

#### **Next Generation Platform Overview**

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# SAFE HARBOR STATEMENT

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# The New Reality



#### Goals

- Use modern big data to turn customer events into marketing activities, faster
- Become a central Marketing interaction store, taking in high volume activity data from the Web, Mobile, and other connected devices
- Enable Marketers to use and act on this data to create personalized and relevant conversations across different channels

# Platform Evolution Today



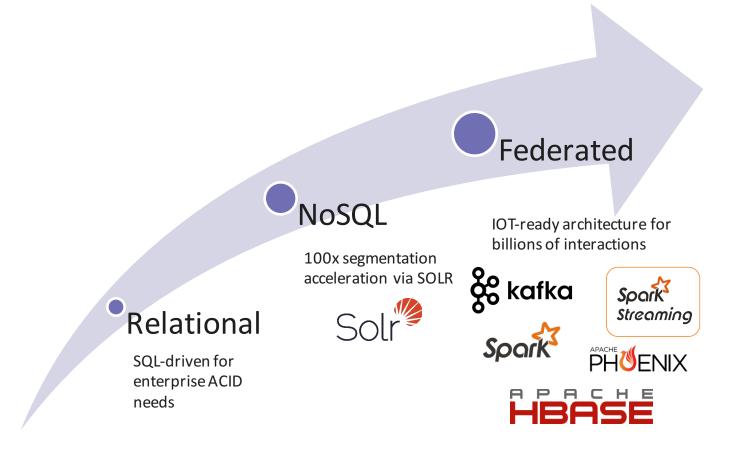




# Platform Evolution Next Gen

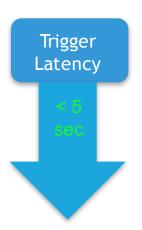


# Platform technology evolution



# Performance goals







#### Phase 1: Activity Intake

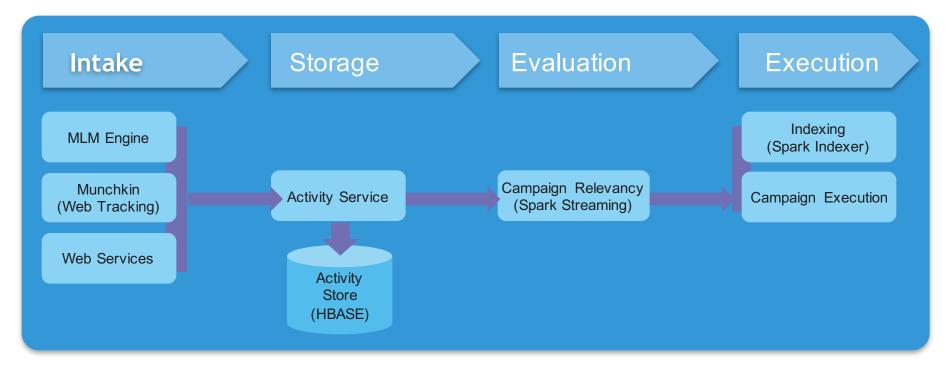
Phase 1 is focused on enabling high-volume, low latency activity intake and disposition



Campaign relevancy

- High-throughput lead lookup
- Scaling is as easy as adding hardware
- High-volume data store
- Store, index, and retrieve billions of records
- Parallel rule evaluation
  - Automatically retains sequence

# Built for high-volume, low-latency processing



- Intake engine can store high volume of activities from multiple sources
- Trigger engine evaluates rules in parallel but keeps related items in order
- High-speed, low-latency indexer adds activities to Corona



#### Phase 2: Campaign processing

Focused on lowering latency and speeding throughput for Campaign flows, starting with triggered campaigns



- Parallelize flow execution
- Auto-async post-send for emails

#### Phase 2: Campaign processing

Batch campaign upgrades to latency and throughput for membership list creation and message assembly are next

Membership lists  Move to streaming/eventing model

Campaign Execution Parallelize flow execution

Auto-async post-send for emails

Message assembly

Stream data for low-latency assembly



#### Phase 2: Campaign processing

- Success metrics
  - Batch latency: first email should be queued for sending in <1 minute after campaign send scheduled
  - Throughput: emails throughput of 1m/hour per process
  - Scalability: sends should be linearly scalable and support multiple streams for executing one campaign
- Timing for delivery is TBD based on design complexity

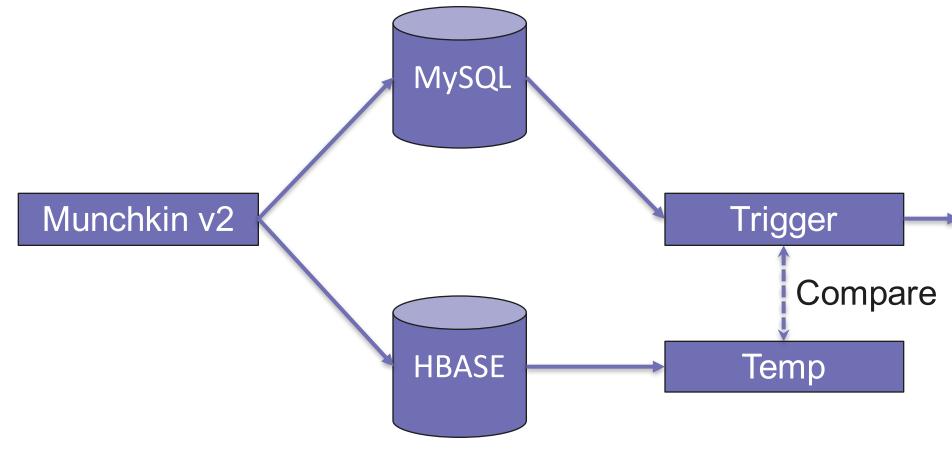
# **Rollout Strategy**



#### Preparation needed

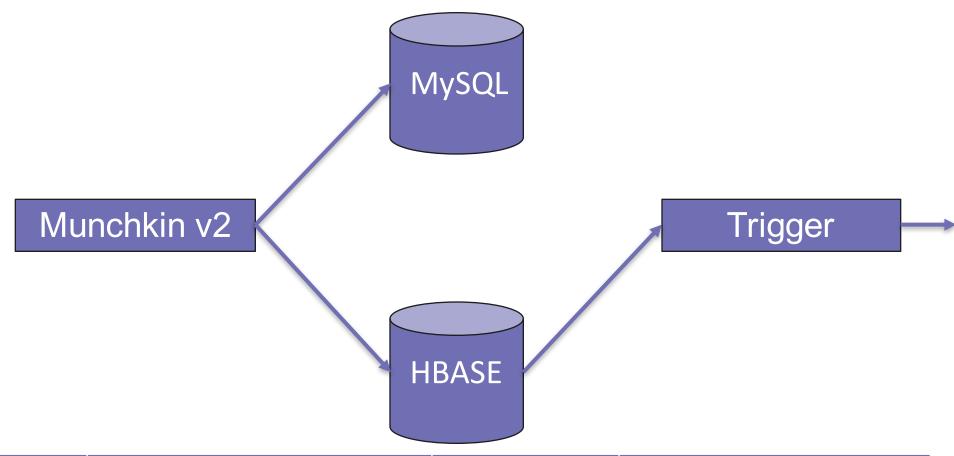
- None. Data conversion and provisioning are transparent and occur in parallel with normal functioning
- Marketo performs three actions:
  - Bootstrap: We copy the historical activities from mySQL to HBASE
  - Provision: This sets up the connections for the next gen services
  - Activate: Turning the services on, first in test mode (passive) and then in live mode (active)

# Pilot Stage 1: Passive



Stage		Purpose	Performance gain
Passive mode	MySQL and HBASE are run in parallel, MySQL results used	<b>,</b>	No gain visible to users, but tracked in Splunk

# Pilot Stage 2: Active



Stage		Purpose	Performance gain
Active mode	MySQL and HBASE are run in parallel, HBASE results used		Significant performance gain visible in affected processes

#### Risk areas

- During the pilot, there may be times when we need to apply patches to new services. Our general strategy is to implement a rolling upgrade – patching certain servers while the others continue running
- In rare cases, if the new services do need downtime, pilot participants will have the services deactivated
  - Participants that are on passive will see no impact
  - Participants on active may see a pause in processing as the Orion queues are wound down and the legacy queues begin processing.

# Thank you!

