



Overview

Most monitoring tools were founded on a single enterprise, on-premises assumption, baking this limitation into the core DNA of their products

In a service provider environment, where the requirement is to handle multiple customers and their increasingly complicated ICT estates, in a multi-tiered hierarchy, this approach doesn't scale well at all. Betting your service provider business on these tools leads to operational compromises and inefficiencies that impact the responsiveness and competitiveness of your service offerings.

An operational tool purpose-designed to handle multi-tier, multi-tenant situations from the outset, is the best fit for real managed service provider scenarios. Providing operational efficiencies unavailable from competitors' tools, which have been clumsily adapted from starting assumptions that no longer apply.

"Our customers expect a differentiated service. What they want is real time information. What our customers need is the ability to look at their networks and make sure they're performing as they should be."



Introduction

Many popular monitoring tools are venerable, conceived before service providers needed to manage multiple, complex, enterprise ICT estates remotely and simultaneously.



The Problem

Designed in a different era when individual enterprises needed on-premises tools to keep their private networks running, they assume their primary user is a technical network expert and provide evidently bolted-on support for multi-tenancy, if at all.



Limitations

Their product concepts have been bent from their original purpose, to attempt to serve managed service provider use cases. What can't be easily hidden or worked around are the fundamental limitations of tools designed with a different intention entirely, frozen into their core design. Even when vendors have migrated their on-premises solutions to Software as a Service (SaaS) offerings in the cloud, the same single enterprise restrictions still have a way of becoming painfully apparent.





Separation of tools

Service providers often discover that they need to log in to different instances of the same monitoring tool, to manage multiple customers, or else forego any partitioning between customer estates. When suites of monitoring tools have grown by acquisition, they don't provide a joined-up user experience or consistent, logical workflows adding to operator uncertainty and the need for additional training.



Multiple copies

Managed service providers frequently find they need to duplicate hardware and software, where a single multi-tenant solution would work better. In some cases, each new customer requires the deployment of significant capital equipment, in the form of hardware network appliances, to monitor the network at all. All that inventory and installation grief increases the friction and cost, while reducing agility, when on-boarding new accounts.



Costly upgrades

The reason that older monitoring tool vendors have not rewritten their products from the ground up to suit the realities of the modern, managed service provider world is sheer cost. Many of these applications have so much legacy code, that they've become prohibitively expensive to change in fundamental ways. Radical re-factoring is simply not economically viable. Their product cores are frozen in time.



The solution

Supporting a multi-level channel to market (e.g. wholesale to value added reseller), where there is a hierarchy of needs and expertise in the managed service supply chain, can be extremely difficult, if not impossible, unless the monitoring tool is a native multi-tier, multi-tenant solution.

Monitoring multiple estates

A per-customer view can obscure root causes that affect multiple customers

Besides the sheer inconvenience, operational complexity and precarious manageability of using multiple discrete monitoring systems to oversee several customer estates, the mean time to repair degrades, as time is lost switching tools and contexts, to understand the root causes of failures. When a failure is common to multiple customers, it can take a while simply to appreciate the scope of the issue.



When significant parts of the monitoring setup need to be replicated, to on-board new customers, it makes the on-boarding process slower and more expensive. There is often a significant capital expenditure component involved, which requires greater due diligence, to be approved. Often, the service provider must build and justify the business case to their own management, before a new account can be brought on-line. Ultimately, the fragmentation and duplication involved makes the monitoring (and hence service delivery) unmanageable.



When monitoring tools lack separation, proprietary or sensitive information can be inadvertently revealed, if one customer happens to gain visibility of another customer's network. If your customer is a value-added reseller, how do you partition the monitoring of your network when it is supported and operated in segments by your partner channel? How do you control the visibility of who can see what?



The obvious solution is to choose a monitoring platform that has been designed, from the ground up, to support multiple managed service customers, arranged in a hierarchy. You need an authentic multi-tenant, multi-tier solution.

Valuable (sometimes decisive) context is lost, when the service provider cannot see all their customers' ICT estates in a single pane of glass.

Use a multi-tenant tool

At the heart of the Highlight monitoring system is a high-performance network tree, representing the service provider universe

At every level, visibility is restricted to only those devices and locations that you manage. Customers are prevented from seeing each other's networks and at every level, users can only see the devices and customers below.



Users

Through a series of user permissions, logged on users that are defined at different levels in the network visibility tree, are only presented with functionality they have permission to use. Other functionality, while always present and available in the software, remains hidden, unless permissions are changed.



Reports & Alerts

Users can define and share their own reports, alerts and maintenance windows. The performance of the monitoring tool can be precisely tailored to meet the needs of individual customers, through a local parameter override mechanism. Alert management policies can be defined above and inherited below.





Inheritance

Through a series of user permissions, logged on users that are defined at different levels in the network visibility tree, are only presented with functionality they have permission to use. Other functionality, while always present and available in the software, remains hidden, unless permissions are changed.



Breakdown billing

Advanced billing features allow service providers to obtain itemised breakdowns of the monitoring services used, by each of their customers. Service provider customers, in turn, can break down their expenses into the components consumed by each of their customers. This repeats for as many layers of reseller as there are, in the service supply chain, making it possible to: manage and complex channels to market and monetise multiple levels of value-added service wrap.



Virtual Agents

Highlight's monitoring agents are software that runs on x86 virtual machines, located in the network being monitored. This allows the Highlight SaaS solution to be highly scalable and agile. There are no dedicated collection appliances to: purchase, rack, power, cool, connect and maintain.



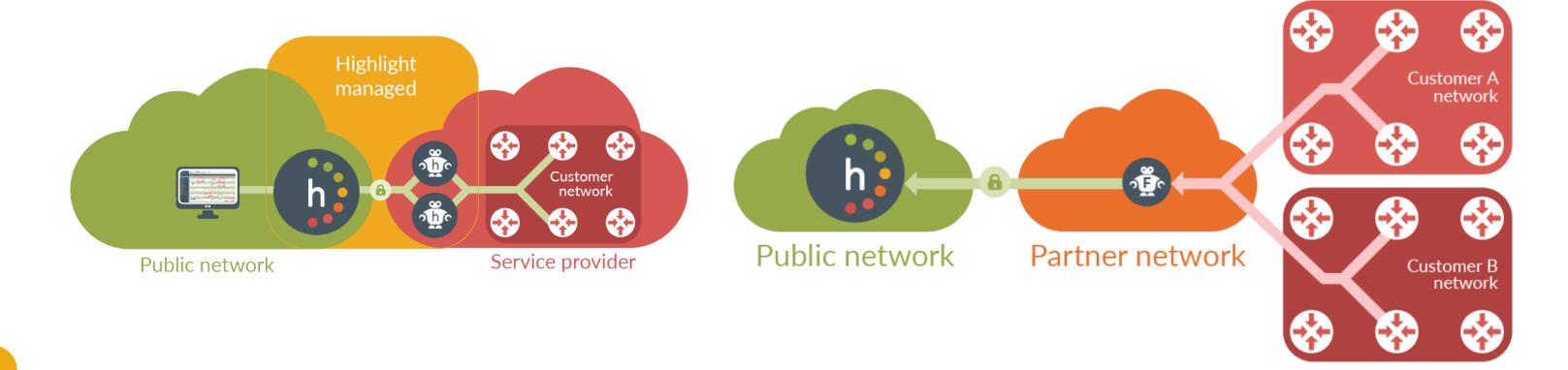
Additions

On-boarding takes very little time and shared agents, already in the network, make it easy to add incremental devices or software-defined monitoring features.



Cost

The cost of each additional monitoring point is an operational cost, not a capital cost, so cash flow is not badly impacted and budget approvals are generally more straight forward.



Partitioning

Highlight recently completely revised the fundamental core components of its design

Removing the very last vestiges of any legacy code, making it API-ready and even more closely tailored to the needs of the managed service provider community. This investment was made to create a no-compromise, service management tool second to none.



Interface

The administrative interfaces, so important in partitioning the user population, setting visibility properties, maintaining the tree structure and granting user permissions, have been made more user-friendly, simpler, clearer and easier to use.



Divisions

New user-defined thresholds and alert management features ensure that only the people that need to be alerted are alerted and that the neighbour's problems don't bother each other. Management and support is contained to the level appropriate for the commercial relationship in question. Partners and customers can remain blissfully unaware of what's going on in peer ICT estates and conditionally/optionally aware of issues in networks below them, in the hierarchy.



Billing

Granular, hierarchical usage reporting makes itemised billing simple for wholesalers, service providers, service aggregators and value added resellers alike.

Splendid isolation

Highlight provides both a disentangled and unified view of networks below, at every point in the value chain hierarchy



Overview

Each customer network remains in splendid isolation from other customers. For service providers that need an overview of their entire customer base, this is easily done, while individual customers remain unaware of other customers served.



Users defined

Users defined at different levels in the tree can have different visibility and permissions controls applied, which changes their viewpoint and available functionality dynamically. You only see what you need to see and can only use what you need to use.



Customer satisfaction

Highlight's service provider specific functionality leads to better service quality and improved service provider responsiveness. This, in turn, leads to higher customer satisfaction scores and greater customer loyalty, reducing defections to alternative suppliers.



Effective simplicity

A single tool to manage an entire customer base, with features to allow value added resellers to manage their sub-networks with ease and isolation, makes it almost effortless to drive SLA success and obtain greater operational simplicity and efficiency.



Faster repair time

The preservation of global context, across customers, means service providers enjoy faster and cheaper mean time to repair. Problems common to multiple customers are worked as a single incident, not individual customer problems.



Efficient monitoring

Provisioning of incremental monitoring functionality or device coverage is fast, leading to shorter time to revenue, for service providers. Adding a device or performance test is an OpEx expenditure, not a CapEx one, leading to less friction in service upgrades.

Summary

Operational separation is a necessary precondition for efficient management of service provider customer communities.

Highlight provides that separation, by design, natively. Many other popular monitoring tools do not.

Seeing only a world view appropriate to your level, in the service supply chain hierarchy means you can see your issues clearly, without interference from adjacent issues or issues from another level.

You can manage what you see. Your neighbours are noiseless

The isolation of customer networks from each other pays dividends in data protection, information security and compliance, while lowering the friction to on-boarding via a predominantly OpEx business model. This allows service providers and their customers to opt-in to value-added features and up-sell additional monitoring with fewer impediments.

"A very important reason for using Highlight is that, when we set up a customer network on a global basis, our customers like to see that what we've delivered them is exactly what we said we delivered to them."

Get in touch

If you are service provider that needs to operationally manage complex, multi-level, multi-tenant, service delivery chains, contact Highlight for more details on becoming a partner.



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