

THE ROCKY ROAD

# FROM MONOLITH TO MICROSERVICES

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**STARRING AS "THE MONOLITH"**

**KN Login**

**360° visibility.  
Active control.**

# **MARKETING FACTS**

# VISIBILITY



*Keep track of your products, streamline operations and better manage your assets.*

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# MONITORING



*Proactive control to help you maintain  
your supply chain integrity and  
efficiency.*

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# COLLABORATION



*Improves the communication and collaboration with your supply chain partners.*

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# INFORMATION MANAGEMENT



*Business intelligence tools that convert  
your data into information for effective  
decision making.*

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# **SRP VIOLATION...**

...detected on marketing level!



# PROJECT FACTS

- Ongoing development since 2007
- More than 1.500.000 lines of code
- 197+ developers over time

A red laser beam is directed at a metal surface, creating a bright red spot. A black rectangular object is positioned above the laser spot. The background is dark and textured.

# **HISTORICALLY GROWN SYSTEM...**

...detected on application level!

# TECHNICAL FACTS

- **Self-made Java Web Framework**  
(by now out of commission)
- **Multiple UI Technologies**  
(JSP/jQuery, Swing/ULC, GWT/GXT, JSF)
- **Monolithic underlying database**  
(used for operations, visibility and reporting)



**LEGACY SYSTEM...**

**...detected on architecture level!**



The background of the slide is a photograph of three red flares lying on a dark, gravelly surface at night. The flares are lit, casting a bright red glow. One flare is in the upper left, one in the center, and one in the lower right. The text is overlaid on a semi-transparent white rectangular box in the center of the image.

# THREE RED ALERTS

- Responsibility
- Maintenance
- Technology



A scenic photograph of a winding asphalt road on a hillside at sunset. The sun is low on the horizon, casting a warm orange glow. A concrete guardrail runs along the edge of the road in the foreground. The road curves into the distance, flanked by dark, forested hills. A white text box is superimposed over the center of the image.

**HOW TO TURN THE CORNER...?**

# **#1: RESTRAINT**

Do not put more stuff into your monolith!



# FIXES AND SMALL CHANGES ONLY!



# NO MORE NEW BIG FEATURES!





# NO FACELIFT PROJECTS!

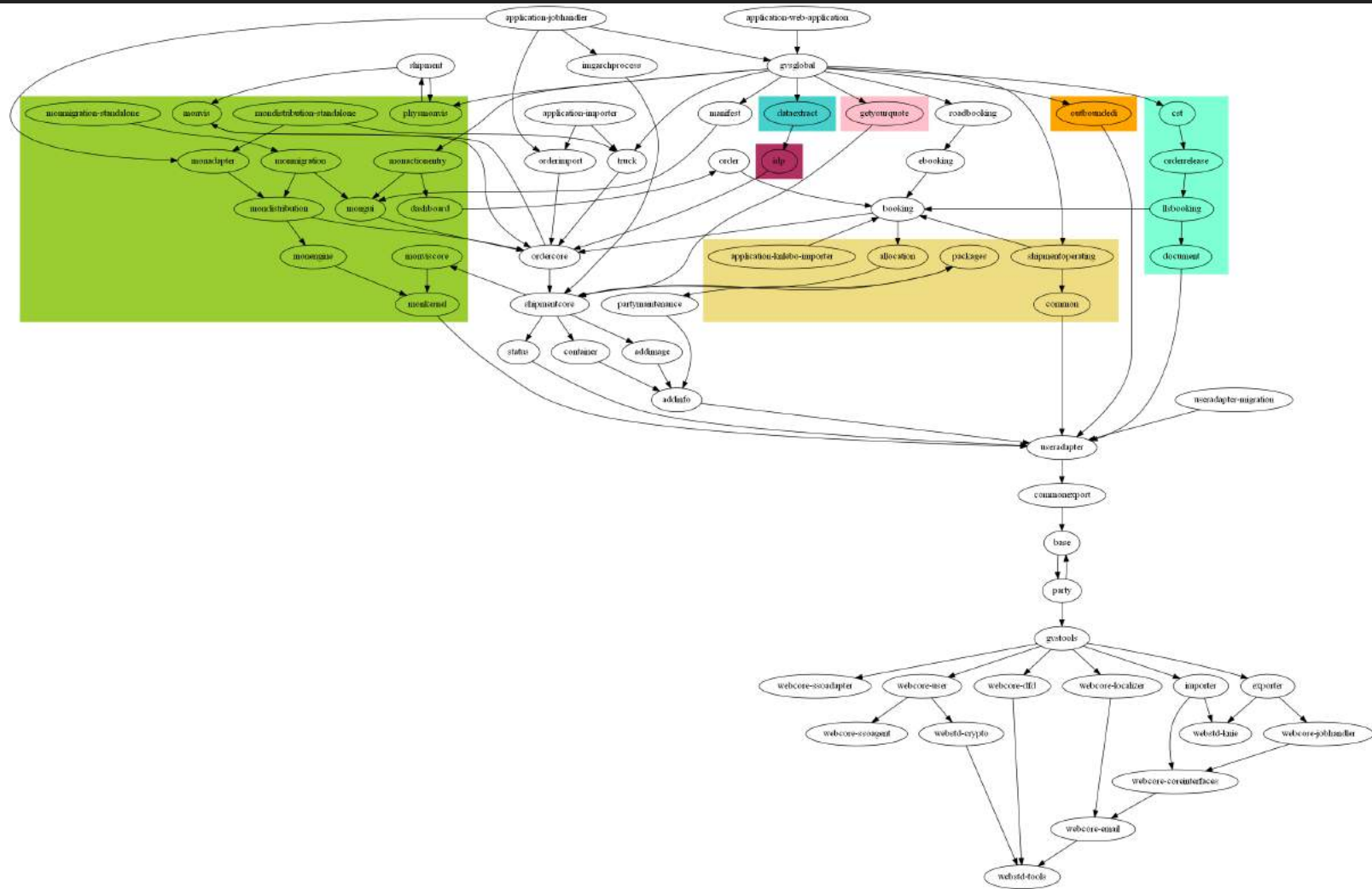


## #2: RESEARCH

Find the seams in your monolith!

[illegible]

# PRODUCT CLUSTERS

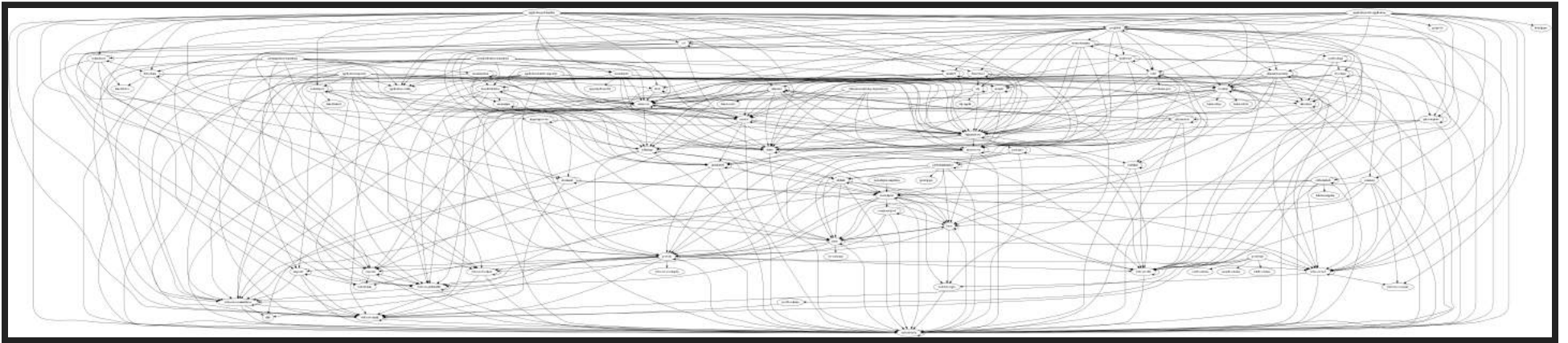


## #3: REPERCUSSION

Realize that most of your seams are just wishful thinking!



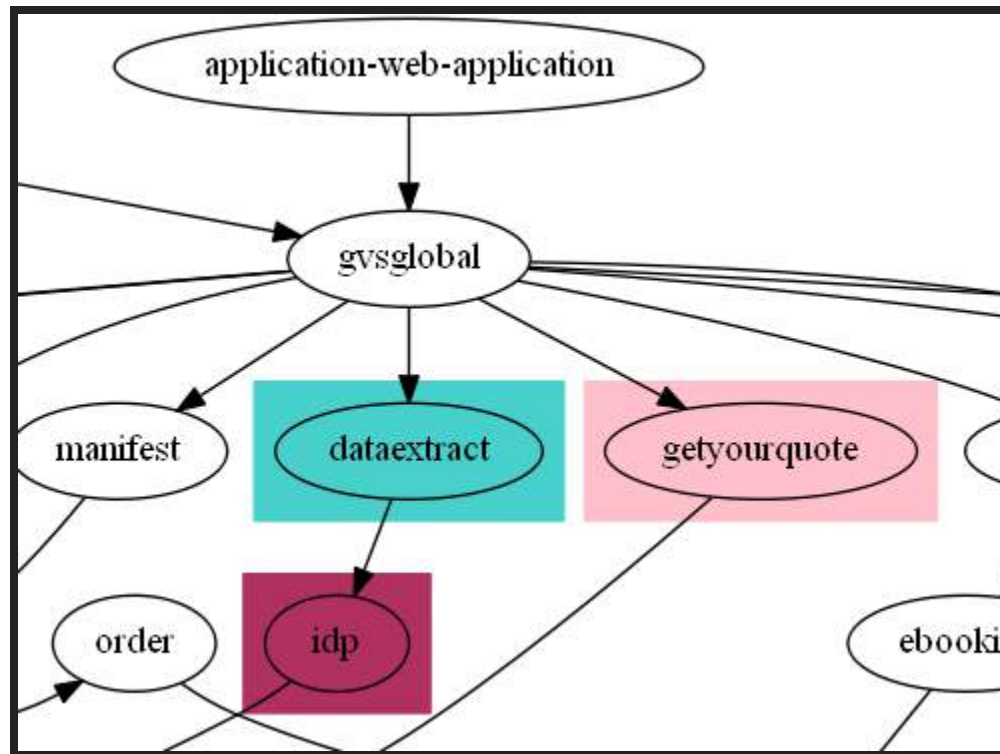
# TRANSITIVE DEPENDENCY HELL



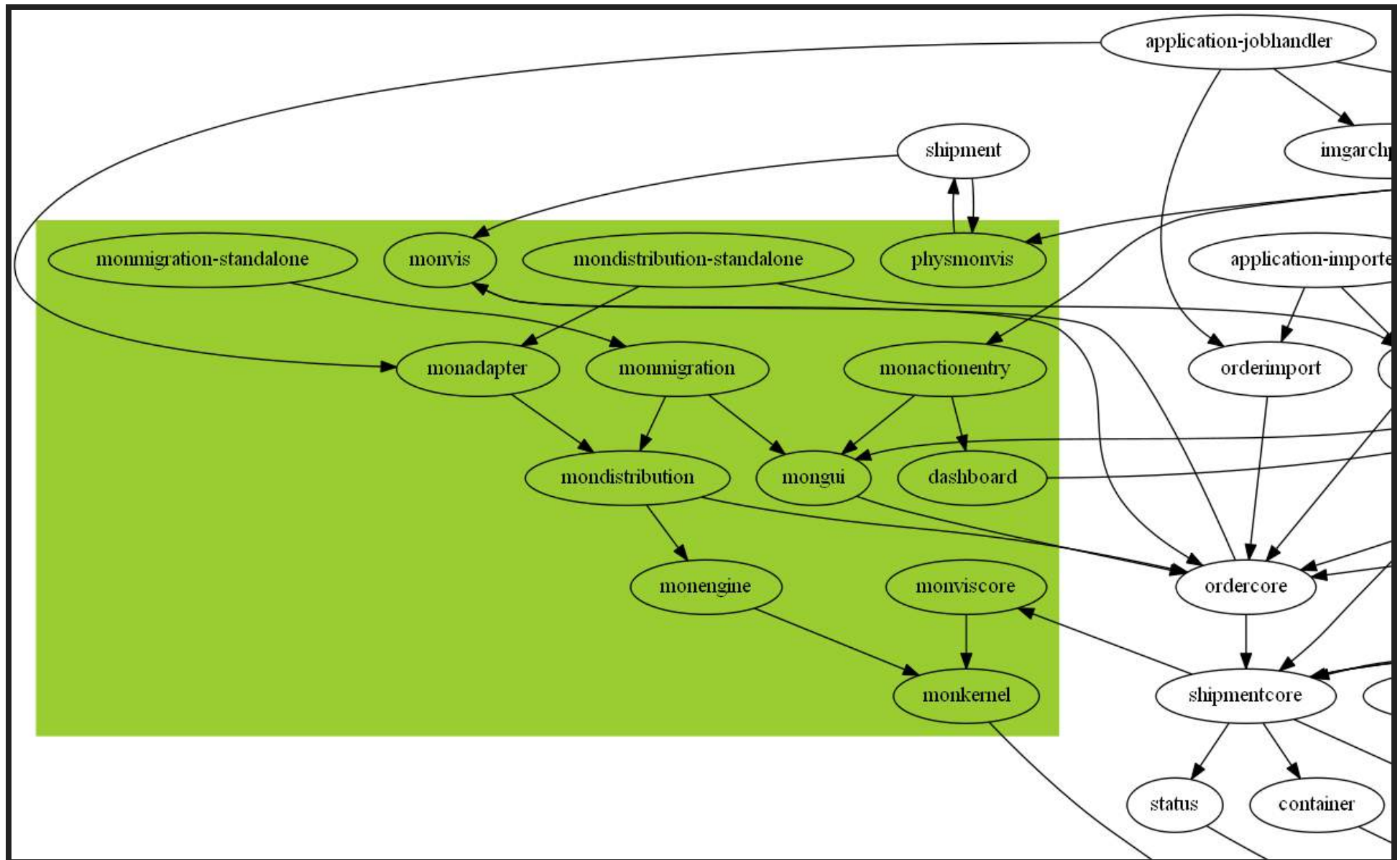
## **#4: REHABILITATION**

Gradually extract/replace parts in spite of #3!

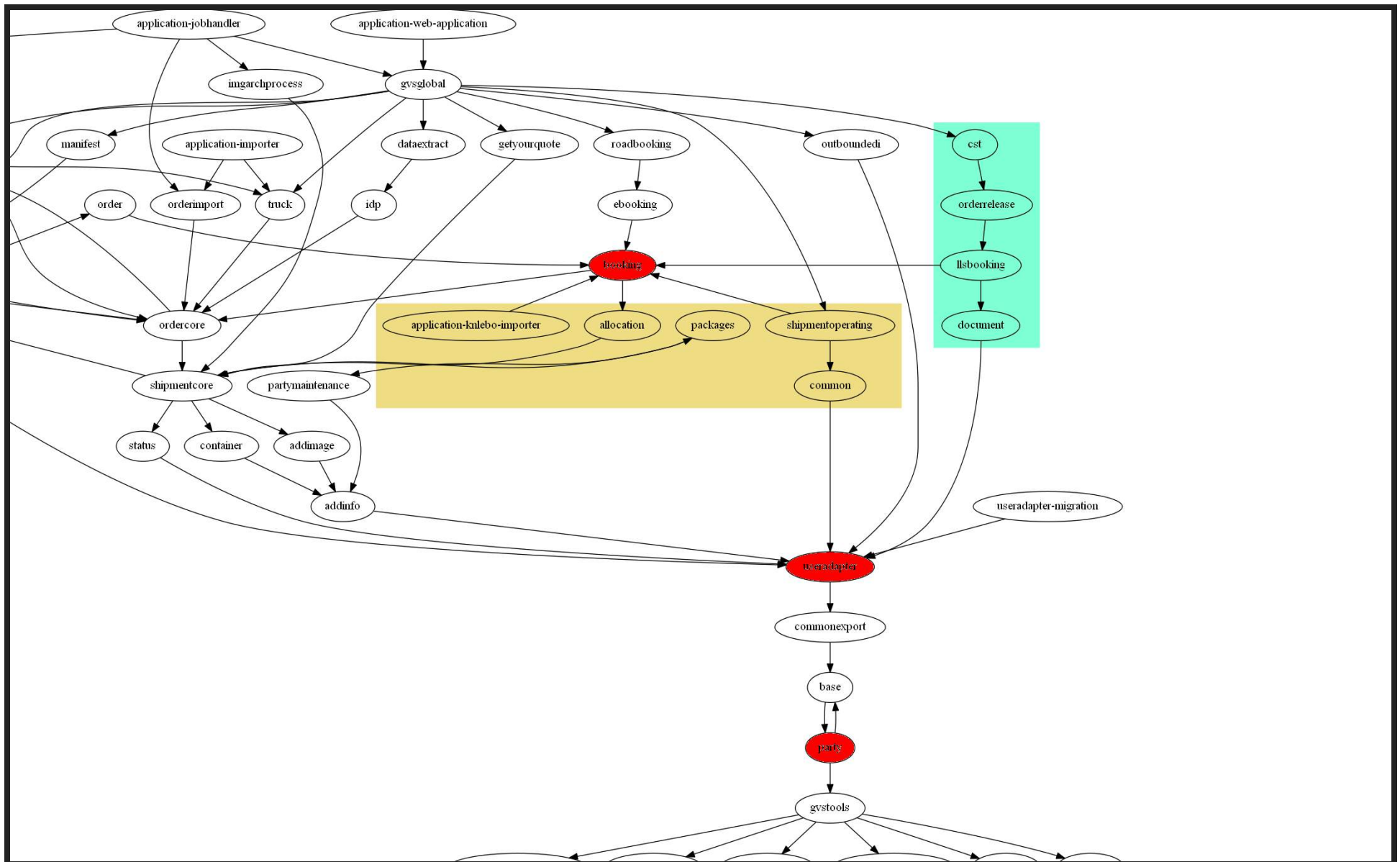
# SEEMINGLY LOW-HANGING FRUITS



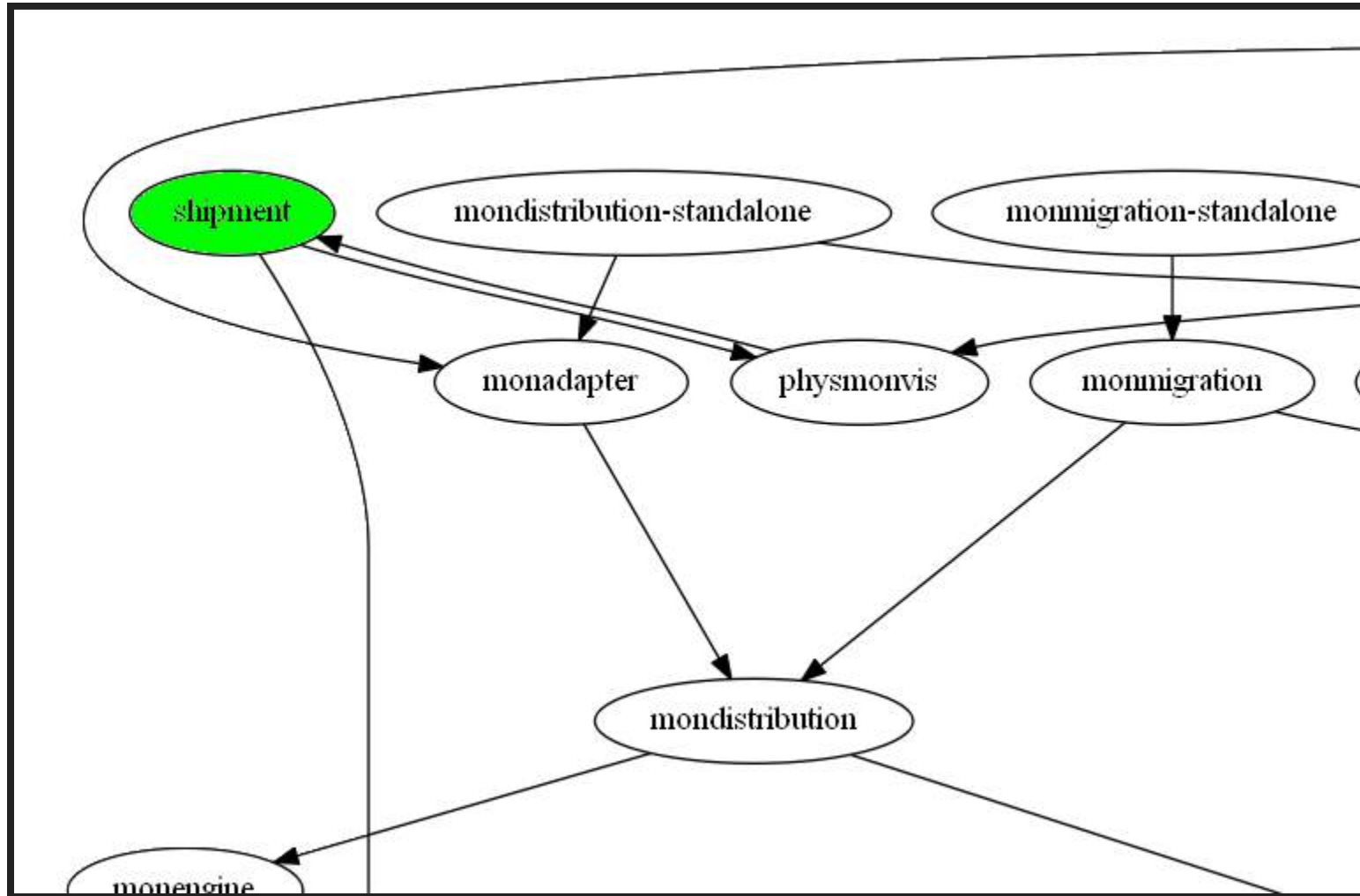
# WELL DEFINED BOUNDED CONTEXT



# REAL PAIN SPOTS



# BACK TO THE ROOTS





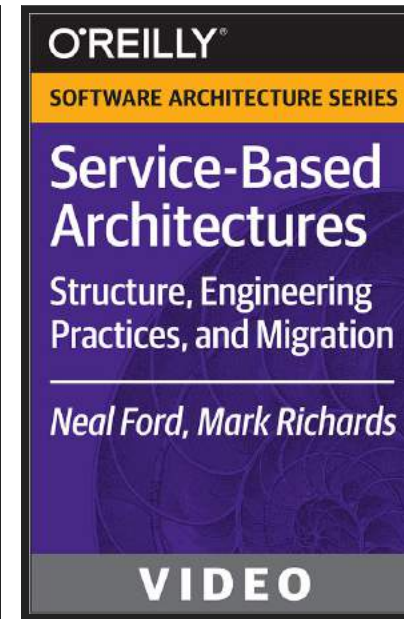
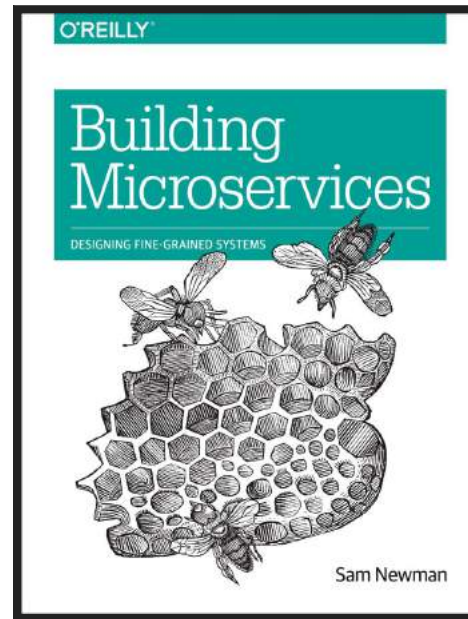
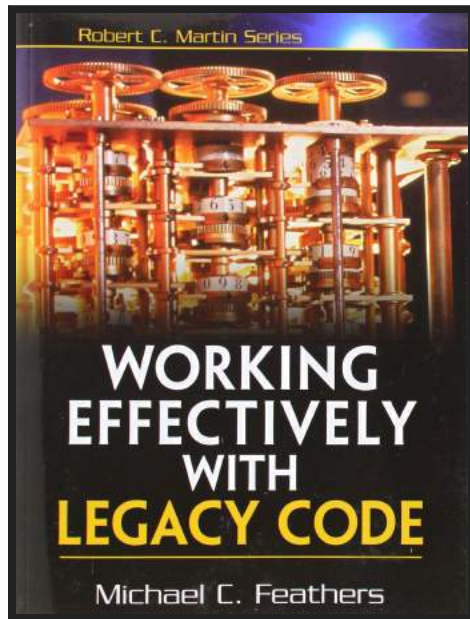


# FINAL TAKEAWAY

The transition from a monolithic application to a microservice architecture is **neither easy nor inexpensive**, but it's worth the effort in order to keep the core systems of your company **maintainable and extensible** in the future!



# RECOMMENDED RESOURCES



**THE END...?**

# MONOLITHFIRST



**Björn Kimminich**  
@bkimminich

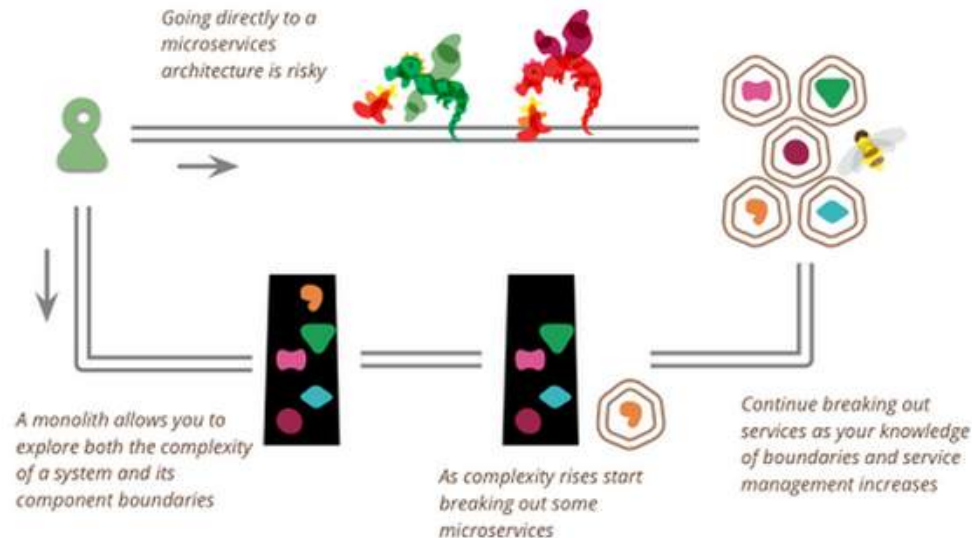
+ Folgen

With regards to @martinfowler's latest coup  
I hereby coin the term **#Wegwerfprotolith**  
(English: **#throwawayprotolith**)  
[martinfowler.com/bliki/Monolith...](https://martinfowler.com/bliki/Monolith...)

Übersetzung anzeigen



**Martin Fowler**



**THE END.....?**

# DON'T START WITH A MONOLITH



Stefan Tilkov  
@stilkov



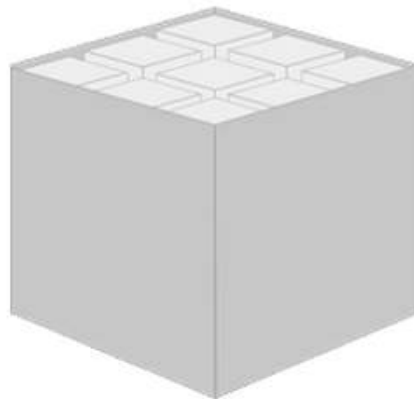
Folge ich

I'm happy @martinfowler let me publish my opinion on his site: "Don't start with a monolith" [martinfowler.com/articles/dont-...](https://martinfowler.com/articles/dont-...)

Übersetzung anzeigen

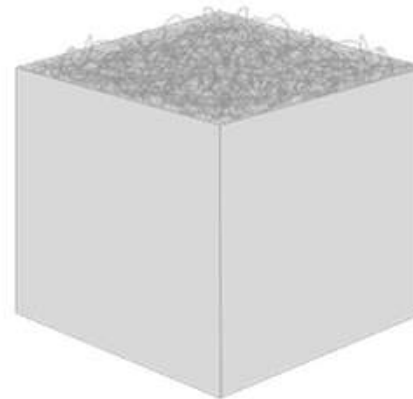


Martin Fowler



Hope

vs.



Reality

## Don't start with a monolith

By [Stefan Tilkov](#) @stilkov

Don't start with a monolith if you want to end up with microservices. It's usually a good idea to follow the YAGNI principle, but a monolith won't magically contain services waiting to be liberated.

# THE END!



**Björn Kimminich**

@bkimminich

So, no [#Wegwerfprotolith](#)'s after all? ... I was really happy to read this! [@stilkov](#)  
[@martinfowler](#)

# CREDITS

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