M³AAWG DMARC Training Series

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DMARC.org

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M³AAWG DMARC Training Videos

(2.5 hours of training)

This is Segment 2 of 6
The complete series of DMARC training videos is available at:
https://www.m3aawg.org/activities/maawg-training-series-videos

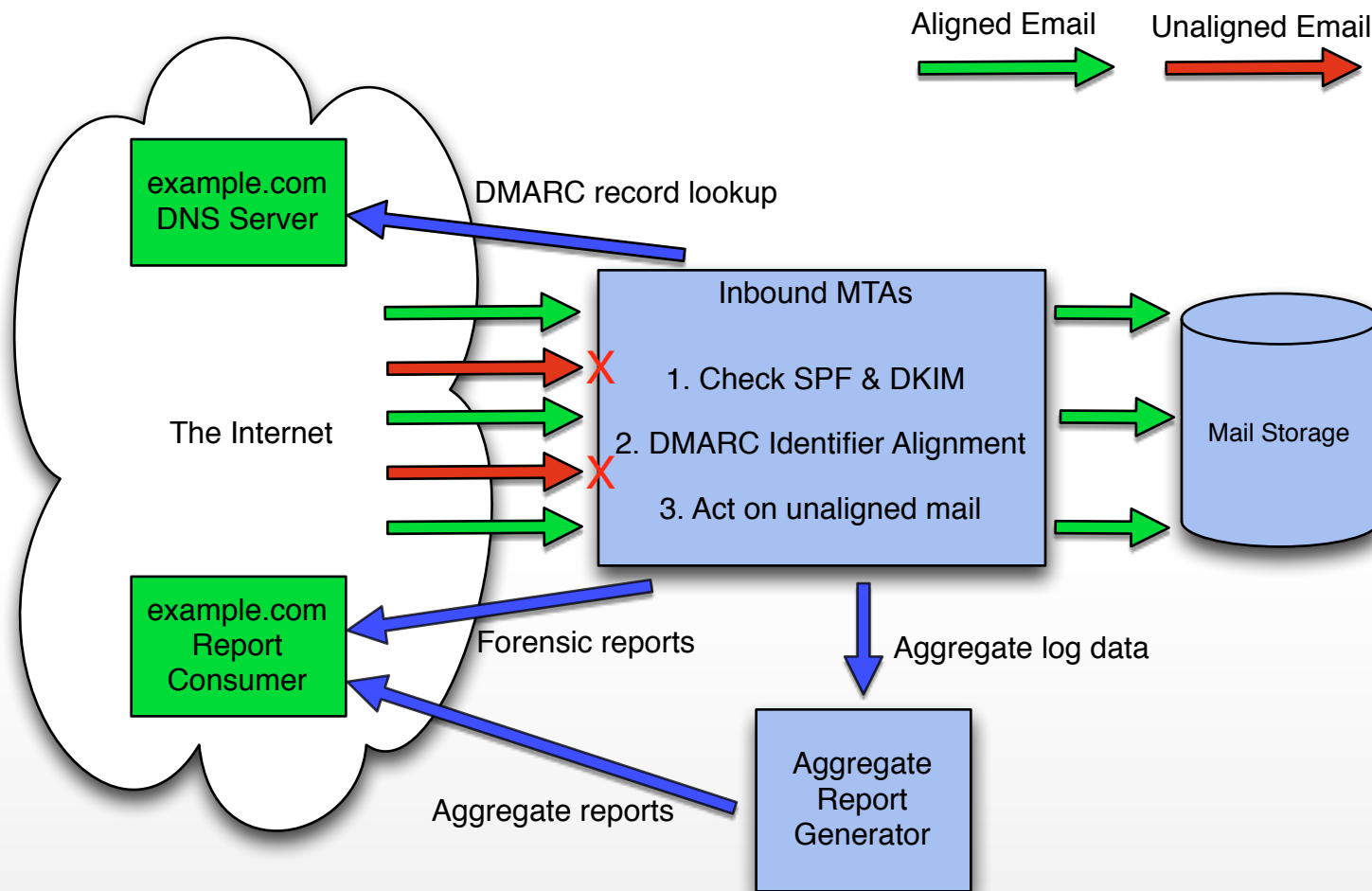| **Segment 1** **What is DMARC?** (about 20 minutes)	**Segment 2** **DMARC Identifier Alignment** (about 20 minutes)	**Segment 3** **DMARC Policy Records** (about 30 minutes)
Segment 4 **DMARC Reporting** (about 15 minutes)	**Segment 5** **DMARC Information for Mailbox Providers** (about 20 minutes)	**Segment 6** **DMARC Information for Domain Owners and 3rd Parties** (about 40 minutes)

DMARC Identifier Alignment
DMARC Segment 2 – about 20 minutes

Mike Adkins, DMARC.org and M3AAWG Co-Vice Chairman
October 22, 2012

DMARC Spec Overview

Aligned Email →   Unaligned Email →

example.com DNS Server

DMARC record lookup

The Internet

Inbound MTAs

1. Check SPF & DKIM

2. DMARC Identifier Alignment

3. Act on unaligned mail

Mail Storage

example.com Report Consumer

Forensic reports

Aggregate log data

Aggregate reports

Aggregate Report Generator

DMARC Spec – Identifier Alignment

- DMARC tests and enforces Identifier Alignment

- Authenticated Identifiers are checked against Mail User Agent (MUA) visible "RFC5322.From" domain

- Only one Authenticated Identifier has to Align for the email to be considered in Alignment

DMARC Spec – Identifier Alignment

- Identifier Alignment can be strict (match exactly) or relaxed:

  - Relaxed SPF: The Organizational Domain of the SPF Authenticated RFC5321:Mail From and RFC5322:From must match.

  - Relaxed DKIM: The Organizational domain from 'd=' value of DKIM authenticated signature and RFC5322.From must match.

DMARC Spec – Identifier Alignment

Organizational Domain

- TLD + 1 atom
  - groups.facebook.com = facebook.com
  - aol.co.uk = aol.co.uk
  - foo.bar.example.ne.jp = example.ne.jp

- Uses publicsuffix.org for TLD list

- More robust methods being considered

DMARC Spec – Alignment Examples

SPF and DKIM Strict Identifier Alignment

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=pass (mail.com: domain of postmaster@example.com
        designates 10.1.1.1 as permitted sender) smtp.mail=postmaster@example.com;
        dkim=pass header.i=@example.com
DKIM-Signature: v=1; a=rsa-sha256; d=example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

- SPF domain = example.com
- DKIM domain = example.com
- From domain = example.com

DMARC Spec – Alignment Examples

SPF Strict Identifier Alignment

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=pass (mail.com: domain of postmaster@example.com
            designates 10.1.1.1 as permitted sender) smtp.mail=postmaster@example.com
From: "Postmaster" <postmaster@example.com>
```

- SPF domain = example.com
- From domain = example.com

DMARC Spec – Alignment Examples

DKIM Strict Identifier Alignment

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
        postmaster@example.com does not designate 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@example.com; dkim=pass header.i=@example.com
DKIM-Signature: v=1; a=rsa-sha256; d=example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

- DKIM domain = example.com
- From domain = example.com

DMARC Spec – Alignment Examples

SPF and DKIM Strict Unaligned

```
Return-Path:postmaster@phish.com
Authentication-Results: mx.mail.com; spf=pass (mail.com: domain of postmaster@phish.com
        designates 10.1.1.1 as permitted sender) smtp.mail=postmaster@example.com;
        dkim=fail header.i=@example.com
DKIM-Signature: v=1; a=rsa-sha256; d=example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

- SPF domain = phish.com
- From domain = example.com

DMARC Spec – Alignment Examples

SPF and DKIM Strict Unaligned

```
Return-Path:postmaster@foo.example.com
Authentication-Results: mx.mail.com; spf=pass (mail.com: domain of postmaster@example.com
        designates 10.1.1.1 as permitted sender) smtp.mail=postmaster@example.com;
        dkim=pass header.i=@bar.example.com
DKIM-Signature: v=1; a=rsa-sha256; d=bar.example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@facebookmail.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

- SPF domain = foo.example.com
- DKIM domain = bar.example.com
- From domain = example.com

DMARC Spec – Alignment Examples

SPF and DKIM Relaxed Alignment

```
Return-Path:postmaster@bounce.example.com
Authentication-Results: mx.mail.com; spf=pass (mail.com: domain of
        postmaster@bounce.example.com designates 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@bounce.example.com; dkim=pass header.i=@bounce.example.com DKIM-
Signature: v=1; a=rsa-sha256; d=bounce.example.com; s=s1024-2011-q2; c=relaxed/ simple;
q=dns/txt; i=@bounce.example.com; t=1337318096;   h=From:Subject:Date:To:MIME-
Version:Content-Type;        bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
b=T6m3ZvppP3OLGNQVoR/llW     +RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy+svp5ymrqBgnDEN/
ZQEcfmzYEOg1BNL/    I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@foo.example.com>
```

- SPF domain = bounce.example.com
- SPF Organizational domain = example.com
- DKIM domain = bounce.example.com
- DKIM Organizational domain = example.com
- From domain = foo.example.com
- From Organizational domain = example.com

DMARC Spec – Alignment Examples

SPF Relaxed Alignment

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=pass (mail.com: domain of postmaster@example.com
          designates 10.1.1.1 as permitted sender) smtp.mail=postmaster@example.com
From: "Postmaster" <postmaster@example.com>
```

- SPF domain = example.com
- SPF Organizational domain = example.com
- From domain = example.com
- From Organizational domain = example.com

DMARC Spec – Alignment Examples

DKIM Relaxed Alignment

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
        postmaster@example.com does not designate 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@example.com; dkim=pass header.i=@foo.example.com
DKIM-Signature: v=1; a=rsa-sha256; d=foo.example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@foo.example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

- DKIM domain = foo.example.com
- DKIM Organizational domain = example.com
- From domain = example.com
- From Organizational domain = example.com

DMARC Spec – Alignment Examples

SPF and DKIM Relaxed Unaligned

```
Return-Path:postmaster@phish.com
Authentication-Results: mx.mail.com; spf=pass (mail.com: domain of postmaster@phish.com
         designates 10.1.1.1 as permitted sender) smtp.mail=postmaster@example.com;
         dkim=fail header.i=@example.com
DKIM-Signature: v=1; a=rsa-sha256; d=bar.example.com; s=s1024-2011-q2; c=relaxed/simple;
         q=dns/txt; i=@example.com; t=1337318096; h=From:Subject:Date:To:MIME-
         Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
         b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
         +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
         LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

- SPF domain = phish.com
- SPF Organizational domain = phish.com
- From domain = example.com
- From Organizational domain = example.com

DMARC Spec – Alignment Exercises

Exercise 1
Is SPF in Strict Alignment?

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
        postmaster@example.com does not designate 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@example.com; dkim=pass header.i=@example.com
DKIM-Signature: v=1; a=rsa-sha256; d=example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

DMARC Spec – Alignment Exercises

Exercise 1
Is SPF in Strict Alignment?

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
        postmaster@example.com does not designate 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@example.com; dkim=pass header.i=@example.com
DKIM-Signature: v=1; a=rsa-sha256; d=example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

Answer: No, SPF did not pass.

Is the email Aligned anyway?

DMARC Spec – Alignment Exercises

Exercise 1
Is SPF in Strict Alignment?

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
        postmaster@example.com does not designate 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@example.com; dkim=pass header.i=@example.com
DKIM-Signature: v=1; a=rsa-sha256; d=example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

Answer: No, SPF did not pass.

Is the email Aligned anyway?

Answer: Yes, DKIM is in Strict Alignment, so the email is Aligned regardless.

DMARC Spec – Alignment Exercises

Exercise 2
Is SPF in Relaxed Alignment?

```
Return-Path:postmaster@foo.example.com
Authentication-Results: mx.mail.com; spf=pass (mail.com: domain of postmaster@example.com
          designates 10.1.1.1 as permitted sender) smtp.mail=postmaster@example.com;
          dkim=pass header.i=@bar.example.com
DKIM-Signature: v=1; a=rsa-sha256; d=bar.example.com; s=s1024-2011-q2; c=relaxed/simple;
          q=dns/txt; i=@facebookmail.com; t=1337318096; h=From:Subject:Date:To:MIME-
          Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
          b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
          +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
          LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

DMARC Spec – Alignment Exercises

Exercise 2
Is SPF in Relaxed Alignment?

```
Return-Path:postmaster@foo.example.com
Authentication-Results: mx.mail.com; spf=pass (mail.com: domain of postmaster@example.com
        designates 10.1.1.1 as permitted sender) smtp.mail=postmaster@example.com;
        dkim=pass header.i=@bar.example.com
DKIM-Signature: v=1; a=rsa-sha256; d=bar.example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@facebookmail.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

Answer: Yes, foo.example.com shares the same Organizational domain as example.com.

DMARC Spec – Alignment Exercises

Exercise 3
Is DKIM in Strict Alignment?

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
        postmaster@example.com does not designate 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@example.com; dkim=pass header.i=@foo.example.com
DKIM-Signature: v=1; a=rsa-sha256; d=foo.example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@foo.example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

DMARC Spec – Alignment Exercises

Exercise 3
Is DKIM in Strict Alignment?

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
        postmaster@example.com does not designate 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@example.com; dkim=pass header.i=@foo.example.com
DKIM-Signature: v=1; a=rsa-sha256; d=foo.example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@foo.example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

Answer: No, foo.example.com does not exactly match example.com

Under what conditions would the email be Aligned?

DMARC Spec – Alignment Exercises

Exercise 3
Is DKIM in Strict Alignment?

```
Return-Path:postmaster@example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
        postmaster@example.com does not designate 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@example.com; dkim=pass header.i=@foo.example.com
DKIM-Signature: v=1; a=rsa-sha256; d=foo.example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@foo.example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

Answer: No, foo.example.com does not exactly match example.com

Under what conditions would the email be Aligned?

Answer: Since SPF does not pass, the email would only be Aligned if Relaxed DKIM Alignment was allowed.

DMARC Spec – Alignment Exercises

Exercise 4
Under what conditions would this email be considering in Alignment?

```
Return-Path:postmaster@foo.example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
        postmaster@example.com does not designate 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@foo.example.com; dkim=fail header.i=@bar.example.com
DKIM-Signature: v=1; a=rsa-sha256; d=bar.example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@bar.example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

DMARC Spec – Alignment Exercises

Exercise 4
Under what conditions would this email be considering in Alignment?

```
Return-Path:postmaster@foo.example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
         postmaster@example.com does not designate 10.1.1.1 as permitted sender)
         smtp.mail=postmaster@foo.example.com; dkim=fail header.i=@bar.example.com
DKIM-Signature: v=1; a=rsa-sha256; d=bar.example.com; s=s1024-2011-q2; c=relaxed/simple;
         q=dns/txt; i=@bar.example.com; t=1337318096; h=From:Subject:Date:To:MIME-
         Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
         b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l Ocy
         +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
         LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

Answer: None. Neither DKIM nor SPF are valid.

Assuming DKIM and SPF were actually valid, under what conditions would this email be considered Aligned?

DMARC Spec – Alignment Exercises

Exercise 4
Under what conditions would this email be considering in Alignment?

```
Return-Path:postmaster@foo.example.com
Authentication-Results: mx.mail.com; spf=neutral (mail.com: domain of
        postmaster@example.com does not designate 10.1.1.1 as permitted sender)
        smtp.mail=postmaster@foo.example.com; dkim=fail header.i=@bar.example.com
DKIM-Signature: v=1; a=rsa-sha256; d=bar.example.com; s=s1024-2011-q2; c=relaxed/simple;
        q=dns/txt; i=@bar.example.com; t=1337318096; h=From:Subject:Date:To:MIME-
        Version:Content-Type; bh=0l5o8r4ftEPBr083MbUpe0mIrWKRs5yT46DR6CGk/Mk=;
        b=T6m3ZvppP3OLGNQVoR/llW+RxSbQiRlaCcwZpXTF/xjWk0xjYl/8S0UUvtFPHZ1l 0cy
        +svp5ymrqBgnDEN/ZQEcfmzYEOg1BNL/I8zlMKPmVOf/9cLIpTVbaWi/G2VBY
        LXONpLsSymtoeqTBYOOJqoiNLzDNP01pVgZYunf8h90=;
From: "Postmaster" <postmaster@example.com>
```

Answer: None. Neither DKIM nor SPF are valid.

Assuming DKIM and SPF were actually valid, under what conditions would this email be considered Aligned?

Answer: If Relaxed Alignment was allowed for either DKIM or SPF, the email would be Aligned.

This has been the second of six DMARC video segments

View the entire
M³AAWG DMARC Training Series
from the public training video pages on the M³AAWG website at:
https://www.m3aawg.org/activities/maawg-training-series-videos

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Messaging, Malware and Mobile Anti-Abuse Working Group

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