

National Kidney Registry coordinates miracle matches

Numerous lifesaving kidney transplants are facilitated each month through the help of a reliable and secure managed hosting solution.

Our customer

Nonprofit NKR coordinates matches between living kidney donors and people facing kidney failure in over 80 transplant centers via a well-supported database.

The obstacles they faced

To meet an expanding need for kidney transplants while addressing uptime, data security and compliance requirements, NKR needed to move beyond its on-premises hosting solution.

How we helped

Infrastructure; Managed Hosting; Rackspace Managed Security; Compliance; Email Hosting.

What we achieved together

Dependable, behind-the-scenes infrastructure secures and stores NKR's invaluable kidney recipient/donor database that facilitates up to 40 transplants per month.



“Without technology, none of this could happen”

Joe Sinacore
Director of Education & Development
National Kidney Registry

Over 90 years of building and engineering excellence

The National Kidney Registry (NKR) is a nonprofit organization based out of Long Island, New York, supported by counselors, volunteers and partners around the United States. The mission of the National Kidney Registry is to save and improve the lives of people facing kidney failure by increasing the quality, speed and number of living donor transplants in the world.

“The Kidney Registry focuses on matching patients who have an incompatible, paired donor with another patient’s paired donor in our database,” said Joe Sinacore, Director

of Education & Development at the National Kidney Registry. “When suitable matches are found, kidney swaps are facilitated between the parties in something called a paired kidney exchange. Being in our national pool increases the patients shot of getting a better match, because there are a lot of other pairs in that same pool. It increases their chance of getting a miracle match. Since we started about eight years ago, over 1,850 people have received a good match with our program and we expect to facilitate our 2000th match by the end of 2016.”

According to Sinacore, technology is responsible for the birth of the National Kidney Registry. Technology provides the

infrastructure on which their logistical management systems were built to power, secure and store their invaluable kidney recipient/donor database, facilitating on average 30 to 40 kidney transplants each month.

“We could never have done this twenty years ago,” Sinacore said. “But, because of technology, we can find the best matches for patients in need who have donors, getting them matched and transplanted as quickly as possible. Having a partner like Rackspace allows us to have the infrastructure behind the scenes to do that.”

Powering the miracle match

For people in need of a kidney transplant, NKR is in the business of making the miracle match — facilitating kidney swaps between paired donors and paired recipients across the country, via paired exchange donation. In a paired exchange, a donor will donate their kidney to another recipient in exchange for a compatible kidney for their loved one. Often these exchanges are started by Good Samaritan donors to form a chain of transplants. In order to execute successful transplants, the team at NKR needed to move to a more robust managed hosting solution

and away from the on-premises solution that originally launched the national registry.

Rackspace has been a key partner in providing a managed hosting solution for NKR, furnishing a stable logistical management infrastructure, with support for systems and back-office capabilities. Rackspace Managed Security protects the NKR environment from Advanced Persistent Threats (APTs) and other cyber-attacks.

“We have been working with Rackspace now for several years,” Sinacore said. “We started off with putting our entire email system on there. Email is the key method we use in communicating with 80+ transplant centers.”

“As our needs grew to protect personal health information, the first place we looked was Rackspace,” he said. “The database and the website that front-ends the database, which offers connectivity to all the transplant centers, is all housed at Rackspace in a highly secure data facility which is critical to our operations. We have been able to install a HIPAA-compliant server that allows us to manage the security of the data, to protect it, and to measure potential outside threats from hackers.”

For NKR, infrastructure is key to achieving the miracle match. “Having all of these logistical management systems built into our database, and in our processes at Rackspace is critical to making things work,” Sinacore said.

Uptime is transplant critical

While Rackspace is working behind the scenes, the NKR team works with their voluntary network of transplant centers and hospitals to help them understand how to utilize the kidney matching system, allowing them to efficiently coordinate patient transplants. While this process takes place, the systems that power the kidney recipient/



“Having our own server in our office was no longer a viable solution for our longterm growth so we turned to Rackspace for something that we could expand upon later as we grew.”

Joe Sinacore
Director of Education &
Development at the National
Kidney Registry

donor database must be up and running – with absolute zero downtime.

“Our logistical functions must remain up at all times, especially on the days when transplants are taking place” said Sinacore. “There are surgeons and nurses waiting on the other end for that kidney to show up, and need to know exactly when it will show up - our system cannot go down. There is a sense of trust that gets created with the National Kidney Registry working with the participating hospitals.”

Using Rackspace has yielded benefits for NKR in the uptime game, including moving the company’s email solution from local storage to Rackspace in July of 2012.

“A lady named Sandy (East Coast Atlantic hurricane Sandy) came and visited us in the fall, and we had no power in our facility or communications availability for over a week,” Sinacore said. “Had we not moved our email system over to Rackspace, we would have been out of business for a week. This really built tremendous trust between the National Kidney Registry and Rackspace to go forward from there.”

“Having Rackspace behind the scenes maintains critical uptime at all times,” Sinacore said. “In the rare occasion that we have some sort of an issue that pops up, we submit a ticket, and literally within minutes someone is responding. We never have to worry – and that’s critical.”

A rewarding mission

Saving and improving the lives of people facing kidney failure has kept the team at the National Kidney Registry very busy during their growth phase. Sinacore is pleased knowing that the team at Rackspace is ‘behind the scenes’ managing infrastructure, allowing his team to focus on making more miracle matches.

“Suddenly 30 transplant centers turned into 60 transplant centers, and 60 transplant centers turned into 80 transplant centers – now we are so busy and we never need to worry if we need more horsepower for our data centers, because Rackspace can provide that for us,” Sinacore said. “Because the systems are so reliable and the people behind the scenes at Rackspace are so responsive, we don’t have many issues.”

“Each of us on the team here at the Kidney Registry, we’re all working long hours – it’s emotional work, it’s hard work,” concludes Sinacore. “At the end of the day, when we get to go in and record a patient as transplanted, we go to sleep at night knowing that people went home with a kidney, they got off dialysis – it’s rewarding, as rewarding as it can get.”

About Rackspace

At Rackspace, we accelerate the value of the cloud during every phase of digital transformation. By managing apps, data, security and multiple clouds, we are the best choice to help customers get to the cloud, innovate with new technologies and maximize their IT investments. As a recognized Gartner Magic Quadrant leader, we are uniquely positioned to close the gap between the complex reality of today and the promise of tomorrow. Passionate about customer success, we provide unbiased expertise, based on proven results, across all the leading technologies. And across every interaction worldwide, we deliver Fanatical Experience™. Rackspace has been honored by Fortune, Forbes, Glassdoor and others as one of the best places to work.

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September 4, 2024 / Rackspace-Case-Study-National-Kidney-Registry-PRO-3882