OPTIMIZE

OPTIMIZE APPLICATION QUALITY AND PERFORMANCE TO DRIVE BUSINESS OUTCOMES

MERCURY™

BUSINESS TECHNOLOGY OPTIMIZATION

EXECUTIVE SUMMARY

The traditional role of IT is changing yet again. A shift has taken place, where IT has gone from enabling the business to effectively becoming the business. Many IT organizations are in the process of evolving into profit centers. As a result, IT outcomes by themselves are no longer the litmus test for success; instead, technology executives are taking responsibility for producing fast, cost-effective, reliable business results. They are shifting their focus from completing IT projects to optimizing business outcomes.

In a similar vein, the role of business applications has evolved to be instrumental in creating a sustainable competitive advantage for the business. How quickly IT adds or enhances services on critical applications can be the difference between sustaining or losing a customer. In the hypercompetitive marketplace, winners tend to be those who effectively manage costs and risk while ensuring their software applications are aligned with business goals. That's why optimizing the quality and performance of applications while still in pre-production has become so critical to the viability of the business.

This paper will discuss the business technology optimization (BTO) approach to delivering high-quality, high-performance software applications with an emphasis on the critical focus those applications play in driving business outcomes.

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Application delivery refers to all of the processes, including development, testing, and tuning, that must be performed before production deployment. There's a clear indication that change is occurring in the application delivery approach. In the process of talking to our customers about the business and technical trends that are driving change, we learned that the following have a tremendous impact on application delivery:

Increasing complexity: New systems and networks built on top of legacy environments. Client-server applications and new web services. Service-oriented architectures. New device types and increasing mobility. Greater line of business (LOB) influence and application development direction on IT purchase decisions. New application platforms, such as n-tier web applications, J2EE, and .Net. Distributed application development and delivery teams. All of these factors create enormous complexity in the IT environment and tremendous risk.

Centralization and consolidation: Cost is king. Customers want to consolidate their systems, tools, and vendors as well as centralize control of their application delivery processes and resources. IT departments want to regain control of the various LOB technologies and methodologies and integrate them into a unified set of repeatable processes.

Successful companies recognize that applications are the business. The quality, performance, and integrity of the organization are reflected in its applications.

Ecosystem approach: To deliver effective, high-quality applications, it takes more than a talented team of coders and testers. It takes the collaboration, commitment, and participation of all stakeholders – inside and outside the company. Expertise and experience from users, management, partners, and suppliers must be considered during the delivery process.

Strategic sourcing: Companies are taking advantage of the low-cost, high-skill-level, 24-hour workforce by optimizing resources among outsourced, in-house, and offshore teams. Each of these geographically diverse teams bring different aptitudes and perspectives on quality and performance to the application delivery process. A common quality and performance standard is required. This drives substantial changes to application delivery processes, but it brings substantial rewards.

Compliance and governance: Regulations and mandates such as the Sarbanes-Oxley Act, the EU Data Protection Directive, HIPAA, Basel II, and International Accounting Standards now require constant changes to business software – from order entry to billing, accounting, and finance. The changes are substantial and significant – one customer reported that their company makes up to 20,000 changes to their business software per day. This puts immense pressure on application delivery processes, because all software changes must be rigorously tested, and any issues isolated, addressed, documented, and validated before deployment.

Successful IT organizations – those that maintain a competitive edge and manage toward business outcomes – seize the initiative and take charge of change. QA groups that are centralizing and consolidating expertise – and making it available to all application groups – are driving quality as a strategic pillar in application delivery. As the global leader in optimizing application delivery, Mercury has worked closely with many companies, and has observed emerging trends for meeting quality requirements.

Currently, application recall is a more frequently practiced discipline than application delivery. That must change.

It's seven times more expensive to fix issues in production.

– Carnegie Mellon, 2004

40 percent of all problems are found by end users.

– Gartner, 2004

- **It takes a new application delivery approach, oriented around repeatable processes and a Center of Excellence (CoE) model.** The CoE model is a virtual model that aligns with the nature of strategic sourcing and complexity – the infrastructure and processes are centralized, but the people are not.
- **It's not just QA.** It takes a highly coordinated ecosystem – collaboration among in-house and outsourced developers, business analysts, IT operations, capacity planners – even partners, suppliers, and customers – to deliver applications that truly meet business objectives.
- **One size does not fit all – one methodology or set of processes won't work for everyone.** But a CoE can incorporate and leverage existing culture, structure, business goals, and so on.

This paper describes the shortcomings of traditional application delivery and provides an overview of a new, practical approach – one that industry analysts and Mercury customers agree can help take applications to higher levels of quality, performance, and availability.

70 percent of projects fail to meet schedule, cost, and quality goals.

– META Group, 2004

50 percent of projects are delivered over budget.

– Gartner, 2004

WHAT'S WRONG WITH THE TRADITIONAL MODEL OF APPLICATION DELIVERY?

At most companies today the application delivery process is a series of discrete tasks – from requirements generation, to coding, unit and functional testing, performance tuning, and so on. Typically, each task or phase of the application lifecycle is the exclusive domain of specialists. Each team of specialists does its job and hands it off to the next team. The assumption is that if each team performs its task correctly, the end result will be a high-quality, high-performance application that meets business and end-user requirements.

All too often, that assumption proves wrong. Here's why:

- **Business objectives are frequently lost in translation.** Each team is focused on its job, not the overall business objectives that drive the project. Thus, the requirements defined in the initial phase are not always properly understood from one team to the next. These business objectives and user-expectation requirements frequently change during the cycle or get confused with tactical development and testing requirements. The result – the application delivered into production doesn't always address current business goals or match end-user expectations for quality, performance, or availability.
- **Expertise goes untapped.** There is a huge volume of knowledge and experience within the various application delivery and management teams – both in IT and throughout the company's other departments. When these teams don't communicate and don't share best practices, much of this expertise and intellectual capital is wasted, and operational efficiencies across the organization are lost.
- **Data isn't collected or shared.** QA is rarely synchronized to business goals. Data and processes typically are not shared among other groups. Since each team is focused on one task, collected data is typically task- and tool-specific, and difficult to share with other groups or determine if the business objective is being met. There is often no measurement, collection, or centralization of standardized key performance indicators (KPIs) that could be useful throughout the application lifecycle. And because data is not standardized or shared, application delivery teams often find themselves in reactive mode, diagnosing and troubleshooting problems – which leads to added expense and delays. Problems need to be identified when there is time in the process to address them, and at the most cost-efficient point in the cycle.
- **Finger pointing runs rampant.** Given the high cost of poor application quality, sluggish performance, or availability problems, it is not surprising that no one is eager to take responsibility for problems that do occur. Management blames IT. IT blames application delivery project teams. These teams blame R&D or product vendors. More often, they just don't know. Getting to the root cause of application problems becomes a long and expensive process, and often the problem goes unresolved while finger pointing continues.

A PRACTICAL APPROACH: BUSINESS-CENTRIC APPLICATION DELIVERY

Few executives today would dispute that business success depends on IT-enabled business processes. Yet few companies manage the quality, performance, and availability of their applications from a business perspective. They deliver applications as they always have.

A new approach that many of our customers are taking focuses on the business objectives, business value, and business processes rather than just QA tasks, tools, and technologies. People need to work from the top-down, not from the bottom-up.

"The rising volume in outsourcing and compliance issues has led companies to take a strategic approach to optimizing application delivery across the entire application quality ecosystem."

- Theresa Lanowitz, Research Director, Gartner Inc.

At Mercury we call this business-centric application delivery. And we believe this model offers some significant new capabilities and benefits. For example, under the business-centric application delivery model you can:

- Reduce application delivery costs.
- Constantly improve operational efficiencies by measuring and reporting key performance indicators (KPIs).
- Align IT objectives with business priorities and keep them aligned throughout the application lifecycle.
- Right-size the environment with the best components at the lowest cost.
- Raise the standard of quality.
- Quantify and manage application quality, performance, and availability issues from a business and end-user perspective.
- Share knowledge and best practices across departments and LOBs, raising the value of existing intellectual capital.
- Improve morale among application delivery teams by increasing their visibility within the organization and their effectiveness doing their jobs.
- Translate low-level metrics into business-level metrics.

While the benefits are compelling, there is work involved in transitioning to a business-centric application delivery model. The next section describes the principles that make up the foundation of next-generation application delivery.

Principle #1: Make the Move to the Center of Excellence (CoE) Model

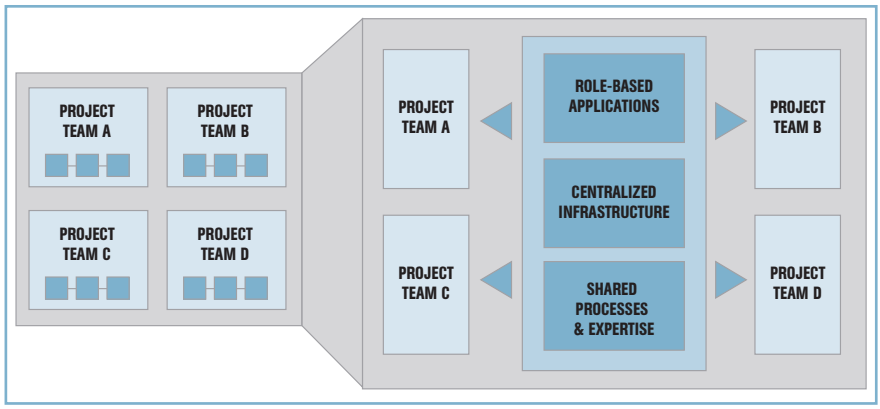
Organizations of all types and sizes are embracing the CoE model as a practical way to consistently and continually improve their IT operations. Simply put, a CoE is an internal organization focused on optimizing application characteristics such as performance, quality, and availability. It provides a management and automation platform for increasingly complex processes, consulting and support services, as well as advocacy to help the organization optimize these attributes. It can consolidate and centralize processes and best practices to improve overall quality. A CoE provides the entire organization with visibility into standardized quality and performance metrics and KPIs of the delivered application, helping to keep everyone informed, and keeping applications aligned with business objectives.

Industry analysts strongly recommend the move to the CoE model. According to META Group, "Clients focusing solely on day one of 'go live' rollout of applications – at the expense of the long-term perspective – have been increasingly disappointed in the results of their implementation… To avoid such disappointment and gain continuous business improvement over the lifecycle of an application installation (i.e., 20+ years), we recommend that clients create a CoE."

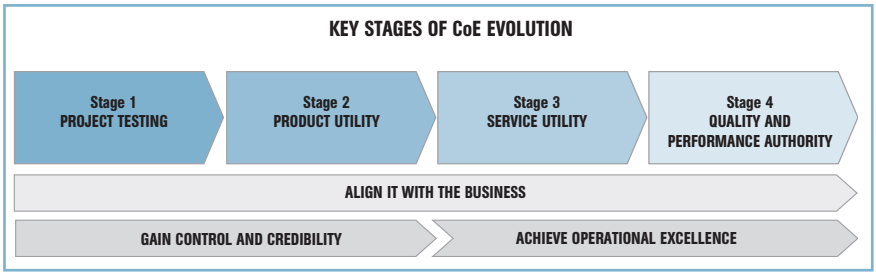
Among the advantages of the CoE model:

- **Efficiency:** Testing labs, tools, staff, and best practices are built, used, integrated, and conveniently accessible to all project teams through one source, so there is no need to replicate expensive resources across departments or LOBs (in fact, total headcount and infrastructure could be reduced).
- **Redundancy:** By sharing critical knowledge, your company is less dependent on one or two key employees. Application delivery can still proceed as expected if an essential employee moves on and build on the IP already developed.
- **Improvement:** Best practices in testing processes, organization, and artifacts are collected from throughout the organization and standardized, improved, and re-distributed over the entire organization, cutting the learning curve and increasing project success rates.
- **Consistency:** Standardizing testing applications and best practices helps ensure consistent test cycles, lowering the risk for all covered applications. Reducing the number of overall testing applications reduces costs, and increases expertise across the organization.
- **Alignment:** The CoE model can help organizations synchronize business goals with IT priorities, resulting in better end-user services. An ecosystem consisting of an extended development team, management, users, partners, suppliers, and so on identifies any problems earlier in the development and testing cycle, while keeping everyone informed of how the application aligns with business goals.
- **Practicality:** Building a CoE is an achievable goal. You can start on a small scale, leveraging existing resources, expand its capabilities as the value is proven, and experience immediate return on investment (ROI).
- **Career advancement:** The CoE model creates a compelling new career opportunity for IT professionals, helping the organization recruit and retain top talent.

One of the key advantages of the CoE model is that it can be built on a small scale initially, with minimal incremental expenditure, and you can evolve and scale up its resources, services, and capabilities iteratively as its value is delivered to the business.



In the traditional model, every project team is an island, with its own staff, tools, and practices. The CoE model centralizes the expertise, processes, and sharable assets.



The CoE evolves organically as its value is delivered to the business.

Mercury, by working with literally thousands of customers, has found that CoEs can go through a four-stage evolution. It is important to note that not every organization has the same starting point – some may have already implemented the methodologies outlined in Stage 1. And not every organization needs to achieve Stage 4. The end point that makes most sense is dictated by the needs of your business, and may change over time. Outsourcing, for example, can require significant changes.

Stage 1 of the CoE model, the *"Project Testing"* phase, is simply a move to formally testing applications before they move into production. This can be either manual or automated testing, or a combination of the two. The cost of correcting application faults found in production has been well documented to be many times the cost of fixing them earlier in the cycle. The savings in moving to this stage can be easily projected and quantified. In the Project Testing phase, though, project teams in different departments or LOBs find themselves constantly reinventing the wheel with each new project – wasting time, money, and IT talent – and generating an ever-increasing number of process that work at various levels of effectiveness.

The move to Stage 2 is really the first step toward implementing centralized and standardized testing capabilities. This *"Product Utility"* model, where a centralized product is available as a shared facility, helps companies evolve from a departmentally focused effort to a cross-line-of-business (cross-LOB) resource. At this stage, common tools are available but little is done to share common practices across different projects. Leveraging this model, LOBs can increase the ROI of their technology infrastructure by consolidating hardware, software, and learning costs.

The next step in the evolution, Stage 3, is called the *"Service Utility"* model, in which the CoE becomes a central source of services, personnel, and expertise to improve quality and performance. Typically, testing projects are limited in their knowledge and use of industry best practices and processes, but with the CoE model they have access to the experience and recommendations of quality and performance experts.

The last step, Stage 4, is the transformation of the CoE to a *"Quality and Performance Authority,"* in which the CoE becomes a required part of application development, deployment, and operation, contributing to an organizational culture focused on application excellence. Under the Authority model, no application makes it to production without going through consistent quality and performance processes and meeting agreed-upon quality standards. Once established, quality and performance authorities can compete against third-party outsourcers since they have the expertise and track record that no outside vendor can match.

For additional details about the CoE model and how to implement a Quality or Performance CoE, please see "Next Steps" later in this paper.

Principle #2: It Takes an Ecosystem

To maximize the value a CoE delivers, it is imperative that it extends beyond QA to harness the combined knowledge and experience of your company's IT ecosystem.

A centralized and standardized application delivery ecosystem needs to include all participants (coders, project managers, business analysts, subject-matter experts, operations teams, capacity planners, application experts, etc.) and stakeholders (management, LOB department heads,

users, etc.). This means products for developers (modeling, check-in and check-out, etc.) must be integrated with the downstream quality and performance processes (dashboards, reporting tools).

By viewing all of these groups not as islands of expertise but rather as an ecosystem, you can begin to identify opportunities to overcome the limitations of traditional application delivery. For example, if you are offshoring or outsourcing some aspects of application delivery, there will be pockets of expertise not only within your CoE, but also within the outsourcer's organization. These groups are often somewhat isolated from the overall deployment. Incorporating input from other groups – deployment, operations, users, and so on – and making it available to outsource groups improves quality as part of the development process.

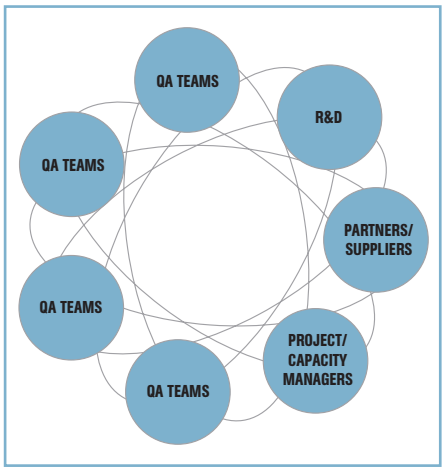
By highlighting system interdependencies, everyone involved has a good idea of how an application works and how it delivers to the business. This helps IT better understand how to design, develop, and test it. For example, complying with government mandates and regulations now all but requires specialized expertise at nearly all phases of the application lifecycle.

By increasing the communication and cross-pollination within the ecosystem, your CoE can make it possible for each individual project team to:

- Understand project interdependencies – how decisions made on one project can affect other projects. Seeing the "big picture" helps team members meet business goals, not just application goals.
- Lower costs by creating higher-quality applications. Application defects and other issues are fixed before deployment.
- Distribute quality expertise around the organization by accelerating knowledge transfer and best practice sharing. Knowledge is shared around the organization, and stored for future projects.
- Develop more generalized skills while also honing expertise in areas of specialty. Sharing both specific and general knowledge raises the level of quality for applications, and of the organization.
- Begin collecting and monitoring KPIs across the application lifecycle. This data helps establish future quality metrics.

By giving each member of the extended ecosystem a "seat at the table" at the initiation of each project, and by encouraging feedback and collaboration at each stage, your company can transform disconnected individual contributors into true stakeholders.

The ecosystem approach transforms "islands of knowledge" into interdependent stakeholders.



The application delivery "ecosystem."

How the New Model Helps You Take Charge of Change

BUSINESS TREND	BENEFITS OF BUSINESS-CENTRIC APPLICATION DELIVERY
Increasing Complexity	By optimizing quality and performance – and gaining strategic visibility and control – organizations can embrace modern composite applications built with J2EE, .NET, and web services technologies.
Centralization and Consolidation	Centralize and standardize systems, best practices, tools, and human resources to dramatically cut complexity and IT costs. Reduce overlap and drive a common tool set, repeatable processes, and a common standard of quality and performance.
Compliance Issues	Consolidate systems and data sources; use the CoE to streamline and speed up the process of making, testing, and tuning application changes. Consistent processes are applied across the organization, and there is extended visibility and input into application delivery at all phases.
Ecosystem	Make in-house and external expertise a part of the application delivery process, raising overall quality. Offers a "seat at the table" for all stakeholders.
Strategic Sourcing	Harness low-cost source development resources and QA to replace local application development. Leverage the extended ecosystem (including the outsourcer's expertise) to synchronize efforts and accelerate knowledge transfer. Manage and monitor in-house and outsource teams, and ensure consistent quality and performance standards. "Follow-the-sun" development and testing requires 24x7 access.
Compliance and Governance	Manage and control the corporate IT portfolio, while increasing visibility. Embrace regulations and mandates from the outset of application design, and deploy smoothly and consistently.

SEIZE THE INITIATIVE: NEXT STEPS

No two organizations have the same requirements, resources, or starting point for transitioning to the new model of business-centric application delivery. But all competitive organizations can benefit by getting started immediately. Mercury can help. More information from industry analysts and Mercury is listed below. As well, the section below offers a brief overview of products and services that can help you take the next step quickly, correctly, and cost-efficiently.

- White paper: "Building and Managing a Quality Center of Excellence"
  http://download.mercury.com/cgi-bin/portal/download/loginForm.jsp?id=141&source=1-110458475#d141
- White paper: "Building and Managing a Performance Center of Excellence"
  http://download.mercury.com/cgi-bin/portal/download/loginForm.jsp?id=142&source=1-110465945#d142
- White paper: "Maturing to Centers of Excellence: The Next Step in IT Organization Evolution" by the META Group
  http://download.mercury.com/cgi-bin/portal/download/loginForm.jsp?id=120&source=1-110466256#d120

PRODUCTS/SERVICES/TECHNOLOGIES TO SMOOTH YOUR PATH TO THE NEW MODEL

Mercury is committed to helping you be the agent of change. As the industry leader in business technology optimization (BTO), we offer a comprehensive array of products and services to help you make the move to next-generation application delivery quickly, correctly, and successfully. Among the core product suites that can help you implement the CoE model we've described in this paper:

- **Mercury Quality Center™** provides automated software testing and quality assurance across a wide range of IT and application environments. It includes an integrated suite of role-based applications, a business dashboard, and an open, scalable, and extensible foundation – all designed to optimize and automate key quality activities, including test management, requirements and defects tracking; functional testing and regression testing; and business-process design validation. Mercury Quality Center includes industry-leading products such as Mercury TestDirector®, Mercury QuickTest Professional™, and Mercury Business Process Testing™.

Mercury is the world leader in application delivery, with 58.8 percent market share in automated software quality and performance testing products.

- **Mercury Performance Center™** provides the first lifecycle approach to optimizing application performance, helping ensure your applications will scale to support the right number of users, transaction volumes, and performance levels. Mercury Performance Center includes integrated applications and a business dashboard for key performance optimization activities, including load-testing, performance tuning, capacity planning, and J2EE diagnostics across complex, heterogeneous computing environments. Mercury Performance Center is anchored by the industry-standard Mercury LoadRunner®, and also includes Mercury Diagnostics™, Mercury Tuning™, and Mercury Capacity Planning™.
- **Mercury Services™:** Mercury offers you a flexible approach to deployment. With Mercury Consulting Services™, our experts install and configure the product, train your team, and assist with organizational design. With Mercury Managed Services™, we can deploy your optimization center on our pre-deployed infrastructure and provide the ongoing training and mentoring to ensure your success in shortest timeframe possible. If and when you desire, you can migrate your optimization center from Mercury Managed Services to your environment within a few weeks.
- **Enterprise Application and Technology Solutions:** Mercury offers industry and application development framework solutions that optimize your IT portfolio. Whether you are using J2EE, .NET, and Web Service technologies, Mercury offers solutions that provide a systematic, holistic approach to optimizing the quality, performance, and availability of applications and business processes as they move through the delivery

and management stages of the lifecycle. Specific solutions are available for major application server environments, including BEA, Borland, IBM, and Oracle. Mercury BTO Enterprise offerings are available for major ERP/CRM applications, including those from Siebel, Oracle, PeopleSoft, and SAP. Other Mercury solutions are available for:

– Key IT and quality initiatives, such as Sarbanes-Oxley and Six-Sigma.

– Vertical industries, including financials, government, transportation, healthcare and pharmaceuticals, and technology.

SUMMARY

For many companies, "application delivery as usual" has actually become a competitive disadvantage, and in some cases an obstacle to business success. The decision is no longer whether or not to move to a more efficient model of application delivery, but how to do so with maximum efficiency and at minimal cost and risk. By maximizing quality and performance of an application and managing change throughout the entire process, IT can have a direct impact on the business outcomes associated with these applications.

The CoE model described in this paper, combined with a collaborative, integrated set of processes form an "ecosystem" that provides an excellent foundation for next-generation application delivery. Mercury is interested in hearing your views and experiences about making the move to business centric application delivery, and is committed to helping you make the transition quickly and successfully.

THE MERCURY ADVANTAGE

Mercury is a leader in optimizing business technology. Consider:

- In IT governance, both Gartner and AMR have ranked Mercury as the No. 1 provider of project portfolio management (PPM) software.
- Mercury is the world leader in application delivery, with 58.8-percent market share in automated software quality and performance testing products.
- Gartner has assigned Mercury a vendor rating of "Strong Positive" (July 2004). In addition, Gartner has placed Mercury in the upper right position of the Gartner Magic Quadrant, in a leadership position for the project and portfolio management industry.
- Mercury Managed Services is one of the largest managed services in the enterprise software industry with more than 3,000 customers.

ADVANTAGE	EVIDENCE
Technical Vision	Pioneer in many BTO trends: • Application management • User-experience monitoring • Service level management • Business process testing Support for more than 60 environments
Business Technology Optimization (BTO) Focus	Mercury BTO Enterprise is the industry's first software and services suite that ensures the business outcome of IT. Unlike other offerings that focus on improving internal IT processes, Mercury BTO Enterprise optimizes the strategic touch points between business and technology to ensure that IT investments produce the intended outcome.
Breadth and Depth of Technical Expertise	Strong 15-year history in QA and testing Deployment planning and enterprise monitoring best practices guides available
Successful Customer Implementations	Hundreds of referenceable deployments worldwide Cross-industry, global experience Comprehensive support, training, and consulting offerings on a global scale
Strength of Service and Support Offerings	Comprehensive support, training, and consulting offerings on a global scale
Financial Stability	Mercury products support more than 75 percent of the Fortune 500 and more than 65 percent of all automated software quality initiatives. Mercury is the fastest-growing major application management vendor.
Partnerships	Strong alliances with top-tier integrators Collaborative relationships with other technology innovators

CASE STUDY: GRUPO POSADAS HOTELS

"We're implementing BTO with Mercury to take charge of change and complexity across our IT operations. Mercury's application diagnostic and monitoring solutions provide complete visibility into the health of our J2EE-based reservation and booking applications. They allow us to achieve high system availability, ensure our applications are meeting end-user needs, and be more proactive in identifying and resolving problems when they arise."

– Eduardo Arena, Director of Outsourcing, Grupo Posadas Hotels

At Grupo Posadas Hotels, IT literally drives the business. According to Eduardo Arena, Grupo Posadas' director of Outsourcing, "We manage our mission-critical reservation system via a complex Internet-based application that drives over a million dollars in revenue a day. So it's critical to ensure the availability of every component of this application and underlying infrastructure to deliver business results."

To serve geographically dispersed users, Grupo Posadas implemented very large, centralized business applications, built on J2EE technology, that provide Internet access to critical business processes and functions. "There are lots of application components that have to work together," says Luis Aguilera, Application Development director. "There are complex, disparate hardware and systems to manage in order to serve up these business processes to our end users. Plus, we outsource a number of IT operations, including our ERP applications as well as LAN and WAN operations. The problem was that we didn't have enough visibility into what was going on when an issue or problem arose, or even where the real problem was for that matter."

Grupo Posadas decided to implement Mercury's application diagnostic and monitoring solutions because they provided the necessary visibility to ensure high levels of application performance and availability. "Mercury gives us the ability to accurately pinpoint where our problems are within the multitude of applications and components we have in production," says Aguilera. "In the end, they allow us to be fully optimized for change."

CASE STUDY: BURLINGTON COAT FACTORY

"IT organizations are always experiencing resource restraints; it's just the way things are. By employing application delivery products from Mercury at Burlington Coat Factory, we have actually reduced our resource requirements for all kinds of testing. At the same time, we've been able to achieve even higher quality standards across the board."

– Bruce Woods, Manager for Quality and Training, Burlington Coat Factory

Headquartered in Burlington, New Jersey, Burlington Coat Factory owns and operates more than 325 stores in 42 states across the country. In recent months, Burlington Coat Factory deployed a complex technology infrastructure running on Oracle® 11*i* Human Resources. The company also needed to migrate its Oracle Financials products to Oracle 11*i*. The challenge was how to upgrade and deploy complex applications to the Oracle 11*i* E-Business platform without disrupting service to or degrading quality for hundreds of corporate users.

Burlington Coat Factory used Mercury WinRunner and Mercury LoadRunner to test a wide range of corporate applications as they were developed and migrated to a new technology foundation. LoadRunner identified increased network and hardware requirements prior to application rollouts, facilitating capacity "right-sizing" and optimized application performance. The Test Starter Kit, included with Oracle11*i*, provided a jump-start to building a repeatable test process. Automation with WinRunner cut total regressing testing time by at least 60 percent.

"Using Mercury WinRunner, we can extensively regression test this application with each build," states Bruce Woods, manager for Quality and Training at Burlington Coat Factory. "This saves my team about 20 hours – or half a full-time equivalent (FTE) – each week. And this is only one of our many ongoing IT projects." Woods estimates that automated regression testing with WinRunner saves his organization at least half of its total testing time.

In addition, Burlington Coat Factory uses Mercury LoadRunner to predict system behavior and performance. LoadRunner, which can emulate thousands of users, employs performance monitors to identify and isolate problems. This enables Burlington Coat Factory to predict, and thus avoid, the service disruptions that often plague organizations upon the introduction of a new application.

CASE STUDY: HERSHEY FOODS CORPORATION

"We built our testing strategy around Mercury TestDirector because there's simply nothing else like it on the market today. We have a complete project methodology that dictates proper testing procedures, and TestDirector is an integral part of that. It's the home for our tests and the place people go to run their tests, report, and validate their results; provide statistics; and track issues."

– Art Murray, Manager of Applications Testing
Hershey Foods Corporation

Hershey Foods Corporation is the No. 1 manufacturer of confectionery products in the United States, with 14,000 employees worldwide and 2003 sales of approximately $4.2 billion. With a focus on keeping pace with evolving SAP technology, Hershey's management initiated an upgrade from version 3.1 H to 4.6 C. The system had 4,000 named users accessing a variety of modules, including FI, CO, MM, PP, Warehouse Management, SD, Maintenance Management, and Business Warehouse. Approximately 35 external applications, including Manugistics and Siebel, were also integrated with the system.

Hershey Foods used Mercury TestDirector and Mercury QuickTest Professional (part of Mercury Quality Center) and Mercury LoadRunner (part of Mercury Performance Center) to develop a rigorous testing strategy enabling developers, project managers, and business analysts to detect, track, and eliminate problems before going live with the SAP software upgrade.

With the help of Mercury TestDirector, the project team found and corrected approximately 2,400 defects before the SAP software upgrade went live. TestDirector provided global test management capabilities enabling multiple teams to participate in testing from various locations in the United States and Canada. Hershey established a new testing infrastructure – based on TestDirector – that will eventually support all future SAP and non-SAP software projects. Mercury LoadRunner enabled the IT team to stress test application servers at 2.5 times the normal load and establish that the architecture was sufficient for the upgraded environment.

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Mercury is the global leader in business technology optimization (BTO). We are committed to helping customers optimize the business outcome of IT.
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