QA Task
Tatevik Hakhnazaryan

1. Generate SPF with valid IPv4

Steps:

1. Enter domain: `mycompany.test`
2. Enter IPv4: `192.168.1.1`
3. Click Generate

Expected Result:

SPF result: `v=spf1 ip4:192.168.1.1 ~all`

2. Generate SPF with valid IPv6

Steps:

1. Enter domain: `mycompany.test`
2. Enter IPv6: `2001:db8::1`
3. Click Generate

Expected Result:

SPF result: `v=spf1 ip6:2001:db8::1 ~all`

3. Generate SPF with valid Include

Steps:

1. Enter domain: `mycompany.test`
2. Enter Include: `_spf.google.com`
3. Click Generate

Expected Result:

SPF result: `v=spf1 include:_spf.google.com ~all`

4. Generate SPF with valid A record

Steps:

1. Enter domain: `mycompany.test`
2. Enter A: `google.com`
3. Click Generate

Expected Result:

SPF result: `v=spf1 a:google.com ~all`

5. Generate SPF with valid MX record

Steps:

1. Enter domain: `mycompany.test`
2. Enter MX: `easydmarc.com`
3. Click Generate

Expected Result:

SPF result: `v=spf1 mx:easydmarc.com ~all`

6. Generate SPF with valid Exists

Steps:

1. Enter domain: `mycompany.test`
2. Enter Exists: `%{i}._spf.mta.salesforce.com`
3. Click Generate

Expected Result:

SPF result: `v=spf1 exists:%{i}._spf.mta.salesforce.com ~all`

7. Redirect toggle ON

Steps:

1. Enter domain: `mycompany.test`
2. Toggle Use Redirect ON
3. Enter Redirect: `_spf.google.com`
4. Click Generate

Expected Result:

SPF result: `v=spf1 redirect=_spf.google.com`

8. Redirect toggle OFF after ON

Precondition: Redirect toggle: ON

Steps:

1. Enter domain: `mycompany.test`
2. Toggle Use Redirect OFF
3. Enter Include: `_spf.google.com`
4. Click Generate

Expected Result:

SPF result: `v=spf1 include:_spf.google.com ~all`

9. Invalid IPv4

Steps:

1. Enter domain: `mycompany.test`
2. Enter IPv4: `300.1.1.1`
3. Click Generate

Expected Result:

Error message displayed: "The ip4 mechanism in your SPF record contains an invalid IP address. Make sure the provided value is a valid IP address and update your record accordingly."

10. Invalid IPv6

Steps:

1. Enter domain: `mycompany.test`
2. Enter IPv6: `12345::678`
3. Click Generate

Expected Result:

Error message displayed: "The ip6 mechanism in your SPF record contains an invalid IP address. Make sure the provided value is a valid IP address and update your record accordingly."

11. Invalid Include domain

Steps:

1. Enter domain: `mycompany.test`
2. Enter Include: `invalid-domain`
3. Click Generate

Expected Result:

Error message displayed: "The ip6 mechanism in your SPF record contains an invalid IP address. Make sure the provided value is a valid IP address and update your record accordingly."

12. Invalid A record

Steps:

1. Enter domain: `mycompany.test`
2. Enter A: `invalid.domain`
3. Click Generate

Expected Result:

Error message displayed: "Invalid A domain: "invalid.domain". Make sure the domain has a valid "A" record."

13. Invalid MX record

Steps:

1. Enter domain: `mycompany.test`
2. Enter MX: `invalid.mx.com`
3. Click Generate

Expected Result:

Error message displayed: "Invalid MX domain: "invalid.mx.com". Make sure the domain has a valid "MX" record."

14. Empty domain

Steps:

1. Leave domain empty
2. Observe Generate button

Expected Result:

The Generate button is disabled.

15. Copy TXT Value functionality

Steps:

1. Enter domain: `mycompany.test`

2. Enter IPv4: `192.168.1.1`

3. Click Generate

4. Click Copy TXT Value

5. Paste clipboard content somewhere

Expected Result:

Clipboard contains `v=spf1 ip4:192.168.1.1 ~all`

16. Verify default SPF qualifier is always "~all"

Steps:

1. Enter domain: `mycompany.test`
2. Add any valid mechanism (e.g., IPv4 `192.168.1.1`)
3. Click Generate

Expected Result:

SPF result ends with ~all. Example: `v=spf1 ip4:192.168.1.1 ~all`

17. Verify default "-all" remains even with multiple mechanisms

Steps:

1. Enter domain: `mycompany.test`
2. Enter:

   - IPv4: `192.168.1.1`
   - Include: `_spf.google.com`
   - MX: `easydmarc.com`
3. Click Generate

Expected Result:

SPF result: v=spf1 ip4:192.168.1.1 include:_spf.google.com mx:easydmarc.com ~all

18. Combine multiple mechanisms

Steps:

1. Enter domain: `mycompany.test`
2. Enter IPv4: `192.168.1.1`
3. Enter MX: `easydmarc.com`
4. Enter Include: `_spf.google.com`
5. Click Generate

Expected Result:

SPF result: `v=spf1 ip4:192.168.1.1 mx:easydmarc.com include:_spf.google.com ~all`

19. Multiple Includes

Steps:

1. Enter domain: `mycompany.test`
2. Enter multiple Includes: `_spf.google.com`, `spf.protection.outlook.com`, `mail.zendesk.com`, `amazonses.com` (all separately)
3. Click Generate

Expected Result:

SPF result contains all includes. Lookup count: 6/10. Email Senders: 4

20. Empty mechanism fields

Steps:

1. Enter domain: `mycompany.test`
2. Leave all mechanism fields empty
3. Click Generate

Expected Result:

SPF result: `v=spf1 ~all`

21. Mix valid + invalid inputs

Steps:

1. Enter domain: `mycompany.test`
2. Enter IPv4: `192.168.1.1`
3. Enter Include: `invalid-domain`
4. Click Generate

Expected Result:

Error message for Include: "The value in include element should be a valid domain name". IPv4 still included in SPF: `v=spf1 ip4:192.168.1.1 include:invalid-domain ~all`

22. Redirect toggle + existing includes

Steps:

1. Enter domain: `mycompany.test`
2. Enter Include: `_spf.google.com`
3. Toggle Use Redirect ON
4. Click Generate

Expected Result:

Previous includes removed. Error message: "Invalid "redirect" modifier. Make sure the modifier is not empty and contains a valid domain".