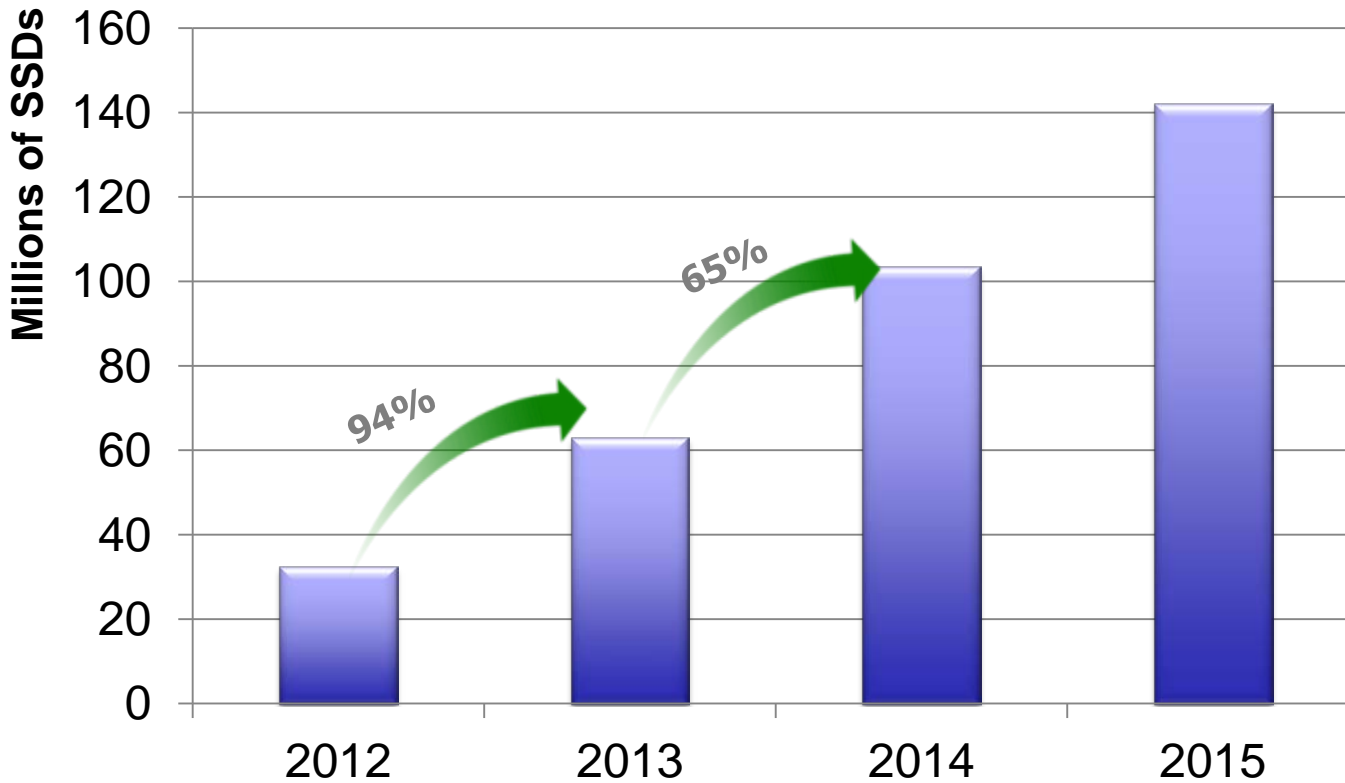# 3-bit SSDs in the Consumer Marketplace

## Ryan Smith

## Sr. SSD Product Marketing Manager
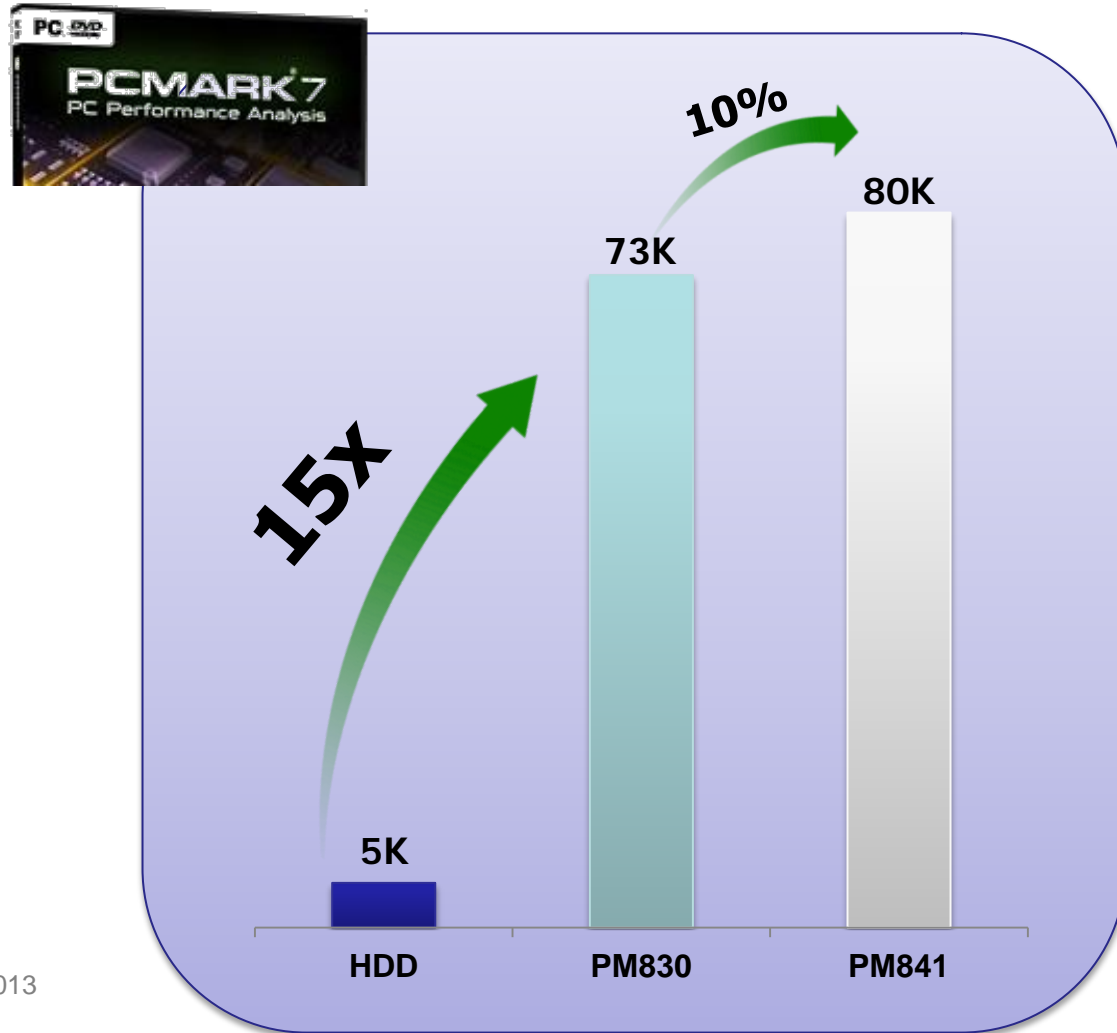
## Samsung Semiconductor, Inc.

# Demand for SSDs continues to climb

**Total PC SSDs**

Source : Gartner Q2 2013

# 3-bit SSDs deliver a better user experience

# 3-bit SSD lifetime is more than enough

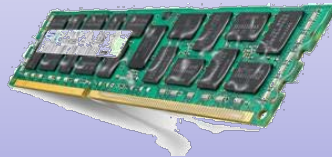**40GB/day**  ✛  256GB SAMSUNG Solid State Drive  ⚌  **2-bit MLC** **47+ Years**  **3-bit MLC** **13+ Years**

**13 years ago…**

**20GB HDD**   **256MB RAM**   **56K V.92 Modem**

# 3-bit vs 2-bit: Similar user experience

## User Satisfaction on Notebook



Avg Scores for three different corporate notebooks, 20 participants

- 2bit
- 3bit
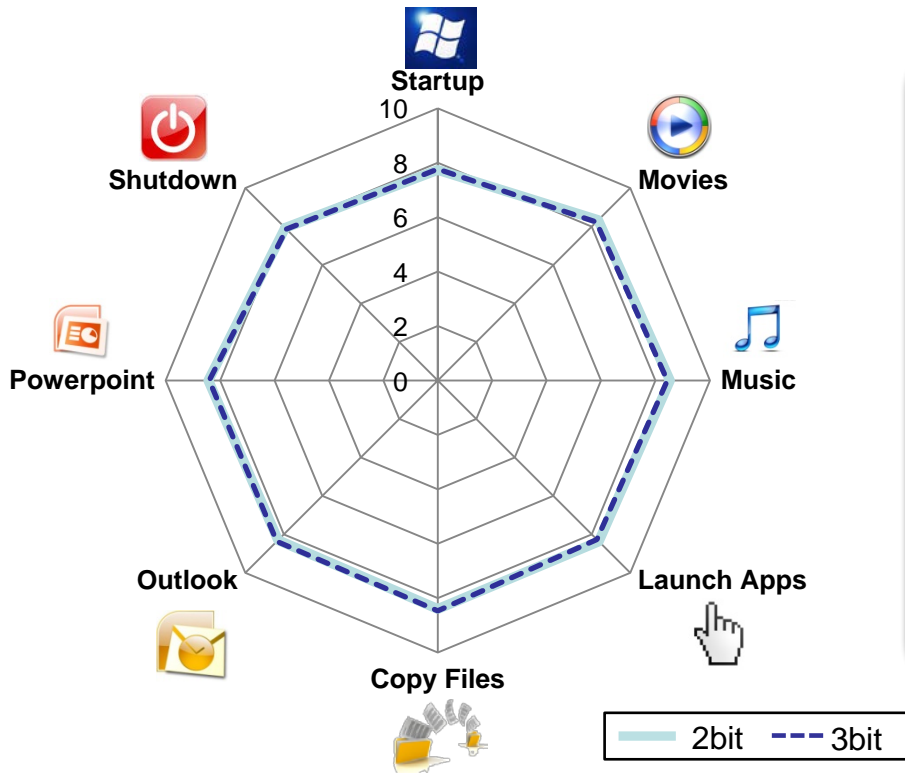
### End User Findings

- **Overall perception showed no difference to the user experience**

- **Many were unsure if any perceived difference was actually there**

- **When differences were noted, they were described as "a millisecond faster"**

# How are 3-bit SSDs doing so far?
## Retail Sales of 3-bit SSDs

# 2,524,699

# Samsung 3-bit SSDs

## Over 20% of worldwide after-market

**250GB**

SAMSUNG
Solid State Drive

**$170 Cost**

**250GB**

**$55 Cost**

# 30 seconds saved per hour
## Save $25/month, $300/year
## $900 saved over 3 years
## *5 month break-even point*

$50K/yr salaried employee
6 hours on computer/day