

Table Of Contents

Table Of Contents 1

See also 2

[Home](#) > [Faq](#) > [EMail Servers](#)

What is an MX record in DNS entries?

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Q. I see MX record in DNS configuration file. Can you explain the usage of MX record?

A. AN MX is short form for Mail exchanger record. The Domain Name System (DNS) stores and associates many types of information with domain names including

=> IP address

=> Host aliases

=> Email server address etc



[1]

DNS server is a general-purpose distributed, replicated, data query service chiefly used on Internet for translating hostnames into Internet addresses such as www.yahoo.com into 66.94.234.13 or vice-versa.

a) To specify IP address you need to use A record.

b) To specify Email server IP you need to use an MX record. With MX record Internet e-mail should be routed. MX records point to the servers that should receive an e-mail, and their priority relative to each other. Consider following DNS zone file for gite.in domain:

```
@ IN SOA gite.in (
                2007020704      ; Serial
                3600             ; Refresh
                300              ; Retry
                604800           ; Expire
                3600             ; Minimum
                )

@                86400      IN ns      ns1.gite.in.
@                86400      IN ns      ns2.gite.in.

@                86400      IN a        75.126.43.232
www              86400      IN a        75.126.43.232
mx1              86400      IN a        75.126.43.233
mx2              86400      IN a        75.126.43.234
ns1              86400      IN a        75.126.43.233
ns2              86400      IN a        75.126.43.234

mail.gite.in     86400      IN cname  mail.cyberciti.biz.

10 @             604800     IN mx      mx1.gite.in.
20 @             604800     IN mx      mx2.gite.in.
```

Last two line define an MX record for gite.in mail server. So if someone send an email to user@gite.in it will be first routed to mail server called mx1.gite.in. If mx1 failed to accept an email, it will be routed to 2nd mail server mx2.gite.in.

The relative priority of an MX server is determined by the preference number present in the DNS MX record. When a remote client (typically another mail server) does an MX lookup for the domain name, it gets a list of servers and their preference numbers. The MX record with the smallest preference number has the highest priority and is the first server to be tried. The remote client will go up the list of servers until it successfully delivers the message or gets permanently rejected due to an unreachable server or if the mail account does not exist on that server. If there is more than one entry with the same preference number, all of those must be tried before moving on to lower-priority entries.

See also

- [MX Record article at Wikipedia](#) [2]

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[1] Image: <http://www.cyberciti.biz/faq/faq/category/email-servers/>

[2] MX Record article at Wikipedia: http://en.wikipedia.org/wiki/MX_record

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