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Using Let's Encrypt



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Let's Encrypt Introduction

- » A nonprofit Certificate Authority providing TLS certificates
- » A service of the Internet Security Research
 Group
- » Headquartered in San Francisco California



Let's Encrypt Founders

- » Electronic Frontier Foundation
- » Mozilla Foundation
- » University of Michigan
- » Akamai Technologies
- » Cisco Systems



Let's Encrypt Facts

- » X.509 certificate authority
- » 2022 Milestones (from the 2022 annual report)
 - The issuance of their three billionth certificate
 - Reaching 300 million active domains



Automatic Certificate Management Environment (ACME)

- » A protocol that automates verification and certificate issuance
- » Also provides certificate revocation



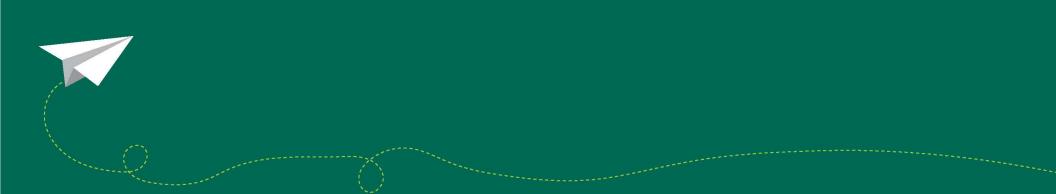
Demonstration

- » ACME client configuration
- » Web server configuration
- » Initial certificate generation
- » Automating renewal





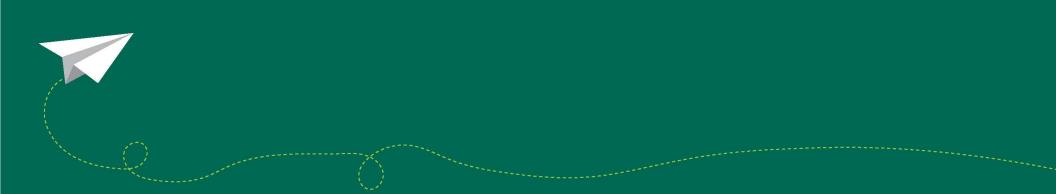
Questions







Backup Slides





References

- » Internet Security Research Group (ISRG) 2022 Annual Report
- » R. Barnes, J. Hoffman-Andrews, D. McCarney, and J. Kasten, Automatic Certificate Management Environment (ACME), RFC 8555, March 2019
- » OpenBSD acme-client(1) man page
- » OpenBSD acme-client.conf(5) man page

