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EVERYTHING-AS-CODE: IT'S TIME TO FIX CONFIGURATIONS

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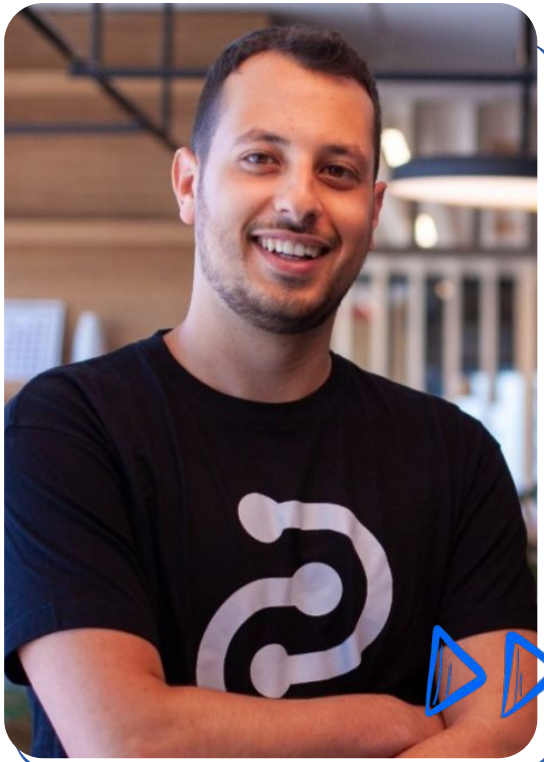
CONF42



WHO AM I ?

Peleg Porat

Co-founder and CEO @ Configu

More than 8 years of experience as a Software Developer

Specializing in network security

CEO BY DAY,

CODE WHISPERER BY NIGHT

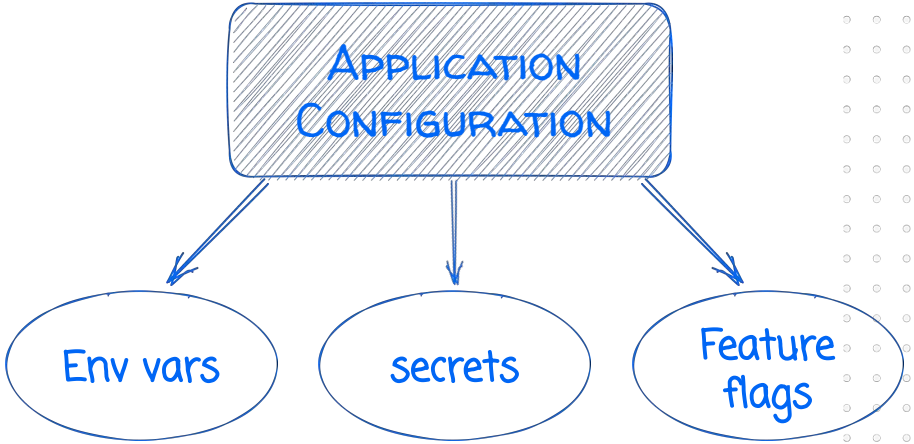
WHAT WE WILL COVER

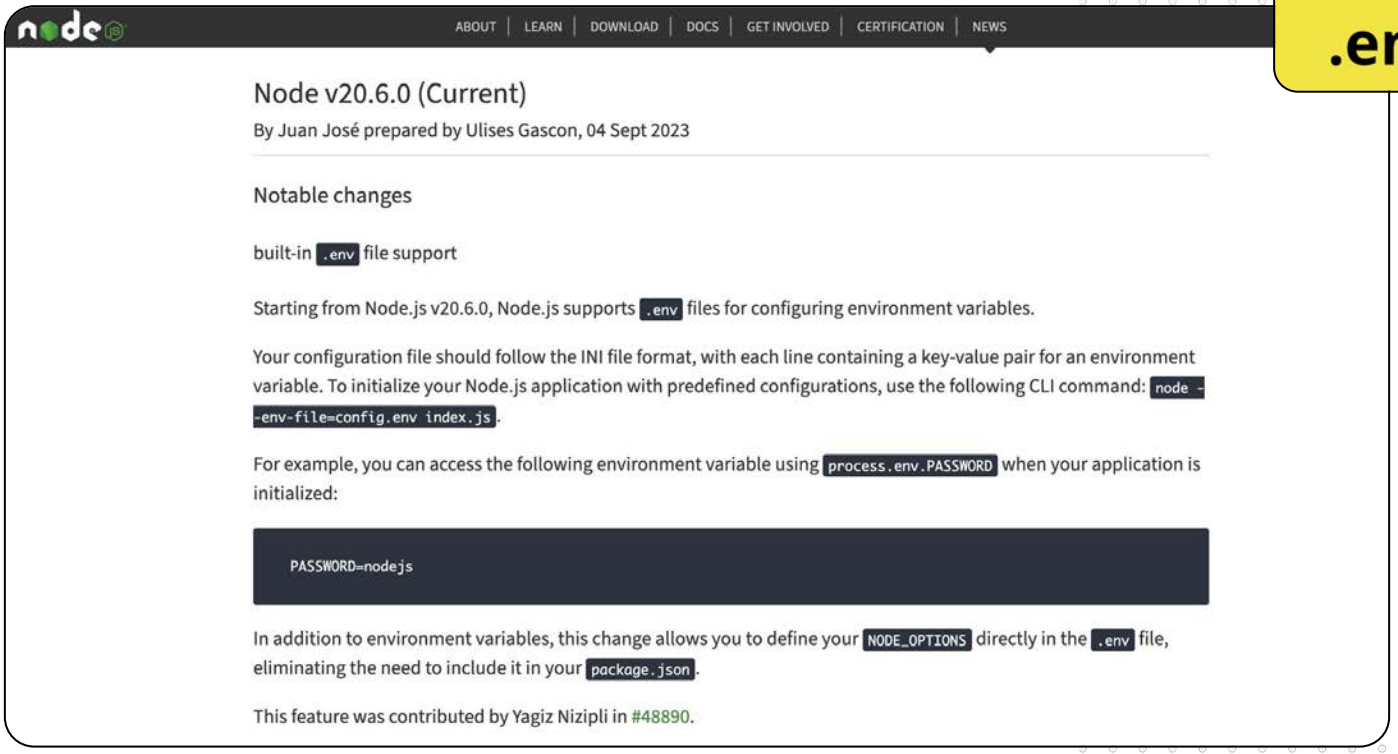
- Understanding Application Configurations and Their Challenges
- Built-in .env file support in Node v20.6.0
- Everything-as-Code
- Configuration-as-Code (CaC)
- Hands on examples

> AN **APP'S CONFIG** IS EVERYTHING THAT IS LIKELY TO VARY BETWEEN DEPLOYS (STAGING, PRODUCTION, DEVELOPER ENVIRONMENTS, ETC.)

The Twelve-Factor App (12factor.net/config)

SOFTWARE = CODE(LOGIC) + CONFIGURATIONS(BEHAVIOR)


Application Configuration
Env vars
secrets
Feature flags


node
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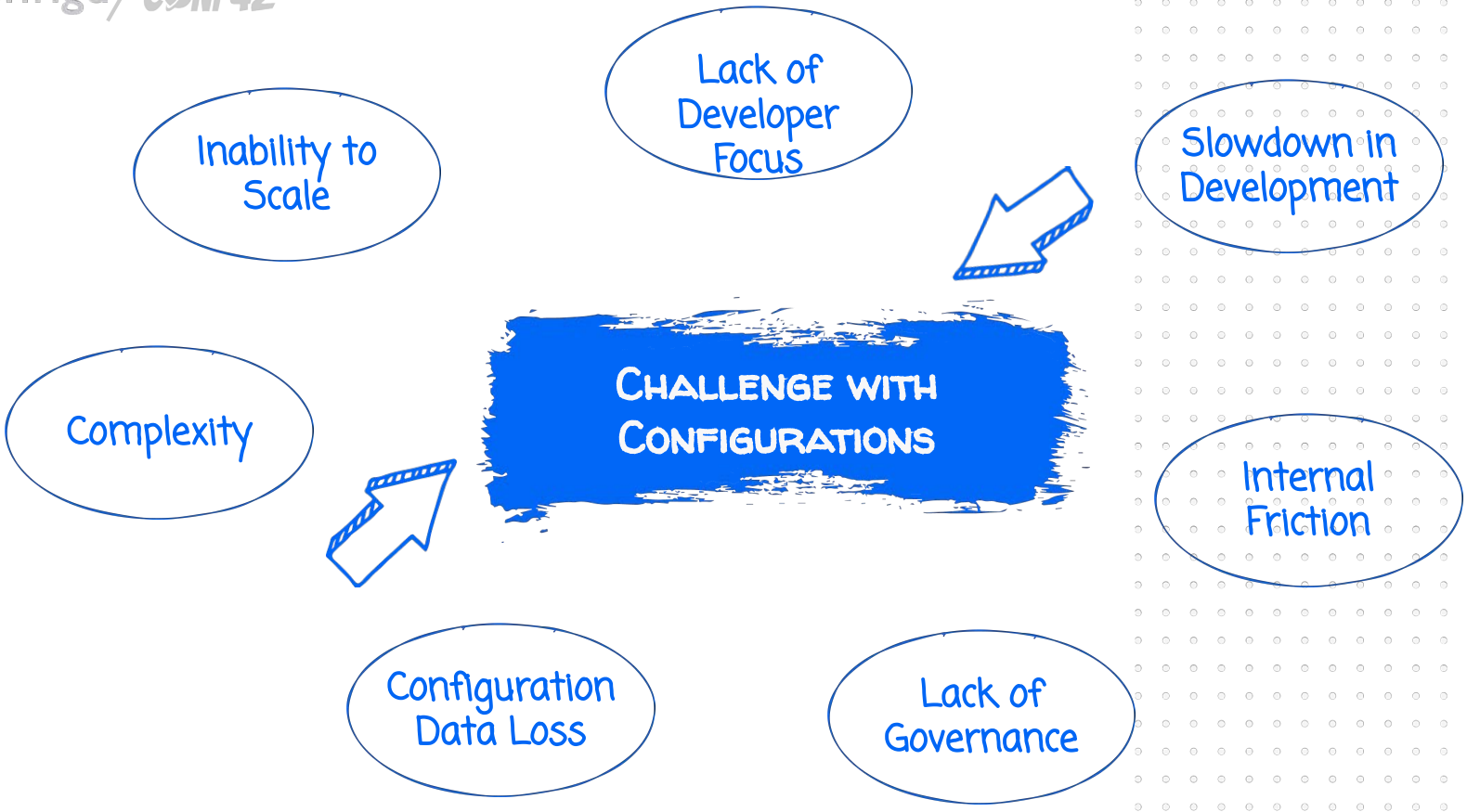
.env
Node v20.6.0 (Current)
By Juan José prepared by Ulises Gascon, 04 Sept 2023
Notable changes
built-in .env file support
Starting from Node.js v20.6.0, Node.js supports .env files for configuring environment variables.
Your configuration file should follow the INI file format, with each line containing a key-value pair for an environment variable. To initialize your Node.js application with predefined configurations, use the following CLI command: node --env-file=config.env index.js.
For example, you can access the following environment variable using process.env.PASSWORD when your application is initialized:
PASSWORD=nodejs
In addition to environment variables, this change allows you to define your NODE_OPTIONS directly in the .env file, eliminating the need to include it in your package.json.
This feature was contributed by Yagiz Nizipli in #48890.


Challenge with Configurations
Lack of Developer Focus
Inability to Scale
Slowdown in Development
Complexity
Internal Friction
Configuration Data Loss
Lack of Governance

DEVELOPMENT
ENV VAR
SECRET
PRODUCTION

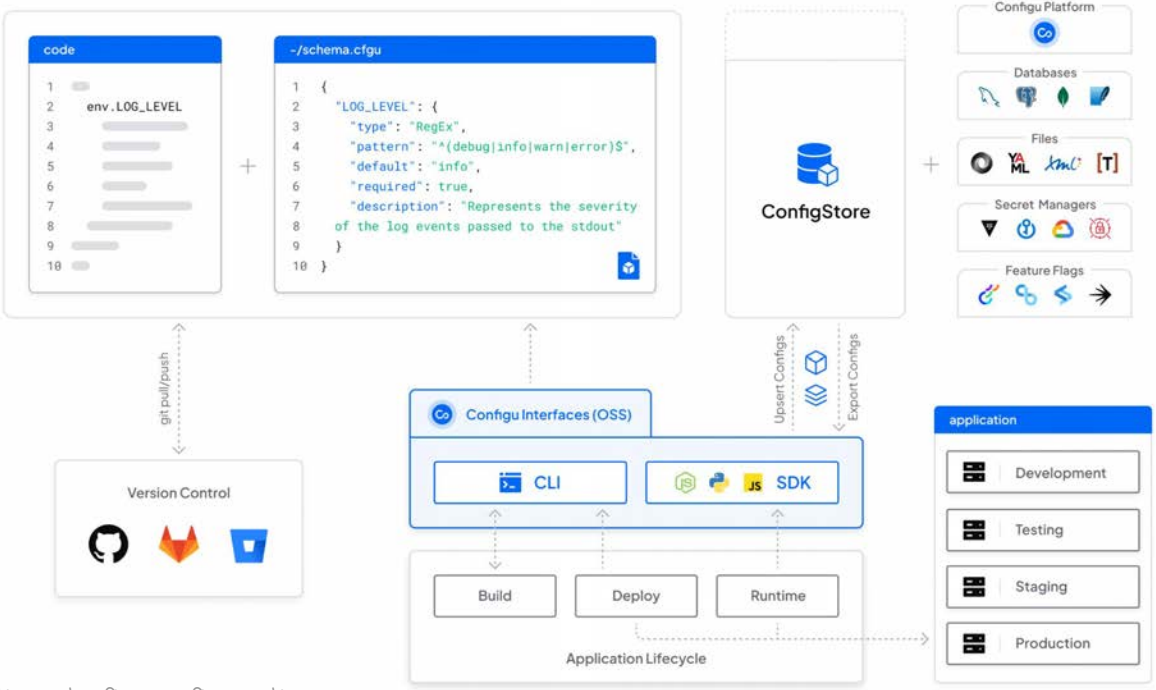
EVERYTHING-AS-CODE

Configuration-as-Code (CaC)

CONFIGURATION-AS-CODE (CAC)

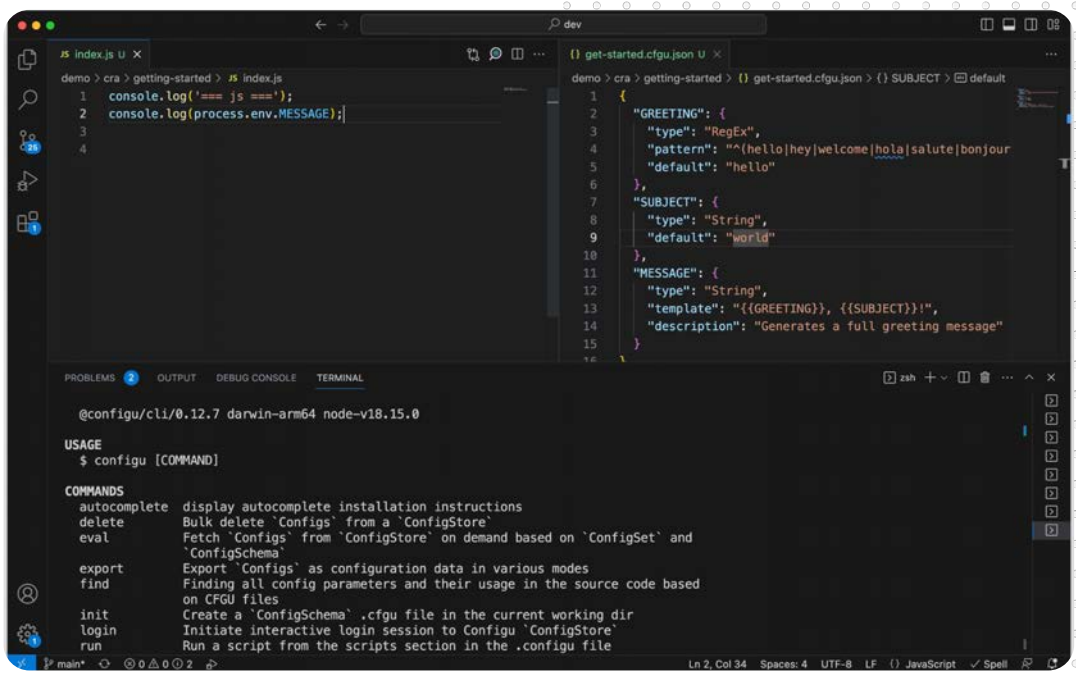
- Consistency and Reproducibility
- Versioning and Tracking
- Automation and Efficiency
- Scalability and Agility
- Collaboration and Teamwork
- Auditability and Security
- Simplifies Configuration Management
- Eliminates Manual Errors
- Enhances Efficiency and Productivity

INTRODUCTION TO CONFIGU



HANDSON EXAMPLE

- App: JS "Hello World"
- Managed by: Configu's CLI
- Stored on: JSON-file
- Environments: dev & prod
- Configurations-as-Code: Configu schema



THANK YOU

FOR YOUR ATTENTION!

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@Configu