

If you want to be successful, get your head in the clouds

For most of us, being accused of having our head in the clouds is usually taken as an insult. In the future, however, this might be considered more of a compliment.

At least that's the conclusion you tend to come to after reading "Management Strategies for the Cloud Revolution: How Cloud Computing is Transforming Business and Why You Can't Afford to Be Left Behind," by Charles Babcock, an editor-at-large for Information Week. Babcock has also served as an editor for Digital News, Computerworld and Interactive Week. He definitely has the credentials and the credibility to write this kind of book.

"The federal government now spends \$76 billion a year on information technology," Babcock observes. "President Barack Obama has endorsed the concept of cloud computing as one way to bring escalating costs under control. Ultimately, the cloud is a democratizing force, extending more computer resources to those whose access was formerly rationed."

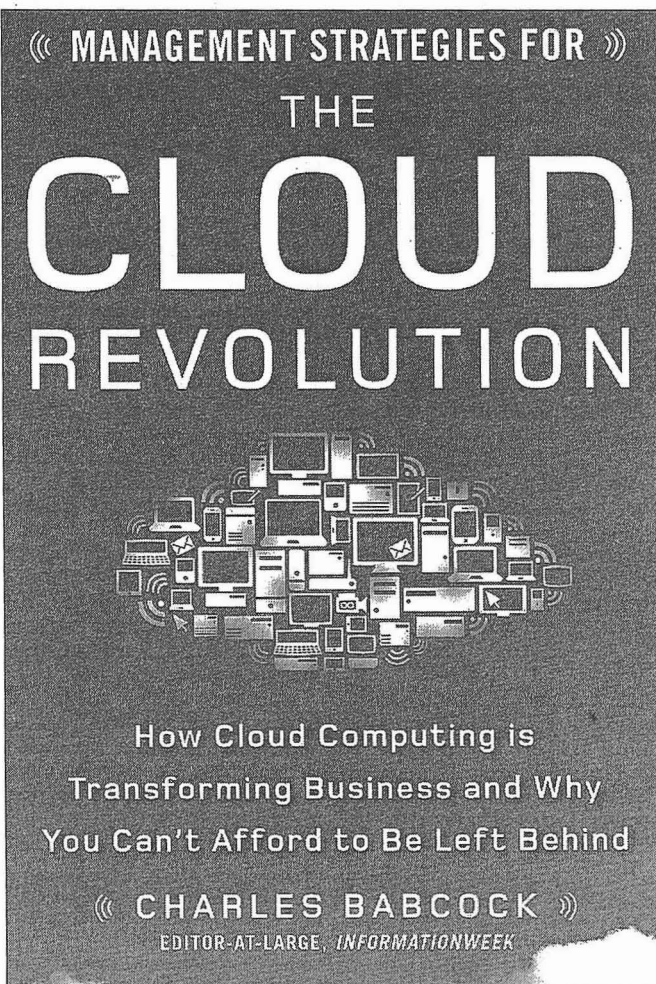
Cloud computing, according to Babcock, "is a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources that can be rapidly provisioned and released with minimal management effort or service provider interaction." He goes on to explain that cloud computing is composed of five essential elements: on-demand self-service, broad network access, resource pooling, rapid elasticity and measured service.

At the heart of cloud computing is the notion of "virtualization," which involves distributing the computing process across a wide range of individual machines and servers in order to maximize efficiency and responsiveness to a variety of simultaneous needs. Virtualization provides the foundation and conceptual framework that make cloud computing a truly revolutionary approach to conducting business.

"Virtualization is one of the key technologies that give the cloud its elastic quality, so that a user can enlist support from many servers and, conversely, many users can receive services from the same server," Babcock notes.

One of the first companies to recognize the immense potential of cloud computing as a business model was Google. "Google figured out how to build cloud servers ahead of the rest of the marketplace," Babcock writes. "A cloud service can place many users on one machine without danger that they will trespass on each other or see each other's data."

A key advantage of cloud computing over more traditional forms of computing, especially from a business perspective, seems to be its inherent dependability. "Cloud suppliers can argue that their data centers are less likely to go down than the average corporate data center," Babcock notes. "The marvelous Google search engine always



"Management Strategies for the Cloud Revolution: How Cloud Computing is Transforming Business and Why You Can't Afford to Be Left Behind," by Charles Babcock. New York: McGraw-Hill, 2010. 272 pages, \$27.95.

seems to be available, any time of day anywhere in the world."

Babcock acknowledges that most users are unaware of the behind-the-scenes transformation that made this kind of consistency possible. By distributing computing power across a virtual grid, interruptions in service can theoretically be eliminated altogether, which has an enormous appeal from a business perspective.

At the same time, a temporary loss of service is inevitable at some point due to unanticipated problems and circumstances that are increasingly difficult to predict. After all, we are in uncharted territory with respect to our use of the technology. What is clear is that, as more people engage in cloud computing, any outage will have devastating financial implications for the company that experiences the loss. To accentuate this point, Babcock describes the financial repercussions of a 44-minute disruption in service at Amazon.com that precipitated revenue losses that were immediate and significant.

"Coping with failure in the cloud means giving your application the capability to failover to another server," Babcock explains. "That's one of the major differences between operating in the cloud and operating in the traditional data center."

One of the most challenging aspects of cloud computing is the never-ending quest to provide users with a high degree of security. Keeping personal identity

and sensitive financial data secure is an ongoing and ever more important consideration in the digital age. Cloud computing, while offering unprecedented opportunities on a number of tangible levels, does tend to exacerbate the problems associated with keeping transactions safe.

"Cloud Revolution," although written for a general audience, will definitely have a greater appeal for those who have more than a passing knowledge of the subject matter it covers. For instance, in chapter five, "The Hybrid Cloud," Babcock writes "Instead of Sun UltraSPARC, DEC Alpha, and IBM POWER or mainframe processors, the data center is constructed from a single set of x86 microprocessors, such as Intel's Xeon." If you understand what this means, chances are you work in or around information technology.

In the final analysis, there is little doubt that Babcock is intimately familiar with his subject matter and its implications for business. If you want to get some idea of what you will need to know in order to be successful in this arena in the future, then this is a book that definitely needs to be on your reading list.

In other words, if you want to be successful in the future, it might be a good idea to get your head in the clouds. Literally.

— Reviewed by Aaron W. Hughey, Department of Counseling and Student Affairs, Western Kentucky University