Improving payer efficiencies for higher quality of healthcare

TriZetto and IBM deliver comprehensive, high-performance healthcare solutions

Highlights:

- Deploy innovative healthcare-management solutions to improve payer and provider integration and deliver high-value services

- Contribute to better patient outcomes while reducing cost of care with TriZetto software together with robust IBM infrastructure designed to optimize performance

- Deliver high application performance with a robust integrated architecture

- Support payers and providers of myriad sizes with a highly scalable, high-performing integrated solution

- Reduce risk and accelerate time to value by leveraging the deep TriZetto-IBM partnership and technical collaboration to help ensure solutions are tested, optimized, resilient and highly secure

To build a smarter healthcare ecosystem and provide higher quality healthcare at lower cost, fundamental changes in healthcare administration are needed:

- Payers must continue to gain administrative efficiencies and reduce costs; implement innovative payment models that focus on quality outcomes; shift their focus to consumers and compete on cost, service and quality; and participate in a growing government programs marketplace.
- Providers must improve efficiencies of current delivery models. As new pay-for-performance models of care become prevalent in the marketplace, providers will have to change their mode of care delivery to be more proactive rather than reactive.
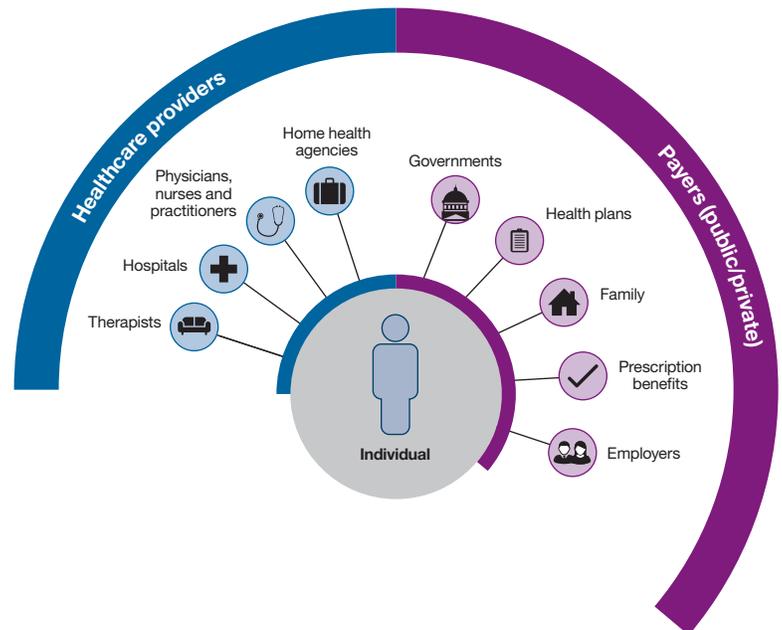

Figure 1: Payers and providers must deliver high quality care at reduced costs

A smarter healthcare ecosystem requires the use of information technology (IT) for tighter integration between payers and providers to offer coordinated care across the patient lifecycle — a patient-centric integrated healthcare system. Key components include data/storage management, electronic medical records (EMR), business process automation, administration, mobile computing, business analytics, revenue cycle management and preventive care management. These components help organizations comply with applicable regulatory requirements, as well as reduce costs and provide faster, more accurate and more-efficient healthcare delivery to improve patient care.

TriZetto and IBM provide industry leading solutions for healthcare payers

An industry leader with decades of experience in delivering innovative healthcare IT solutions, TriZetto®, a Cognizant company, improves administrative efficiency and quality of care at lower cost by enabling a more collaborative healthcare community that is committed to transforming the way health is managed and care is delivered. TriZetto partners with more than 350 health plan and benefit administration clients, serving more than 180 million healthcare consumers and more than 245,000 physician and health system clients. TriZetto's comprehensive portfolio of software solutions benefits both payers and providers of practically all sizes.
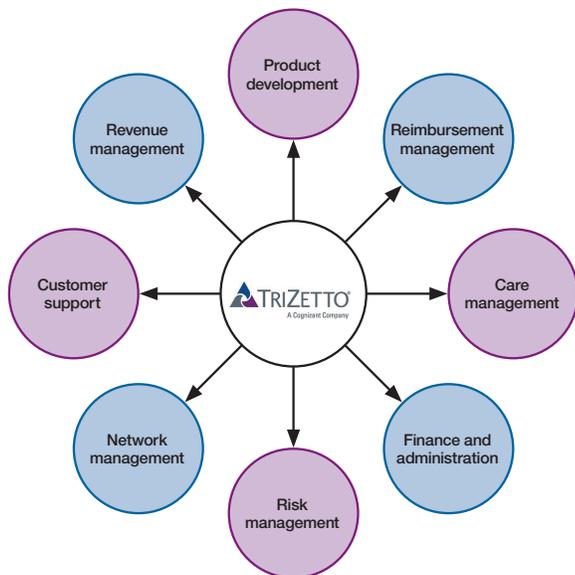

Figure 2: Trizetto delivers integrated functionality and value across enterprise business cycles

Key TriZetto payer application solutions include the following:

- **Core administration:** TriZetto offers the industry-leading solutions that provide payers of myriad sizes with choices as they establish the foundation of their healthcare information management systems to reduce administrative costs, automate business processes, increase efficiency and streamline workflows for greater productivity. TriZetto's Facets™ core administration system is the foundation to drive efficiency and helps support healthcare businesses in their efforts to be successful and well managed. Legislation, like the Affordable Care Act, has already brought millions of new members into healthcare plans. The Facets system is architected to scale and support these additional workloads.

- **Network management:** As provider contracts become increasingly complex, and the pressures to reduce costs add tension to provider relationships, superior network management solutions and network data analysis are important for success. The TriZetto NetworX Suite of products is a reliable, comprehensive approach to network management, helping payers get greater value for every healthcare dollar spent, from contract analysis and claims pricing to value-based-reimbursement administration. This suite of products increases administrative efficiency, supports our clients' efforts to comply with regulatory standards and helps manage both the cost and quality of care.

- **Care management:** TriZetto's CareAdvance Enterprise solution helps transform care management from a traditional model with a single patient focus to an advanced, integrated model with a population-based focus, helping providers reduce costs, personalize interventions, enhance outcomes and improve the quality of care. It delivers a leading-edge solution for controlling care management costs, enabling the consolidation of care management solutions on a single platform. This provides proactive management of populations, stronger engagement of providers and members in complying with evidence-based guidelines and actionable insights through analytics.

- **Portal technology solutions:** TriZetto offers a comprehensive suite of online tools that automate transaction processing and information exchange between payers and their key constituents: members, providers, employers and brokers. TriZetto's portal solutions empower its constituents with the information, real-time time transactions and self-service capabilities they need for a complex marketplace.

But to increase value from TriZetto solutions, customers require the best infrastructure performance to capture and reliably deliver information with no unplanned downtime. IBM's industry-leading portfolio of servers, storage and software provides a resilient, highly secure and streamlined IT environment designed to better optimize TriZetto application workloads. This IBM infrastructure delivers greater control and automation of vital assets and processes, improving business flexibility and closely aligning IT with business needs. These and other key IBM technologies, such as virtualization and centralized systems management, help reduce costs and infrastructure complexity while improving performance, availability, time to market and utilization.

TriZetto and IBM deliver performance and reliability

TriZetto regularly conducts benchmark and performance tests so that its applications scale, support extreme loads and offer high availability. In fact, the Facets system satisfied the demands of one of the largest health plans (with a 20-million-member database). As an example of scalability and high availability, TriZetto's customer hosting division has enjoyed more than 99.998% uptime across 140 IBM POWER® processor–based servers over a nine-month period in 2015.

Health Plan active membership size

*Generalized Facets database workload estimates incorporating OLTP, Batch, EDI and Web Services transactions – individual capacities and performance needs will vary according to Health Plan architecture and business rule requirements.
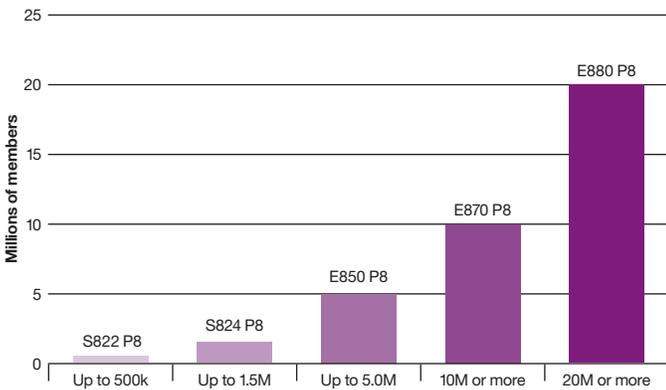

Figure 3: Scalability and performance with the TriZetto and IBM solution

IBM Power and Storage Systems: The foundation to better optimize TriZetto applications

For more than 25 years, TriZetto and IBM have had a deep partnership and technical collaboration, with IBM supplying the systems required to run TriZetto software. Today, about 85% of Facets Sybase and Oracle systems run on POWER processor–based systems — a testament to the world-class reliability, scalability and performance offered by these IBM platforms.
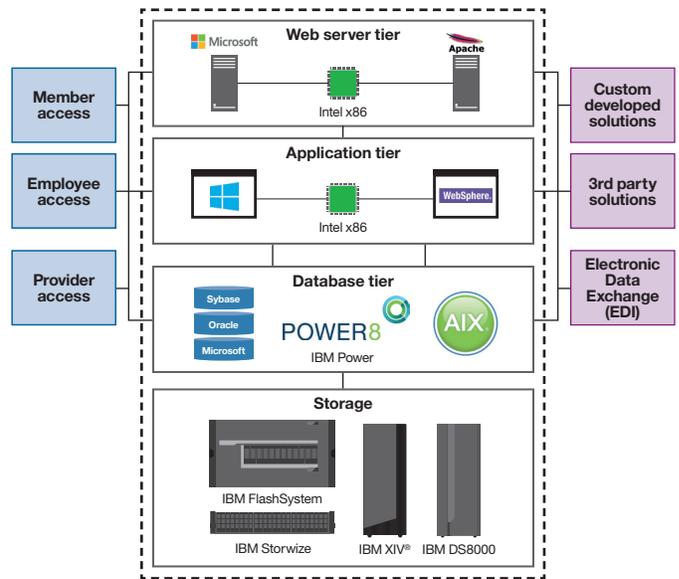

Figure 4: Example TriZetto and IBM architecture using IBM Power Systems and IBM Storage. Alternatively, VersaStack is an available architecture

The TriZetto and IBM architecture consists of four key infrastructure tiers. The web server and application tiers run on VersaStack™ or Intel x86 servers. The critical database tier benefits from the reliability, scalability and performance of IBM Power Systems™ servers running the IBM AIX® operating system. The storage tier, with IBM FlashSystem®, IBM DS8000®, IBM Storwize® and/or XIV® storage systems, provides the high performance, efficient and scalable foundation to manage the vast volume of data generated by TriZetto applications. VersaStack is an ideal integrated infrastructure option for dynamic healthcare organizations that want to accelerate business growth while reducing costs.
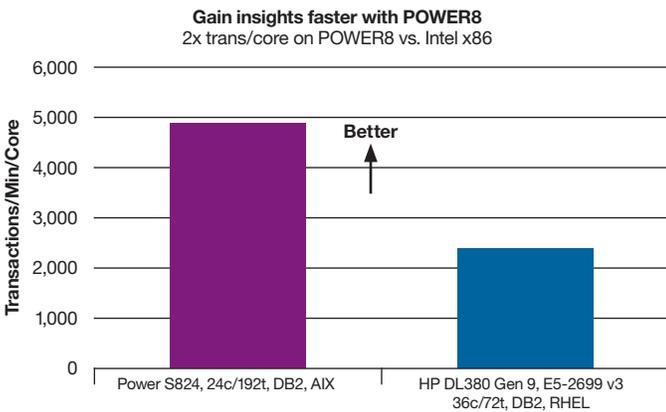
"Scalability, performance and availability are fundamental to our business model, and leveraging IBM technology along with TriZetto applications allows us to focus on improvements for our members."

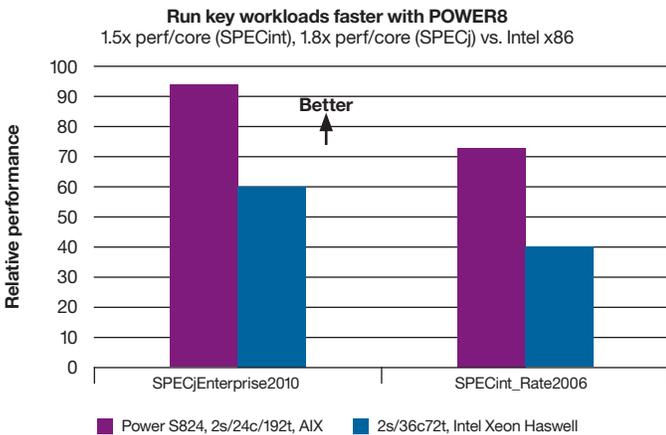– David Marckel, Vice President, Infrastructure and Operations, BlueCross BlueShield of Tennessee

Power Systems servers contain the IBM POWER8® processor, which was designed from the ground up for data workloads. It has four times the capability of other architectures in the areas of multithreading, memory bandwidth and dynamic caching. Power Systems offerings include a wide range of servers and compute nodes, each of which delivers industry-leading performance, scalability and reliability in its class.

With capacity on demand, enterprise pooling, hot-node add, Active Memory Expansion and a totally integrated approach to the design, development and testing of every server, Power Systems enterprise servers enable TriZetto users run their mission-critical applications, even as they add capacity to handle new business demands. All POWER8 processor–based systems include reliability, availability and serviceability (RAS) features that help avoid unplanned downtime.
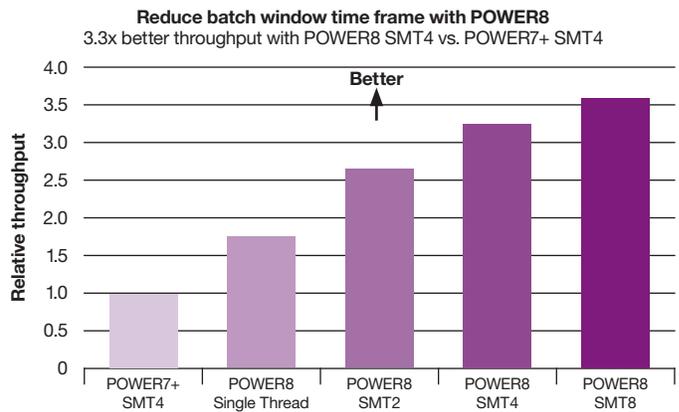
Also, the customer benefits from IBM PowerVM® server virtualization. PowerVM virtualization can be used to consolidate many different workloads/tasks, including production databases, applications, high-availability servers, backup/recovery servers and other servers, onto a single, smaller set of servers. In Power platforms, the virtualization hypervisor resides in the firmware, allowing complete separation of workloads in different virtualization segments, which promotes increased security on-premise or in the cloud.
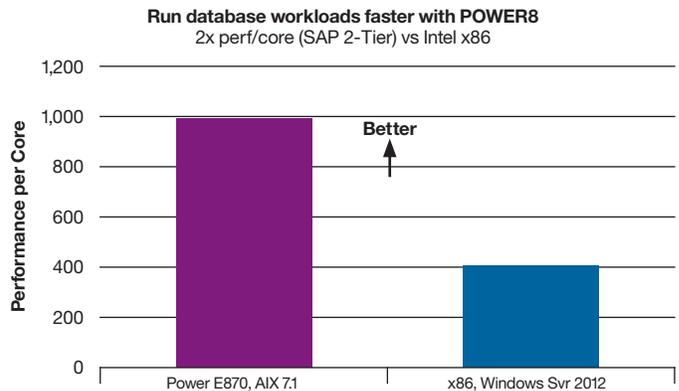
Gain insights faster with POWER8
2x trans/core on POWER8 vs. Intel x86

Source: IBM internal testing of a sample workload; current as of May 29, 2015. Performance improvement figures are based on multiple Entity Analytics processes running a 1 million record workload.

Reduce batch window time frame with POWER8
3.3x better throughput with POWER8 SMT4 vs. POWER7+ SMT4

Source: Internal IBM batch processing benchmark running on Power 750+ at 3.4GHz and Power S824 at 4.1GHz

Run key workloads faster with POWER8
1.5x perf/core (SPECint), 1.8x perf/core (SPECj) vs. Intel x86

Sources: www.specbench.org/jEnterprise2010/results
www.specbench.org/cpu2006/results

Run database workloads faster with POWER8
2x perf/core (SAP 2-Tier) vs Intel x86

Source: www.sap.com/benchmark

Figure 5: IBM POWER8 processor architecture advantages

The comprehensive IBM Storage portfolio can deliver, manage and retain the vast volume of data generated by TriZetto applications in an intelligent, automated and more efficient way while delivering high performance and scale. IBM Storage offerings help harness oceans of data for greater insight and productivity, with superior economics using storage technologies, such as IBM Real-time Compression™, IBM Easy Tier® with solid-state drives, IBM FlashCore™ and IBM MicroLatency®. DS8000 disk systems are designed and optimized for large-scale, complex, mission-critical workloads. Systems from the Storwize family deliver innovative, virtualized storage while setting a new standard for cost-effective midrange disk systems. FlashSystem storage systems provide an impressive performance boost by reducing batch cycles and improving online response in TriZetto payer applications.

"TriZetto sees high value in flash-based database implementations for its larger, I/O intensive customers. IBM POWER8 systems together with IBM FlashSystem storage are an attractive infrastructure choice capable of conveying significant tangible benefits to TriZetto customers."

– Pete Gill, Senior Technical Architect, TriZetto

VersaStack, an integrated infrastructure solution jointly developed by IBM and Cisco, combines the innovation of Cisco UCS Integrated Infrastructure with IBM storage solutions built with IBM Spectrum Virtualize™ software to deliver extraordinary levels of performance and efficiency. Backed by Cisco Validated Design (CVD), VersaStack provides faster delivery of applications, greater reliability and confidence. VersaStack solutions are suited for myriad workloads from cloud to big data analytics deployments. VersaStack is simple to acquire, deploys quickly and can automatically adapt to changing operating conditions. Healthcare payers and providers can accelerate time-to-value with the built-in broad patterns of experience and reliable guidelines in systems management, applications and hardware maintenance.

TriZetto and IBM: A premier partnership

With more than 25 years of partnership and technical collaboration, TriZetto and IBM continue to lead by addressing the ever increasing healthcare industry challenges of rising costs, regulatory changes and increased customer expectations. Payers and providers of myriad sizes benefit from this long-term collaboration, deep healthcare industry experience and a range of software and systems solutions that provide the following support:

- Assist doctors in providing better patient outcomes at reduced costs of care
- Offer a comprehensive, enterprise-grade, integrated and scalable high-performance solutions portfolio
- Deliver high quality performance with reliability, availability and serviceability
- Provide support backed with regular and rigorous performance benchmarking and testing

TriZetto and IBM are transforming the way health is managed and care is delivered by providing high quality of services throughout the healthcare ecosystem at lower cost.

More information

To learn more about this IBM Healthcare solution, please contact your IBM sales representative or visit: **ibm.com**/industries/healthcare

To learn more about healthcare solutions from TriZetto, please visit: www.trizetto.com

To learn about IBM Power Systems technology, please contact your IBM sales representative or visit: **ibm.com**/power

To learn about IBM Storage, please contact your IBM sales representative or visit: **ibm.com**/storage

To learn about VersaStack, please contact your IBM sales representative or visit: **ibm.com**/systems/storage/disk/cisco-versastack.html

ITS03003USEN-00