



Development Operations *CI/CD

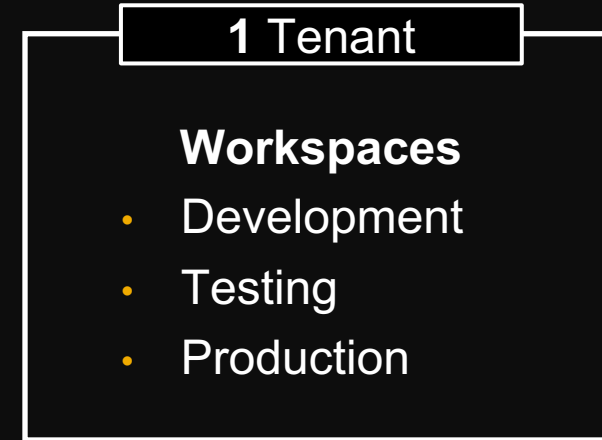
SAP Data Intelligence Cloud

Dr. Thorsten Hapke, SAP
June, 2022



*Continuous Innovation/Continuous Deployment

One Tenant or Many Tenants



Strict separation of
user and data sources



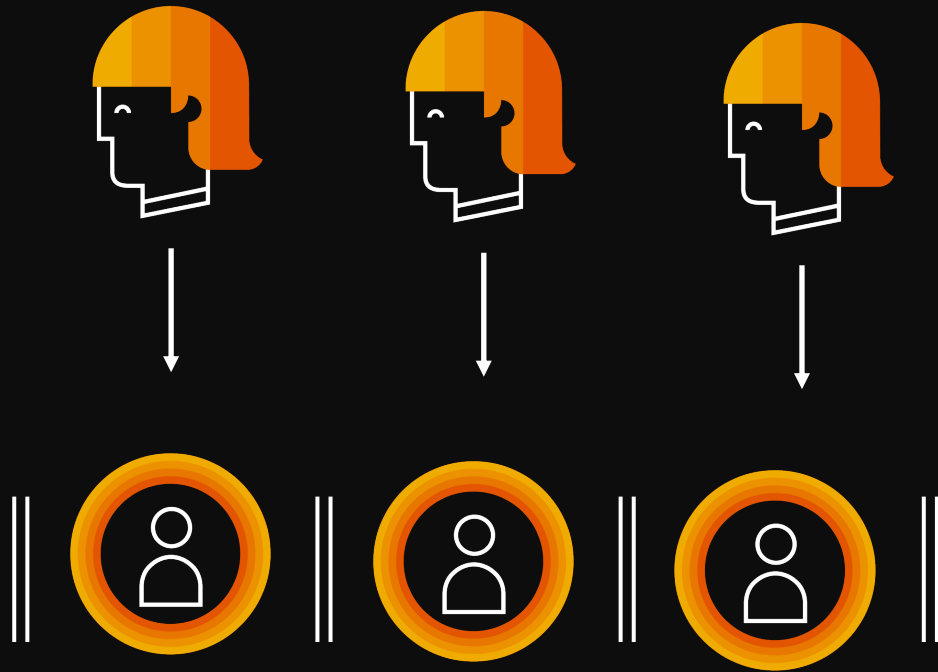
Sophisticated Policy and
Connection Management

Avoid performance
interdependency



Resource quota for user

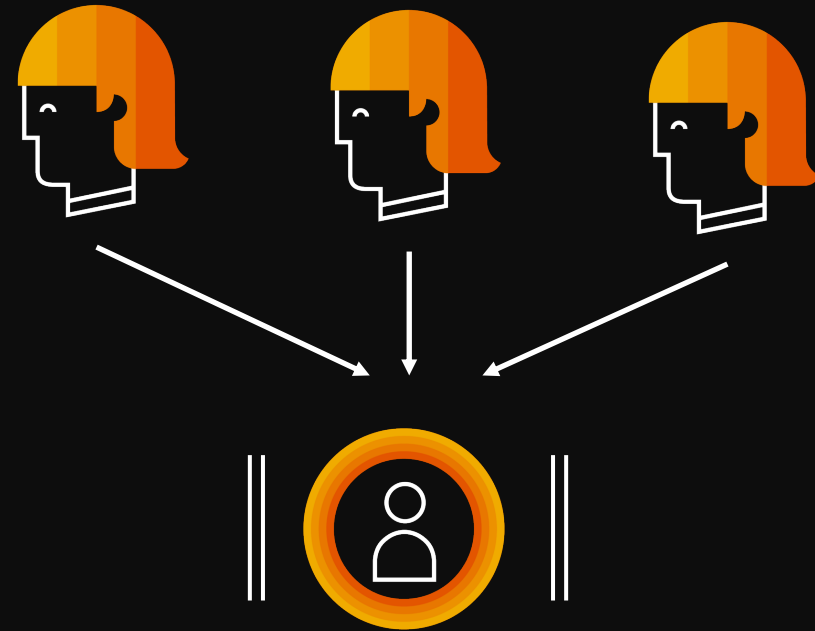
User and Roles



User

Developer

Business User



**“Technical”
User**

Test Environment

Productive Environment

Development Objects

Packages	Dockerfiles	Custom Operators	Pipelines	Virtual Types
<ul style="list-style-type: none">• n developer• Consumed by developers• regularly done• Weeks - Years	<ul style="list-style-type: none">• 1 developer but many consuming developers• Rarely created• Quickly adjusted• Due to system resources creation should be well maintained	<ul style="list-style-type: none">• 1 developer and many consuming developers• Maybe regularly done• development time: Hours up to a few days (Code length: < 200 LoC)	<ul style="list-style-type: none">• 1 developer• Consumed by data engineers• Maybe regularly done• development time: Hours	<ul style="list-style-type: none">• 1 developer• Consumed by data engineers• regularly done• development time: Minutes
External		User workspace (vflow)		

CI/CD and Version Control (git) Terminology

CI/CD*:

Defines process from **development**, **testing** to **deployment** of applications



Version Control:

Manages the changes of the development objects, e.g. git



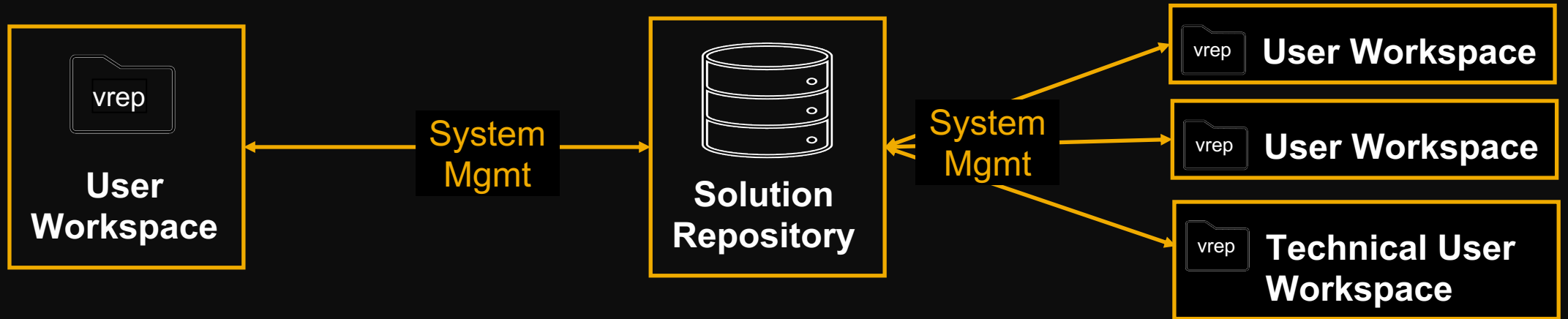
Git:

Git can be setup to support Version Control and CI/CD, but the latter in a basic generic way

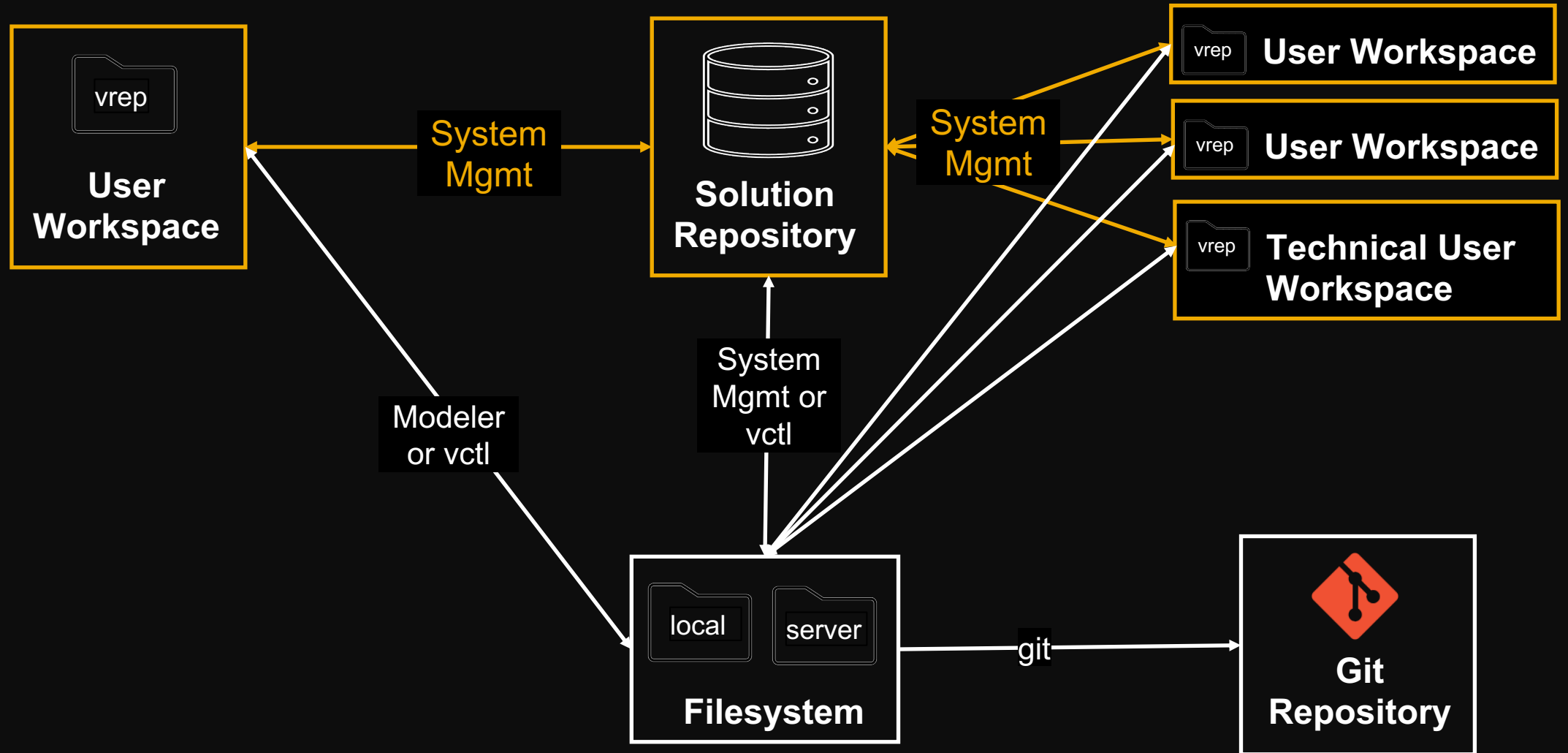


*Continuous Innovation/ Continuous Deployment

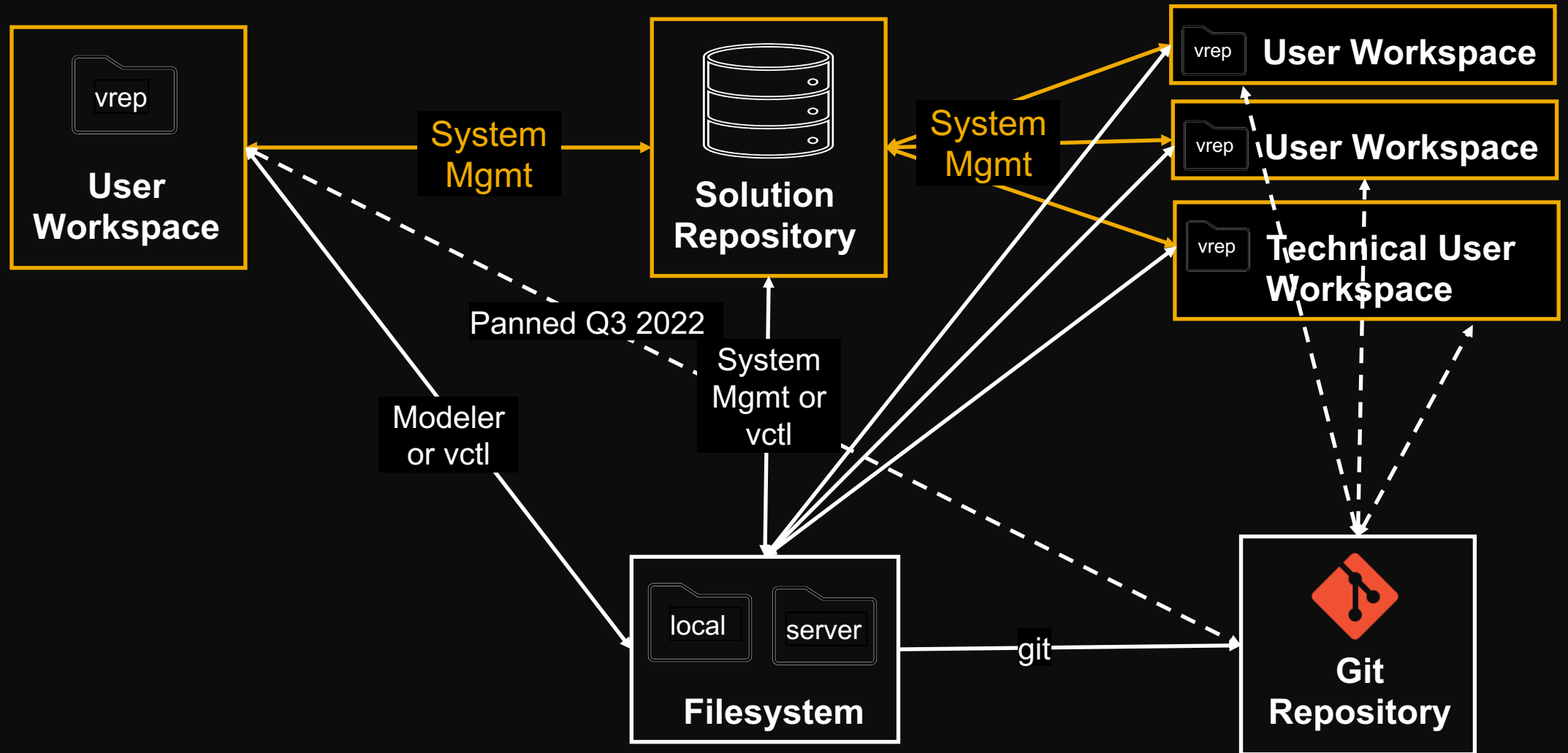
Transport Options Overview



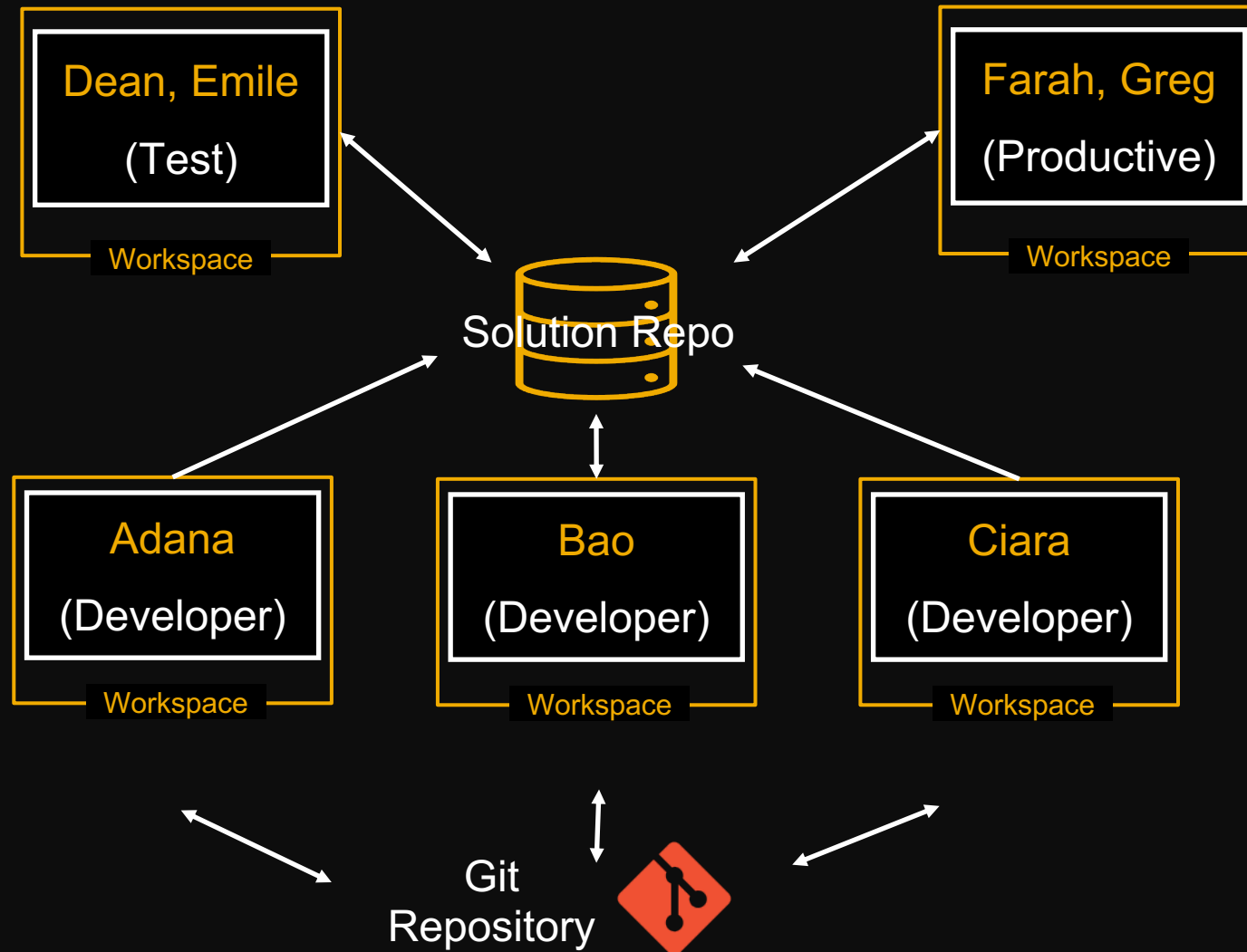
Transport Options Overview



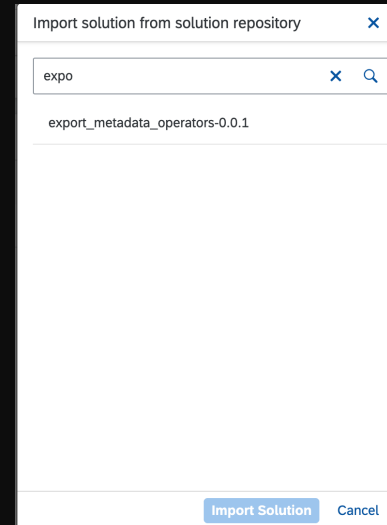
Transport Options Overview



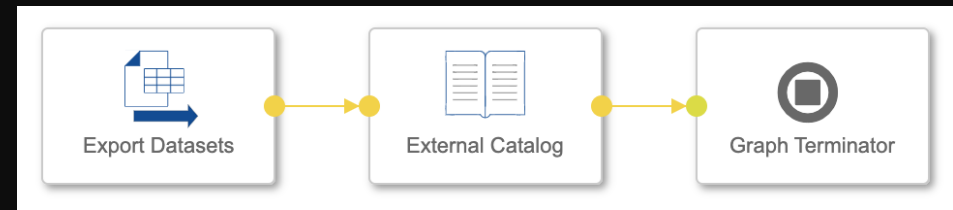
Example Development Process



Import Solutions



Create Pipeline

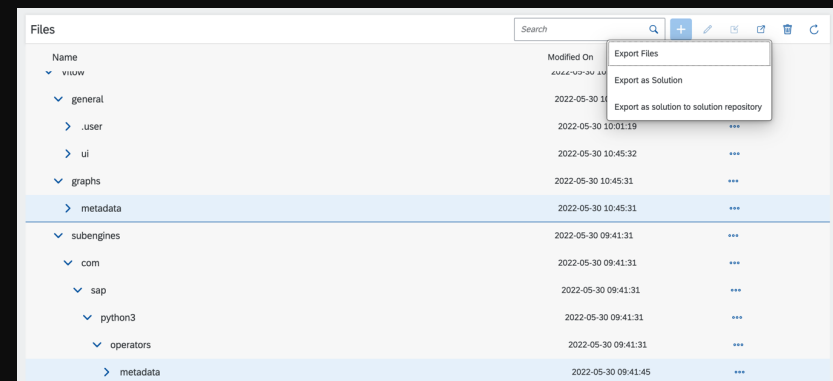


Upload to Git Repository



```
1 #!/bin/sh
2
3 # login
4 vctl login https://vsystem.ingress[REDACTED].dhaas-live.shoot.live.k8s-hana.ondemand.com\
5   default baow -p b[REDACTED]
6
7 # export
8 TARGET="solutions/$2.tar.gz"
9 echo "vctl cmd: vctl vcrep user export $2 $1"
10 vctl vrep user export $TARGET $1
11
12 # push gi
13 git add -f $TARGET
14 git commit -m "diupdate"
15 git push origin main
```

Upload to **Solution Repository**



Thank you.

Contact information:

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Transcript and shell-script:

<https://github.com/thhapke/diadmin/tree/main/presentations/cicd>