LeadingIT

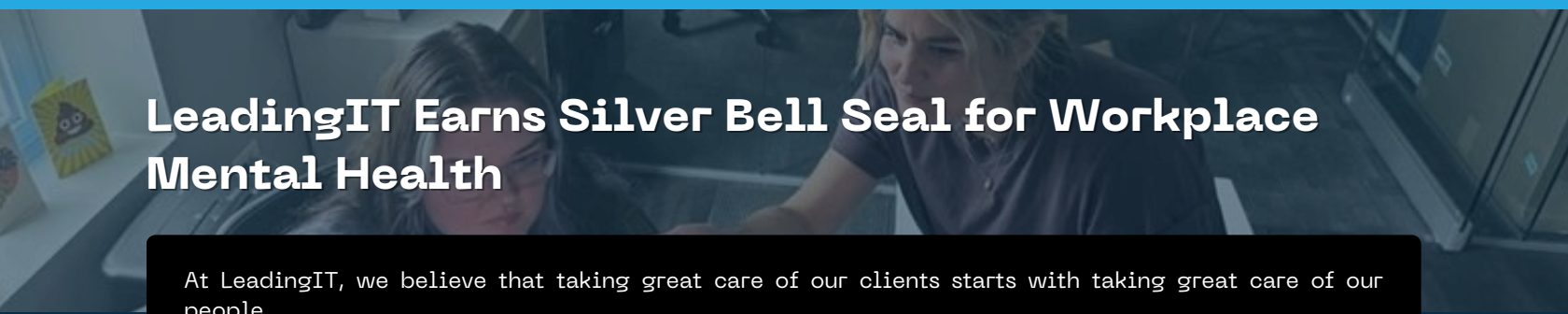
April 2026

The NetWork

IN THIS EDITION:

On the Cover: LeadingIT at MCC Career Quest

The LeadingIT team had the opportunity to participate in McHenry County College Career Quest, where hundreds of local 8th-grade students explored potential career pathways and learned about preparing for high school and beyond. Events like Career Quest help students discover opportunities in fields like technology, business, and cybersecurity while connecting with professionals from across the community. Our team enjoyed sharing what it's like to work in IT, answering great questions, and encouraging the next generation of problem-solvers who may one day help keep businesses secure and running smoothly.



LeadingIT Earns Silver Bell Seal for Workplace Mental Health

At LeadingIT, we believe that taking great care of our clients starts with taking great care of our people.

We're proud to share that LeadingIT has earned the Bell Seal for Workplace Mental Health for the second consecutive year, awarded by Mental Health America. The Bell Seal is the nation's leading certification recognizing employers committed to building and sustaining mentally healthy workplaces.

Even more exciting, LeadingIT advanced from Bronze last year to Silver this year, reflecting our continued investment in supporting our team.

What the Bell Seal Means

The Bell Seal certification evaluates organizations across four key areas:

- Workplace culture
- Employee benefits
- Organizational compliance
- Wellness programs

Advancing to Silver reflects deliberate efforts across our organization to strengthen resources, support structures, and policies that help our team perform at their best.

Why This Matters to Our Clients

Our team works every day to support organizations across Chicagoland with managed IT services, cybersecurity solutions, and responsive IT help desk support. Technology issues don't wait for convenient moments, and the demands on IT professionals can be intense.

That's exactly why workplace wellbeing matters.
A healthy, supported team delivers:

- Faster response times
- Better problem-solving
- Stronger client relationships
- More consistent service

In other words, when our team thrives, our clients benefit.

A Commitment to Continuous Improvement
The Bell Seal places LeadingIT among a select group of employers nationwide demonstrating measurable commitment to employee mental health.
But for us, the Silver tier isn't the finish line. It's a milestone.

Our goal is to continue improving our workplace culture while delivering the reliable IT support and cybersecurity protection that businesses across Chicagoland rely on every day.

Because great service starts with a great team.

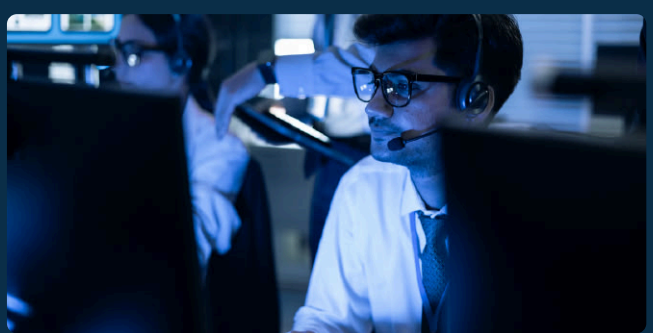
What Is a Network Operations Center, and What Does It Mean for Your Network?

A single hour of network downtime costs the average mid-sized business over $300,000, according to ITIC's 2024 research. For smaller organizations, the hit is proportionally worse. A Network Operations Center (NOC) exists to make sure that hour never happens.

What a NOC Actually Does

A NOC((Network Operations Center) is a centralized team that monitors your network around the clock. Rather than waiting for something to break, technicians watch for early warning signs like a server running hot, a switch dropping packets, or a cloud application slowing down. When an alert triggers, they investigate and resolve it, often before anyone in your organization notices a problem.

The work breaks down into a few core areas: real-time monitoring of device health, bandwidth, and connectivity across your entire network; incident management with triaging, escalation, and resolution tracking; patch deployment to close vulnerabilities and keep systems current; and performance optimization through traffic analysis and capacity planning.



We operate on a tiered support model with L1, L2, and L3 techs, so every issue gets matched to the right skill level. Routine alerts get handled fast through documented runbooks. Deeper diagnostic work goes to our senior engineers. Architecture-level problems and root cause analysis get the attention they deserve. Every alert gets a response, and every response is tracked.

NOC vs. SOC: Two Functions, One Team

A **NOC** focuses on network performance and uptime. A **Security Operations Center (SOC)** focuses on threat detection and incident response. The two complement each other closely; a performance anomaly like unusual outbound traffic could signal a security incident, and a security threat like ransomware creates a network disruption that needs immediate containment.

We integrate both functions under one roof. That means your network is being monitored for performance issues and security threats at the same time, by the same team. You don't need to coordinate between separate providers or worry about gaps between the two.

How AI Is Changing the Game

Traditional monitoring fires alerts when something crosses a threshold; for example, a CPU hits 90%, and a link goes down. AI-driven monitoring goes further by learning what "normal" looks like for your specific environment and flagging deviations that static rules miss entirely.

Key capabilities include anomaly detection that catches gradual degradation, predictive analytics that forecast failures before they happen, alert correlation that groups hundreds of related alerts into a single incident, and automated remediation for routine issues like service restarts.

Gartner projects that 30% of enterprises will automate more than half of their network activities by 2026. AI doesn't replace engineers, it makes them more effective by handling the routine so they can focus on complex problems.

Why This Matters for You

The Uptime Institute found that 80% of operators said better management would have prevented their most recent downtime event. Proactive monitoring catches problems before they reach your team, protects revenue, preserves productivity, and supports compliance.

It also feeds directly into disaster recovery readiness, validating that backups are running and failover processes are operational. When something does go wrong, organizations with continuous monitoring recover faster because they already know what's affected.

We handle nearly all of this directly. For select specialized tasks like structured cabling or specific vendor work, we coordinate partners and manage the process end-to-end. Either way, you deal with one team: ours.

Questions about your network monitoring or how any of this works in your environment?
We're always happy to walk through it.

Infrastructure as a Service (IaaS), and Why You Should Care.

You've probably heard the term "cloud" hundreds of times by now. But there's a specific part of the cloud that directly affects how your business runs every day, and it's worth understanding at a high level. It's called IaaS: Infrastructure as a Service.

The Short Version

Infrastructure as a Service **(IaaS)** means your servers, storage, and networking live in a cloud provider's data center instead of in a closet at your office. Companies like Microsoft Azure and Amazon Web Services own the physical hardware like the actual racks of servers, the cooling systems, the power, and the security cameras. You rent computing resources from them on demand instead of buying and maintaining your own equipment.

That's it. That's IaaS.

Why It Matters to Your Business

The old model was simple but expensive: buy servers, install them on-site, and hope they last. When they failed, you replaced them. When you outgrew them, you bought more. Every upgrade meant downtime, capital expenses, and headaches.

With IaaS, that whole equation changes. Need more capacity? It scales up in minutes. Need less? Scale it back down and stop paying for what you're not using. No procurement cycles, no hardware aging out, no emergency replacements at 2 AM.

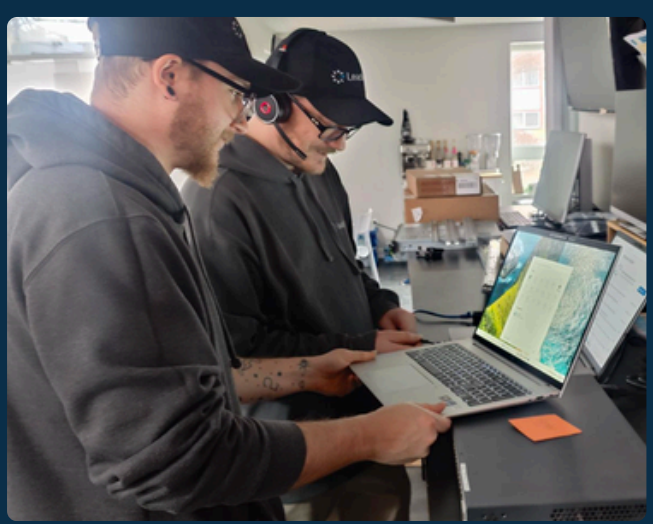
For most of our clients, IaaS is what replaced the physical servers you used to have on-site. Your business applications, files, and data now run on virtual machines in the cloud, with better uptime, better redundancy, and better disaster recovery than any single office server could provide.

You're Probably Already Using More Cloud Than You Think

If your team uses Microsoft 365 for email, that's SaaS or “Software as a Service”. If your core business applications run on virtual servers in Azure, that's IaaS. Most businesses are running a mix of both, and the line between them doesn't really matter to you because we manage all of it as one system.

That's the key point: IaaS on its own is just rented infrastructure. Someone still has to configure it, secure it, monitor it, keep it updated, manage costs, handle compliance, and make sure everything works together.

That's what we do.



What We Handle So You Don't Have To

The cloud providers are responsible for the physical hardware. Everything above that, operating systems, security, access controls, backups, patching, compliance, cost optimization, vendor coordination, that's on us. We manage the full picture, whether it's your cloud environment, your on-prem systems, or a hybrid setup that connects both.

When something needs specialized work outside our team's scope, we coordinate it through vetted partners and manage the process end-to-end. Either way, you deal with one team: ours.

The Bottom Line

IaaS is the foundation your business technology runs on. It's what lets you operate without owning hardware, scale without major investments, and recover from disasters without maintaining a second office full of backup servers.

You don't need to become a cloud expert. That's our job. But understanding the basics helps you see why the technology decisions we make together matter, and why the infrastructure behind your business is in good hands.

Questions about your cloud setup or how any of this applies to your environment?

Just reach out. We're always happy to walk through it.

Bits vs. Bytes: Why Your Internet Feels Slower Than Advertised

You sign up for a 200 Mbps internet plan, start downloading a file, and watch the progress bar crawl at 25 MB/s. Nothing is wrong. The units are just measuring different things, and that distinction trips up business owners and office managers more than almost any other technology topic.

The Core Difference

A bit is the smallest unit of digital information: a single 0 or 1. A byte is eight bits grouped together, which is enough to represent one character of text. That 8-to-1 ratio is the key to the whole confusion.

The capitalization tells you which one you're looking at:
• **Lowercase** "b" = bits (used for speed). Examples: Mbps, Gbps
• **Uppercase** "B" = bytes (used for file size and storage). Examples: MB, GB, TB

Internet speed is measured in bits because, as NCTA explains, data travels across networks one bit at a time. File sizes and storage are measured in bytes because they describe how much data exists. Different jobs, different units.

The Simple Conversion

To convert your internet plan speed to real-world download rate, divide by 8:

• 100 Mbps plan = roughly 12.5 MB/s download speed
• 200 Mbps plan = roughly 25 MB/s download speed
• 500 Mbps plan = roughly 62.5 MB/s download speed
So a 1 GB file on a 100 Mbps connection takes about 80 seconds to download, not 10. The plan speed isn't misleading, it's just using a different unit than the one your browser reports.

Where You See Bits vs. Bytes in Practice

Speed (bits): Internet plan advertisements, speed test results, network performance benchmarks. These are always in Mbps or Gbps.

Storage (bytes): Hard drives, RAM, USB drives, cloud storage, file sizes. These are always in KB, MB, GB, or TB. A typical Word document runs 50 to 100 KB. A high-resolution image is 3 to 8 MB. One hour of HD video is roughly 1.5 to 2 GB.

Why the Gap Between Plan Speed and Reality

Even after accounting for the bits-to-bytes conversion, your actual download speed will usually be lower than the theoretical maximum. Several factors affect real-world performance:

- Network congestion during peak usage hours
- Router placement and Wi-Fi signal quality
- Number of connected devices sharing the same bandwidth
- ISP throttling or infrastructure limitations in your area

The bits vs. bytes math explains the biggest part of the gap, but not all of it.

What this Means for You

Once the distinction clicks, the numbers become useful instead of confusing. You can evaluate internet plans based on what they actually deliver, set realistic expectations for file transfer times, and size storage and backup solutions accurately.

If your connection still feels slow after the math checks out, the bottleneck is likely somewhere else in your network, not in the plan itself. That's the kind of thing we dig into regularly for our clients, and it's an easy conversation to have if something feels off. Just reach out and we'll take a look.

$1000 REFERRAL PROGRAM

Do you know an organization that needs unlimited IT and cybersecurity support with an unbeatable guarantee?

You'll earn **$50** for every referral. If they sign up, you'll receive **$1000!**

815-788-6041 **GOLEADINGIT.COM/REFER**

SCAN TO LEARN MORE

Planning Ahead for Technology Purchases

We're seeing longer lead times from several hardware vendors due to ongoing supply chain challenges and manufacturing delays. Items like laptops, networking equipment, and specialty hardware may take longer than usual to arrive.

If you have upcoming projects, new hires, or equipment refreshes planned this year, we recommend placing orders earlier than usual. Ordering ahead helps ensure your team has the tools they need when they need them and prevents last-minute delays that can impact productivity.

If you're unsure about timing, your vCIO team is always happy to help plan ahead.