

PRODUCT DATASHEET

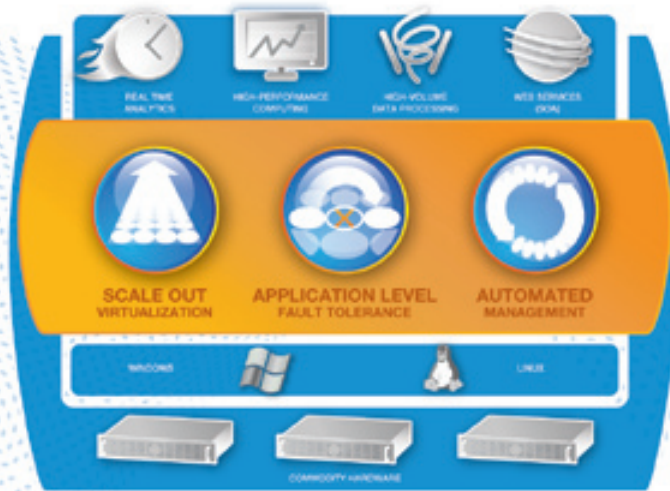
Appistry Enterprise Application Fabric 3.0 *Scale Without Fail* Increasing Business Agility by Eliminating Traditional IT Trade-offs

"I consider Appistry [EAF] to be one of the most significant disruptive technologies I have seen in years. What makes the company's technology really something to behold is how it takes the idea of using commodity hardware to deliver supercomputer-like power to a completely different level that no technology I have ever seen before does."

– David Berlind,
ZD Net Executive Editor



Appistry EAF is software that provides scalability, dependability and manageability at the application layer, insulating applications from the frailties and limitations of commodity infrastructure.



Appistry EAF Key Features

Appistry EAF creates an agile **scale without fail** environment that is able to quickly adapt to the changing demands of business. A comprehensive solution, the software offers capabilities often associated with disparate technologies such as traditional grid computing, clustered application servers and virtualization. Appistry EAF key features include:



Scale-out virtualization

Traditional virtualization enables a single server to be partitioned into a collection of virtual machines that can each run a different application and/or operating system. "Scale-out virtualization" characterizes Appistry EAF's ability to enable enterprises to view, scale and manage a network of many computers as a single system.



Application-level fault tolerance

Appistry EAF transparently enables fault tolerance at the application layer, by automatically replicating and propagating state information among multiple computers. As a result, the application fabric is insulated from physical infrastructure failure.

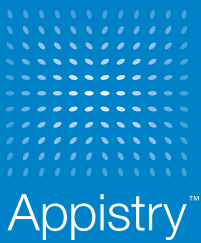


Automated management

Appistry EAF provides the automation necessary to ensure cost-effective and efficient system management, including dynamic discovery and assimilation of new hardware, and automatic application and operating system updates to all machines in the fabric.

Time-Critical Applications

Large-scale, time-critical applications are compute- and/or data-intensive business applications designed to create competitive advantage by providing unique and timely insights into the business. These strategic applications include "real-time" analytics, high-performance computing, high-volume data processing, and mission-critical service-oriented applications. Time-critical applications, such as routing and scheduling optimization in the transportation industry or pricing and fraud detection in financial services, are allowing companies to accelerate and improve decision-making, provide better value and service to consumers, and operate more efficiently, with the overall result of getting ahead—and staying ahead—of the competition.



The Fabric of Business

Appistry EAF Benefits

Enterprises deploying large-scale, time-critical applications choose Appistry EAF because it is the only solution that eliminates the IT trade-offs traditionally expected when deploying and managing strategic applications. Specifically, Appistry EAF enables enterprises to:

“Scale Without Fail”

Appistry EAF delivers the scalability of grid computing, with the dependability required for strategic business applications. Time-critical applications can be effortlessly scaled to meet performance requirements, or further reduce the latency from “data to action,” by simply adding new computers.

Appistry EAF takes a policy-based approach to load balancing and workload management, providing linear scalability across hundreds of computers.

To achieve dependability—which encompasses both availability and reliability—Appistry EAF automatically compensates for failed hardware ensuring that all work is completed successfully and on time, every time. Because Appistry EAF employs a fully distributed architecture, no single point of failure exists in the application fabric. For these reasons Appistry EAF allows “lights-out” operations, such that new computers can come online and existing computers can fail, all without interruption to the applications that are running within the fabric.

Appistry EAF vs. Traditional Approaches

	Appistry EAF	Fault-Tolerant Hardware	Clustered Application Server	Traditional Grid Computing
Scalability	●			◆
Dependability	●	◆		
Reliability	●	◆		
Availability	●	◆	◆	
Manageability	●			
Low cost	●			
Acquisition Costs	●			◆
Operational Costs	●			
Development Cost	●			

The Fabric of Google

The agility of Google’s business is powered by what can be characterized as an application fabric that Google developed in-house to support its large-scale, time-critical core applications. While few enterprises need to manage computing applications as vast as Google’s search engine, or can afford to develop their own application fabric in-house, many are looking to attain the benefits that Google’s application fabric delivers. Google’s powerful applications are run on 400,000+ famously inexpensive computers running Linux, and Google’s application fabric manages these computers as a self-organizing and self-healing network that is scalable, dependable, and most importantly agile. The result of Google’s underlying application fabric is that the company’s executives can work to grow the business, enhance existing services and create new ones, all without concern for the ability of its applications and infrastructure to keep up. And not only can Google’s application fabric keep up, but it can do so with linear cost increases rather than periodic massive overhauls to accommodate new requirements. †

"Instead of provisioning big iron to handle maximum network loads, Sprint is taking the opposite approach, deploying inexpensive, highly scalable application fabrics across a pool of x86 machines. Using a software virtualization application developed by Appistry, Sprint can quickly and inexpensively add hardware as network capacity needs increase... Sprint expects that the project will reduce the company's annual hardware and maintenance costs significantly while it delivers improved service to customers."

– InfoWorld, Nov. 14, 2005



Develop, Deploy and Manage Applications Quickly, Easily and Cost-Effectively

Time-critical applications are typically custom-developed to create competitive advantage by providing unique insight into the business.

Because the application fabric inherently provides scalability and dependability, Appistry EAF allows application developers to focus on business logic and process flow, speeding the time-to-market for strategic applications. Appistry EAF also presents the entire fabric to developers as if it were a single computer, freeing them from having to worry about complicated distributed computing concepts.

For system administrators, the self-managing fabric automates configuration of the infrastructure, including assimilation of new commodity-grade computers into the fabric. These capabilities reduce deployment time, complexity and cost, in addition to providing a source of cheap CPU-cycles that can be put to use by the business to further enhance insights.

Reduce Total Cost of Ownership

Appistry EAF delivers extremely low Total Cost of Ownership (TCO) for large-scale, time-critical applications, by running on commodity-grade, standards-based computers, minimizing system management and maintenance, and utilizing existing development skills and toolsets.

Appistry EAF supports the Linux and Windows operating systems, as well as the .NET, Java and C/C++ development environments. This cross-platform capability ensures compatibility with established toolsets and practices, and provides a unified model for application deployment and management for organizations with heterogeneous environments.

Appistry EAF Capabilities

Single-system view

Allows developers and administrators to treat application fabric as a single unit, eliminating complexities associated with developing distributed software and managing traditional server clusters.

Automatic load-balancing

Distributes work across application fabric, providing linear scalability across dozens to thousands of computers.

Multiple application support

Fully virtualizes underlying physical infrastructure, allowing applications to be run simultaneously, enabling better resource utilization and increased agility.

Self-healing fabric

Replicates and propagates state information among computers, so fabric can gracefully survive the loss of nodes without interrupting application execution.

Declarative application development

Allows developers to focus on business logic without worrying about writing mechanisms for preserving state, retrying failed connections, or reconstituting failed tasks or transactions.

Fabric-accessible memory (FAM)

Allows dynamic application data to be stored to a virtual "memory" area within an application fabric. The data physically exists in a cache of RAM located on multiple computers within the fabric, rather than in the database tier, and is available to any machine within the fabric.

Dynamic discovery & assimilation

Detects when "bare metal" has been added to the fabric's network, automatically installing the operating system, fabric software and applications, then routing work to the added resources with no manual intervention.

Automatic updates

Detects and applies application and operating system updates, ensuring consistency across the fabric.

Rolling updates

Deploys new application versions to a production fabric on a rolling basis, eliminating planned downtime.

Getting started with Appistry EAF

Getting started with Appistry EAF is easy. Appistry makes a number of resources available to developers, including whitepapers and technical notes, SDK documentation, Appistry EAF evaluation licenses, and technical support. Appistry also provides expert support to customers building new fabric-based applications, or migrating existing applications with or without enhancements. Existing applications are easily migrated for fabric deployment, typically within days.

Product Specifications

Operating Systems

Microsoft Windows Server 2003 & 2000, Windows XP
Popular Linux distributions

Hardware

Intel® Pentium® II or later,
or AMD Athlon™ or later
256MB RAM
10GB hard drive
PXE-capable BIOS
PXE-capable Network Card

Supported Programming Languages

C/C++
Java
.NET languages including C#, VB.NET and others.

For more information, or to schedule a no-cost/no-commitment application fabric impact assessment, please call us at 888-APP-0111 (888-277-0111) or send an e-mail to info@appistry.com.

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