

# Hewlett Packard Enterprise



## Objective

Build a world-leading gaming platform that continually exceeds internal and end-user expectations in the entertainment industry

## Approach

Engaged with HPE to evaluate HPE ProLiant Gen9 servers in its business environment

## IT Matters

- Delivers 30% faster provisioning and installation of customer deployments
- Increases computational density by 20% over previous solution
- Runs 100+ virtual machines without stressing the CPU for maximum performance

## Business Matters

- Reduces total technology footprint by 50% to 70%, boosting overall environmental profile
- Delivers an integrated server, storage, and networking solution from a single vendor
- Offers superior systems visibility and management with built-in software tools

## Going all-in on HPE compute

Bally Technologies discovers next-gen gaming platform with HPE ProLiant Gen9



From table games to slot machines and gaming systems, Bally is all about entertainment. A recognized name in technology innovation in the gaming industry, Bally developed the first slot data system in 1976. Delivering stable, flexible gaming platforms built on HPE hardware solutions to some of the world's largest entertainment providers, it at the very core of its business.

## The perpetual "wow"

It's said that you're only as good as your last success. For those lucky enough to become leaders in the entertainment world, it's a statement to live by. For Bally Technologies, it's been a way of life since the Great Depression, when it manufactured and marketed its first pinball and slot machines. It went on to become the first gaming company traded on the New York Stock Exchange.

The kind of innovation it takes to drive a business forward through decades of world-changing technology is the stuff that keeps people coming back for more. "In the entertainment industry, you can't produce anything less than 'wow,'" says Mike Owens, manager of IT Lab Services at Bally Technologies. "It's got to be spectacular, or you've got to get out of the business."

## Compute that delivers

Today, Bally Technologies is a diversified, worldwide gaming provider that designs, manufactures, distributes, and operates gaming devices and computerized monitoring, accounting, and player-tracking systems for gaming devices.

In order to consistently deliver the wow factor, technology leaders at Bally are under constant pressure to outperform the competition—and the company's own past successes—to create experiences that people haven't seen before. "From a technology standpoint, it means Bally needs to build a computational backend that can support that kind of innovation," Owens says. "Our performance requirements just go up and up, and at the same time, we want to do things faster, brighter, smaller, and at a better price point."

With high profile customers such as Caesars Entertainment, the Las Vegas Sands, Trump Entertainment, and Pinnacle Entertainment, there's another imperative for Owens and team. "Gaming is a 24/7 business that does not tolerate downtime—it's just not possible," explains Owens. "100% uptime is critical."

## Betting without the risk

To make good on that promise, Bally relies on Converged Infrastructure technology from Hewlett Packard Enterprise (HPE), both in its own data centers and at its customer locations across 17 countries. "When you're talking about a computational solution, you're talking about server environment, network environment, and storage environment. From HPE BladeSystem enclosures and HPE ProLiant server blades, to HPE 3PAR storage and HPE Networking switches, Bally chooses HPE because it gives us a level of fault tolerance and flexibility to engineer systems for the high levels of stability and reliability we need to have in this business. HPE allows us to build a total, absolute solution for the gaming industry."

## Built-in confidence

Managing the performance of their workloads is equally crucial to Bally and its customers. With built-in HPE management tools, Bally and its end users can gain visibility into their gaming environments to see potential issues before they become problems.

"Managing our servers, storage, and network with HPE Integrated Lights Out (iLO), HPE 3PAR Operating System Software Suite, and HPE Virtual Connect gives us the ability to have live, real-time views of our whole environment," Owens says. "We use these built-in management tools to do everything from monitoring workloads to micro-managing our network connections down to individual ports. These aren't afterthoughts—they're serious management solutions that come with the products. There are a lot of pretenders in this field, but HPE is the only contender."

## HPE ProLiant Gen9: Staying ahead of the game

So when the team at Bally had the chance to beta test HPE ProLiant BL460c Gen9 Server Blades and HPE ProLiant DL360 Gen9 Servers, they took the opportunity to test workloads and configurations that are core to its business as a leader of the gaming industry.

"When we test, we want to test real world. We want to test how is it going to impact Bally, how is it going to impact Bally's customers. We want to get the best absolute bang for buck, and we want to get the best overall performance that we can get for our customers," explains Owens. "Based on our own testing on Bally specific products, at the level of RAM and CPU that was available in that particular server, we have never seen performance in a single standalone device that high, ever."

“HPE ProLiant Gen9 is going to further define expectations with a smaller and denser computing environment—from a footprint standpoint, from an energy utilization standpoint, from a cost, an ROA standpoint. We’re taking what was great with Gen8 even further in ProLiant Gen9—the incorporation of Unified Extensible Firmware Interface (UEFI), server management, the incorporation of DDR-4 support, and the availability of increased raid capacities and Next-Gen Intel® Xeon® processor support—it’s just the complete package.”

Taken together, the higher compute density and improved management features combine to offer significant real world benefits for Bally in its day-to-day operations.

### **30% faster time to service**

From an IT perspective, the biggest challenge Bally faces is the time it takes to deliver new systems to market. “Whenever we deploy a system, our field service teams spend a significant amount of time getting systems up and running,” Owens relates. “Anything we can do to reduce those provisioning times is significant to us.”

For the field service teams at Bally, it means deployments are more concise, and less complex. “When we look at getting to market with the new ProLiant Gen9 server blades, the management advantages of these new HPE ProLiant Gen9 servers with UEFI and Intelligent Provisioning enabled us to effectively reduce server deployment time by 30%,” Owens explains. “Time is money so any reduction in steps and time for provisioning directly effects the bottom line, so 30% is very significant to us.”

### **20% more computational density**

“With HPE ProLiant Gen9 servers, we can get more CPU density, more memory density, and better performance in a smaller space while using fewer resources to power them,” Owens says. “With support for the latest Intel® Xeon® Processor E5-2600 v3 product family, HPE DDR4 SmartMemory and 12 Gb per second SAS drive controllers, we’ve got enormous power—so much power that we couldn’t even stress the CPU in our tests. We had more than a hundred virtual machines rolling the BL460c, and it wasn’t stretching the performance one bit.”

In fact, HPE ProLiant Gen9 servers offer Owens and his team at Bally a significant gain in performance over their previous solution. “We’re seeing a 20% overall increase in computational density with HPE ProLiant Gen9 server blades, and we can realize that performance boost by just inserting a new server blade into the HPE BladeSystem c7000 Enclosure we already own, it integrates seamlessly into those investments in the infrastructure that we’ve already done. That’s amazing,” Owens reports. “With HPE Virtual Connect speeding connections from servers to network and HPE 3PAR storage, we can run high I/O-intensive workloads right out of the gate.”

## Customer at a glance

### Hardware

- HPE ProLiant BL460c Gen9 Server Blades
- HPE ProLiant DL360 Gen9 Servers
- HPE BladeSystem c7000 and c3000 Enclosures
- HPE 3PAR StoreServ 7200
- HPE 5120 EI Switch Series
- HPE Virtual Connect FlexFabric 20/40 F8 Module for c-Class BladeSystem

### Software/Management

- HPE iLO
- HPE 3PAR Operating System Software Suite
- UEFI
- Intelligent Provisioning

### HPE services

- HPE Premium CarePack Services

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– Mike Owens, IT Lab Services Manager, Bally Technologies

## Up to 70% reduction in server footprint

The performance boost that comes with HPE ProLiant Gen9 servers benefits more than the bottom line for Bally and its customers. “The IT business has changed so much in recent years, and one aspect of that is people becoming more aware of how our choices affect the environment,” Owens says. “Whether you’re talking about power consumption or heat generation or water usage or the size of the physical footprint inside a facility, these are all important considerations when you’re engineering a solution for your customers—whether they’re big or small.”

For Owens, the available configurations of HPE ProLiant Gen9 servers allow him to minimize his total infrastructure footprint without sacrificing any business-critical functionality. “With ProLiant Gen9 servers, HPE has given us the ability to get a computational density that we’ve just never known before—particularly in the BladeSystem environment,” reports Owens. “We can get the same computational value now in a platform that is between 50% and 70% smaller and more efficient than anything that’s ever been available.”

## Spectacular delivered

As Owens looks forward to deploying these smarter, smaller, and speedier solutions to his customers in the field, he sees the platform building considerable momentum. “We can put 16 of these ProLiant Gen9 servers into a small form-factor enclosure along with networking and storage solutions and deliver a complete service installation for our customers,” Owens explains.

“Our development groups are saying that it is the fastest platform that they have ever loaded their systems on—ever—and this is across the board. For our developers, testers, salespeople, and for our customers standing in front of them running hugely I/O intensive reports in real time, we choose HPE because it performs,” Owens says. “Our customers have noticed the results they’re getting with Bally, and they know we run our systems on HPE hardware—it doesn’t take much for them to realize the value we’re getting, and it’s not surprising that many of them go out and buy HPE too.”

In a business that demands constant change, continuous upgrades, and a perpetual wow factor, Bally sees HPE as a technology partner for the long haul. “HPE has not only kept up, but they’ve gotten ahead of the game with a total, integrated solution of servers, storage, networking, and management,” Owens sums up. “In the entertainment business, we can’t deliver anything less than the best. HPE helps us stay ahead of the game.”



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