

# Explanation of the Status Codes that can appear in the DMARC/SPF Error Report

A domain name **only** appears in the report if – according to the rules of the DNS Resilience Programme – for either DMARC or SPF **erroneous or non-compliant configurations** have been detected on that day.

A domain name **does not** appear in the report if **no** DMARC and SPF records could be detected or if measurement was not possible on that day (timeout etc.).

The status codes are listed separately for DMARC and SPF. Most are composites of two or more codes. If only one of the two criteria has a faulty/non-compliant configuration, the field for the other criterion is left blank.

**Error Date:** Date of measurement

**DMARC SC:** Status Code for DMARC (composite)

**DMARC Comp:** Components of the composite code

**SPF SC:** Status Code for SPF (composite)

**SPF Comp:** Components of the composite code

**URL:** Link to dashboard with more details

## DMARC Status Codes

**1 – No measurement data.** Can appear in isolation to signal that measurement data for the domain is missing, but is likely combined with a reason (NXDOMAIN, SERVFAIL, TIMEOUT). If status code 1 appears without a reason, this is mostly caused by an invalid SOA record.

**2 – Has TXT data.** For DMARC, this signals that TXT data is present on the `_dmarc.` label, but not necessarily a `v=DMARC1` record.

**32 – No DMARC record found.**

**34 – The domain does not have a DMARC record configured.** This composite signals that TXT data exists on the `_dmarc.` But it does not start with the `v=DMARC1` prefix.

**64 – Syntax error.** There is a syntax error in the DMARC record. This code has a potential composite to further define what's wrong.

Absent a composite, a general DMARC syntax issue can have resulted from:

- parsed record is syntactically invalid (e.g., double ;;)
- record is missing the policy (`p`) tag (i.e., missing explicit policy definition)
- the policy (`p`) tag does not immediately follow `v=DMARC1`.

**128 – More than one DMARC record.** This is not RFC compliant.

**256 – DMARC `none` policy.** The DMARC record's specified policy is `none`.

**512 – DMARC `pct` below 100.** The DMARC record specifies the optional `pct` tag with a value that is below 100.

**1024 – Invalid DMARC tag.** One of the tags in the DMARC record is not valid (e.g., `tag=value`).

**2048 – Invalid DMARC tag value.** A given tag value is not valid (e.g., `p=idontexist`, `pct=notaninteger`, or `ri=notaninteger`).

## SPF Status Codes

**1 – No measurement data.** Can appear in isolation to signal that measurement data for the domain is missing, but is likely combined with a reason (NXDOMAIN, SERVFAIL, TIMEOUT). If status code 1 appears without a reason, this is mostly caused by an invalid SOA record.

**2 – Has TXT data.** For SPF, this signals that TXT data is present on the @ label, but not necessarily a `v=spf1` record.

**32 – No SPF record found.**

**34 – The domain does not have an SPF record configured.** This composite signals that TXT data exists on the @ label but it does not start with `v=spf1`.

**64 – Syntax error.** There is a syntax error in the SPF record. This code has a potential composite to further define what's wrong.

Absent a composite, a SPF syntax error can have resulted from:

- parsed record is syntactically invalid
- `ip4` mechanism value error (i.e., not a valid IPv4 address)
- `ip6` mechanism value error (i.e., not a valid IPv6 address)

**128 – More than one SPF record.** This is not RFC compliant.

**256 – Prohibited `all` qualifier.** The SPF record (primary or after redirect) terminates with an (implied) `all` basic mechanism and (implied) `+` or `?` qualifier.

Note: As per RFC 7208, if there are no `all` and no `redirect` mechanisms in the record, a default result of `?all` (neutral) is implied. However, if an `all` mechanism is specified without explicit qualifier, the `+` qualifier is implied.

**512 – IPv4 prefix not specific enough.** The SPF record (or its expansion) has (at least one) `ip4` designated sender mechanism that has too broad of a prefix (`</14`).

**1024 – IPv6 prefix not specific enough.** The SPF record (or its expansion) has (at least one) `ip6` designated sender mechanism that has too broad of a prefix (`</32`).

**2048 – SPF too many DNS lookups.** 10 DNS lookups exceeded (see RFC 7208 section 4.6.4).

**4096 – SPF too many void DNS lookups.** 2 void lookups exceeded (see RFC 7208 section 4.6.4).

**8192 – SPF redirect loop.** Redirect mechanism loop.

**16384 – SPF include loop.** Include mechanism loop.

**32768 – SPF include record non-existence.** Include expansion leads to non-existent SPF record (e.g., `include:<fqdn>` and no `v=spf1` record at `<fqdn>`).