Glue Records and SPF Rules

This page explains what glue records are for and how to define them for various DNS zones. It also contains explanations related to SPF rules.

Glue records

Name servers in delegations appear listed by name, rather than IP address. This means that a resolving name server must issue another DNS request to find out the IP address of the server to which it has been referred.

Since this can introduce a circular dependency if the nameserver referred to is under the domain that it is authoritative of, it is occasionally necessary for the nameserver providing the delegation to also provide the IP address of the next nameserver. This record is called a glue record.

In practice glue records are used for two purposes:

- To speed up queries and consequently reduce DNS load, by providing the name and IP addresses (the glue) for all authoritative name servers, both within and external to the domain.
- To break the query deadlock for referrals which return name servers within the domain being queried.

Glue Records can only be defined for forward master DNS zones added from the control panel.

Creating a glue record requires a NS and an A record with the following requirements:

- The NS record must NOT have a corresponding A record.
- The A record MUST be defined on $ORIGIN or on a subdomain of $ORIGIN

The **Required Records** table below illustrates the records that are necessary for creating a glue record.

Host	Record type	Value
sub.example.com	NS	ns.sub.example.com
sub.example.com	A	1.2.3.4

In order to create a glue record, select the desired zone name from the zones list and click the Glue Records link at the top of the table.

Here is the resulting glue record:

Host	Record type	Value
ns.sub.example.com	A	1.2.3.4

SPF rules

SPF allows the owner of an Internet domain to use special format DNS TXT rules to specify which machines are authorized to transmit e-mail for that domain.

You can add Server Policy Framework (SPF) rules to your DNS zones. Open the **DNS zones** page, select the zones to which you want to apply the SPF rules and click the SPF Rules link. In the new page that opens, you can manage the SPF rules.

SPF Rules can be defined only for zones added from the control panel.

In order to create a SPF for one of the origin's subdomains, enter the subdomain using the `subodmain.[domain]` format.

Leaving this field empty, will generate the TXT record for $ORIGIN. Next, enter the actual rule.

Each rule contains three elements:

1. From the first drop-down list, select a qualifier. You have the following options:
    - "+" Pass
    - "-" Fail
    - "~" SoftFail
    - "?" Neutral
2. From the second drop-down list, select a mechanism or a modifier.
    - all
    - ip4
    - ip6
    - a
    - mx
    - ptr
    - exists

- include

Or a modifier:

- redirect
- exp

3. In the text box, enter the target URL.
4. Use the + button to add rules to the list and the - button to remove rules from the list. When you are done, click **OK** to apply your changes and return to the DNS zones page. Click **Cancel** if you wish to return to the DNS zones page without applying your changes.