

# LOUD AND CLEAR

Dell OEM Industry Solutions Group powers the media and broadcasting industry by helping RCS eliminate US\$3 million in hardware inventory and optimize supply chains



RCS is a small organization that has a big impact on the way the broadcast industry works. The company offers an array of technology products and services to help thousands of radio stations, cable companies, and satellite radio networks enhance the efficiency of their operations. Its NexGen Digital studio automation software, for example, enables radio station program managers and DJs to prerecord and automate playback of programs, helping stations to optimize staffing. Today more than 2,500 stations use NexGen Digital for every minute of their broadcast day.

**SOLUTION**  
• OEM APPLIANCE



#### **CUSTOMER PROFILE**

**COUNTRY:** United States

**INDUSTRY:** Arts, Entertainment, and Media

**FOUNDED:** 1979

**NUMBER OF EMPLOYEES:** 200

**WEB ADDRESS:** [www.rcsworks.com](http://www.rcsworks.com)

#### **CHALLENGE**

RCS wanted to eliminate excess hardware inventory, reduce failure rates, and meet the specific needs of broadcast customers while enhancing supply chain efficiency.

#### **SOLUTION**

RCS worked with the Dell OEM Industry Solutions Group (Dell OEM) to integrate Dell workstations into RCS turnkey solutions, and to help design a new Dell™ Precision™ rack-mounted workstation for OEMs and their customers in the media distribution industry.

#### **BENEFITS**

##### **Run IT Better**

- Eliminated more than US\$3 million in hardware inventory
- Cut hardware failure rate by 50 percent
- Reduced repair inventory by US\$95,000
- Saved US\$12,000 per year in repair shipping costs
- Extended warranty period by two years and avoided US\$2,400 per year in out-of-warranty repairs
- Redeployed two employees from handling returns to revenue-generating tasks

##### **Grow IT Smarter**

- Created a scalable solution with Dell hardware and supports
  - Helped Dell design a new rack-mounted workstation to meet the specific needs of customers in broadcasting and a wide range of other industries





## HOW IT WORKS

### HARDWARE

- Dell™ Precision™ R5400 rack workstation with Intel® Xeon® processors
- Dell Precision FX100 Remote Access Device

### SOFTWARE

- RCS NextGen Digital software

### SERVICES

- Dell OEM Industry Solutions Group

**“BEFORE WORKING WITH DELL, WE KEPT US\$4 MILLION DOLLARS’ WORTH OF INVENTORY ON SITE. WE REDUCED OUR INVENTORY TO JUST US\$600,000 IN SPARE SYSTEMS. THAT SAVINGS HAS A HUGE IMPACT ON OUR BOTTOM LINE.”**

**Tim Nowak**, production manager, RCS

Though RCS is primarily a software company, it also offers turnkey solutions that include a computer workstation. “Our customers want to simplify their operations,” says Tim Nowak, production manager at RCS. “By choosing a turnkey solution, they can leave the system integration work to us. We install the right audio card for the customer’s needs and then we can configure the workstation as an on-air audio machine, a control room utility machine, a digital recorder, or anything else.”

Several years ago, RCS decided to make a switch from the small white-box vendor that was supplying the workstations for its integrated solutions. “Working with a small company helped us keep some costs down, but we had to maintain a large inventory of workstations to provide customer support,” says Nowak. “For each new system configuration, we kept an extra 10 percent of systems in inventory so we could replace a workstation in the event of a problem. If we sold 3,000 new systems, we would keep 300 of those particular systems on hand. We wanted to work with a vendor that would enable us to eliminate the thousands of spares we had in inventory.”

The RCS team needed to ensure that workstations could provide the high level of uptime for broadcast organizations. “Broadcasters can’t afford to have

dead air,” says Nowak. “Our solutions must be extremely reliable, easily serviceable, and designed with redundant components so that our customers can keep broadcasting even if one component fails.”

Nowak’s team also wanted to work with a vendor that could provide support if and when hardware problems did arise. “The white-box systems had a failure rate of about four percent, and we were spending approximately US\$20,000 per year to service those systems,” says Nowak. “We’re a software company. We wanted to spend our time and money creating innovative products, not servicing hardware. Our goal was to work with a vendor that could handle first-line customer support for us so we could refocus our resources on other projects.”

### **DELL OEM HELPS RCS ELIMINATE MORE THAN US\$3 MILLION IN INVENTORY**

After considering numerous vendors, Nowak decided to work with the Dell Industry Solutions Group. “One of our large customers requested Dell hardware, so we evaluated Dell workstations for all of our solutions,” says Nowak. “Ultimately we chose to work with Dell because of the strength of Dell support. We realized that we could decrease costs and greatly reduce our need for system inventory by having Dell support our customers directly.

“Now if a hard drive fails on a customer’s system, we can send a Dell technician to the customer site and replace the hard drive, rather than having the customer send the entire system back to us,” explains Nowak. “We no longer have to keep as many complete replacement systems in our inventory.”

Dell support can scale seamlessly as the business grows. “Dell has deep support resources,” says Nowak. “As we add customers, we know that Dell support can scale to accommodate our growth without adding costs. We could not have scaled our support as easily in-house.”

By working with Dell, RCS was able to rapidly reduce inventory and save millions of dollars. “Before working with Dell, we kept US\$4 million dollars’ worth of inventory on site. We reduced our inventory to just US\$600,000 in spare systems,” says Nowak. “That savings has a huge impact on our bottom line.”

### **DELL CUSTOMER ADVISORY COUNCIL ENABLES RCS TO PROVIDE DESIGN INPUT FOR MEDIA SOLUTION OEMS**

Working with Dell OEM helped solve some key challenges, but Nowak saw opportunities to fine-tune the workstation design to better suit

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the specific needs of broadcast customers. Dell representatives invited Nowak to join the Dell Customer Advisory Council to help provide input for the next Dell workstation.

“First and foremost, we wanted a rack-mounted workstation design,” says Nowak. “To keep the background noise to a minimum, radio stations can’t keep a workstation in the DJ booth—the hard drive and fan would be too noisy. Instead, they need to place the workstation in a remote rack room. We needed a workstation that could fit in easily to that environment without having to alter the way the room is configured and cooled.”

Nowak also recommended changes in memory configuration, hard drive accessibility, and the number of available internal card slots. “RCS software can run on very little memory. We wanted a system that could use a small amount of memory as a default and then increase system memory incrementally,” says Nowak. “We also recommended designing the system to accommodate redundant hard drives, which could be accessed easily without having to remove the system from the rack. Finally, we wanted two PCI slots for audio cards and an extra slot for a video card.”

## **DELL PRECISION RACK-MOUNT WORKSTATION ADDRESSES THE NEEDS OF BROADCAST CUSTOMERS**

The end result of Nowak’s input is the Dell™ Precision™ R5400 rack-mount workstation. “The Dell Precision R5400 is a perfect fit for many broadcast environments,” says Nowak. “With its 2U rack form factor, the R5400 can sit underneath a desk or be easily integrated into the dense rack infrastructure of a radio station’s computer room. Because it is designed for a rack environment, the R5400 requires less energy for cooling than tower workstations that are placed on pull-out trays in racks.”

The R5400 also delivers the other specifications Nowak requested. For example, customers can use as little as 1 GB of memory (with two 512 MB

modules) or as much as 32 GB. “We configure our base units with just 1 GB of memory, which is plenty for our software,” says Nowak.

The new Dell Precision workstation also provides the redundant components and high-availability features required for these mission-critical solutions. “Our customers were requesting solutions with RAID capabilities so they could keep on broadcasting even if one hard drive failed,” says Nowak. “The Dell Precision R5400 can be equipped with two hard drives and configured with RAID 0 or 1 so we can deliver the reliability our customers need for media files. The hard drives are easily accessible from the front of the chassis so we don’t have to remove the workstation from the rack to replace a drive.”

In addition, the workstation offers two PCI-e graphics slots plus a choice of risers that can each house a PCI-X plus either a PCI-e or PCI card. “The PCI options give us the flexibility we need to offer our customers a variety of audio card options,” says Nowak.

The R5400 uses a dual-socket motherboard that can house dual- or quad-core Intel® Xeon® processors. “Our software doesn’t require eight processors, but some radio station engineers want to invest in today’s cutting-edge technology so they don’t have to upgrade for several years,” says Nowak. “Our base-level solution uses dual-core Intel Xeon processors, which provide more than enough performance for our software. But our customers can always request more power if they want it.

“Knowing that all these components have been tested thoroughly by Dell gives us and our customers great confidence in the hardware,” says Nowak.

## **DELL REMOTE ACCESS DEVICE SIMPLIFIES CONFIGURATION**

Because many radio stations place the workstation in a computer room, away from a soundproofed booth, they require KVM (keyboard, video, mouse) extensions for their workstations. The optional Dell FX100 Remote Access Device is a PC-over-IP® solution that uses traditional Ethernet networks

to connect the user with the remotely located Dell Precision R5400. With just a small desktop device and a PCI-e card housed in the workstation, the end user can easily access the workstation over a long distance using standard network connections, all without affecting workstation performance.

“Many of our customers were using outdated KVM extenders that were difficult to support and restricted how they could configure their studios,” says Nowak. “The Dell FX100 provides an easy way to connect a DJ or producer to a workstation that’s located down the hall. Now our customers can arrange their studios however they like.”

## **RCS CUTS FAILURE RATE IN HALF AND SAVES US\$12,000 IN REPAIR SHIPPING**

Using Dell support has helped RCS eliminate many of the costs and headaches of providing repair service. “If a workstation failed in the past, we would have to build and configure a new one and send it out to the customer. The customer would then ship the failed workstation back to us. The costs of shipping alone were tremendous,” says Nowak.

“By working with Dell we have cut the failure rate in half, to just two percent, and we have reduced the costs of servicing hardware by about eight percent,” says Nowak. “If a workstation has a problem now, the customer can call Dell directly. Dell can send out a new component right away along with a packing label for the failed one. All of my shipping hassles have been eliminated, and our customers can often receive faster service from Dell than we were able to provide. We estimate that we have eliminated US\$12,000 per year in shipping costs.”

## **RCS REDUCES REPAIR INVENTORY BY US\$95,000 AND REDEPLOYS WORKERS**

By integrating Dell into the repair process, RCS has also dramatically reduced the returned inventory it previously had to store in-house. “With our white-box solution, we might have approximately US\$95,000 in returned inventory on site on any given

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day. Today we have zero. Having fewer returned systems simplifies accounting and enables us to focus on other tasks,” says Nowak. “The return process alone required us to pull two people away from other responsibilities—one to manage the returns and another to handle purchasing. Since switching to Dell, we have been able to send them back to their original jobs.”

Overall, using Dell support has enabled RCS to refocus on its core business. “We are in the software business,” says Nowak. “The less time and money we can spend fixing hardware problems, the more we can devote our resources to delivering innovative software.”

## DELL WARRANTY POLICY EXTENDS CUSTOMERS’ PEACE OF MIND BY AN AVERAGE OF TWO YEARS

Working with Dell has also helped extend the warranty period for the hardware used in RCS solutions. “Other hardware vendors wanted to start the warranty clock when they sent the hardware to us to install the audio cards. But in some cases, it can take months for us to sell a particular system to a customer,” says Nowak. “With Dell, the warranty clock does not start until the customer receives the workstation. As a result, we can give the customer a warranty period that is on average two years longer than before. That extended period helps provide our customers with greater confidence in the hardware. Especially during an economic downturn, having confidence in the reliability and longevity of purchases is more important than ever.



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“The extended warranty period also helps us save money,” continues Nowak. “We save about US\$2,400 per year that we were previously spending on repairs that were out of warranty.”

## NEW WORKSTATIONS SHOW THAT DELL HEARD RCS LOUD AND CLEAR

“Our work with Dell and its OEM division has truly been a partnership that has benefited both parties,” says Nowak. “We now have a workstation that meets the particular needs of organizations in media and broadcasting. We also have a partnership that helps us stay focused on our core business and enables us to be more competitive in the marketplace. At the same time, Dell has extended its product portfolio with a rack-mounted workstation that will be the right solution for customers in media, broadcasting, and a range of other fields.”

Nowak is particularly impressed that Dell incorporated the design input of a relatively small organization. “We are not a big company, but we have a huge impact on the operations of radio broadcasters worldwide,” says Nowak. “Dell saw the potential benefits to both sides in this partnership, and the Dell team heard us loud and clear.”

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