

Architecting GenServers for Testability

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Hi, I'm Tyler.



Recovering C++ developer

Fell in love with Elixir near the
end of 2019

Team lead writing Elixir & Elm at
Enbala (we're hiring 😊)

“I’m not an expert,
I’m just a dude.”

— [Scott Schurr, CppCon 2015](#)

You won’t agree with everything
I say.

You might be right, or we might
both be right, but coming from
different contexts.

An exercise in comparative architecture

Separation of concerns +
Keeping closely related logic
together

github.com/s3cur3/genserver_architecture

An exercise in comparative architecture

Reduce coupling + increase
cohesion

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An exercise in comparative architecture

Reduce coupling + increase
cohesion

Explicit is better than implicit

github.com/s3cur3/genserver_architecture

An exercise in comparative architecture

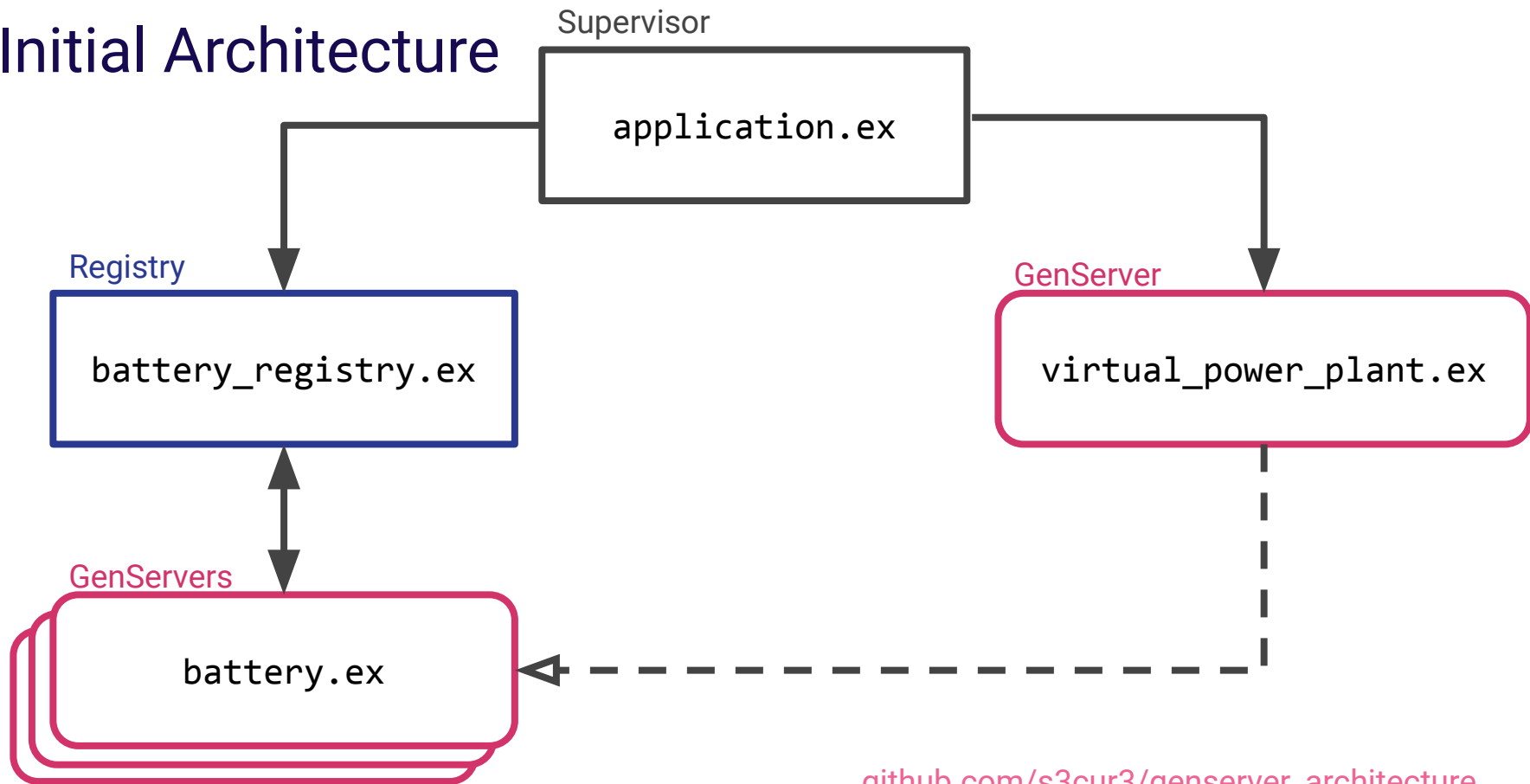
Reduce coupling + increase
cohesion

Explicit is better than implicit

Prefer `call` over `cast`

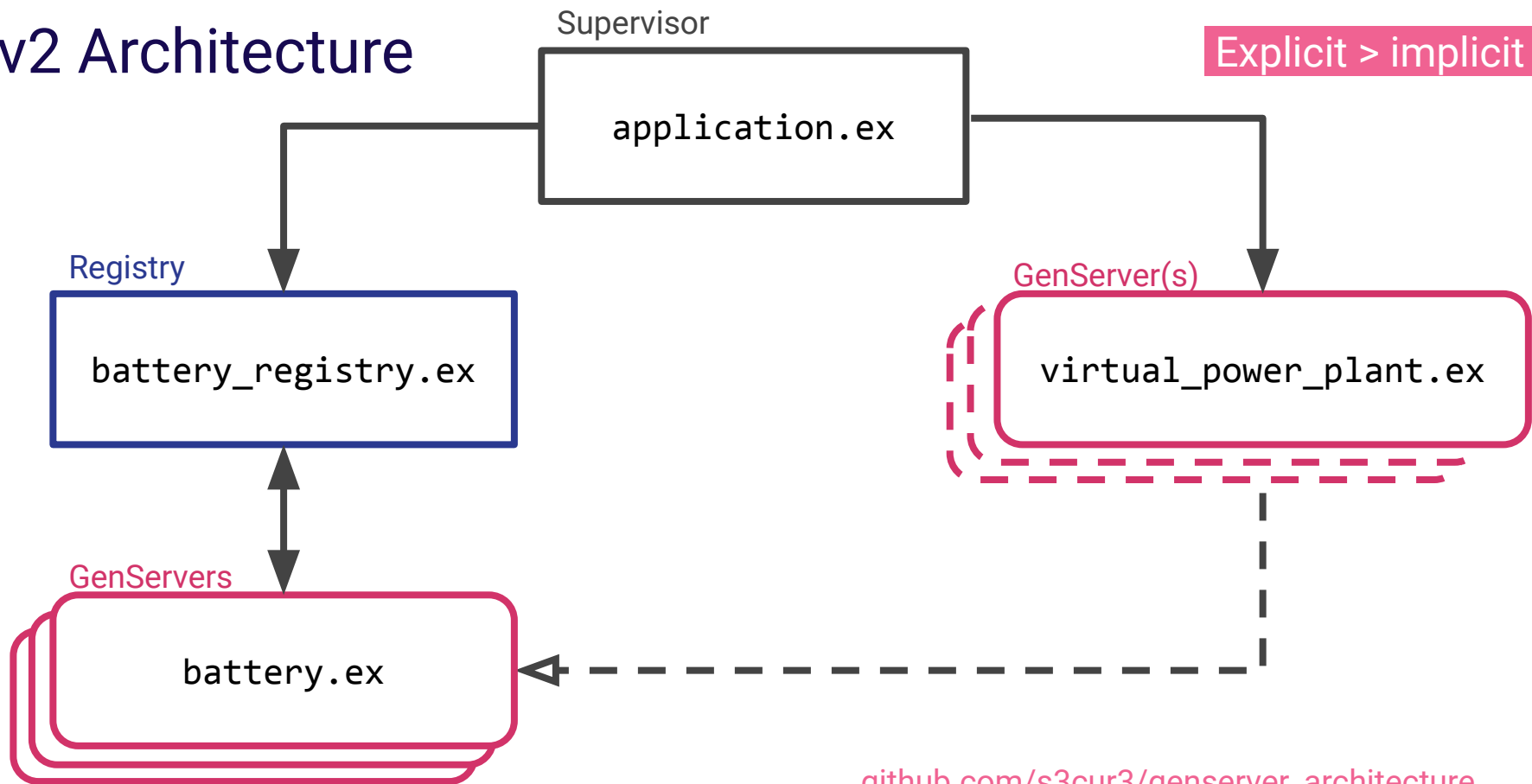
github.com/s3cur3/genserver_architecture

Initial Architecture



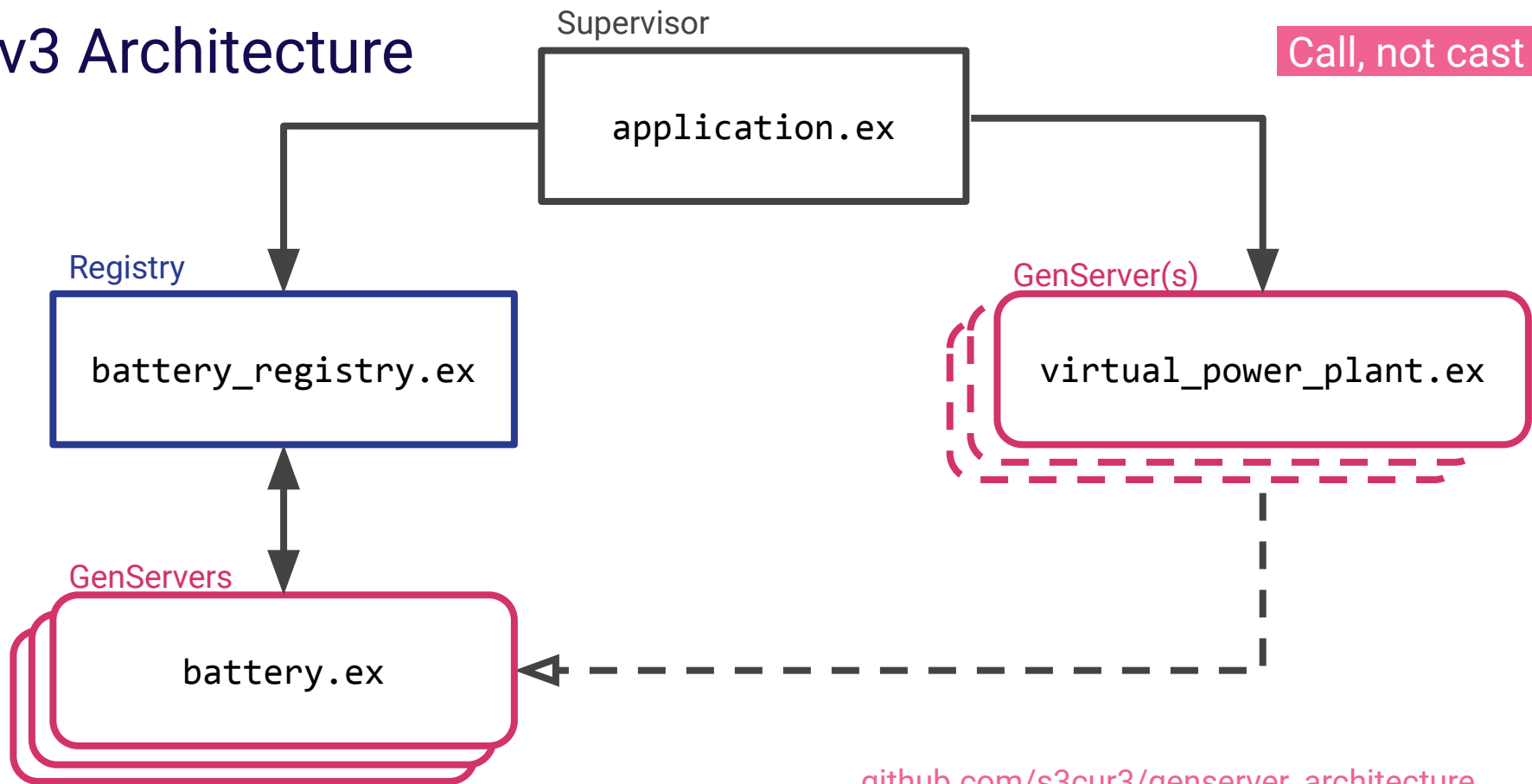
github.com/s3cur3/genserver_architecture

v2 Architecture



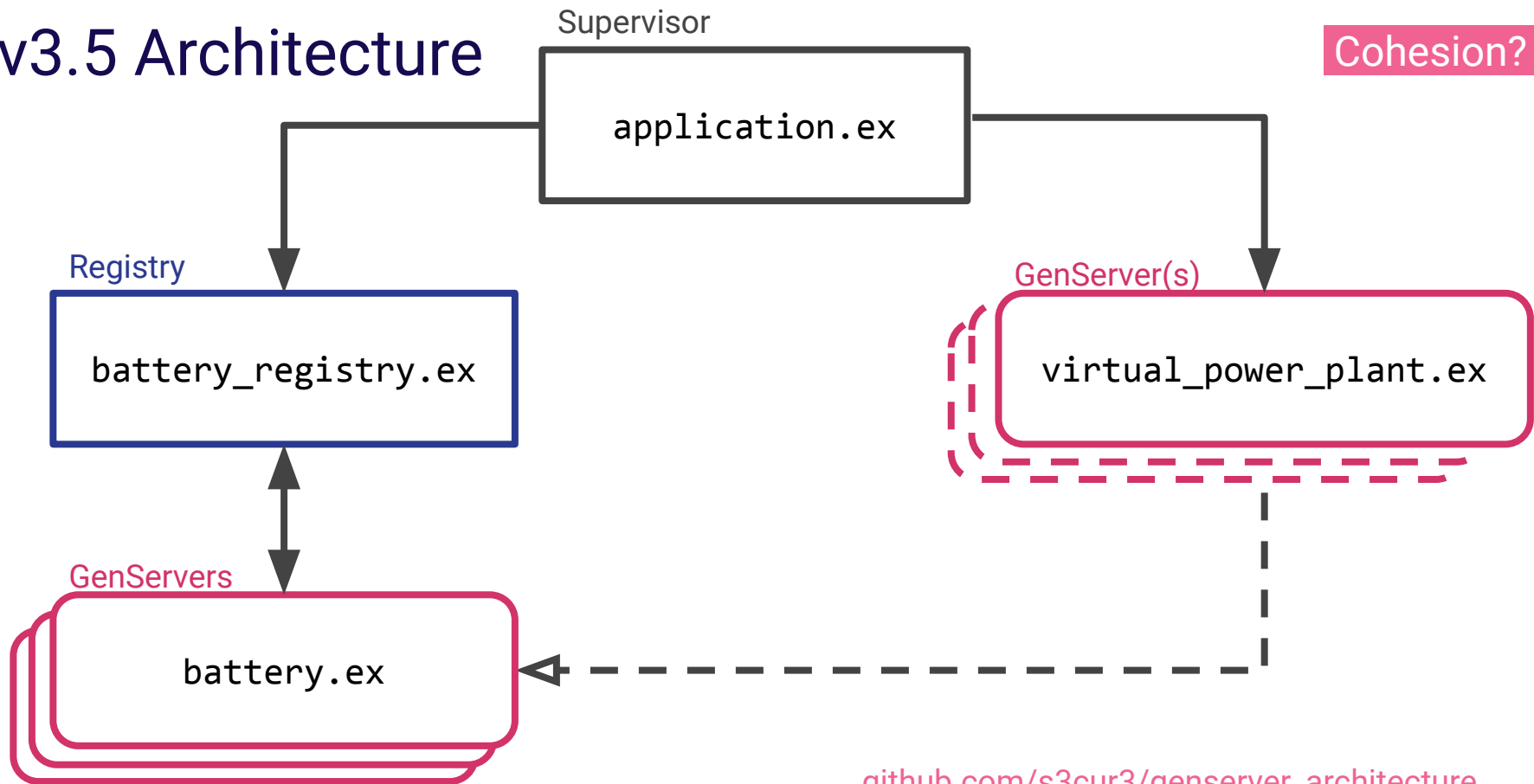
github.com/s3cur3/genserver_architecture

v3 Architecture



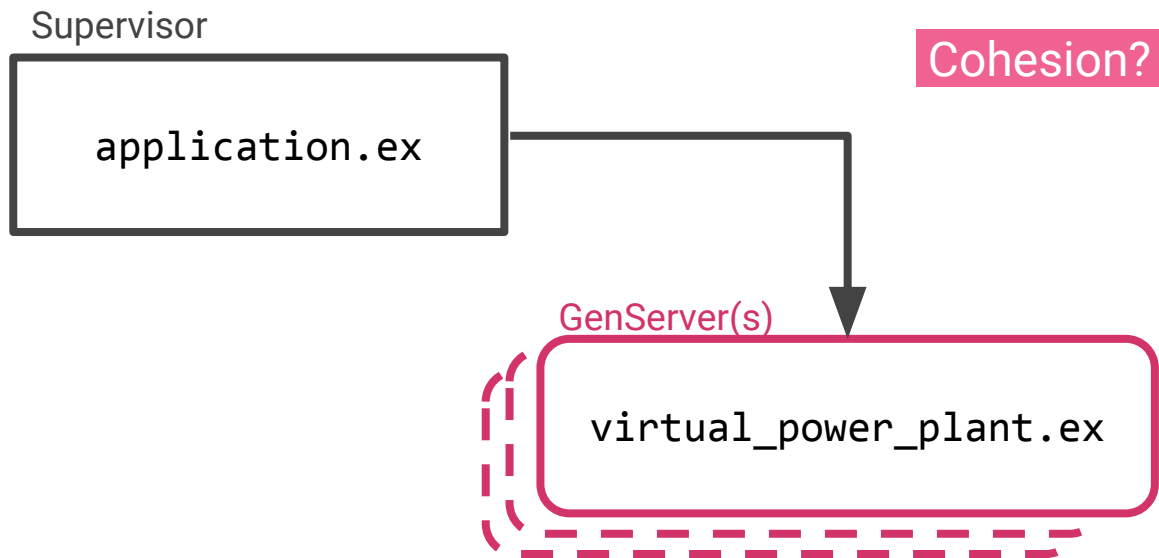
github.com/s3cur3/genserver_architecture

v3.5 Architecture



github.com/s3cur3/genserver_architecture

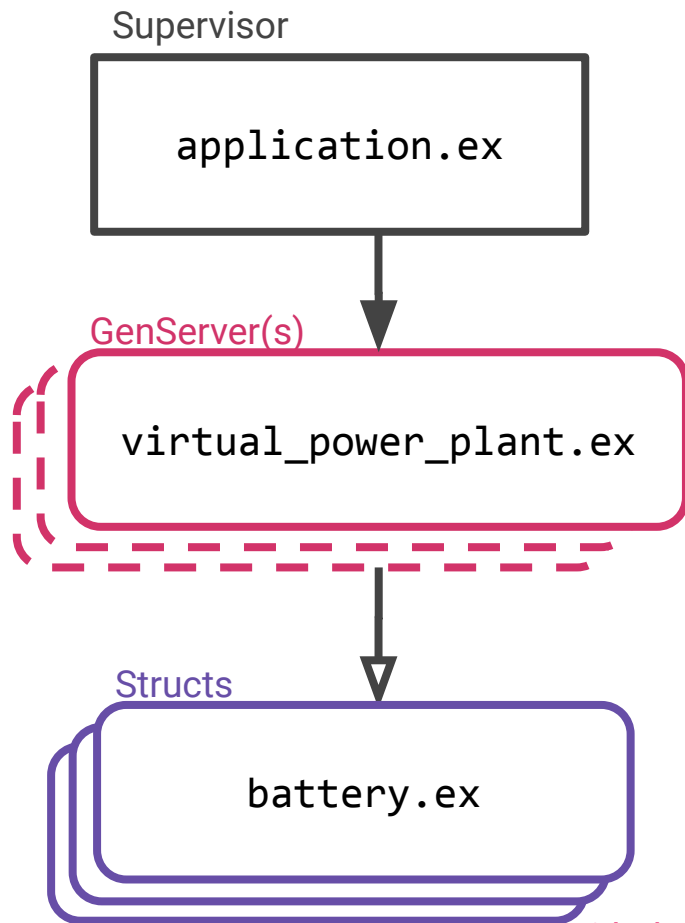
v3.5 Architecture



github.com/s3cur3/genserver_architecture

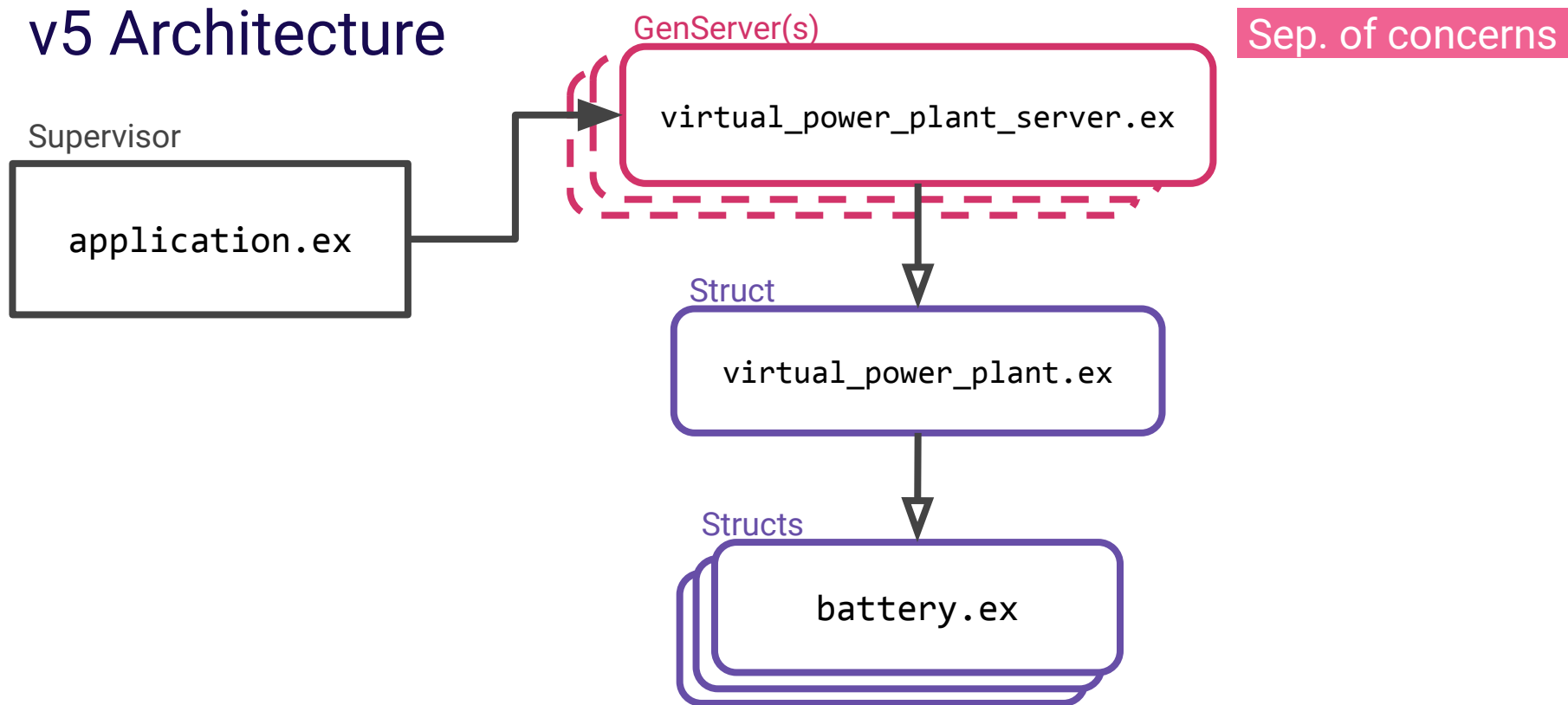
v4 Architecture

Sep. of concerns



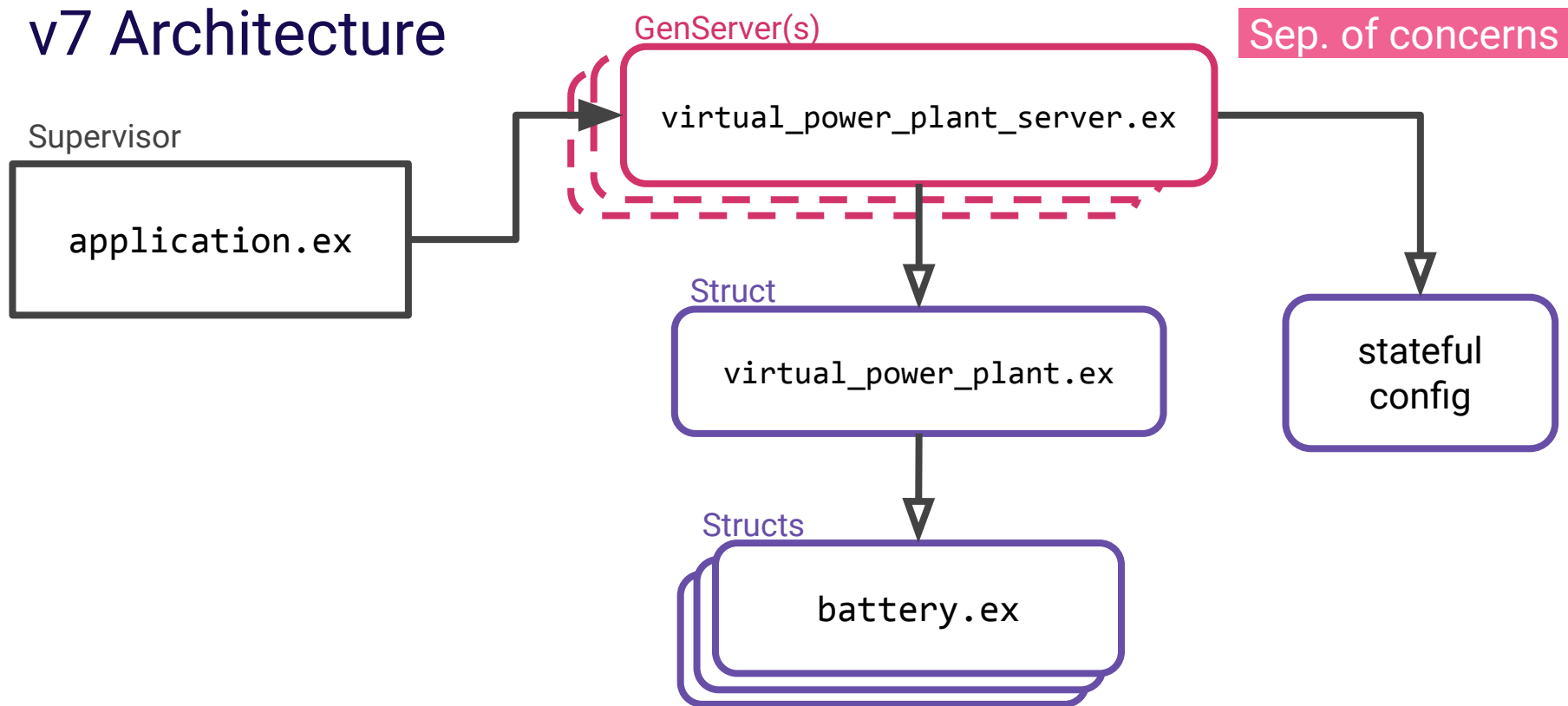
github.com/s3cur3/genserver_architecture

v5 Architecture



github.com/s3cur3/genserver_architecture

v7 Architecture



github.com/s3cur3/genserver_architecture

Recap

- Reduce coupling + increase cohesion
- Prefer call over cast
- Explicit is better than implicit

 [@TylerAYoung](https://twitter.com/TylerAYoung) on Twitter with questions & comments

 Enbala is always hiring Elixir devs!

 enbala.com/careers/