

Vercel Skew Protection

Deep dive into skew protection 🧐

<https://nextjs-skew-demo.vercel.app/>

<https://shellbear.me>

What is Skew Protection?

Skew Protection

Learn how Vercel's Skew Protection ensures that the client and server stay in sync for any particular deployment.

- 📄 Skew Protection is available on [Pro and Enterprise plans](#)
- 👤 Those with the [owner](#), [admin](#), [member](#) role can access this feature

Version skew occurs when different versions of your application run on client and server, causing application errors and other unexpected behavior. For example, imagine your newest deployment modifies the data structure by adding a required field to a user's profile. Older clients wouldn't expect this new field, leading to errors when they submit it.

Vercel's Skew Protection resolves this problem at the platform and framework layer by using version locking, which ensures client and server use the exact same version. In our example, outdated clients continue to communicate with servers that understand the old data structure, while updated clients use the most recent deployment.



Guillermo Rauch [@rauchg](#)
Skew Protection is a confidence-building technology.

For devs, ship more frequently without disrupting live traffic. For users, apps that don't unexpectedly break.

Super proud of the [@vercel](#) team for this one [vercel.com/changelog/skew...](#)



Lee Robinson [@leerob](#)
So excited about this.

Over 100,000 requests in the Vercel dashboard have already been protected from version skew in the past 3 days.

What is version skew? From our announcement post:

Skew window

System A starts
deploying version 2

System A finishes
deploying version 2

System B starts
deploying version 2

System B finishes
deploying version 2

Time

Read more about: <https://vercel.com/blog/version-skew-protection>

Monday 12th, May 2024

(Vercel Deployment ID dpl_FjfA9ncfdgPrw8w6tkAE3Caw1iVT)

Add new task



Example task

Delete

example

Delete

Making breaking changes

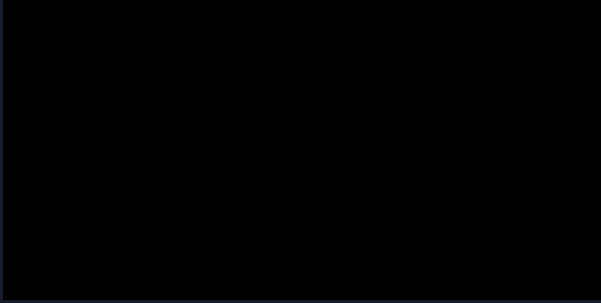
```
function CreatePostForm() {
  async function handleCreate(data: FormData) {
    "use server";

    // Fixing typo "tittle" → "title"
    const title = data.get("title");
    if (typeof title !== "string" || !title) {
      throw new Error("Title is required");
    }

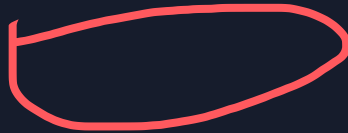
    // And fixing this SQL injection ✎
    await sql`INSERT INTO posts (title) VALUES (${title})`;
    revalidatePath("/");
  }

  return (
    <form action={handleCreate}>
      <input name="title" placeholder="Add new task" required />
      <button type="submit">+</button>
    </form>
  );
}
```

And suddenly...

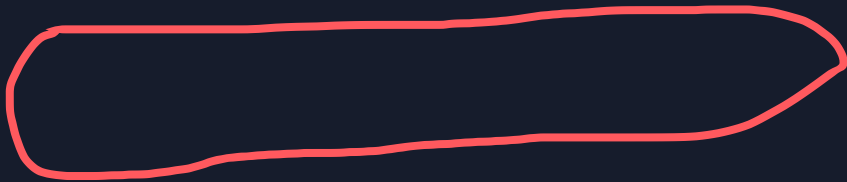


The error origin

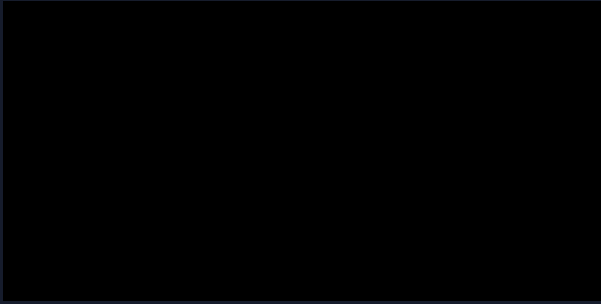


Enabling the feature

How it works? 🤔



Two concurrent versions



The issue ⚠️

Integrations

Deployment Protection

Functions

Data Cache

Cron Jobs

Webhooks

Log Drains

Security

Advanced

Skew Protection

Ensures that outdated clients always fetch the correct version for a given deployment. This value defines how long Vercel keeps **Skew Protection** active. **Skew Protection** can be enabled for 12 hours. For more configurable durations [contact sales](#) ↗.

To configure maximum age, please [contact sales](#)

Maximum Age ⓘ

🕒 12 hours

▼

Learn more about [Skew Protection](#) ↗

Save

▲ © 2024 ● All systems normal.

Command Menu ⌘ K 🌙 ⚙️ 🖥️

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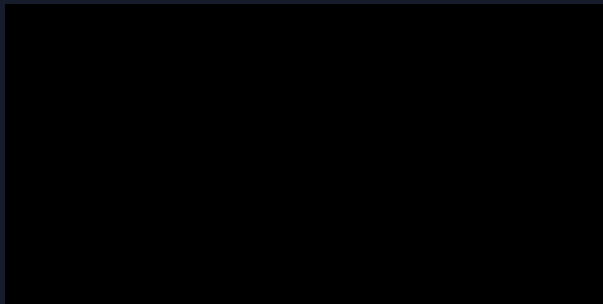
Target the chosen deployment

```
headers:  
  key: x-deployment-id  
  value: DEPLOYMENT_ID
```

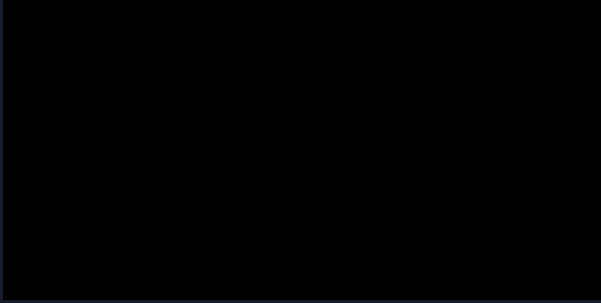
```
query-param:  
  key: dpl  
  value: DEPLOYMENT_ID
```

```
cookie:  
  key: __vdpl  
  value: DEPLOYMENT_ID
```

Target the chosen deployment 🎯



Mitigation (for each deployment 💀)



Conclusion

- A "Protection" feature which introduces more security risks
- Manual action to revoke old deployments but breaks the point of the "skew" protection
- Increases cost since it creates more concurrent deployments \$\$\$

