A CASE STUDY FOR:

NATIONAL KIDNEY REGISTRY

FACILITATING MIRACLE MATCH'S BETWEEN LIVING KIDNEY DONORS AND RECIPIENTS IS MISSION CRITICAL FOR NATIONAL KIDNEY REGISTRY
Rackspace Managed Hosting is 'behind the scenes' powering the logistical management systems database.

BUSINESS
Nonprofit organization improving lives by matching kidney donors with people facing kidney failure.

CHALLENGES
On-premise hosting solution was no longer a viable solution for the organizations long-term growth.

SOLUTION
Rackspace Managed Hosting, Rackspace Managed Security, Rackspace Managed Exchange

OUTCOME
National Kidney Registry now has a secure, supported and scalable infrastructure which aids the nonprofit in facilitating kidney transplants.

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National **K**idney **R**egistry®
FACILITATING LIVING DONOR TRANSPLANTS

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. When suitable matches are found, kidney swaps are facilitated between the parties in something called a paired kidney exchange " explains Joe Sinacore - Director of Education & Development at the National Kidney Registry. "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 8 years ago – over 1850 people have received a good match with our program and we expect to facilitate our 2000th 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.

"Without technology, none of this could happen," said Sinacore. "We could never have done this twenty years ago. 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-premise solution that originally launched the national registry.

"Having our own server in our office was no longer a viable solution for our long-term growth," said Sinacore. "So we turned to Rackspace for something that we could expand upon later as we grew."

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 (APT's) and other cyber-attacks.

"We have been working with Rackspace now for several years," he 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."

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"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 HIPPA 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," he said.

UPTIME IS TRANSPLANT CRITICAL

While Rackspace is running the 'behind the scenes' effort, 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 maximize patient transplants. While this process takes place, the systems that power the kidney recipient/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," he 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," he 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," he 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."

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ABOUT RACKSPACE

Rackspace (NYSE: RAX), the **#1 managed cloud company**, helps businesses tap the power of cloud computing without the complexity and cost of managing it on their own. Rackspace engineers deliver specialized expertise, easy-to-use tools, and **Fanatical Support**® for leading technologies developed by AWS, Google, Microsoft, OpenStack, VMware and others. The company serves customers in 150 countries, including over half of the FORTUNE 100. Rackspace was named a leader in the 2015 Gartner Magic Quadrant for Cloud-Enabled Managed Hosting, and has been honored by Fortune, Forbes, and others as one of the best companies to work for.

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