



SPF record and DNS MX entries

Document for email Service users .

Summary

- I. Adding an SPF record.....2
- II. Modify DNS MX entries on the Internet for your organization's domain3

I. Adding an SPF record

The SPF record is a line that you must add to your DNS server to prevent the **spoofing of your mail servers**.

The receiving servers examine the SPF record to ensure and verify that the server responsible for sending the emails has been authorized to do so by the sending domain. This reduces the chance that your domain will be used for SPAM or other malicious activities.

Here is the information that you must ask your registrar (Gandi, 1 & 1, OVH ...) to add in order to create the TXT field of the domain "your-domain-name.com"

"your-domain-name.com" is a domain name that we will use as an example.

```
Your-domain-name.com 10800 IN TXT "v=spf1 include:includespf.security-mail.net ~all"
```

Not:

Please see an example of SPF field record and DNS entries at one of our clients :

```
@ 10800 IN MX 10 europe.security-mail.net.  
@ 10800 IN MX 50 france.security-mail.net.  
@ 10800 IN TXT "v=spf1 include:includespf.security-mail.net -all"
```

Mandatory

MX
S
P
F

Save your DNS zone changes.

To verify that the record has been taken into account, run the following command in your terminal:

```
nslookup -type=txt your-domain-name.com
```

The output of the order must contain the following line:

```
your-domain-name.com text = "v=spf1 include:includespf.security-mail.net -all"
```

Note : With this configuration, only the mail servers of the domain "security-mail.net" will be authorized to send the emails coming from the domain "your-domain-name.com".

The "all" parameter can have 3 values :

- **-all** Strictly authorize any shipment other than one of the listed items
- **~all** Consider sending by other servers as potentially illegitimate
- **?all** Signals that there are additional servers that can send mail

INFORMATIVE

II. Modify the MX DNS entries for your organization's domain

The email routing protocol on the Internet uses information in your DNS: the MX records. They are sorted according to their preference value from the lowest to the highest. Record with the **lowest value** is generally your messaging server while **higher values** correspond to your ISP **mail relays**. If your server is not responding, your messages will be received thanks to those relays as long as your servers are unavailable. We are going to use this property and assign the lowest value to the **Email Filtering Service** to give him priority to receive emails. After having processed your messages, the **Email Filtering Service** will send them to your messaging server.

This is usually done by the person/company managing your DNS ie your domain name – most of the times your Internet service provider (ISP) or a registrar. You need to send this person a request for change or do it yourself if you have an administration console. An example of such a request, which you can print on headed notepaper and send to the person in charge of your DNS, is included in the appendices. It usually takes several hours to propagate the changes throughout the Internet, but you will receive your first secured messages right after the modification.

Here is an example; the DNS table extract shows the MX records of the domain “your-domaine-name.com”:

```
your-domaine-name.com. IN MX 5 mailgate.your-domaine-name.com.  
your-domaine-name.com. IN MX 40 smtp.isp.net.  
your-domaine-name.com. IN MX 40 secours.isp.net.
```

MX

mailgate.your-domaine-name.com is the domain messaging server (value = 5).

smtp.isp.net and **secours.isp.net** are SMTP relays (value = 40).

According to this table if the message cannot be sent to mailgate.your-domaine-name.com, for whatever reason, it will be routed towards one of the SMTP relays with a preferential value of 40. These hosts will then try on a regular basis to send the email to a host with a lower preferential value: the messaging server mailgate.your-domaine-name.com.

To analyze and filter messages before they reach the mailgate.your-domaine-name.com server, we set the preferential values of the **Email Filtering Service** servers as follows:

```
your-domaine-name.com. IN MX 3 france.security-mail.net.  
your-domaine-name.com. IN MX 4 europe.security-mail.net.
```

MX