



Market Research Panel, Session 303-D:

Thursday, August 7, 2:40 to 3:55 pm

Session Chair

- Bob Scranton

Panelists:

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| • John Chen, | VP, | <u>TrendFocus</u> |
| • Marco Coulter, | VP, | <u>TheInfoPro / 451 Research</u> |
| • Ed Grochowski, | Consultant, | <u>Coughlin Associates</u> |
| • Jim Handy, | Dir/Chief Analyst, | <u>Objective Analysis</u> |
| • Scott Jacobson, | Sr Prod Mktg Mgr, | <u>Cadence</u> |
| • Jeff Janukowicz, | Res Mgr SSDs | <u>IDC</u> |

Agenda:

- Brief comments by each panelists (about 4 minutes, each)
- Questions from audience and Session Chair
- Encourage controversy



Some Topics for Questions ... or add your own! (Page 1)

- **Is there enough room for all the current flash storage companies?**
- **Do the current and projected revenues justify the valuations? Which companies are most likely to succeed?**
- **What effect will hard disk prices and developments have?**
- **If folks go to primarily interfacing with data in "the cloud" vs. in local devices what does that mean for the growth of cloud storage? Is that more storage or less?**

- **Is the cloud secure and robust enough for the volume of growth that is anticipated?**
- **What is the role of flash memory in "the cloud?"**

- **SanDisk's management says that there will be no more big cycles in NAND flash since it's too expensive to add capacity. Do you agree?**
- **Will flash always be added to systems in an HDD form factor, or will that change?**
- **What's the biggest SSD that makes sense?**

Some Topics for Questions ... or add your own! (Page 2)

- Are flash arrays (AFA) going to stick around, or will they fade away?
- Is VDI what enterprises want AFA's for, or what AFA vendors want the workload to be?
- When hybrid arrays are generally shipping with 5% flash, why do we need 100% flash?
- If AFA's become cheap, is there still a place for server-side flash?
- What mistakes do enterprises make when deploying AFA's?

- What do you think of the role of PCM in SSDs, and when will it replace NAND Flash in SSDs?
- When will 2D NAND run out of gas? What will be penetration of 3D NAND?
- When will flash prices approach or cross over those of the same capacity HDDs?
- When will flash memory replace HDDs as primary storage in most applications?
- Will flash memory reduce the growth of DRAM in computing devices?
- Will PC sales recover? If so why? What will this do to the growth in flash memory?

- What is after NAND--RRAM?
- What is after DRAM--STT MRAM