

6 Steps for Improving Visibility

in Your Complex Tech Landscape

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In the vast expanse of your company's complex tech environment, visibility isn't just a luxury; it's a necessity. Imagine navigating through an unknown, pitch-black landscape without a map or light to assist with navigation — it's daunting, unsettling and makes it seem nearly impossible to reach your destination. Much like the journey of Frodo and his companions in the Fellowship of the Ring, stumbling down a cold, dark path in your complex tech landscape without a guiding light can make it easy for your team to get lost in their pursuits.

Today, businesses operate across on-premises, multi-cloud and hybrid cloud environments, and each new environment adds more tools to deal with. ITOps and engineering teams often struggle to manage their companies' intricate combinations of must-run legacy systems and new infrastructure using cutting-edge technologies, not to mention their homegrown and third-party applications. With so much to keep track of and a myriad of existing responsibilities, organizations are encountering unforeseen challenges around every corner.

Limited visibility across these environments, applications and systems can lead to dire consequences. Data silos disrupt communication. Prolonged war room calls lead to expensive, lengthy investigations. MTTR becomes sluggish. Team members burn out. And it doesn't stop there — these consequences reach far beyond operational inefficiencies. Every single moment of downtime or brief interruption in performance can cast shadows across the whole company, dimming customer trust, brand reputation and future business success.

If your organization is struggling with any of these problems, know that we see you. But we promise there's a light at the end of the tunnel. The journey in the dark to full-stack, end-to-end visibility may seem elusive, but there are several tactics you can implement to illuminate the treacherous terrain ahead and achieve this core pillar of digital resilience.



Step 1: Chart your course

When navigating your journey toward better visibility, it's crucial to thoroughly assess the landscape before setting off. Follow the lead of legendary adventurers like Frodo and Bilbo Baggins, and think of this step as creating a strategic map before venturing into the heart of Middle-earth. Start by examining your application landscape — what percentage of your applications are on-premises versus cloud-native, and which are provided by third parties? Hammer out these details and keep your business's foundational goals as your north star. Documenting what happens inside your business-critical applications and which services are involved will help you identify low-visibility areas, enabling you to narrow your focus.

You'll also want to use this opportunity to take inventory of your existing resources. Map out all of the tools, services, and infrastructure at your disposal, the purposes they serve and how you're monitoring them, and be sure to identify any overlap. From there, you can more effectively hone in on the specific support you may still need. Go back to basics and ask yourself and your Council the who, what, where and why:

- **Who** are the necessary stakeholders, and do they have access to everything they need?
- **What** tools do we need to be using?
- **Where** would additional visibility be helpful?
- **Why** are we using each tool, and is it possible that we're using too many tools?

Using too many tools can lead to siloed data, complexity, increased costs, lack of collaboration and a heap of other issues — so this strategy, while simple, will provide vital context.

Once you've established and built out a detailed map of your tech landscape, you can share it with your team and work together to solve the problems you've identified. There is no one quick and easy fix that will solve every possible combination of visibility issues, but like Gandalf relied on his staff and wisdom to guide the Fellowship, the plan you create will inform decision-making and lead your team in the right direction.



**It's a dangerous business, Frodo, going out your door.
You step onto the road, and if you don't keep your feet,
there's no knowing where you might be swept off to.**

— J.R.R. Tolkien, The Lord of the Rings

Step 2: Spotlight your business metrics

Aligning your team's priorities with the pulse of your business is paramount in your quest for improved visibility. This step is not just about revenue — it's about understanding what truly matters to your organization. For the Fellowship, the mission was to find and destroy the one Ring to rule them all. For your business, it might vary: a healthcare organization may be driven by a metric like hospital bed availability, while a retailer may care most about fewer abandoned shopping carts. Familiarizing yourself with these key indicators is crucial.

Once you and your team are reacquainted with the business's main priorities, it's time to examine how your ITOps and engineering systems support those initiatives. What strategies and checkpoints exist for separate ITOps and engineering teams to understand how service performance relates to business metrics? What does cross-departmental collaboration look like, and can it be improved? Answering this question will help you lay the groundwork for impactful and tangible improvements.

From here, define and customize meaningful metrics and alerts based on specific service-level objectives, which are quantitative targets for the performance of a service. These metrics should reflect and measure the critical aspects of your business operations that you've identified, and can also serve as early warning signals for potential issues. Once you add and define the metrics and KPIs the business cares about most, you can then work to find a solution that highlights how they are supported and tied to underlying infrastructure, applications and systems. Bridging the gap between team objectives and core business priorities will help you uncover powerful advancements in operational efficiency and visibility.

Step 3: Illuminate third-party applications

In the diverse landscape of modern IT environments, visibility needs to extend past the boundaries of in-house applications. Businesses rely on the outer realm of third-party commercial off-the-shelf (COTS) applications and business services (like ERP, fulfillment, order processing, inventory management systems, internal collaboration and communication tools, etc.), but they often don't have any visibility into what these do and how they affect the business. Like approaching the Doors of Durin in the walls of Moria without knowing Elvish, the lack of third party insight makes it difficult to see inside and figure out why an issue may be occurring. Keeping these third-party apps and services in the dark can cause more harm than good.

Often, teams focus solely on in-house systems and don't have a way to monitor the business's third-party applications. In fact, it's common for third-party applications to be inadvertently neglected because ITOps and engineering teams think that level of advanced visibility is impossible. But we're here to tell you it's achievable, and neglecting to explore this crucial region of your tech landscape can lead to deficiencies in incident response.

Deep visibility into third-party applications will help your teams more effectively pinpoint the root cause of outages and critical bottlenecks during performance issues. This magnified awareness will enable your team to tackle problems more proactively, preserve operational and business continuity, and cultivate greater digital resilience in the face of evolving challenges.

Step 4: Unify visibility across teams

Clarity and teamwork are essential for efficient, proactive incident response. Too often, siloed teams with different tools are left aimlessly searching for answers when issues arise. Meanwhile, siloed data access and tool ownership limit the range of vision, preventing teams from gaining the visibility they need into operational health.

Here are some questions to ask:

- Is your team able to quickly and proactively identify issues as they occur, or do you rely on your customers to tell you about them?
- Is it difficult to determine which employees certain incidents should be escalated to?
- Are multiple teams concurrently working to respond to the same problems?
- Do you find yourself troubleshooting the same, recurring issues?

If the answer to any of these questions is yes, chances are your company could benefit greatly from breaking down some of the barriers between teams. Fostering a culture of collaboration and transparency can help your organization streamline incident response, minimize disruptions, and eliminate war rooms, guesswork and blind spots. Bringing ITOps and engineering teams together with shared data, context and workflows will make it easier for everyone to see how specific problems impact customers and the business — no matter where the problems originated. In addition, breaking down these silos supports collaboration and learning, enables teams to work across organizational structures and helps them put together necessary information more effectively.

Step 5: Streamline your toolset ecosystem

Less is more — especially in the pursuit of visibility. Numerous organizations find themselves burdened by an excess of tools, often overlapping and incompatible with legacy systems. Sometimes, there are monitoring systems that many people at the company don't even know exist. This disparity in tool visibility not only leads to redundant efforts to find issues, but also fosters the emergence of shadow IT. Because disparate tools often have their own set of supported applications, objectives and stakeholders, they often operate in isolation and create more confusion than clarity. Alert storms are common as multiple systems fire off duplicate alerts, burying crucial notifications and leaving team members burnt out. Addressing these challenges requires a combination of strategic planning, overcoming compatibility and migration complexities, and a willingness to adapt to change.

Yet, an opportunity for optimization arises amidst the chaos. By trimming down your tool ecosystem to just the essentials, your organization can solve many of these problems and improve efficiency. Remember, all that is gold does not glitter — instead of jumping on every shiny new tool, be sure to evaluate every vendor or service with a discerning, business- and customer-focused lens. Look for solutions that scale seamlessly with demand, capture a comprehensive array of metrics, logs, and traces, and empower teams with essential insights across the entire environment. Prioritize utility, return on investment, ease of use and customizable dashboards. Giving your teams the gift of clear data visualization and analysis will work wonders for overall visibility.

Step 6: Embrace ongoing improvement

In the ever-changing tech world, it's essential to keep fine-tuning and tweaking your strategies to keep your light shining bright. It's tough to nail down a path that will work forever — so stay open-minded and keep making small adjustments as you go. Remember to stay flexible; you want systems that will bend and not break when the landscape inevitably changes down the road.

Don't tackle all of this alone. Collaboration is what will make the unknown more approachable and help your team move forward courageously together. Take every opportunity to ask for and incorporate feedback from across your organization, whether it's a detailed process improvement suggestion from a practitioner or

big-picture guidance from a company leader. When things go south (because let's face it, sometimes they will), bring the team together for post-incident reviews. Keep these reviews blame-free, focused on positive forward progress and learning experiences in lieu of pointing fingers.

Finally, be sure to gather your team around the campfire for open-ended discussions regularly. Create opportunities for your ITOps and engineering trailblazers to swap stories, exchange pro tips and maybe even share a laugh at how far you've come. Bringing minds together will only lead you further down the path toward greater visibility.

Conclusion

Comprehensive visibility across multiple platforms, applications and services is a necessity for optimizing business performance, data protection, digital resilience and compliance. While the visibility journey within complex environments can be full of obstacles lurking around every corner, we hope this guide will help you shed light on the darkest parts of your tech landscape.

As you continue forward, remember to never start without a plan, use your business's core goals and KPIs as your guide, keep an eye on third-party applications, pare down your toolset and keep a continuous improvement-focused mindset. These strategies will help you and your team boost efficiency, lower MTTx and become more resilient in the face of adversity.



**But in the end it's only a passing thing, this shadow.
Even darkness must pass.**

— J.R.R. Tolkien

Ready to learn more about how ITOps teams, site reliability engineers, developers and management can improve visibility across systems in the midst of increasing customer and business demands? Learn how observability goes past simple monitoring to help you tame complexity and reduce MTTR in our [Beginner’s Guide to Observability](#).

Keep the conversation going with Splunk.



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