Minimize Network Downtime with 4G/LTE

The Secret to Reliable Networks and Increased Business Profits

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Introduction

Millions of businesses today rely on the Internet to conduct business, communicate with vendors and customers, process credit card payments, and run mission-critical cloud-based applications. With all of these activities playing a vital role in the success and profitability of the company, non-stop availability is absolutely essential to ensure businesses don't suffer significant financial losses due to network downtime. Businesses solely relying on DSL or cable Internet service risk revenue loss, decreased productivity, and even a damaged reputation, which could ultimately result in losing valuable customers. With standard availability through cable or DSL at 99.5% on a good day, the risk of downtime isn't so much a question of if a business will experience a service outage with these Internet options, but more a question of when.

While there are a few alternative solutions available to businesses, more often than not the option of adding more equipment or redundant service simply doesn't justify the increased costs. What many business owners, CTOs, and IT managers are discovering is that 4G/LTE, whether implemented as primary or backup service, provides the reliable solution they've been looking for, and its uptime benefits reduce the risks that threaten their businesses everyday. Couple the mitigation of downtime risks with the relatively low cost of 4G/LTE service, and small- to medium-sized businesses as well as enterprises can enjoy secure, uninterrupted connectivity even when nature (or humans) wreak havoc on other networks.

Common Causes of Network Downtime

There are a number situations that can cause your network to go down. Typically, we can group these into three categories:

- Natural disasters
- Technology/device failure
- Human error

While some causes may have safeguards to protect against an outage, the reality is that things are often out of your control.

Natural Disasters

Natural disasters like Hurricane Katrina in Louisiana, Snowmageddon 2015 in the Northeast, and California's Napa Valley Earthquake are just a few examples of how Mother Nature can wreak havoc on your business's communication infrastructure. In the case of a natural disaster, there is simply nothing you can do to prevent it from happening.

Human Errors/Technology Failures

Human error and technology failure, while somewhat preventable, are bound to happen. Whether your provider's system is compromised by device configuration changes or link failures, or someone simply doesn't heed the warning of "call before you dig," these outages are also typically outside of your direct control.

Cyber Attacks

While natural disasters, human error and technology failure are the primary reasons that networks tend to fail, cyber attacks on networks are becoming an increased threat in recent years. The frequency and sophistication of cyber attacks are skyrocketing, and their effects on businesses continues to rise. Dyn, an Internet infrastructure company, experienced a wave of DDoS attacks in 2016, resulting in a massive outage that affected sites including Twitter, Etsy, Github, Vox, Spotify, Airbnb, Netflix and Reddit. Regardless of the cause, businesses are simply forced to implement a backup plan to ensure the quickest recovery time possible during a catastrophic event.

> "Cybercrime represents the fastest growing cause of data center outages, rising from 2% of outages in 2010 to 18% in 2013, to 22% in the Ponemon Institute's 2016 study."
>
> *- Cost of Data Center Outages 2016 Report, Ponemon Institute*

Financial Implications of Network Downtime

IHS, Inc.'s 2015 research found that the cost of Internet and Communication Technology (ICT) downtime ranges from nearly $1 million/year for a typical mid-size company to over $60 million/year for a large enterprise. The report explains that downtime losses include:

- Decreased employee productivity
- Revenue losses across multiple departments
- Costs to fix the issue(s) that caused the outage

In many cases, the costs can vary depending on the number of locations affected by the outage and the length of time it takes to resolve the issue.

Additional data from Gartner estimates that IT downtimes for enterprises costs an average of $5,600 per minute or $300,000 every hour. While exact numbers vary across different businesses and scenarios, there are a number of factors that companies like Gartner and IHS take into consideration when determining the overall costs of network downtime.

Factors for consideration include:

- Gross revenue
- Number of employees
- Average number of hours of downtime/outage
- Number of locations
- Outages per month
- Number of IT employees impacted
- Average salaries of employees

NETWORK DOWNTIME HAS SIGNIFICANT IMPACT ON BUSINESSES' BOTTOM LINE.

Average cost of downtime for an enterprise-sized business according to Gartner:

$300K/HOUR

- "The Cost of Downtime"
Gartner, 2015

EnableIP
WAN UPTIME EXPERTS

What Can 4G Do for Your Business?

4G/LTE technology offers businesses an always-on, cost-effective solution for a primary, backup, or hybrid network connectivity solution. As the fourth major generation of mobile network technology, 4G tackles the connectivity challenges that have been stifling your business. In fact, 67% of businesses already using 4G/LTE in the United States report increased productivity across their departments, with sales, customer services, and other externally-focused departments citing the most benefit. The improved bandwidth, latency, and capacity of 4G provides your business with the connectivity you need to increase your network performance, thereby boosting productivity and profits.

The architecture and efficiency of 4G/LTE offers a number of benefits to businesses regardless of size, industry, or location. The versatility and flexibility of 4G allows you to customize a solution that specifically fits your needs and isn't bound by the limitation of wired technology.

Benefits of 4G/LTE

- Instantaneous deployment
- No set-up or installation costs
- Widespread geographical coverage
- Not restricted by extreme terrain
- Applications can be fixed or mobile, enabling connectivity while mobile

But it's not an all or nothing game with 4G/LTE technology. Whether you're looking at 4G as a backup, failover solution or a primary network option, the benefits surrounding the technology make it more attractive than ever for businesses across the globe. For backup or failover scenarios, 4G provides high-speed connectivity to keep your business up and running in the event of an outage in your primary network. Remember those top reasons for downtime we talked about earlier? Those things happen, and 4G can keep your business moving, even when everything else seems to be standing still.

That same speed and versatility can be leveraged for primary connectivity in locations that may not have options for wired solutions like cable, fiber, or DSL. As the business landscape becomes more diverse, companies have to deal with challenges that they simply didn't have a decade ago. Today, businesses must determine the most effective ways to keep remote employees, road warriors, and even IoT devices connected without missing a beat. 4G does just that.

And since 4G/LTE comes at a relatively low cost, businesses can deploy this solution and enjoy a greater return on investment, minimized loss due to downtime, and a scalable solution for connecting multiple locations. Deploying a 4G LTE-enabled solution ensures maximum uptime, fast deployment, cost-effective connectivity, ease of management, and the scalability your business needs to remain competitive and connected.

Real Life Case for 4G

This EnableIP client, a regional bank in Texas with 50 mortgage locations and 50 banking locations, implemented 4G/LTE as a backup network solution for the mortgage locations of the business. In doing so, they were able to reduce downtime from 0.5% to .01%. While that may not sound like a significant decrease, let's take a look at how this translates across the multiple locations within the company's operation.

An uptime rate of 99.5% (0.5% downtime) translates into 3.6 hours of downtime during business hours per site each month, resulting in 14.4 hours of business downtime annually. Since the client has 50 locations within the mortgage portion of company operations, the multiplication of downtime rates across additional sites means 60 hours of downtime every month, resulting in 720 business hours lost due to network downtime every year.

1 Site	99.5% Uptime	99.99% Uptime
Work hours down/month	1.2 hours	1.46 minutes
Work hours down/year	14.4 hours	17.52 minutes

Consider the decrease from 0.5% to 0.1% downtime, and you can clearly see the massive effect this has on the potential loss for the client. 4G/LTE as a backup solution reduces annual downtime for each site from 14.4 hours to just 17.52 minutes. Using Gartner's estimated downtime costs of $300,000/hour, we can estimate that Enable IP's 4G/LTE solution cut this business's downtime costs from $4.32 million per year to $90,000 per year. In this case, implementing the 4G/LTE backup solution more than paid for itself.

50 Sites	99.5% Uptime	99.99% Uptime
Work hours down/month	60 hours	1.21 hours
Work hours down/year	720 hours	14.6 hours

In the case of this particular client, Enable IP was able to provide a significant reduction in downtime, saving the mortgage side of the company thousands of dollars in potential revenue loss each year. As a result, this prompted the client to look at deploying a 4G/LTE backup solution for the banking side of the business, saving them even more.

Determining Your Downtime Risk

You may be saying to yourself, "This is really great information, but I simply don't know where to start!" And that's OK, because when it comes to determining the true effect that downtime can have on your business, Enable IP has you covered. Our Downtime Calculator was created with you in mind and is the perfect tool to help you determine how your business could be losing thousands due to net   -work downtime.

Network Downtime Calculator

Access Free Downtime Calculator

This simple, web-based tool allows you to make adjustments to variables that directly impact your total annual loss from network downtime. These values include:

- Gross revenue
- Number of employees
- Average number of hours of downtime/outage
- Number of locations
- Outages per month
- Number of IT employees impacted
- Average salaries of employees

The Network Calculator looks at all of the major considerations that companies like Gartner and IHS look at to determine downtime, and has added advanced values for determining Gross Revenue Loss and Productivity Loss for Employees. This is a free tool from Enable IP to help you clearly see how network downtime damages your company's bottom line.

How Can EnableIP Help Your Business?

Most businesses don't realize they can almost completely eliminate downtime. The components to a comprehensive, fully-baked solution include: primary internet or WAN service, 4G service, primary and backup routing equipment, configuration of equipment, antennas and boosters for 4G equipment and a professional installation. It is critically important that you don't cut corners when designing your network solution. Give yourself peace of mind, and do it right the first time, enjoy your boost in profits, and protect your business from critical downtime disasters.

Enable IP builds highly available networks so our clients can leverage cloud applications. It's what we do all day, every day, and we are very good at it. We work with businesses like yours to design and build the best solution for your networking needs, and we stand behind every solution with a

Guaranteed user experience of 99.99% network uptime.

We are committed to diligently developing a successful solution, and lab testing 95% of the system before it's even installed. Let's face it, networks have issues. That's a guarantee. Being set up to address those issues quickly, efficiently and professionally is what we do, and we'll put that in writing in very simple language so you have the peace of mind that your network issues will be resolved in a timely manner. Give Enable IP a call and let us help you leverage the best solution for your business

About Enable IP

Enable IP is a telecom solutions provider founded by Wired Networks founder Jeremy Kerth and Wired Networks' head engineer Steve Roos, after they realized there was a deep market need for helping mid-size businesses establish better uptime rates for their Wide Area Networks. Armed with the best-in-class carriers and partners, Jeremy and Steve set out with a bold plan: Guarantee better uptime rates than the industry standard of only 99.5%.

Their bold plan became a reality: Enable IP's solutions guarantee clients 99.99%, even 99.999%, network uptime.

But they don't stop there. Many telecom providers promise high availability network solutions but fail to deliver, because they are in the business of providing services, not solutions.

That's the Enable IP difference: We deliver highly available networks by providing a complete system, called Cloud Assurance, that ensures our 99.99% or above uptime guarantee.

We deliver this bold promise by:
- Owning the entire customer experience. From pricing, contracting, ordering and provisioning to installing, servicing and billing, we do it all. This means no stressful negotiations, confusing setups, or finger pointing if something goes wrong. We just deliver on our promise.
- We manage the entire system and monitor and manage issues as they occur, so you can focus on your business, not your network.

The Enable IP   solution is like no other. Contact us, and experience the difference of a system that truly delivers on its 99.99% network uptime promise.

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