

NixOps is Pretty Cool

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February 24, 2016

What's Nix?

What's Nix?

The Nix Language

nixpkgs

NixOS

Hydra

NixOps

Obligatory Image

Macro Slide

Questions?

- ✓ A build system
- ✓ A package manager
- ✓ A Linux distribution
- ✓ A continuous integration system
- ✓ An orchestration system

The Nix Language

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Questions?

- ✓ Strength through purity
- ✓ Principle of Least Authority (POLA)
- ✓ All builds are fully reproducible; all artifacts (“derivations”) have integrity checks
- ✓ Full environment isolation: One Nix store can host many different versions of packages
- ✓ The language itself is idiosyncratic

nixpkgs

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Questions?

- ✓ Large MIT-licensed ports-style repository of Nix expressions
- ✓ Around 30,000 packages total
- ✓ Supported by custom tooling (pypi2nix, cabal2nix, cpan2nix, npm2nix, etc.)

NixOS

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Questions?

- ✓ Nix is the only package manager on the system
- ✓ Fully declarative package management
- ✓ Per-user package profiles and environments; users can install packages without elevated privileges
- ✓ Atomic system state changes; all upgrades are atomic and can be rolled back

Hydra

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Questions?

- ✓ Continuous integration technology designed for Nix
- ✓ Simple design: Assemble Nix expressions and evaluate them, generating all of the build artifacts as Nix derivations
- ✓ Can be used as binary package and metadata cache ("channel")

NixOps

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Questions?

- ✓ Describe a fleet of machines using Nix expressions
- ✓ Orchestrate deployments
- ✓ Orchestrated machines all run NixOS
- ✓ Supports development and production deployment targets

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Questions?

Thanks!

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