



Zetta Provides Flexible Safety Net

Site replication gives SiriusXM, and other large users new ways to operate from multiple locations; new features benefit all Zetta users

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Disaster recovery and relief is an increasingly important priority for stations and clusters of all sizes. Adding cloud-based recovery to RCS Zetta's existing site replication functionality gives stations more options for staying on the air in even the worst circumstances. It can even allow stations to keep broadcasting with updated programming when studios aren't available at all.

Whether it's a corporate mandate or a local priority, planning out a strategy for smooth recovery from a disaster is an essential element of modern broadcast facility design. Until now, that has required broadcasters to build out their own emergency facilities, replicating their regular studios at alternate locations and managing backups of their critical systems. As more and more of the broadcast environment goes virtual, that model is changing. For the first time, RCS Zetta is offering a cloud-based solution that allows broadcasters to continue operations remotely even without their own disaster recovery facilities.

The tornado just tore off the roof of your studio building. The floodwaters are rising into your rack room. The power just went out all across your market and the studio generator won't start. There's three feet of new unplowed snow between your airstaff and your parking lot. The police SWAT team just told you to evacuate everyone from your building until they can clear a threat. Your production director just discovered ransomware that's invading your entire network, including the automation system. There's no shortage of things that can go wrong, and if you're a chief engineer or a market manager, you're under constant pressure to prepare for the worst so your stations can stay on the air no matter what's happening at the studio end of the air chain.

Until now, the best practice you could follow was to maintain some sort of disaster recovery site of your own at an alternate location. A couple of castoff consoles and the furniture you ripped out of your last studio rebuild, some mics and perhaps a couple of CD players. If it all works, and if there's power there, and if your air staff can make it to the alternate site, it's one tool in the disaster recovery kit - *if you're lucky*. But what about your spot load? Your latest music logs? The more radio stations depend on their automation systems, the more critical it has become to have some sort of disaster recovery plan for automation as well.

RCS began to address that question when it developed site replication several years ago. Today, RCS Zetta users with systems at more than one location can seamlessly back up their entire operation at each location. As soon as a new element is added to a Zetta system at a studio in one market, it can be backed up at a remote transmitter site or at a site-replication Zetta location in a different market. If something goes wrong at the studio, all is not lost - the system can be restored from another site with no loss of content.

TAKING IT TO THE CLOUD

But, what if you're a station group with only one studio location and no other co-owned markets to back you up? What if your transmitter site isn't resilient enough to be used for site replication? Or if you're trying to back up a station group with multiple transmitter sites that don't have easy connectivity with each other? What if you could just put your entire site replication somewhere with no physical requirements at all - and let someone else manage all the IT maintenance and upgrades there?

In short, what if you could run your Zetta site replication straight from the cloud to your air chain?

"We're moving all of our products to the cloud," says Neal Perchuk, RCS Senior VP of sales for the Americas. "What we found that people desire from the cloud is that it's a hardened safe place to store your assets, it's retrievable from anywhere, and that sense of security was the main focus of our clients going to the cloud."

Just as with traditional Zetta site replication, cloud backup is designed to be seamless and transparent to the user,

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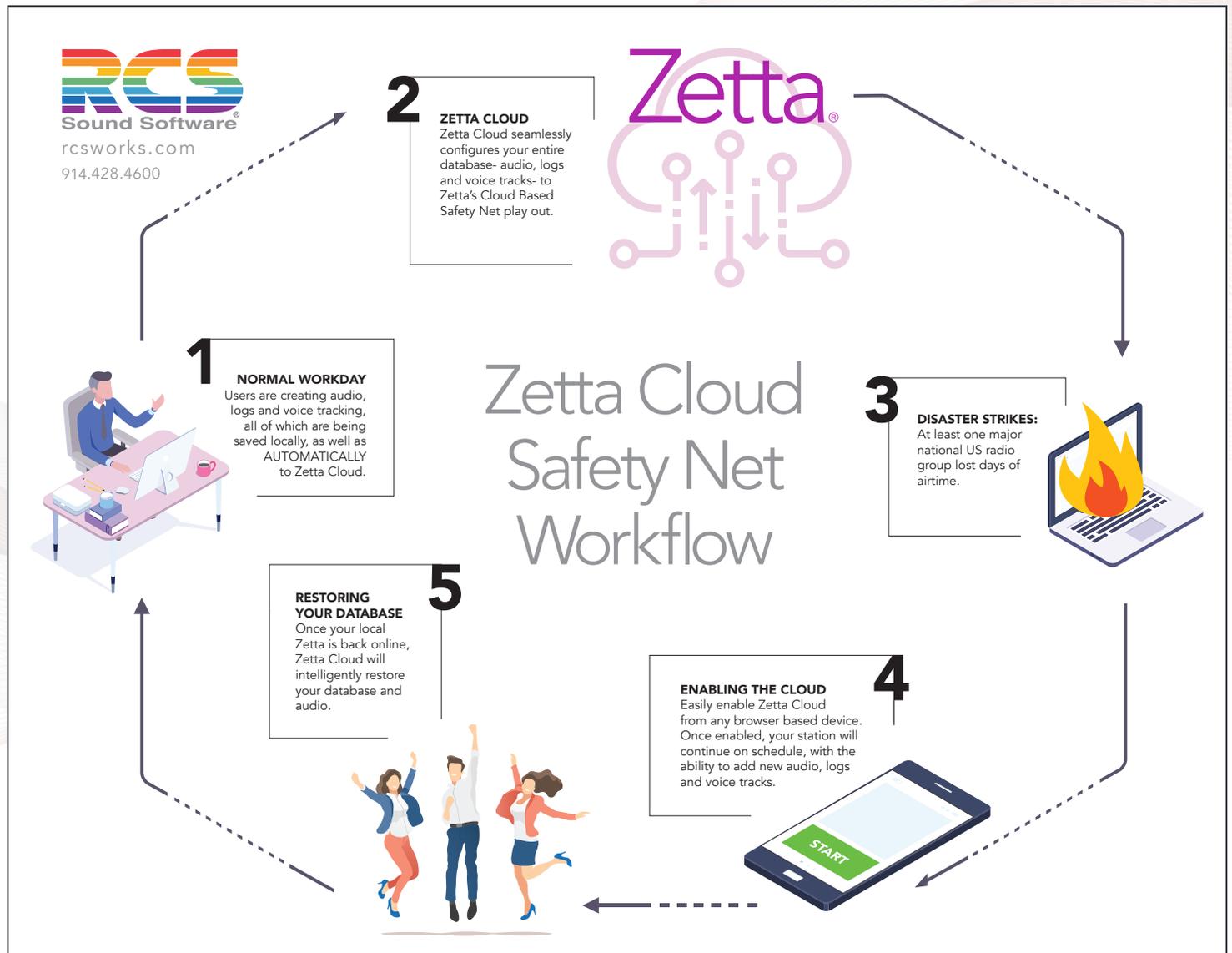
operating in the background as a producer, jock or programmer does their work.

“It all gets replicated to the Zetta Cloud - assets, schedules, everything that’s needed to play those schedules out; it all gets safely replicated and stored within the cloud environment,” Perchuk says. “Should anything happen to the physical location, they can turn on the Zetta Cloud sequencers while whatever’s going on in the physical location can be resolved.”

There’s more than just natural disasters. While Zetta Cloud replication can save a station’s air product - and its revenue stream - during fires, floods, blizzards and power outages, it’s also a solution to a newer kind of disaster that’s been threatening radio stations more and more lately.

As several large broadcast groups have discovered in recent months (the hard way), today’s ransomware attacks are devastating - and devastatingly hard to avoid. At least

one major national radio group lost days of airtime and millions of dollars in revenue after ransomware spread from cluster to cluster within the company’s internal networks, wiping out music and production libraries, spots and traffic logs. While good IT safety practices can reduce the danger ransomware poses to a traditional site replication system, any physical asset on a company’s own network is still at risk.



In the Zetta Cloud, however, broadcasters aren't dependent on their own internal IT security. Instead, Zetta site replication duplicates all a station's assets in a highly secure outside location that can't be reached by a local ransomware attack.

SPEEDY RECOVERY

Because cloud site replication includes playout capability, it can make a seamless recovery whenever something goes wrong locally. Simply by logging in to the secure cloud site, a station can switch on its Zetta Cloud copy of the station and immediately have all of its usual music, promos, spots and other elements playing out remotely, all from the same schedule it was using locally.

"This is the only system on the planet that does this," says Mike Powell, RCS SVP International Operations & CCO.

Even if local systems are down for the count, Zetta users can still create and upload new content into the cloud playout system from remote replication locations, keeping content current while local engineers work on recovering from whatever has affected their local studios.

And once the local system is back up and running, there's something else only Zetta disaster recovery can do.

"Once the issues at the ground level are taken care of, the local Zetta system will retrieve its backup from the cloud and rebuild itself," Powell says. "So, you have continuity in playout and then continuity that will rebuild once the problem is over. There's no other system out there that can self-recover from a disaster."

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– Mike Powell,
RCS SVP International
Operations & CCO

So how does content come back to an affected station's transmitter site when the cloud is called in to service?

"We can work with broadcasters individually," Powell says. "We can play any kind of audio out directly through fiber to a transmitter site, through anything with an internet connection, even potentially cellular connectivity." That could include bonding multiple carriers' service together to provide more bandwidth and resiliency - and it might not even require direct live playout of audio from the cloud-based Zetta system.

Starting with Sound4, a French audio processing company, RCS is working with manufacturers to incorporate Zetta Cloud playout on a chip as part of the hardware that might already be in place at a transmitter site.

"The chip in the hardware becomes a playout device, so we can then store and forward or stream content directly to it," Powell says. By using store-and-forward technology, Zetta cloud playout can function even when there's not enough bandwidth to send a live stream directly from the cloud.

Moving forward, a system like that might be of use beyond just a safety net too. With the elimination of the FCC's main studio rules, Powell says RCS is already talking with broadcasters who want to run Zetta entirely in the cloud, using store-and-forward along with satellite distribution to

send content to playout systems at remote transmitter sites that won't have any direct live audio connections.

CONCLUSIONS

As ransomware joins natural disasters as a threat to business continuity at radio stations everywhere, broadcasters need every possible option in their tool kits to keep their programming and brand identity going, no matter what's going wrong at the station or in the community.

"The most important thing is the brand and your content being delivered uninterrupted during a major event," Powell says. "We're offering extremely high value service at a very low cost."

Going forward, RCS plans to offer more than just audio automation playout through the cloud, including scheduling, traffic and billing, too.

"We're building this platform that will have tremendous amounts of functionality," Powell says.

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