

## Inconsistent Date Parsing in Firefox

After implementing date-level encryption, I encountered a problem where Firefox would throw 'invalid date' errors upon logging in.

As it would turn out, this is because the dates on all the objects were in a strange format; one I didn't recognize and didn't know how to generate:

2020-12-26 02:42:57.932 +00:00

- **edit March 21, 2021:** I've realized that `new Date().toString()` provides a somewhat similar format 'Sun Mar 21 2021 22:02:32 GMT-0400 (Eastern Daylight Time)', in that they both use spaces. But I still haven't figured out how to generate that particular format.

Apparently, Chrome's date parsing as part of `new Date()` is quite a bit more robust than Firefox's, so Chrome would happily parse this date format whereas Firefox wouldn't.

The solution was more of a workaround than fixing the root cause. Why? Because I still don't know what the root cause *is*. I seriously don't know how we ended up with the above date format.

The workaround to fix the seeded `test@test.com` account was as follows (doing everything in Chrome):

- Create an unencrypted backup.
  - It should have the stupid date format.
- Disable ID overwriting on restores in the `BackupService`.
  - This is so the below encrypted backup doesn't change the IDs, making transferring the new encrypted dates to the seed data an impossible task.
- Restore the unencrypted backup.
  - It should now have the proper date format. This is because, during the restore process, the dates will be run through `new Date()`, and the proper date format will be output.
- Create an encrypted backup.
- Transfer the new encrypted dates to the encrypted seed data.

This fixed things for the seeded `test@test.com` account. As in, you could now login using Firefox and it would work.

However, the prod accounts were also broken (mine and the test account). The process for fixing them was much the same, we just didn't need to disable ID rewrites:

- i. Create an unencrypted backup.
- ii. Restore the unencrypted backup.

Accounts can now be accessed in Firefox.