

Secrets Compared to ConfigMaps

This lesson briefly compares Kubernetes Secrets and ConfigMaps.

WE'LL COVER THE FOLLOWING ^

- The Similarities
- The Differences
- Conclusion

The Similarities

So far, Kubernetes Secrets do not seem to differ from ConfigMaps. From a **functional perspective**, they are, indeed, the same.

- Both allow us to inject some content. Both can use files, literal values, and files with environment variables as data sources.
- Both can output data into containers as files or as environment variables.
- Even the syntax for using Secrets is almost the same as the one used for ConfigMaps.

The Differences

The only significant difference between ConfigMaps and Secrets is that the latter creates files in a *tmpfs* (temporary file storage).

Secrets are constructed as in-memory files, thus leaving no trace on the host's files system. That, in itself, is not enough to call Secrets secure, but it is a step towards it. We'd need to combine them with *Authorization Policies* to make the passwords, keys, tokens, and other never-to-be-seen-by-publicly types of data secure. Even then, we might want to turn our attention towards third-party Secret managers like [HashiCorp Vault](#).

Conclusion

Secrets are almost the same as ConfigMaps. The main difference is that the secret files are created in *tmpfs*. Kubernetes secrets do not make your system secure. They are only a step towards such a system.

In the next lesson, we will explore the shortcomings of using Secrets and the way we can overcome these.