VIAVI

The New Age of
Network Observability

From Zero-to-Insight in Three Days Or Less

HOW TO REPLACE OR AUGMENT NETWORK PERFORMANCE MANAGEMENT SOLUTIONS QUICKLY AND SUCCESSFULLY

CONTENTS

WHY SHOULD YOU READ ON?

Status quo. Do nothing. The safe option. But doing nothing doesn't cost nothing.

In today's rapidly changing IT landscape, being complacent can have disastrous consequences for service delivery and your end-user's experience.

Look around your sitting room — do you still have the VHS player sitting by your CRT television with towers of video tapes? We're guessing not.

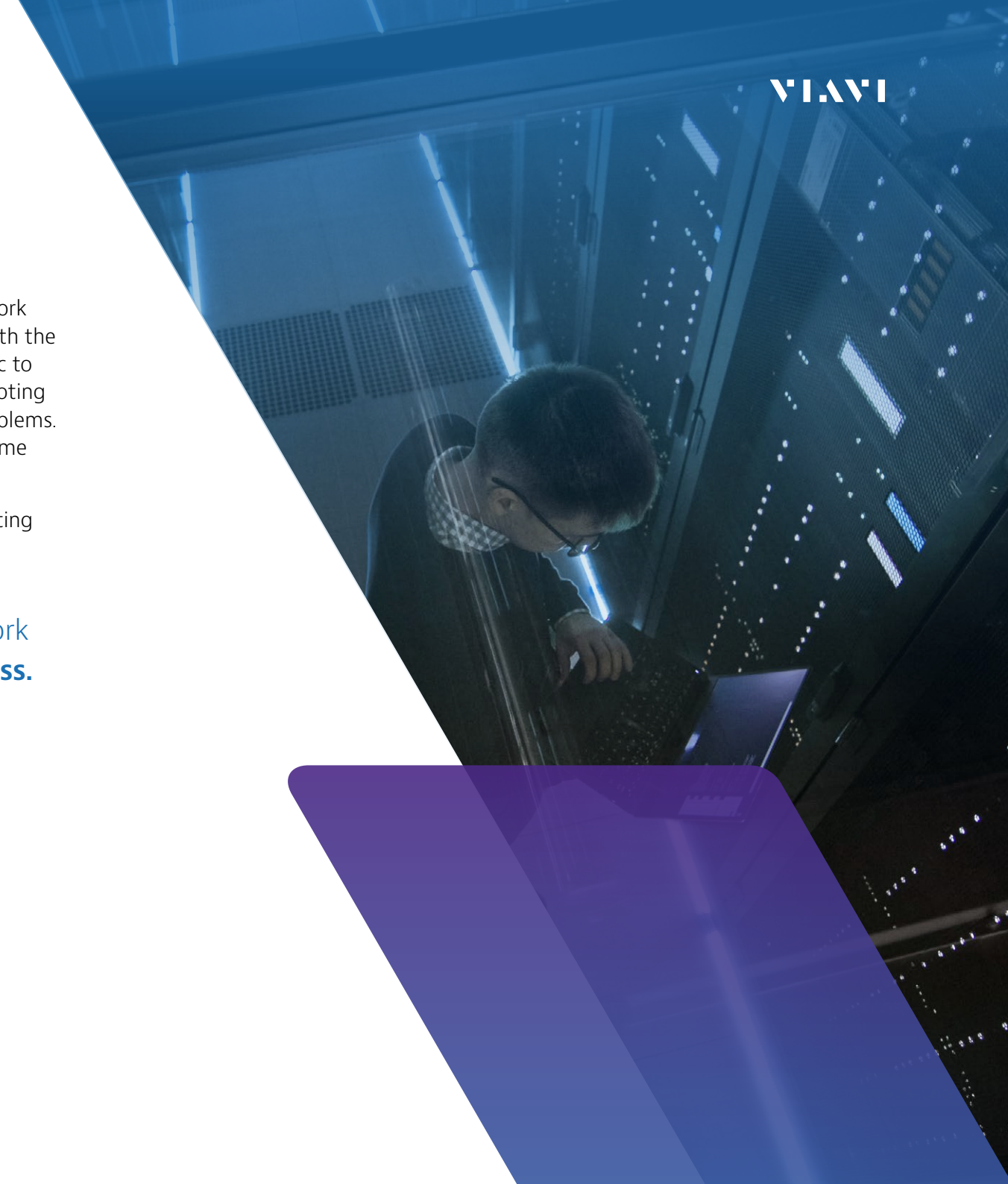
Now look around your network. Do you still rely on SNMP, aged appliances and/or basic NetFlow to tell you what is happening on your network and expect troubleshooting to be easy?

The road to network observability today requires a lot more than it used to. With the increased adoption of cloud hosted applications, next generation edge devices, and new endpoint devices from a workforce no longer bound to the cubicle, complete visibility today demands more from IT than ever.

Are you keeping up?

By being complacent and sticking to the status quo, you are rapidly falling behind your peers who are investing in digital innovation. The VIAVI 2021 State of the Network Report tells us that bandwidth demands are high and IT budget growth has doubled since last year. Teams are reporting at least 70 percent adoption each of AIOps, SD-WAN, IoT, and Private 5G — previously "emerging" technologies are now mainstream.

To keep up with the complex, hybrid network of today, you need to have a comprehensive network observability platform that embraces wire data, enriched and enhanced flow, and cloud sources to ensure optimal application delivery to your stakeholders. That digital innovation requires a reliable and secure network foundation to deliver its promise.



TIME TO MODERNIZE

The simple fact is that you need modern network performance management tools to keep up with the increasing volume and speed of network traffic to keep your network monitoring and troubleshooting low impact and allow speedy fixes for any problems. After all, you're probably held to account anytime service availability or reliability dips.

But, it doesn't mean that replacing or augmenting existing tools requires endless time and staff resources to get going.

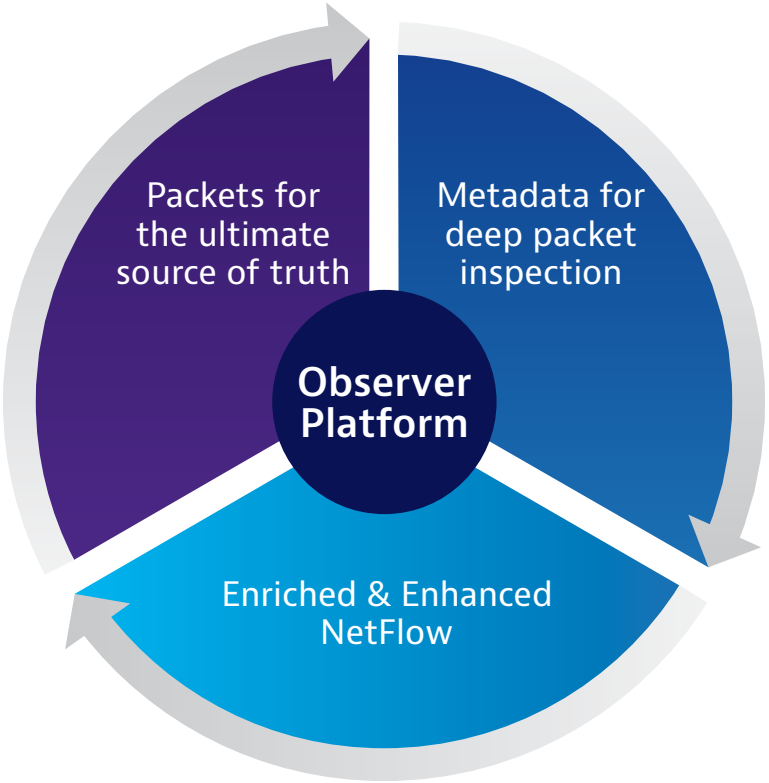
With VIAVI, you can get true network observability in **three days — or less.**

Here's how.

WHAT IS NETWORK OBSERVABILITY?

True network observability is a lot more than just capturing wire data. Network observability means understanding the how and why of network performance in support of business goals and having the right data — wire data (packets), metadata, and enriched NetFlow analysis — delivered as visual, actionable metrics. The overall objective is always to efficiently deliver business services, solve performance and threat issues faster, and mitigate risk more effectively than ever.

With Observer, you get the most comprehensive picture of the network you need without wasting any time.



UP-FRONT PLANNING: 10 POINT CHECKLIST

In the words of Benjamin Franklin "if you fail to plan, you are planning to fail". During the buying stages, you should work closely with the vendor to size and specify the solution to not only consider the current state of your network but also where you need to be in the next three years to ensure service delivery levels that support the business and its needs.

- [ ] 1 If your organization has a strategy to grow through acquisition for example, how many more users and applications will the network need to support? It doesn't mean you have to buy everything on day 1 but it does mean you need scalability built in from the outset.
- [ ] 2 How is your network architected? Do you have specific isolated segments that need close monitoring because they contain intellectual property or sensitive customer data? Or has your network grown organically and the whole network needs monitoring?
- [ ] 3 What data sources are you planning on collecting and using? Packets, NetFlow, Active Directory, SNMP, log files, metadata...etc.
- [ ] 4 Where do you intend to deploy probes on your network? Do you need visibility into cloud hosted infrastructure and applications? Failure to deploy probes in the right place can result in "blind spots" in the network, and an incomplete picture can lead to inefficient troubleshooting and expensive mistakes.

- [ ] 5 Do you know what normal network activity looks like? Do you have baselines and thresholds already mapped out? And do you update these thresholds when material changes occur?
- [ ] 6 Are there regulatory laws that you need to comply with? How many days of data do you need to store for useful back-in-time analysis? A good example would be EU GDPR laws or financial regulations where you need back-in-time analysis to report on who, when, what, and how in case of a data breach.
- [ ] 7 Have you collected all the information you need from the vendor to comply with your internal processes and due diligence practices such as ITIL, security boards and so on? Do you have a hardening checklist to comply with from your security team?
- [ ] 8 Do have defined role, responsibility and workflow paths defined for T1, T2 and T3 operations staff?
- [ ] 9 What user, management and leadership dashboards will you need to provide visibility and help measure performance against KPIs?
- [ ] 10 Do you have a list or map showing all sites that will need monitoring?

Once you have satisfactorily addressed these 10 steps, you're ready to move forward with implementation.

IMPLEMENTATION STEP 1: INSTALL

Installing the solution is the first step to greater visibility of your network. Unfortunately, with many vendors, this can be a lengthy, complicated process. Things to consider:

- Have you taken to account any changes to your network or monitoring needs?
- Who needs to be involved cross-team?
- Are there timing considerations such as end-of-year vendor sales or fiscal year budgets to consider?
- Will the team need training or is there documentation that needs reviewing and sharing?

This first step, plus the solution you've selected, can make or break the implementation.

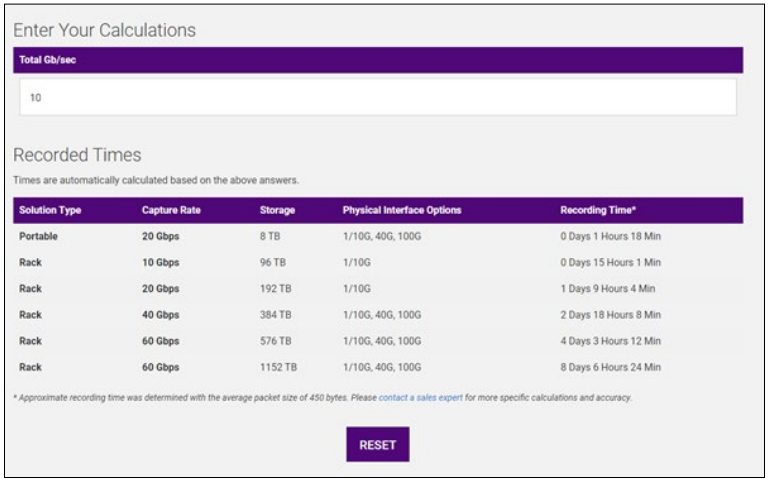
Using Observer as an example, we'll discuss implementation in a more 'plug and play' scenario.

When you receive an Observer appliance, it is already licensed. All you need to do is make sure that the memory, OS, and drive type are correct and configured.

Observer comes with quick start guides for each solution. Software editions of the GigaStor, GigaFlow, and Apex platforms make it easy to install Observer on any server or rack-mounted appliance.

Based upon the average utilization you expect for the Observer GigaStor, this calculator will estimate how many days and hours of data your appliance will store.

TOP TIP Prior to installation, of a packet capture device, ask the vendor for a calculator like the Observer GigaStor Calculator below to determine your storage needs.



Sample Observer GigaStor Calculator

> Implementation was straightforward and quickly completed.
>
> *Network Team Leader, Government Industry*

IMPLEMENTATION STEP 2: NETWORK DISCOVERY AND DATA GATHERING

The next step to network observability is to answer this very simple question: From where do you need to get data? What sites need priority monitoring of your mission critical applications to optimize service delivery for end-users?

- Data Center
- Small Branches
- Large Branches
- Satellite Offices
- Public Cloud
- Private Cloud

TOP TIP When performing network discovery and data collection, **be sure to ask your vendor how they supplement the packet data with other data sources** like such as NetFlow, flow logs from cloud vendors, ARP/CAM tables, and Active Directory.

When defining the need for and deploying probes to get visibility into all these sites, make sure that you understand your unique deployment goals, where sensitive data is stored and your network architecture. For optimal network observability of traffic:

- Deploy TAPs and specialized high-speed probes on core switch connections to servers, server farms, and other critical network infrastructure.
- Deploy less-costly probe appliances on switch monitor (e.g., SPAN/mirror) ports at the edge of your network.
- Gather volumetric information from any and all infrastructure devices you can — including packet brokers, load balancers, SD-WAN forwarders, and next generation firewalls.
- Leverage traffic mirroring from cloud service providers such as AWS, Google Cloud Platform, and Microsoft Azure to get visibility into cloud-hosted applications.

IMPLEMENTATION STEP 3: USING AND CONFIGURING DASHBOARDS

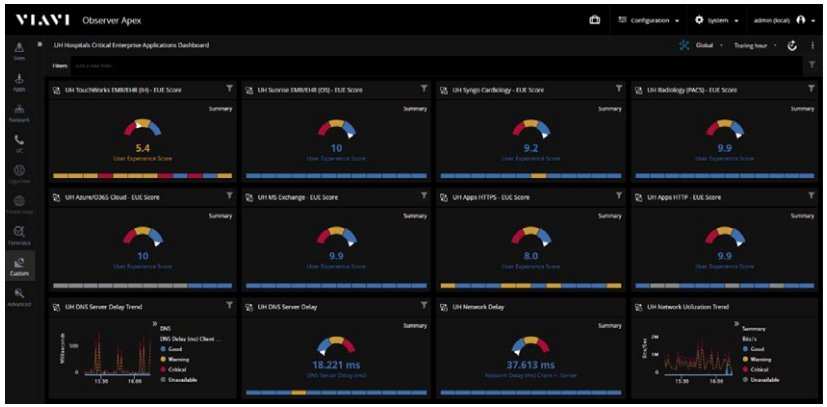
Data without actionable insights is just data — it only becomes information when there is context.. Once you have set up your monitoring solution, it is critical to have the ability to build and configure the necessary dashboards that support the charter of your network and executive teams. These dashboards give you at-a-glance visibility into your network's underlying health with special widgets for web collaboration services, remote user monitoring and much more.

Sample Use Case: Getting to Root Cause for a Multi-Tier Application at a Hospital

Using Executive-Level Dashboards for Views into Network Health

You can also drill down into network data for forensic analysis in a few clicks. Identifying issues and being able to drill down through the 7 layers makes getting to root cause quicker than ever.

To ensure zero to visibility in short order, check which important dashboards are available out-of-the-box. VIAVI also provides custom dashboard assistance to help you configure the dashboards in ways that drive more value for your teams and leverage the flexibility of Observer.



With executive level dashboards like the one above for a hospital, VIAVI Observer makes it easy to determine which sites need help in one single view.

TOP TIP As you consider vendors, ask what support is available to help you develop and accelerate visibility. For example, our team of dedicated Solutions Engineers can help craft the right set of dashboards for your business and is included as part of our standard business support.

IMPLEMENTATION STEP 4: MANAGING AND OPTIMIZING

Great, now you have your network teams and executive level dashboards configured. What's next?

With initial installation and implementation complete, it's time to move forward with management and optimization. This is where you can gain full value from your investment and get more than the standard — and limiting — 20% of value. Consider other teams that can benefit from the information you now have at your fingertips. Then, what changes are coming to your network, whether infrastructure or applications.

How will you use data you are collecting to optimize performance. In the event of new application rollout or migration to a new technology like SD-WAN, it's important to see where and how the end-user's experience is being affected, by site and application. Ideally, you'll also be able to drill down into the most granular network data to resolve any issues you find quickly.

Enhancements also have the potential to create new performance chokepoints.

Without a way to manage and optimize bandwidth utilization, you risk degraded network performance, Service Level Agreements not being met, and suboptimal end-user experience.

Full network observability requires visibility into network capacity throughout the network so that you can optimize or fix capacity-related issues. An ultimate goal should be to proactively manage usage to avoid capacity-related problems.

Sample Use Case: Proactive Capacity Planning and Bandwidth Demand Management

Observer helps your business justify WAN utilization spending with capacity planning reporting that give you insights into bandwidth trends over time.

With proactive capacity planning reporting in Observer, you can identify highly utilized links with easy color-coded views, and even measure bandwidth trends over a period of time. Get summary views into the most highly utilized applications with the ability to drill down into the most granular wire data to analyze performance and/or issues as well as areas for optimization.

The goal is to make informed decisions on where to spend bandwidth to fix congested sites and consistently keep the end-user's experience at the forefront of priorities to ensure real business value.

If it takes more than a few clicks to get from any part of the tool to the packet or flow data, or worse, if getting visibility into either the packets or flow is unavailable altogether, then be warned that root cause analysis will not be as simple as it may seem with the new tool.

At-a-Glance views into WAN Utilization

TOP TIP Be sure to ask your vendor how easy it is to drill down from these dashboards into the network level data for forensic analysis.

IMPLEMENTATION STEP 5: PROFESSIONAL SERVICES READY

To compress timescales further, consider the value of Professional Services (PS) that get you set up and running more quickly, through virtual and on-site services.

With PS, an experienced engineer becomes aligned with your service delivery team over an extended period of time, usually through multiple on-site sessions to ensure adherence to defined project goals and outcomes that support your program's short- and long-term success.

OBSERVER FACT Companies that take advantage of the Professional Services team use and benefit from twice as many Observer features on average, thereby maximizing their investment dollars and business value.

The on-site PS consultant will document organizational goals, create implementation plans, and make sure that configuration will meet your specifications. Take advantage of Quickstart programs. They are designed based on experience and common objectives. They can help you accelerate implementation so you move to the managing and optimization phases faster. This will show a quicker investment payback.

Example: With an Observer Quickstart package simple installations can be completed in less than a day.

Choose what you need based on your requirements:

- Quickstart Integration Configuration: Simple installations in less than a day
- Enterprise Integration Configuration: Optimize the configuration of your network
- Enterprise Full Implementation: Let trained consultants handle the details from start to finish
- Dashboards and Reports Builder: Consultants build key reports and create dashboards for you
- Network Tools Modeling: Could your configuration be better? Have it validated by the experts
- Application Blueprinting: Reduce troubleshooting with key application monitoring setup
- Observer Management Server (OMS) Integration: Consultants configure easy, one-stop tool management

Whether it's a quick initial setup or a comprehensive on-site implementation and configuration, Observer Platform Consulting options are designed to ensure that you get the most out of your Performance Management Solutions.

TOP TIP Before signing on a Professional Services engineer from a vendor, be sure to check out Services & Support reviews on a review site such as such as **Gartner Peer Insights**.

There is no more accurate way to gauge the speed and effectiveness of implementation than reviewing what your peers have to say.

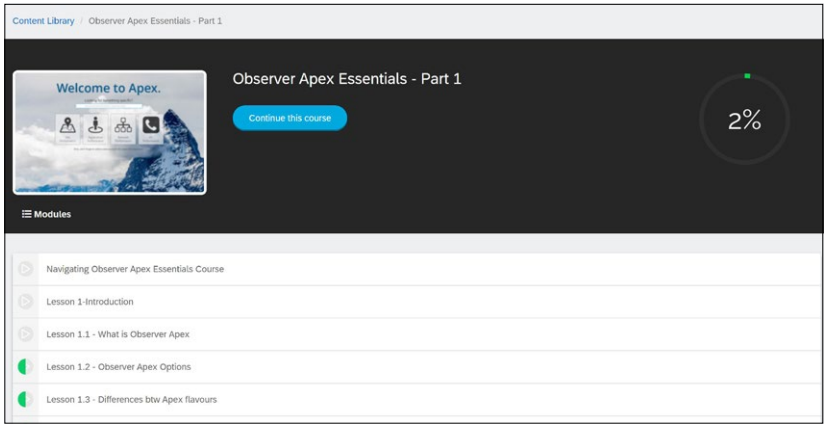
POST IMPLEMENTATION: TECHNICAL SUPPORT AND TRAINING

In some ways, implementation is just the beginning. As you begin using your solution, plan for post-implementation needs that include issues management, training and possible solution expansion. Think about your support needs.

- Do you need 24/7 or standard business hours access to support?
- Do you need to buy additional support or training?
- Are you comfortable with self-service support?

For many organizations, access to a support portal is a standard expectation. Don't assume your provider offers this. By acknowledging post-implementation needs, you can ensure you take full advantage of the services available that to maximize the value of your investment.

Customized training from Professional Services is also available that covers the material you need online, at your work site, or a combination of the two.



Online Training Modules for VIAVI Observer

> The support from VIAVI is fantastic, supporting the well-known features but also new ones is something that is very much appreciated.
>
> *Corporate Security Manager, InfoSec Engineer, Manufacturing Company*

CONCLUSION

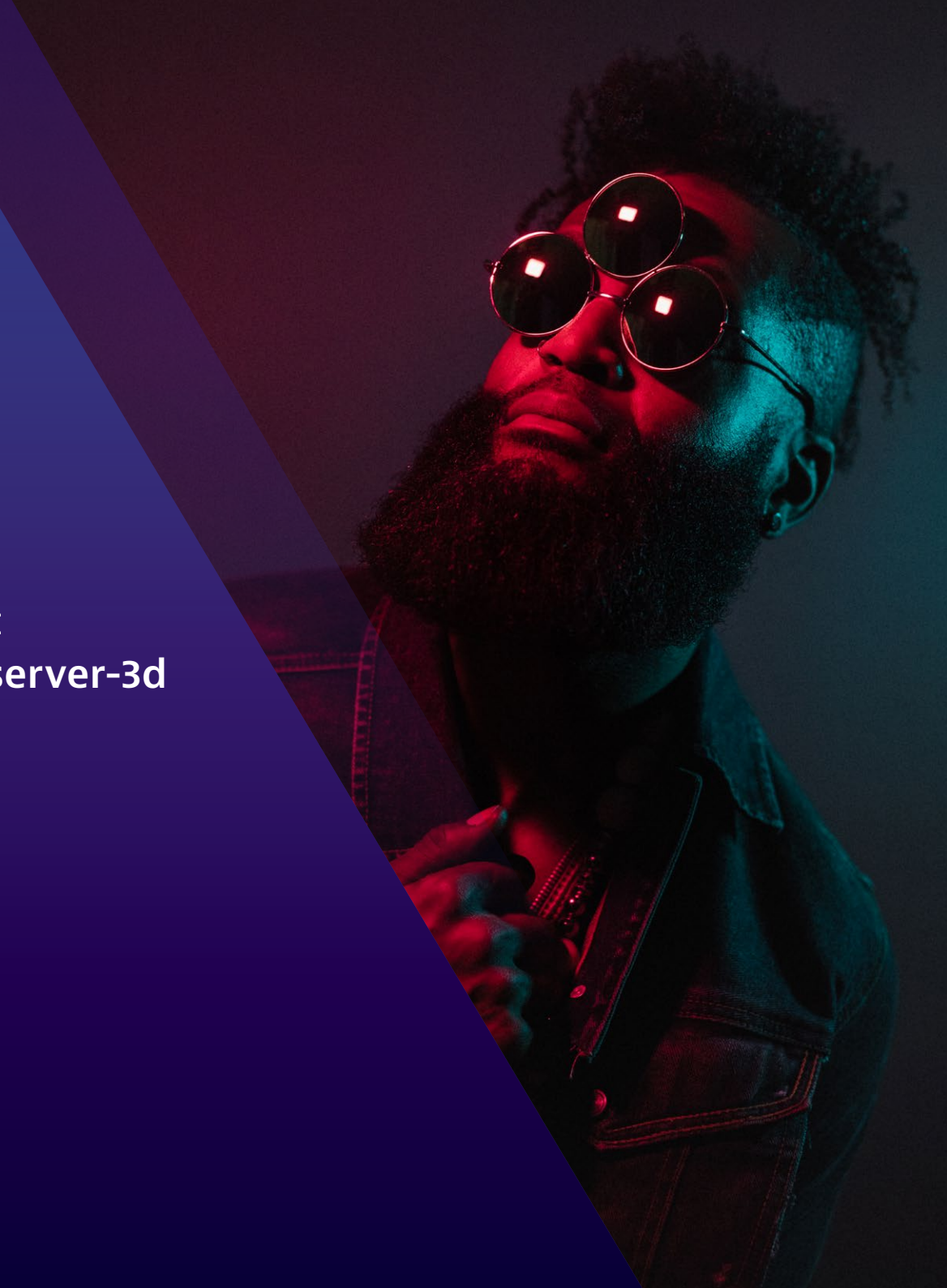
Armed with the knowledge that new deployments of VIAVI Observer Network Performance Management solutions need not take forever or absorb all your staff resources, what are you waiting for?

With accelerated digital transformation required in most industries, rising traffic speeds and data crossing borderless networks, support required for remote locations and more remote workers than ever before, it is vital that you have:

> The only thing we have to fear is…fear itself — nameless, unreasoning, unjustified terror which paralyzes needed efforts to convert retreat into advance.
>
> *Franklin D. Roosevelt*

- Full, real-time visibility of exactly what is happening on your network
- Automatic identification of problem domain with workflows and routing to speed Mean-Time-to-Repair (MTTR)
- Full fidelity data (packets, Flow, and metadata) with the ability to look back-in-time to ensure you can find and fix the root cause of intermittent issues or undertake forensic investigations of breaches
- Intuitive bandwidth utilization and usage reports that allow for proactive capacity planning and efficient resolution of capacity-related issues
- An end-user score that reflects how slowdowns, brownouts or bottlenecks impact the users who are driving revenue and help you to prioritize resolution

The cost of doing nothing is partial visibility, lost insight, inefficient fixes and wasted time and effort by key skilled staff. Act now to replace tools that don't support an outcome-driven approach to network monitoring and management; enabling you and your teams to keep up with digital initiatives and truly partner with the business.



Learn more about the

New Age of Observability

and see the Observer Platform in action at:

viavisolutions.com/ptv/introducing-observer-3d

VIAVI Solutions

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