

Streamlining DevEx

The Power of CI/CD Standardization and Interoperability



Jeremy Meiss

Co-Founder

DevEx Startup





Grey Newell

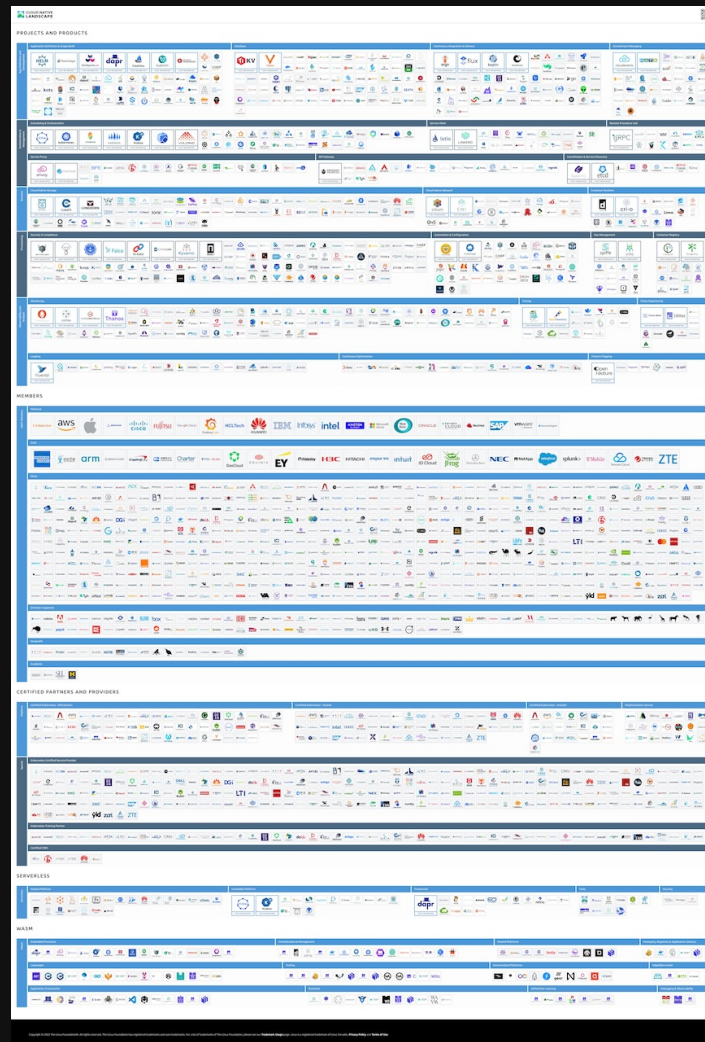
@GreyNewell

This idea is absolutely transgressive. Heretical even.

I'm fascinated. Really hope they post a recording, Jeremy.


8:14 PM · Dec 19, 2023 · 6 Views

Image: @GreyNewell on Twitter



REF: CNCF Landscape, 29-Jan-2024


Developer Experience



 **Jeremy's got a #NewThing** 🇺🇸 🇺🇦
@IAmJerdog Promote ...

Which of these shortened forms of "Developer Experience" do you prefer? I see them both, and while I understand why "DX" is used, I can't help my brain immediately thinking about "D-Generation X" from when I used to watch WWF `_years_ ago`
[#devex](#) [#dx](#) [#developerexperience](#)

I prefer "DevEx"	43.3%
I prefer "DX"	41.3%
I have no preference	13.5%
Other (comment please)	1.9%

104 votes · Final results
9:22 AM · Jan 16, 2024 · 1,271 Views

 View post engagements

 **Jeremy Meiss** (He/Him) · You
Experienced Developer Experience Leader
1w · 

I shared this poll on Twitter, and it'll be interesting to see how it does here on LinkedIn.... Which of these shortened forms of "Developer Experience" do you prefer? I see them both, and while I understand why "DX" is used, I can't help my brain immediately thinking about "D-Generation X" from when I used to watch WWF `_years_ ago`.


What about you? Reply with a comment

Which short form for "Developer Experience" do you prefer?

You can see how people vote. [Learn more](#)

I prefer "DevEx"	59%
I prefer "DX"	30%
I have no preference	10%
Other (please comment)	1%

150 votes · Poll closed

 8 17 comments

52% of respondents said "DevEx" (34% "DX")

A modern office environment with developers working at computers, a large wall display with technical diagrams, and a whiteboard.

Developer Experience (DevEx)...


...encompasses the journey of developers as they learn and deploy technology. When successful, it focuses on eliminating obstacles that hinder a developer or practitioner from achieving success in their endeavors.






CI/CD Standardization





CI/CD Interoperability



Implementing CI/CD Standardization

The background of the slide is a complex technical illustration. It features a hand in the lower right corner, holding a 3D printed gear mechanism. The background is filled with various technical diagrams, including gears, a pie chart, a bar chart, a line graph, a radar chart, and various mechanical parts. The overall theme is technical and engineering.

Implementing CI/CD Standardization

Assessment and Analysis

- Thoroughly assess your current CI/CD pipelines
- Identify pain points and bottlenecks
- Analyze specific requirements and constraints



Implementing CI/CD Standardization

Define Standardization Goals

- Define goals and objectives, align with strategy and objectives
- Determine success, like reduced deployment times / error rates



Implementing CI/CD Standardization

Select Standardization Tools and Practices

- Choose tools & practices aligned with organization needs, goals
- Establish standard templates and configurations for pipelines
- Enforce coding standards for consistency and readability



Implementing CI/CD Standardization

Documentation and Training

- Create comprehensive docs for processes, configs, best practices
- Provide training to ensure understanding and effective use



Implementing CI/CD Standardization

Version Control

- Store pipeline configs as code in version control systems
- Implement branching and pull request strategies



Implementing CI/CD Standardization

Automated Testing and Validation

- Integrate automated testing and validation into templates
- Implement code reviews and peer validation early in dev process



Implementing CI/CD Standardization

Continuous Monitoring and Improvement

- Detect pipeline issues and bottlenecks in real-time
- Establish culture of regular reviews and updating pipelines



Implementing CI/CD Standardization

Governance and Compliance

- Implement governance policies to enforce pipeline standards
- Validate compliance with industry regulations / internal standards
- Regularly audit and assess adherence to standardized practices



Implementing CI/CD Standardization

Scaling and Adaptation

- Ensure standardized templates can scale and adapt
- Maintain flexibility to accommodate unique project requirements



Implementing CI/CD Standardization

Feedback Loop and Collaboration

- Foster collaborative environments where feedback & contributions encouraged
- Continuously communicate benefits of standardized pipelines & celebrate successes



CI/CD Pipeline Standardization

Argo





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Reusable workflows: orgs define reusable workflow templates



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GitOps principles: CI/CD configs & workflows managed as code



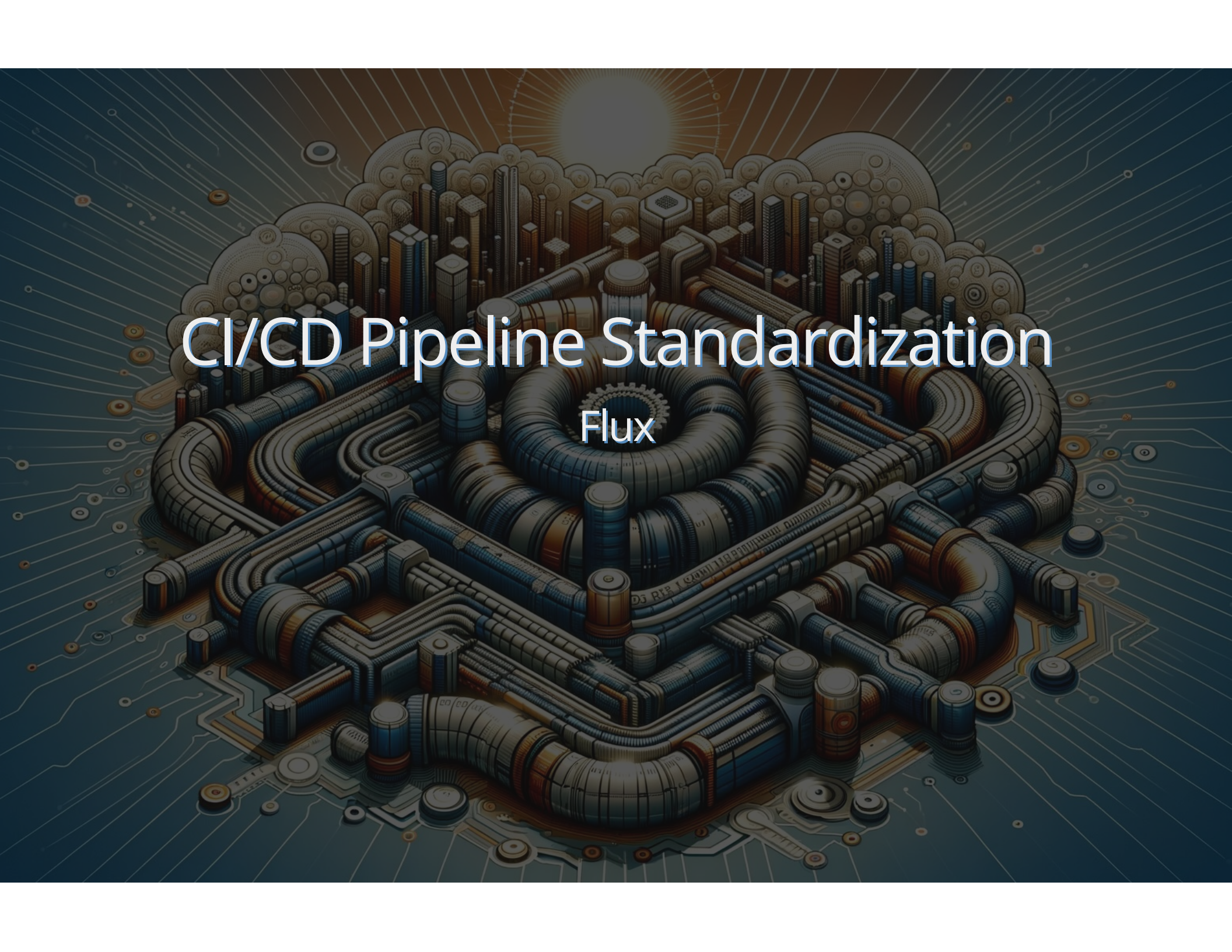
CI/CD Pipeline Standardization

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Reusable workflows: orgs define reusable workflow templates

GitOps principles: CI/CD configs & workflows managed as code

Artifact Management Support: artifacts managed & stored for consistency



CI/CD Pipeline Standardization

Flux



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Declarative config model, i.e. "GitOps": desired system state defined in code



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Customized Deployments (via Flagger) feature-flagged deployments

Achieving Standardized Workflows





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Argo & Flux: encourage standardized templates/definitions



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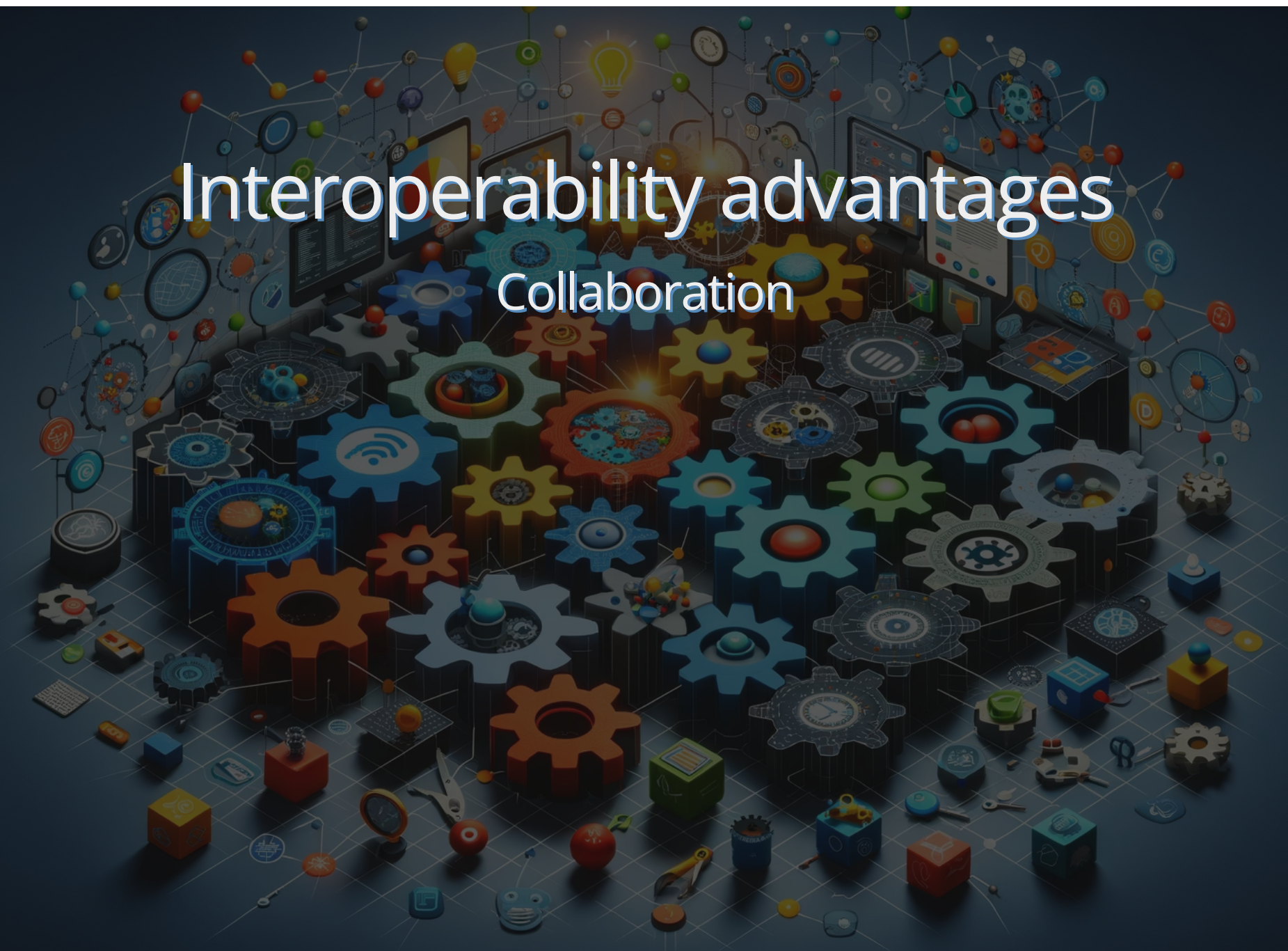
Continuous Improvement: foster continual improvement & gathering feedback



The Role of Interoperability

Interoperability advantages

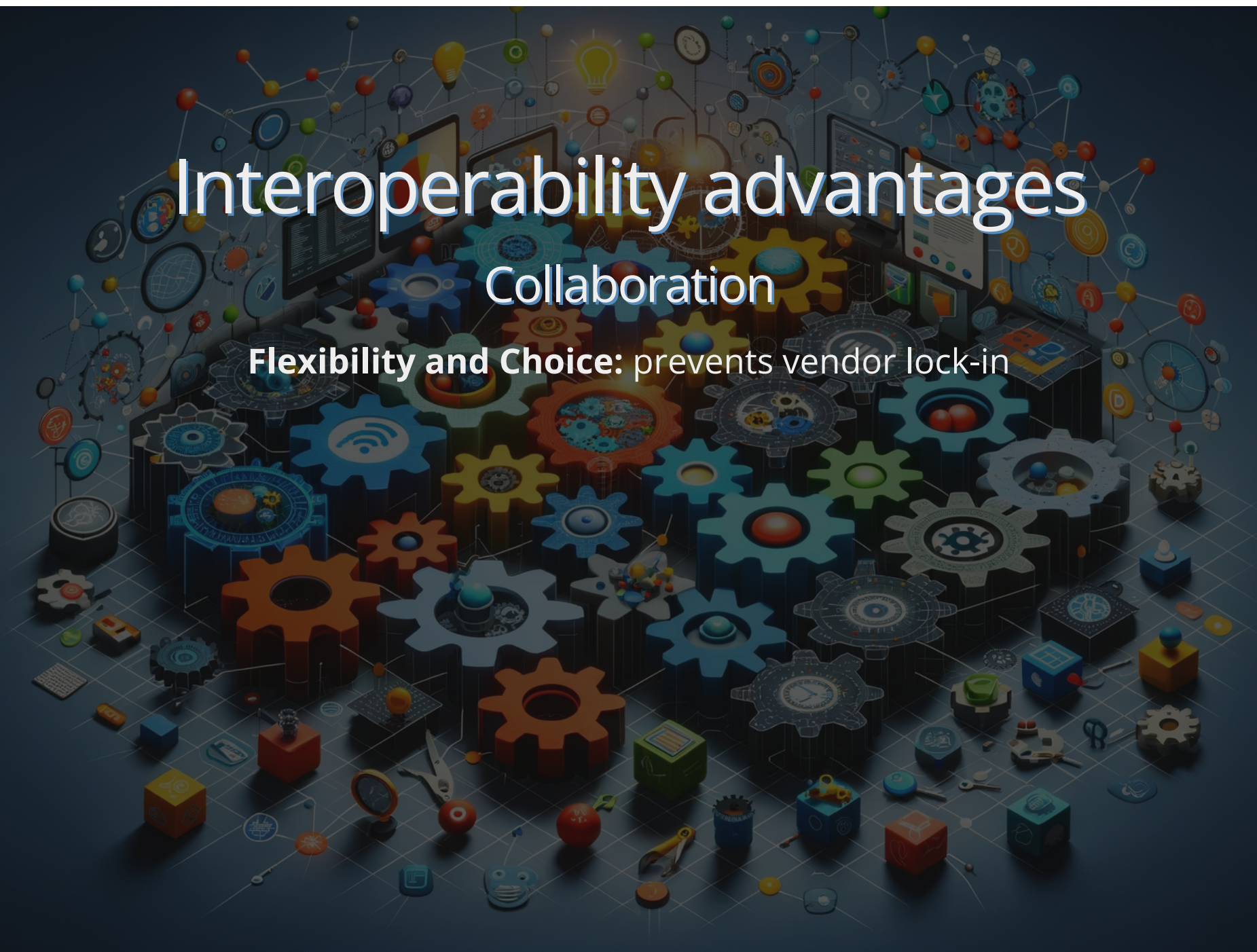
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Cross-Platform Deploys: promotes unified deployment / infra mgmt approach

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Cross-Platform Deploys: promotes unified deployment / infra mgmt approach

Troubleshooting and Debugging: enables better incident response





Interoperability Spinnaker & Backstage

Interoperability: Spinnaker

The background of the slide is a dense, interconnected network of 3D icons. These icons, in various colors like blue, red, and grey, represent a wide range of concepts including gears, clouds, people, tools, and data. They are arranged in a circular pattern around a central glowing blue square. This central square contains a large gear icon and a cloud icon, with smaller icons and lines radiating from it, symbolizing a central hub or a core system. The overall aesthetic is technical and futuristic, with a dark blue background.



Interoperability: Spinnaker

Integration with Cloud Providers: broad integration options



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Pipeline Abstraction: flexible / adaptable process as reqs evolve

The background is a dark, futuristic digital landscape. A central glowing blue orb with concentric rings is the focal point. Numerous floating icons of various shapes and colors (blue, red, grey) represent different technologies and data. The floor is a grid of glowing lines, and the overall atmosphere is high-tech and interconnected.

Interoperability: Backstage



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Integration with CI/CD Tools: allows single-pane-of-glass view of pipelines



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Service Catalog Integration: teams have full view into available services & apps

Plugin Ecosystem: extensible architecture to connect tools and adapt to needs

Customization and Theming: organize everything to exact needs, easier to adopt



Challenges implementing interoperability



A complex 3D illustration of a construction site with various obstacles, workers, and technology icons, symbolizing the challenges of interoperability. The scene is filled with blue and grey blocks, ramps, and paths. Workers in dark suits are seen running, carrying boxes, and working on the site. There are various technology icons like Wi-Fi symbols, gears, and network diagrams floating in the air. A red octagonal stop sign is visible on the right side. The overall atmosphere is one of a busy, challenging environment.

Challenges implementing interoperability

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Authentication and Authorization: complexity with methods and permissions

Versioning and Compatibility: breaking changes require ongoing maintenance

Lack of Documentation: insufficient or outdated docs = common roadblock



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Community Collab: share successes & challenges within tooling communities





*“ruthlessly eliminating
barriers (and blockers) that
keep your developers from
being successful”*

Thank You.



<https://bit.ly/DevExTalk>



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