THE 10 MS RULE:
GETTING TO ‘YES’ WITH FAST DATA & HADOOP

Bruce Reading - CEO VoltDB
HOW FAST IS FAST?
FAST = ADVANTAGE
“Real-time” contextual offers = offer uptake rates 75% data revenues by 15%.”

Source: Openet 2014 survey of 87 mobile operators
"Smartness can be embedded everywhere," said Professor Sangiovanni-Vincentelli, EE/CS at University of California at Berkeley. "The entire environment is going to be full of sensors of all kinds. Chemical sensors, cameras and microphones of all types and shapes. Sensors will check the quality of the air and temperatures. Microphones around your environment will listen to you giving commands."

Computerworld, September 2015
VALUE OF DATA DECREASES WITH TIME
91% of organizations believe that real-time streaming analysis will improve their business

AGREEMENT WITH STATEMENT

(% of Total Respondents; n=153)

- Strongly agree 32%
- Completely agree 24%
- Do not agree 2%
- Somewhat agree 7%
- Agree 35%
And improving the customer experience is the most popular reason for real-time analytics.

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<thead>
<tr>
<th>Reason</th>
<th>Rank 1</th>
<th>Rank 2</th>
<th>Rank 3</th>
<th>Rank 4</th>
<th>Rank 5</th>
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<tbody>
<tr>
<td>Enhance CX</td>
<td>26</td>
<td>21</td>
<td>21</td>
<td>16</td>
<td>16</td>
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<tr>
<td>Improve efficiency of ops or network</td>
<td>23</td>
<td>29</td>
<td>21</td>
<td>17</td>
<td>10</td>
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<td>Gain competitive advantage</td>
<td>19</td>
<td>27</td>
<td>21</td>
<td>16</td>
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<td>Increase employee productivity</td>
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<td>16</td>
<td>20</td>
<td>29</td>
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<tr>
<td>Process sensor data from Internet of Things apps</td>
<td>14</td>
<td>8</td>
<td>18</td>
<td>21</td>
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</tbody>
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FAST ≠ BIG
WHAT’S REQUIRED?

HTAP – hybrid transaction and analytic processing “Enables applications to analyze ‘live’ data as it is created and updated by transaction-processing functions

“Translytics” - Transactions + analytics in the same database
Context, Awareness + Real-time Interaction
STREAMING ANALYTICS + TRANSACTIONS

Discover and gain insight in the stream - per person, per event

Make a decision based on state - balance, approval, location, trigger….

Analytics + Transactions
STREAMING ANALYTICS + TRANSACTIONS

Data at Rest

Batch/Iterative Analytics
- Statistical correlations
- Multi-dimensional analysis
- Predictive analytics

Analytics + Transactions
DIY DISTRIBUTED DATA INFRASTRUCTURE?

How to ensure data consistency, accuracy?
Build distributed data **infrastructure**

or

Create & build apps that generate **business value**?
All businesses will compete on their ability to personalize customer experiences in real time.
VOLTDB SUPERHEROES
MaxCDN uses 1/10th compute resources of alternate solutions.

Behzad Pirvali
Performance Architect
“Achieved a previously impossible level of budget management accuracy”

Dan Khasis
Chief Technology Officer
Real-Time Event Decisioning

• 3 ms system response time
• 253% increase in offer purchases

Srikonth Markonda
Chief Technology Officer
WE DIG VOLTDB SUPER HEROES

- Simpler, Efficient
- Disruptive, Differentiating
- More Performant, More Profitable
  - Accurate!
PRECISION
VS.
APPROXIMATION
Fast Data is the future,
And it’s happening now.
THANK YOU