31 August 2018

After weeks of working to restore Rotary’s servers that suffered water damage in June, I am pleased to announce that the replacement hardware has been installed and all systems are back to operating at 100%. Members can now use all of the tools and resources they need to conduct Rotary business at full performance.

I would like to provide a full accounting of what occurred during the June 2018 Rotary system outage, what steps Rotary staff have taken to respond to the incident, and what we are doing to prevent a similar situation from impacting us again.

What happened?

On Friday afternoon, 15 June 2018, contracted maintenance teams were conducting routine building maintenance in Rotary’s data center when a water valve was ruptured causing water to spray along one of the server racks housing several core Rotary systems. Some systems were immediately impacted and shorted out, while others continued to operate.

Rotary’s Information Technology team quickly went into action to assess the damage and determine the business impact. Initial assessments indicated that we had lost only noncritical systems, such as development and testing environments. Critical systems, including our member and club management and financial systems, continued to function, but were at risk. Unfortunately, our new backup system that had just been installed weeks prior was also damaged.

How did Rotary respond to the incident?

Because it was one week before the start of the Rotary International Convention in Toronto, our priority was to make sure that all convention-related systems were secure and functioning. Next, we focused on getting a replacement backup system onsite as quickly as possible. Even though no working data had been lost, operating without a backup leading into and during the convention was not acceptable.

Historically, Rotary has stored backups off-site in a remote location. However, we were in the process of converting to cloud-based backups, which is what prompted us to add the new backup system that was now destroyed. Rotary’s data was still backed up and stored off-site; however, given the damage done to the new backup system, we had no equipment to restore it with nor any dry hardware to which to restore it.

We contacted local vendors to acquire emergency replacement hardware as a short-term solution as we knew replacing the custom hardware was going to take weeks. Thankfully, one vendor had hardware that was significantly undersized but still met our needs in their warehouse. They delivered it as quickly as possible.

The team started migrating systems to the temporary hardware early Saturday morning, less than 24 hours after the damage occurred. Staff worked non-stop from Friday morning through Tuesday, over Father’s Day weekend, to ensure that Rotary’s systems were secured and operational. Except for a few very brief times on Saturday, Rotary’s core systems were always fully available, although with somewhat diminished performance.

On Tuesday, staff traveled to Toronto to set up for the convention. Time not spent preparing for Convention activities was devoted to restoring and troubleshooting the new temporary hardware. Back at world headquarters, the team continued to install the replacement backup system and migrate our core systems. Some connections between My Rotary and the back-end core systems were affected during the move, so we alerted Rotarians on My
Rotary that some of their services might be impacted. At no point during convention were any convention-related services unavailable to attendees.

As soon as the insurance claim was resolved, we ordered the official replacement hardware for the equipment we had lost. Because this type of equipment is custom-configured to meet our needs, the company required three to four weeks to fulfill the order.

At this point, all My Rotary functionality had been restored, but the back-end system that supports My Rotary was running at 50% capacity due to the undersized temporary hardware. This reduction in performance, combined with end-of-year financial processing, meant that processing contributions would take longer than usual. As a result, we updated the My Rotary alert and posted answers to frequently asked questions. We also directed anyone who had questions to contact the Rotary Support Center. I personally responded to several questions from concerned Rotarians, thanked them for their interest, and apologized for any inconvenience that the incident had caused.

The new replacement hardware arrived at the end of July and the IT team immediately began setting it up and migrating our core systems. So as to not disrupt core Rotary International processes, most migrations were completed after normal business hours which added to the time required to complete the migrations. Throughout this effort, we ran the risk of any service on My Rotary possibly being unavailable, so we left the warning alert on My Rotary until all migrations were completed on Monday, 20 August. Ultimately, no outages or disruptions were reported during the migrations.

I would like to publicly thank the Rotary IT team for their dedication and commitment, and for working nights and weekends to see this through. I would also like to thank all of the Rotary staff and Rotarians who reached out and offered their assistance. What we valued most during this incident was the understanding and trust that the team was doing everything within our means to get Rotary back up and running at 100% as quickly as possible.

**How can we prevent this from happening again?**

The outage revealed several areas of opportunity to improve Rotary’s disaster recovery, business continuity, and crisis response plans, as well as our communication protocols. More importantly, it highlighted that significant improvements were needed to IT’s practices to prevent similar incidents. We are evaluating several changes to our normal operations including offsite data centers and full cloud adoption.

We were lucky that this incident happened one week before convention, instead of one day before, and that we were able to migrate successfully without needing to restore our systems from backup or suffer the loss of any data. But luck should not be a cornerstone of an IT strategy so we are making the necessary improvements to remove luck from the equation.

We at Rotary are very excited about the future, including new products and innovative strategies for increasing member and club engagement, so Rotarians can make an even bigger impact in their communities. With our investment in a solid infrastructure and improved operational and support practices, I am confident that we have the right foundation to build the next generation of Rotary tools.

We are committed to being as transparent as possible. If you’re interested in what Rotary IT is working on, please reach out to me directly at richard.kick@rotary.org so I can share with you the work we are very proud to deliver.

Sincerely,

Richard Kick
Chief Information Officer
Rotary International