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5 Ways To Prepare Your Infrastructure For Disaster

Tornadoes and floods hitting the Midwest, mudslides and wildfires on the West Coast, hurricanes ravaging the Gulf Coast, and blizzards blanketing the Northeast are just a few of the natural disasters that can be incredibly frightening and damaging due to their unpredictable nature. They can hit anytime and anywhere.
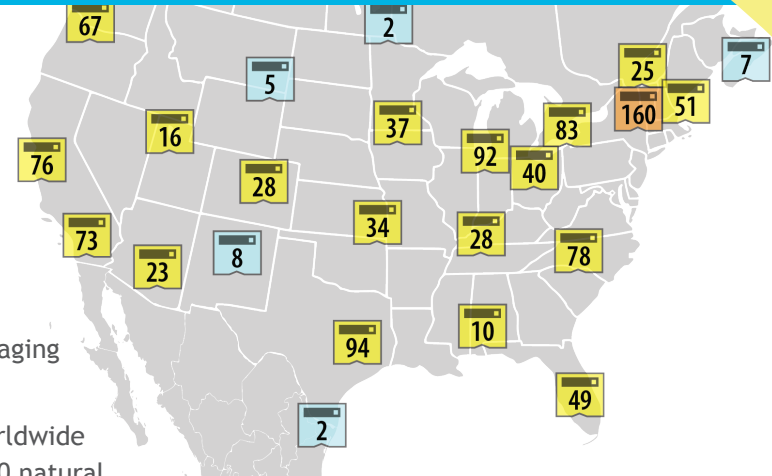
And it's not just the U.S. that is affected. Between 2000-2009, the number of worldwide catastrophic events doubled from the previous decade. Since 2010, more than 700 natural disasters have been recorded. While we can hope they slow down, the predicted numbers say otherwise.

During hurricane season, Florida and other gulf states prepare themselves for heavy rains, winds, and power outages. The rest of the East Coast tends to get residual affects from these storms, but they often die down by the time they go up the coast. However, in October 2012, Hurricane Sandy started in the Caribbean and barreled directly toward New York City, the largest Atlantic hurricane on record.

New York is a major hub for large brands and their data centers. After Sandy hit, many New York offices were flooded, and major websites like the Huffington Post, BuzzFeed and Gawker had uptime issues. Some companies were more prepared for disaster than others; BuzzFeed was able to bounce back quite quickly due to having a redundant, off-site data center and caching their content with a CDN. Other companies went into recovery mode to try to get their sites back online.

The number of data centers around the U.S. Note the large amount in NYC.

Prevention vs. Recovery

The term "disaster recovery" assumes that you wait until something terrible happens to take action. While it's great to know how to recover when disaster strikes, wouldn't you rather prevent it from happening in the first place? Of course, there are no guarantees when it comes to preventing outages and downtime, but if you follow these key areas of preparation, you can greatly reduce your risk.

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How To Prepare Yourself

1. Data Center Preparedness

If your data center facility isn't properly prepared for a potential disaster, you are risking major outages and potential loss of revenue. **Download our Data Center Evaluation Checklist** to see what questions you should be asking before you select a data center and to find out about their disaster planning.

2. Failover and Intelligent Load Balancing

If you rely on only one data center to hold and serve all of your information, it's only a matter of time before something happens, causing your site to go down. With failover, in the event of an outage on your primary server, you can redirect traffic to a redundant, off-site server.

An intelligent load balancer can geographically load balance your traffic and have built-in failover mechanisms. This is done by automatically monitoring the health of your servers and removing any that are down from the pool of available servers so that no traffic is sent there.

3. DNS Time To Live (TTL)

The longer your website's TTL, the longer it takes recursive servers to expire cached answers. What this means is that in the event that your primary server has gone down, even if you have redirected your traffic to a working server, recursive servers will still send to the primary server until the initial TTL expires.

Keeping a short TTL (as low as 30 seconds) can allow for rapid failover in the event of an emergency where a quick DNS update is needed.

4. Monitoring

If you're not constantly monitoring the health of your servers, how will you know when something is going on? With monitoring, you can set up specific parameters to test. If 2 out of 3 checks to a server come back as failures, that server can be removed and traffic can be load balanced among the remaining servers keeping your website up and keeping your customers happy.

WHITEPAPER REFERENCE SHEET

Data Center Evaluation Checklist

DOWNLOAD AVAILABLE AT

dyn.com/content-hub/checklists
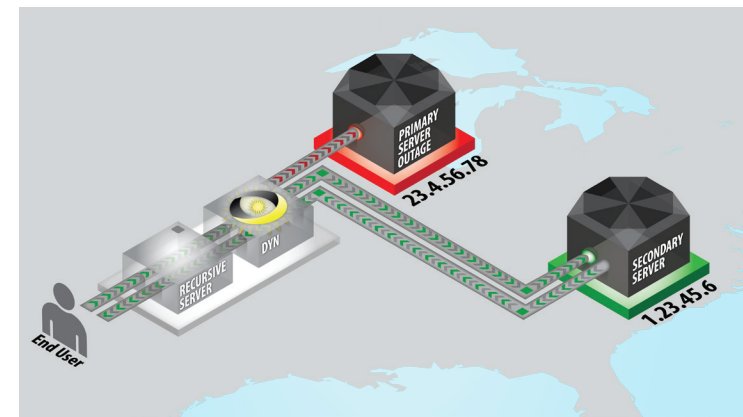
Dyn Active Failover automatically re-routes the query to a live server.

WHITEPAPER

5. Customer Relations

In case something does happen and your service goes down, be sure that your customer service and marketing teams are prepped to know how to handle speaking with customers. If your customer-facing teams don't know what's happening, what's being done to resolve the problem, or even why it happened, there's a high chance that they may end up frustrating your customers even more than they already are from their loss in service.

Many online-centric businesses now even have special status websites on a separate infrastructure from their main site to help allow for communication to their customers in the event of a disaster. Alongside a status site, social media has become very important in communicating with customers in the event of an outage, as it is another off-site platform that will remain accessible.

> "Fewer than one out of six small businesses have a disaster contingency plan." UNISDR: unisdr.org/we/inform/disaster-statistics

Key Takeaways

The truth is that you won't see immediate ROI on being prepared for a disaster, but in the event something happens, you will be happy that you took the time to get ready. Keep in mind that if something happens, you'd likely spend the same or more to relieve issues during a crisis, so why not make the investment before that happens? Being prepared allows you to greatly improve your network performance and reliability which, in the end, will boost confidence in your brand.

➡ Contact us now to start creating and evaluating your prevention plan.
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