



**FAQ on Gartner HDD SAS Research**  
**SCSi Trade Association Press Announcement**  
June 25, 2007

**1. Why is the SCSi Trade Association making an announcement at this time?**

STA members have been aware for over a year that the shipping rates for SAS products have escalated and in particular shipping rates for HDDs, which are going into systems, servers and blades at an increasing rate. To announce that SAS HDDs are establishing a record in the number of shipments made over a short period of time (late 2005 and 2006) provides a benchmark from which to judge future shipments – which will be considerable, according to Gartner.

**2. What led STA to believe that the SAS HDD multi-user market (read enterprise market) would grow rapidly in 2006?**

SAS HDD shipments were ballooning and STA wanted to ascertain industry shipment data for 2005 and 2006 to learn if their impressions were accurate. As it turns out, the STA estimate was very close to the results of the Gartner research report, which came out in March, 2007. It reported a total of nearly 4.5 million SAS drives in use by the end of 2006.

An announcement at this time would also encourage SAS vendors and users to continue to build and use 3Gb/s SAS products and to continue their plans to develop 6Gb/s SAS technology and future products.

**3. How many SAS HDDs does Gartner say were shipped and in used in 2005?**

Gartner reported that 3Gb/s SAS HDD shipments in 2005 to the multi-user market totaled 312,000 units. That number, added to the 2006 shipments of 4,150,000 totaled “nearly 4.5 million units” as stated in the press release.

**4. What HDD technologies, other than SAS, were included in the 2006 research on the multi-user market data?**

In addition to SAS, HDD technologies that shipped in 2006 included the following:

Ultra320 SCSI	16 million
FC-AL	7.6 M
Parallel ATA	1.14 M
SATA (1.5)	3.775 M

SATA (3.0)

4.538 M

**5. When does Gartner say that SAS drives will dominate the market?**

Gartner predicts that SAS drives will become the dominate HDD interface in 2007.

**6. Of the total SAS HDDs in use, what percentage does small form factor (SFF) SAS HDDs hold?**

Gartner did not research SFF as a category, however, a comment was entered at the end of the report to the effect that SFF should cost less to operate and therefore gain market share over 3.5-inch HDDs.

**7. Does STA agree with Gartner that almost 12 million SAS HDDs will ship during 2007?**

From STA's standpoint, 12 million SAS HDDs shipped in 2007 is a reasonable prediction. Per the Gartner report, by the end of 2008 the number of 3Gb/s SAS drives shipped will be double that of 2007.

**8. When does Gartner say that 6Gb/s SAS drives will start shipping and how many units do they predict?**

In 2008, the number of 6Gb/s SAS drives shipped will start to grow, totaling 200,000. Between 2008 and 2011, 6Gb/s SAS, and higher speed ("and higher speed" is Gartner's terminology), will balloon to a total of almost 30 million units.

**9. What does Gartner research data predict for Ultra320 SCSI's future?**

In 2005, Ultra320 SCSI drives shipped peaked at 19.3 million units and will fall back to 9.6 million at the end of 2007. By 2010 it will no longer be on the chart.

**10. Is Gartner's estimate of 210% CAGR for SAS drives shipped between now and 2011 a reasonable projection?**

If anything, it may be conservative.

**11. Will the power usage cost differential between SFF and 3.5-inch drives have an effect on the growth of the SAS market?**

SFF is becoming more important as data storage users are looking for ways to cut the cost of power in the data room. SFF HDDs in the data room significantly reduces the cost of operation.

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