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TIER Grouper Packaging

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TIER Grouper Packaging – What/Why?

- **Grouper components packages in containers**
- **Easier Configuration, Deployment, and Adoption**
- **DevOps Practices and Methodologies**
- **Share knowledge and collect artifacts**

Package Options for TIER Grouper

- **Appliances (first offering)**
 - VirtualBox VMs
 - AMIs (for AWS)
 - Pull containers from Dockerhub
- **Source Code ([github.internet2.edu/docker/grouper](https://github.com/internet2.edu/docker/grouper))**
 - Build, and run in Docker Swarm
 - Includes all components to compose to a functional Grouper ecosystem:
 - Grouper Loader, Grouper UI, Grouper WS, Shibboleth IDP, Shibboleth SP, LDAP, MariaDB, RabbitMQ
- **Standalone Container (dockerhub.com/tier/grouper)**
 - Pushed to Dockerhub
 - Includes all Grouper subcomponents in container (UI, WS, Loader, SCIM)
 - Based on CMD flag in Dockerfile, can assume any role (chameleon)

Deployment Options

- Docker Swarm
 - Test-compose directory
 - Secrets
 - Compose
- Standalone container
 - FROM tier/grouper:latest
 - Layer in local configs
 - DB settings, sources, loader jobs, etc.
 - Build and push to a private Docker Repo
 - Run in AWS, Openshift, K8s
 - It's what Internet2 is doing for Comanage environment (AWS ECS)

```
FROM tier/grouper:2.3.0-a103-u42-w12-p16
```

```
ENV CONFIG_BUCKET=s3://comanage-dev-host-configs/grouper.at.internet2.edu
```

```
RUN yum update -y &&\  
    yum -y install epel-release &&\  
    yum -y install awscli
```

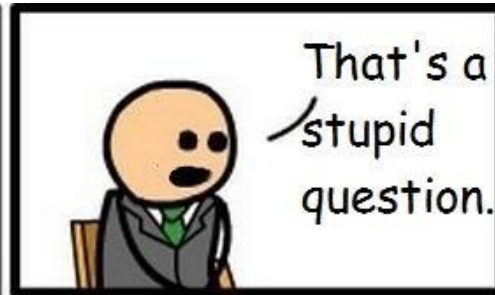
```
RUN aws s3 cp $CONFIG_BUCKET/shib/sp-cert.pem /etc/shibboleth&&\  
    aws s3 cp $CONFIG_BUCKET/shib/sp-key.pem /etc/shibboleth &&\  
    aws s3 cp $CONFIG_BUCKET/shib/attribute-map.xml /etc/shibboleth &&\  
    aws s3 cp s3://comanage-dev-host-configs/general_metadata/login.at.internet2.edu-  
metadata.xml /etc/shibboleth
```

```
RUN aws s3 cp $CONFIG_BUCKET/grouper/grouper.hibernate.properties /opt/grouper/conf/&&\  
    aws s3 cp $CONFIG_BUCKET/grouper/ldap.properties /opt/grouper/conf/&&\  
    aws s3 cp $CONFIG_BUCKET/grouper/grouper.client.properties /opt/grouper/conf/&&\  
    aws s3 cp $CONFIG_BUCKET/grouper/grouper.properties /opt/grouper/conf/&&\  
    aws s3 cp $CONFIG_BUCKET/grouper/subject.properties /opt/grouper/conf/&&\  
    aws s3 cp $CONFIG_BUCKET/grouper/sources.xml /opt/grouper/conf/&&\  
    aws s3 cp $CONFIG_BUCKET/grouper/log4j.properties /opt/grouper/conf/&&\  
    aws s3 cp $CONFIG_BUCKET/grouper/grouper-loader.properties /opt/grouper/conf/
```

```
CMD ["ui"]
```

Change Management for Grouper Container?

- Branch (in Internet2 github) and Tag (in TIER Dockerhub) naming convention based on patch level of components
 - Should make change management of container easier and to avoid drift between dev and prod instead of pulling from :LATEST
- E.g. [2.3.0-a104-u42-w12-p16](#), [2.3.0-a103-u42-w12-p16](#)
 - 2.3.0 = Base version of Grouper
 - A = API patch version
 - U = UI patch version
 - W = Web Services patch version
 - P = PSPNG patch version



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You don't have to go to Stack Overflow to figure this out...

There are no stupid questions.....

Email Lists

- tier-packaging@internet2.edu
- tier-pack-grouper@internet2.edu
- grouper-study@internet2.edu

Slack Channels (internet2.slack.com)

- #tier-packaging
- #tier-grouper
- #tier-devops-discuss

Links

- [github.internet2.edu/docker/grouper](https://github.com/internet2/docker/grouper)
- spaces.internet2.edu/display/TPD

Wednesday Showcases – 8:45AM Grand Ballroom

- Provisioning Architecture, and data flows
- Provisioning De-provisioning
 - midPoint as provisioning engine
 - Grouper as a group and privilege management system
 - Canvas as provisioning target (perhaps other apps if time)
- TIER Packaging - Overview of Containers and GitHub Repository
 - Shibboleth IdP
 - Grouper
 - COmanage
 - RabbitMQ
 - midPoint