



redislabs
home of redis

redisday
TLV 2018

BIOCATCH
Less Friction. Less Fraud.

redis & BioCatch

Catching the bad guys in action with redis

Who is BioCatch?

BioCatch is redefining digital identity and helping to restore trust in our online interactions via behavioral biometrics. Our technology is used in 3 main ways:

- Fraud Detection
- Identity Proofing
- Continuous Authentication

Our universe

- +70M online/mobile users
- +5 billion transactions per month
- Top tier financial institutions and enterprises
- Over 50 patents, either granted or pending
- Integration via Javascript (web) or SDK (mobile)

Our Redis Story

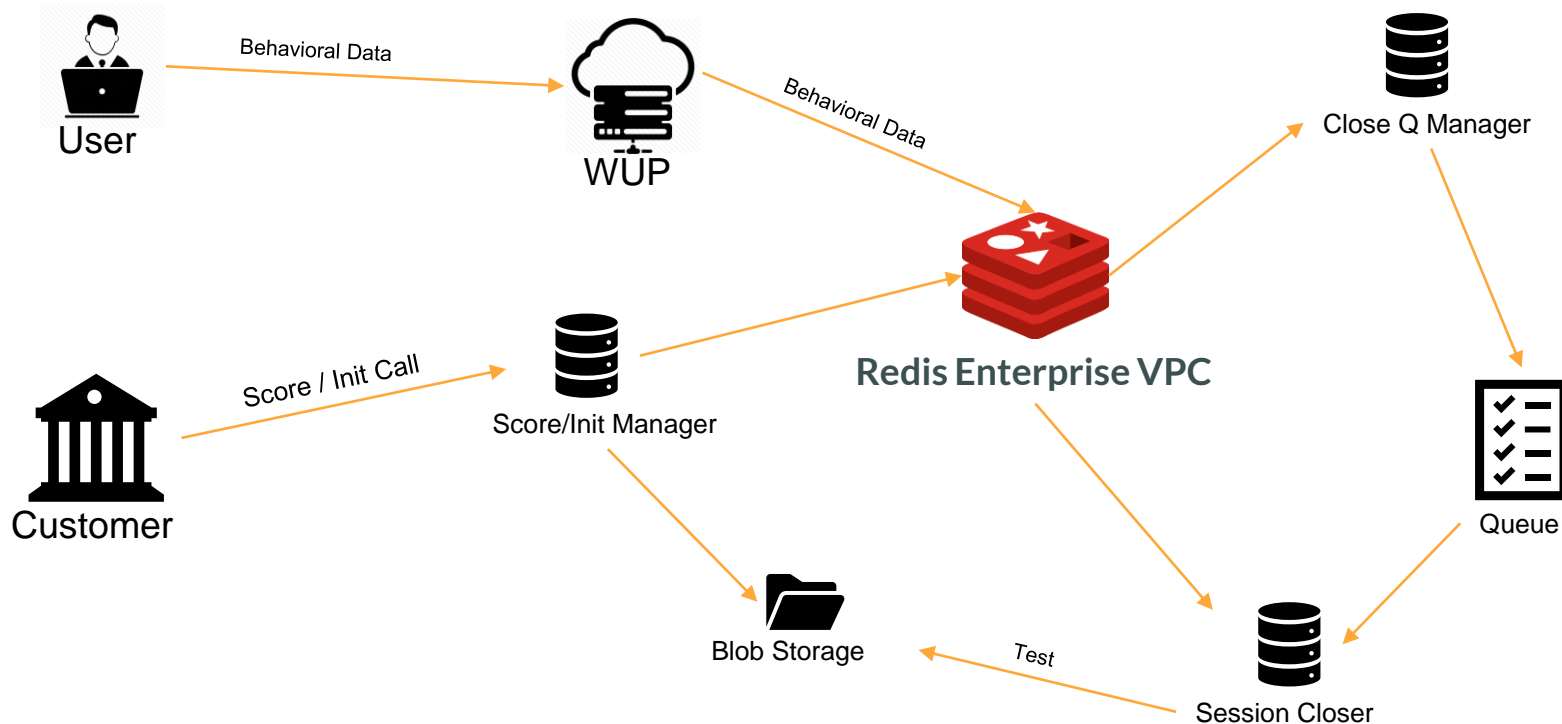
We grow up fast, our v1 solution was not up to par with Biz or Scale needs, Redis come in to play when we started the v2 design

- Redis is the only component in the system that keep a state, everything else is stateless
- We wanted to decouple compute & state to make the system more elastic (in v1 the data was spread between VM's, that was a pain point)
- Data is the king
 - Data loss is no longer an option
 - single source of truth approach
 - Do more, with more data, and do it fast

What do we use redis for ?

- To store behavioral data (and some meta data and API data) of users active session (sorted set)
- To store a subset of the user behavioral profile (post init)
- Predefined fraudulent behavior profile (not user specific)
- Geolocation data (sorted set)
- System Config DB

Redis Architecture Overview



Some redis facts

- An Avg of +2TB of data in Redis spread between all databases ranging for 1TB to 100 GB
- 200M – 300M keys
- Peaking at +36K Ops / sec (40/60 R/W) per DB
- Avg Latency of 0.96ms
- 0 down time !!!!

Our Next Steps in Redis

- RoF – Big dataset, Small working set, (e.g. improved session revived)
- Active-Active Geo-Distribution
 - Improve support for multiregional clients
 - Enhance support for cross region / geo fraudulent behavior
- Spark / redis – we are already heavy users of spark so....
- Testing some redis enterprise modules and thinking on creating some customer modules
- Redis streams

Thank You!

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