

Re: How to disable the "implicit mx record" in Exchange

Source:

<http://www.tech-archive.net/Archive/Exchange/microsoft.public.exchange.admin/2007-02/msg03009.html>

- *From:* Evan McNally <EvanMcNally@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Mon, 26 Feb 2007 10:26:13 -0800
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David,

I understand your general advice, but I am really looking for an answer on how to modify the two numbered points in my original post.

To respond to your points:

- I suspect saturation at our site is a factor, but slow recursive lookups (which would be a problem at the recipient domain) could also be an issue. The error occurs with some domains a lot more than others. Better links will not help with this.
- The MX record does resolve *_most of the time_*. This is not a resolution problem, per se. It is only when the MX lookup fails on occasion that we have the error.

I do not want to sound unappreciative, but trust me when I say that I know exactly what the error is. I just need to know how to modify the behavior of Exchange or Microsoft DNS to compensate for the error conditions.

Thanks, Evan

"Andy David {MVP}" wrote:

On Mon, 26 Feb 2007 10:06:43 -0800, Evan McNally
<EvanMcNally@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

I am having a problem with exchange sending to hosts in recipient domains where these hosts are not actually mail servers. After a lot of review of the SMTP logs, I realized that sometimes Exchange is sending to the correct MX record host, and sometimes it is sending to the host with the A record for the actual domain. When I say the record for the domain, I mean an A record that references the bare domain name rather than an individual host in the domain.

So when Exchange gets a DNS timeout looking up an MX record, it falls back

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to sending to the domain A record. This causes an immediate failure with no further retry in cases where the MX and A records go to different IP addresses and the A record host accepts mail but not for the particular recipients we are sending to—we get the "cannot relay for that user" type error.

This link explains how this behavior is by design according to the RFC:

<http://exchangeopedia.com/blog/2006/11/rfc-2821-and-implicit-mx-rule-can-you.html>

I feel that this problem is a combination of saturated bandwidth causing DNS request packets to be dropped and poor performance with our ISP's DNS and perhaps slow response from the recipient domain's DNS servers during recursive lookup. BUT, it is not feasible to fix those problems quickly.

Does anyone know if it is possible to tell Exchange to do one of the following:

1. Retry the MX lookup more times. I have already increased the DNS timeout value in the forwarder section of our internal DNS server, but it does not help when the DNS packet is simply lost.
2. Disable the fall back to using the domain A record. If it would just retry the MX lookup after a while, we would be fine.

I believe I can also "fix" this by entering Exchange routing rules with an explicit recipient host for the problem domains, but that's kind of a crummy way to cover up the problem.

Thanks for any advice!

Evan

If your link is saturated from looking up DNS records, it's time to get a new link.

If you are unable to lookup a mx record for a domain, then you should not be able to look up their A record either.

I suspect you have something else going on that is causing problems.