



**Hewlett Packard
Enterprise**

A MOVING EXPERIENCE

**For the RTC of Washoe County,
enhancing their region's public
transportation is priority number one.
The right technology can get them there.**

The city of Reno is growing rapidly. So, too, are the challenges facing the Regional Transportation Commission (RTC) of Washoe County. As the agency strives to meet their challenges and keep Reno's population moving, its IT team is preparing for another kind of move—their eventual move to the cloud.

Many of the citizens of Washoe County, Nevada—which includes the cities of Reno, Sparks, and Carson—depend on public transit as their primary mode of transportation. This region of nearly half a million people is one of the country's fastest growing metropolitan areas, making it a constant challenge to address increasing transportation issues and provide ample, efficient routes for its residents.

But, what if transportation is slowed or stalled? The results can be more than just an inconvenience. Many citizens rely on public transportation to get to work on time, visit the grocery store to buy food and household products for their family, or for vital services such as reach their doctor on time for critical care. Lack of convenient access to affordable transit can have a significant impact on the lives and livelihood of the people who depend on it.

Focused on the road ahead

RTC is tasked to meet the challenge of providing constant, convenient, affordable public transportation for the people of Washoe County. Their responsibilities include delivery and management of transit services to ensure and provide quality transportation to the region.

"We handle public transit and paratransit," explained John Ponzo, IT Manager at RTC. "Not only are these vital services for the city, they are critical services for many people, such as those with disabilities who rely on public transportation to visit their doctor for critical care."

The agency's responsibilities also include transportation planning, new roadway construction, and ongoing maintenance of streets and highways throughout Washoe County.

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INDUSTRY: PUBLIC SECTOR

REGION: RENO, NEVADA

VISION

Deliver better transportation solutions—faster and more efficiently

STRATEGY

Virtualize with a scalable, future-ready solution to improve performance and reliability

OUTCOMES

- Meets or exceeds 99.99% uptime to keep transportation systems online
- Helps improve speed and efficiency of agency operations
- Reduces server and storage operational costs by up to 60%

Serving the community

While the people of Reno rely on RTC to deliver quality public transportation, RTC relies on its IT to keep things moving and on schedule.

Ponzo has been with the agency for over 20 years. During that time, he's worked to ensure the agency's technology functions smoothly and reliably to help it serve the community, meet demand, and keep transportation flowing.

"We have a 30-year plan for our region to improve streets and expand road capacity," Ponzo shared. "But often, by the time we get the project done, it has already exceeded capacity again, because of all the people moving here. It's definitely a challenge to keep ahead of growth."

Ponzo oversees a team of four in RTC's IT department. "We are responsible for maintaining five different locations with data centers in three of them," he said. "Our infrastructure includes about 60 servers, 150 workstations, laptops, and 100 users. We basically handle anything that plugs into the wall for RTC—copy machines, servers, and three data centers spread across several different buildings."



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– JOHN PONZO, IT MANAGER, RTC

The realities of reliable public transit

The IT staff also maintains RTC's communications and radio systems to keep contact with buses that are out on their routes. Any infrastructure failures and downtime has a cascading impact—affecting everyone from IT to coach operators and dispatchers to commuters.

That's why RTC requires its IT to be available and online, 24x7.

"For example," explained Ponzo, "With our system, the public can track, in real time, exactly where the buses are on the roads, with estimated departure and arrival times. If the system goes down, the public has no insight when the next bus is coming. Commuters have to wait longer for transportation. They could be late to work or to get to their appointments, and for time-critical things like dialysis."



A timely solution for tough times

RTC and their IT team face challenges every day. It's just part of the job. But in 2020, they had a new challenge to overcome: a global pandemic.

Ponzo shared how their IT team had to adapt to the new reality.

"In March, we had 'shelter in place' orders," he said. "Our IT department had to scramble and get everyone situated to work from home, including our IT staff."

Fortunately, HPE Synergy's solid storage and virtual infrastructure proved to be beneficial.

"HPE Synergy made it easier for us to work remotely and keep things working smoothly," explained Ponzo. "There was no need for any of our team to physically drive in and deal directly with cables and wiring and what-not, since it is all integrated into the new system."

Despite working from home, RTC's IT team was also able to continue monitoring and manage their infrastructure—including addressing end user needs and delivering needed services to keep the agency functioning normally.

"We can provision servers and do everything off-site that we would normally handle on-site," said Ponzo. "That's been a huge help in keeping us on task during the pandemic."

“It also affects our coach operators,” he continued. “If the system fails and there’s no IT service, the operators and dispatchers revert to radio fallback mode. That’s an open mic situation where they can talk over each other, which can cause confusion. It’s not a good situation for anyone.”

There are potential legal ramifications, as well. As Ponzo shared, “If we have a public records request come in, they usually give us a deadline to provide requested data. If the systems are not available and we miss the deadline that could cause legal issues.”

A technology upgrade, right on schedule

RTC refreshes its technology every five years to ensure its IT infrastructure runs in peak condition while providing the performance and capacity to keep up with the area’s growth. In its most recent refresh, RTC moved from an older HPE solution to HPE Synergy with HPE 3PAR storage to replace technology that was reaching its end of life.

To implement the new solution, RTC worked with a familiar HPE partner out

of Las Vegas, Summit Partners LLC. “We buy much of our HPE equipment from them,” said Ponzo. “They install it, test it, make sure it’s up and running, and also provide some training. They’re awesome to work with.”

The move resulted in lower operation costs, better performance, and greater capacity.

“HPE Synergy is more cost efficient, mainly from the support aspect,” explained Ponzo. “As our older hardware phased out, the cost of support goes up. Ongoing support with HPE Synergy is about 60% less expensive.”

He continued, “We also save on the cost of hardware as well. HPE Synergy and 3PAR are so integrated with one another that it has eliminated the need and cost for extra hardware such as Fibre Channel switches that we no longer require.”

High performance that meets high expectations

“The performance is much better—probably 25% or greater as far as speed goes,” said Ponzo. “The newer hardware, faster hard drives, and solid-state drives

are far more efficient than the older equipment. And we can fit far more storage—at least 50% more capacity—in a smaller hardware enclosure than we could with the older system.”

Likewise, because HPE Synergy is 10GbE compatible, it lets RTC more easily transition from their previous 1GbE network to a 10GbE network to improve internal bandwidth and increase data delivery.

The performance benefits of the new system are felt throughout RTC.

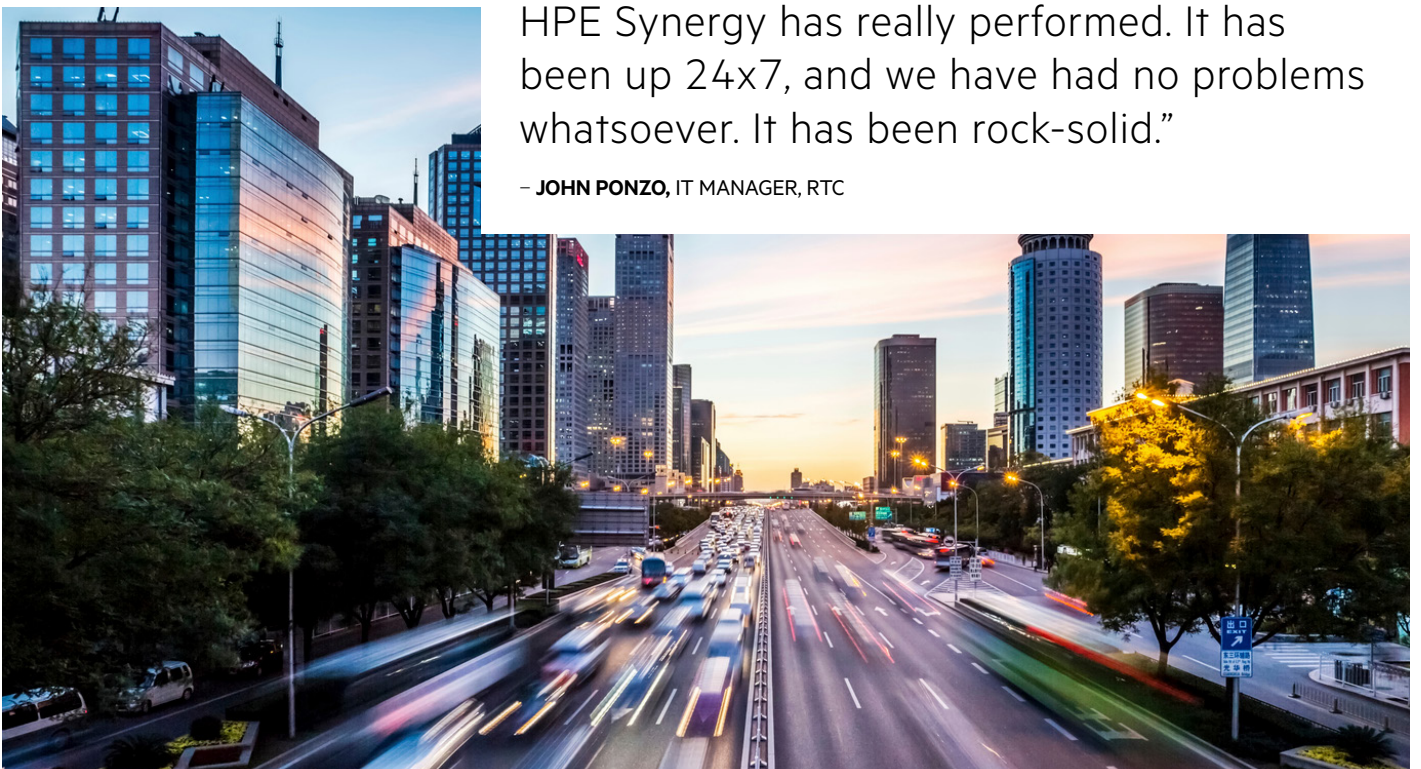
“One of our users has to frequently pull a large amount of data across the network from various servers,” said Ponzo. “That used to take a number of hours with the old system. Now, with the faster 10-gig connection, faster SAN, and faster servers, he can do that in a fraction of the time that it was taking before.”

“HPE Synergy has really performed,” he added. “It has been up 24x7, and we have had no problems whatsoever. It has been rock-solid.”



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Backup to the future

HPE Synergy and HPE 3PAR have also greatly improved backup and recovery times.

RTC requires full, regularly scheduled backups of its file server, which consists of nearly 15 TB of data and includes all user files and GIS data. Weekly full backups are copied to an off-site location across a 2GbE WAN link. With the previous system, a full backup took four days, nonstop. With HPE Synergy, that time has cut in half.

“With the new storage and the blade servers, backup takes about two days,” said Ponzo. “That’s less than half the time to do all of our recovery and backup.”

The move to virtualization

Despite the refresh and enhancements to its IT infrastructure, RTC isn’t standing still. Their ultimate goal is full virtualization with an eventual migration to the cloud.

“Having HPE Synergy has allowed us to more tightly consolidate our physical servers to virtual with a smaller footprint,” said Ponzo. “With virtualization, we’re better situated to take the next step and transition our data centers to the cloud.”

Part of that migration included moving applications such as SharePoint and Exchange from the old physical hardware onto the HPE Synergy enclosure running on virtual servers.

“We were on the fence as far as moving those systems into a virtualized server,” Ponzo admitted, “But with the newer HPE equipment and having much faster and better hardware resources, it is working out very well for us.”

“Additionally,” he continued, “It is far easier for us to provision servers. We can now provision servers in 15 minutes, while the old, physical servers could take eight hours to provision.”

With HPE Synergy in place, IT operations are running more smoothly and seamlessly, enabling RTC’s staff and end users to focus on their work and deliver on its mission. Additionally, the agency’s IT team has more time to shift its attention from its technology to essential business strategies.

“HPE Synergy frees us up to do other things, like fine-tune our network, improve security, and tighten-up other details. That’s been a huge help.”



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