

SOFTWARE 2006 INDUSTRY REPORT



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Software Ecosystem Today: Healthy Again With Increasing Capital Inflow

The software ecosystem has continued its healthy expansion in 2006, with increasing total profits and attractive pockets of new growth. As at midpoint of the last decade, 2006 bears the hallmarks of a stable software upswing – external spending triggers, technology changes, increasing innovation – as well as accelerating external (VC and PE) funding. In a nutshell, the software ecosystem has fully recovered from the burst tech bubble and is poised for more mature growth.

Sales growth is stabilizing, yet margins are improving.

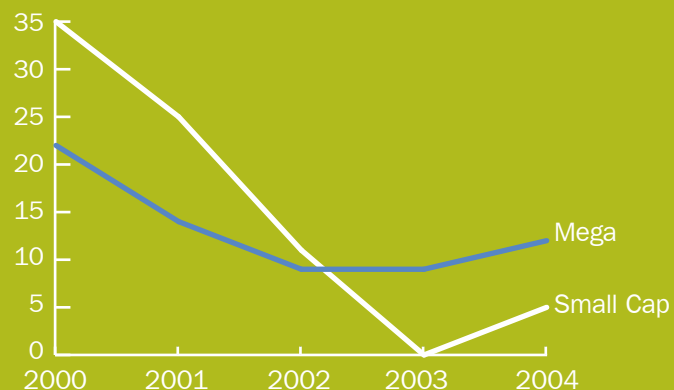
Although forward growth expectations for the software industry, like IT spend overall, continue to regress to the mean of GDP growth, aggregate EBITA margins are increasing dramatically. Specifically, although expectations for software-industry growth are 6 to 10 percent per year through 2010, aggregate EBITA margins have risen from post-bubble lows of 14 percent to nearly 25 percent [See Exhibit 1].

EXHIBIT 1a

Software market economics – revenue growth

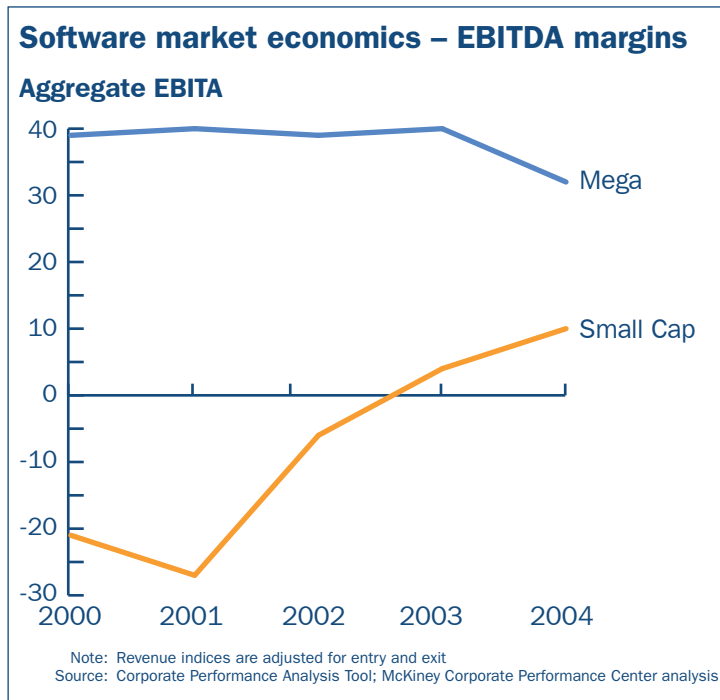
3-year rolling average aggregate revenue growth

Percent



Note: Revenue indices are adjusted for entry and exit
Source: Corporate Performance Analysis Tool; McKinney Corporate Performance Center analysis

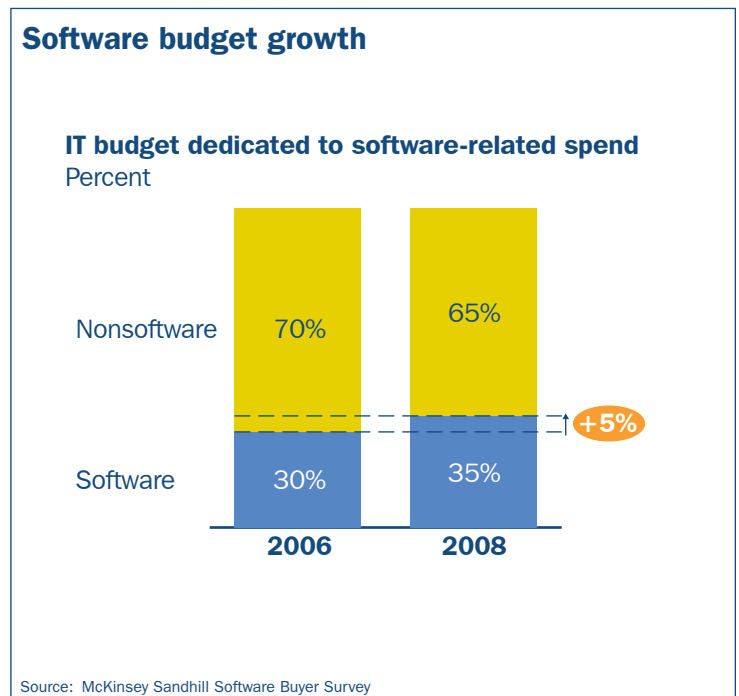
EXHIBIT 1b



The industry is sharing value more evenly, with players of all sizes delivering healthy EBITA margins and shareholder returns. Companies from large to small are now enjoying healthier EBITA margins of 12 to 32 percent, and the gap between mega-companies (Microsoft, Oracle, SAP) and the industry average has narrowed considerably since the post-bubble years (from ~20 percent deltas in the early 2000s to 6 percent in 2004). Large-, mid-, and small-cap players have all delivered total returns to shareholders of 30 to 40 percent annually from 2003 to 2006, well in excess of the average 17 percent for the S&P 500. Only mega-companies have lagged on this dimension, delivering only 9 percent TRS over the same period. However, the mega software companies continue to capture a disproportionate but reduced share of the industry’s profits. In 2004, for example, the top 3 software companies captured roughly 60 percent of profits, down from 91 percent in 2000.

Internal IT budgets are on the rise, with capital budgets increasing up to ~13 percent in 2006, a growth enabled in part by reductions in operating expenses. While net CIO-projected IT budgets expanded only ~3 percent, decreases in operating expenses helped to make room for ~13 percent increases in overall capital expenditures planned for. The share of these IT budgets dedicated to software are on the rise as well. More than 60 percent of survey respondents indicated that this share would increase over the next 2 years from an average of 30 percent to more than 35 percent 2006 [see Exhibit 2]. Priorities for CIO spending in the year ahead include IT infrastructure (servers, VoIP, mobile solutions, data integration), ERP systems

EXHIBIT 2



(industry-specific extensions, business intelligence, general upgrades), and security/regulations/reliability (e.g., security, Sarbanes-Oxley, Disaster Recovery).

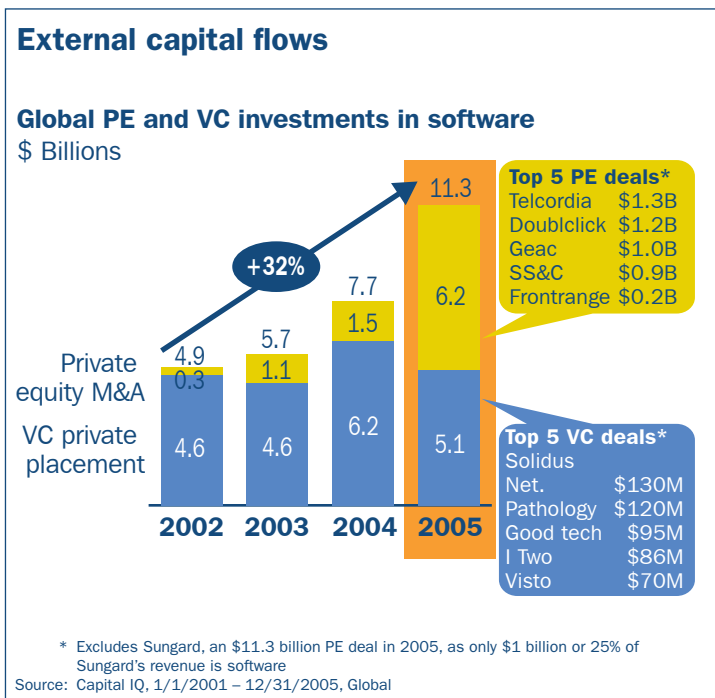
External funding for the industry is also accelerating, increasing the pool of money available for upstarts and consolidation. Venture capital and private equity funding for software and software-related companies have grown by over 32 percent annually since 2002 [See Exhibit 3]. External investors contributed \$11 billion to the software industry in 2005 and \$5 billion of this sum came from venture capital. Software represented a healthy ~20 percent of total investments, second only to life sciences (~25 percent). However, venture capitalists deployed these funds more cautiously in 2005, favoring later and expansion-stage opportunities over startup and early stage investments. They concentrated on feeding successes and only reluctantly put their money into startups.

2005 was a banner year for large PE-funded M&A deals, which while few in number amounted to over \$6 billion of investment. Notably the four largest PE-funded software M&A deals since 2001 all occurred within the last year, including Telcordia (\$1.3 billion), Doubleclick (\$1.2 billion), Geac (\$1.0 billion), and SS&C Technologies (\$0.9 billion). We believe that, as software becomes more pervasive, channeling these funds toward innovation will be a key driver of growth and a major source of differentiation across a wide range of new industries. For example:

- In automotive, 80 percent of all innovation and differentiation over the next 15 years is expected to come from electronics as opposed to mechanical assembly. Software-rich categories such as infotainment (e.g., navigation, video/audio entertainment) are the fastest growing subsegment of electronics components.
- In communications (e.g., VoIP, smart-phones) software is the primary driver of product development cost and time (typically 50 to 70 percent of total cost), but is also a significant component of differentiation – and a key enabler of recurring, services-based revenue streams.
- In consumer electronics, software choices (e.g. DRM, file formats, interoperability) are allowing fundamental differences in business models, which can create both significant competitive advantage, as with Apple iTunes (or risk, as with Sony DVD rootkit issues).

In summary, the macro trends are favorable for the software ecosystem, with healthy demand, significant capital inflows, and continued expansion of software into new industries and devices. However, some turbulence lies ahead as well.

EXHIBIT 3

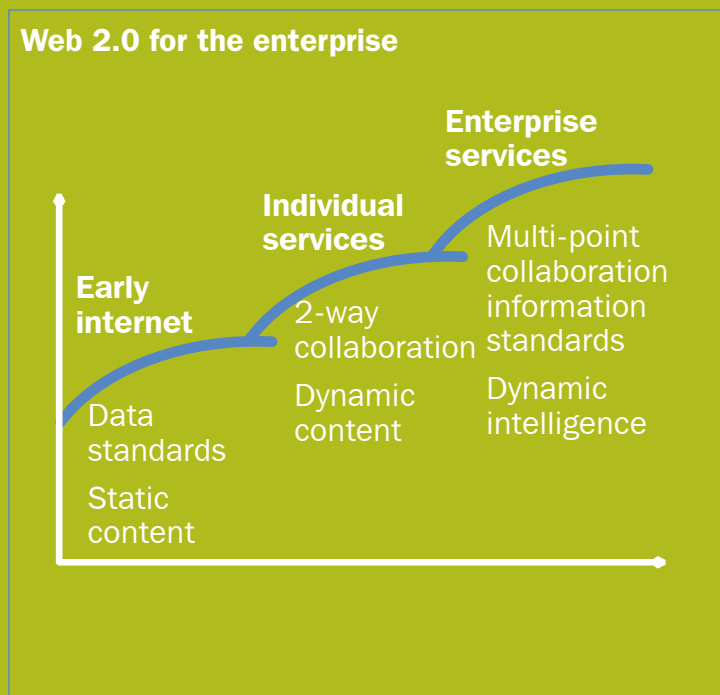


Significant Ecosystem Discontinuities on the Horizon

Though the ecosystem is stabilizing, the industry will likely encounter discontinuities in technology, market, business model, and overall structure in 2006 and beyond. Specifically, executives should prepare for:

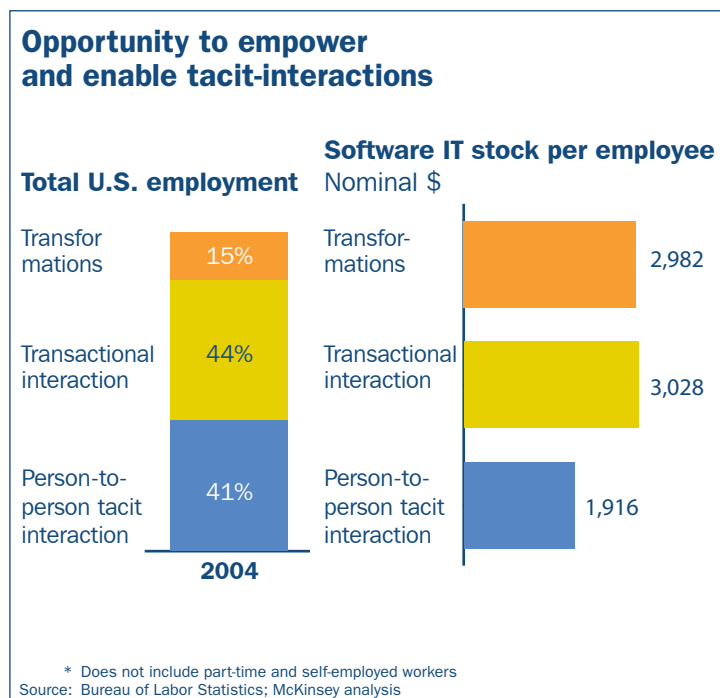
Technology Discontinuity: Web 2.0 for the Enterprise. As in previous innovation cycles, whenever multiple point capabilities converge – such as wireless, pervasive broadband, and online collaboration – many new applications become possible. In these cases, consumers tend to adopt the new services and products before the enterprise, but in the end the enterprise market is usually far larger and more profitable. We believe that much of the hype around “Web 2.0” for consumers – with its rapid innovation in content (e.g., blogs, wikis, user editing and tagging), tools like search, and services like content hosting – heralds a much larger opportunity to put these innovations to work in the enterprise. [See Exhibit 4]

EXHIBIT 4



In particular, we believe the opportunity will exist to complement and enable “**tacit interactions**” – the most rapidly growing component of business labor cost. Person-to-person tacit interactions involve judgment or insight applied to complex communications or problem solving, and often occurs in, say, management, sales, customer service. , Tacit interactions differ from transformational interactions (changing a physical good into something else) and transactional interactions (following set rules in a repeatable fashion). They now represent 41 percent of all U.S. worker activity (measured by number of jobs) and are growing the most rapidly. However, only 24 percent of software investments today support them [See Exhibit 5], indicating a significant potential opportunity for vendors with the right solutions. The software capabilities required will be different from those which led to significant productivity gains over the last decade through transaction automation and scaling Key opportunities for innovating in tacit interactions include software tools to increase access to data and information, support decisions, improve communications, and support multi-party workflows and collaboration – all likely parts of Web 2.0 for the enterprise.

EXHIBIT 5



Market Discontinuity: Emerging Markets Take Center Stage. The hypergrowth of emerging markets has spurred software growth too (>25 percent CAGR), and the domestic software production created as a by-product of software outsourcing has further fueled it. The software markets in China and India alone are expected to double over the next 4 years from \$4 billion to \$8 billion in packaged software spend, with another \$8 billion to 15 billion in IT-related services that ecosystem partners may capture. Piracy in these markets remains a prime concern, but the growth of domestic players will create some pressure for reform. Success in these emerging markets will require ecosystem partners to innovate persistently in anti-piracy business models (such as pay-as-you-go and ad-funding) and delivery vehicles such as Software as a Service).

Business Model Discontinuity: Software as a Service (SaaS) and Open Source. Two major business models are vying for an growing share of software spend: Software as a Service and Open Source. Software as a Service (SaaS) has become increasingly relevant to both Enterprise and SMB customers and has the potential to impact the entire IT landscape. Although the market size for SaaS was relatively small ~\$6 billion in 2005,

it is poised to grow more than 20 percent annually [See Exhibit 6a]. Several factors are driving this large shift in preferred model: vendors are seeking attractive annuity revenue streams, customers are pushing for more affordable and lower TCO alternatives to packaged software, and critical technology enablers like broadband wireless and universal access are coming online. SaaS has already gained traction in number of application areas – such as payroll, human capital management, CRM, conferencing, procurement, logistics, information services, and e-commerce) – and should make gains across a much broader cross-section of applications over the next 3 years. Out of 34 application areas we have examined, only nine are unlikely to see some SaaS adoption over through 2008 [see Exhibit 6b].

EXHIBIT 6a

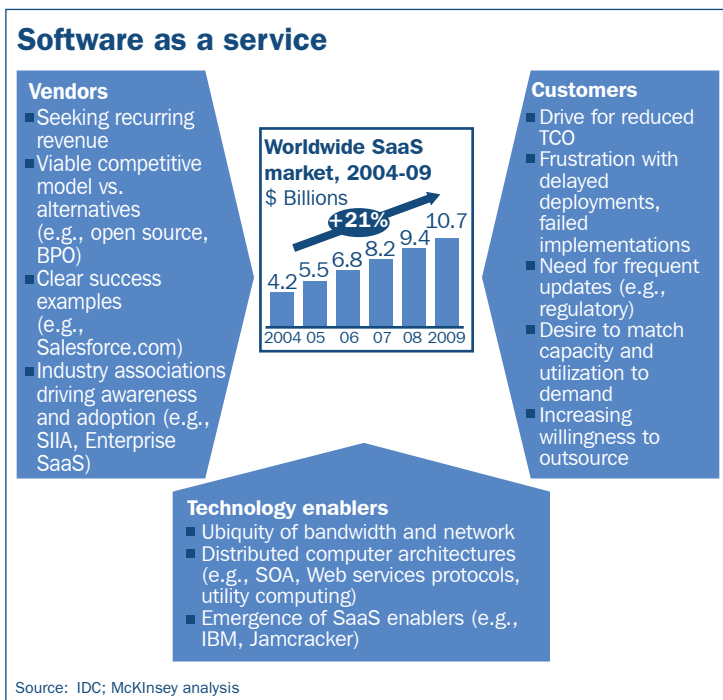


EXHIBIT 6b

SaaS adoption by segment – Enterprise

| Infrastructure and tools | Back-office applications | General applications | |
|---|--|---|---|
| <ul style="list-style-type: none"> Secure content management Security/vulnerability management Backup/archival Development tools Integration/deployment tools | <ul style="list-style-type: none"> Payroll Human capital management CRM Procurement Logistics | <ul style="list-style-type: none"> Conferencing applications eCommerce (on-line storefront) Information services | Applications already migrating to SaaS |
| <ul style="list-style-type: none"> Identify/access management Threat management Change/configuration management Performance management Event automation/job scheduling Network and service management | <ul style="list-style-type: none"> Engineering applications PLM Project management Business intelligence Product planning Inventory management | <ul style="list-style-type: none"> IP telephony Messaging Web content management Web analytics Search tools Location-based services | Applications likely to migrate to SaaS in 3 years |
| | <ul style="list-style-type: none"> Financial applications | <ul style="list-style-type: none"> Authoring applications Document and records management | Applications unlikely to migrate to SaaS |

Open Source continues to challenge packaged software business models. Major open source projects have extended across virtually all layers of the software stack, including web browsers (Mozilla, Firefox), application servers (JBoss, JOnAS, Geronimo), web servers (Apache, Tomcat), mail servers (Sendmail, QMail), databases (MySQL, MaxDB), operating systems (Linux, BSD, RTOS), and programming languages (Perl, PHP, Smalltalk, Java). A recent McKinsey survey of CIOs indicates that experimentation with open source software is now relatively mainstream, with 43 percent reporting use of some open source applications and 41 percent citing the use of an open source infrastructure like Linux. The open source software these respondents employed most often included web-based applications, operating systems, databases, and web services.

Industry Structure Discontinuity: More

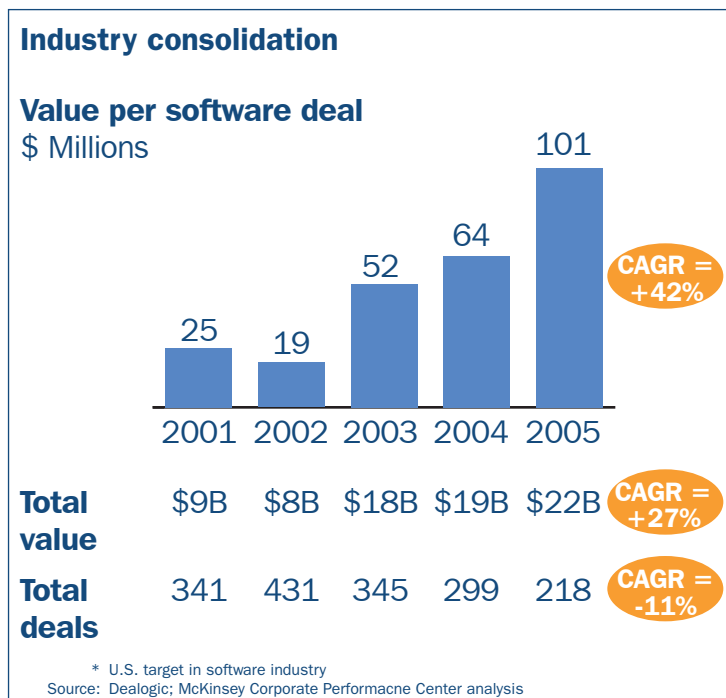
Gorillas. The software industry structure continues to evolve rapidly. Software’s growing pervasiveness is pulling new industries and players into the ecosystem and accelerating M&A activity is recontouring it. The result will be more “gorillas” – large companies that exercise substantial control over zones of the ecosystem. Specifically:

- **New entrants are arriving**, pursuing attractive software opportunities. A variety of players – including media content houses, advertisers, cable/satellite companies, and consumer electronics companies – are aligning to create integrated digital media experiences. Telcos are increasingly involved through smart phones and rich wireless applications. Many hardware companies are becoming major players in software, initially with a focus on infrastructure software but increasingly looking beyond to applications and other software capabilities that transform business performance. Software players of all sizes will need to actively pursue a new wave of alliances and partnerships, often with strongly entrenched incumbents, to capture value across a wide range of new end-customer experiences.

- **Consolidation continues** creating a smaller number of “gorillas” with a stronger hold on sales channels. Ongoing pressure to create returns from scale (primarily driven by scale in sales and marketing) has accelerated M&A activity back to pre-2000 levels. The number of software deals has declined to roughly half that in the bubble years, from 370 to 533 deals per year with U.S. targets in 1997 to 1999 to 218 in 2005. Yet the total value of these deals – \$22 billion in 2005 – is roughly in line with annual pre-bubble levels of \$10 billion to 26 billion in 1997 to 1999. The size of each software deal has steadily increased, quadrupling over the last 5 years to more than \$100 million each [see Exhibit 7]. For large companies, the time may be right to fill technology gaps and make transformations before others snatch up attractive targets. For smaller companies, this acquisitiveness (combined with the re-opening of the IPO market) suggests that multiple attractive exit options will exist.

Given these discontinuities, software executives will have to carefully consider their own businesses to anticipate the realities of the new ecosystem.

EXHIBIT 7



The New Reality: Adjusting to Emerging Ecosystems

While previous industry shifts typically added new layers of software atop the existing stack, this quiet revolution is a more fundamental transformation. It is reshaping the entire industry to deliver more value, in more manageable pieces, over time. Ongoing restructuring will lead to more established, broadly shared sales channels that deliver new products and services more efficiently to enterprise customers. Software as a Service will shift customer expectations about quality and measurement of TCO, and will make it easier in some areas to “rearchitect the stack” by switching to a delivered model for apps. Tacit interaction is the next frontier in business automation value, one that requires the full use of modern collaboration and data sharing platforms. Taken together, these changes will have profound implications for both software providers and users. What should a software executive do?

- **Organize for flexibility.** Given the discontinuities that software companies face, the single most important competitive advantage may be agility – to match changing market conditions, adapt to partners’ strategic moves, and move quickly as new opportunities appear. In many cases, companies will have to break out of the functional organizational model so common in the software industry, which can slow the entrepreneurial pursuit of new opportunities in larger companies. Successful firms will use a range of organizational approaches, mixing elements of structure and process to create flexible response.
- **Define innovation broadly.** While technical innovation will always remain important, in most new ecosystems the key innovations will involve customer experience and delivery model. Software as a Service is a good example. While it requires an underlying technology platform, the primary sources of new value are the lower cost of implementation and management, and greater ease of use. Successful companies will pay attention to all potential avenues of innovation and will invest – internally and externally – to maintain an innovation lead.

Conclusions

- **Know the ecosystem's economics.** Finally, while it's always important to understand your own economics, successful companies of tomorrow will absolutely grasp the ecosystem's economics. Your ability to capture value will depend on knowing what drives value for partners, how customers reward value, and how value distributes across the chain, from component manufacturers to service providers. Spotting large economic shifts, such as the dramatically lowering cost of delivery, is the key to capitalizing early on the new ecosystem.
- **Rethink partnerships.** In a world in which there are new business models like SaaS, the traditional thinking about partnerships primarily in terms of VARs, SIs, and OEMs, is too narrow. It makes sense to consider partnerships with a broader new class of ecosystem players, including telcos, service providers and content providers.

Though the collapse of the bubble led to a difficult period for the software industry, it has returned to stable, healthy growth coupled with vibrant innovation in many categories. Moreover, the automation of tacit interactions and the surge in emerging markets promise further growth. This period of expansion is attracting attention – from external sources of capital, as well as large industry players – and they should fuel substantial growth of the ecosystem. At the same time, multiple discontinuities – technology, business model, industry structure – are changing the shape of this ecosystem. Successful software companies of the next generation will find their place in this new ecosystem, and by aligning to it, seize their share of this new value. The coming years promise to be exciting indeed as the software industry, once again, transforms itself to reach a new plateau.