



A White Paper

**Event Data Management:
The Next Killer App
For the Meeting and Event Industry**

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Technology In Meetings

Since the mid-90's, technology has redefined how the meetings industry works. New kinds of software and data management capabilities have addressed key tactical needs for meeting planners and suppliers alike. Automated systems for location and venue sourcing, event marketing, online registration and attendee management, payment processing, lead generation, and post-event surveys have found their way into the mainstream. It is not difficult to find software solutions that specifically address operational needs related to the planning and execution of meetings. Innovative companies are making strides to combine related software capabilities into integrated toolsets.

Today, most meetings-related technology focuses on pre-meeting operational needs. To a lesser extent, certain organizers use online surveys to gather data from attendees after the event. Most recently, technology has begun to support onsite components of events. New capabilities extend value through implementations of onsite computer kiosks, smart cards and RFID (Radio Frequency Identification), attendee polling, and wired namebadges to enable more effective "social networking."

All of these relatively new innovations have generated a mass of data that gets collected and stored, but remains relatively (if not totally) discontinuous and underutilized, or never to be seen. And why wouldn't that be the case? The various operational systems tackle single needs, and for operations purposes, the residual data is simply a byproduct. Once the meeting or event is concluded, the planners and suppliers move on to the next one.

However, as the meeting planning process matures, and as meetings spend begins to blend more with travel spend and come under the scrutiny of procurement and financial stakeholders, event-generated data takes on a new identity and becomes an invaluable strategic resource. As event data accumulates in ever greater quantities, meeting organizers and marketers are contemplating its inherent value. As this evolution continues, these levels of strategic stakeholders become a key part of the event data user mix.

So here we are in 2005, with a multitude of excellent technologies that help meetings operations, result in masses of data, and conclude with a plethora of related but unconnected data sets. In order to address broad informational needs, including those of the strategic stakeholders, it is now necessary to find methods for bringing all event-related data together, and to build flexible interfaces to that data so that it can be effectively used by every stakeholder across the spectrum.

As we reach the data bursting point, diverse needs define new data management solutions. Event Data Management (EDM) is the next generation software solution that will allow us to store and access data across a single event, or multiple events. It will give us a window to information across every aspect of an event for which data is collected, that is:

Attendees	Activities	Exhibitors
Locations	Trade Shows	Staff
Accommodations	Speakers	Budgets
Travel	Suppliers	Communications

This paper will outline how Event Data Management is evolving to provide what is sure to become the next “killer app” to the meetings industry.

Event Data – What Is It, Who Needs It?

Data associated with an event begins at the conceptual level and continues well beyond the farewell address. Event data is gleaned from every aspect of the process, including planning, budgeting, registration/housing/travel management, attendee activity within the meeting, and measurement. The potential for gathering event information is unlimited, and data from one event can be applied to future programs in a cycle of success – if we do the necessary work to find, gather, and work with it.

That is not always easy. Meeting professionals are bombarded with information from management, staff, attendees, vendors, exhibitors, speakers – all stakeholders, including their own input. The problem is not quantity, it’s compiling the data from all sources, assessing it, and utilizing it for the organization.

Event data can and should come from every entity involved with the meeting, and at

every touch point. Our key assumption is that meetings are people-centric. That is, they are organized and executed by people for the benefit of people. All services are provided and supported by people and the outcomes are for the benefit of people. As meeting related information is exchanged, data is generated in various combinations from interactive dynamics.

As meeting professionals mature in their roles, they are expanding from solely tactical operations experts into strategic managers for their organizations. Applied here, these professionals have the opportunity to not only manage the collection of diverse event data, but also to take control of the information that flows from any event. New EDM capabilities will give them the wherewithal to work with the data they gather, and report out to stakeholders. Grasping the power of event data, and having EDM capabilities, meeting professionals can better contribute to their organization's future.

Interaction Data		
Attendee	<>	Attendee
Attendee	<>	Exhibitor
Attendee	<>	Staff
Attendee	<>	Speaker
Exhibitor	<>	Staff
Exhibitor	<>	Exhibitor
Speaker	<>	Staff
Staff	<>	Staff
Vendor	<>	Staff
Stakeholder	<>	Stakeholder

Enter EDM – Event Data Management

Meeting management used to be so much simpler... If we were lucky as meeting professionals, we had a computer and some way to compile information in a database or spreadsheet. If we were truly fortunate, we had meeting management software that allowed us to gather certain information on attendees, exhibitors, group hotel, and help manage some of the process. Meeting stakeholders were thrilled to receive even simple reports, because the previous norm had been attendance counts, revenue and expenses.

A Useful Analogy

In today's meetings and events, thanks to better and more accessible technology tools, we are gathering more and more buckets of event data from ever increasing resources. Over time, those multiplying buckets are getting deeper, accumulating more information, and there is no end in sight.. The crux of the problem is that we have excellent ways of filling these buckets, but no way to empty them into one big cauldron, so we can mix up a useful brew.



Event Data Management is the pipe that runs between all the buckets and feeds the cauldron. EDM utilizes data from a single event, or multiple events. The data sets extract from concept to final analysis, and include information from every touchpoint. EDM is necessary in order to bring it all together in a central pool from which we can tie any key data to any others, including past and future meetings.

The idea of bridging the gaps between diverse pockets of information is not new. Your own organization may use enterprise (ERP) systems from companies like Oracle/PeopleSoft, SAP, or Siemens to gather data from departments as diverse as human resources, finance, sales, and the distribution and supply chains. Since the aggregate information resides in one place, the capabilities exist to cross-tab and analyze across departments and see the bigger picture.

But where does the meetings and events data reside within these larger enterprise infrastructures? The fact is it doesn't, because software development for the meetings industry has been a niche effort, and its products are mostly singular applications from relatively small entrepreneurial businesses. According to Meeting Professionals International, meetings and events represent well over US\$100B in economic impact - still a small figure in the world economy. Simply put, ERP providers have not had the financial motivation to apply resources to EDM development, so we have to look to companies and organizations with vision in our industry to focus on the big picture and take us to the next level.

But this development must move forward as the data from meetings continues to accumulate. In aggregation, it has clear potential to impact stakeholders at the highest strategic levels, and is, in fact, needed to guide critical decisions. The outcome of meetings is diverse information from key people within, and close to, an organization. Who can afford to ignore their customers, users, staffs, experts, suppliers, and the related budgetary impact on both sides of the balance sheet? The gap comes from the disconnect between the meetings software providers and the ERPs. Whoever creates the conduit will catapult this relevant data to the next level. EDM provides critical data useful throughout the enterprise such as keying on customer performance contained in customer relationship management (CRM) and tying it back to events. Did the customer experience drive an increase in business measured weeks or months after the meeting? The results of this analysis can conclusively prove a meeting's success, and also feeds into future events, continuing the cycle.

EDM is not simply about data gathering. There must also exist an interface to the data, so that meeting stakeholders can extrapolate reports which map to their objectives and measurements of success. These interfaces need to be able to produce relevant results to answer an unlimited array of questions. For example, how many attendees and of what types will make the event a winner? What is the right number

of annual exhibits, at what average fee? What elements drive successful traffic in the exhibit hall? Are people attending the sessions they should? Are they networking successfully? Is the faculty performing at acceptable levels? How did we do compared to historical budgets?

As data is collected and organized in our master cauldron, and intuitive and user friendly interfaces are created, then what remains is for the data users, those who need information, to craft their questions and conduct their queries. This is the EDM tapestry. For example, if part of a successful conference means attendees learn a specific curriculum, they can be pre-tested during the online registration process and tested again and reported upon following the program using the same software. Typically, people are registered in one system and tested in another. Similar examples are found throughout the meeting process. The truth is our data gathering is fragmented, so our performance analysis is flawed. But with EDM pulling and aggregating data from multiple sources, we arrive at a new level.

The initiation and operation of newly emerging EDM systems must rely upon those experts who understand each and every information reference point for meetings and events – the meeting professional.

Impact of EDM on the Meeting Industry

The acceptance and full integration of EDM will have a dramatic impact on meetings as strategic elements of an organization's success. Return on Investment (ROI) and Return on Objectives (ROO) are buzzwords that have been swirling around the industry for years, but have proven difficult to quantify, capture and tie back to business objectives and stakeholder expectations. Certainly, pieces of the puzzle can be linked. Did the meeting come in on budget? Where the evaluation ratings in an acceptable range? Was the exhibit hall full? But this puzzle has only some of the pictures completed and leaves the background pieces and much of the frame in the box.

The full impact of EDM becomes clear when applied to the major components of an event:

- Business goals and objectives
- Stakeholder expectations
- Event planning
- Onsite management
- Meeting analysis
- Collation into future events

We can all agree that an event should not be held unless it has strategic value to the sponsoring organization. Are we attempting to increase business, train employees, or educate members? If so, by how much, to what level, or on what subject? How is success measured? How do we know when we've succeeded?

Meeting professionals versed in EDM know that each and every goal, objective and expectation can be quantified and measured if properly defined. It is the primary strategic role of the meeting professional to understand what defines a meeting's ultimate success, weave the criteria into the event plan, and apply appropriate metrics that circle back to the strategic value of the event. If EDM tools are properly applied, not only can success be quantified, but event management improves as well.

Using the EDM tools available today, attendees stay better informed, exhibitors receive more and better information, faculty are better prepared, vendors stay up-to-date on requirements, facilities provide better service, and meeting organizers have instant access to performance metrics. With EDM in place, many of the most tedious chores such as transcribing onsite registration forms and entering evaluation results not only dissipate, but allow organizers to turn the event on a dime if indicators suggest it.

Issues Surrounding EDM

EDM abilities provide organizers with information that can change the flow of a meeting to make an impact when and where it matters the most, at the meeting itself, as well as to positively impact future events. However, for all of the benefits of a comprehensive EDM system, some issues and concerns remain. In this Orwellian age of privacy loss, identity theft and data security lapses, reaping attendee data for any reason has its challenges. For instance, having the ability to gather information on an individual's movements within an event – including what sessions they attended and what they thought of them, and even to whom they spoke and the duration of each encounter – can easily be seen as an invasion of privacy. Meeting owners and attendees must weigh the advantages of comprehensive EDM against privacy and security issues in order to strike a compromise. In some settings, primarily corporate events, individual data privacy is not as much of an issue. If you are an employee of the corporation, you might have to go along or move along.

For other events, the dilemma may be solved through a “trusted third party” and masked, or aggregated, information. In a masked environment, attendees are assigned codes that may be imbedded in a Radio Frequency Identification (RFID) chip or other

readable media. The trusted third party, typically the technology provider, has the only key to the code. Sensitive data is not divulged by attendee name, only provided in aggregate form. Non-sensitive data, such as lead information from a tradeshow is collated and provided to stakeholders by the third party after the event.

As Ronald Reagan said, “trust, but verify.” Whether using internal resources or a third party, fully understand how data is to be managed and protected. Where and how is the information to be stored? What policies and procedures are in place to avoid security breaches? How long will the data be stored, and what happens to it when that time has come? What happens if your trusted third party goes out of business? This should all be defined in detail before entering into any agreement.

Data compatibility also becomes an issue in the EDM world, especially in its current state of separate buckets of information. If some are aluminum and others galvanized tin, they may look the same, but not manage their contents in the same way. This is especially true with multiple entities collecting and processing event data, then attempting to integrate it with enterprise systems.

There is good news on this front. The meeting, hospitality, and travel industries have recognized the necessity of standardization, including the data that drives their businesses, and have acted to make certain that information can be integrated. Three organizations have recently been working in tandem to accomplish this goal.

In the meeting industry, the Convention Industry Council’s Accepted Practices Exchange (APEX) has been working since May 2001 to identify best practices and standards, and to streamline business processes within meeting management. Seven key areas were identified, from terminology to history to contracts, and a technology advisory council reviews the work of each of the seven panels for data relevancy. The council is made up of technology experts from across the industry, including meeting planners, hospitality, travel, and technology vendors. They are working on an industry-wide data dictionary, data map, and eXtensible Mark-up Language (XML) schema to insure the compatibility of data across sectors. XML is a protocol for describing text in a digital document, and allows data to be more easily shared.

In addition to APEX, the American Hotel and Motel Association created the Hospitality Industry Technology Integration Standards (HITIS) project to identify and ultimately standardize business data functions within that segment of the industry. On the travel side, the Open Travel Alliance (OTA) is focusing on technology standards to make the electronic exchange of travel related information easier. These two groups predate APEX and have shown how understanding the importance of data standards can transform an industry. Every time you go online to book travel,

lodging, car rental, entertainment, etc. on a single site, with a single credit card, you are witnessing some of their success.

The three groups are working collaboratively, and their efforts are helping to fuel the eventual seamless integration of data that is at the heart of EDM. As the industry agrees on a common data map and field descriptions, and with XML as a common language, it will at some point become irrelevant which devices are used to capture information, what systems are used to collect and transmit it, in what format it resides, and through what interface it may be accessed.

In addition to privacy, security, and data integration issues, industry acceptance will be required to make EDM commonplace. CIC member organizations like Meeting Professionals International (MPI), the Professional Convention Management Association (PCMA), the American Society of Association Executives (ASAE), the International Association for Exhibition Management (IAEM), and the Society of Incentive & Travel Executives (SITE) will need to educate their members on EDM methodology and set the example for its integration into mainstream meeting management. Their own meetings should become laboratories for EDM development, and the associations will become that much stronger and responsive to member needs as a result. We look to these organizations to help initiate EDM operations, and contribute to the establishment of industry EDM standards.

EDM Today

There are three key elements in data management that make EDM work in a fully integrated manner:

1. Data Collection: We have good tools to gather pre-event data (though we often miss the chance to make best use of them). We have some tools for post-event data collection such as post-event survey tools but use them sporadically. A significant gap, however, is onsite, where we have collected very little data because we haven't had adequate tools to do so. In many ways the onsite data should be considered the most important because this is the information which lets us measure and improve event performance (defined as the degree to which the event delivers on its business objectives).

2. Data Aggregation: These data from all of the buckets of information (pre- during and post-meeting) should be aggregated into a cauldron in order to provide a unified

data analysis picture. This can be accomplished by weaving together many separate systems or by using integrated systems that manage data in a consolidated way throughout the process. It is only through data aggregation that the true impact of a meeting can be measured. Did it meet the objectives? Were lives (or viewpoints) changed? Did learning occur? If so, how and by how much?

3. Data Use: Once the data is collected and aggregated, it should then be used to make the meeting more effective. It can be used to manage an existing meeting (using an onsite survey, for example, to tweak the next days' presentations) and for event measurement (use the data post-event for performance analysis and planning future meetings).

As we review the technology available today, much needs to be done to move event data from a collection of buckets to the integrated EDM model we have described in this paper. For example, sophisticated software exists to create meeting websites with comprehensive online registration, housing, agenda construction, travel management, payment processing, and more. More often than not, contrary to marketing claims, the registration systems do not "seamlessly integrate" with the transportation or hotel systems, though some have the ability to transfer data appropriately with the help of cumbersome manual operations.

Enterprise-wide systems for meetings consolidation are in their infancy. They are beginning to track budgets, keep organizational calendars, apply business rules to meeting requests, assist in project management, and provide sourcing tools. These "end-to-end" solutions, like industry leaders StarCite (www.starcite.com) and OnVantage (www.onvantage.com) can help save an organization huge sums in travel expense and increased efficiency. However, for all of their potential value to the enterprise, their links to the marketing and registration processes (where much of the data begins to flow), and to onsite management and post-event analysis are nearly nonexistent.

There are several companies, in many cases flying underneath the trade media radar, that are potentially closer to solving the EDM riddle, due primarily to the fact that they have focused on supplying and capturing event data at the event itself. It is from these and related companies that we feel a true "end-to-end" will come, rather than the players receiving the majority of the attention.

Device-oriented solutions providing data collection onsite and, thereby adding to the EDM picture include Channel 1, Charmed, Closer, Shockfish SpotMe, and Venue Maitre'D.

Channel:1's mhip device uses the Blackberry RIM interface to provide audience polling, dynamic scheduling, group and individual messaging, conference/tradeshow maps and product location, exhibitor information requests, and personal schedules and calendaring. From an EDM perspective, this system allows for onsite data collection/analysis to enhance the meeting or future ones.

The Charmed Badge is a simple, relatively inexpensive add-on to a standard badge. Designed specifically for networking, the next generation of this device, scheduled for release by the end of 2005, will be postage stamp in size with 4 "affinity" lights. As attendees meet, the badges will sense each other and based on demographic information captured during registration, one or more of the lights will illumine - the more lights on, the great the potential match. These devices will also capture the name, email address (if permitted), deep web address, and dwell time (the amount of time spent face-to-face with that individual). Although this data collection is limited to enhancing interaction among attendees and developing lead data, it is an effective product from a limited EDM perspective.

Closer Communication focuses on the tradeshow floor. This system promises to pop up a photo on your wireless PDA of the attendee standing in your exhibit booth with contact information and a predictive score (A through F) of the likelihood of a business match. The system includes a variety of analytic tools, such as measuring how long attendees stay at specific booths, capture of lead interest areas/requests, and predictive scoring of matches. The data collection is focused on enhancing the interaction between buyer and exhibitor.

Shockfish, based in Switzerland, has not made much headway in the United States with their innovative proprietary PDA-type device which uses "radar" to sense pre-selected attendees within range. Features include: a sortable attendee list, attendee email, conference schedule, online polling, and lead exchange. This has proven to be an effective polling, networking, lead exchange and messaging tool (both one-to-one and for group announcements.) The onsite data collection tools are very workable, as is the ability to communicate to the group should any changes in the program be needed.

Venue Maitre'D provides an interactive suite of wireless services through smart phones and Wi-Fi enabled PDAs. Among the features are: attendee email, messaging, chat, calendar, floor plans, and venue information and links.

Other companies that are impacting EDM include Columbia Resource Group's Rio, IntroNetworks, ExpoExchange's SmartMeetings platform, and Leverage Software's EventConnect.

These offerings are meetings-related matchmaking and scheduling products designed to facilitate bringing people of like interest together at conferences, user-group meetings and tradeshows. All have the ability to view other attendee profiles and invite them to meet during a conference. The ExpoExchange product is targeted specifically for tradeshows whereas the others cover a broader range of meetings.

Other more general networking applications are PeerFinder, PowerMingle and ExtremeNetworking. PeerFinder and PowerMingle are closer to business-based versions of popular social matchmaking programs such as Match.com. ExtremeNetworking focuses specifically on “speed networking” events providing a technical framework for this to happen.

As these matchmaking tools are web-based, they are typically used before the meeting with the goal of enhancing the networking onsite. All of them include measurement tools to track usage to help decide on future use. They are all potential components of successful EDM, and working together provide a more complete picture, but none are quite there yet.

Alliance Tech, Inc., based in Austin, Texas, is probably defined best as a technology integrator. They do not have any proprietary devices, but create software that works with a combination of RFID tags and/or Wi-Fi-enabled phones for attendee behavior and participation tracking and personal digital assistants, kiosks and other output devices for feedback and lead generation/retrieval. Alliance Tech has collaborated with other technology providers on a number of programs, and in all three areas we defined as data management, illustrating the ability for EDM suppliers to provide comprehensive solutions.



*RFID reader at portal
Non-invasive, no queues, accurate data capture*

“Audience behavior, their participation, and satisfaction with the event will lead to better accountability and a clearer picture of ROI,” according to Art Borrego, Alliance Tech CEO and president. “In fact, truly determining ROI is impractical, if not impossible, without the kind of data we assimilate.”

Some of the most innovative and exciting work in EDM we've seen is coming from companies who have been operating more at the physical event level, but have a sense of the strategic nature of the data they are able to supply and capture. Boston-based nTAG Interactive has pioneered an elaborate event communications system that uses a proprietary wearable computer (the nTAG) that is part nametag, part networking tool, part attendee tracker, part audience response/survey device, part message center, and provides lead generation and retrieval functionality.

Based on social networking research by co-founder Dr. Rick Borovoy and colleagues at the MIT Media Lab, the nTAG system has evolved beyond electronic icebreaker to what may become the missing link in the EDM chain, especially with the release of their second generation device and software in the first quarter of 2006. Because nTAG and others have focused on data being collected and disseminated at the core – the event itself – they may be in a better position to be that trusted third party and the conduit that connects all the buckets we have described. This ability for onsite data collection including surveys, networking contacts, and attendee tracking allow for immediate analysis to make “mid-course corrections” and improvement for future meetings as well.

Attendee Trip Report
Automatically track & report all interactions for an attendee



In conversations with Borovoy and co-founder George Eberstadt, all agree that the end-to-end solution claimed by some event management software solutions does not, and may never, exist within a single company. According to Eberstadt, success lies in being able to compile and correlate data from multiple sources and work with the meeting organizers to tie outcomes back to strategies.

“We have had the opportunity to integrate our systems successfully with each area of event data management,” says Eberstadt. “By being able to have the information flow through the nTAG solution, we are able to identify patterns and supply meeting



organizers with information they've never had before. We would never be able to accomplish this solely as an onsite data collector.”

Conclusion

EDM is the next natural, organic link in the evolution of the value chain for meetings, conferences, events, tradeshow, conventions, congresses, etc. EDM is the foundation for collection and integration of all relevant data, and flexible reporting of that data to address stakeholder needs.

The examples cited above in their current forms, along with event marketing, registration and management software systems discussed, are at least for the moment, primarily tactical tools. They manage data collection and reporting for various operational needs, but today a single event will likely use multiple systems provided by multiple vendors. In the end, there does not yet exist a common interface to get at this diverse event data. This is where there is immediate and ample opportunity for innovative EDM development, and a chance for evolution of the next “killer app” for the meetings industry.

We call on all event stakeholders to move EDM forward and achieve the strategic vision we've talked about for so long. We need commitments from industry organizations to support development and educate their members, and we especially need the continued innovation and commitment from the vendors who, even as we write this, are crafting the future of event data management.