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EA IS EVERYONE'S JOB

Driving Results Through EA:
A Racer's Perspective

A Newly Hired CIO: Day One

Data Governance for the Mobile Enterprise

Best of the Blog: EA Is FREE







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EA Is Everyone's Job

By George S. Paras

The theme for this issue of Architecture & Governance Magazine is "EA Is Everyone's Job." As awareness of the discipline around enterprise architecture has surged in the consciousness of corporate leaders in the C-suite, so too has the responsibility of those leaders to support enterprise architects as they ply their craft. This theme is evident in many of the articles of this issue of A&G.



Take Fred C. Collins's piece, "Driving Results through EA—A Racer's Perspective." Creative analogies are a terrific way to communicate a strategic approach to EA, and I love this one Fred introduce

proach to EA, and I love this one. Fred introduces principles that can help all EA stakeholders in the enterprise embrace best practices.

"A Newly Hired CIO: Day One—How Do You Get Your Arms Around Your Applications and Build a Plan?" is equally compelling as it touches on the increasing responsibility of the CIO to manage the EA process. Author Chris Manuel explores the importance of the CIO obtaining "detailed insight into the current state of the organization's complete application portfolio."

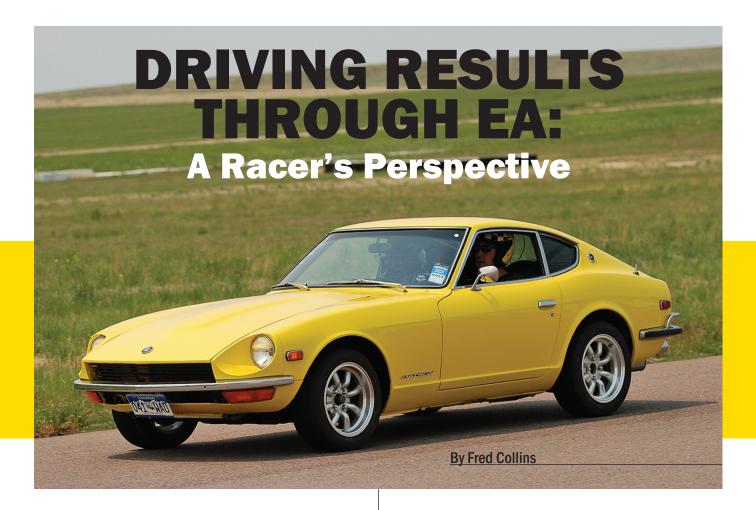
In "Data Governance for the Mobile Enterprise," author Jaspreet Singh touches on the trend toward the mobile enterprise, and how EA professionals must be ever vigilant in "dealing with the IT consequences" of this trend. Jaspreet makes a case for the importance of risk management and data governance, which fall within, or in some cases beyond, the purview of the EA professional.

We would be remiss in not sharing with our readers the litany of continuing education opportunities that are highlighted in our calendar. One in particular is Forrester's Forum for Application Development & Delivery Professionals, which will be held October 17–18 in Indianapolis. Even this conference seems to reinforce the message in this issue that the parameters of what is an EA professional and who is responsible for it are in a constant state of growth. Thanks for giving us the opportunity to reinforce this. **A&G**

GEORGE S. PARAS is editor-in-chief of A&G and managing director of EAdirections.

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acing involves the bringing together of driver, car, technique, and support to achieve desired results. Enterprise architecture brings together people, processes, methods, and tooling to achieve desired results for your stakeholder. Good drivers, like all good athletes, have a natural skill, and yet they are also smart and/ or humble enough to know that there are known techniques they must practice if they are to be proficient. There's nothing like a day at the track to validate (or invalidate) your design decisions and driving techniques. Likewise enterprise architects, to remain relevant and competitive, must also continually hone their skills and keep abreast of emerging trends and regulations that impact our profession. I love racing because it brings together automotive engineering, driver skill, and a support team with measurable metrics (e.g., lap times). I'm also passionate about enterprise architecture as it brings together business and information technology with demonstrable impact on mission effectiveness. Like racing a car, enterprise architecture is not something you can do "by the book." While you can learn many of the

basics of EA by reading, you need hands-on experience to be an effective enterprise architect.

YOU'RE RACING AGAINST YOURSELF

In racing, we tell drivers to "forget the competition and focus on your own performance." Novice drivers tend to focus too much on what their competitors are doing. Each EA program is different with respect to funding, scope, and purpose. Concentrate on getting the most out of your particular EA program. It's important to establish your own metrics for success. Having easy-to-measure and meaningful metrics is key to process improvements. Unlike racing, EA does not lend itself to simplistic performance measures (e.g., lap times). EA programs differ with respect to purpose and hence differ with respect to meaningful metrics. One of the most important discussions to have with your stakeholders is to clearly establish and quantify the desired outcome for their EA program.

Modern race drivers are highly instrumented; even low-budget racers have in-car video, multichannel data logging, and GPS. Like racers, enterprise architects need instrumentation to check the impact of changes or improvements to the EA program. With the advent of modern EA repositories and modeling tools, EAs can be highly instrumented. EA repositories can be configured to generate reports and dashboards of relevant metrics. As in racing, EAs should be willing and able

to make course adjustments based on sound feedback. Each track (business scenario or architecture segment) is different, and you'll need to adjust your approach for a given scenario.

RACING IS A TEAM SPORT

Whether you are a race car driver or working as an enterprise architect, you have to see what

you want, and believe that you can do it. You must have confidence in your team, and if you are working alone, you must have confidence in yourself. If you have this mentality, you can get what you want in any area. With enterprise architecture, there needs to be recognition of each team member's contribution to the success of the program. Small, focused EA teams working toward a common goal are more successful than a loosely knit collection of independent consultants.

SUCCESS RELIES ON MULTIPLE FACTORS

Optimization of a single component doesn't translate into winning (e.g., brakes, engine, suspension). Too often novices focus on simply dropping a huge engine into a car. The result is a car that they can't handle, overheats, burns up brakes, and spins out into the dirt in corners. Every change you do must result in tangible and measurable improvements. Successful EA programs focus holistically across all EA domains (strategy, architecture, capital planning, and governance). Successful

EA programs have defined metrics that can be measured. Narrowly focusing on tools (EA repositories or modeling) or making changes without understanding their impact to EA success metrics is a recipe for failure. Novice racers may also fall into the trap of attempting to optimize across all domains. We often tell them speed, reliability, cost—pick two. Likewise in EA. It often makes sense to pick a single architecture segment or business area rather than attempt to address the entire enterprise.

REACH OUT TO SEASONED EXPERTS

There's nothing like seat time next to a national champion to hone your skills and validate your approach. At a recent track event, I was able to ride along with Jeff Winters (National Nissan Champion) and learn some of his techniques. It's important to bring in recog-

nized subject matter experts into your EA program to independently validate your approach.

A few minutes of an expert's time will often save you weeks of rework. Examine other EA programs and seek out best practices and techniques your team can "borrow" for your stakeholder. Like drivers, you'll find most enterprise architects enjoy talking about their EA program and are more than happy to share lessons learned.

IF YOU CAN'T AFFORD THE PROPER SAFETY EQUIPMENT, YOU CAN'T AFFORD TO RACE

No one would argue that racing is a dangerous sport and that using proper safety equipment and adherence to regulations is important. Prior to going on the track, every car must pass a safety inspection, and all drivers must attend a basic overview of track rules and regulations. EA governance is akin to the role of regulations in racing, and security is akin to safety equipment. Security, like safety, must be seamlessly integrated into your EA.

EA governance processes should be established early and agreed upon by, and clearly communicated to, all EA stakeholders.

MAKE INCREMENTAL ADJUSTMENTS

Small improvements can equal big victories. Avoid making drastic changes in an EA program. Strive for continual improvement. EA dashboards and trend analyses are

excellent tools within the EA domain to track incremental improvements. Try not to make multiple adjustments simultaneously—it becomes unclear what is actually contributing to performance improvement. As in racing, EA teams should encourage experimentation and reasonable risk taking with an understanding that some initiatives may fail. That requires a safe environment from a cultural perspective but also requires regular feedback from stakeholders.

ACKNOWLEDGE YOUR SPONSORS

Racing is an expensive sport, and having sponsorship (tires, suspension components, track-side support) is

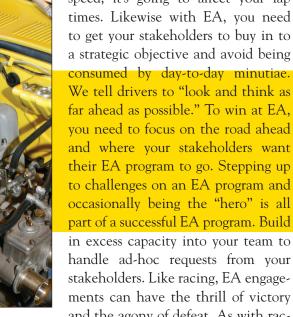
critical. Stakeholder involvement and recognition is the most critical success factor for any EA engagement. Actively work with your stakeholders and showcase your accomplishments. Consider staffing an EA communications role. Watch any experienced racer and you'll notice that his car and uniforms are covered with sponsor logos. During any press event, the racer will thank his sponsors. Take advantage of opportunities to showcase your stakeholders' success. All EA programs should have some sort of EA website that communicates and promotes the stakeholders' EA agenda. Understand that your EA program's success is ultimately about successfully advancing the agenda of your stakeholders. Understand your stakeholders and to whom they are beholden. You need to ensure they are viewed as successful in the eyes of their superiors; otherwise, your EA program will be scrapped.

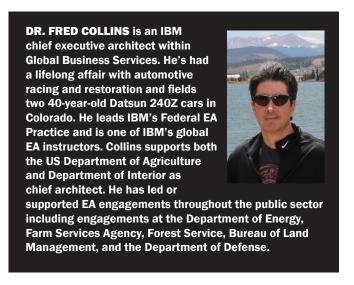
BRAKE LATE, ACCELERATE EARLY, CUT CORNERS

Being aggressive wins races. If your car feels like it's "cornering on rails," you're likely driving too slowly. To be aggressive, you need confidence in your car, experience in the seat, and a competent support team. But winning racers are not reckless. It's often said that "the slower you move, the faster the car moves." This means that if you're constantly correcting your driving angle and

speed, it's going to affect your lap times. Likewise with EA, you need to get your stakeholders to buy in to a strategic objective and avoid being consumed by day-to-day minutiae. We tell drivers to "look and think as far ahead as possible." To win at EA, you need to focus on the road ahead and where your stakeholders want their EA program to go. Stepping up to challenges on an EA program and occasionally being the "hero" is all part of a successful EA program. Build in excess capacity into your team to handle ad-hoc requests from your stakeholders. Like racing, EA engagements can have the thrill of victory and the agony of defeat. As with rac-

ing, your EA program may not go exactly as planned. You need to plan for the occasional missed shift and that inevitable slide off the track into the grass. A&G







By Chris Manuel

In the game "Sim City," players start from an underdeveloped green field—completely unencumbered by existing constructs such as buildings, power lines, roadways, and that 100-year-old tree you can't cut down because of what it represents to the local townspeople. If only the path for the new CIO were so open-ended! The reality is that the CIO's vision will only become a reality if he is able to quickly understand the existing state of the technology landscape he has inherited and develops his plan around it.

This is no easy task, considering the complexity of today's IT environment, and even less enviable in the current context of the typical "needed it last month" requirements from the business. To chart their course, CIOs need to get insightful, objective data to shape and substantiate their plan.

[Disclaimer: No CIO succeeds because of one specific reason, just as no CIO has a single cause for failure. This is not intended as the definitive guide to success

for the CIO, rather it is intended to shine a light on one critical ingredient—detailed insight into the current state of the organization's complete application portfolio. Without this information, CIOs risk a dreaded outage or major system failure that can cut their tenure short, before they even have a chance to implement their plan. So, we will assume that the new CIO already meets many of the things you find on "top 10" lists of what makes a great CIO, such as a strong understanding of the business and the right agenda and vision as well as the ability to function as a collaborative and strong leader.]

DEVELOPING THE PLAN: THE THREE KEY CHALLENGES TO OVERCOME

We have all heard of the "project iron triangle"—the triple constraint that every project faces between time, cost, and scope. The CIO faces his own opposing

constraints of speed, insight, and measurement when developing his plan. A great plan delivered too late is worthless (at least to the existing CIO). And a plan that is delivered quickly but only represents a catalogue of application assets has some value, but certainly lacks the depth necessary for real success. As important as it is to develop the plan, overcoming these three opposing constraints is vital to the plan's survival.

A new CIO inherits the pressing systems issues of his predecessors, so it is crucial to quickly get an understanding of the entire IT landscape of hundreds, if not thousands, of critical applications. But a simple in-

ventory is not enough—the CIO must have objective insight into the current state of these applications. The typical process of gathering data from disparate sources, coupled with time-consuming manual analysis and reporting, only leads to subjective information that is unverifiable and won't stand up to scrutiny from business leaders.

To make decisions on the applications that need to be retired or modernized, to determine the projects

that are too far gone to rescue, to decide if upgrades can or should happen, and to identify the systems most likely to fail or suffer severe performance issues, the CIO needs to measure the risk, quality, and stability of the entire enterprise portfolio.

So how can a new CIO overcome these obstacles to develop and implement a successful plan?

STEP ONE: START WITH THE BASICS

The only way a new CIO is ever going to get a handle on the IT landscape is through fact-based reporting on the makeup of the application portfolio. Prolific use of many different technologies makes this a challenge, especially since the CIO is up against the clock.

To get the transparency needed to build a credible plan, the CIO is required to:

- Inventory the entire application portfolio.
- Determine the technology mix of each application.
- Understand the complexity of the applications.
- Identify the risk hot spots that can derail initiatives.
- Evaluate the overall quality of applications being delivered both in-house and by external vendors.

STEP TWO: KNOW YOUR APPLICATION ASSETS

With this objective insight into the application portfolio, the CIO has the baseline data needed to move to the most critical component in developing his plan (and also

> his biggest dilemma)—getting the true state of the company's application portfolio health.

> Much of the portfolio is bound to be cluttered with obsolete systems that no longer deliver full value to the business, so portfolio rationalization is a must. Consequently, nearly every action the CIO takes will involve some combination of leveraging existing technology/ platforms, implementing

new technology, migrating to the cloud, and shutting down or extending systems.

To do this effectively, CIOs must be able to:

- Benchmark the applications for quality, maintainability, reliability, and security.
- Calculate a bottom-up view of technical debt.
- Quantify application portfolio risks.
- Access real-time, repeatable data.

For a CIO to build a convincing business case that further establishes trust between IT and the business, he'll require this quantitative baseline of the technical quality and risk of the application landscape.

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STEP THREE: SET PRIORITIES

No CIO is going to be able to make all of the changes he would like in the time frame he desires—so it is crucial to identify the most effective changes and transformations that can be achieved in the near term within the timing and cost constraints that exist.

With little room in the typical IT budget, and much of it sucked up by application maintenance costs, the actionable insight gained from evaluating the health and architecture of the application portfolio gives the CIO the objective data needed to establish these priorities. Ideally, it will also free up money and resources that can be reallocated toward innovation and building new applications to support business growth.

NOW TAKE ACTION!

Now that there is a meaningful and actionable plan based on the existing application portfolio, what the CIO does with the plan, well, that is a story for another article. The business has little tolerance for failure—the new CIO needs to integrate the power in IT with the strategic business tactics that have been mapped out, while avoiding risks hidden in the application portfolio.

For a CIO to enable business in this way and be successful, he must have unquestionable insight into the performance of his architecture and critical business applications. Any CIO without it is going to be challenged to see the successful implementation of his plan before "game over." **A&G**

CHRIS MANUEL is the worldwide director of partner solutions at CAST, a leading software analysis and measurement company.





Data Governance for the Mobile Enterprise

By Jaspreet Singh

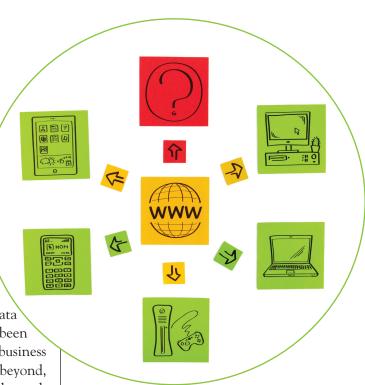
It's 2013: do you know where your corporate data is? Not so long ago, the answer would have been relatively simple. From financial spreadsheets to business proposals, product designs, customer lists, and beyond, virtually all company information used to be housed, managed, and readily available on corporate servers or tape—all (or at least most) safely under IT's thumb.

Today, however, even the most sensitive files are just as likely to be sitting on your CEO's tablet, your sales manager's laptop, your HR director's smartphone, or in a cloud-based storage service. Centralized control has dissolved under the onslaught of mobility, free online file sharing services, changing work habits, and the consumerization of IT. In the process, enterprises have lost security, accountability, and other protections necessary to thwart data thieves, comply with regulatory mandates, and satisfy needs like forensics and legal discovery.

Clearly, governance must be reinvented for the "post-PC" world. Governing devices is not enough, regardless of the mobile device management (MDM) solution. All endpoint data must also be brought under IT control—whether on PCs, laptops, tablets, or smartphones, and whether at rest or in motion—and integrated into a single audit trail. Only then can IT have the full visibility necessary to manage and protect enterprise information assets.

WHO'S MINDING THE STORE?

The decentralization of data has multiple causes. An estimated 80 percent of knowledge workers now use their own mobile devices for work, placing many files outside IT reach. Sixty-six percent use a consumer file sharing



platform like Dropbox or YouSendIt to store or share corporate documents, further fueling data dispersion. Forty-four percent telecommute at least once a week, increasing mobile file exchange because of the need to collaborate with remote colleagues.

In addition, the average user now has 2.8 connected devices, each potentially housing multiple copies of the same file in document libraries and/or e-mail attachments. With all of these changes in computing and work habits, Gartner has calculated that nearly 30 percent of all enterprise data now resides exclusively on end-user devices. Given the fact that thousands of these devices go missing from offices, cars, taxis, airports, and elsewhere every year, one would think that every IT team would be adjusting its risk management programs to prevent the loss of that data.

Yet many are failing to take the obvious first step: backup. According to Druva's latest survey_on the state of BYOD and data protection, more than 45 percent of organizations don't back up employees' desktops and laptops, and 93 percent skip backup on tablets and smartphones. Correcting that oversight is the first step in building a data governance strategy for the mobile enterprise.

ENDPOINT BACKUP

A comprehensive backup program must cover every endpoint in the organization, including PCs, laptops, tablets, and smartphones. The goal is to create a single authoritative source and audit trail of all endpoint data at rest. This lays the foundation for the entire governance initiative.

With this complete data repository, any file can be easily recovered in the event of device loss or theft. Entire document libraries can be quickly restored on replacement devices. Tools such as remote wipe can be used to delete data from a missing device without the risk of losing the only copy of critical information. Data required for compliance audits, leak investigations, litigation requests, and other purposes can be supplied without needle-in-a-haystack searches through disparate hardware devices used by hundreds or thousands of employees.

Having a master record of all endpoint data also makes it possible for mobile users to access their files remotely from whatever device they are using at the moment, eliminating the need to move files from one device to another or into a consumer file sharing service to ensure anytime/anywhere availability. This in turn supports data governance by limiting the distribution and associated exposure of a given file.

IT-MANAGED FILE SHARING

Another key governance building block involves replacing Dropbox-type services with secure, centralized, IT-managed file sharing. With the right product, all internal and external file exchanges can be consolidated into a single activity stream that provides the same visibility, traceability, auditing, and reporting abilities for data in motion as the backup function supplies for data at rest. This approach also enables policy management to control access to shared data.

Admins can typically configure sharing privileges at the group or individual user level, for example. Admins or end users can set limits on the number of viewers and downloads for any shared file, and restrict any shared file to view-only in order to reduce data leakage risk by preventing downloads. Other security features, including automatic data encryption and, in some cases, the use of

links that again prevent downloads, can be set to expire to limit access and provide a mechanism for determining who has viewed the file as well as when and how often. None of these controls are available with consumer file sharing services.

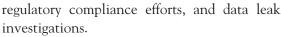
Solutions that integrate backup and file sharing simplify governance efforts by enabling global data searches by file, user, or any other filter; eliminating redundant policy and user management on separate point products; and providing a common user interface that encourages employee use by avoiding the need to open multiple applications for different functions. Admins can also drive adoption of their internal file sharing system by blacklisting services such as Dropbox and YouSendIt on employee devices through the app management feature on most MDM products.

AUDIT TRAILS AND OTHER PROTECTIONS

A strong data governance program should also provide both end user and administrator accountability, data leakage protection (DLP) strategies that mitigate the risks associated with lost or stolen devices, and separation of personal and corporate data on the same device to enable easy disablement of enterprise information.

In the area of accountability, enterprises need to be able to reconstruct all activities related to corporate data use. That includes the ability to trace actions such as remote file retrieval, file sharing, and data restores by

end users; and policy configuration errors, password resets, sensitive data access, file sharing permission changes, and remote erasure of data on a stolen laptop by administrators. These abilities—stemming directly from backup and file sharing audit trails—streamline problem resolution, trend analysis,



In the case of DLP capabilities, the governance plan should include not only encryption for shared files but also remote deactivation for lost or stolen devices, geolocation of user devices, and the ability to selectively delete data on user-owned devices to prevent departing

employees from taking corporate data with them. These features advance governance by strengthening risk management powers.

Separating personal and corporate data through containerization gives IT personnel control over enterprise information even if it resides on a personal device. In the event of a device loss or departing employee, IT can then choose to remotely erase only the corporate data in that virtual container, ensuring protection for enterprise information without also shredding personal data against employees' wishes.

Taken together, all of these strategies form a road map for restoring data governance to enterprises dealing with the IT consequences of the mobilization and consumerization of the work environment. From taming data sprawl to preventing device thieves from viewing files in clear text and beyond, businesses can take back control to protect themselves against data loss, compliance violations, and an inability to trace the source of a data leak. This is not an option; it's a necessity. The future of your business may be at stake. A&G

JASPREET SINGH is founder and CEO of Druva (www.druva.com), a company specializing in endpoint data management and governance solutions for enterprise laptops, PCs, smartphones, and tablets. Druva has more than 1,800 customers and protects one million endpoints across 46 countries.



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By Ben Geller, Vice President, Marketing, Troux

I recently had a conversation with a trusted member of the analyst community. We were reflecting on the current state of enterprise architecture and were comparing notes on the many discussions we each had over the past year with IT executives and EA practitioners.

The good news, we quickly concluded, was that key takeaways from our collective conversations were largely the same. We took some comfort in the notion that after 25 years of academic framework and modeling discussions, commercial enterprises and government agencies seemed more ready to discuss how EA is practically being used to make better decisions that contribute to top and bottom-line results—focusing on outcomes.

There was one observation, however, that we both lamented because it seems as though there is more work to be done before we can truly say EA is recognized as an undisputable must-have for complex enterprises. Each of us recounted

the many conversations we had where the question of EA ownership came up.

No doubt you have heard these before. Perhaps you have asked them yourself. The question for the most part is: "Should EA be owned by the business or IT?"

In an effort to provide a simple answer to a loaded question, my analyst colleague simply and boldly stated, "EA is free"—every-body owns it. He then referenced a book written 25 years ago by Philip Crosby titled *Quality Is Free*. In the book, the author sets out to explain the definition of quality to executives in terms they could understand. The book addressed the misconceptions of quality management and related the story of how a quality process was installed into every facet of an organization.

The same concepts that apply to helping organizations achieve world-class quality apply to enterprise architecture. Ask any employee of a service- or manufacturing-related company "Who owns quality?" and they will answer "Quality is everyone's job." From the CEO to the

engineers to the accountants to the fork-lift operators to the guys who keep the facilities running, each employee has role to play, no matter how big or small.

However, with that said, while quality is free and it's a part of everyone's job, it's not a gift. It is not magically ingrained into the psyche or DNA of an organization. It takes real work and coordination to make sure every employee knows what his or her role is and is given the right tools to be successful. That job often falls to a team of real quality experts that is responsible for defining and executing quality programs.

If you are reading this article, you are most likely an EA expert and a believer that enterprise architecture works. It's a discipline that can make a big difference by equipping leadership with the ability to make well-informed decisions that deliver tangible results. You probably do not have to be sold on the fact that most employees in the organization have a role to play in EA, no matter how big or small. You probably also understand it's the job of the enterprise architecture team to identify the areas that can benefit from EA, introduce the tools that ensure success, and shepherd the organization through the process.

So the next time you find yourself engaging in a conversation or debate regarding whether EA should be owned by business or IT, be bold and proclaim to your colleagues that EA is free; it's everyone's job **A&G**

A&G CALENDAR

Gartner Symposium/ITxpo

Orlando, Florida, at Walt Disney World resorts October 6–10, 2013

www.gartner.com/technology/symposium/orlando/save-the-date.jsp

Troux Directions EMEA

London
October 8, 2013
www.troux.com/resources/events/directions2013/

Forrester's Forum for Application Development & Delivery Professionals

Indianapolis, IN
October 17-18, 2013
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IRM UK's Enterprise Data and Business Intelligence Conference Europe 2013

London November 4-6, 2013 www.irmuk.co.uk/dm2013/

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