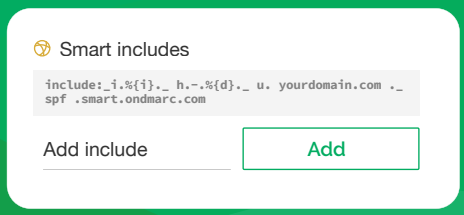
Dynamic SPF

Simplify SPF management with automation and service resilience



How is the 10 lookup limit solved?

SPF was introduced in 2005 as an email authorization protocol. The 10 lookup limit was there to protect against denial of service attacks (DoS) whereby lookups could become circular/infinite and possibly take down a server. Dynamic SPF solves the 10 lookup limit by enabling you to use a single dynamic include to combine all authorized services correctly at the point of query. This prevents your authorized traffic from failing SPF validation.

Why not rely on cloud services?

If a cloud-based mail provider you use went down, or if one of your includes had an error, then you would have an incorrect “include” in your SPF record that is no longer valid. SPF resolves in a linear fashion, resulting in a fail at the point where your incorrect include cannot be resolved. As a result of this, the rest of your SPF fails too and this leads to serious email deliverability issues. Dynamic SPF skips over the broken stuff and automatically updates values without intervention when errors are resolved.

Simplifying ongoing SPF management

Automation

Dynamic SPF hosts the SPF lookups, calculating all of the required IP addresses irrespective of the number of underlying lookups. These IPs are refreshed continuously so they are always up to date at the moment of query, no additional scripts or manual intervention is required.

Simple DNS change management

OnDMARC identifies sources of traffic and enables one click SPF configuration when Dynamic SPF is enabled. With OnDMARC’s permissions settings, you can give other users access to your Dynamic SPF settings without having to give them direct access to your organization’s DNS. Dynamic SPF also ensures that a user cannot make mistakes such as syntax errors therefore ensuring your mail continues to flow.

Service resilience

OnDMARC is built on Google Compute Engine (GCE). We use GCE because of their high performance geographic load balancing. Additionally, we have a self healing Kubernetes architecture that manages our Dynamic SPF application stack and multiple availability zones to manage failover. Essentially this all means that Dynamic SPF is highly resilient.

Flat & Compact

Dynamic SPF has sophisticated IP range analysis and optimizes the returned records so they can be evaluated quickly and completely by receiving services. We flatten and compact SPF because it is simpler, virtually unlimited and it works with all devices.

Reliability

Dynamic SPF monitors and heals using 'last known good' values for policy. For example, if one of your includes had an error, then you would have an incorrect "include" in your SPF record that is no longer valid. With Dynamic SPF in place this broken include would be skipped over and the rest of your email would continue to flow. When these errors do get fixed, Dynamic SPF will automatically incorporate the updated values with no user intervention.

Frequently Asked Questions around Dynamic SPF

- ☑ Is it automated?
- ☑ Is it flattening?
- ☑ Does it support macros?
- ☑ Can it support large complex SPF policies?
- ☑ Does it protect against policy errors?
- ☑ Does it do more than SPF (ie DMARC and/or DKIM hosting)?

For more information about Dynamic SPF, visit our **knowledge base.**

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RED SIFT

The Red Sift Open Cloud is a data analysis platform that is purpose-built for the challenges of cybersecurity. By harnessing the power of AI we can securely collate, compute & visualize data from thousands of individual signals to help organizations to optimize their cybersecurity.

Products on the platform include OnDMARC and OnINBOX, SaaS applications that work together to close the net on the phishing problem by blocking outbound phishing attacks and analyzing the security of inbound communications for company-wide email threat intelligence.

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