



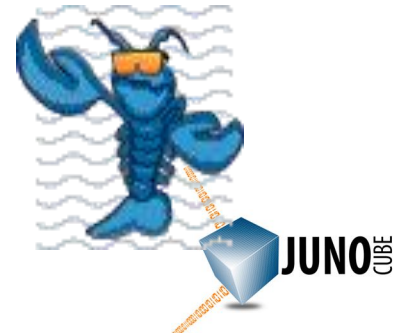
a@junocube.com



Andrew Wilson



Deutsche Bank



Audience



Scale-out real-time risk aggregation

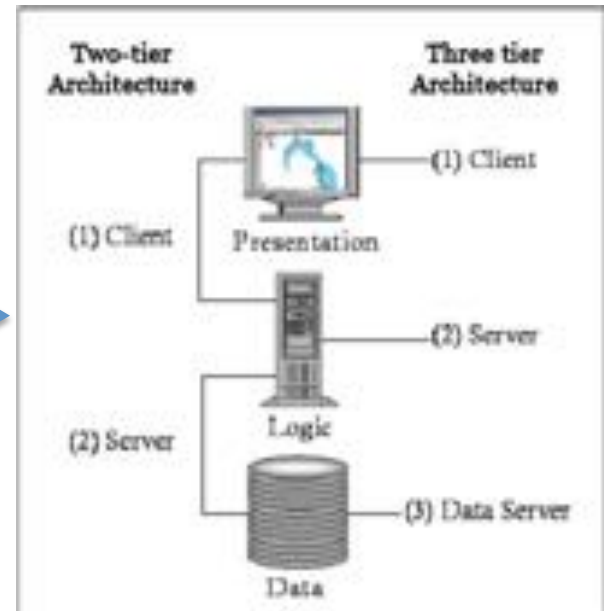


Evolution of Systems

Mainframe

Database

2 -> 3 Tier



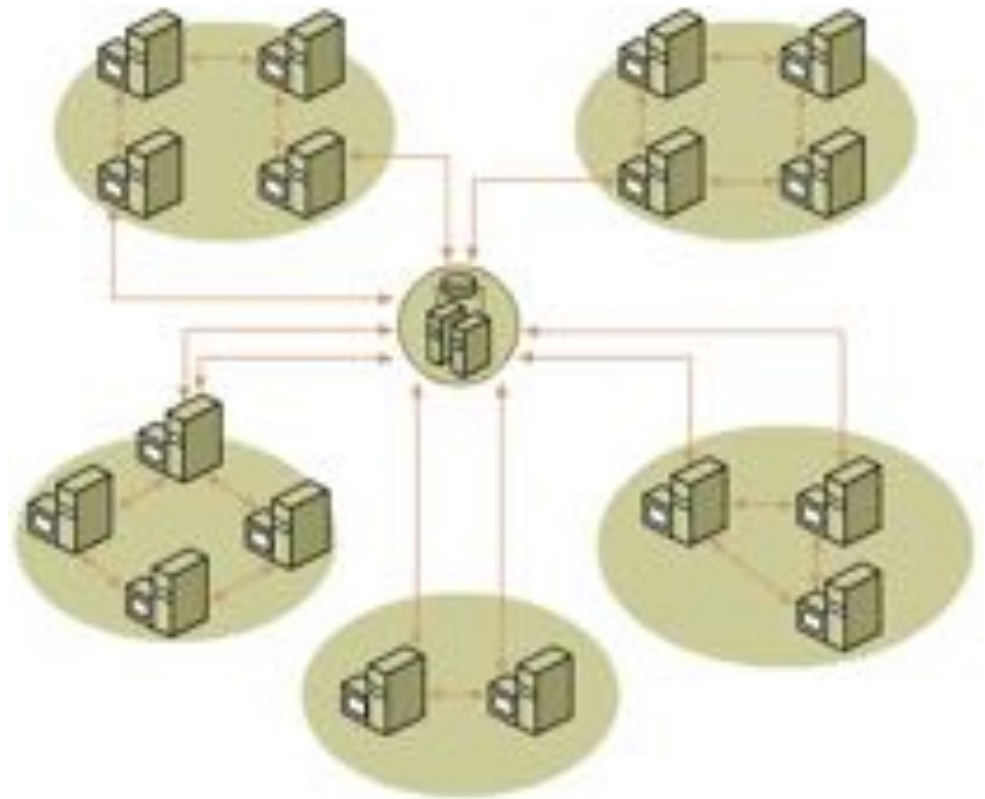
1960s

1980s

1990s

Big Data benefits

- Fault tolerance
- Scale out
- Performance
- Global replication
- (Streaming)



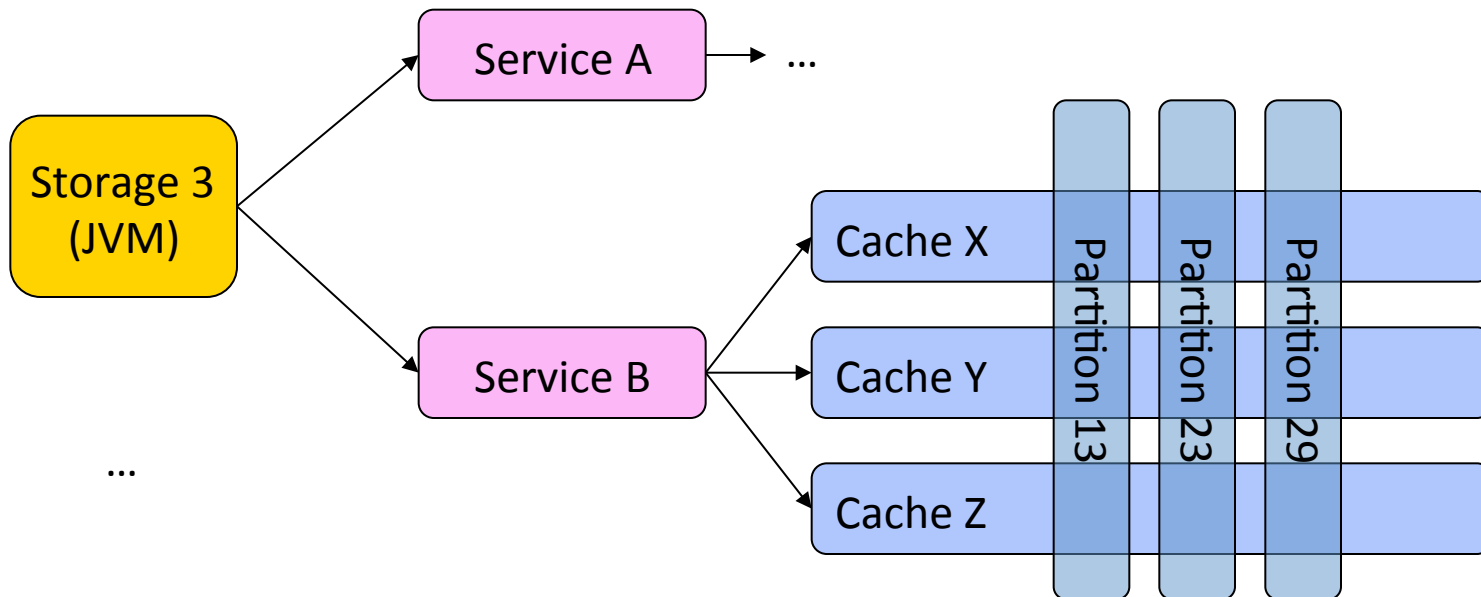
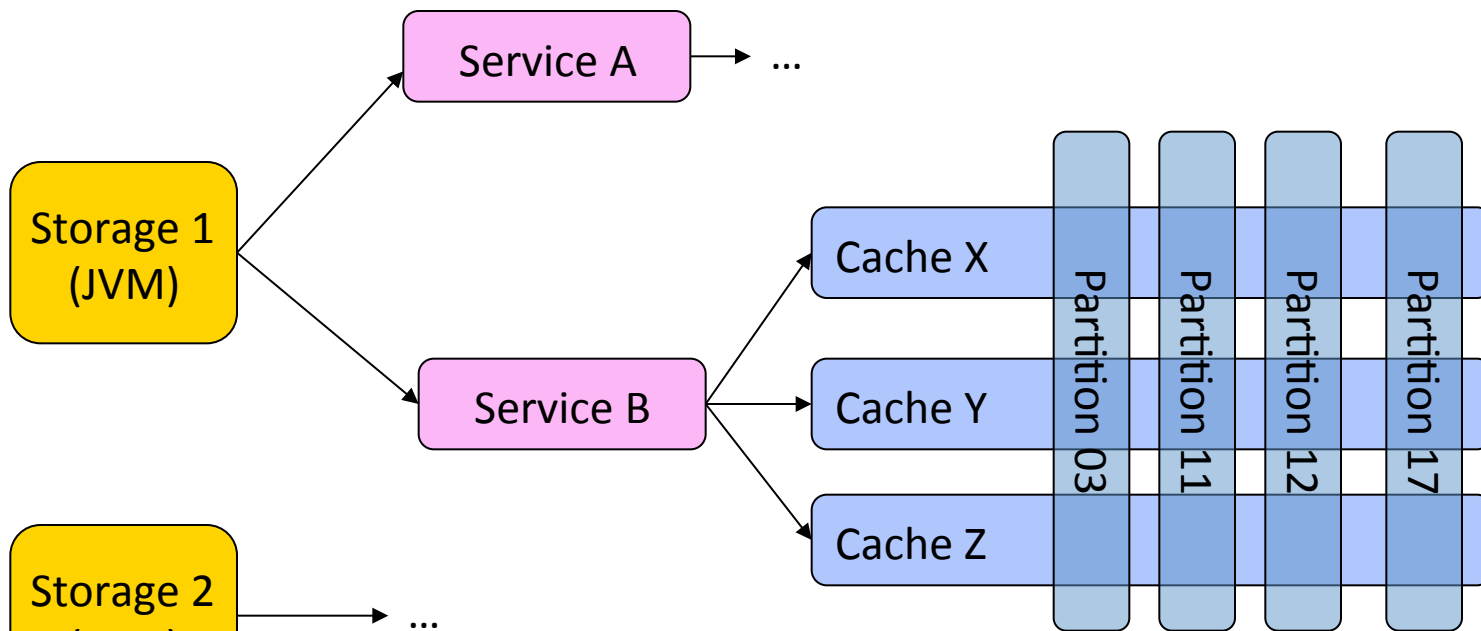


Technology barrier

Streaming
Data



Request /
Response

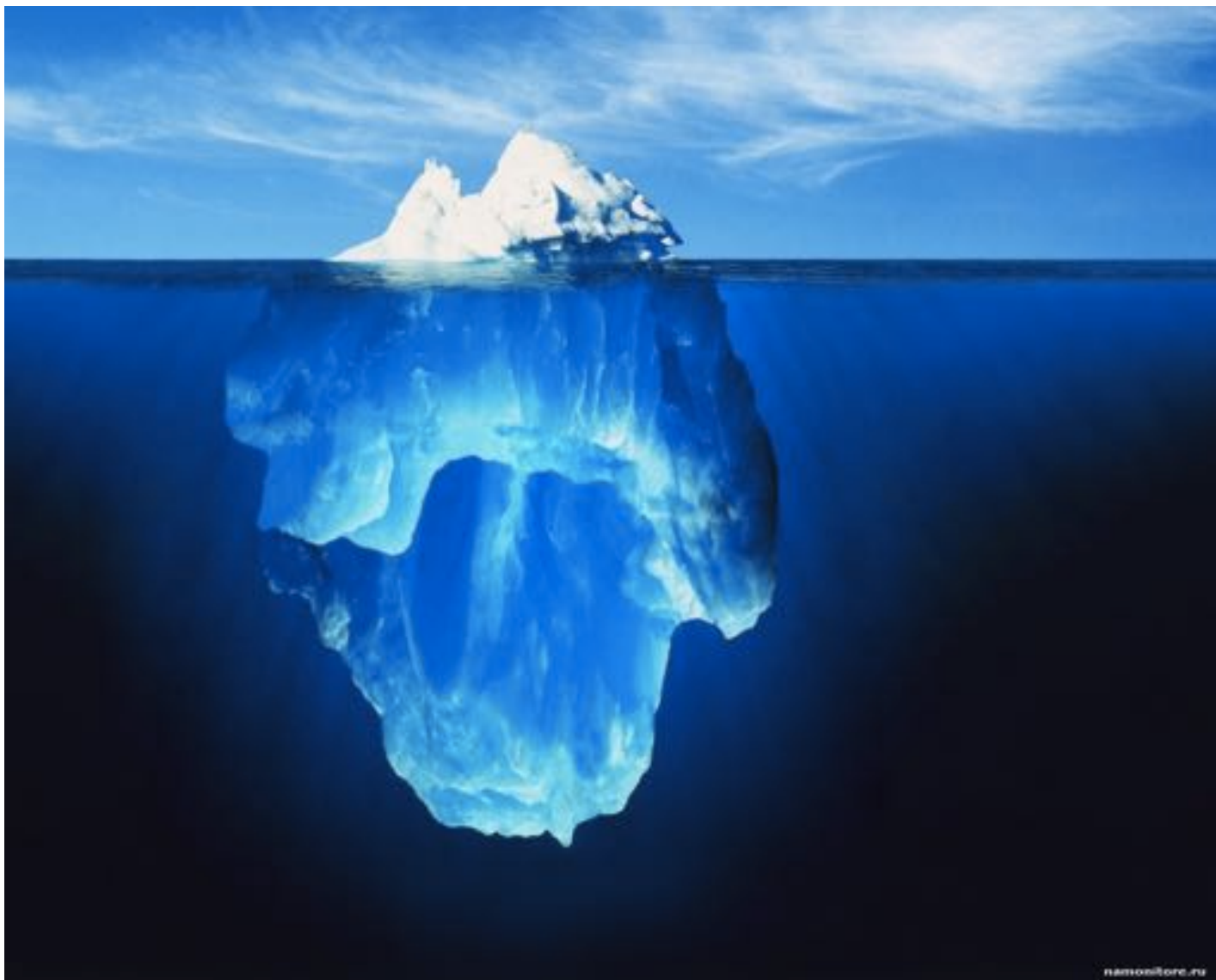


Rogue Node Problem



Rogue Node Problem

Success ✓	Success ✓	Success ✓	Success ✓	Success ✓	Success ✓
Success ✓	Success ✓	Success ✓	Success ✓	Success ✓	Success ✓
Success ✓	Success ✓	Error ✗	Success ✓	Success ✓	Success ✓
Success ✓	Success ✓	Success ✓	Success ✓	Success ✓	Success ✓
Success ✓	Success ✓	Success ✓	Success ✓	Success ✓	Success ✓



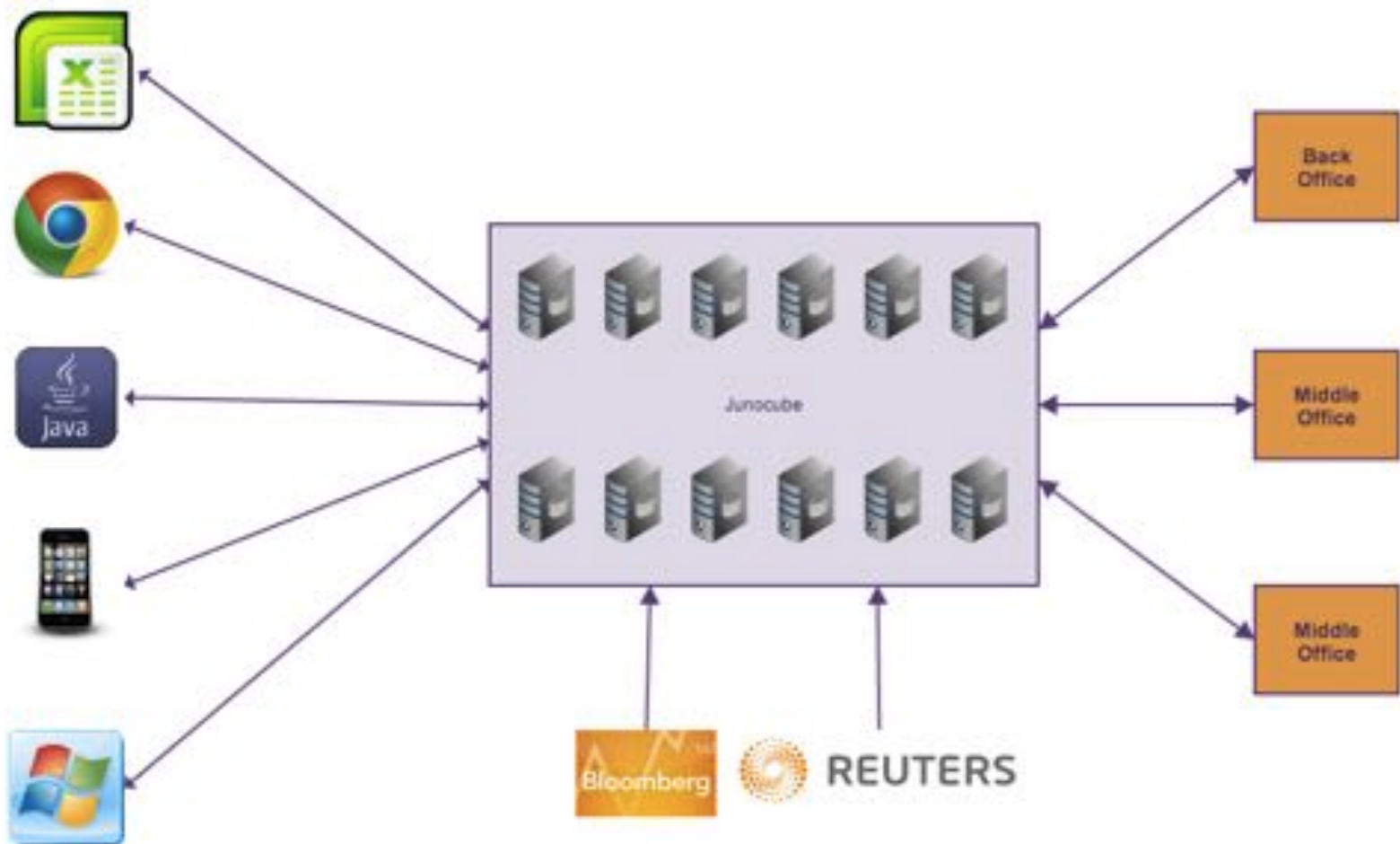
namosilone.ru

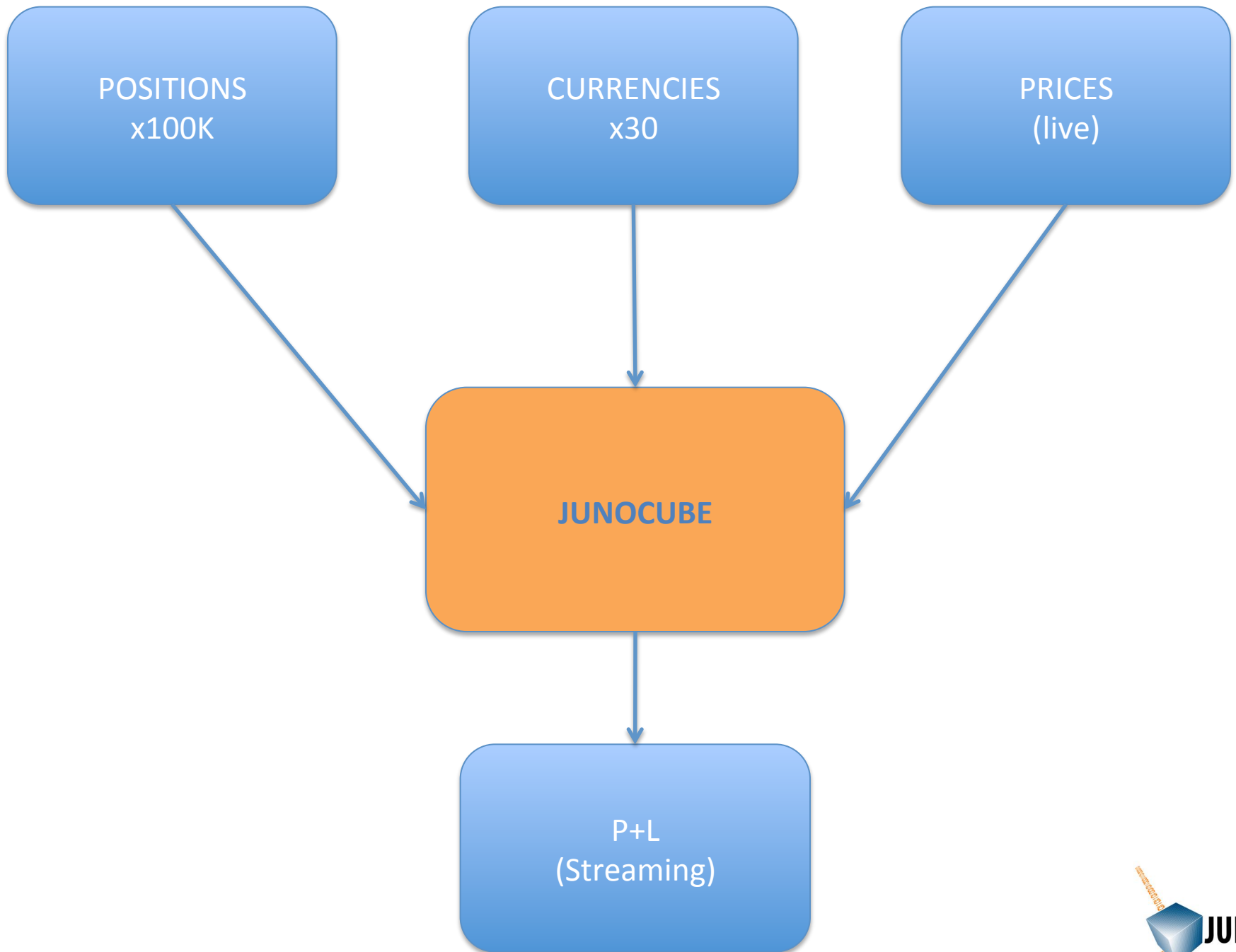
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- Big Data Database
- Scalable CEP Engine
- Joins
- Streaming real-time
- Risk Aggregation
- (PivotTable)



Junocube



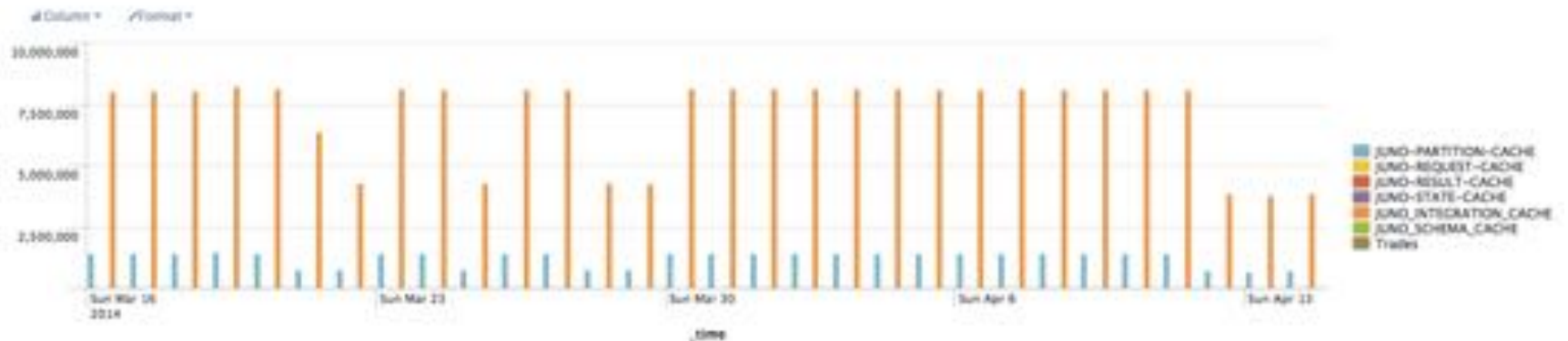
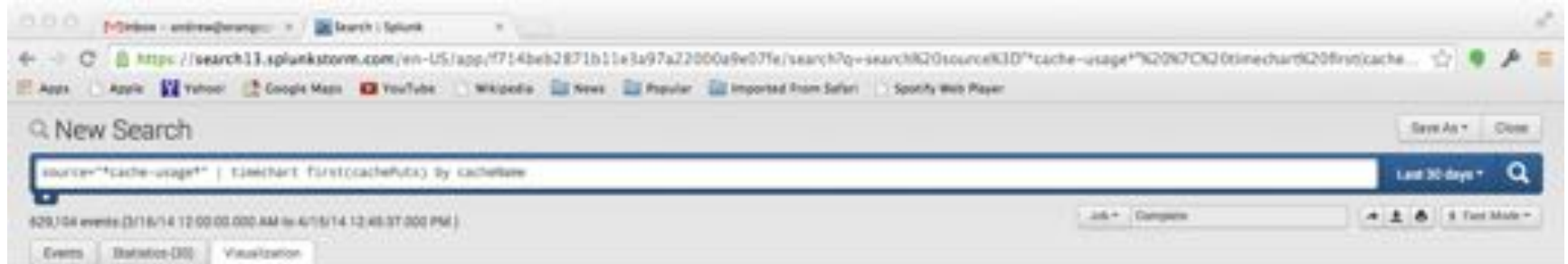


Demo

- Schema solution (no coding) – Matrixes
- Joins
- Real-time (streaming)
- Deltas
- Performance
- Scale out
- Fault tolerance
- API (Operations / Pricing models)
- Security
- Monitoring / Management



Splunk



Time	JND-PARTITION-CACHE	JND-REQUEST-CACHE	JND-RESULT-CACHE	JND-STATE-CACHE	JND-INTERSECTION-CACHE	JND-SCHEMA-CACHE	Trades
2014-03-16	1200000.0	0.0	0.0	0.0	8000000.0	0.0	0.0
2014-03-17	1300000.0	0.0	0.0	0.0	8000000.0	0.0	0.0
2014-03-18	1300000.0	0.0	0.0	0.0	8000000.0	0.0	0.0
2014-03-19	1400000.0	0.0	0.0	0.0	8000000.0	0.0	0.0
2014-03-20	1400000.0	0.0	0.0	0.0	8000000.0	0.0	0.0
2014-03-21	700000.0	0.0	8000.0	0.0	8000000.0	0.0	0.0
2014-03-22	500000.0	0.0	6000.0	0.0	4000000.0	0.0	0.0
2014-03-23	1600000.0	0.0	0.0	0.0	8000000.0	0.0	0.0
2014-03-24	1400000.0	0.0	0.0	0.0	8000000.0	0.0	0.0
2014-03-25	1400000.0	0.0	0.0	0.0	8000000.0	0.0	0.0

