Executive Summary

There’s an explosion of information, applications and devices across the enterprise, and this is transforming how and where work gets done. Yesterday’s traditional, office-based work environment is giving way to one that’s fluid, highly decentralized and overflowing with data. Storage capacity is growing according to a leading analyst firm as much as 50 percent annually, and companies with 1,000+ employees will house an average of 152 TERABYTES per data center by the end of 2007. As more demands are placed on the infrastructure and the need for speed and IT flexibility become even greater, inefficient systems that are not fully integrated will seriously impede a company’s ability to grow, compete and deliver business value to the organization.

At CCSI Technology Solutions, a CompuCom Systems Company, our unique Integrated Infrastructure Management™ (IIM) solution helps clients break through the complex issues of infrastructure management to create a tightly integrated infrastructure that combines an effective IT asset management life cycle, an efficient service delivery process, a world-class service desk and a mutually beneficial relationship methodology. The results reduce costs, increase productivity and allow clients to respond more quickly to the expanding needs and complexity of today’s enterprise.
TABLE OF CONTENTS

Executive Summary ......................................................... 1
Introduction ................................................................. 3
IIM: A Process, Not a Function ........................................... 4
Leveraging an IT Asset Management Life Cycle Solution .......... 5
Providing Professional and Support Services ...................... 6
Reengineering the Service Delivery Solution ....................... 6
Defining the Relationship Methodology ............................... 8
Leveraging IIM for Success ............................................... 8
Ask Yourself These Questions ......................................... 9
Summary ........................................................................ 10
An IIM Success Story ..................................................... 11
About the Author ......................................................... 12
About CCSI ................................................................. 13
Introduction

Today’s infrastructure must be agile, nimble and provide real-time information to enable IT to support and add value to critical business processes. CCSI believes that to support the IT infrastructure component of the enterprise in the most efficient way, organizations need to first understand all of the elements that need to be tied together, and then create a delivery model that supports it. CCSI’s holistic view of integrated infrastructure management includes everything from servers to smart phones, from operating systems to enterprise applications, from switches to routers, from image management to patch management and from acquisition to disposal. The delivery model leverages smart technologies to allow end users to resolve issues themselves, resolve issues remotely from anywhere on the planet or if necessary, resolve them on-site. This method guarantees quality, while maximizing the cost savings between remote and on-site delivery models.

Let’s discuss a few of the significant challenges facing infrastructure management today:

New mobile and wireless devices are entering the consumer and corporate markets daily. Employees innocently take these devices to work, and in doing so, increase the risk of infecting the corporate network and losing or corrupting important information. Multiply that by the plethora of networked assets and the variety of end users—from corporate office to home office to “road warrior”—and the magnitude of an organization’s IT infrastructure management challenge becomes more obvious. Accurate and secure asset deployment and management processes are needed to effectively manage these devices and mitigate corporate risk. With the total cost of ownership (TCO) ratio to the purchase price often exceeding 10:1, an effective, tightly integrated asset management process can often reduce costs by more than 15 percent.

Many companies are inconsistent with their software policy management. In the swing, back and forth between standardization and allowing end-user flexibility, too many tools and applications are often deployed, resulting in unnecessary complexity and high support costs. These costs are increased by the need to certify these applications when any significant infrastructure change is made, such as an operating system upgrade to Microsoft Vista or deploying Microsoft Office ’07. The resultant cost increase has caused some companies to postpone infrastructure upgrades, impacting business productivity and security.

In addition, there is a growing trend in which many companies do not want to own hardware and software assets due to the high capital costs that drain their IT budgets. The cost of the equipment, along with the associated expenses, has limited the CIO’s ability to invest and allocate funds to more strategic IT initiatives to transform and modernize their infrastructure, putting them at a competitive disadvantage. CCSI’s comprehensive asset management process and IIM solution help eliminate the pitfalls that can occur when designing, implementing and managing new policies or technology. CCSI’s pay-for-use desktop management approach can help reduce the burden of heavy capital costs and provide added flexibility by delivering a per-seat service that fully integrates...
hardware, software and management of a client’s work environment. This is a unique pricing option that is not a lease and provides a cost-effective way to pay based on usage. CCSI then owns the responsibility for reducing costs and maintaining high end-user satisfaction as a partner with the client’s IT organization.

If image and patch management processes are ineffective, there will be an impact on infrastructure integrity and business productivity. The percentage of virus attacks that occur before the majority of enterprises can successfully deploy patches will continue to increase. Securing the client’s infrastructure requires an asset management approach that incorporates both image and patch management and leverages the latest automation technology.

Finally, the current propensity to involve many different vendors in infrastructure management may result in poor service quality, missed service level agreements and higher costs. Industry analysts estimate that more than two out of three companies use two or more hardware support providers and the cost to manage each vendor can cost up to as much as six percent of the engagement value. In addition, typical contract vehicles often fail to encourage multiple support organizations to provide service in the lowest cost, most effective manner for the client. CCSI’s vendor independent, integrated delivery model, on the other hand, yields effective cost management and faster problem resolution by utilizing the lowest cost, most effective means of delivering service for a particular problem, be it through self-assist technologies, a remote service action, or by an on-site call by a qualified technical resource.

Let’s now examine how CCSI defines the concept of Integrated Infrastructure Management™ (IIM). Then, we’ll take a look at how CCSI’s service and delivery model has been used to drive business success for numerous clients.

IIM: A Process, Not a Function

The critical success factor in providing an integrated infrastructure is the delivery of IT asset management life cycle services as a continuous process, rather than a series of disparate functions. Continuous improvement is dependent upon delivering all such life cycle capabilities via a portal that encompasses three possible solutions. These solutions include end users resolving issues themselves, professionals resolving issues remotely or professionals resolving issues at the user’s site.

CCSI’s IIM solution encourages self-assist as the resolution method of choice. Remote and on-site resolution methods are used only when the self-assist method fails to resolve the issue, yielding increased productivity, significant cost reduction, and a superior level of end-user satisfaction. The IIM solution has resulted in 20 - 50 percent overall reduction in support costs for many of CCSI’s clients. This needs to be a balanced approach to ensure that cost efficiencies are achieved, while recognizing at the same time that too much self-assist can potentially have a negative impact on overall user satisfaction.
Leveraging an IT Asset Management Life Cycle Solution

The first step toward integration is to leverage a seamless IT asset management life cycle solution. Let’s examine the closed loop process below, which is implemented via International Standards Organization (ISO)-certified, e.g. ISO 20000, and IT Infrastructure Library (ITIL)-consistent standards, by breaking down its components:

- **Assess**—Identification of the existing infrastructure’s capabilities, as well as new technologies and their potential impact and preparation of business cases to support the case for change
- **Plan**—Preparation of the necessary resources, plans and schedules for implementation of new technologies that are approved and funded
- **Design**—Creation and verification of technology architecture details of both the existing platform and the recommended new technologies
- **Procure**—Evaluation of vendors, negotiation of contracts with vendors, configuration management, contract compliance issues and the purchase of new technologies
- **Test**—Detailing of design and prototype/pilot solution and verification of design
- **Implement**—Receipt and staging of assets, deployment and/or redeployment of existing assets and deployment of new technologies across the enterprise
- **Support**—Provision of ongoing hardware and software maintenance services; management, install/move/add/change activity; management of automated inventory and discovery; and updating of asset management information and process
- **Retire**—Disposal of end-of-life cycle hardware and software; harvesting of licenses; management of contracts, conform-to-data, and EPA certification issues; and redeployment where appropriate
Providing Professional and Support Services

The second step involves the provision of professional and support services that will assess the maturity of the IT infrastructure through proven methodologies and using industry benchmark data in order to define the current state and develop the right roadmap to optimize the IT asset management life cycle. These professional services include IT consulting, application development, deployment and integration. Support services include deployment and maintenance of hardware, such as fixed and mobile devices, wired and wireless devices, network administration, database administration, data storage, multi-function document services, enterprise servers, information availability and security. Additional support services include procuring and integrating the appropriate operating system, infrastructure and application software. (See Figure 1.)

Completing the IIM solution requires the implementation of the IT asset management life cycle in conjunction with an integrated service delivery solution. The leveraging of Six Sigma methods and techniques can get to the root cause of potential integration problems in order to drive out failures and lower costs, while maintaining quality and adding business value. It is the point of intersection of these two components that creates the greatest value from the infrastructure. At CCSI, we’ve seen the results: our clients are deriving the most dramatic quality and cost benefits from tightly integrating these two infrastructure components.

Reengineering the Service Delivery Solution

Our third step toward integration is reengineering the service delivery model to encompass the three options for problem resolution that will continuously expand the potential value the infrastructure can provide. These options are self-assist, remote resolution and on-site support. Let’s clearly define what we mean by each option.

Self-Assist: Users can easily reference a dynamic knowledge solution to obtain training, information, and/or access to a solution to resolve an issue on their own. For example, the most common problems can be identified and their solutions provided via fully automated, self-healing tools.

Remote: Users leverage smart technologies and a remote expert at a world-class service desk to resolve their issues. Consultants apply technologies to remotely monitor all network equipment and availability, providing a service desk interaction of significantly enhanced quality. As helpful information is made available to the service desk, it may automatically dispatch a professional on a pre-emptive call.

On-Site: A professional technician visits the user’s site, if and only if the self-assist and remote resolution options have failed to resolve the problem.

CCSI leverages our IIM solution and Infrastructure Maturity Assessment Tool (IMAT)—a unique, proven methodology that assesses the integration maturity of the IT organization—to favorably rebalance the ratio of on-site, remote and self-assisted IT support. By enabling this shift, we help clients not only move toward the realization of maximum business value from their IT infrastructure but also benefit from a continuous expansion of its value. (See Figure 2.)
CCSI’s Integrated Infrastructure Management™ (IIM) Solution

<table>
<thead>
<tr>
<th>IIM Maturity Level 1</th>
<th>IIM Maturity Level 3</th>
<th>IIM Maturity Level 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Characteristics:</strong></td>
<td><strong>Characteristics:</strong></td>
<td><strong>Characteristics:</strong></td>
</tr>
<tr>
<td>• Information silos; no enterprise-wide view of data</td>
<td>• Hardware not completely integrated with software</td>
<td>• Tightly integrated hardware, software, processes, functions and services provided by a single source with central accountability</td>
</tr>
<tr>
<td>• Disparate platforms, processes and functions</td>
<td>• Somewhat better integration of platforms, processes and functions</td>
<td>• Significantly increased efficiency and effectiveness linked to economies of scale made possible by a single-source provider and tightly integrated infrastructure</td>
</tr>
<tr>
<td>• Multiple IT vendors providing products and services with no central accountability</td>
<td>• Synchronized procurement of hardware, software and services from a single source</td>
<td></td>
</tr>
<tr>
<td>• Asynchronous procurement of hardware and software</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At IIM Maturity Level 1, the IT infrastructure is characterized by minimal integration.

At IIM Maturity Level 3, the IT infrastructure is somewhat more integrated than a Level 1 infrastructure.

At IIM Maturity Level 5, the IT infrastructure has achieved a significant degree of integration, delivering measurable value.

At IIM Maturity Level 1, the least efficient methods of IT problem resolution are emphasized; predominantly on-site and remote.

At IIM Maturity Level 3, somewhat more efficient methods of IT problem resolution are emphasized; remote and self-assist are becoming more dominant.

At IIM Maturity Level 5, the most efficient method of IT problem resolution is emphasized; predominantly self-assist.
Defining the Relationship Methodology

The fourth, and possibly most critical, step to integrating the infrastructure is to create an environment of continuous improvement involving the implementation of a clearly defined relationship methodology whose foundation is built on mutual benefits. Let’s look at the key factors of this specific “relationship methodology.”

**Results-Oriented:** Formal metrics are defined, such as service level agreements (SLAs) and end-user and client satisfaction evaluations, quarterly and annual business reviews and shared, articulated business objectives.

**Shared Values and Beliefs:** Expectations are established, such as trust, respect, flexibility, agility and response times. Our core values are important to us—just as our clients’ values are important to their organizations.

**Governance:** Mutual agreements are formed regarding such issues as executive involvement, issue resolution and controls and change management matters.

**Communication:** Clear definitions are created regarding formal, structured communications policies and issues regarding consistency and frequency.

**Smart Technology:** Intelligent tools are adopted that improve and/or automate the delivery process.

**Long-Term Focus:** An orientation is established toward continuous process improvement, proactiveness and endurance.

To meet today’s on-demand, industry-standard computing needs, the integrated infrastructure solution must be delivered through a variety of contractual vehicles and engagement solutions, and it must provide guaranteed levels of service at the enterprise, business unit, project, regional and/or seasonal levels. It also follows that end-user satisfaction must be guaranteed at a predictable cost.

Leveraging IIM for Success

The potent combination of an effective IT asset management life cycle, an efficient service delivery process, a world-class service desk and a mutually beneficial relationship methodology results in an unprecedented Integrated Infrastructure Management solution for the industry-standard computing environment. CCSI recognizes that IIM is the most effective way to accelerate the value of an organization’s IT infrastructure investment. And CCSI is uniquely qualified to assist clients in achieving this acceleration of infrastructure value.

As part of the Integrated Infrastructure Management solution, CCSI uses a proprietary methodology, the IMAT, to analyze and benchmark the maturity level of your existing infrastructure. Developed using industry-standard methodologies and best practices, this unique tool quickly gauges infrastructure maturity based on responses to a series of questions supporting 21 industry best practice areas. The resulting assessment plots the current state of infrastructure maturity based on complexity, size and the client’s industry segment, allowing CCSI to evaluate and make sound recommendations to better integrate the management of clients’ IT services, hardware and software and favorably rebalance their organization’s ratio of on-site, remote and self-assisted support.
**Proven Process**

The IMAT assessment process begins with a series of questions addressing known best practice and process areas. The tool then examines the data and charts the maturity of the infrastructure, scoring the data against the complexity and industry segment of the client. First, recommendations for improvement are made based on the desired movement up the maturity scale. Next, direct and indirect cost information is gathered specific to direct and indirect assets and labor factors. This data is then compared to Gartner’s benchmarking database of best clients by industry segment, complexity, size and seat count. The resulting analysis reveals the environment’s TCO. This data becomes the baseline for continuous improvement, and the tool is then used annually thereafter to determine progress toward the desired maturity level, as well as cost reductions over time.

**Assessment Tool Features and Benefits**

The IMAT offers:

- A baseline maturity assessment of best practices, infrastructure maturity and support costs in a single analysis to establish a mechanism for change and continuous improvement
- A comparison of the environment against Gartner’s best practices database and benchmarking clients
- An actionable list of recommendations that can be used to chart continuous improvement initiatives that will drive out cost while improving integration maturity
- Establishes a baseline of costs that can be compared year-over-year to demonstrate the business value of the IT infrastructure.

**Ask Yourself These Questions**

It is critical to understand where and how IIM will provide the greatest value. To help clients gain this understanding, CCSI asks the following questions:

- How effective is your asset management process?
- Do you know the maturity level of your IT infrastructure?
- What level of user satisfaction are you achieving with your current infrastructure services?
- Are high costs of capital keeping you from investing in more strategic IT initiatives?
- Are you currently benefiting from ITIL and Six Sigma best practices?
- Do you take advantage of offshore IT services?
- How effective have you been at reducing IT costs without sacrificing quality?
- Do you have a roadmap to follow showing you how to increase efficiencies, improve productivity and evolve your IT infrastructure?
Summary

We have now seen why creating a tightly integrated infrastructure solution is critical to an organization’s success and ability to take full advantage of information. The ideal way to get control of the complex issues that surround infrastructure management is to adopt a multi-faceted approach. The approach must combine an effective IT asset management life cycle solution with a world-class service desk, an efficient service delivery process and a relationship methodology from which everyone benefits.

To achieve a truly integrated infrastructure, it is crucial that both the client’s organization and the IT services provider recognize that delivery of IT asset management life cycle services is a continuous process, not simply a series of unrelated functions. CCSI’s IIM solution elevates self-assist resolution methods to the primary position, relying on remote and on-site resolution as secondary methods to be used only when the self-assist method fails to resolve the issue. This novel approach results in increased productivity, significant cost reduction, and a superior level of end user satisfaction. In fact, CCSI’s exclusive IIM solution often results in 20 - 50 percent overall reduction in support costs for clients in a variety of industries, and CCSI is uniquely qualified to assist clients in achieving this acceleration of infrastructure value. (See Figure 3.)

Contact a CCSI representative today to find out how our unique IMAT can help evaluate the IIM efficiency of your organization and determine ways to optimize your infrastructure.
An IIM Success Story:
E.&J. Gallo Winery

The Client
E.&J. Gallo Winery is the world’s foremost winery in the art and science of grape growing and winemaking—and in the distribution and marketing of wines worldwide. The company has four wineries, with more than 4,600 employees around the world and more than $1.8 billion in annual revenue.

The Challenge
Gallo’s desktop services, network and server environment were operating in a siloed environment, and its understaffed service desk had a voicemail front end and a trouble ticket tracking system that often didn’t function properly. Faced with an average PC repair time of about 20 days, users sometimes took desktops to the local computer store for repair or bought new ones.

The Solution
To bring service and quality levels up and the cost of ownership down, Gallo chose CCSI as its outsourcing partner. Just 60 days later, the outsourced service desk went live, and both companies collaborated to educate Gallo employees about its benefits. CCSI applied its Integrated Infrastructure Management™ (IIM) methodology to design and expand the knowledge database that captured problems and identified solutions for systems issues and issues specific to Gallo’s operations. The database continuously enhanced the service desk agents’ effectiveness as it grew.

The Results
Together, Gallo and CCSI accomplished more in 18 months than many thought would be possible in five years. User satisfaction surveys now glow with appreciation for the service desk. Our best practices and methodology helped Gallo:

• Decrease the use of expensive, on-site problem resolution methods with self-help tools, leveraging CCSI’s knowledge database
• Improve the mean time to repair by 95 percent
• Reduce the total cost of ownership for Gallo’s IT system by 45 percent
• Increase end-user satisfaction dramatically
About the Author

John F. McKenna
Chief Strategy and Services Officer
CCSI Technology Solutions,
A CompuCom Systems Company

With more than 20 years of demonstrated IT solutions expertise, John McKenna was named CCSI Systems’ Chief Services Officer in early 2005. In this role, he is responsible for developing the company’s go-to-market and business development strategy, as well as management of the service quality excellence program. Prior to this promotion, Mr. McKenna spent six years as Senior Vice President, Services, where he was responsible for the development and delivery of CCSI’s award-winning outsourcing services.

Since joining the company in 1999, Mr. McKenna has been instrumental in CCSI’s transformation into a highly regarded IT services provider. He is the architect of the company’s Integrated Infrastructure Management™ (IIM) solution for optimizing hardware, software, and end-user services and support. The IIM approach is recognized by Gartner as a leading example of the trend toward delivering multiple IT services in an integrated manner. Mr. McKenna has also implemented several initiatives to continuously evaluate service delivery and resource management quality and effectiveness.

A native of Scotland, Mr. McKenna holds a degree in computer science from Heriot-Watt University. He has also authored several IT industry white papers.
About CCSI

CCSI is a leading IT outsourcing company providing infrastructure management services, application services, systems integration and consulting services, as well as the procurement and management of hardware and software. With 20 years of IT experience, CCSI employs more than 7,400 highly skilled associates who have earned a combined total of more than 42,000 industry certifications company-wide. As experts in workplace services, CCSI’s unique Integrated Infrastructure Management™ (IIM) solution reduces costs, increases productivity and helps clients gain maximum value from information.

(Figure 3)

CCSI is Different

<table>
<thead>
<tr>
<th>IT Infrastructure Services</th>
<th>Typical Hardware Manufacturers</th>
<th>Typical Software Publishers</th>
<th>Typical IT Service Providers</th>
<th>CCSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consulting</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Systems Integration</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Outsourcing</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Vendor Independence</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Integrated Infrastructure Management™</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Software and Application Services</th>
<th></th>
<th></th>
<th>■</th>
<th>■</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publishing</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Procurement</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Licensing, Compliance, and Reporting</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Application Design, Development, and Maintenance</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Vendor Independence</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hardware Services</th>
<th>■</th>
<th>■</th>
<th>■</th>
<th>■</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Procurement</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Configuration and Imaging</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Logistics and Distribution</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
<tr>
<td>Vendor Independence</td>
<td>■</td>
<td>■</td>
<td>■</td>
<td>■</td>
</tr>
</tbody>
</table>

Single Source for Integrated IT Infrastructure, Software, and Hardware Services ■

Learn more about CCSI’s broad range of services and how seamless integration can help you drive greater business value from your IT infrastructure. Visit us online at www.CCSICompuCom.com or call us at +1 905.816.3000 today.

© 2007 CompuCom Systems, Inc. All rights reserved. CompuCom is a registered trademark of CompuCom Systems, Inc. The names and logos of any companies or products mentioned herein may be the trademarks of their respective owners in the United States, Canada, and/or other countries. The information contained herein is subject to change without notice.