■ KENNETH E. KENDALL, Feature Editor, School of Business-Camden, Rutgers University

A sudden, unexpected event occurs. If the consequences are significant we refer to this damaging, unpredictable event as a disaster. Information systems are vulnerable to computer attacks and viruses, disruption of telecommunication services, vandalism, power outages, and an assortment of natural disasters. Large firms with information resources and all firms that do business electronically need to anticipate events, be prepared if and when an event occurs, and take the necessary steps to keep the business going and recover from adversity. Since it is so difficult to predict disasters and often it seems futile to prepare for one that never occurs, CIOs and IT practitioners need examples regarding how disasters happen and what they need to do to prepare for them. This month's article ponders whether examples from the baseball diamond can help IS professionals identify the hurdles they need to clear to prepare the business for a disaster and its aftermath. [***Kenneth E. Kendall, Feature Editor***]

Rules and Rainchecks: Can Ecommerce Firms Learn about Disaster Planning from Baseball?

by Kenneth E. Kendall, Rutgers University

When is half of an event worth more than a whole event? When it is the fifth, and possibly final game of the World Series. For those of you who haven't been keeping track of America's pastime, every year in October the two best teams in Major League Baseball (MLB) play a best of seven game series to determine the championship team. This year was a little different than other years.

The Philadelphia Phillies met the Tampa Bay Rays for what appeared to be an unremarkable series. But in the fifth game, played in Philadelphia, it started to rain. It seemed as though the players would try to endure the elements and finish the game, but it soon became apparent that the game had to be stopped, at least temporarily.

Lack of Information in a Crisis

Yet no announcement was made. Nothing came over the loudspeaker. No authority figures made their presence known. The crowd looked to those in uniform (ushers, food vendors, and maintenance crews) for a clue about whether to stay or leave. Another large group of fans were huddled around a television set hoping to get word from another group of authority figures, the local sportscasters and meteorologists.

I thought that I had the answer. Since I had my iPhone at the game and was receiving a play-by-play description from the *MLB.com At Bat app*, which included graphical images of a batter and each pitch thrown, color-coded for balls, strikes, and hits. But the MLB app simply froze on the last batter. (I received no other messages until the game restarted, and then the image changed to the player that was currently up to bat.)

A couple of our friends headed for the exits only to give away their tickets to a "couple of college kids," not realizing the game would be resumed in a couple of days, and that only original tickets would be honored for re-admission. When they arrived home, they heard that the game was suspended. Their tickets were like those being sold on e-bay for a pretty price.

Rules Are Made to be Applied

There was no special rule for calling off a game that that would declare the champion before the ninth inning. But why

Kenneth E. Kendall
is a Distinguished Professor of Management in the School of Business-Camden, Rutgers University. He is one of the founders of the International Conference on Information Systems (ICIS) and a Fellow of the Decision Sciences Institute (DSI). He is the immediate Past President of DSI. Dr. Kendall has been named as one of the top 60 most productive MIS researchers in the world, and he was awarded the Silver Core from IFIP. He recently co-authored the text Systems Analysis and Design *(7th ed.).*
http://www.thekendalls.org

wasn't there a rule? Ending a game before each team had a chance to win the game within the full nine innings would not be satisfying for fans on either side and would result in the dreaded asterisk (*) in records books until the end of time.

Ending a game prematurely was apparently unthinkable. No one thought that this would ever be a possibility, from its beginning in 1903 when baseball was played in fields, then parks, then stadia, and until now, when post-stadium era baseball is once again played in ballparks.

Even the experience gained in the 1989 Loma Prima earthquake didn't seem to help the authorities consider how to handle a suspended game. The earthquake struck at 5:04 p.m. before Game 3 of the 1989 series was scheduled to begin. The series was delayed for 10 days. According to an article on *Wikipedia* about the 1989 World Series, Baseball Commissioner "Fay Vincent had made the decision to postpone Game 3 without telling anybody first. As a result, the umpires filed a formal protest of Vincent's decision."

One would imagine that someone had thought of the possibility that a game might need to be suspended in the middle of a game and continued at a later date. Perhaps they thought that the rule that "if a game is called after five innings have been completed it is a regulation game," would cover it. While fans agree that this rule applies in a regular season game, it does not seem to work in a championship series, especially in this case, where the series would end and one team would be declared the winner.

Can Examples from Baseball Help CIOs and IT Managers?

Any unexpected event can have a major impact on business in this new electronic world. In some ways, the network of computers has made it more likely that something unpredictable might occur.

This article resolves to determine what we can learn about three stages of an unanticipated disaster:

1. Predicting if and when a disaster will occur.
2. Preparing for a disaster if and when it occurs.
3. Planning for disaster recovery if and when a disaster occurs.

Predicting If and When a Disaster Will Occur

Let me begin by defending Major League Baseball by pointing out that the rain event can be placed in the category of a Black Swan event. In a 2007 book, Nassim Nicholas Taleb defines a Black Swan event as one that exhibits rarity, extreme impact, and retrospective (not prospective) probability.

In other words, a Black Swan event is an outlier; something unpredictable and perhaps unimaginable based on our past experiences.

According to Taleb, other Black Swan events include the introduction of the personal computer, the creation of the Internet, and disasters such as World War I and 9/11.

Preparing for a Disaster If and When It Occurs

Crises can be man made or natural, and they can range from inconvenient to crippling. According to Hecht (2002), a thorough business continuity management plan should be completed and supported by the highest levels of management.

Most of us are more familiar with the concept and actuality of disaster preparedness. In essence it includes the steps employees should execute in the event of a crisis.

Even disasters that seem rather mild (a power outage on a hot, summer's day) do not have to be catastrophic to cause dramatic disruptions in a business. Typical occurrences that cause disruptions, but can be prepared for include power outages, power spikes, power surges, under-detected computer viruses, failures of computer hardware and bomb threats against a particular facility.

It is difficult to prepare for the Black Swan event. When one does not know the nature of the disaster, it is hard to describe the actions one needs to take in response.

Planning for a Disaster Recovery If and When a Disaster Occurs

By contrast, disaster recovery planning supports the "firm's ability to recover the core business functionality of its software, data, and systems after the occurrence of a natural or man made disaster. Organizations must take steps to protect their software, systems, and data backups from natural disasters, power outages, and even terrorist attacks" (Kendall, Kendall, & Lee, 2005).

Disaster recovery tries to answer the questions of "How can the business continue in the aftermath of this crisis?" and also, "How can essential systems within the IT infrastructure be restored?" The Kendall, Kendall, and Lee article suggests that IS practitioners not only rehearse their plans, but should also develop them further using a workshopping approach. This helps to identify and develop disaster recovery roles for employees.

Frey (2004) notes the importance of knowing who will be responsible for making decisions regarding: continuing business operations, supporting ad hoc computer and voice communications, where personnel will go in an emer-

Ken and Julie Kendall doing their field research.

gency, taking care of the personal needs of employees, and restoring the main environment, if possible.

Companies have a lot to lose when serious events occur. Of course, there is the disruption to everyday operations, but along with this a company stands to lose revenue, their reputation, assets of their clients, proprietary assets of their own; certainly, employees and customers are vulnerable to loss in a disaster event.

This is where baseball comes in. Major League Baseball and the Phillies handling of the 2008 World Series can teach IT professionals about handling disasters, specifically about disaster recovery when faced with a Black Swan event.

Now Is the Time to Act

Even though baseball didn't perform very well in the first two phases of disaster prediction and disaster preparedness, it went into full swing during the disaster recovery phase. Despite the initial chaos and uncertainty, MLB and the Phillies organization came back to win the day with their swift recovery from the disaster of the first part of Game 5. Each employee working in the ballpark for the final game understood and executed their role completely. Baseball made the fans, the teams, and the people of Philadelphia happy with the actions that were taken.

When companies do the right thing, through disaster preparedness and disaster recovery planning, they can diminish the potential for loss of assets and maybe even prevent the loss of entire business.

The World Series is the championship of baseball, the American pastime, the game. Perhaps baseball can be of help to us in the real world if we learn lessons from the game. Even a casual observer can realize that team building, cooperation, customer service, media distribution, accepting judgments, and other practices can be used as examples of good practices. Successful disaster recovery can now be added to the list.

References

Frey, H. (2004). Scalable geographic routing algorithms for wireless ad hoc networks, *IEEE Network*, Jul/Aug 18-22.

Hecht, J. A. (2002). Business continuity management, *Communications of the AIS, 8*, Article 30.

Kendall, K. E., Kendall, J.E., & Lee, K.C. (2005). Understanding disaster recovery planning through a theatre metaphor: Rehearsing for a show that might never open, *Communications of AIS, 16*, 1001-1012.

Taleb, N. N. (2007). *The black swan*. New York: Random House.

www.wikipedia.org article on the "1989 World Series," last accessed January 9, 2009. ■

NAMES IN THE NEWS

CAROL LATTA, Executive Director, Decision Sciences Institute

Horton and Latta (in a 1980s photo).

Gerald Horton, a long-time friend of DSI Executive Director **Carol Latta**, died on October 29, 2008. Horton was a member of the Georgia General Assembly (in the words of a friend, "he was absolutely good-natured, whether you were arguing or agreeing with him"). He went on to a successful career in public relations, including two years as chairman and chief executive officer of the Ogilvy & Mather public relations group in New York City. He also served as executive vice president of Georgia Power Company and became Executive Professor of Management and founder of the nonprofit Management Program at UGA's Terry College of Business. He also taught at Georgia Tech, Atlanta University, the New School for Social Research in NYC, and other academic institutions. Horton was a friend to many DSI members and past presidents, and Carol Latta missed the closing day of the 2008 DSI annual meeting to be at his memorial service, which was also attended by The Honorable Andrew Young and other distinguished guests.

Marcos F. Massoud, The Robert Day School of Economics and Finance at Claremont McKenna College, has been honored with the establishment of the Marcos F. Massoud Endowed Chair in Accounting in recognition of Professor Massoud's "many contributions to the College and his profession." Currently the Robert A. Day Distinguished Professor of Accounting, Marc has been a member of DSI since 1970 and was the president of the Western Region during 2000-2001. Also, he has been the president of the Congress of Political Economists International since 2007. ■

marc.massoud@claremontmckenna.edu