Why CIOs Should Commoditize IT

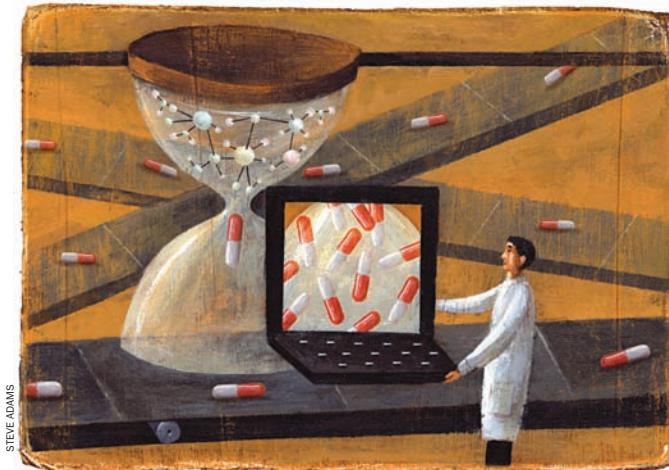**IT is well placed to speed time to market if used properly.**

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Several years ago, Virginia-based CTI, a medical device company, signed a multi-million dollar partnership with a biotech firm whose executives were stunned at CTI's rapid progress from concept to clinical trial prototypes. Around the same time, a Fortune 500 company acquired CTI to leverage its fast and lean R&D capabilities for future bioscience-related product efforts.

Both of these activities came about as a result of CTI's IT department's direct, proactive involvement in the firm's laboratory and engineering development arenas. Unlike typical IT departments, CTI's IT group focused on helping scientists and engineers solve problems *without* casting about for new technology systems to implement. This shift saved CTI 12 months of development time and led to several new product line add-ons and multiple new patents.

The idea behind such powerful results was sparked by a simple question: if Nicholas Carr is right, and computer technology is a commodity in the 21st century, then what role does IT play? One answer, it turns out, is that IT organizations are well suited to help a company speed time to market. Unfortunately, most IT executives spend their time arguing against the "IT as a commodity" philosophy rather than pushing to demonstrate the untapped value of IT. Ironically, this keeps IT looking backwards rather than forwards, and only reinforces the frustrations that many business executives have with IT.

For those willing to move beyond the "IT as a commodity" argument, IT can speed a company's time to market by identifying business problems at the tactical and strategic levels that can be solved by application of IT personnel knowledge and experience.

Solve Problems

CTI's scientists and engineers were building data collecting instrumentation using various equipment components from National Instruments, Agilent, and other vendors, all tethered to a desktop computer. Placed in a nine-foot tall metal rack, this lab instrument delivered, measured, and analyzed CTI's drug delivery technology. Before IT became involved, each rack took at least 30 days and $30,000 to assemble.

IT was asked to solve a computer-related issue, but in doing so, the IT technician involved identified three improvement opportunities: (1) the use of non-standard equipment in each rack; (2) software installation was done individually each time a rack was built, and (3) each rack had varying levels of documentation depending on the scientist or engineer involved in assembly.

The solution was simple: leverage the same processes IT used to build and test enterprise-level computers. Standard parts were identified from each vendor, with supply management and product timelines reviewed. Standardized computers were purchased along with standard software. This then allowed IT to build, test and document a standard software package. Time was cut to three days — and now included an FDA-level qualification, at no additional cost.

More improvements continued, with IT and lab personnel working together to further simplify rack configurations with wireless connectivity and tablet computers. Eventually, the rack was eliminated altogether in favor of a personal digital assistant and new briefcase-sized equipment from a laboratory vendor. Equipment costs dropped to a mere $3,000.

Although this tactic of "business solution first" involvement has been adopted by a handful of firms such as AstraZeneca and Boehringer-Ingelheim at the local divisional level, the vast majority of IT departments are still caught up in the "IT as a commodity" argument, pushing new technology systems as enablers of strategic advantage.

Focusing on new technology rather than bottom line business impact lets IT miss low-hanging strategic fruit. A 2007 MIT Sloan School of Business study revealed that approximately 75% of patents lie dormant within companies. This poor level of patent utilization is ultimately an enterprise content management problem. IT could use an already existing system, such as a document management system, and combine it with searchable patent summaries similar to the patent marketplace (www.yet2.com), to allow 100% of a company's patents to be readily and instantly available. This type of "book-shelving" is only beginning to be discussed in product management circles and is just the type of strategic innovation IT can lead.

By moving beyond the commoditization argument, IT departments can be a resource to enable business experimentation. Depending on the nature of the experiment, provide IT 60 to100 days to improve innovation capacity with no cost increases. Start small to provide a subtle level of change that will be easier to affect. Let IT personnel identify when a better way exists, and scale solutions. ●

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