All	All	All
Hardware	Cisco	Asr 1001	-	All	All	All
Hardware	Cisco	Asr 1001-hx	-	All	All	All
Hardware	Cisco	Asr 1001-hx R	-	All	All	All
Hardware	Cisco	Asr 1001-x	-	All	All	All
Hardware	Cisco	Asr 1001-x R	-	All	All	All
Hardware	Cisco	Asr 1002	-	All	All	All
Hardware	Cisco	Asr 1002-hx	-	All	All	All
Hardware	Cisco	Asr 1002-hx R	-	All	All	All
Hardware	Cisco	Asr 1002-x	-	All	All	All
Hardware	Cisco	Asr 1002-x R	-	All	All	All
Hardware	Cisco	Asr 1004	-	All	All	All
Hardware	Cisco	Asr 1006	-	All	All	All
Hardware	Cisco	Asr 1006-x	-	All	All	All
Hardware	Cisco	Asr 1009-x	-	All	All	All

Hardware	Cisco	Asr 1013	-	All	All	All
Hardware	Cisco	Asr 1023	-	All	All	All
Hardware	Cisco	Asr 900	-	All	All	All
Hardware	Cisco	Asr 9000	-	All	All	All
Hardware	Cisco	Asr 9000v	-	All	All	All
Hardware	Cisco	Asr 9001	-	All	All	All
Hardware	Cisco	Asr 9006	-	All	All	All
Hardware	Cisco	Asr 901-12c-f-d	-	All	All	All
Hardware	Cisco	Asr 901-12c-ft-d	-	All	All	All
Hardware	Cisco	Asr 901-4c-f-d	-	All	All	All
Hardware	Cisco	Asr 901-4c-ft-d	-	All	All	All
Hardware	Cisco	Asr 901-6cz-f-a	-	All	All	All
Hardware	Cisco	Asr 901-6cz-f-d	-	All	All	All
Hardware	Cisco	Asr 901-6cz-fs-a	-	All	All	All
Hardware	Cisco	Asr 901-6cz-fs-d	-	All	All	All
Hardware	Cisco	Asr 901-6cz-ft-a	-	All	All	All
Hardware	Cisco	Asr 901-6cz-ft-d	-	All	All	All
Hardware	Cisco	Asr 9010	-	All	All	All
Hardware	Cisco	Asr 901s-2sg-f-ah	-	All	All	All
Hardware	Cisco	Asr 901s-2sg-f-d	-	All	All	All
Hardware	Cisco	Asr 901s-3sg-f-ah	-	All	All	All
Hardware	Cisco	Asr 901s-3sg-f-d	-	All	All	All
Hardware	Cisco	Asr 901s-4sg-f-d	-	All	All	All
Hardware	Cisco	Asr 902	-	All	All	All
Hardware	Cisco	Asr 902u	-	All	All	All
Hardware	Cisco	Asr 903	-	All	All	All
Hardware	Cisco	Asr 907	-	All	All	All
Hardware	Cisco	Asr 914	-	All	All	All
Hardware	Cisco	Asr 920-10sz-pd	-	All	All	All
Hardware	Cisco	Asr 920-10sz-pd R	-	All	All	All
Hardware	Cisco	Asr 920-10sz-pd Router	-	All	All	All
Hardware	Cisco	Asr 920-12cz-a	-	All	All	All
Hardware	Cisco	Asr 920-12cz-a R	-	All	All	All
Hardware	Cisco	Asr 920-12cz-a Router	-	All	All	All
Hardware	Cisco	Asr 920-12cz-d	-	All	All	All
Hardware	Cisco	Asr 920-12cz-d R	-	All	All	All

Hardware	Cisco	Asr 920-12cz-d Router	-	All	All	All
Hardware	Cisco	Asr 920-12sz-im	-	All	All	All
Hardware	Cisco	Asr 920-12sz-im R	-	All	All	All
Hardware	Cisco	Asr 920-12sz-im Router	-	All	All	All
Hardware	Cisco	Asr 920-24sz-im	-	All	All	All
Hardware	Cisco	Asr 920-24sz-im R	-	All	All	All
Hardware	Cisco	Asr 920-24sz-im Router	-	All	All	All
Hardware	Cisco	Asr 920-24sz-m	-	All	All	All
Hardware	Cisco	Asr 920-24sz-m R	-	All	All	All
Hardware	Cisco	Asr 920-24sz-m Router	-	All	All	All
Hardware	Cisco	Asr 920-24tz-m	-	All	All	All
Hardware	Cisco	Asr 920-24tz-m R	-	All	All	All
Hardware	Cisco	Asr 920-24tz-m Router	-	All	All	All
Hardware	Cisco	Asr 920-4sz-a	-	All	All	All
Hardware	Cisco	Asr 920-4sz-a R	-	All	All	All
Hardware	Cisco	Asr 920-4sz-a Router	-	All	All	All
Hardware	Cisco	Asr 920-4sz-d	-	All	All	All
Hardware	Cisco	Asr 920-4sz-d R	-	All	All	All
Hardware	Cisco	Asr 920-4sz-d Router	-	All	All	All
Hardware	Cisco	Asr 920u-12sz-im	-	All	All	All
Hardware	Cisco	Asr 9901	-	All	All	All
Hardware	Cisco	Asr 9902	-	All	All	All
Hardware	Cisco	Asr 9903	-	All	All	All
Hardware	Cisco	Asr 9904	-	All	All	All
Hardware	Cisco	Asr 9906	-	All	All	All
Hardware	Cisco	Asr 9910	-	All	All	All
Hardware	Cisco	Asr 9912	-	All	All	All
Hardware	Cisco	Asr 9920	-	All	All	All
Hardware	Cisco	Asr 9922	-	All	All	All
Hardware	Cisco	Catalyst 3650	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48fd-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48fd-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48fd-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48uq	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48uq-e	-	All	All	All

Hardware	Cisco	Catalyst 3650-12x48uq-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48uq-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48ur	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48ur-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48ur-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48ur-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48uz	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48uz-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48uz-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-12x48uz-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-24pd	-	All	All	All
Hardware	Cisco	Catalyst 3650-24pd-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-24pd-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-24pd-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-24pdm	-	All	All	All
Hardware	Cisco	Catalyst 3650-24pdm-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-24pdm-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-24pdm-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-24ps-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-24ps-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-24ps-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-24td-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-24td-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-24td-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-24ts-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-24ts-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-24ts-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fd-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fd-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fd-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fq	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fq-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fq-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fq-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fqm	-	All	All	All

Hardware	Cisco	Catalyst 3650-48fqm-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fqm-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fqm-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fs-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fs-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-48fs-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-48pd-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-48pd-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-48pd-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-48pq-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-48pq-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-48pq-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-48ps-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-48ps-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-48ps-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-48td-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-48td-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-48td-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-48tq-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-48tq-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-48tq-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-48ts-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-48ts-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-48ts-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-8x24pd-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-8x24pd-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-8x24pd-s	-	All	All	All
Hardware	Cisco	Catalyst 3650-8x24uq	-	All	All	All
Hardware	Cisco	Catalyst 3650-8x24uq-e	-	All	All	All
Hardware	Cisco	Catalyst 3650-8x24uq-l	-	All	All	All
Hardware	Cisco	Catalyst 3650-8x24uq-s	-	All	All	All
Hardware	Cisco	Catalyst 3850	-	All	All	All
Hardware	Cisco	Catalyst 3850-12s-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-12s-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-12x48u	-	All	All	All
Hardware	Cisco	Catalyst 3850-12xs-e	-	All	All	All

Hardware	Cisco	Catalyst 3850-12xs-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-16xs-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-16xs-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-24p-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-24p-l	-	All	All	All
Hardware	Cisco	Catalyst 3850-24p-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-24pw-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-24s-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-24s-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-24t-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-24t-l	-	All	All	All
Hardware	Cisco	Catalyst 3850-24t-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-24u	-	All	All	All
Hardware	Cisco	Catalyst 3850-24u-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-24u-l	-	All	All	All
Hardware	Cisco	Catalyst 3850-24u-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-24xs	-	All	All	All
Hardware	Cisco	Catalyst 3850-24xs-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-24xs-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-24xu	-	All	All	All
Hardware	Cisco	Catalyst 3850-24xu-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-24xu-l	-	All	All	All
Hardware	Cisco	Catalyst 3850-24xu-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-32xs-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-32xs-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-48f-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-48f-l	-	All	All	All
Hardware	Cisco	Catalyst 3850-48f-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-48p-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-48p-l	-	All	All	All
Hardware	Cisco	Catalyst 3850-48p-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-48pw-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-48t-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-48t-l	-	All	All	All
Hardware	Cisco	Catalyst 3850-48t-s	-	All	All	All

Hardware	Cisco	Catalyst 3850-48u	-	All	All	All
Hardware	Cisco	Catalyst 3850-48u-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-48u-l	-	All	All	All
Hardware	Cisco	Catalyst 3850-48u-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-48xs	-	All	All	All
Hardware	Cisco	Catalyst 3850-48xs-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-48xs-f-e	-	All	All	All
Hardware	Cisco	Catalyst 3850-48xs-f-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-48xs-s	-	All	All	All
Hardware	Cisco	Catalyst 3850-nm-2-40g	-	All	All	All
Hardware	Cisco	Catalyst 3850-nm-8-10g	-	All	All	All
Operating System	Cisco	ios	All	All	All	All

Vendor Declared Affected Products

Source	Vendor	Product	Version	Platforms
CNA	Na	Cisco IOS And IOS XE	affected Cisco IOS and IOS XE	Not specified

References

Reference	Source
Cisco Bug: CSCuw77959 - Cisco IOS and IOS XE Software DHCP Remote Code Execution Vulnerability	af854a3a-2127-422b-91ae
Malformed Request	af854a3a-2127-422b-91ae
www.cisa.gov/known-exploited-vulnerabilities-catalog	134c704f-9b21-4f2e-91b3-
Cisco IOS/IOS XE Buffer Overflow in DHCP Relay Lets Remote Users Execute Arbitrary Code - SecurityTracker	af854a3a-2127-422b-91ae
Cisco IOS and IOS XE Software DHCP Remote Code Execution Vulnerability	af854a3a-2127-422b-91ae
Cisco Bug: CSCsm45390 - DHCP relay security vulnerability	af854a3a-2127-422b-91ae
CVE Program record	CVE.ORG
NVD vulnerability detail	NVD
CISA Known Exploited Vulnerabilities catalog	CISA

No vendor comments have been submitted for this CVE.

There are currently no legacy QID mappings associated with this CVE.

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Free CVE JSON API cve.report/api

CVE.report and Source URL Uptime Status status.cve.report