Engineer

Reconciled a 20-record DNS zone as code

Reconciled a 20-record DNS zone declaratively against the Cloudflare API with separate audit and BIND-export entry points, and turned the CDN proxy back off on privacy grounds after building it.

August 2026

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DNS records reconciled against the record itself

Situation. The company's DNS carried about twenty records across a web presence, a git subdomain, two personal redirects, mail routing through a hosted mailbox provider, a transactional sending domain and the authentication records for both. All of it lived in a provider's web console, which means the current state was whatever the last person to click had left behind.

Task. The zone had to become a declaration in the repository, with a way to compare that declaration against what the provider is actually serving.

Action. The zone is written as data — live records, application records, transport-policy records and a separate list of records pending removal, which is the honest way to record a deletion that has not happened yet. One play reconciles it against the provider's API. Two more entry points sit behind explicit opt-in tags: an audit that reports the difference without changing anything, and an export that writes the zone out in the standard zone-file format so it can be read by something that is not this repository. The most interesting decision was a reversal. Proxying the two web faces through the provider's content network was built, worked, and was then turned back off — because it costs the one sentence the company's privacy page is about. With a proxy in front, another company handles every visitor's address and every URL they request, before we do, under their policy rather than ours. For a business whose distinguishing claim is that nobody is watching, that is a worse trade than the attacks it defends against.

Result. The zone is versioned, comparable and exportable, and the one decision that went against the obvious default is written down with its reasoning so that nobody re-litigates it by accident. The audit path is the part that gets used most, because knowing the difference is more often what is wanted than closing it.

Bring this experience to your project

Use “Reconciled a 20-record DNS zone as code” as a starting point for a similar challenge in your organisation. The services behind this work are available for your project. The whole setup written down as files, so it can be recreated exactly and never lives only in one person's head.

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Look behind the result

Read the situation, decisions and result in this example. We can discuss which parts transfer to your constraints and which need another approach. Reconciled a 20-record DNS zone as code — 20 DNS records reconciled against the record itself

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Want your DNS managed as code with an audit trail?

Talk through your project with the engineer responsible for delivery. We agree the scope, price basis and handover in writing before work begins.

Role context: Network and DNS Engineer. It draws on APIs & Integration, Infrastructure, Automation & CI/CD, Networking & VPN, Security and Python. And while you are here, we are rather good at Infrastructure as Code, System Administration, Networking & VPN Setup and Security & Access Management.

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One piece of **a longer record** — and it is all on this site.

Every entry is written the same way: the situation, the task, what we did and what changed.

See the whole record

Define the improvement you need

Bring the deployment path, the operational risks and the people on call. We can scope a change with checks, a recovery route and clear ownership.

See what it costs Get in touch →

Want your DNS managed as code with an audit trail?

Ask about the decisions behind “Reconciled a 20-record DNS zone as code”. You will speak with the people who can explain the work and assess your own project.

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