

## **The Right Help Desk Choice:**

Should I Build, Buy or Host?

# WHITE PAPER

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## The Right Help Desk Choice:

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### 1. INTRODUCTION

IT planners are faced with a critical business challenge when it comes time to designing and optimizing a new help desk infrastructure: build, buy or host? This is a question many organizations must answer as their technological needs grow and their business environment changes. Before help desk vendors brought reliable, cost-effective solutions to this space, decision makers of the past had no choice but to commission in-house or outsourced development teams to build—from gathering requirements to actually programming—software themselves. This approach typically resulted in projects that overshot schedules or were over budgeted, resulting in poor return on investment (ROI).

Today the story is different; there are more choices available. IT departments can develop their own help desk solution built on widely available software platforms; they can select from a range of packaged solutions, or they can obtain help desk capabilities from a hosting service—an option that was not available until a few years ago. Along with these new choices come new planning challenges as the help desk is now more central to IT than ever before.

This white paper discusses some of the key considerations that must be carefully evaluated in order to determine the best approach for your organization, particularly if you are replacing a legacy help desk system. While there's no one-size-fits-all answer, this white paper will discuss the risks involved in developing (i.e., building) a help desk software solution from scratch vs. buying help desk software from a proven, established vendor. This white paper will also illustrate that hosting can be a viable option for organizations with limited help desk staff or for companies that either lack administrative resources or choose not to budget the upfront hardware costs of a purchased solution.

Numara Software, Inc. (formerly Blue Ocean Software) is a global provider of service desk management solutions for IT and support professionals who need to simplify and gain control over their increasingly complex environments. Recognized as experts in the help desk industry, Numara Software has deployed its flagship products, Numara Track-It! and Numara FootPrints, at over 50,000 customer sites worldwide—more than any other help desk provider.

If you decide to buy or host, Numara Software can assist with a suite of trusted solutions to make your help desk a strategic business asset. This includes addressing critical IT and support functions, such as customer service desk, IT help desk, asset management, software patch and deployment, and network monitoring.

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### 2. CONSIDERATIONS

Industry trends support the need to do a thorough assessment when deciding to build, buy or host a help desk solution. Why? IT is now central to business. As Forrester Research analyst Thomas Mendel states in The IT Management Software Market (Forrester Research, Mendel and Garbani, March 9, 2007): "IT is now a business tool, and IT applications are directly supporting all business process." He further notes that IT management software, like help desk and service desk solutions, that bring down costs and increase IT productivity will increase overall business productivity. Conclusion: help desk solutions demand the same level of comprehensive analysis and planning more typically associated with traditional business purchases.

Evaluating costs (development costs, purchasing and licenses' costs, hosting costs. etc.) for a help desk solution can be complex. Many organizations employ ROI analysis consultants to compare costs of different investment alternatives, mainly because the cost-differential requires a multi-dimensional approach. While cost, as it is used in ROI analysis, is still important in making a purchasing decision, there are other approaches. For example, Forrester Research employs its Total Economic Impact™ (TEI) model rather than straight ROI in its analysis of software products. By quantifying factors other than cost, the TEI model gives managers a more accurate gauge of a product's ultimate payoffs:

"Individually, the four components — cost, benefit, flexibility, and risk — provide only one piece of the decision-support puzzle. Enterprises with specific needs should place different weights on different categories. For example, an increased cost in a packaged application may be offset by a decrease in risk. Likewise, the value of flexibility for an enterprise in a fast-changing and dynamic market may be worth more than for an enterprise in a more staid and predictable industry. In this case, additional costs or decreased benefits from a longer implementation cycle may be counter-balanced."

*(From: The Financial Impact of Packaged Applications, Forrester Research, R. Wang and John Erickson, July 11, 2006)*

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### Important Considerations Involved in a Build, Buy or Hosting Decision

Listed below are a more complete set of parameters to weigh in help desk decision:

#### Costs

- Development Costs (internal or out-sourced) vs. Purchase Costs - Can you develop a help desk at lower cost than a purchased solution?
- Internal Maintenance Costs vs Vendors' Support Fees - Will you be able to maintain (bug fixes, enhancements, and tech support) your internal help desk solution at a lower cost than paying maintenance fees to a vendor?
- Consulting vs. Internal expertise - Have you inventoried your technology expertise and calculated costs for purchasing consulting services in those areas where you lack in-house staff?
- Internal Training vs. Vendors' Classes - Do you have the resources to provide continued training to new agents for your internally developed help desk project?

#### Benefits

- Automation – Does the in-house solution offer automated help desk functions and speed up overall time to resolution?
- End-User Self Service – Is the solution capable of reducing call volume, thereby reducing support cost, as well as promote end-user self healing best practices?
- Governance and Compliance – Can the solution facilitate security policies, change management processes, and foster service level agreements?
- Integration - Can you develop a solution which has optimized help desk tasks by offering built in network asset discovery, inventory, remote control and other asset management products?

#### Flexibility

- Purpose-built home grown solutions vs. customizable vendor solutions - Can your home grown solution be quickly and easily customized? Can it integrate with your existing IT systems such as Exchange and CRM software?

#### Technology Risks

- Application architecture - Can you build networking scalability, security, and reliability into your internal help desk solution?
- Future proof – Do you have the in-house expertise to keep up with new technology?

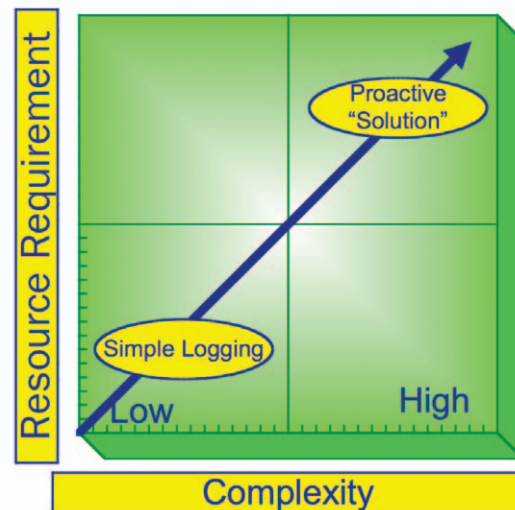
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### 3. THE BUILD DECISION

A build decision is highly dependent on the special characteristics of an organization's computing environment. If your IT department has particular expertise in collaborative software, or if there is a true consensus within your organization for help desk software with highly specialized functionality, then the build option may be the most appealing choice.

There's an important caveat with internal development: most projects fail or miss their goals. According to the Standish Group, successful projects represent only 35% of all new projects. In its annual CHAOS report, the Standish Group surveys over 40,000 internal software projects. In 2004, the Standish Group reported that 51% of software projects were "challenged" - over budget, over time, or lacking key features - with another 15% classified as failed. While success rates have improved in recent years-the Standish Group reported a failure rate of 34% in 1994. Therefore, a build decision still involves a level of risk that many may find unacceptable.



*In the "build" scenario, greater software complexity involves committing more development resources.*

For those organizations that decide to take on the technology and cost risks involved with internal development, there are actually two build scenarios to consider: developing help desk software completely from scratch (based on Windows or Web client-server architecture), or developing on an existing application platform.

Organizations that choose the built-from-scratch option must first take stock of their in-house expertise and internal development resources. There are many questions that need to be answered:

- Does the IT department have a successful track record with large scale network applications?
- Do project managers have an accurate, comprehensive list of help desk requirements to build a solid development plan?
- What are the right development tools (development environments, database, interface technology) and technologies (NET, XML, etc.) to use?
- Will new development tools have to be purchased?
- Will outside consultants need to be hired to fill in expertise gaps?

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Even assuming that your IT department feels confident that the project is technically feasible, a proper build analysis will require an accurate estimate of development costs. The Standish Group's CHAOS report noted that in 2004, total U.S. project waste was \$55 billion, made up of \$38 billion in lost dollar value and \$17 billion in cost overruns. As this report confirms, IT departments have not been completely successful in estimating project costs.

Putting aside the difficulties in analyzing staffing, scheduling, and equipment needs, organizations often overlook a crucial factor: the "opportunity cost" involved in allocating staff and equipment resources to a project. Programmers who are busy developing new software become less available to handle maintenance and improvements to existing software applications. System administrators assigned to development tasks often become too busy to handle critical support tasks related to daily IT operations.

#### **Misconceptions: Building on existing Lotus Notes, Microsoft Outlook and Excel**

The near-universal presence of IBM Lotus Notes® and Microsoft Outlook® in organizations presents a second and more attractive development path. Both of these applications can be customized and programmed to handle help desk, messaging, and workflow functions. Because user interfaces and system services (database, messaging, etc.) are supported by the underlying platform, less development needs to be dedicated to these hard-to-program functions.

Lotus Notes has (arguably) the better claim to expandability. For many, Lotus Notes is just an email application, but it is actually a collaborative work environment. With its flexible notion of data records, sophisticated data view concept, customizable form entry system, and integrated development environment, it's possible to rapidly program complex information management applications. By default, these applications inherit powerful networking, messaging, security, and document workflow processing functionality from the core Domino server. Applications are instantly network ready and collaborative. And with Lotus Notes' advanced data replication technology, applications can work offline with copies of the underlying database, synchronizing at a later time with other data stored or distributed across the network.

Microsoft Outlook® can be expanded as well through add-ons developed using one of Microsoft's programming languages—Visual Basic® or Visual C++®. The Outlook environment is perhaps not as rich as Lotus Notes in terms of providing core collaborative functions, and a development effort would require accessing other services through Microsoft's COM environment. The programming required is sophisticated.

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Another more common scenario is utilizing Microsoft Excel® as a logging system. This presents many disadvantages such as the almost non-existent work flow capabilities, historical reporting limitations, and lack of maintenance of such a solution.

### Difficult to Develop Functions

Programmers gain a significant advantage developing with either platform versus doing it themselves. But competing head-to-head with a vendor’s help desk application requires getting the last 10% of help desk features and functions. Here are some of the features that we believe would be difficult to develop internally:

- **Asset Management** - Real-time inventory monitoring using auto discovery to find computer and network assets.
- **Self Service** - Searching knowledgebases and presenting results to end users that let them solve their own problems.
- **Third party integrations** - Modular Application Programming Interfaces (APIs) that enable the help desk to link to remote databases, IT applications, and Customer Relationship Management (CRM) and telephony services.

### Fine-Tuning the Build Solution

For IT organizations with in-house Lotus Notes, or Microsoft Outlook® experts that do not require these advanced help desk services, there are still significant hurdles. As a multi-user application that is shared on the network, help desk software requires significant testing, debugging, and tuning to make it truly enterprise-class. Very few IT departments have the expertise, resources, and planning capabilities to develop software that is as reliable and robust as a vendor’s solution.

### Hypothetical “Build” Case Study

An internally developed project demonstrating a favorable ROI was given final approval. The project was initially on time, on-budget and was achieving its goals. However, less than X months after implementation, it became clear the help desk software was non-scalable, did not integrate with other applications, and was more difficult to configure and customize than first anticipated. In the initial analysis, this organization did attach great importance to technical flexibility in their proposed “build” solution; however, the value of flexibility was not quantified in their pure ROI analysis.

What this hypothetical “build” case is meant to show is what many in-house developers eventually discover: that enterprise-class help desk software needs to support the future demand for flexible customizations, automated workflows, and third-party integrations.

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### 4. THE BUY DECISION: WHAT TO LOOK FOR WHEN BUYING HELP DESK SOFTWARE

Bolstered by more powerful reporting and asset management functionality and with a new focus on IT service management, help desk software is finally moving the support function out of a reactive mode. Help desk software has become more complex. Forrester Research recently surveyed the state of the help desk industry in its Forrester Wave™: Service Desk Management Tools, Q1 2006 by Chip Gliedman. The report remarks that as the complexity of the vendor's help desk software has increased, organizations--especially smaller ones--are looking for solutions that are easy to manage.

However, not all help desk products meet Forrester's easy-to-use standard. Therefore when evaluating vendor solutions in which raw tracking and monitoring capabilities are similar, the following attributes are key differentiators:

- **Ease of installation** - IT technicians should be able to install the help desk software quickly and easily; installation should not require outside consultants.
- **Ease of customization** - Changing the software to fit specific requirements should not involve programmers or experts.
- **Flexible interface** - The help desk software should support multiple ways to display the ticketing data. Agents should feel comfortable in using the interface to organize data in ways that enable them to quickly service requests
- **Integration of asset management** - Agents should be able to view users' hardware and software configuration from the help desk screen. Agents can pinpoint problems quicker when they have access to deep information about a user's computing environment.
- **Reporting** - The help desk should support a reporting function that allows for customization, as well as providing a rich set of commonly-used reporting templates.

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The Forrester Wave™ Service Desk Management Tools, Q1 2006 makes specific mention of both the Numara Software flagship help desk products in the context of ease-of-use. The report notes that Numara Track-It! is:

*“the most widely installed service desk product, with close to 45,000 customers. Track-It! is an integrated suite of discovery, asset, and help desk tools, that is easy to install and use and is best suited for organizations with fewer than 2,500 employees. Track-It! can be an ideal entry point for organizations looking to add structure to their service desk processes to get away from what is often an ad hoc process”*

And the report finds similar strengths for Numara FootPrints:

*“Its FootPrints service desk solution is in the Leader category of our smaller enterprise tool evaluation by virtue of its simplicity of installation and maintenance, ease of customization, and flexible hosting options. The product occupies a nice niche for those organizations looking to step up the formality of their processes and controls without having to install a large and expensive suite of tools. The add-on module for change management, available with FootPrints 7.0, is well-suited to its market and broadens the company's offerings.”*

### Vendor Value

Organizations need to give greater weight to flexibility in their build-vs.-buy analysis. It is important to emphasize that with a vendor's solution, flexibility is part of the package: IT departments are getting a proven, customizable solution in which help desk functions and business processes not originally planned for can be accommodated. Help desk software from an established vendor, especially one with a large customer base, has a set of robust features and functions that reflect years of development and tuning. Its underlying architecture is scalable and reliable. With development costs spread out over many users, its price per technician cannot be duplicated by an in-house project. Simply put; it is usually very difficult for an internally developed solution to compete with a vendor's powerful combination of features and low cost.

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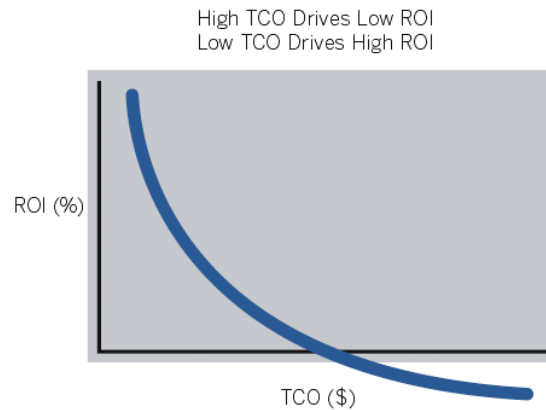
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### 5. SAMPLE ROI ANALYSIS OF BUILD-VS.-BUY USING NUMARA TRACK-IT! AND NUMARA FOOTPRINTS

As mentioned earlier, many businesses employ ROI analysis to decide on the financial feasibility of their build-vs.-buy decision. This analysis involves comparing the fixed costs and maintenance fees of purchased software against the development and staff costs of an internal solution, calculating which option is less expensive in the long run. Beware: it's a non-trivial task to calculate developments' costs without a hypothetical example.

#### Numara Track-It! ROI

An ROI analysis could proceed along the following lines. Let's assume the project is completed in a year with one senior programmer at a salary of \$90,000 and one junior developer at a \$60,000 salary for a total development cost of \$150,000, excluding hardware and other development tools that may be needed.



*Total cost of ownership is inversely related to return on investment. Low TCO drives high ROI.*

If we look at the rich functionality and affordable pricing available with Numara Track-It!, the business case for in-house development evaporates. A Numara Track-It! Enterprise bundle supporting 5 agents and 100 self-service users costs approximately \$4,000. Add to that a service contract for under \$1,000, for a cost of ownership of approximately \$5,000 for the 1st year.

Generally, for a new software or hardware investment to receive approval from management, the ROI payback period should be under one year. With Numara Track-It!, the product pays for itself, compared to using in-house staff, in well under one month!

When the vendor software has an extremely low total cost of ownership (TCO), as is the case with Numara Track-It!, including both initial licensing and ongoing maintenance costs, the ROI is rapid. Purchasing a low TCO product would likely receive approval from corporate financial managers.

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Our customers have discovered the Numara Software help desk value proposition. For example, the State University of New York (SUNY) Downstate Medical Center, a leading training and research hospital in New York City, has used Numara Track-It! to facilitate work orders for over 6,000 employees. As a non-profit organization, its IT department was always on the lookout for cost saving options. According to Dilip Nath, the administrator at SUNY responsible for the help desk:

*“In a not-for-profit organization, we don’t have the flexibility to add more money and more people to handle complicated IT systems. Numara Track-It! helps us do more with less and frees up the time of IT technicians. Time equals money, so therefore time saved equals money saved.”*

### **Numara FootPrints ROI**

If we perform the analysis on Numara FootPrints, we again find a very favorable ROI payback period. A ten-license Numara FootPrints package starts at approximately \$17,000. Additional maintenance and support is available at 25% of the software investment or approximately \$4300 for a first year cost of just over \$21,000. Using the same development costs of \$150,000 from the Numara Track-It! example above, the payback period is under two months.

Polaris Industries, a major manufacturer of ATV and motorcycles, is just one example of a customer who has found great value in Numara FootPrints. Polaris was looking for a way to improve IT support for its 2,000 employees. They found that Numara FootPrints gave them comprehensive help desk functions at a competitive price. According to Laurie Brueggeman, LAN Administrator at Polaris Industries:

*“Some of the drawbacks to the other products we reviewed were their high costs and minimal administration options. FootPrints is very reasonably priced and is easy to administer.”*

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### 6. THE HOSTING OPTION

Hosting is an exciting option for the help desk market. With a hosted solution, organizations gain all the advantages of a purchased solution but without the high upfront licensing costs and the administrative overhead of allocating administrative staff and hardware resources. The hosting provider houses the help desk servers at its data center, typically offering either dedicated or shared hardware as options. Users access the help desk service through their web browsers or other HTML-based interfaces. There's often no (or very limited) client-side installation, so that organizations can instantly automate, track, and manage all types of customer support and help desk operations without going through a complex installation and rollout.

Are you a candidate for hosting? Below are three business situations where hosting is very attractive:

#### ***The Small to Medium-Sized Business (SMB)***

SMBs often do not have the necessary IT resources, expertise, or infrastructure to manage a powerful service desk in-house themselves. Tight budgets also make it difficult to justify the purchase of new software.

#### ***Individual Service and Support Departments (within large organizations)***

Even though larger organizations have the IT infrastructure in place to manage a purchased service desk solution, hosting can still be a feasible solution for departments within an enterprise. For instance, a department may not want to depend on their own IT group for implementation, administration, and maintenance of their service desk solution. Or the IT group may impose high charge-back fees. The hosted approach may actually cost less!

#### ***Service and Support Outsourcers and Consultants***

Consulting firms and outsourced service and support providers often find hosted solutions attractive because it allows them to change and scale their operations more effectively as their business and client needs change. In using a hosted solution, the outsourcer has access to technical resources not available in-house. The hosted service desk enables them to manage costs and serve a larger pool of clients. As a result, they can do more with less and increase their profit margins.

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### 7. HOSTING-VS.-PURCHASE ROI ANALYSIS

From a financial perspective, hosting gives organizations the opportunity to spread the costs of its help desk software, lowering up-front investments and allowing enterprise departments and SMBs to stretch their budgets. For these groups, hosted help desk software can be a viable alternative to purchasing.

#### **Numara FootPrints ROI**

A favorable ROI for hosting often hinges on the savings derived from not paying for staff to maintain the on premises help desk solution. An analysis for the Numara FootPrints Hosting Service could proceed as follows: starting at \$9,995, a 3-agent license for the Numara Hosting Service offers unlimited self-service, workflows, knowledge management, surveys, and more. With an annual hosting fee of \$4,298, the first year cost of ownership is \$14,293.

Since the hosting agreement for Numara FootPrints involves managing the help desk, the IT department avoids having to hire a system administrator tasked with managing the help desk software. A conservative estimate of the salary for a junior level administrator is \$30,000 per year. In this scenario, the ROI break even point –the point at which the hosting option begins to save money versus the purchase option– is in 6 months. And for subsequent years, the hosting option saves an additional \$25,702: \$30,000 (administrator salary) - \$4,298 (annual hosting fee). Numara FootPrints Hosting Service is an excellent choice for both small businesses and departments within larger organizations that have limited budgets. Penn State College of Business is good example of the success we've had with our hosting customers. According to Shuchi Nalepa, Manager, Information Technology at the Smeal College of Business:

*“Numara FootPrints’ ease of use and excellent reporting capabilities are invaluable to our department. With the hosted offering, our IT staff is no longer burdened with server and software upgrades so we can focus our time on more important activities. We are so happy with Numara Software that we have expanded our use of the offering from just one area of our IT group to the entire group, which includes more than 18 projects.”*

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### 8. NUMARA SOFTWARE SOLUTIONS: BOTTOM LINE

Numara Software offers two help desk solutions that deliver superior support to end-users.

Numara Track-It! is the ready-to-run help desk software that integrates request tracking, inventory life cycle management, asset discovery, auditing, remote control, and reporting in a single solution. Its core tracking features alone, which includes customizable viewing and filtering of work requests, escalation and notification of overdue work orders, and two-way email interactions, would be difficult to reproduce through an internal development effort. With a complete set of add-on modules, Numara Track-It! can match your IT help desk's expanding requirement for patch management, software deployment, and asset management. When you factor in this full range of functions together with the favorable ROI analysis presented earlier, Numara Track-It! is a benchmark against which most in-house solutions will fall short in terms of cost, flexibility, and robustness.

Numara FootPrints is available as both a licensed product and a hosting service. Numara FootPrints is the award-winning, 100% web-based service desk software for help desk and customer support automation. Numara FootPrints Hosting Service gives users our Numara FootPrints technology as a hosted service. Without any software or hardware investment, our web-based service desk solution allows budget-constrained organizations to implement sophisticated workflows and business, multi-channel request handling, and service-level agreements. It's a great way to tap into powerful service desk functions without having to manage and pay for the help desk and IT infrastructure that would be required for on-premises, licensed software. It is well suited for small-to-medium businesses, departmental users within large organizations, or consulting organizations that need to quickly scale up or down their agent pool.

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### CONCLUSION

The help desk has evolved. It has become more than a tool for tracking and monitoring user requests. Vendors providing help desk software that enables functions such as self service and integrations with third-party CRM and telephony have raised the bar on what this software can and should do. In addition, the help desk is now recognized as delivering both IT support and services – i.e., the ITIL service desk—and consequently supports advanced change and approval management as well as asset management functions.

Very few IT departments can duplicate a vendor's help desk software feature set through internal development. Even if successful "on-paper", an in-house effort would be unlikely to deliver enterprise-class reliability, scalability, and robustness. And when you take into account the prices of vendor software compared to the development costs of even modestly featured internally developed software, the ROI analysis clearly favors the vendor's solution.

Help desk software from today's vendors is a winning combination of features and value. Whether through a licensed product such as Numara Track-It! or Numara FootPrints, or a hosted service, like Numara FootPrints Hosting Service, organizations have greater opportunities than ever to access powerful, proven, and affordable help and service desk solutions.

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### ABOUT THE AUTHOR



Tony Thomas is a Senior Product Manager for Numara Software, Inc. with a distinctive competence in Infrastructure Technology.

His background also includes design, implementation and troubleshooting TCP/IP networks while working as a consultant for LANology, Inc and teaching network engineering at MTI College of Business and Technology in Texas, USA.

The network monitoring software business he founded with several partners, LANware Inc., was sold to Intuit IT Solutions in December of 2004. Thomas was instrumental in the development of the core product from the LANware sale, which is now known as Numara Network Monitor.

Skilled at understanding the needs of a business as well as IT challenges, Thomas stayed on with Intuit IT Solutions, now Numara Software, Inc., and continues to consult with key customers to solve functional and operational problems in a variety of IT environments worldwide.

Responsible for the launch of Numara Patch Manager, Numara Deploy and Numara Remote, Thomas is focused on customer-driven innovation and serves as an integral part of the team that determines future product offerings as well as features and functionality across all Numara™ Software product lines.

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### ABOUT NUMARA SOFTWARE, INC.

Founded in 1991, Numara Software, Inc. (formerly Blue Ocean Software) is a global provider of service desk management solutions for IT help desk and customer support professionals who need to simplify and gain control over their increasingly complex environments. The Numara Software trusted solutions address critical IT and support functions, such as customer service desk, IT help desk, asset management, software patch and deployment, and network monitoring.

With its two flagship products, Numara Track-It! and Numara FootPrints, and more than 50,000 customer sites worldwide, Numara Software is the service desk management leader for small to mid-sized enterprises. To register for a one-on-one guided walkthrough, attend a webinar or download a trial, please call (800) 557-6970 or visit: [www.numarasoftware.com](http://www.numarasoftware.com).