

BLOOMBERG L.P. INDUSTRIAL PLACEMENT

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2017.10.05

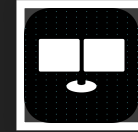
BLOOMBERG L.P.

COMPANY BACKGROUND

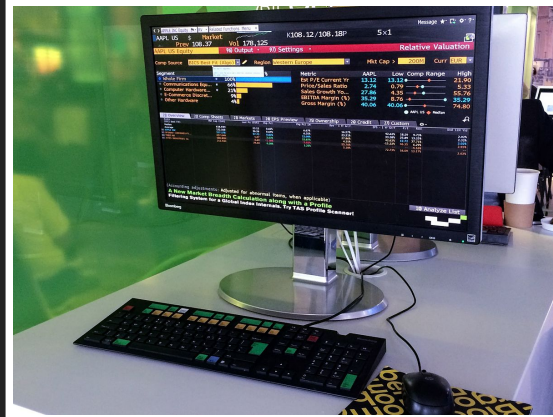
- Financial software & news
- Founded in 1981
- 4,800+ engineers
- 325,000+ subscriptions



BLOOMBERG TERMINAL



- Provides market data and analytics
- Proprietary communication system



Credit (Corp) Menu

TBN 5.7 09/14/17 Corp BTM

Help Desk

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ALERTS TEAM

- MLRT, Market Data Alerts - Alert me when...

1) Create Alert

2) Save As New

3) Delete

6) Send

Alert Editor

Step 1. Select Source Type

List or Single Security

Pair or Combination

Related Securities

Orders

Step 2. Select Securities and Settings

SourceSingle Security

TickerSHSZ300 Index

Frequency30s

Active

Step 3. Select Alert Criteria

Find <Enter Criterion>

Price

Price/Yield/Moving Avg

Last Trade Limit

Price Change since Previous Close

Intraday Price Spike

VWAP (Volume Weighted Average Price)

Total Returns

Volume

Technical Studies

Technical Strategies

Trading Strategies

Liquidity

BGN Bond Spread/Yield/Price

Options

Analyst Recommendations

Trigger Alert onAny

% Chg on Day (Abs)

>

4.5

Alert settings

Step 4 (Optional). Configure more Settings

Catcher

Time Range

Alert Expires in365

Day(s)

Max. 720

GroupUngrouped

Creating Alerts. Run MLRT

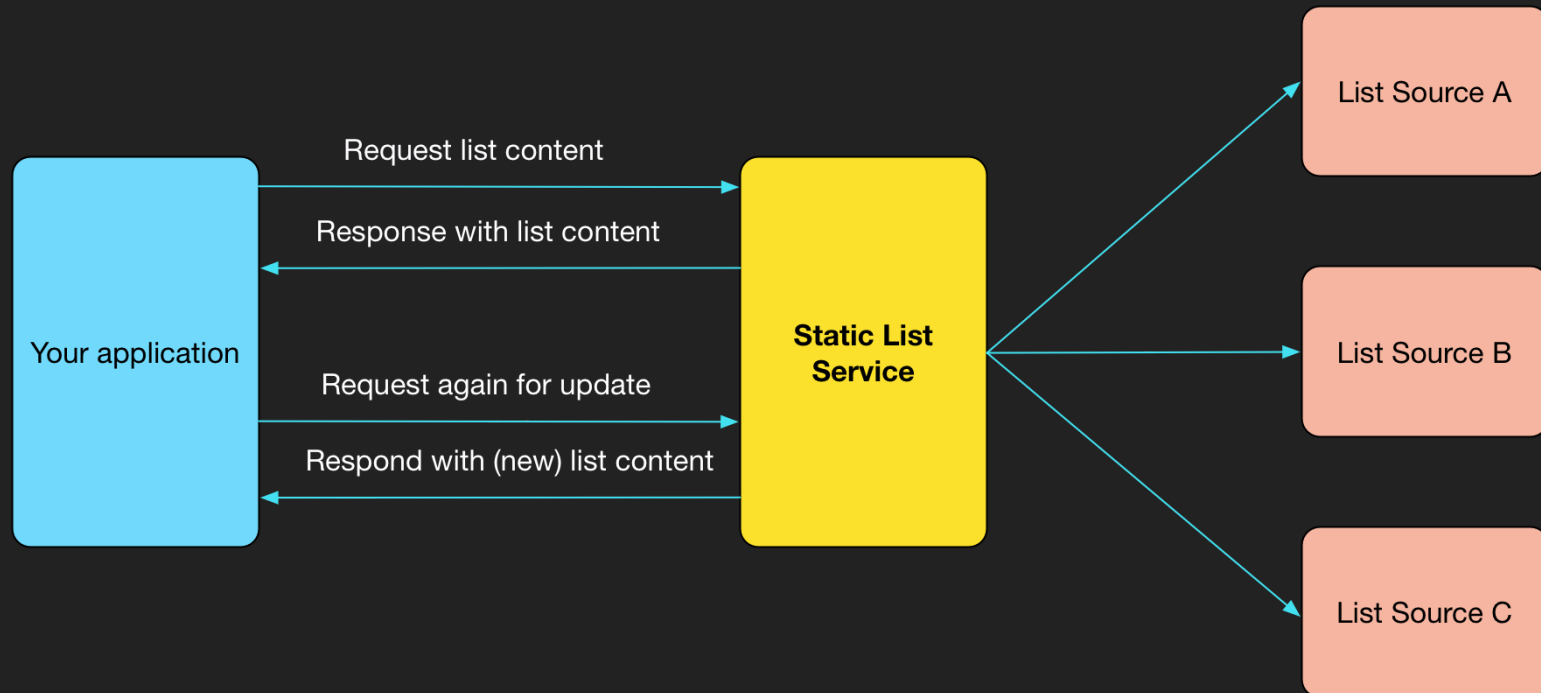
LIST ALERT IN MLRT

- MLRT - create market data alerts on a single security
- What about alerts on a list of securities?
- Lists can be created by other functions - PORT, MON

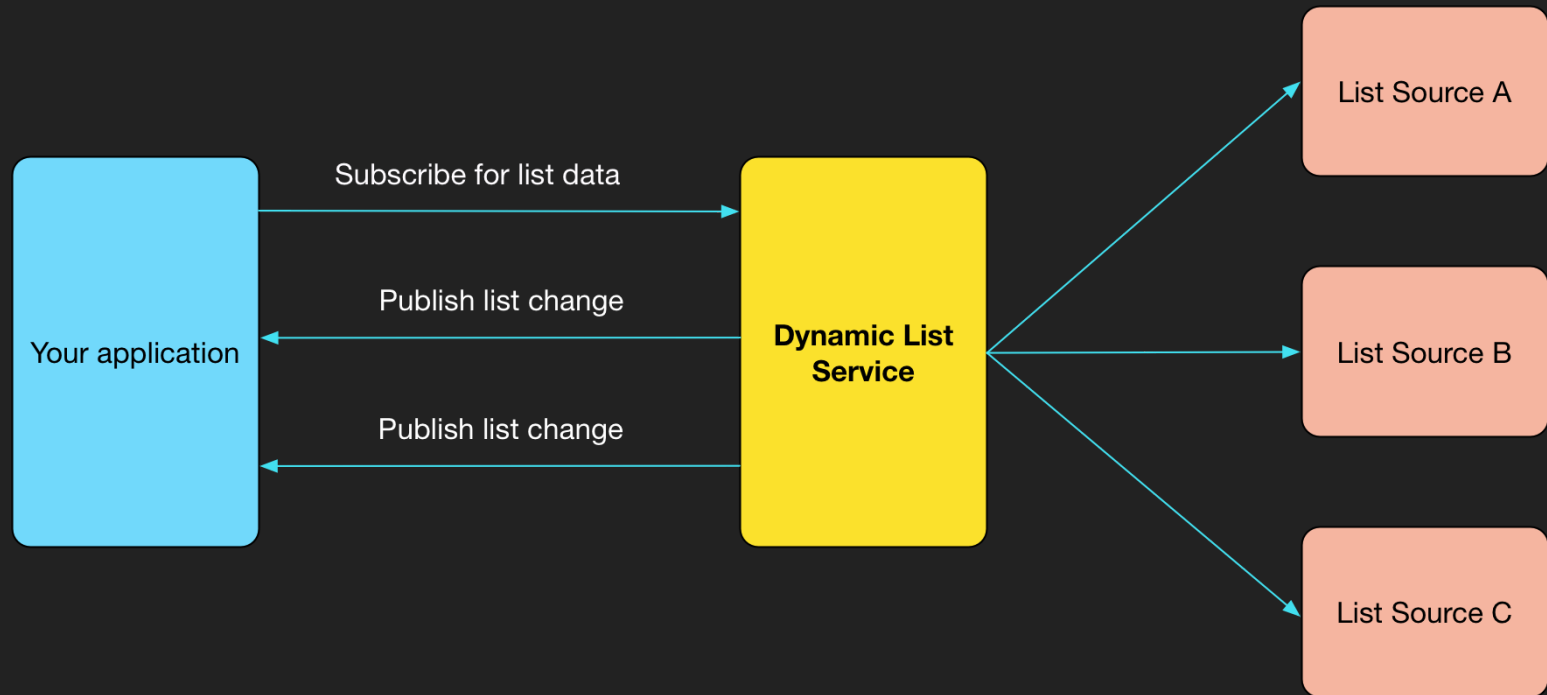
BUILDING THE LIST ALERT FEATURE

- Frontend UI changes
- Changes in existing backend services
- Building a backend service for getting list data
 - What securities are in security monitor 2 of user Tom?
 - Did Tom change the security monitor?

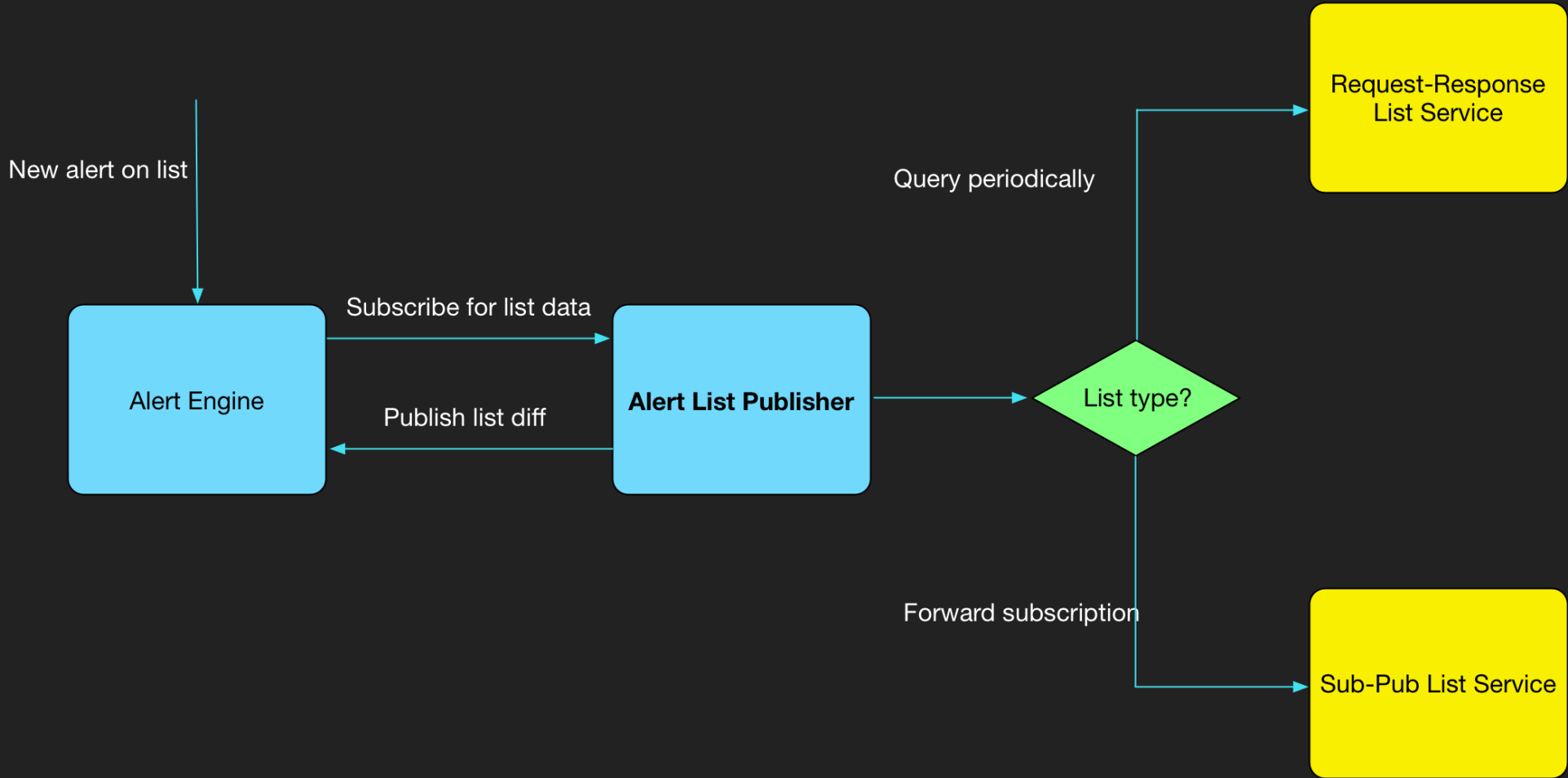
GETTING LIST DATA IN BLOOMBERG



GETTING LIST DATA IN BLOOMBERG



LIST PUBLISHER FOR ALERTS

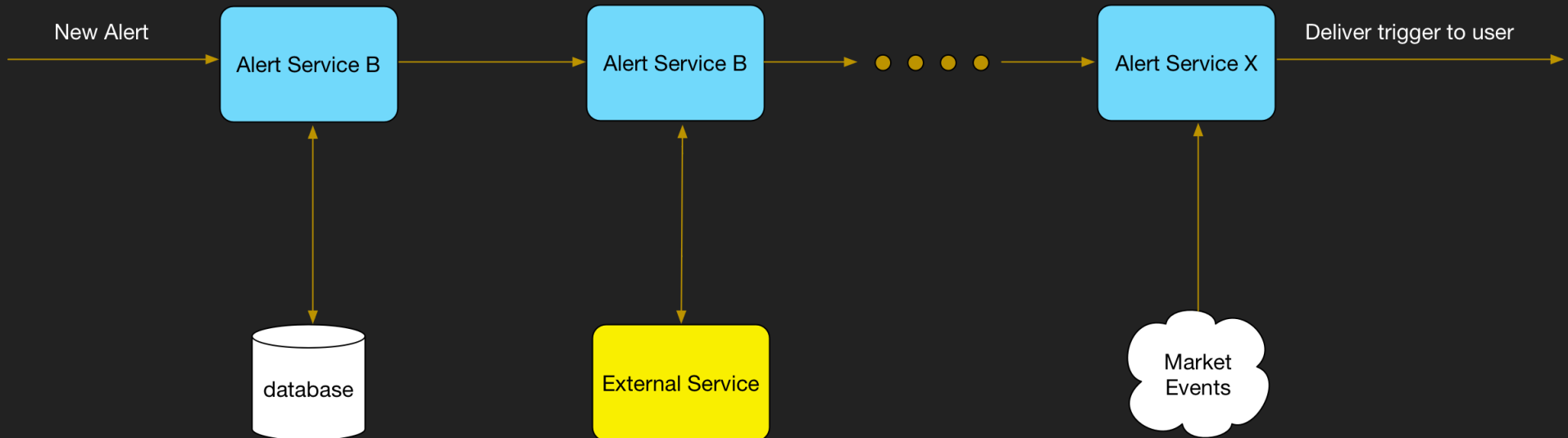


BUILDING THE LIST ALERT FEATURE

- ☑ Frontend UI changes
- ☑ Changes in existing backend services
- ☑ Building a backend service for getting list data
- ☑ List alert feature rolled out to internal users

ALERT SYSTEM TESTING USING DOCKER

THE ALERTS PIPELINE



WE WANT TO BUILD A TEST THAT ..

- tests the entire alerts pipeline at once
- is fully automated
- is fully isolated

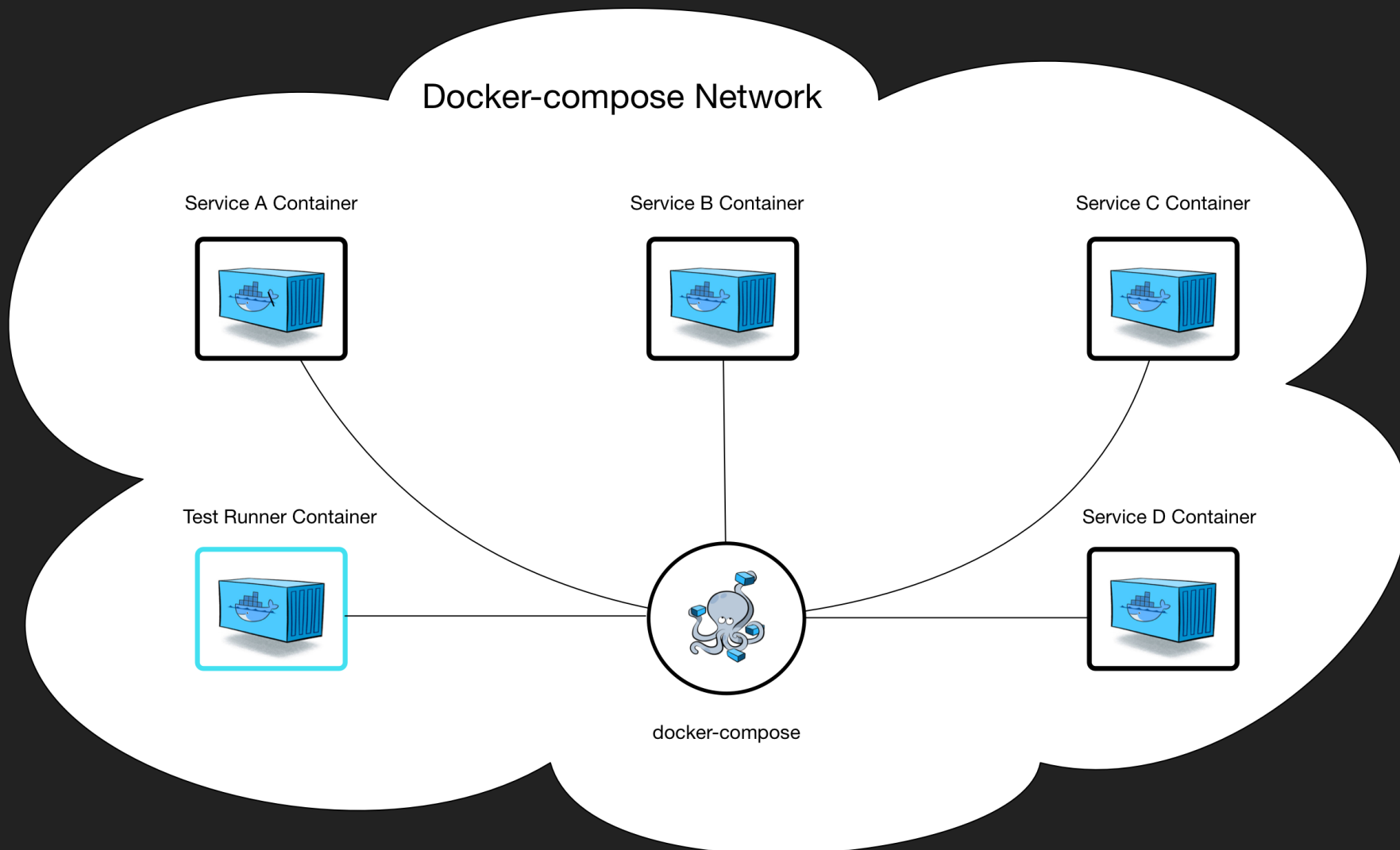
CONTAINERS

A container image is a lightweight, stand-alone, executable package of a piece of software that includes everything needed to run it: code, runtime, system libraries, settings.

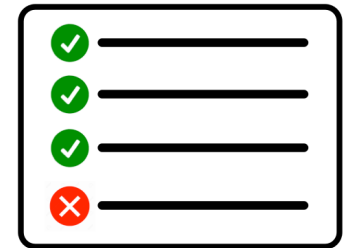
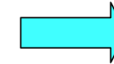
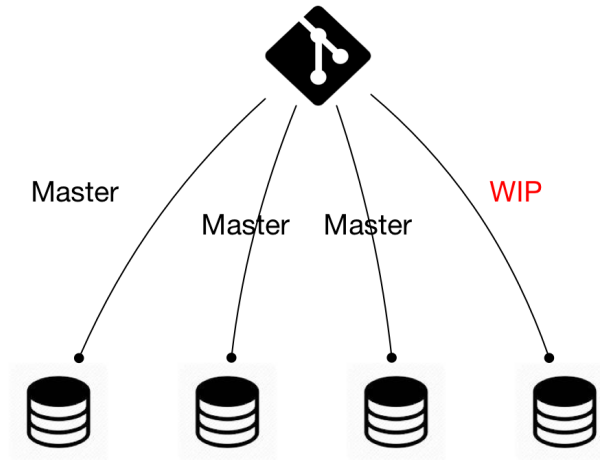
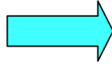
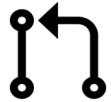


Docker provides tools that make it easy to package, ship and run any application in a lightweight container.

BUILD THE TEST WITH DOCKER



INTEGRATE THE TEST INTO CI PIPELINE



Submit a PR on branch **WIP**

Clone repositories & build applications

Start up system & run test

LEARNING OUTCOMES & CONCLUSION

- Better understanding of relevant courses
 - Software Engineering - Design
 - Concurrency
 - Compiler
- Good coding practices, techniques
- Soft skills

Thanks for listening! Questions?