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# APM Tools Will Reach \$500 Million To \$700 Million By 2008

by Phil Murphy

MARKET OVERVIEW

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Includes Business Technographics® data



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## APM Tools Will Reach \$500 Million To \$700 Million By 2008

APM Helps CIOs Rationalize Applications And Reduce The Maintenance Burden

This is the first document in the "Modernizing The Practice Of Application Maintenance" series.

by **Phil Murphy**

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### EXECUTIVE SUMMARY

The application portfolio management (APM) tool market grew 280% in 2004 because a small handful of CIOs realized that APM can help them reduce application maintenance burdens and rationalize their application portfolios. Waning application knowledge and overly complex integration options drive higher IT maintenance costs while offshore development and geographically dispersed development teams add risk and complexity to development efforts. With 76% of IT budgets earmarked to maintain existing applications, CIOs desperately need tools that show them what is happening in IT and enable corrective action. As interest in APM grew beyond the initial handful of CIOs in 2004, the market has nearly tripled. As that trend accelerates and as integrated IT management vendors shop for APM vendors as partners, Forrester believes that the APM market will reach \$500 million to \$700 million by 2008.

### TABLE OF CONTENTS

- 2 **CIOs Are Feeling The Heat From All Sides**
- 4 **The Way Out — Metrics Enable Better Decisions**
- 4 **What Is APM, And How Will It Help CIOs?**
- 7 **Who Are The APM Vendors?**
- 12 **APM's Potential: \$500 Million To \$700 Million By 2008**

#### RECOMMENDATIONS

- 13 **Acting Will Cost You, But Waiting Will Cost More**

#### WHAT IT MEANS

- 14 **The Tools CIOs Need, Without The Excuses**
- 15 **Supplemental Material**

### NOTES & RESOURCES

Forrester interviewed Allen Systems Group, BluePhoenix Solutions, CAST, Compuware, HAL Knowledge Solutions, IBM, Information Balance, and Metalect. We also drew data from Forrester's Business Technographics® November 2004 North American And European Benchmark Study.

#### Related Research Documents

- "The Economics Of IT"  
June 6, 2005, Best Practices
- "Integrated IT Management Drives Efficiency"  
February 2, 2005, Forrester Big Idea
- "Trends 2005: Application Portfolio Management"  
October 27, 2004, Trends

## CIOs ARE FEELING THE HEAT FROM ALL SIDES

CIOs are feeling the heat as business leaders look to IT for automation that will reduce operating costs and keep pace with the competition.

### External Business Issues Increase The Heat

CIOs face external business pressures that become a source of conflict with business leaders because:

- **Compliance efforts rob new development funding.** The cost of compliance efforts such as Sarbanes-Oxley, Basel II, Health Insurance Portability and Accountability Act (HIPAA), and other regulatory and data privacy initiatives reduce available funding even more.<sup>1</sup>
- **Merger and acquisition activity creates huge rationalization issues.** CIOs have few tools to rationalize one IT organization. When two organizations merge, the established order becomes chaos as CIOs try to rationalize two or more of every type of system, often running on disparate hardware and operating systems.
- **Forced application rationalization is an underfunded guessing game.** Which applications should be kept? Which are fit to modernize? A new hybrid system may be the best solution, forcing new, unplanned, and perhaps unfunded development activity.

### Internal Maintenance Burdens Fuel The Fires

With 76% of the IT budget going to the care and feeding of existing systems, CIOs seeking to earn the respect of their business peers must find a way to reduce the burden of existing applications.<sup>2</sup>

The causes of high cost are many:

- **Maintenance costs are moving in the wrong direction.** Forrester's Business Technographics® November 2004 North American And European Benchmark Study shows that the split of spending on new development versus maintenance is headed in the wrong direction. In 2004, the split was 73% for maintenance and 27% for new investments. In 2005, survey respondents expect to spend 76% on maintenance, leaving just 24% for new investments.
- **Tool money is spent on the wrong tools.** Virtually all of the tool money for IT is used to purchase tools that help developers code new systems faster. Yet, with 76% of the IT budget earmarked for maintenance, those priorities seem askew. Organizations that spend 76% on maintenance and are able to reduce maintenance by 10% realize a 7.6% savings. In contrast, a 10% reduction to their new development efforts (24%) yields just 2.4%. Which to choose is a simple question — increasing maintenance efficiency saves CIOs three times as much as increasing new development efficiency, yet CIOs continue to favor spending for new development.

- **Aging systems and staff turnover raises the complexity of maintenance.** IT organizations begin losing technical application knowledge soon after it is implemented. Functional knowledge decreases a bit later, and new enhancement requests begin to run contrary to the original functional design. In lieu of the application knowledge to prevent degradation of design, well-performing, well-structured applications eventually become maintenance nightmares.
- **Java, C, and Perl have joined COBOL as legacy systems.** Despite the tendency to treat maintenance as a mainframe issue, the term “legacy application” now includes a healthy percentage of applications written in more modern languages, including C, C++, Perl, and Java. In fact, some Forrester clients note that the distributed languages are a worse problem.
- **Applications developed offshore create knowledge vacuums.** IT organizations that augment staff with onshore, near-shore, and offshore talent often ignore the duty of assimilating knowledge back into their internal IT organization, adding yet another poorly understood application to typically overburdened maintenance staff.
- **Open source speeds development but introduces new risks, too.** CIOs who employ open source to speed development efforts gain a lot of new code for a comparatively small investment. But more source code in the inventory requires more funding for support. In a zero-based budget, this creates a problem. Adding support for open source skews the maintenance budget as code that costs virtually nothing to acquire is added to the maintenance roles.<sup>3</sup>

### Issues Undermine The CIO's Relationships

These internal and external forces erode the normal working relationships between CIOs and their business peers and senior executives. CIOs spend too much time in defensive postures because:

- **Poor information about IT spending galls business managers.** The maintenance split is untenable to business leaders — just 24% for new development creates conflict and calls for explanations — why does maintenance cost so much? IT management has a tendency to discuss IT spending in terms that are not meaningful to non-technical managers.<sup>4</sup> As a result, business managers can't understand why applications aren't fit to be modernized, why the maintenance resources aren't sufficient, and where the maintenance resources are spent. Business managers want business explanations. When IT responds with IT-speak, business managers vent their frustrations on the CIO.
- **The beatings will continue until morale improves.** CIOs are not incompetent villains; they lack the tools needed to truly manage their resources — the processes and metrics to measure, evaluate, and streamline bloated application portfolios. Bloated application portfolios are the proverbial albatross around the neck of IT management — placed there as punishment for a job that the business managers perceive was poorly done.<sup>5</sup>

**Figure 1** CIOs Must Answer These Questions

Application spending questions	Application risk questions
<ul style="list-style-type: none"> <li>• Which cost the most and why?</li> <li>• Which provide:               <ul style="list-style-type: none"> <li>- Commodity functionality?</li> <li>- Business value?</li> <li>- Competitive advantage?</li> </ul> </li> <li>• Which change most often? Why?               <ul style="list-style-type: none"> <li>- Volume, frequency, reason?</li> </ul> </li> <li>• Which can be modernized?</li> <li>• How can I reduce cost?</li> <li>• Which can I outsource?</li> </ul>	<ul style="list-style-type: none"> <li>• Where do I use:               <ul style="list-style-type: none"> <li>- Obsolete technology?</li> <li>- Open source?</li> </ul> </li> <li>• Which are affected by:               <ul style="list-style-type: none"> <li>- Basel II?</li> <li>- Sarbanes-Oxley?</li> <li>- HIPAA?</li> </ul> </li> <li>• Which are unstable? Why?</li> <li>• Where should I reduce risk?</li> <li>• What must I keep in-house?</li> </ul>

Source: Forrester Research, Inc.

## THE WAY OUT — METRICS ENABLE BETTER DECISIONS

Give CIOs the tools to do a better job, and most will do a better job. Tools to:

- **Close the information gap.** Things are this bad because IT management faces an information deficit about applications. The deficit prevents IT managers from working with business peers to curtail runaway maintenance efforts, to redirect the savings to higher-priority projects, and use continuous monitoring to fuel continuous improvement. Increased application knowledge (information) will increase staff productivity. Continuous monitoring of basic metrics will permit IT and business management to answer questions that support decision-making (see Figure 1).
- **Reset the IT organization's priorities.** Armed with the ability to answer these questions, CIOs and IT management can plan, act, measure, assess, respond, and repeat. Improved management processes will maximize investments that provide competitive advantage while minimizing investments in commodity functionality.

## WHAT IS APM, AND HOW WILL IT HELP CIOs?

APM is an emerging set of tools and processes to build a knowledge base of factual application metrics augmented with business information — the source of application truth. APM delivers various role-based views of this information to IT management for analytical use via dashboards that contain standard reports, ad hoc query, and compound data views.

### It All Starts With Source Code . . .

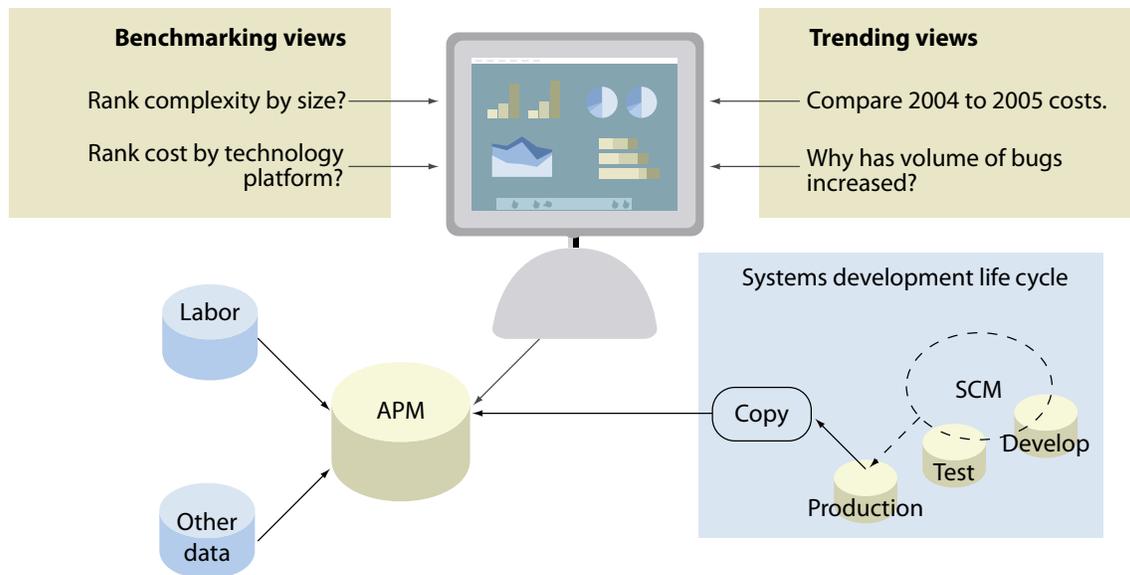
APM builds this knowledge base via automated discovery of source code and other application artifacts, and then it adds other key sources of business information to enhance the value of the

information. APM will also play a key role in Forrester's predicted integrated IT management (IIM) market.<sup>6</sup>

- **APM draws intelligence from application source code.** APM tools read the source code from across the enterprise and store it in a centralized application knowledge base or repository. As the repository is loaded, the tools record the relationships between all source code artifacts (lines of code, data definitions, objects, etc.). The tools calculate the physical size of an application using various methods including lines of code and function points, calculate complexity ratings for each application using industry-standard methods (Halstead, McCabe, etc.), and establish an inventory of applications.<sup>7</sup> Links to source code management processes keep the APM repository in sync with production source code.
- **APM adds business value via continuous, automated metrics collection.** Once built, customers expand the APM repository with business information that adds strategic analysis capabilities. One of the unusual things that Merrill Lynch added demonstrates the wide range of uses for automated repositories. Merrill's goal was operational improvements, so its repository consumes technical information such as job scheduling, information, job control language (JCL), service management function (SMF) records, storage records — and also Merrill's human resource organizational information. Merrill gained powerful analysis capabilities for its operational environment and some interesting offshoot capabilities. For example, when production problems arise, the repository senses the failure and uses the program name from the failed job to look up on-call staffers, sending an email to them via their pager numbers.
- **APM enables IT management decision support.** The type of information that companies add depends on what they want to monitor. CIOs and IT management tend to collect information that will enable decision support for the application portfolio. Adding actual labor expended against the artifacts and system owner contact information enables alignment of maintenance costs (labor) to the business (system owners). Adding the opinions of system stakeholders as to the suitability of the application from functional, technical, and infrastructure viewpoints creates other valuable perspectives for analysis (see Figure 2).

Automated and continuous data collection is key for any type of information that companies collect. Data is too voluminous to collect manually, and — unless it is collected continually and from a factual basis — the integrity of the information is dubious.

Since APM is only possible via source code, the source code must be available — know where yours is before you start and ensure that it is complete.

**Figure 2** APM Equals Continuous Collection And Analysis On Demand

Source: Forrester Research, Inc.

### ... And Delivers Analytics To Enable Change

APM tools typically offer a set of role-based, prebuilt views with information designed to match the various roles in the organization:

- **Developers and analysts gain impact analysis and application visibility.** Developers, analysts, and others who need to scope a large change or a bug fix will use impact analysis and graphical representation of the application to drill down and acquire functional knowledge.
- **IT managers and business managers gain summary-level/graphical views.** Views of a division's or business unit's applications that show size, complexity, and the rate and reason for change help IT management explain why costs are high and whether modernization is feasible.
- **CIOs will use trending of overall cost information.** CIOs gain the ability to show business peers which activities drove cost and a graphical representation of spending across business units to ensure that past spending matches the direction provided by the executive management team. Existing applications are only one part of that conversation, but, at 76% of the budget, they're important.

The role-based application views of various metrics are often shown in two major types of views:

- **Benchmarking views compare one application against its peers.** Employ these views when looking for anomalies based on a certain metric such as cost or rate of change. More interesting information comes from compound data views, combining several metrics in the view. For example, rank all applications by cost, size, and complexity. Applications that stand out from the field warrant management attention. Drill-down allows managers to determine root cause — all the way to the source code level if necessary.
- **Trending views show progress as measured across time intervals.** Using trending views, managers can compare historical views — Q1 2005 to Q1 2004, for example. Historical views help CIOs visualize whether things are getting better or worse as measured by a given metric. Trending views are especially useful when establishing and monitoring SLAs. Trending views take time to accumulate: To compare Q1 this year to Q1 last year, one needs at least five quarters of data post-APM implementation.

## WHO ARE THE APM VENDORS?

The ranks of APM vendors expanded in 2004, and the ranks of contenders — those that have launched, could easily launch, or plan to launch an APM offering swelled as well (see Figure 3).

### Existing Vendors Saw Impressive Growth

Four competitors carry over from 2003 — Allen Systems Group (ASG), BluePhoenix Solutions (BPS), CAST, and HAL Knowledge Solutions (HAL) — and are joined by newcomers Information Balance and Metalect. Because some of the companies are private and have asked that revenue figures be kept confidential, we discuss revenue only in terms of total market size.

- **Allen Systems Group (ASG).** Privately held ASG spent the year assimilating its acquisition, tiny French vendor Soamai and its APM product, becubic, into the ASG stable of products. Most notably, it created ties to its ASG-Rochade repository and created an autonomous business unit dubbed the Integrated Metadata Management Solutions (IMMS) to brand, launch, sell, and support the complementary metadata products ASG-becubic and ASG-Rochade. In 2004, APM revenue represented a small percentage of ASG's total revenues, but ASG's investment in the new group is evidence that ASG expects big things from APM. Given the myriad of other seemingly related products ASG owns (ASG-Alliance, ASG-Insight, ASG-PathPoint, ASG-Virtual Repository, and ASG-TeVista), some of its focus for 2005 should include tool rationalization within its own product sets.
- **BluePhoenix Solutions (BPS).** BPS has one of the most impressive customer reference stories: Merrill Lynch. While BPS played an enabling role in Merrill's case, Merrill built much of its OS/390 data warehouse with third-party tools such as Cognos PowerCube and Hummingbird

BI Query, which augment the BPS repository, and analyze its contents.<sup>8</sup> Yet BPS lags well behind CAST and HAL in terms of 2004 APM revenue; most of its \$57 million in total revenue comes from legacy migration and modernization, which is where it has chosen to focus.

- **CAST.** Paris-based CAST showed impressive APM revenue growth in 2004, and enjoys a comfortable but not insurmountable margin above its nearest competitor, HAL, based on total APM revenues. During 2004, CAST expanded its relationship with Deutsch Telekom, SFR-Cegetel, McGraw-Hill, Johnson and Johnson, and other key customers. Early 2005 brought an alliance with Compuware that is unrelated to APM. CAST's quality module will be resold by Compuware to enhance Compuware's Application Reliability Solution (CARS) quality initiative. Compuware could be an interesting IIM partner for CAST, if the two can come to terms.
- **HAL Knowledge Solutions (HAL).** HAL continued expansion into Western Europe and saw Apax Partners again increase its level of funding. A change in its most senior management spot and a 2005 alliance with project portfolio management (PPM) vendor PlanView — which also shares a relationship with Apax Partners — previews interesting IIM potential in 2005 and beyond. HAL showed healthy revenue gains in 2004 and shows great promise in 2005 and beyond. However, HAL also disappoints with its failure to launch a North American foothold in 2004, although it claims to be working on a North American launch for 2005.

**Figure 3** APM Vendors/Contenders And IIM

Company	Genesis	IIM APM		Comments
Allen Systems Group	Legacy modernization	?	✓	Possible IIM launch
BluePhoenix Solutions	Legacy modernization	✗	✓	Prefer migration, target for IIM?
BMC Software	Systems monitoring	?	✗	Could acquire (APM + PPM) to launch IIM
CAST	Application monitoring	✗	✓	Target for IIM?
Computer Associates	OEM software vendor	✓	✗	Will launch IIM offering, need APM
Compuware	OEM software vendor	✓	✗	Will launch IIM offering, need APM
HAL Knowledge Solutions	Application mining	?	✓	IIM with PlanView? Target for IIM?
Hewlett-Packard	OEM hard/software vendor	?	✗	Could acquire (APM + PPM) to launch IIM
IBM	OEM hard/software vendor	✓	?	Will launch IIM, incomplete APM
Information Balance	Consulting, modernization	✗	✓	Target for IIM?
Metallet	Metadata tools vendor	✗	✓	Target for IIM?
MKS	Source code management	?	?	Products pending
Micro Focus	COBOL vendor, great upsell	✗	?	Revolve is APM base, but focused elsewhere
SEEC	Modernization	✗	?	APM pending, target for IIM?

Source: Forrester Research, Inc.

## New Vendors Join . . . As Others Prepare

The attention that APM is garnering in trade press and from prospective customers has drawn two new vendors:

- **Information Balance.** Beginning its corporate life as a consulting organization, Information Balance launched IB-ARM in 2003 and has seen interest in the offering grow respectably in 2004. It offers some of the most extensive language coverage, choosing to handle some of the more arcane languages and DBMS in the mainframe and distributed legacy worlds. Although it managed to contribute to total market size in 2004, 2005 will be its first year of significant contribution. Information Balance bears watching for its APM value and as an IIM partner.
- **Metallect.** Metallect is the “Google for IT” — promoting its semantic search capability for IT, combined with a metadata repository. Metallect IQ Server was built to monitor source-code and non-source-code artifacts such as functional models, UML, specifications, and requirements documents. Metallect was founded in 2002 and launched IQ Server in Q4 2004. Like Information Balance, Metallect contributed in a modest way to the total market size in 2004, but 2005 will be its first meaningful year. Metallect’s investors include Apex Ventures, TL Ventures, and STARTech Early Ventures. As small and as new as Metallect is, it bears watching for impact on the APM market and value to vendors trying to construct an IIM offering.

Forrester expects the following contenders to launch formal offerings quite soon — this group has definite or very high probability plans to enter the APM market.

- **IBM should already be a powerful force.** IBM can affect a market by acknowledging it — the private hope and fear of APM vendors is that IBM will enter the APM market soon. However, rather than design what APM should be and build toward it, IBM has linked bits of its WebSphere Studio Asset Analyzer (WSAA) and Flashline with segments of Relativity Technology’s legacy modernization tool — as assembled, it still falls well short of an APM offering. That is odd, because the Rational Portfolio Manager (RPM), Tivoli, plus the SystemCorp acquisition and even the recent announcement to buy Isogon, an asset management vendor, all flesh out an IIM offering for IBM. So APM remains the weak link — preventing IBM from a full IIM offering. Forrester believes that it’s only a matter of time, proper product alignment, and organization.
- **Computer Associates International (CA) will enter the market with a bang.** As a long-time systems management and monitoring vendor, CA belongs in the APM market. However, recent senior management changes have slowed CA’s movements. Whether APM and IIM mesh with President and CEO John Swainson’s new vision of CA was in some doubt until CA’s recent announcement to acquire Niku.<sup>9</sup> That announcement is evidence, in Forrester’s opinion, that Swainson’s definition of systems management is broad enough to include IIM. Therefore, expect CA to acquire an APM tool sooner rather than later.

- **SEEC developed the roots of an APM offering, but it was too late for revenue in 2004.** In an indication of how customer demand can influence vendor product direction, SEEC reversed its 2003 position of staying out of the APM market and focusing on tools that serve the insurance vertical market, and developed what it calls the basis for a 2005 APM product launch. SEEC is a long-time modernization vendor that has seen its fortunes rise and fall over the years — an interesting company to watch in 2005.
- **MKS announced plans, and other source code management vendors will follow.** Toronto-based MKS announced plans to develop and market an APM offering, reasoning that it already touches source code and has impact analysis capabilities inherent in its base product. Forrester expects other software configuration management (SCM) vendors to follow suit.
- **Legacy modernization vendors see APM as their way in.** Legacy modernization vendors see APM as the way they get — and stay — in front of the CIO's rationalization and modernization plans. If APM shows CIOs and IT management the metrics to enable application decisions, legacy modernization represents the end result of those decisions — “Now that I know what I have, what do I do with it?” Forrester expects the larger legacy modernization vendors to enter en masse over the next two years.

#### Still Others Remain Uncommitted Or Unable

Some vendors are busy with other efforts, as in the case of Micro Focus' Lift and Shift, or too small, weak, or narrow in scope to mount a full offering. Look for some of these players to be absorbed as larger companies seek APM capabilities for IIM offerings.

- **Micro Focus lacks APM focus.** An APM offering is a natural upsell opportunity within the Micro Focus client base, and Micro Focus may have the strongest reason of all to offer APM — it has follow-on products that are complementary to APM. As CIOs gain knowledge of their applications, they will decide to take action — to leave as is, modernize, or retire, for example. Micro Focus sells products that support those decisions: an IDE for applications that will remain as is, Web-to-host for applications that need modernization, and its “Lift and Shift” philosophy to help clients migrate to Wintel and other small platforms. This synergy could feed on itself and sustain Micro Focus' fortunes for a long time. Its lack of APM focus is disappointing.
- **EZLegacy has an opportunity.** With the backing of Fujitsu, EZLegacy could enter the market as an APM competitor or an acquisition target for an IIM vendor. However, EZLegacy will have to demonstrate that its APM offering is genuine — that it has value in its own right, before it can attract offers. On its own, its size will be a limiting factor.
- **Relativity Technologies could mount a solo effort.** While Relativity has some of the pieces to develop an offering of its own, the folks at Relativity have not (yet) bought in to the value

of APM. They have instead opted to continue on the same path that mining tools have offered for several years — componentization of legacy code. The one big difference today is that the target is SOA, not COM. With COM as its target, the componentization market failed, so whether Relativity can breathe new life into it remains to be seen. One byproduct of that choice is an alliance with IBM, which adds technical depth to IBM's WSAA while Relativity gets some exposure to IBM's client base. The IBM alliance and a recent \$6.5 million round of funding led by Wachovia Strategic Ventures should keep Relativity in the black for now, but it will have to offer a compelling product to remain financially stable.<sup>10</sup>

- **Klocwork is a niche player that lacks the breadth for APM.** Klocwork's products are built to analyze one system at a time; therefore, it lacks the broad management views that would validate its claims — that it enables or supports APM. Further, its language coverage is weak — limited to C, C++, and Java. As such, Klocwork lacks the breadth of language coverage to help large, heterogeneous IT organizations — precisely where APM is needed most. Broadening the number of languages it can parse may raise its attractiveness as an acquisition target, but with just 27 total customers, despite some marquee names, its size limits its ability to help large organizations implement enterprisewide implementations. For now, Klocwork should focus on prospects that seek application mining tools, and forgo its APM claims.
- **Netron's play in APM is as a target for purchase.** Like Klocwork, privately owned Netron has more value as an acquisition target than to remain a niche player that can mine applications for business rules. Customers have voted with their dollars on that market — destructive mining of code for the purpose of componentization (COM, EJB, etc.) is a failed business model, as demonstrated in the late 1990s and early 2000s by Relativity, SEEC, and others.

### IIM Will Drive Acquisition Of APM Vendors

In late 2004, a fundamental future change became evident to the Forrester analysts who cover APM, PPM, and EIM. As valuable as the three disciplines are in and of themselves, the three will unify. Why?

- **The CIO needs combined visibility for new development and infrastructure.** IT management needs visibility across the three areas to manage workflow across them in a more efficient manner. Visibility of this type will prevent bad decisions about investments in existing applications that are unfit for modernization, either because the source code or the infrastructure is unfit for the additional load. Compound views across these areas will lead to process change that includes centralization of all requests for work by the business. Centralization will allow IT to respond to requests that touch all three areas as a single request, rather than multiple, disjointed projects each with its own possibilities of success or failure. The most common and egregious of these are new development efforts that fail to notify infrastructure of their needs in a timely manner, resulting in delays and insufficient supporting hardware.

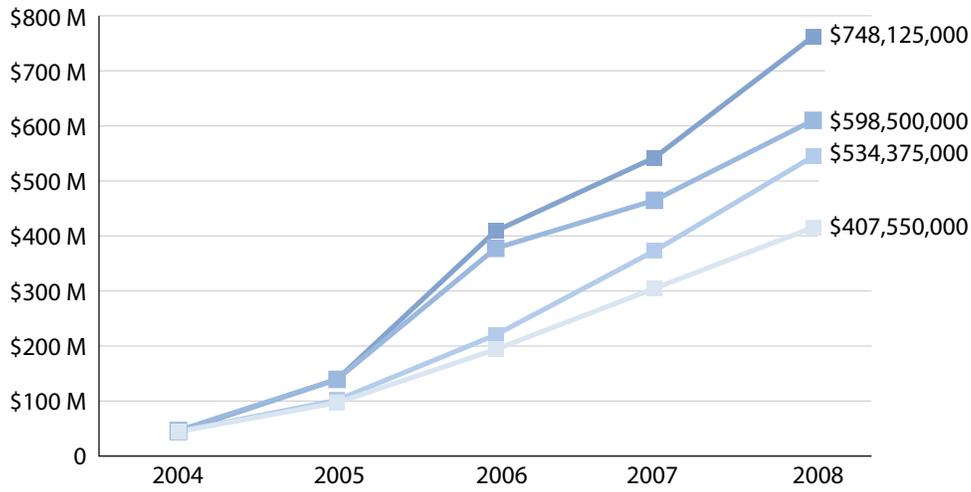
- **Vendors recognize IIM's inevitability and are responding.** Forrester has dubbed this concept integrated IT management (IIM) and predicted that it will emerge over the next 24 to 36 months as the future of IT management. Leading-edge clients have already built their own early versions, and Forrester is aware of a number of vendors that have assembled two of the three necessary foundational legs — as a prelude to a full IIM offering in the 2006 to 2007 time frame.
- **The result? M&A activity will spike.** Forrester expects the emerging IIM market to drive merger and acquisition (M&A) activity across all three areas, but especially in APM. Virtually all of the larger players that Forrester expects to see in this space — CA, Compuware, Hewlett-Packard (HP), IBM, and perhaps BMC Software to name a few — lack the APM piece to their IIM puzzle. Several smaller vendors such as ITM Software will seek unions with APM vendors in a manner similar to PlanView's union with HAL. As a result, Forrester expects APM vendors to be the target of intense interest as IIM product offerings begin to formulate in 2005 and 2006.

#### APM'S POTENTIAL: \$500 MILLION TO \$700 MILLION BY 2008

APM revenue nearly tripled in 2004 to \$43.1 million, albeit on a small 2003 base. But this jump was based on the interest of a handful of CIOs in the product offerings of a few small, relatively unknown vendors. With the entry of industry giants IBM, Compuware, and CA, certain unnamed legacy modernization giants, a bevy of smaller players, and big guns like HP and BMC that see the potential of IIM, APM is on the edge of explosive growth.

- **IIM pushes market sizing from \$400 million to \$700 million.** Forrester's initial estimation of this market put the 2008 estimate at just over \$400 million. While that estimate included the anticipated entry of IBM, CA, and Compuware, it did not include the effect that IIM will have on the APM customer saturation rate (the percent of the total population that implements APM), nor did it account for a gradual escalation in the average deal price over time. Forrester has revised its initial estimate to recognize the new variables (see Figure 4).
- **Market saturation assumptions are highly conservative.** As startlingly high as these estimates may seem, they are derived from highly conservative assumptions: between 1,400 and 2,000 total customers by 2008. Those estimates represent between 15% and 20% of the total potential customer base, as determined by our estimate of the number of customers on mainframe platforms. Customers with only Unix, Linux iSeries, or Wintel platforms are not included in these figures as an exercise in conservative estimation.<sup>11</sup> Looking a few years beyond 2008, the APM market could easily reach \$1 billion with only modest increases to the saturation rate and the average deal size — both of which are likely consequences of the maturation of IIM.

**Figure 4** APM Tool Market Size Ranges



Range variable assumptions		CAGR
Average deal price escalates each year, and market saturation of 21%	\$748,125,000	77%
Fixed average deal price of \$286 K, and market saturation of 21%	\$598,500,000	67%
Average deal price escalates each year, and market saturation of 15%	\$534,375,000	65%
Fixed average deal price of \$286 K, and market saturation of 15%	\$407,550,000	56%

Source: Forrester Research, Inc.

## RECOMMENDATIONS

### ACTING WILL COST YOU, BUT WAITING WILL COST MORE

APM tools are a six-figure investment for starters, and the effort to implement will cost even more. But the financial rewards, the change in the business/IT relationship, and the change to the management process all promise rewards exponentially greater than the initial investment. Organizations should:

- **Get some help.** If you need APM, you already lack sufficient IT staff. You will need help to implement — get some specialized help from the tool vendor and some feet-on-the-street consulting help for implementation and subsequent action. Hire experienced people who have done one or more verifiable APM implementations. It will be money well spent.
- **Get organized.** APM is not an event. It is the first step in a cycle of permanent and continuous change and continuous collection for the purpose of continuous improvement. It requires a PMO-like organizational structure to own and shepherd this effort through its life cycle.
- **Get sponsors.** PMO-like efforts cross departmental and divisional lines. Quite like Y2K remediation efforts, an APM implementation will involve powerful business executives and spawn even more powerful cultural change. The power of an executive sponsor will make or break the effort — so choose wisely.

- **Get planning.** Spend some time preplanning the implementation. APM tool installations are the tip of the iceberg. What business results will you track? What data is needed to show those results? How will you get it into/joined with the repository data? Data feeds create value — choose intelligently, consider opinions from a wide audience, especially business peers, financial experts, and auditors.
- **Get your source code together.** Locate and secure all of your source code. Tools that operate on source code need access to the complete inventory.
- **Get moving.** What are you waiting for? Results are several months out; trending is one to two years out. In the meantime, according to people who have implemented APM, you are wasting 10% to 30% of the IT budget each year. Can you afford not to do this?

## WHAT IT MEANS

### THE TOOLS CIOs NEED, WITHOUT THE EXCUSES

APM is a breath of fresh air to the very stale topic of application maintenance. Done even half well, it stands to substantially improve the way we handle the care and feeding of existing applications today.

- **IT change affects people, process, and technology.** All change in IT must address people, process, and technology dimensions. Simply buying a tool only addresses the technology. Processes, as in labor collection, and people will change, so include acceptance of the source of truth as a reference tool. As you implement the technology, address process change and people issues, or invite failure.
- **APM gives CIOs and IT management the metrics they need to manage.** Finally, the tools exist to let IT management measure existing applications and provide the metrics that enable intelligent decisions about applications.
- **But APM also means no more excuses.** The problems that exist without APM are widespread and well known. APM's greatest handicap in 2004 was that it was not well known as a solution to the problem. But that is changing as the early implementations become publicized. As this happens, impatient business executives will demand APM — if only to end the waste and excuses about whether and why something can/cannot be done. Get ahead of that curve.
- **APM investment now lays the foundation for IIM.** Forrester's vision of IIM will play out over the coming 24 to 36 months. If it were ready today, organizations would still have to implement APM, PPM, and EIM as building blocks, and when they are in place, IIM fits atop them as the crowning achievement. Lay the foundation and get moving on APM.

## SUPPLEMENTAL MATERIAL

### Companies Interviewed For This Document

Allen Systems Group	Information Balance
BluePhoenix Solutions	Klocwork
CAST	Metallect
Compuware	Micro Focus
HAL Knowledge Solutions	PlanView
IBM	Relativity Technologies

## ENDNOTES

- <sup>1</sup> Sixty-two percent of IT organizations surveyed in a March 2005 CIO Confidence poll have a risk and compliance initiative underway. See the April 27, 2005, Trends “IT’s Role In Enterprise Risk Management.”
- <sup>2</sup> On average, 76% of firms’ IT budgets go to ongoing operations and maintenance, as opposed to new investments. See the December 15, 2004, Data Overview “2005 Enterprise IT Outlook: Business Technographics North America.”
- <sup>3</sup> In a recent Forrester survey on open source software, 67% do not use or plan to use open source software or Linux due to the lack of skills and familiarity. See the June 23, 2005, Trends “Open Source Usage Is Up, But Concerns Linger.”
- <sup>4</sup> IT organizations are constrained by lack of maturity in communicating spending in business terms or effectively managing the relationship with business stakeholders. See the June 6, 2005, Best Practices “The Economics Of IT.”
- <sup>5</sup> According to *The New Dictionary of Cultural Literacy*, Third Edition, 2002, the phrase “albatross around one’s neck” alludes to Samuel Taylor Coleridge’s poem “The Rime of the Ancient Mariner,” in which a sailor who shoots a friendly albatross is forced to wear its carcass around his neck as punishment.
- <sup>6</sup> Forrester has predicted that three emerging IT disciplines — APM for existing applications, PPM for new development, and EIM for infrastructure management — will converge over the coming 24 months into integrated IT management. See the February 2, 2005, Forrester Big Idea “Integrated IT Management Drives Efficiency.”
- <sup>7</sup> Software complexity metrics measurements developed by Halstead and McCabe help software companies gauge the quality of newly developed and existing software designs. See: <http://www.sei.cmu.edu/str/descriptions/halstead.html> and [http://www.sei.cmu.edu/str/descriptions/cyclomatic\\_body.html](http://www.sei.cmu.edu/str/descriptions/cyclomatic_body.html).
- <sup>8</sup> Merrill’s OS390 data warehouse demonstrates the many different purposes that an APM-like effort can cover with the right level of funding, direction, and vision. Source: Howard Goldberg, “Unleashing the Power of Data,” DB2 Magazine, Vol. 9, Issue 2, Quarter 2, 2004. See: <http://www.db2mag.com/showArticle.jhtml?articleID=18901174>.

- <sup>9</sup> John Swainson, CEO, announced a refocusing of CA to two areas in which it can dominate — systems management and security. One can reasonably argue that IIM is the epitome of systems management offering. Source: Chris Gonsalves, “New Era at CA Gets Under Way,” *eWEEK*, February 21, 2005. See: <http://www.eweek.com/article2/0%2C1759%2C1766906%2C00.asp>.
- <sup>10</sup> Relativity received a round of funding in 2004 that should keep it fluid for the balance of 2005 and into 2006. See: <http://carolinanewswire.com/news/News.cgi?database=topstories.db&command=viewone&id=1207&op=t>.
- <sup>11</sup> Forrester chose to use mainframe customers as a driver of APM sales because we have a reliable and conservative customer count — approximately 10,000 to 13,000 — and we used 9,500 to account for smaller mainframe machines. This count does not include iSeries/AS400 customers except as noted below. Most of the mainframe customers will also have Unix and Wintel machines; some will also have iSeries. Missing from our potential customer count then are customers who only employ iSeries, Unix, Linux, and WinTel platforms. Some of them will be too small to be APM customers. The others we omit to ensure a very conservative potential customer count.

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