



SINE NOMINE
ASSOCIATES

Introducing Sine Nomine Associates

Thank you for considering Sine Nomine Associates as your systems and network partner. We proudly offer first-class business solutions that will strengthen, grow, and diversify your business.

Sine Nomine Associates is an IT research and engineering firm dedicated to objectively identifying and implementing the best solution for each client. We operate under the principle that information technology solutions should meet clear business requirements and demonstrate real business value. Producing results and fulfilling objectives are the marks of successful solutions, and thus may be considered more important than the technical characteristics of the solution itself. Since our solutions are custom-tailored to the goals and vision for your business, we call them "*the right tool for the right job.*" This phrase represents the specific measures of quality -- expandability, scalability, reliability, and usability -- resulting from thorough requirement analyses that inform well-planned architecture and careful implementation.

As a vendor-neutral consultancy, we do not resell hardware or software. Therefore, if a particular system or design is not the right solution for you, there is no hidden agenda for us to recommend it. In addition to quality project design and execution, Sine Nomine Associates is committed to supporting all the solutions we develop. We provide 24x7 support to some of the largest companies in the world.

Faithful to our business model, all of our engineers are encouraged to spend half of their time researching advanced computer and network technology. This enables Sine Nomine Associates to envision and shape what will become core technology in the future. We are an elite team, each with over fifteen years of industry experience, who are published authors and respected experts in our fields.

As your organization grows and improves, we are committed to addressing your challenges and to implementing your ideas, goals, and opportunities. We look forward to building your business solutions in close cooperation with you – once again making it "*the right tool for the right job.*"

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Sine Nomine Associates
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Statement of Capabilities

Sine Nomine Associates is an IT research and custom development engineering firm that transforms emerging technology into practical business solutions.

We provide engineering and business planning services for existing and evolving systems. Our services include installed mission-critical infrastructure and applications, business transformation applications, comprehensive architecture designs, ongoing support, and long-term operations training. Together, these services create durable, scalable and secure solutions. Balancing between developing the cutting edge and implementing proven best practices, our solutions are based on three core maxims:

- preserve effective existing systems,
- evolving new systems and services, and
- applying research and development.

Preserve Effective Existing Systems

Applying rare knowledge and unique expertise, Sine Nomine Associates' solutions preserve and enhance the reliability, stability, and supportability of tried-and-true, mission-critical infrastructure.

While knowledge is based on information and research, expertise is built on real-world experience in designing, implementing and supporting long-term solutions to business needs. Sine Nomine Associates offers an elite engineering team, each drawing on over fifteen years of industry experience on systems and networks, and each having acquired rare knowledge and unique expertise on computing infrastructure.

We are dedicated to the preservation and enhancement of the value of our clients' existing infrastructure, regardless of what that infrastructure includes. Our clients have invested in their current infrastructure and sometimes wish to retain it for good technical and business reasons. Sine Nomine Associates appreciates and supports these preferences, especially when the existing solutions serve mission-critical functions.

Evolve New Systems and Services

Turning methodical, vendor-neutral investigation of technical requirements and strategic vision into creative and disciplined analysis, Sine Nomine Associates' solutions evolve new systems and services that efficiently and effectively reach and surpass each customer's goals.

Creative thinking and disciplined planning combine the strengths of new services and existing business infrastructure. Rather than disruptively replacing or altering entire infrastructures, new services should evolve logically and incrementally from what exists, and should include not only systems and networks, but also business practices. Efficiently and effectively grafting new functionality onto established business practices, Sine Nomine Associates delivers solutions that prove more rewarding than other costly and invasive replacements.

Sine Nomine Associates delivers "*the right tool for the right job.*" Due to our vendor neutrality, our solutions are multi-vendor, interoperable, scalable, manageable and secure. They demonstrate that the best solutions employ existing technologies to augment proven systems, while applying appropriate next-generation technologies to prepare for the future within the context of effective business processes.

IT Training and knowledge transfer are an integral part of Sine Nomine Associates' services. We believe that enabling our customers to fully operate their solution completes a job well done. Working directly with clients' staff on their own systems, we employ proven methods to transfer knowledge to our clients. Since our approach invests in our clients' staff and enhances their expertise, we move our clients from help to self-help. This customer-empowering approach to knowledge acquisition is supplemented by Sine Nomine Associates' support offerings, lending the full depth of our expertise to our clients.

Apply Research and Development

Harnessing a historical view of technology development and charting future business needs, Sine Nomine Associates' research directs our continuous development and refinement of rigorous testing regimens and comparative studies that are shared in publications, presentations and industry communication, and that influence standards committees, cooperative research groups and corporate strategies.

IT research and development are at the core of our success. From participation in major industry organizations to vendor-neutral development and testing, we shape and define emerging technology. We lead and act, rather than follow and react.

As development and testing of new technology and solutions is critical to Sine Nomine Associates, we are able to provide the IT industry with "proof-points" on the viability and efficacy of new technologies and designs. A wide array of Proof-of-Concept projects for customers worldwide has earned Sine Nomine Associates a reputation as reliable visionaries and pioneers.

Sine Nomine Associates examines the business impact of competing solutions and provides Total-Cost-of-Ownership analyses. In keeping with our philosophy of "*the right tool for the right job*," we determine both the strengths and weaknesses of competing solutions, and then recommend that which best meets and surpasses each client's goals.

Examples of our participation in a variety of industry and standardization organizations: _

- IEEE
- IEEE Standards Association
- IEEE Communications Society
- IEEE Computer Society
- IETF
- IETF Multicast Engineering Group
- IETF TN3270E Working Group
- ACM
- ATM Forum
- z/VM Technical Steering Committee
- IBM's Advanced Business Council
- SHARE
- LINUX-390
- IBMVM
- SOL-390
- Mono-dev
- LLVM
- The Frame Relay Forum
- The Global Grid Forum

We regularly publish articles and technical papers in trade and scholarly journals, and we are the recognized experts on mailing lists and forums such as Search390.com, OpenAFS.org

Last but not least, our experts are active contributors to Open Source software development projects, for which we deliver enterprise-level 24/7/365, no-excuses, support.

Past Client Portfolio

Sine Nomine Associates has provided design, configuration, implementation, support, strategic planning and comprehensive consulting services to some of the largest and best-known companies in the world. Major institutions in the financial services, manufacturing, technology and government markets rely on our services for their day-to-day operations.

Customers trust our company's discretion. Many customers request non-disclosure agreements in order to protect the competitive advantage resulting from our services; honoring these customers' wishes, we reveal neither the nature of the engagements nor the customer names. The list below represents a partial selection of our clients who have not requested non-disclosure.

Analysis and Research Facilities

- e-Triage/Crawford Health Care Management
- IBM
- SLAC
- Fermilab
- United States Geological Survey (USGS)

Financial and Insurance Companies

- ATB Financial
- Autodata Norge
- Geico
- Goldman-Sachs
- Merrill Lynch
- Morgan Stanley
- NGCI

Government Agencies

- Bundesministerium, Austria
- Fairfax County, VA Public Schools
- Hennepin County, Minnesota
- Internal Revenue Service
- MITRE
- United States Geological Survey (USGS)

Telecommunications and Datacenters

- GTE
- Huawei
- Nextel

Manufacturing, Entertainment Companies and Publishers

- Family Video
- General Electric
- Infoprint
- NASPA
- SCA America
- zJournal

Software and Hardware Companies and Vendors

- Computer Associates
- Hewlett-Packard
- IBM
- Red Hat
- SHARE
- Suse/Novell
- Z-Expo

Universities and Educational Organizations

- Boston University
- CUNY
- Marist College
- Notre Dame University

Industry Recognition

Sine Nomine Associates has been widely recognized as a leading IT research and development firm.

- Member of IBM's Advanced eBusiness Council (ABC)
- SHARE Best Session Award; 2000, 2000, 2001
- Members of the SHARE VM Technical Advisory Committee
- Guest Editor, IBM Journal of Research and Development; 2001
- Authors of IBM Redbook "VM/ESA Network Computing with Java and NetRexx" (SG24-5148)
- Editorial Board, Addison-Wesley Technical Publications; 2002, 2003
- Members of IBM's Problem Determination Techniques Council
- Editorial Board for z/Journal and epinions.com
- Members of IBM's eServer DesignCouncil (eSCD)
- Regular contributors to NaSPA and z/Journal
- Member of the Global Grid Forum Development Group
- Contributing experts for VM and zSeries inquiries at Search390.com
- Member of Women Presidents' Organization (WPO)
- Technical Support Editor's Award for Engineering Excellence; 2002
- Member of Women in Technology (WIT)
- NaSPA "Industry Insights" Award; 2003
- CTO elected "Knight of VM" by "Order of the Knights of VM" 2000
- z/Journal Article of the Week; March 2004: "Playing Well With Others"
- Member of Science and Technology Advisory Committee for the State of Virginia; 1998

Sample Projects

Investment Bank: Enterprise-wide Distributed File System Support

Business Need: Improve stability and reduce failures for the client's mission-critical, global file-system to the point where operations are transparent to end-users.

Solution: The client maintains a global, customized, distributed file system for its critical trading data. The Sine Nomine Associates team provides 24x7 defect resolution, functionality development and telephone and email support to the bank's staff. This includes regular upgrades of the system's functionality, detailed code fixes, and weekly meetings to evaluate the status of the system. Sine Nomine Associates is also on-site for critical trading days.

Global Insurance Agency: Back-office Linux Infrastructure

Business Need: Control the rising license and maintenance costs of systems infrastructure elements that are not part of the client's core business.

Solution: A global insurance carrier sought an alternative to its existing Windows-based file/print and mail infrastructure. The company required improvements to the efficiency and stability of the environment while saving money on licensing costs. The solution Sine Nomine Associates developed and implemented used Linux virtual machines under VM as the main provider for file, mail and print services, with IBM xSeries machines in each physical location as cache servers. To execute this project, Sine Nomine Associates developed supplemental code for Samba to support the client's file system authentication and provided utilities for managing users within the NT domain.

Telecommunications Carrier: Massively Scalable Server Farm Implementation

Business Need: Create a platform for the client's next-generation services, optimized for ease of maintenance and maximum, enterprise-wide availability.

Solution: The client required an integrated z/VM and Linux architecture that would provide an appropriate platform for deploying Web Services applications for both internal use and external customers. The design involved a pair of z/VM 4.3 systems with mass storage (DASD) shared between them. Virtual IP addressing played a major role in the design to provide transparent adapter-to-adapter failover, ensuring high availability to a particular physical machine, and to provide routing to each guest's virtual IP address so that it could be located from the network while running on any frame. Sine Nomine Associates developed the initial design in collaboration with the client team and other partners. Over the course of the project, Sine Nomine Associates directed implementation efforts by the overall team.

Global Insurance Agency: Virtual Server Farm

Business Need: Create a platform for the client's next-generation services, optimized for ease of maintenance and maximum, enterprise-wide availability.

Solution: The client required an integrated z/VM and Linux architecture that would provide an appropriate platform for deploying Web Services applications for both internal use and external customers. The design involved a pair of z/VM 4.3 systems with mass storage (DASD) shared between them. Virtual IP addressing played a major role in the design to provide transparent adapter-to-adapter failover, ensuring high availability to a particular physical machine, and to

provide routing to each guest's virtual IP address so that it could be located from the network while running on any frame. Sine Nomine Associates developed the initial design in collaboration with the client team and other partners. Over the course of the project, Sine Nomine Associates directed implementation efforts by the overall team.

Global Computer Solutions Vendor: Total Cost of Ownership Sales Tool

Business Need: Develop a Total Cost of Ownership sales tool that would enable the client's global sales force to make the case for server consolidation onto large systems.

Solution: The client was launching a large-scale sales initiative based on server consolidation and required development of a sales tool that would enable its sales force to compare and contrast the total cost of ownership of varying server consolidation architectures. Based on Sine Nomine Associates research and development, engineers gathered specific price and cost points for the variables involved in a TCO calculation, including but not limited to equipment prices, software licensing and maintenance costs, power requirements and costs, high-volume air conditioning requirements and costs, systems management costs (including labor). These variables were then documented in a spreadsheet tool based on their relative relationships and weightings. These relationships and weightings were gathered from a broad survey of actual use and costs across a wide range of industries. The final TCO model is currently in wide use across the client's sales force as the primary tool for TCO comparisons for server consolidation business cases.

Internet Service Provider: E-Mail Infrastructure Redesign

Business Need: Replace an e-mail system suffering from limited scalability with a design horizontally scalable to hundreds of thousands of users.

Solution: A growing regional ISP used an e-mail infrastructure based on outdated technologies and a design that would not scale with the growth of the business. After researching the problem, Sine Nomine Associates created a solution that separates user accounts on a flexible number of mailbox servers, while a flexible number of inbound and outbound servers perform mail routing, virus and spam scanning, and POP/IMAP proxy routing. The new infrastructure's capacity can be increased without system disruption by adding more servers at any part of the mail stream. New features include webmail, web address books, and improved spam scanning relative to the previous system. The design extensively uses various Open Source software applications, saving the customer from increasing license fees. The system is in production for the ISP's entire customer base numbering in the tens of thousands of users, and handling millions of messages per day.

Public School System: Systems and Network Monitoring Infrastructure

Business Need: Enable a public school system in Virginia to actively monitor the status of their geographically diverse computing infrastructure.

Solution: A large county school system in Virginia faced a requirement for comprehensive systems and network monitoring as part of a larger modernization initiative. The client originally planned to go with a branded, expensive commercial solution from a large vendor. During the course of the project, the County decided to re-evaluate their options. Sine Nomine Associates presented Nagios, an open source (and thus, lower-cost) monitoring alternative. The County ultimately decided to forgo the expensive commercial solution in favor of Nagios. Sine Nomine Associates fully designed and implemented the system-wide Nagios monitoring infrastructure, which allows the County to have real time visibility into their hundreds of locations' computing environments.