E-mail anti-spam

Technical guide to setup SPF, DKIM and DMARC to secure optimal email deliverability from webCRM, using Mailjet

To secure the optimal delivery rate of emails sent from webCRM using Mailjet and to avoid getting caught in spam filters, we have made a guide of technical tasks that can be performed to improve the delivery rate. The guide is mainly focussed on e-mails sent using Mailjet, but you can also send from your own email server, see *5. Sending from your own e-mail server* on page 5.

To be able to send mass emails from webCRM, such as newsletters, invitations and reminder to events etc. you must complete at least step 1 about SPF records. We strongly suggest that you also complete step 2 about DKIM. Once this step is completed, you will send from an IP address with a better rating than only when SPF records are set up, thus increasing the deliverability.

If you wish to improve your setup further, you can complete step 3 and implement DMARC authentication, which will require tests and changes on our side as well and costs one hour of consultancy work.

1. SPF records

Sender Policy Framework (SPF) is an email validation system designed to prevent e-mail spam by detecting e-mail spoofing, a common vulnerability, by verifying sender IP addresses. SPF allows administrators to specify which hosts/servers are allowed to send mail from by creating a specific SPF record in a domains Domain Name System (DNS) zone. Mail-servers use DNS to check that mail from a given domain is being sent by a host sanctioned by that domain's administrators.

This requires that you have your own domain. If your e-mail is a public domain provider for example an @hotmail or @gmail e-mail address you should not send mass e-mails from webCRM.

1.1 Technical setup

To publish that you permit sending e-mails from your webCRM system you need to create or modify the SPF record to include **“include:spf.webcrm.com”**. Some DNS providers allow you to do it yourself, but otherwise you must contact your DNS provider and have them do it.

SPF record formats do vary, and you should consult your IT staff or DNS Provider for the exact format to use.

Example text for SPF record permitting webCRM and Mailjet SMTP server as well as your own e-mail server:

"v=spf1 ip4:111.222.333.444 include:spf.webcrm.com -all", where 111.222.333.444 is the IP for your own smtp server if you have one.

If you have Office 365, the record would look like this:

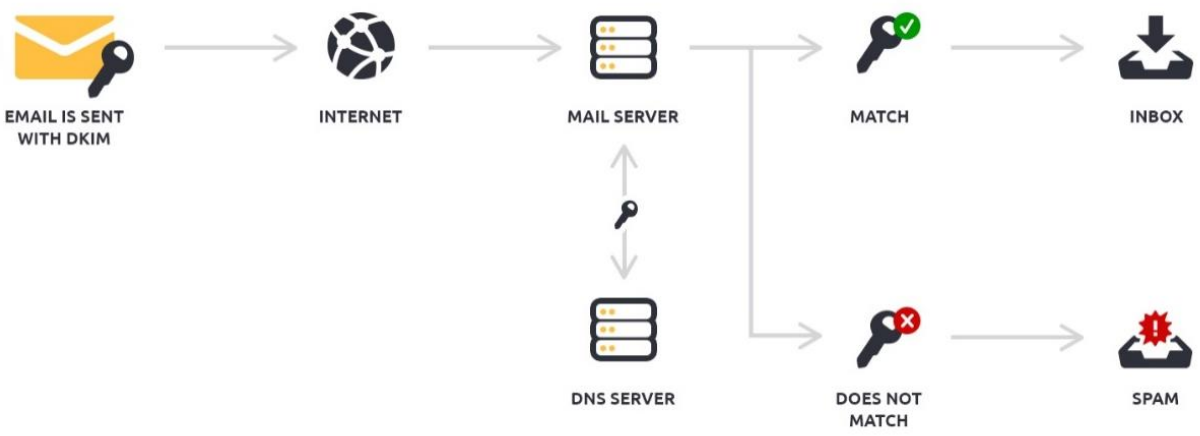
v=spf1 include:spf.protection.outlook.com include:spf.webcrm.com +a +mx ~all

2. DKIM

The acronym DKIM stands for "Domain Keys Identified Mail". It is an encryption authentication method that is used by mail servers to establish if the e-mail originated from an authorized system and prevents spammers from stealing the identity of legitimate entities.

DKIM allows for a unique signature to be added to the message header for each e-mail you send. This signature is specific for your domain and is generated by a private key. The corresponding public key is added to a DNS record for your domain.

When an e-mail server receives your e-mail, it checks the public key to determine if your private key was used to generate the e-mail signature. If your private key was not used, the e-mail is considered to be a phishing or spam attempt.



2.1 Technical setup

To setup DKIM for your domain, you need to confirm the ownership of your domain either by creating a DNS record or by placing an empty text file with a name provided by webCRM in the root of your web-server. After that you must create a TXT file in your DNS with a DKIM value provided by webCRM.

You must be able to create and insert these values yourself or get your DNS Provider to do it, as we cannot help with these steps. If we could do it on your behalf, the validation would not mean anything as all spammers could do the same.

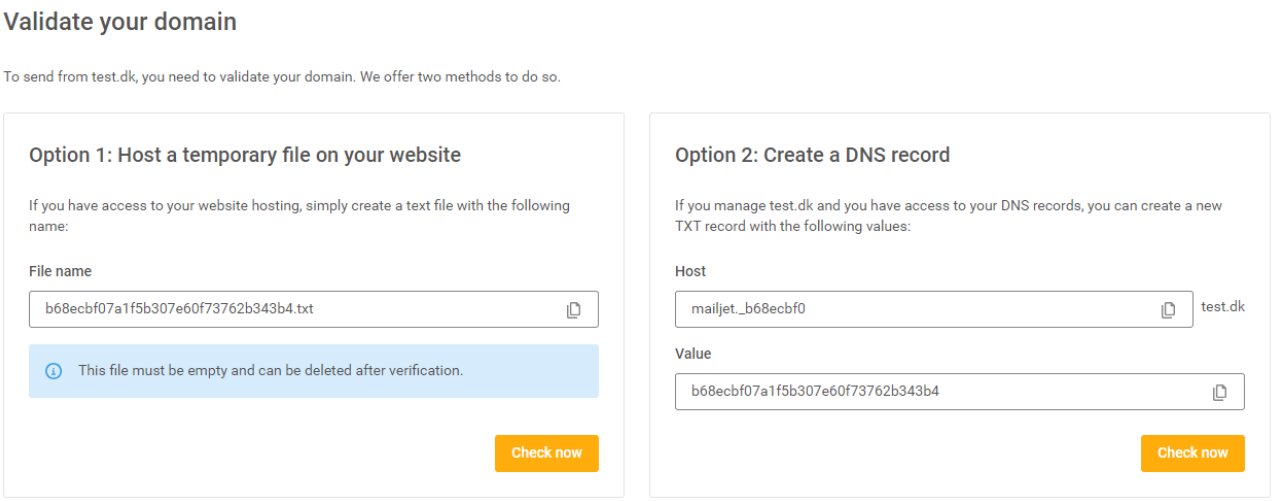
If you wish to setup DKIM, please contact support@webcrm.com to get the hostname, public key and TXT value for the setup. Once you have completed the setup, get back to us and we will then confirm your ownership of the domain and the SPF and DKIM setup and move you to a better IP address, which should improve your delivery rate.

2.2 Validating domain

To validate your domain, we offer two methods

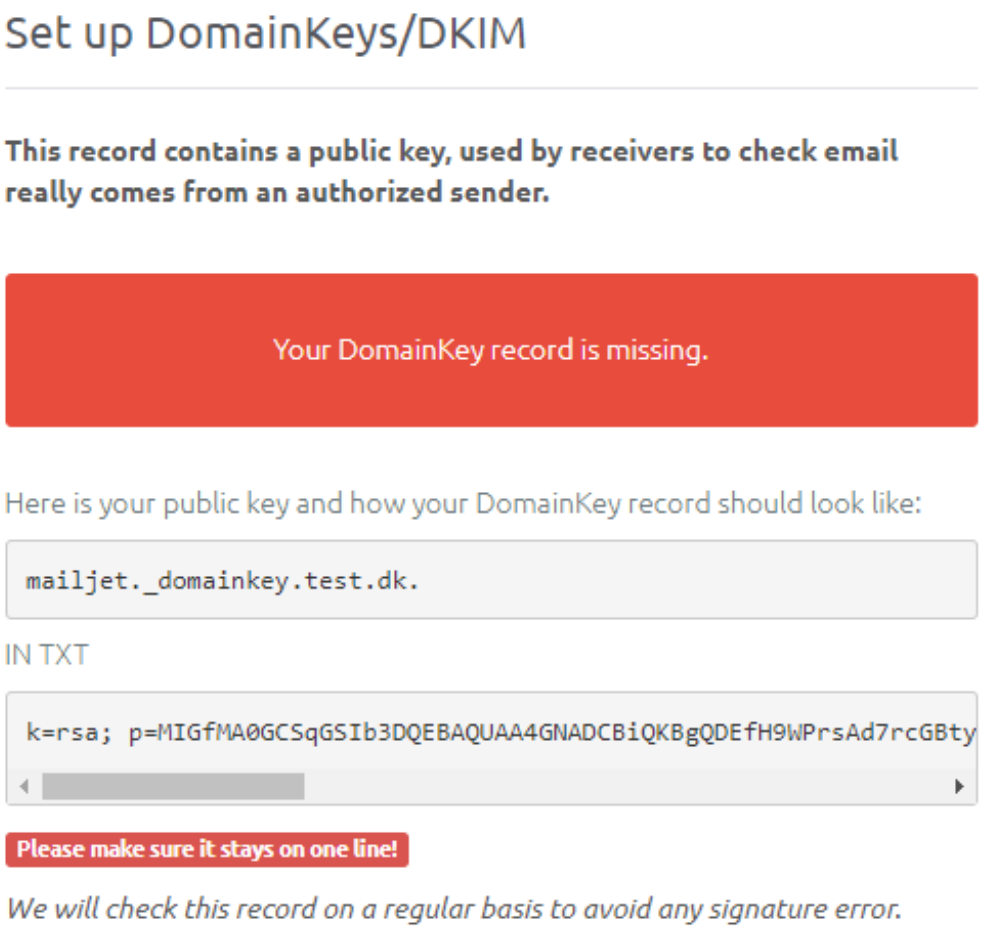
1) Host a temporary file on your website
2) Create a DNS record.

We will provide you both a file name for option 1 and a hostname and value for option 2, for example:



2.3 DKIM authentication

To validate your DKIM setup, you must first setup SPF records, as described in **1. SPF records**.
In the e-mail from us, you will also receive a public key and a text record for the DKIM record, for example:



After you have created this in your DNS, please get back to us for validating the values and you are done with the setup.

3. DMARC authentication

DMARC stands for "Domain-based Message Authentication, Reporting & Conformance" and is another level of e-mail authentication. This additional authentication procedure must be put in place after the SPF and DKIM authentication are set. It allows you to add another layer of protection for your domain and indicates to the recipient servers which behavior to adopt should the SPF and DKIM authentications fail (NB: Certain recipient servers do not take into consideration the DMARC policy in the context of delivering e-mails).

In order to apply a DMARC policy to a sender domain, it is enough to add a TXT record in the DNS zone of your sender domain, such as for example:
Host: *dmarc.yourdomain.com.*
Txt: *v=DMARC1; p=none; pct=100; rua=mailto:yourmail@yourdomain.com; sp=none; aspf=r;*

You can read more about DMARC authentication in Mailjet's technical documentation. For webCRM to enable DMARC authentication for your domain, you will be charged for one hour of consultancy work.

4. Sending from your own e-mail server

An alternative to setting up these steps is to relay e-mails sent from within webCRM through your own e-mail server. This way you will be responsible for the spam-rating of your domain and should maintain a good reputation yourself. Another disadvantage is that you cannot use Mailjet in webCRM, meaning that click and open-rates will not be monitored and you cannot gather and use data about this.

If you wish to send from your own server, you must verify that the webCRM system can access your SMTP server by checking your server's authentication method. webCRM can be allowed to send by either providing us the username and password for the SMTP server or by whitelisting the IP address **52.236.158.159**, which the webCRM system sends e-mails from. If you do not use authentication on your SMTP server you can skip this step, but this is not recommended, as everybody can then send e-mails as you.

When this is done, please provide us the following information:

- E-mail domain or IP address to relay by
- The port to relay by
- If you want to apply encryption (TLS)
- (Username and password, if you chose this authentication)

We will then make the required setup on our side and your own e-mail server will be used.

5. Special settings for internal e-mails

Some customers have a setup where e-mails send and received internally in the organization are protected in a special way. This is implemented to secure that people from outside the company cannot identify as an employee and send e-mails from the domain from elsewhere than your own servers.

However, this will also limit webCRM from sending e-mails to your internal e-mail addresses and you should allow e-mails from the IP address **52.236.158.159** to be received from internal e-mail addresses.