

GXS Trading Grid Architecture

The Next-Generation Architecture Providing Reliability, Availability, and Resiliency

Increasingly Challenging B2B Requirements

Businesses are increasingly becoming dependent on the speed and accuracy of information to make business decisions and to gain strategic advantage in the global marketplace while simultaneously needing to adhere to industry and government regulations. Unlike the batch-oriented nature of traditional electronic commerce, today's event-driven, 24x7 mission-critical B2B applications will demand a platform that is highly available, dependable, high-performing, and resilient—even in the event of unforeseen disasters. The GXS Trading Grid is that platform.

A Platform Architecture You Can Depend On

The GXS Trading Grid is our multi-million dollar platform designed to provide the rock-solid reliability that will become ever more critical to you as your business requires real-time delivery and accuracy of information across your global supply chain. The Trading Grid utilizes a standardized Open Systems platform that provides scalability and process automation. Robust resource and configuration management embedded in the Trading Grid architecture—fused with the support of experienced professionals—enable new levels of high availability and disaster recovery.

Industry-Leading, Best-of-Breed Technology

The GXS Trading Grid relies exclusively on industry-leading technology to ensure maximum performance and high availability for your growing real-time B2B requirements. GXS is investing in technology standardization across our data centers to achieve consistent, scalable performance and service availability—even in the event of unplanned interruptions. The technology components include:

- **High-Throughput Blade Processors**—The GXS Trading Grid, utilizing the Egenera BladeFrame System, provides a unique system of pooled processing resources that enable more processing power at the lowest cost, on-demand addition of capacity as needed, and the ability to transfer processing between blades to add capacity or to recover from a fault with little or no impact to users.
- **High-Performance Operating System**—The GXS Trading Grid's 64-bit Red Hat Linux-based operating system provides a cost-effective, high-powered system that fully leverages the multi-CPU blade-based infrastructure, multi-threaded applications for high throughput, and enables simultaneous access by thousands of computers worldwide.
- **State-of-the-Art Storage Systems**—The GXS Trading Grid utilizes EMC Symmetrix to provide unmatched industry-leading high-performance storage sys-



“GXS has strong global operations and its new Trading Grid articulates a clear strategy to direct innovation and growth.”

—GARTNER

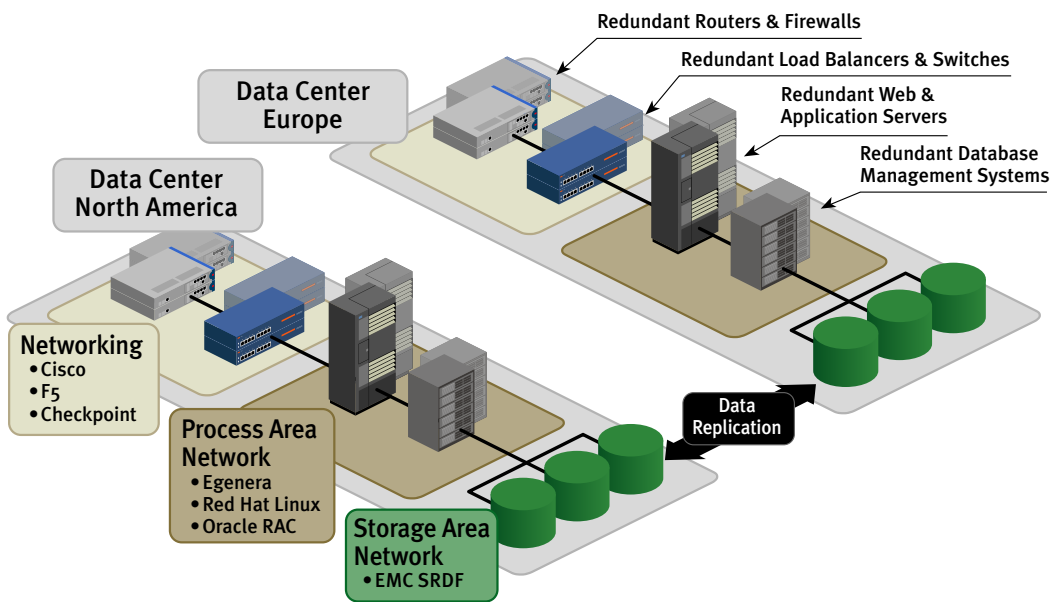
GXS FAST FACTS

- Operations in 30 Countries in Europe, Asia, and Americas
- Serves 75% of Fortune 500
- Serves 40,000+ Small and Medium-Sized Businesses
- 35+ years of Experience

tems with proactive monitoring and error detection tools that enable optimization of storage resources, centralized management, and unsurpassed levels of high availability resulting in a highly resilient environment that can tolerate equipment failures with no service disruption.

- **Redundant Global Network Infrastructure**—The GXS Trading Grid, utilizing Director Class Cisco SAN switches with a fiber fabric SAN, provides a redundant, load-balanced networking infrastructure that ensures no single point of failure.
- **Clustered Database System**—Oracle 10g Real Application Cluster (RAC) Databases, the most-advanced clustered database system available today, enables GXS to ensure that, should any piece of the database infrastructure fail, applications will continue to operate and information will continue to flow.

Redundant, Highly Available Infrastructure



High Availability and Disaster Recovery

Achieving high availability and seamless disaster recovery requires not only the best, most advanced technology, but also proper implementation. The GXS Trading Grid leverages state-of-the-art technology components, implemented in a highly available architecture across multiple data centers. Its highly available and resilient design provides:

- **Server Virtualization**—Because of the blade-based model—which pools processing resources and makes them available to business services as needed rather than assigning specific servers to individual applications—applications run on a “virtual” server that can be reconfigured for additional capacity or replaced by new instances in minutes, rather than hours. Likewise, this virtualization enables new levels of high availability and disaster recovery at GXS. To achieve high availability for every application at virtually no cost, IT can designate a single Processing Blade to act as failover for all other 23 blades in the frame.

GXS TRADING GRID LEVERAGES BEST-OF-BREED TECHNOLOGY COMPONENTS:

- Egenera® BladeFrame® System
- Red Hat Linux Operating System
- EMC Symmetrix Storage System
- Cisco LAN and SAN switches with fiber fabric SAN
- Oracle 10g RAC Databases

- **Significant Component Standardization and Redundancy**—GXS has stringent hardware standardization requirements to ensure consistency across the architecture and available capacity in the event of a hardware failure.
- **Clustered Applications**—By clustering Trading Grid applications, users are protected from node failure. In the event that one application server in a cluster fails, another cluster node seamlessly assumes the responsibilities of the application without interruption to you.
- **Real-Time Data Replication**—Data is synchronously “mirrored” locally within the Storage Area Network as well as to a separate data center to ensure data recovery in minutes without loss of data integrity—even in the event of a disaster.
- **Multi-Data Center Architecture**—The GXS Trading Grid is supported by multiple data centers around the world, each with replicated technology and connected via dedicated OC-3 high-speed links that enable applications to failover quickly and easily between continents and users to continue operations in the shortest time possible.

BENEFITS:

- **Lower cost**—no unexpected expenses or burden for your IT team
- **Reduced risk**—your project success is assured
- **Improved customer or vendor relationships**—no adverse impact to your trading partners

People, Processes, and Procedures

Even with the best technology and systems in place, the unexpected will happen—and recovery relies on having well-trained people at the ready, honed procedures, and excellent execution to prevent or minimize disruption. GXS re-invests the productivity savings gleaned from new technology into the people, processes, and procedures to ensure a fast, effective response to the unexpected.

- **24x7 Management and Control Center (MACC)**—GXS’s 24x7 operations centers utilize state-of-the-art tools to monitor operations, predict changes, and adjust configurations as required. The Trading Grid technology architecture enables GXS to anticipate problems rather than just react to them, address root causes instead of dealing with symptoms, and leverage problem resolution plans ahead of time—before a problem occurs—using a known, structured, repeatable process.
- **24x7 Client Services Organization**—GXS’s technical support services team uses best practices that emphasize personal attention, first-call solutions, and quick resolution times. Using the state-of-the-art Customer Relationship Management (CRM) and Service Management systems, GXS stays in close touch with our clients to ensure timely communications of events and subsequent updates. Daily, weekly, and monthly evaluation using key performance metrics ensure that GXS is meeting customer satisfaction goals.
- **SAS70-Certified Operations Systems**—Through continual monitoring and auditing, GXS ensures ongoing security. A prominent accounting firm periodically conducts a major audit to ensure that GXS security policies and procedures adhere to AICPA’s Statements of Auditing Standards No. 70 (SAS70) Type II. They produce a “service auditor report” which is available to GXS clients upon request. GXS has specifically selected the much more stringent Type II report, which includes not only an evaluation of control objectives policies and procedures, but also rigid testing of the operational effectiveness of the controls.

- **Business Continuity**—The Business Continuity organization, a global team headed by a Vice President, proactively ensures maximum resilience for our global platforms and solutions that are designed and thoroughly tested for operation in a High Availability environment.

Key Benefits of GXS Trading Grid Platform

The top priority for our technology investments—and core to our mission—is to ensure maximum availability and resiliency of our solutions. We continue to invest significantly to ensure a rock-solid infrastructure that supports 24x7 mission-critical customer needs. With resiliency by default, design, and operations, you can confidently rely on GXS Trading Grid to meet your B2B requirements and reap the benefits of:

- **Cost Savings & On-Demand Capacity**—You do not need to invest in building your own infrastructure and in expensive technical staffing resources. You can leverage the functional and technological advantages of GXS to give you access to new technology and the ability to rapidly grow as your requirements and processes evolve.
- **Rock-Solid Reliability & Reduced Risk**—You can avoid customer penalties and the effects of human and natural disasters with GXS's proven 24x7, secure, high-availability and high-performance service. Coupled with a disaster-recovery infrastructure and backups, our highly available, high throughput environment guarantees that your data will be delivered in accordance with your tight deadlines.
- **Productivity Improvements**—You can leverage the time and cost savings of a hosted service that easily integrates with your environment and your trading partners. GXS provides experience, expertise, and resources to deal with the complexity of ever-evolving B2B standards, internet technologies, and government regulations.

About GXS

GXS is a leading provider of B2B e-commerce solutions that simplify and enhance business process integration and collaboration. Organizations worldwide, including 75 percent of the Fortune 500, leverage GXS' GS1 certified global interoperability and supply chain execution solutions. Active in the global standards arena, GXS offers solutions, powered by the Trading GridSM, that enable customers both large and small, to connect with global partners, synchronize product information and optimize the execution of supply chains.

Headquartered in Gaithersburg, MD., GXS provides sales and support to businesses and their partners worldwide. For more information about GXS visit www.gxs.com.



About GXS

GXS is a leading provider of B2B e-commerce solutions that simplify and enhance business process integration and collaboration. Organizations worldwide, including 75 percent of the Fortune 500, leverage GXS' GS1 certified global interoperability and supply chain execution solutions. Active in the global standards arena, GXS offers solutions, powered by the Trading GridSM, that enable customers both large and small, to connect with global partners, synchronize product information and optimize the execution of supply chains. Headquartered in Gaithersburg, MD., GXS provides sales and support to businesses and their partners worldwide. For more information about GXS visit www.gxs.com.

© Copyright 2005 GXS, Inc. All Rights Reserved.

TRADING GRID DESIGN ENSURES RELIABILITY, AVAILABILITY, RESILIENCY:

- Total redundancy—hardware, software, data
- Zero Data Loss, in-center
- Seamless in-center clustering and fast failover between continents
- Trained, experienced personnel leveraging honed processes

NORTH AMERICA AND GLOBAL HEADQUARTERS

100 Edison Park Drive
Gaithersburg, MD 20878
U.S.A.

+1-800-560-4347 t
+1-301-340-4000 t
+1-301-340-5299 f

EUROPE, MIDDLE EAST AND AFRICA

1 Station Road
Sunbury-on-Thames
Middlesex TW16 6SU
United Kingdom

+44 (0)1932 776047 t
+44 (0)1932 776216 f

ASIA PACIFIC

25th Floor, Shell Tower
Times Square
Causeway Bay
Hong Kong

+852 2884-6088 t
+852 2513-0650 f

www.gxs.com