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New Rec: Rackable Systems (RACK: \$37.02) November 16, 2006

Position: Sell

Target: \$19

| US \$M | Dec06 | Mar07e | Jun07e | Sep07e | Dec07e | FY06e | FY07e |
|-------------|-------|--------|--------|--------|--------|-------|-------|
| Revs \$M | 106.5 | 109.5 | 115 | 122 | 134 | 360 | 480 |
| EPS | 0.28 | 0.28 | 0.29 | 0.29 | 0.33 | 1.02 | 1.19 |
| Y/Y Grow | -4% | -4% | 12% | 59% | 15% | 31% | 17% |
| PE | n/a | n/a | n/a | n/a | n/a | 37 x | 31 x |
| Price/Sales | n/a | n/a | n/a | n/a | n/a | 3.1 | 2.3 |
| Consensus | 0.27 | 0.28 | 0.32 | 0.35 | 0.42 | 1.01 | 1.36 |

Shares Out: 29.8 M

Mkt Cap: \$1.10 B

FYE: Dec

Summary: RACK sells high-density rack-based servers using AMD or Intel CPUs running Linux or Windows, and sells high-capacity storage systems. Last quarter, servers generated 84% of sales. Storage generated 16%.

RACK targets large-scale datacenter deployments. The top 3 customers, usually Yahoo, Amazon, and Microsoft, typically provide 60%-80% of RACK's sales in a quarter. In Q2, Amazon nearly disappeared as a customer, but the top 3 were still 67% of sales. In Q3, the top 3 were 58%. Such large deployments have run into issues with space constraints, power costs, power availability per square-foot (SqFt), heat-evacuation, and servicing the equipment.

RACK's product differentiators address these issues two main ways, for which RACK holds patents. First, RACK sells server boards that are half as deep as the competitors', allowing them to be placed two-to-a shelf. This doubles density, and saves space. Heat generation density also doubles, a problem RACK solves via unique airflow channeling to evacuate hot air as in a chimney. Second, RACK sells the option to convert AC power to DC before it reaches the servers and then distributing DC to the servers, which saves on energy costs.

The main application for RACK's dot-com customers is incoming web access, whether it be serving web pages of email, search results, shopping carts, etc. In this application, the servers are fronted by various networking devices, such as F5 load-balancers. These devices pre-process the requests, distribute them to individual servers, optimize the interaction with various TCP/IP tricks, and then send the response out to the internet. Note that these are usually "greenfield" centers, i.e. a recently built center being filled with equipment.

The other major application of rack-based servers is high-performance computing (HPC), i.e. running algorithms for seismic, circuit design, or various scientific models. Here, racked servers are clustered to replace mainframe or supercomputers. These are less likely to be greenfield. Beyond that, any firm that needs more than a few servers could buy rack versions to mount in racks.

Our main concerns for RACK are stalling dot-com demand, its limited potential market, and competition. RACK's potential market seems to be limited to large-scale, greenfield, corporate datacenters, as opposed to existing or hosted datacenters, partly due to product trade-offs it has made, partly due to its sales approach, and partly due to the industry structure. Existing, or legacy corporate datacenters, were usually built for much larger pieces of hardware, and, since hardware has shrunk over time, space constraints are usually not an issue, making RACK equipment much less interesting.

Demand growth from RACK's dot-com customer base seems to have peaked. Amazon and Yahoo have both stopped growing their purchases, and each may well buy less in 2007 than it did in 2006. The very high-end corporate market is probably RACK's best chance for continued growth as its dot-com growth stalls.

Load-balancing and clustering ease the reliability concerns of customers. The hurdles RACK needs to leap are finding greenfields, getting customers to add another vendor, and improving its service.

Several large, fast-growing users of RACK's servers told us they are not as reliable as other vendors' rack-servers, as a result of product tradeoffs. They think RACK uses lower-quality components, and does less reliability engineering. Problems seemed to occur when these users handled the servers, as in adding new units to a rack or moving units between racks.

RACK sells on density and DC, not on reliability, and not on service. Reliability is less of an issue when the racks of servers are load-balanced, as in the case of web applications, or clustered, as in HPC, because load-balancing and clustering provide reliability via redundancy. If one server fails, the system just stops using it and continues with one less server. Smaller users that seldom need to touch their racks were happy with RACK's reliability.

As to sales approach, RACK seems to give great discounts for big orders, but it does not seem to compete with Dell or HP discounts for smaller customers. One of RACK's top customers told us RACK cost them half what HP costs, but the prices and quotes we heard for smaller deals put RACK prices at or above others. Configurability is a similar story. RACK seems to offer more minute configuration changes to large users than do DELL, IBM, HP, etc., but smaller users tell us they either have not seen that or do not need it.

As to industry structure, RACK seems to be failing to gain any traction in an important piece of the mid-market: hosters that rent square-feet (SqFt) of space from data-center operators, install racks in their area, and then lease out individual servers to end-users. We talked to many hosters. We found none that use or intend to use RACK. The problems seem to be price and reliability.

Hosters tend to be very hands-on technicians. They easily buy components, similar to, or better than, those RACK buys, add a little engineering, similar to their view on RACK's contribution, and build their own racks of servers for much less than RACK charges. Some hosters do buy from DELL, HP, etc., when they get a good price, often 30% off list. RACK does not seem to offer them discounts. Hosters cannot accept poor reliability, because each server may represent their entire sale to a customer. There is no load-balancing or clustering between servers, never mind between racks of servers. Each server needs to be reliable.

Co-location, a variation on hosting whereby a corporate user buys its own equipment, but runs it in the host-building, is a better opportunity. Some of RACK's corporate customers, especially the dot-coms, do co-locate their RACK

racks. A problem here is that many host centers have limitations on how much power/SqFt a user can draw. This minimizes the benefit from RACK's double-density design, as RACK's power/SqFt often far exceeds the limit.

The corporate market, below the very high-end, is similar to the hosting market, except the first alternative to RACK is Dell, HP, IBM, etc, not build-it-yourself. Again, RACK does not seem to compete on street-price, and these customers see less reliability and service from RACK. The added issue for RACK here is that most existing corporate datacenters have plenty of space, as we noted, above. They were built years ago to hold mainframes and minicomputers. As they have replaced those with newer technology, Moore's Law, etc., have reduced the space needed to support a given amount of computing power. Even the greater amount of computing being done consumes less space, so many now have excess space.

RACK's competition seems to be heating up, just as spending by its top customers may slow. Many customers told us Dell has the best street-pricing. However, Dell's market share has been limited by its loyalty to Intel CPUs. AMD Opteron CPUs have provided superior "performance-per-watt" of power consumed over the last few years. This is the key metric for most data-centers. Though RACK sells both Opterons and Xeons, most RACK customers have bought Opterons. Intel CPUs still generated only 15% of server sales and 24% of server units in Q2. Intel's unit contribution seems to have fallen back to 16% in Q3.

RACK's Opteron advantage should disappear, as both Dell's and Intel's disadvantages disappear. Intel recently leapfrogged AMD with its "Woodcrest" Xeons. Dell, IBM, and HP all have deeper expertise and stronger relationships with Intel than does RACK. Intel may approach 50% of RACK's units in 2007, which could lead to price pressure, competitive losses, and perhaps RACK getting slower allocation of the highest demanded 5100s. On Oct. 24, Dell began selling its first two Opteron-based servers, the 4-socket, 4U 6950 and the 2-socket, 1U SC1435 rack. Users are excited about the SC1435. They say it fits perfectly in the web-farm and HPC applications that RACK serves.

Since RACK gave Q4 and FY07 guidance on Oct. 31, street estimates have gathered in a tight range near the center of RACK's wider range. Consensus for 2007 is barely above the mid-point of guidance, at \$1.36 EPS on \$501M in sales. We have not seen much analysis of why these numbers make sense, other than "management said so." We think the main reason investors accept them is that RACK doubled its sales force in 1H06, hiring experienced people, and talks about a 6 to 9 month lag before they become productive. The \$501M implies 40% sales growth in 2007, given that RACK makes 4Q06 consensus.

As we discuss, below, we estimate combined sales to Microsoft, AMZN, and YHOO will be flat from 2006 to 2007. Sales to AMZN and YHOO have already peaked. So, in order to grow sales 40%, RACK must increase sales to other customers by 110%. We do not think a 100% sales-force increase will more than double sales to other customers. We estimate 70% growth, which is good, but not likely to be enough to meet expectations. The value in RACK's narrow product line rests on half-depth/double-density and DC power, which makes it attractive to a narrow base of very high-end users, and mainly those with greenfield deployments. The people RACK has hired are used to selling a broad product line with broad applicability. We think it unwise to expect them to more than double RACK's sales in 2007.

Analysts value RACK on PE/GR. There is not a very good comp, since RACK's competitors are all much larger, much more diversified, and growing more slowly. We think investors value RACK on growth, and many investors think RACK's opportunity is somewhat binary: it either has lots of room to grow as it outruns its much larger competitors, or as soon as they catch RACK, RACK will face severe trouble. We think the latter will occur.

RACK is very vulnerable. It is highly focused on a small group of large clients. Of course, these are the clients that the big players, like Dell and HP, can not afford to lose, so pricing for these customers will be intense. The customer concentration is very risky. 52% of sales and 65% of receivables in Q3 were from three customers.

RACK is, practically, a one-product company. Although customers can buy various configurations of the one product, the fact that it is one product in a highly commoditized business is another source of vulnerability. DELL is unlikely to cede much of this market to RACK. It is hard to imagine how RACK can become a significant player, given its narrow product line and niche customer focus. Bullish analysts see 20%-25% compounded growth for many years. This seems unlikely.

RACK reached \$19 in August. In July, RACK forecasted Q3 sales below the consensus, raising fears of a broken growth story. In August, FY07 consensus was \$1.26, and had not fallen. \$1.26 is higher than our \$1.19 EPS forecast for FY07. Consensus is now \$1.36 for 2007. We think that when RACK is forced to lower guidance in 2007, the stock will again fall to \$19. \$19 is 16x our 2007 estimate. We set our target at \$19.

Background

Rack-mounted servers are used in sites that need a large number of servers. “Racks” are standard 19” wide rack-like shelves spaced 1.75” apart. Many racks are interoperable with servers from various vendors. Servers generally slide in horizontally. 1.75” is the atomic unit, called “1U”. 2U, 3U, 4U, etc servers are sold into applications that need each server to be faster and contain more memory, disk space, etc. A 3-foot high rack may hold 20 servers. A 6 or 7-foot high rack may hold 44 servers, when each shelf holds a single server. Each “server” contains a motherboard with CPU, RAM, I/O, etc. and a hard drive (HDD).

RACK holds a patent on a “half-depth” server-board. This enables each 1U to hold two servers, doubling the potential density per SqFt. RACK has sued Supermicro on this patent, but we have not found the offending Supermicro product. We have also not found large vendors selling such a product, so this is a real differentiator when the customer needs maximum density-per-SqFt.

Blade servers compete with racks. Most top vendors sell both. “Blades” are packaged more elegantly than racks, with more engineering value added, thus, blades are more expensive. Blades look and act more like networking equipment. They slide vertically into a chassis. Whereas, each rack enclosure likely includes CPU(s), disks, I/O, etc., in blades there might be separate blades for each function, making it easier to mix and match the amount and type of each. Blades have less exposed cabling, as all connections go through the backplane into which they slide. Blades can be harder to setup, because of the shared resources, but can be easier to manage once set up, because of more sophisticated management tools.

Blades provide greater density than do racks, because functions such as power, cooling, and I/O are removed from each server and shared among servers. A blade server may fit (vertically) into 7U of rack space. Ten blades fit across the “rack”. So, whereas, rack servers need 10U to fit 10 servers, by definition, this blade configuration fits 10 servers into 7U of space, 43% better density. Blade vendors also often sell more powerful management software unique to their blade platform, another piece of engineering value RACK’s Scale Out lacks. RACK hopes to sell to customers that prefer a third-party software package.

RACK’s “Scale Out” server line is more like a blade offering, but it is really only halfway between a rack and a blade. Scale Out has internal cabling, but to our eye, it is not a blade. When we referred to it as a “blade” in discussions with users, to differentiate it from the Compute server, most users quickly pointed out that it is not a blade.

We will not differentiate strongly between RACK’s “Foundation/Compute” and its “Scale Out” servers. 85% of server sales come from Foundation, and customers do not differentiate much. Users do not think of Scale Out as “blades,”

nor even as a significantly different product line in any way. We also do not expect Scale Out success to save RACK. Such success would require selling into blade opportunities, or it would simply cannibalize Foundation sales. The problem is that the engineering in Scale Out is even further behind blade competitors than the engineering in Foundation is behind rack competitors.

Discussion

1. Dot-com demand growth rates seem to have peaked. Google seems to be the main driver of current demand, but it is unlikely to become a customer. Google's purchase of YouTube probably takes a potential 10% customer out of reach. Amazon has left the "arms-race" with Google. Yahoo is talking about it. Even MSFT may not be able to stay in the race.

MSFT, AMZN, and YHOO combined to generate 60% of RACK's sales in 2005 and roughly 70% through nine months of 2006. RACK claims 9 of the top 20 Internet sites in the US as active customers, and claims to be ready to begin shipping to a tenth. AOL, Facebook and YouTube are large, new dot-com customers. The trio of Google, Yahoo, and MSFT is commonly called "GYM". We refer to RACK's big three as "M-A-Y".

We question how much growth is left in this web-farm market. M-A-Y have reported weak financials, and are under pressure to exit the arms race. We think Google will be the main dot-com demand driver. Google seems to be getting the best return on the capex "arms race." Google is the one that is not a RACK customer. Google's extreme hands-on technology bent, and its public display of its own power-saving approaches for servers make it clear that Google thinks it can do-it-yourself and save money. Now, Google is acquiring YouTube, a new RACK customer. Unfortunately for RACK, Google is likely to want to leverage the "Google-way" into YouTube's business, taking YouTube's traffic out of RACK's reach. RACK surely wishes it sold to G-Y-M instead of M-A-Y.

The dot-com demand outlook is not bleak, but a growth slowdown will hurt. Also, RACK's focus on the biggest customers should cause its dot-com market share to decline, as Google wins the top-tier arm's race and other growth shifts to smaller dot-coms. The fact that RACK's sales were stuck between \$80-\$90M for 4 quarters, even as Internet traffic grew around it, shows that its market share within this market may have peaked. Yahoo and Amazon always have new things to spend on, but both have recently said that overall R&D spending and capex would slow from recent growth rates.

As shown in Figure 1, Amazon was the first to show the problem. Its capex growth outpaced its sales growth for years. This ended in 3Q06, when capex fell

18%. Management indicates capex is not likely to outpace sales for the next few years. We estimate Amazon spent 23% of its capex with RACK in 2005, and a dramatic 43% in 4Q05. We expect Amazon's capex to fall 2% in 2007 from 2006's elevated levels, and grow 10% in 2008. We think RACK might capture 12% of that spending, for sales of \$26.4M in 2007 and \$29M in 2008.

Figure 1: Amazon's weak results have led to lower spending with RACK

| <u>AMAZON</u> | <u>Mar05</u> | <u>Jun05</u> | <u>Sep05</u> | <u>Dec05</u> | <u>Mar06</u> | <u>Jun06</u> | <u>Sep06</u> |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Y/Y Sales grew | 24% | 26% | 27% | 17% | 20% | 22% | 24% |
| Y/Y EBIT grew | -2% | 31% | -32% | -3% | -2% | -55% | -27% |
| Y/Y Capex grew | 190% | 230% | 160% | 51% | 73% | 26% | -18% |
| % Capex to RACK | 11% | 19% | 15% | 43% | 36% | 2% | 6% |

Source: Company results and OWS estimates

Figure 2 shows that Yahoo is about to follow Amazon's spending decline. Yahoo's capex growth began to dramatically outpace its sales growth in 4Q05. This continued through 3Q06, but during 2006, Yahoo's sales growth lagged, its EBIT went into reverse, and so did its stock price. Yahoo guidance implies Q4 capex will be flat Q/Q for the next few quarters. That means Q4 capex would fall 12% Y/Y, and would be down Y/Y through 2Q07. We estimate Yahoo spent 13% of its capex with RACK in 2005, and 19% so far in 2006. We expect Yahoo's capex to grow < 5% in 2007 and 10% in 2008. We think RACK might capture 15% of that spending, for sales of \$87.5M in 2007 and \$96.5M in 2008.

Figure 2: Yahoo's recent weak results may lead to lower spending with RACK

| <u>YAHOO</u> | <u>Mar05</u> | <u>Jun05</u> | <u>Sep05</u> | <u>Dec05</u> | <u>Mar06</u> | <u>Jun06</u> | <u>Sep06</u> |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Y/Y Sales grew | 55% | 51% | 47% | 39% | 34% | 26% | 19% |
| Y/Y EBIT grew | 87% | 75% | 57% | 40% | -19% | -12% | -25% |
| Y/Y Capex grew | 75% | 71% | 44% | 78% | 108% | 86% | 37%* |
| % Capex to RACK | 12% | 15% | 6% | 16% | 18% | 18% | 20% |

* Excludes \$111M land purchase in CA

Source: Company results and OWS estimates

Given that "dot-com" is a small part of MSFT's world, it is harder to handicap. MSFT has new capacity needs, such as "software-as-a-service" for corporate customers and, for consumers, the Zune music service to compete with iTunes, 3-D mapping to compete with Google, etc. However, MSFT stock plunged in May06 when, among other things, it forecasted big dot-com investment plans. As a result of those investments, MSFT's purchases from RACK should triple from about \$30M in 2005 to nearly \$90M in 2006.

Sales to MSFT also fell Q/Q in Q3. In Q2, MSFT and Yahoo combined were 66% (\$59M) of sales. Amazon was #3 in Q2, but only 1%. We think a different customer was #3 in Q3, and #3 did <\$2M, or 2% of sales. In Q3,

Microsoft and Yahoo combined were 50% (\$40M) of sales. Given RACK's disclosures, we know that sales to both Yahoo and MSFT fell Q/Q from Q2 to Q3. We model sales to MSFT to grow 20% in 2007 and 2008.

Using this bottoms-up approach, we model \$220M in sales to M-A-Y in 2007, flat with 2006, and then grow 15% in 2008 to \$252M. For a stock like RACK, 2008 is a long way away. See Figure 3.

Figure 3: Sales to MAY (MSFT, Amazon, & Yahoo) look flat in 2007

| | <u>2004</u> | <u>2005</u> | <u>2006e</u> | <u>2007e</u> | <u>2008e</u> |
|----------------------|---------------|---------------|----------------|-----------------|--------------|
| Sales to MAY | \$65 M | \$129 M | \$220 M | \$220 M | \$252 M |
| <u>Non-MAY sales</u> | <u>\$45 M</u> | <u>\$86 M</u> | <u>\$134 M</u> | <u>\$280 ??</u> | |
| Sales @ mid-point | \$110 M | \$215 M | \$354 M | \$500 M | |

Source: Company results and OWS estimates

RACK has guided to 2007 sales of \$475M-\$525M. We estimate RACK needs \$280M in sales to non-M-A-Y customers in 2007 to reach the mid-point of guidance. \$280M would be 110% growth from the \$134M non-M-A-Y sales in 2006. Note that non-M-A-Y sales seem likely to grow only 55% in 2006. The rest of this report details why we think 110% in non-M-A-Y sales in 2007 is unlikely.

2. Some large, fast-growing users report poor reliability for RACK's servers and storage. Both web-farms, like at M-A-Y, and HPC customers use redundancy to create reliability. So, these early adopters can accept less innate reliability. Hosters and many other users beneath this top-tier need better reliability and better service than RACK provides.

The main application for RACK's dot-com customers is incoming web access, whether it be serving web pages of email, search results, shopping carts, etc. In this application, the servers are fronted by various networking devices, such as F5 load-balancers. These devices pre-process the requests, distribute them to individual servers, optimize the interaction with various TCP/IP tricks, and then send the response out to the internet.

The other major application of rack-based servers is high-performance computing (HPC), i.e. running algorithms for seismic, circuit design, or various scientific models. Here, racked servers are clustered to replace mainframe or supercomputers. To appreciate the size of x86 HPC clusters, note that a cluster of Dell PowerEdge 1850s, a server in RACK's category, at Sandia National Labs ranks as the sixth most powerful "computer" in the world. Clusters using RACK's servers at the Univ. of Florida (832 CPUs) and in AMD's development center (576 CPUs) constitute the 280th and 483rd most powerful "computers" in the world

Both web-farms, as at M-A-Y, and HPC use redundancy to create reliability. Web farms use load-balancers. HPC uses clustering software. Hosters cannot accept poor reliability, because each server may represent their entire sale to a customer. There is no load-balancing or clustering between servers, never mind between racks of servers. Each server needs to be reliable.

Large, fast-growing users reported more reliability trouble than did smaller, more stable users. It appears RACK's problem may be similar to the problem cars from Detroit have had vis-a-vis their competitors. The "fit & finish" is not as good, so, upon frequent handling, things begin to break.

3. RACK has not been able to penetrate the third party hosting market to any degree. These customers are highly hands-on, and prefer to build their own systems from commodity components and not pay the premium for an integrated system.

We talked to many hosters. We found none that use or intend to use RACK. The problems seem to be price, reliability, and a general mismatch of value.

These independent hosting suppliers should be perfect customers for RACK's double-density servers. Independent hosters rent space from data centers by the SqFt and lease it out to end-users by the server. Fitting 100% more servers in each SqFt would cut their largest cost in half as a % of sales. RACK's failure to convince them of the value of its proprietary, double-density design seems a significant failure that greatly reduces RACK's potential.

Hosters tend to be very hands-on technicians. They easily buy components, similar to, or better than, those that RACK buys, add a little engineering, similar to their view on RACK's contribution, and build their own racks of servers for much less than RACK charges. Some hosters do buy from DELL, HP, etc., when they get a good price, often 30% off list. RACK does not seem to offer them such discounts.

One hoster told us RACK's DC product interests him as a way to save on electricity charges, but the value of the double-density value is limited by the data center operators/landlords he uses. Most center operators limit how much power/SqFt a user can draw. Loading RACK's double-density design would exceed that limit, so the value is lost.

Co-location, a variation on hosting, whereby a corporate user buys its own equipment, but runs it in the host-building, is a better opportunity. The difference is the co-locater usually rents a locked "cage" instead of just a rack in a row of

racks. In the cage, it places racks, and maybe a little desk, and even some tools. Minimum size of a cage seems to be 110 SqFt, versus 20 SqFt for a rack.

We talked to a user that co-locates its RACK racks. It uses a load-balancer. The savings from DC power was the main reason they chose RACK. It also likes the density, and gets a value from it because it rents a cage. It has not filled the cage with as many racks as it could. It likes having space around the racks to work. So, the power/SqFt is within the limits.

Many hosters use Supermicro hardware. The prices we have seen indicate Supermicro charges 25%-30% below RACK. Supermicro claims to be the 5th largest x86 server vendor by volume, selling >700K servers annually, and to have >40% of the “white box” market. By comparison, RACK’s \$300M+ in server sales in 2006 would equate to 100K units at a \$3K ASP. Assuming RACK gives 50% discounts to its big customers, 200K may be a good estimate for 2006 units.

Supermicro sells >150 different motherboards, and a like number of finished 1U servers. In Sept05, RACK sued Supermicro Computer, claiming some of its products infringe two RACK patents. RACK seeks monetary damages and injunctive relief. Supermicro counter-claimed that the two patents are invalid. Our talks with Supermicro distributors did not turn up any “half-depth” servers being sold. Perhaps Supermicro is no longer selling “half-depth” servers.

4. Greenfield and very high-end corporate users are probably RACK’s best chance for continued growth as its dot-com growth stalls. Load-balancing and clustering ease the reliability concerns of customers. The hurdles RACK needs to leap are getting the customer to add another vendor and improving its service.

RACK does seem to acknowledge that it will have a hard time in the mid and low-end markets. On its Q2 call, management stated “we go after the top 20 to 50 Internet customers, the top ten biopharma, the top ten oil and gas, etc. As our customer base has continued to expand, the number of new customers we're going after outside of that base is falling.” To find those high-end corporate customers, RACK is hiring experienced, enterprise-caliber hardware sales execs from EMC, Network Appliance, Hitachi, and Sun. This is an expensive proposition for a small firm with a narrow product line.

The narrow product line and small company size are problems for RACK. We heard a large investment bank, building a new center in NJ, vetoed using RACK simply because the bank did not want to add another vendor to its list, without replacing a vendor. Given its narrow line, RACK cannot replace anyone.

Various multi-national customers with whom we talked prefer to be able to install the same box from the same vendor on every continent to lower their service issues. RACK has trouble doing that now, and if it did do it, it would have great trouble servicing the various installations.

The multi-national RACK customers with whom we talked appear to have in common a culture of neither centralizing nor sharing computing resources. Some of these firms did buy from RACK, but it seemed to be a small purchase championed by one individual in one location in situations where the firm neither encouraged nor squashed the local decision. So, one or two locations may buy RACK. Then, they try to get other locations to follow, to enhance their service and their price leverage with RACK. However, in these cases, broad usage would require worldwide service. That is a cost of doing business with the multi-nationals that RACK targets. It is a cost that has yet to appear on RACK's P&L.

5. Intel has leapfrogged AMD with the new "Woodcrest" (5100 series) Xeons. RACK's competitors all have deeper expertise and stronger relationships with Intel than does RACK. Intel may be >50% of RACK's units by early 2007, which could lead to price pressure, competitive losses, and perhaps RACK getting slower allocation of the highest demanded 5100s.

Intel-based servers represented 15% of RACK's server revenues and 24% of server units in Q2, both significant increases from Q1. Intel fell back to 16% of units in Q3, probably due to buyers waiting for the new Woodcrests.

Independent benchmarks we have seen say Woodcrest performs 15-35% better than Opteron 200 series, while using 10% less power. Performance/Watt is the current key metric, and Woodcrest leads Opteron 200s by about 30%. Its lead over the just-released Opteron 2000s (aka "Socket F", which use DDR2 memory) should be lower, but it still seems to lead nicely. One respected benchmarker said "Woodcrest now the best choice for 2P servers." 2P means servers with 2 CPUs/motherboard. Nearly all of RACK's server sales are 2P.

AMD may remain the best choice for 4P/8P servers. Its HyperTransport, with an integrated memory controller per CPU, lessens the chance of 4 or 8 CPUs saturating a single memory controller with a large cache. AMD fans also claim that the FB-DIMM memory Woodcrest specs is a power hog, thus Woodcrest's power edge disappears in a system. There are a lot of detailed, technical arguments, but the customers with whom we talked remember the sound-bite "Woodcrest now the best choice for 2P servers."

Dell began selling Xeon-5100 servers in Q3. The 1950, and perhaps the 2950, seem like the biggest threat to RACK. The 1950 is specifically a 1U

application or web server. This is RACK's core market. It may be slightly high-end for RACK's big web-farm users, since it has some redundancy per server that they may not need, since they create redundancy in the farm. But, for the rest of RACK's market, it fits well.

We think the gross margin on Woodcrest servers will be below that of AMD servers, because competitors will be getting better pricing from Intel, and will be more able to use price to win deals, now that they are on at least equal footing CPU-wise with RACK. On its Q2 call, management said about competitive dynamics with Dell: "more relevant over a 2006 timeframe is where they choose to price Intel Woodcrest product. That's much more relevant than their recent entry into Opteron."

As for HP, the other big Intel vendor, RACK management said "HP is definitely executing better & getting a bit more aggressive on pricing. It remains to be seen whether they're going to go for margin or market share. HP's activities in the field have been a little bit more focused than we've seen in the past." This was pre-Woodcrest. With Woodcrest in the HP DL360 G5 products, the solid execution will more easily win the deal.

AMD hopes to leapfrog Intel, but Intel seemed to widen its lead in Nov06, when it began shipping quad-core Xeon 5300s. Opteron and Xeon 5100s are both dual-core. Xeon 5300 is not "native" quad-core, and the performance/watt impact of putting four cores in a single CPU remains to be quantified, but it could be a winner. In Aug06, AMD announced "completion of the design, or tape-out, of its native Quad-Core AMD Opteron. AMD plans to deliver to customers in mid-2007 native Quad-Core AMD Opteron." For AMD, that may not be too little, but for RACK, it may be too late.

On the day Intel announced the quad-core Xeon 5300s, RACK announced servers using 5300s, and RACK stock rose strongly. HP seemed to be the only other major vendor jumping on the 5300 bandwagon on day one. We doubt IBM and DELL will wait long before using 5300s. Plus, our analysis of Intel's 5300 pricing vis-à-vis the 5100s shows marginal price benefit, but some wattage benefit. Figure 4 shows that a 2.33 Ghz quad-core costs 6% less than 2x a 2.33 Ghz dual-core, a 1.86 Ghz quad-core costs 35% more than 2x a 1.86 Ghz dual-core, and a 1.60 Ghz quad-core costs 9% more than 2x a 1.60 Ghz dual-core. 5300s do provide the benefit of being 80W for 4 cores versus 65W for dual-core 5100s. 5300s may only attract those users that need maximum density or minimum power.

Figure 4: Intel 5300 pricing shows little benefit vis-à-vis 5100s

| | <u>5345</u> | <u>5140</u> | <u>5320</u> | <u>5120</u> | <u>5310</u> | <u>5110</u> |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Clock speed (Ghz) | 2.33 | 2.33 | 1.86 | 1.86 | 1.60 | 1.60 |
| Power used (Watts) | 80 | 65 | 80 | 65 | 80 | 65 |
| # Cores | 4 | 2 | 4 | 2 | 4 | 2 |
| Price | \$851 | \$455 | \$690 | \$256 | \$455 | \$209 |
| Price per core | \$213 | \$228 | \$173 | \$128 | \$114 | \$105 |

Source: Intel press release and price list on Intel.com

How quickly Intel’s new technical leadership leads to it replacing Opterons remains to be seen. RACK recently said it is “seeing in Q3 and Q4 ... particularly for larger customers, once they have qualified on a particular platform, there has been more stickiness or barriers to change than we had anticipated.” Users told us that many commercial HPC applications, such as Cadence, have 64-bit versions compiled specifically for AMD or Intel. AMD was the initial 64-bit platform for these users. The lack of compatibility limits their ability to switch to Intel or even to use both. For many users, Intel’s 30% performance/watt lead should cause them to begin switching back to Xeon servers.

6. Dell just began selling its first two Opteron-based servers, the 4-socket, 4U 6950 and the 2-socket, 1U SC1435 rack. Users are excited about the SC1435. They say it fits perfectly in the web-farm and HPC applications that RACK serves.

The new SC1435 seems like tough new competition, with its AMD CPUs. The SC1435 is the update to Dell’s 1425, which uses the latest Xeons. The 1425/1435 are designed for the same apps that RACK’s servers seem to fit: large scale deployments where reliability is achieved via load-balancing and backup units rather than making each server highly reliable/redundant.

RACK thinks Dell will have trouble selling 1P and 2P Opteron systems, a comment we do not understand. Users told us they are excited about Dell’s SC1435. They say it fits perfectly in the web-farm and HPC applications that RACK serves. Note that in mid-November, Dell began heavy advertising of the SC1435 in both trade-mags and leading newspapers, such as the WS Journal and the NY Times. The ads include aggressive pricing, but are mainly targeted at small customers.

Our user conversations confirm RACK’s comment that “Dell is generally the price-setter in the market.” Smaller users said RACK and Dell often were priced similarly. For large customers, RACK seems to underbid everyone else, consistent with its stated corporate strategy to focus on a few, large customers.

RACK says it expects lower server margins in 2007 due to Dell's use of Opterons and Intel's resurgence, but that it "can more than offset this potential decline ... based on increased revenues from Terrascale storage and higher economies of scale."

7. Most of RACK's storage sales are near-commodity. Many web-farm and HPC applications do not use a large amount of storage beyond that which comes with each server. HPC tends to demand large amounts of RAM, not disk storage. Terrascale remains a question-mark.

Storage generated 16% of Q2 sales, and is expected to be 15-20% in 2007. RACK sells both what might be considered "bulk storage" and more value-added Network Attached Storage (NAS) and IP (iSCSI) SAN storage that use software provided by third parties. During Q3, RACK acquired Terrascale for \$38M cash.

RACK sells bulk storage the same way it sells servers. It focuses on cutting good deals with large users, and for differentiation, it uses the DC power option and the double-density design. The actual storage arrays are simply resold from third-parties. RACK seems to OEM products from Advanced Digital Information (ADIC), recently acquired by Quantum (DSS). Dell and IBM have each been 20% customers of ADIC over the last few years, OEMing these same products, so this is a tough business, won mainly on price and bundling. RACK has only DC power and double-density for differentiation.

It is not clear to us how significant double-density is in storage. Drives give off much less heat per SqFt than do chips on a server motherboard. It appears the key to RACK's double density patent is that, if a competitor tried to match double-density by just placing twice as many chips on each standard 30" deep board, and then stacked the servers in a rack, the heat would be too great to get out from between one server and the one above it using air. RACK leaves a small gap between its two 15" deep servers. The gaps line up vertically, and RACK's design uses that vertical space as a chimney. Since drives give off less heat, it is possible to place more of them in each 30" deep space and still get all of the heat out.

Another issue in leveraging RACK's server customer to sell storage is finding the right application. Search, web advertising, and many HPC applications do not use a large amount of storage beyond that which comes with each server. Email, video sites, and some subscription models such as on-line photo storage do use large amounts. Remember each server comes with from 60 to 100s of Gbs of storage.

Terrascale is RACK's hope for more differentiation. It sells clustered file system software that improves performance by making RACK's storage appear as

a virtual pool, with data striped across all drives in the cluster. Thus, each rack is presented to servers as a "virtual disk". Striping data across the racks balances I/O load, giving aggregated throughput up to 10 Gbps. NAS has a performance bottleneck, because each appliance is attached separately, and appears separate, to the network. A single file scales nearly capacity and performance linearly. Terrascale's technology is well suited to large Linux clusters found in Internet and High Performance Computing (HPC) environments, enabling customers to realize improved manageability, storage utilization and availability in addition to up to tens of gigabytes per second of I/O."

In its 2007 guidance, RACK forecasted Terrascale to do \$20M in sales at 60% gross margin, saying "there is some potential for Terrascale related revenues in defense." The gross margin is impressive, given that most of RACK's storage sales have a gross margin near the 23% overall margin.

8. Excluding Terrascale, gross margins seem likely to be pressured from many sides in 2007. RACK seems to have little control over this.

RACK says that DRAM is 25% of its bill of materials. CPUs are probably a similar amount. HDDs are another factor. Until Q3, RACK mainly used DDR DRAM, but latest gen AMD systems (socket F) use DDR2 DRAM and latest gen Intel's use FB-DIMM, a type of DDR2. So, in 2007, DDR2 should replace half, or more, of the DDR. Whether DRAM becomes a margin problem for RACK in 2007 depends more on how DRAM fabs handle the DDR-to-DDR2 transition than on anything RACK does, unless RACK plays successfully in the DRAM futures market.

The shift to Intel CPUs should pressure RACK. All RACK's main competitors have longer and better relationships with Intel, and buy in much higher volume. RACK is likely to pay higher prices, and may get inferior supply if a shortage of any specific Intel CPU develops.

9. RACK's DC option seems like a good idea, but does not seem to greatly interest RACK's target market: big customers. Until that changes, DC is not likely to be the factor that enables RACK to meet expectations.

RACK shipped 52% of its servers with DC power in Q3, up from 50% in Q2. The biggest hurdle to raising that number is that the largest customers use less DC than does the rest of the customer base.

We are not sure why DC is not heavily used by RACK's biggest customers. We did confirm it is not with one of RACK's "top 3". It did not have an "engineering" explanation why it does not use DC. It said "it is too different and

not compatible with our other equipment.” This user was referring to inter-rack compatibility, but another user mentioned intra-rack compatibility. Another large user that does not use DC called it “a neat idea, but not a deal maker or breaker.”

The intra-rack problem seems to be that users usually do not have a rack filled entirely with servers. Routers, switches, load-balancers, and other equipment all come in 1U and 2U form factor, so users often have some of these in each rack. This makes some sense. Given what we know of, and heard of, RACK’s DC option, the inter-rack concern makes less sense. But, the customer is always right.

We also heard from many people that DC is not a deal-maker in existing centers, because there is so much low-hanging fruit for them to pick to lower power consumption. Power consumption was never taken into consideration when these centers were designed. They have been run with little interest in power usage, and allowed to age with little interest in that impact on power usage. Now that power is a hot topic, the facilities people that manage the centers are taking dozens of measures to lower power consumption. (Note that RACK sells to the IT staff, but data centers are nearly always managed by the facilities staff.)

One technical approach is to measure temperature gradients around the room, model airflow around the room, and then use various techniques to alter the airflow to lower the gradients. Another is to understand that lowering the humidity in the room lowers the power consumption of the chiller. Operationally, this leads to practical suggestions like “Cardboard boxes hold a lot of humidity. We set up a staging area outside the data center and bringing boxes into the room is verboten.” The point is that there are many ways of varying degrees of sophistication to lower power consumption by as much as RACK’s DC option lowers it. Only the most engineering-minded people are likely to see DC power as a good first step.

10. Financial outlook

RACK expects to show strong 30% Q/Q sales growth in Q4. Consensus of \$105M is at the mid-point of guidance. Q/Q growth is boosted by a large order that was received, and began shipping, late in Q3. Due to this, Q3 sales were below plan and Q4 will be strong. RACK showed confidence in Q4 by claiming “a strong possibility of ending up at the higher end of the revenue range.”

RACK also confidently predicted Q4 gross margin will rise Q/Q. Gross margin is a key concern among RACK investors, since RACK is an assembler of commodity components, although RACK’s patents do give its systems some differentiation. Q3 margin fell to its lowest level in five quarters, due to DDR pricing and overtime charges from contract manufacturers to begin shipping that

late-quarter, large order. RACK predicts better DDR pricing in Q4 and “scale economies” from perhaps 30% higher volumes.

DSO leapt to 72 days in Q3, from 54, 52, and 48 in the previous 3 quarters. Q3 was very back-end loaded. 71% of sales occurred in the 3rd month, including the beginning of that large order.

RACK guided to 2007 sales of \$475M-\$525M, growth of 34%-44%, and 23%-24% gross margins, flat with 2006. Pro forma EPS guidance is \$1.28-\$1.40, 25%-35% growth. EPS growth trails sales growth, due to share dilution, and because very high operating margins in 1H06 makes it difficult for RACK to show full-year margin improvement in 2007. Consensus sales and EPS are both slightly above the mid-point of guidance, with estimates tightly bunched around consensus.

RACK expects operating leverage in 2007, a reverse of 2006’s trend. At Dec05, RACK had 174 full-time staff; 59 in manufacturing, 32 in service, 46 in sales and marketing, 19 in G&A, and 18 in R&D. Headcount increased to 223 at Jun06, mostly due to sales hiring, and then to 254 at Sep06. Terrascale added 15-20 people to the staff, weighted toward R&D. Headcount grew 46% in 9 months.

R&D should grow more quickly than sales in 2007, in part due to Terrascale. Other expense growth should moderate. Sales expense growth was loaded into 1H06, with the doubling of the sales force. G&A growth included first-year SarbOx and Oracle ERP implementations in 2006. Our overall 2007 expense estimates are close to consensus in dollar terms. As we have discussed, we differ mainly in having a lower sales outlook. We estimate \$480M in sales. Our gross margins assumptions are also lower, driven by gross margin pressure from competitive products. This results in \$1.19 for F2007.

11. Valuation

Analysts value RACK on PE/GR. There is not a very good comp, since RACK’s competitors are all much larger, much more diversified, and growing more slowly. We think investors value RACK on growth, and many investors think RACK’s opportunity is somewhat binary: it either has lots of room to grow as it outruns its much larger competitors, or as soon as they catch RACK, RACK will face severe trouble.

RACK reached \$19 in August. In July, RACK forecasted Q3 sales below the consensus, raising fears of a broken growth story. In August, FY07 consensus was \$1.26, and had not fallen. \$1.26 is higher than our \$1.19 EPS forecast for FY07. We think that when RACK is forced to lower guidance in 2007, the stock will again fall to \$19. \$19 is our price target.

We think Network Engines (NENG) may provide a good example of how much trouble RACK may face if its two patents do not provide sufficient differentiation from Dell, HP, IBM, etc. NENG came public in July, 2000, selling 1U servers with web-based remote management. At that time, IBM, Microsoft, Tellme, and Akamai generated 26%, 18%, 14%, and 12% of sales. In Oct00, NENG reached \$44.75. Web-based remote management did not prove to be a sustainable differentiator, and NENG fell to \$1.20/share by Dec00. It has traded below \$3 for most of the ensuing six years.

NENG stock did rebound to \$11 in 2003, on huge OEM sales growth to EMC and from reselling 3rd-party storage networking products. OEM sales to EMC now equal 84% of NENG's \$119M in annual sales. \$119M is far above any other year for NENG, yet due to little product differentiation, NENG is losing money and the stock is back under \$3. Patents place RACK on somewhat more solid footing than NENG was, but we think NENG's troubles give a good idea how rough RACK may find its business when its competitors catch up to RACK.

12. Risks

The main risk we see is that RACK wins six or more customers with large, greenfield deployments that can each generate multi-\$10Ms of sales in 2007. We previously calculated RACK's non-M-A-Y sales need to grow by \$150M from 2006 to 2007. We think 5 – 10 big wins is the most likely way that could happen.

This is a big part of RACK's plan. In its Q3 call, management stated "potentially in the next couple of quarters, we will have from two to four new customers that could represent 10% or greater revenues in fiscal 2007. We might see one in defense and one to two in financial services." 10% of 2007 sales equals a \$50M customer. To achieve this, RACK doubled its sales force from Nov05 to Jun06, but has added few additional sales execs since June 30. RACK has taken the right step, but our research indicates that sales force will need to find greenfields to succeed.

That then raises the question; if these customers spend \$50M building out a new facility, would they possibly be able to spend \$50M again in 2008? We think not. That is one difference between dot-coms and standard enterprise customers. Dot-coms buy computing power ahead of need, because it is one of the key ways dot-coms get new customers. Standard enterprises invest more on an as-needed basis, so growing from an extraordinary \$50M investment is unlikely.

Another risk is that, despite Intel's technology lead, customers stick with AMD due to various switching costs. This would both improve RACK's competitive position and lessen overall pricing pressure.

There is the risk that having YouTube as a user becomes RACK's foot-in-the-door to wins at Google. We give this very low odds, and as stated, expect the opposite to happen. Google will bring YouTube's business in-house.

13. Financial model

| Inc. Stat (\$M) | <u>Mar-06</u> | <u>Jun-06</u> | <u>Sep-06</u> | <u>Dec-06</u> | <u>Mar-07</u> | <u>Jun-07</u> | <u>Sep-07</u> | <u>Dec-07</u> |
|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Revenue | 84.4 | 88.6 | 80.5 | 106.5 | 109.5 | 115.5 | 121.5 | 133.5 |
| COGS | 64.2 | 67.6 | 62.3 | 81.7 | 84.2 | 89.0 | 93.9 | 103.4 |
| R&D | 1.3 | 1.6 | 2.1 | 2.7 | 3.0 | 3.3 | 3.6 | 3.9 |
| S&Mkt | 4.0 | 5.1 | 5.2 | 5.6 | 5.9 | 6.2 | 6.5 | 6.8 |
| <u>G&A</u> | <u>2.9</u> | <u>3.6</u> | <u>4.4</u> | <u>4.6</u> | <u>4.7</u> | <u>4.8</u> | <u>4.9</u> | <u>5.0</u> |
| Operating Inc | 12.1 | 10.7 | 6.5 | 11.9 | 11.7 | 12.1 | 12.6 | 14.3 |
| <u>Other, net</u> | <u>0.9</u> | <u>2.0</u> | <u>2.7</u> | <u>2.5</u> | <u>2.7</u> | <u>2.7</u> | <u>2.8</u> | <u>2.9</u> |
| Pretax Inc | 13.0 | 12.7 | 9.1 | 14.4 | 14.4 | 14.9 | 15.4 | 17.2 |
| <u>Income Tax</u> | <u>-5.3</u> | <u>-5.2</u> | <u>-3.8</u> | <u>-5.9</u> | <u>-5.9</u> | <u>-6.1</u> | <u>-6.3</u> | <u>-7.0</u> |
| Net Income | 7.6 | 7.5 | 5.4 | 8.5 | 8.5 | 8.8 | 9.1 | 10.1 |
| <u>Diluted Shares</u> | <u>26.2</u> | <u>29.3</u> | <u>29.1</u> | <u>29.8</u> | <u>30.1</u> | <u>30.4</u> | <u>30.7</u> | <u>31.0</u> |
| Diluted EPS | 0.29 | 0.26 | 0.19 | 0.28 | 0.28 | 0.29 | 0.29 | 0.33 |

| Yr / Yr | <u>Mar-06</u> | <u>Jun-06</u> | <u>Sep-06</u> | <u>Dec-06</u> | <u>Mar-07</u> | <u>Jun-07</u> | <u>Sep-07</u> | <u>Dec-07</u> |
|-----------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Revenue | 177% | 102% | 40% | 28% | 30% | 30% | 51% | 25% |
| COGS | 161% | 95% | 43% | 28% | 31% | 32% | 51% | 27% |
| R&D | 270% | 217% | 289% | 249% | 135% | 112% | 70% | 44% |
| S&Mkt | 34% | 37% | 32% | 24% | 47% | 22% | 25% | 21% |
| <u>G&A</u> | <u>73%</u> | <u>92%</u> | <u>122%</u> | <u>69%</u> | <u>65%</u> | <u>33%</u> | <u>11%</u> | <u>9%</u> |
| Operating Inc | 1171% | 245% | -12% | 7% | -3% | 13% | 94% | 20% |
| <u>Other, net</u> | <u>-215%</u> | <u>-374%</u> | <u>1002%</u> | <u>839%</u> | <u>199%</u> | <u>37%</u> | <u>4%</u> | <u>14%</u> |
| Pretax Inc | 7572% | 435% | 20% | 27% | 11% | 17% | 68% | 19% |
| <u>Income Tax</u> | <u>7764%</u> | <u>448%</u> | <u>23%</u> | <u>30%</u> | <u>11%</u> | <u>17%</u> | <u>68%</u> | <u>19%</u> |
| Net Income | 7444% | 426% | 18% | 25% | 11% | 17% | 68% | 19% |
| <u>Diluted Shares</u> | <u>404%</u> | <u>78%</u> | <u>32%</u> | <u>30%</u> | <u>15%</u> | <u>4%</u> | <u>6%</u> | <u>4%</u> |
| Diluted EPS | 1397% | 196% | -11% | -4% | -4% | 12% | 59% | 15% |

| | <u>Mar06</u> | <u>Jun06</u> | <u>Sep06</u> | <u>Dec06</u> | <u>Mar07</u> | <u>Jun07</u> | <u>Sep07</u> | <u>Dec07</u> |
|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Revenue | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| COGS | 76.1% | 76.3% | 77.4% | 76.7% | 76.9% | 77.1% | 77.3% | 77.5% |
| R&D | 1.5% | 1.8% | 2.7% | 2.6% | 2.8% | 2.9% | 3.0% | 2.9% |
| S&Mkt | 4.7% | 5.7% | 6.5% | 5.2% | 5.4% | 5.4% | 5.3% | 5.1% |
| <u>G&A</u> | <u>3.4%</u> | <u>4.1%</u> | <u>5.5%</u> | <u>4.3%</u> | <u>4.3%</u> | <u>4.2%</u> | <u>4.0%</u> | <u>3.8%</u> |
| Operating Mgn | 14.3% | 12.1% | 8.0% | 11.2% | 10.7% | 10.5% | 10.3% | 10.7% |
| <u>Tax Rate</u> | <u>41%</u> | <u>41%</u> | <u>41%</u> | <u>41%</u> | <u>41%</u> | <u>41%</u> | <u>41%</u> | <u>41%</u> |
| Net Mgn | 9.1% | 8.5% | 6.7% | 8.0% | 7.7% | 7.6% | 7.5% | 7.6% |

| Inc. Stat (\$M) | <u>FY05</u> | <u>FY06e</u> | <u>FY07e</u> | <u>FY08e</u> |
|-----------------------|-------------|--------------|--------------|--------------|
| Revenue | 215 | 360 | 480 | 539 |
| COGS | 165 | 276 | 371 | 419 |
| R&D | 2 | 8 | 14 | 17 |
| S&Mkt | 15 | 20 | 25 | 29 |
| <u>G&A</u> | <u>8</u> | <u>15</u> | <u>19</u> | <u>21</u> |
| Operating Inc | 24 | 41 | 51 | 52 |
| <u>Other, net</u> | <u>-1</u> | <u>8</u> | <u>11</u> | <u>14</u> |
| Pretax Inc | 23 | 49 | 62 | 66 |
| <u>Income Tax</u> | <u>-9</u> | <u>-20</u> | <u>-25</u> | <u>-26</u> |
| Net Income | 14 | 29 | 36 | 40 |
| <u>Diluted Shares</u> | <u>18</u> | <u>29</u> | <u>31</u> | <u>32</u> |
| Diluted EPS | 0.77 | 1.02 | 1.19 | 1.24 |

| Yr / Yr | <u>FY05</u> | <u>FY06e</u> | <u>FY07e</u> | <u>FY08e</u> |
|-----------------------|--------------|--------------|--------------|--------------|
| Revenue | 95% | 67% | 33% | 12% |
| COGS | 86% | 67% | 34% | 13% |
| R&D | 202% | 255% | 80% | 25% |
| S&Mkt | 43% | 31% | 28% | 15% |
| <u>G&A</u> | <u>26%</u> | <u>88%</u> | <u>26%</u> | <u>8%</u> |
| Operating Inc | 604% | 70% | 23% | 3% |
| <u>Other, net</u> | <u>-55%</u> | <u>-909%</u> | <u>37%</u> | <u>26%</u> |
| Pretax Inc | 1811% | 112% | 25% | 7% |
| <u>Income Tax</u> | <u>1811%</u> | <u>118%</u> | <u>25%</u> | <u>4%</u> |
| Net Income | 1811% | 109% | 25% | 9% |
| <u>Diluted Shares</u> | <u>260%</u> | <u>59%</u> | <u>7%</u> | <u>4%</u> |
| Diluted EPS | 431% | 31% | 17% | 4% |

| | <u>FY05</u> | <u>FY06e</u> | <u>FY07e</u> | <u>FY08e</u> |
|-----------------|-------------|--------------|--------------|--------------|
| Revenue | 100% | 100% | 100% | 100% |
| COGS | 76.9% | 76.6% | 77.2% | 77.8% |
| R&D | 1.0% | 2.1% | 2.9% | 3.2% |
| S&Mkt | 7.0% | 5.5% | 5.3% | 5.4% |
| <u>G&A</u> | <u>3.8%</u> | <u>4.3%</u> | <u>4.1%</u> | <u>3.9%</u> |
| Operating Mgn | 11.2% | 11.4% | 10.6% | 9.6% |
| <u>Tax Rate</u> | <u>40%</u> | <u>41%</u> | <u>41%</u> | <u>40%</u> |
| Net Income | 6.5% | 8.1% | 7.6% | 7.3% |