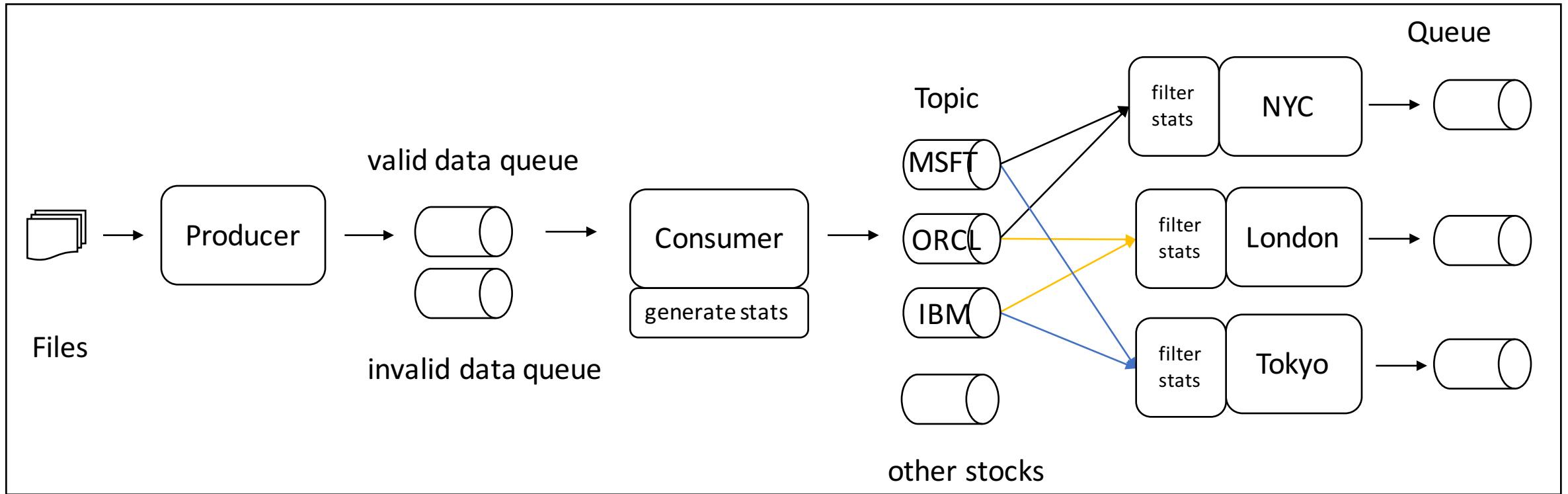


Stock Statistics Generation and Distribution System

Nengbao Liu

Architecture





Producer

- EIP Patterns
 - Inbound File endpoint
 - Splitter, Content-based Routing
 - Two outbound JMS queue: valid & invalid data

JMS Queue

Queues

Name	Number Of Pending Messages	Number Of Consumers	Messages Enqueued	Messages Dequeued	Views	Operations
project_raw_data	999	0	999	0	<div>Browse Active Consumers</div> <div>Active Producers</div> <div> atom</div> <div> rss</div>	<div>Send To Purge</div> <div>Delete</div>

Message Details

MSFT 39.81 9 39.82 39

Consumer

- EIP Patterns
 - Inbound JMS queue
 - Content-based Routing
 - Enricher/Transformation: StockStatGenetateProcessor
 - Outbound JMS topic for each stock & all other not interested stock
- OO Design Patterns
 - Strategy: Stat, MeanStat, VarianceStat, StdDeviationStat

Statistics Generation

```
INFO RECEIVED: IBM 187.8 15 187.81 97
INFO Topic: IBM 187.76 7.7982 2.7925 44 1875 43.3013 187.782 5.8524 2.4192 56 620 24.8998 added to project_topic_ibm.
```

project_topic_ibm	0	333	0	Send To Active Subscribers Active Producers Delete
project_topic_msft	0	333	0	Send To Active Subscribers Active Producers Delete
project_topic_orcl	0	333	0	Send To Active Subscribers Active Producers Delete

Subscriber

- EIP patterns
 - Inbound JMS topics
 - Route: subscribe to selected interested topics
 - NYC: MSFT & ORCL
 - Filter: subscribe to selected interested stats
 - NYC: bid price mean, variance & standard deviation
 - Outbound JMS queue
- OO Design Patterns
 - Singleton: ReportingEngine
 - Composite: ComponentStat, PortfolioStat, StockStat
 - Iterator: PortfolioStat









JMS Topic

Topics

Name ↑	Number Of Consumers	Messages Enqueued	Messages Dequeued	Operations
project_topic_ibm	2	333	666	Send To Active Subscribers Active Producers Delete
project_topic_msft	2	333	666	Send To Active Subscribers Active Producers Delete
project_topic_orcl	2	333	666	Send To Active Subscribers Active Producers Delete

JMS Queue

Queues

Name ↑	Number Of Pending Messages	Number Of Consumers	Messages Enqueued	Messages Dequeued	Views	Operations
project_queue_trading_engine_London	666	0	666	0	Browse Active Consumers Active Producers  atom  rss	Send To Purge Delete
project_queue_trading_engine_NYC	666	0	666	0	Browse Active Consumers Active Producers  atom  rss	Send To Purge Delete
project_queue_trading_engine_Tokyo	666	0	666	0	Browse Active Consumers Active Producers  atom  rss	Send To Purge Delete
project_raw_data	0	1	999	999	Browse Active Consumers Active Producers  atom  rss	Send To Purge Delete

ORCL		
askPriceMean	askPriceVariance	askPriceStdDev
42.814	0.0683	0.2613
IBM		
askPriceMean	askPriceVariance	askPriceStdDev
187.783	5.6848	2.3843

Message Details

MSFT		
bidPriceMean	bidPriceVariance	bidPriceStdDev
39.801	0.1012	0.3181
ORCL		
bidPriceMean	bidPriceVariance	bidPriceStdDev
42.808	0.0024	0.049