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DNS Manager — Server Groups

PUQcloud Panel

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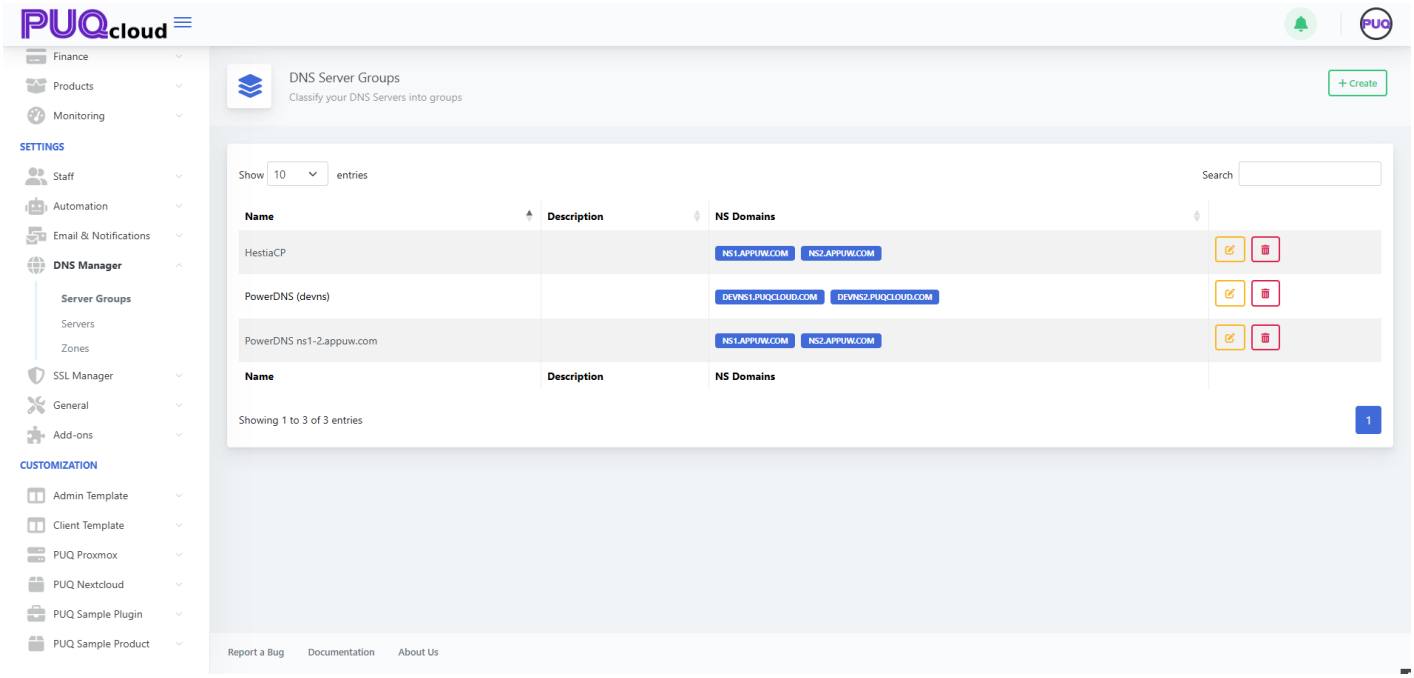
1) What Server Groups are for

A **Server Group** is a logical pool of one or more DNS servers that act together as the authoritative nameservers for the zones you assign to the group.
You define the public **NS hostnames** for the group (what registrars and resolvers will see), and you attach real DNS servers to the group (PowerDNS or HestiaCP via PUQcloud modules). Any **Zone** linked to this group will be created/updated on **all** servers in the group.

Path: Settings → DNS Manager → Server Groups



2) When you need groups

- You operate **two or more** DNS servers for redundancy.
- You separate **production** vs **staging/tech** DNS (e.g., ACME DNS-01 challenge zone).
- You roll out **multi-region** authoritative DNS and want a single switch to move zones between clusters.
- You're **migrating** from one platform to another and need both pools side by side.

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3) Supported modules (for servers you'll attach)

- **PUQ PowerDNS** — talks directly to PowerDNS HTTP API (typically port `8081`).
- **PUQ HestiaCP DNS** — manages zones/records through HestiaCP API.

> You can mix group types: one group may contain only PowerDNS nodes, another only HestiaCP, etc.

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4) Before you start (prereqs)

- Prepare your **NS hostnames** (e.g., `ns1.example.com`, `ns2.example.com`) and make sure they will resolve to the public IPs of your real DNS servers.
- Add your physical DNS servers in **DNS Manager → Servers** and verify them with **Save and Test**.
- If these hostnames are used for **domain delegation**, update them at the registrar after you finish (or set glue records if needed).

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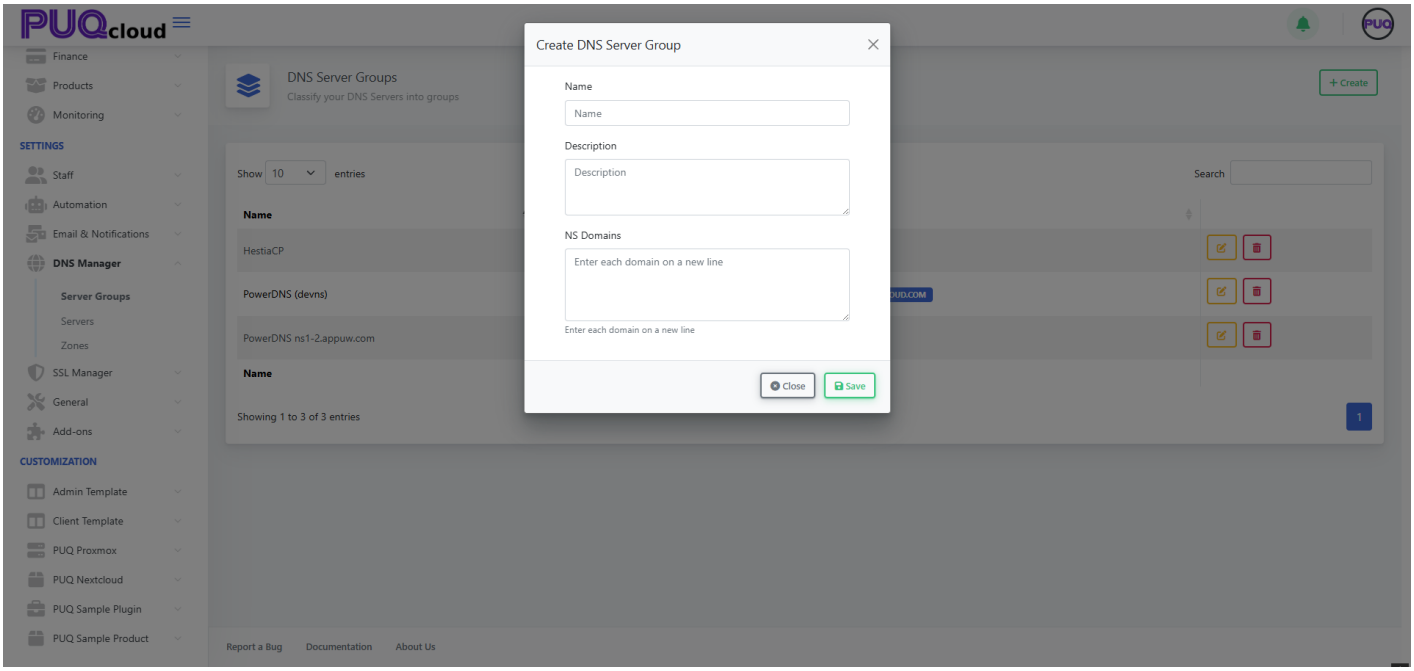
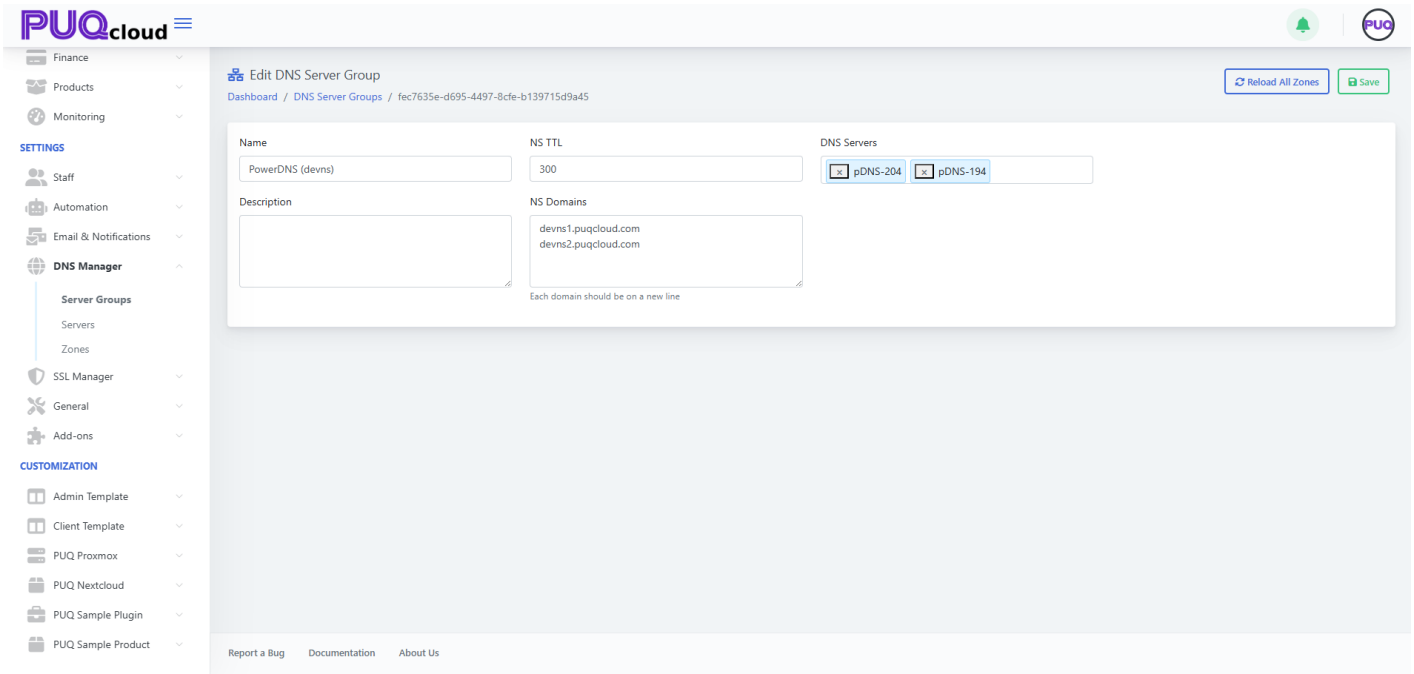
5) Creating a Server Group — step by step

1. Go to **Server Groups** and click **+ Create**.
2. Fill in **Name** and (optional) **Description**.
3. In **NS Domains**, enter the authoritative NS hostnames — **one per line** (e.g., `ns1.appuw.com`, `ns2.appuw.com`).
4. Click **Save**.



6) Editing a Server Group (fields explained)

Open the group you just created.



Fields

Field	Purpose	Notes / Examples
Name	Friendly title of the group	e.g., `PowerDNS (devns)`
NS TTL	TTL for NS records this group advertises	300–900 is typical; use 300 during migrations

Field	Purpose	Notes / Examples
NS Domains	The public authoritative NS hostnames for the group	`ns1.appuw.com` and `ns2.appuw.com`, each on a new line
DNS Servers	The real servers (from **DNS Manager → Servers**) to run this group	Select 2+ for redundancy; can be PowerDNS or HestiaCP nodes

Actions

- **Reload All Zones** — push/refresh **every zone** assigned to this group across all attached servers (useful after adding/removing a server).
- **Save** — persist changes.

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7) How groups, servers, and zones interact

- A **Zone** belongs to exactly **one Server Group**.
- A **Server Group** can contain **multiple servers** (recommended: at least two).
- When you create/edit a zone, PUQcloud writes changes to **all servers** in the selected group.
- Changing the group for a zone (via **Zones → Move To**) moves its management to the new server pool.

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8) Typical patterns

A. ACME “Tech Zone” group (DNS-01 for SSL)

Create a group like **PowerDNS (devns)** with NS hostnames such as `devns1.yourdomain.com` and `devns2.yourdomain.com`, attach 2+ PowerDNS servers, and delegate these NS in the registry.
Use this group to host a technical zone (e.g., `acme.yourdomain.com`) where SSL Manager will place TXT records during issuance. In target zones you only set CNAME for `_acme-challenge` pointing into the tech zone; Let’s Encrypt follows the CNAME and validates TXT there.

B. Production authoritative DNS

Create a group **PowerDNS ns1-2** with `ns1.example.com` and `ns2.example.com`, attach your production servers, and assign all public zones to this group.

C. Migration between platforms

Keep **Group A (HestiaCP)** and **Group B (PowerDNS)** simultaneously.
Import zones to Group B, test, then in **Zones** use **Move To** to switch each zone from A to B. Lower **NS TTL** before switching to reduce propagation delays.

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9) Best practices

- Always have **≥2 servers** per group, ideally in different networks/regions.
- Choose **clear names**: `PowerDNS ns1-2`, `PowerDNS (devns)`, `HestiaCP-EU`.
- Keep **NS TTL** low (300) during migrations or frequent changes.
- After adding a server to a group, run **Reload All Zones**.
- Ensure **NS Domains** here match the **actual delegation** at your registrar.
- Secure server APIs (IP allowlist, HTTPS where applicable) and use distinct API keys.

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10) Troubleshooting

Symptom	Likely cause	Fix
Zones don’t appear on a new server	Server not attached to the group or not reloaded	Add it under **DNS Servers**, click **Reload All Zones**
Public NS answers are inconsistent	One node out of sync or offline	Check server health, run **Reload All Zones**, review logs
Registrar warns about NS mismatch	NS hostnames in group don’t match registry delegation	Align **NS Domains** here with registrar NS; wait for TTL
SSL DNS-01 fails	Tech group/zone mis-delegated or CNAME wrong	Verify tech zone delegation and `_acme-challenge` CNAME chain

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