



## A service contract renewal brings substantial cost reduction and **strengthens teamwork** between Duke in-house team and GE engineers

The Duke University Health System Clinical Engineering team includes 15 members who service some 950 diagnostic imaging assets worth about half a billion dollars, across three hospitals and more than 100 other care locations.

For years, the in-house team had received support from GE Healthcare under a service contract covering more than 200 GE imaging devices and related equipment. In 2014, as the service contract came up for renewal, Director of Clinical Engineering Grant Smith saw a critical need to reduce service costs.

Responding to Duke's needs, GE Healthcare developed a new 5-year, \$20 million agreement that yields \$400,000 in annual savings, achieved largely through parts pool arrangements that have reduced parts costs by 35 percent. Meanwhile, GE continues to provide technical support to the in-house team under a labor pool at a discounted hourly rate.

"We moved forward with the new contract because of the strong relationship our in-house staff already had with GE," says Smith. "Their willingness to listen and their

flexibility in offering viable options to meet our objectives justified our decision to continue with them as a key supporter."

### **Addressing parts costs**

Care providers today routinely seek service cost reductions, and Duke was no exception. Specifically, Smith wanted to cap annual parts costs while ensuring fast parts availability for all GE devices, which make up the largest share of the system's installed base.



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**Grant Smith, Director of Clinical Engineering**

“Traditionally we would need a comprehensive service agreement to get attractive pricing on parts,” Smith says. “But in that scenario we ended up spending too much for parts per device. We had been trending parts usage long enough to know that our actual parts spend was significantly less than the cost to insure the entire GE imaging fleet.

“We wanted to arrive at something closer to our true cost to insure all of those devices and spread the risk between Duke and GE. They were very receptive to that type of model. The outcome of the discussion aligned exactly with our objectives.” The new agreement took effect in December 2014.

### **Pooling parts and labor**

Under the agreement, Duke contributes a fixed annual amount to a parts contract covering all GE MR, CT, general radiology, nuclear medicine and mammography equipment. “We provide the labor,” Smith says. “If we need GE labor, that is covered in a separate prepaid pool.” After each year of the agreement, the parties will re-evaluate the parts and labor costs and make adjustments as necessary.

Service for Duke’s nearly 80 (GE) ultrasound systems is handled similarly. In place of service coverage for each individual unit, smaller systems (such as laptops) are sent to a depot for repair under a pool arrangement based on the health system’s historic repair rate for the equipment. The same is true for ultrasound probes. Parts for the larger console ultrasound systems are covered under another general parts pool.

Two more pools were set up under the agreement to reduce the cost of a full service contract. One is tied to the FlashPad™ detectors used with digital X-ray equipment and the other to X-ray tubes for the OEC™ C-arm surgical imaging systems.

GE also helped Duke reduce costs by providing service contracts at lower usage tiers for PET/CT systems, based on the actual number of patients scanned in the past year.

### **Dependable support**

Since the contract took effect, the in-house team has taken more responsibility for labor, while relying on GE field service engineers for help with complex issues. “We don’t see them as often as we used to, but they are always available to help with that 10 to 15 percent of cases that might be just above our threshold of expertise,” Smith says.

The Duke team also benefits from online assistance from GE remote technical specialists in resolving equipment issues where possible without field engineer visits. “We also get remote service from our local field service engineers at times when they are not on site,” Smith says. “It’s easier to reach out to somebody with whom we already have a rapport. They’re always willing to assist and guide us in the right direction.”

Carrying more of the labor load means training is essential for the Duke staff. That includes sending personnel to training courses at the GE Healthcare Institute when appropriate and taking GE online courses. Team members also receive on-the-job training by working side by side with GE engineers.

“Every time we bring in new technology, we commit training dollars to get our folks up to speed as quickly as possible,” says Smith. “Even during the warranty period, we work elbow-to-elbow with the GE team and gain as much experience on the equipment as possible. The GE field service engineers have helped us get up to speed quickly on rapidly changing technology.

“GE’s approach essentially says, ‘We’re supporting you at every level and we’re willing to share our expertise.’

They appreciate that the more and the closer we work together, the stronger our business relationship will become. It's beneficial for both sides to have them adopt that posture."

### Key objectives met

Smith sees the current agreement as supporting the financial, operational and clinical objectives of Duke University Health System. "When we look at it from a budget standpoint, significant gains go with a 35 percent reduction in the parts cost by going to a parts pool. Financially, we have done very well in this arrangement.

"From an operational standpoint, with the availability of parts and technical support from the manufacturer, we can turn service events around very quickly. With parts there is a shipping component, but GE provides parts availability on site for key items. So we are able to minimize turnaround time for down units in many areas.

"Clinically speaking, if we can get equipment back into clinical use quickly, that bodes well for our ability to scan patients. Many patients come to us from around the state, around the country, and internationally. We can't afford to have down systems that force us to reschedule those patients.

"Overall, we are very happy with the agreement, and we believe GE is, as well. It has given all of us an opportunity to work more closely together."

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## The Organization

Duke University Health System, founded in 1998, is a world-class network dedicated to patient care, education, and research to enhance healthcare throughout North Carolina and southern Virginia. It includes Duke University Medical Center and two other hospitals with a combined 1,512 beds, plus multiple clinics offering comprehensive health and wellness services.

## The Results

- Produced nearly \$400,000 in total annual contact savings.
  - Reduced parts expenses by 35 percent through pool arrangements.
  - Saved \$225,000 through customization matching the right coverage to specific equipment for PET/CT, CT, nuclear medicine and mammography.
- Improved turnaround times for device repairs through ready availability of parts and remote and on-site technical support.

## About GE Healthcare

GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Our broad expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, biopharmaceutical manufacturing technologies, performance improvement and performance solutions services help our customers to deliver better care to more people around the world at a lower cost. In addition, we partner with healthcare leaders, striving to leverage the global policy change necessary to implement a successful shift to sustainable healthcare systems.

Our “healthymagination” vision for the future invites the world to join us on our journey as we continuously develop innovations focused on reducing costs, increasing access and improving quality and efficiency around the world.

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