



Moving Fast and Slow at the Same Time: **Lifecycle Commitments Across Major OS Releases**

Presented by Adam Samalik



Agenda

1. Benefits of **Linux Distributions**
2. **Fedora Modularity** (+ demo)
3. Modularity and **containers** (+ demo)
4. **Questions & answers**



Benefits of Linux distributions

Packaging

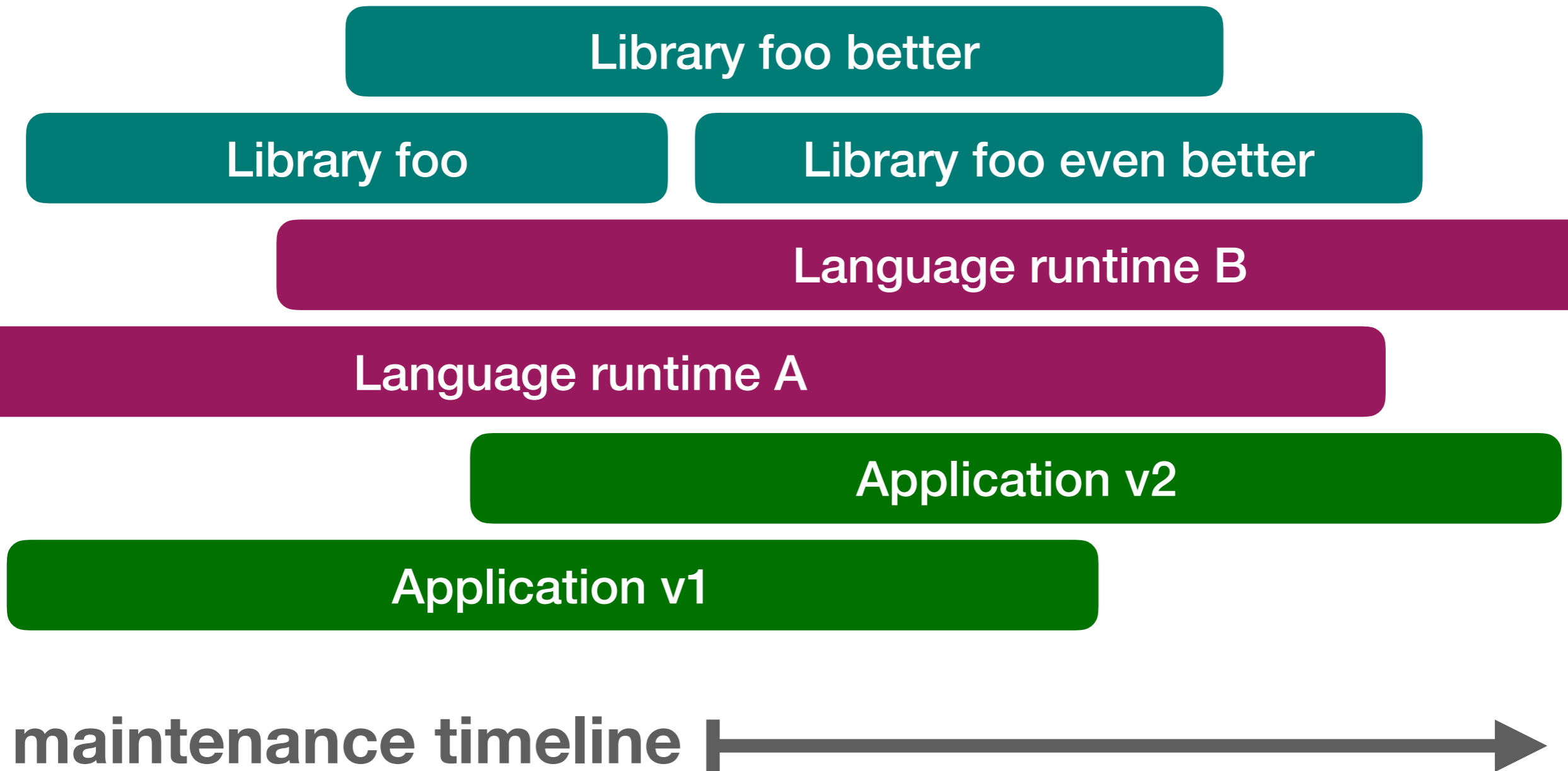
makes software

**integrated, tested, updated,
and easily installable.**

Lifecycle

brings an over-time **stability**
to the **diverse**
open source world.

Upstream lifecycle diversity



Linux distribution lifecycle

Library foo better

Library foo

Language runtime B

Language runtime A

Application v2

Application v1

maintenance timeline



Linux distribution lifecycle

Fedora 28

Fedora 27

maintenance timeline 

Lifecycles of different Linux distributions

CentOS



Fedora



Arch Linux



maintenance timeline

Lifecycle differences
are very useful, because
different people
have **different needs**

Lifecycle quotes

Quote 1:

“Fedora is too fast for me.”

Quote 2:

“Fedora is too slow for me.”

Can Fedora be
fast and slow
at the same time?

“Fedora is too fast for me.”

“Fedora is too slow for me.”



Fedora Modularity

Packages

are

**the core building blocks
of Linux distributions.**

Modules

are

logical groups of packages
representing an application,
or a language runtime.

Module benefits:

- **multiple streams**
- **lifecycle independence**
- **use case-driven installation**

Modules in Fedora

1) Traditional releases before Modularity

Fedora 26

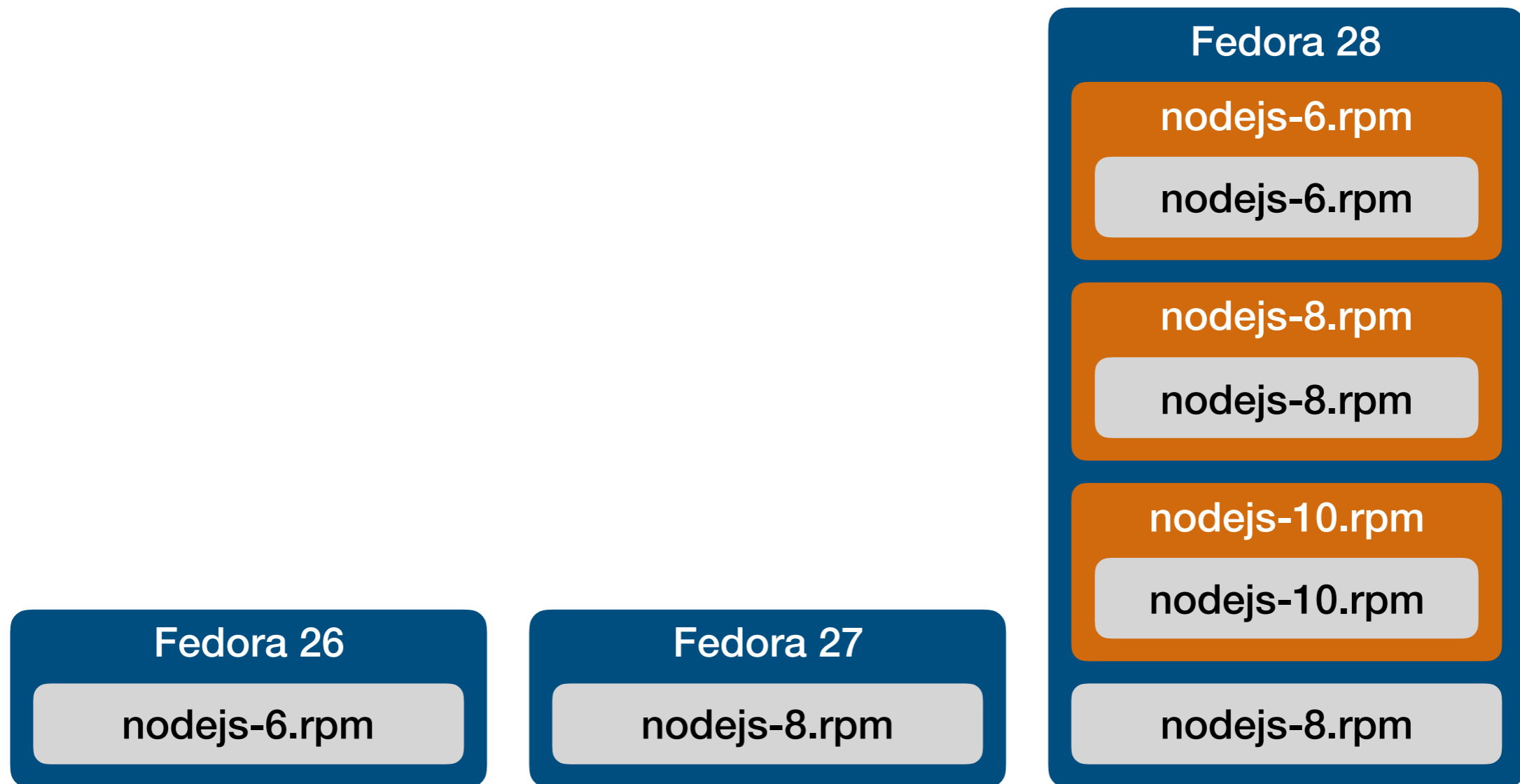
nodejs-6.rpm

Fedora 27

nodejs-8.rpm

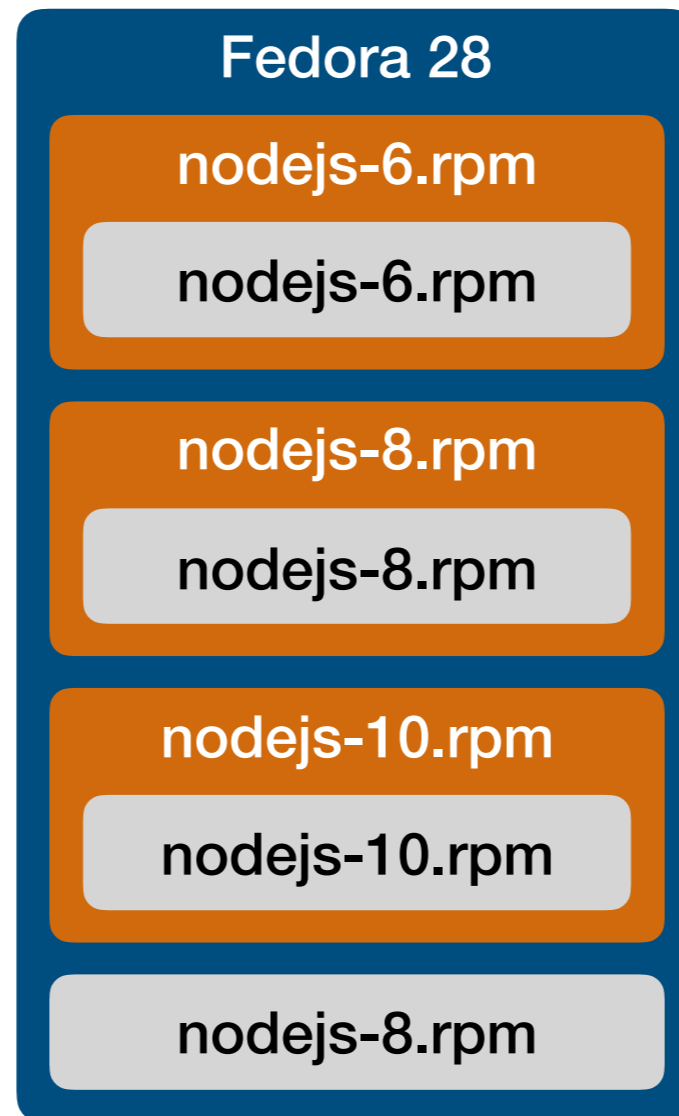
Modules in Fedora

2) Fedora 28 introduced Modularity



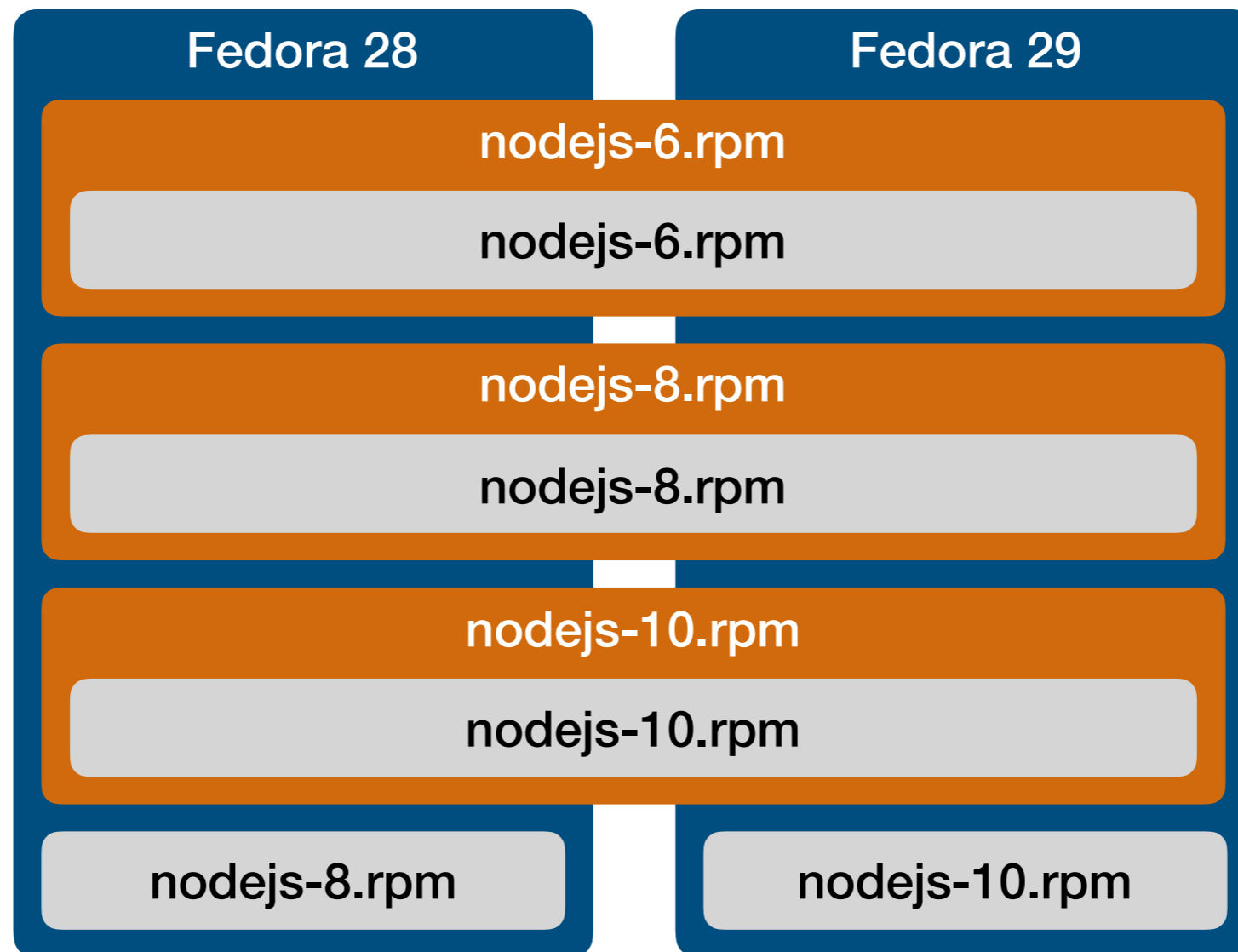
Modules in Fedora

3) Modules have multiple streams



Modules in Fedora

4) Modules have independent lifecycles



Thanks to modules,
your system can move
fast and slow
at the same time.

Thanks to modules,
your system can move
fast and slow
at the same time.

**Packaging + lifecycle
benefits included.**

Defaults

mean that you can
**choose a specific version
only when you want to.**

Updates

**will respect your choice
and won't upgrade to
a different stream.**

```
$ modularity_demo
```



Modularity and Containers

Containers

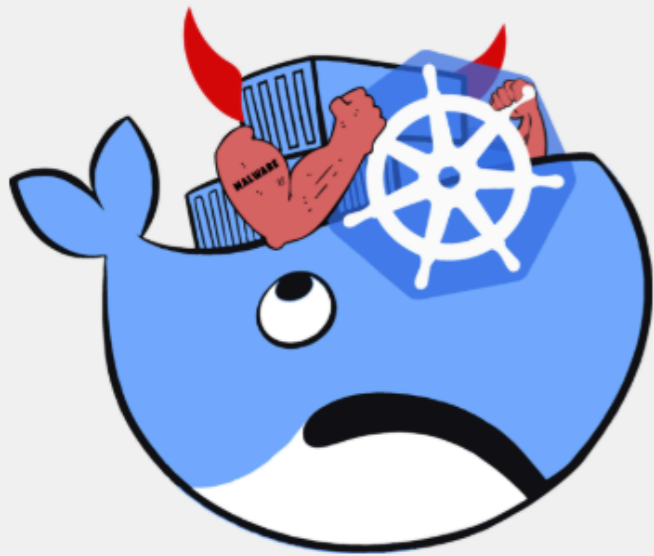
**make applications more
portable by containing
their dependencies.**

Containers

are so simple, it is
sometimes tempting to
just find one and run it.

[Kromtech](#) > [Blog](#) > [Security Center](#) > [Cryptojacking invades cloud. How modern containerization trend is exploited by attackers](#)

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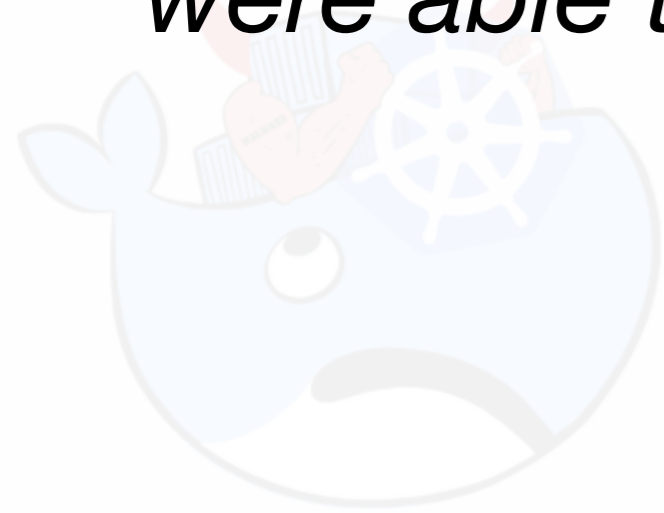
Cryptojacking invades cloud. How modern containerization trend is exploited by attackers

2018-06-12 | By Security Center

<https://kromtech.com/blog/security-center/cryptojacking-invades-cloud-how-modern-containerization-trend-is-exploited-by-attackers>

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“... By pushing malicious images to a Docker Hub registry and pulling it from the victim’s system, hackers were able to mine 544.74 Monero, which is equal to \$90000...”



2018-06-12 | By Security Center

<https://kromtech.com/blog/security-center/cryptojacking-invades-cloud-how-modern-containerization-trend-is-exploited-by-attackers>

**Build your own
containers
out of trusted binaries
with Linux distributions.**

Custom containers

built with Linux distributions

can have the

packaging and lifecycle

benefits, too.

```
$ container_demo
```



Summary

Summary

1. Linux distributions: **packaging, lifecycle**
2. Modules: **independent, multiple streams**
3. Containers: **building trusted containers**



Learn more:

docs.pagure.org/modularity

Download Fedora 28 Server Edition:

getfedora.org

Connect:

#fedora-modularity FreeNode IRC