

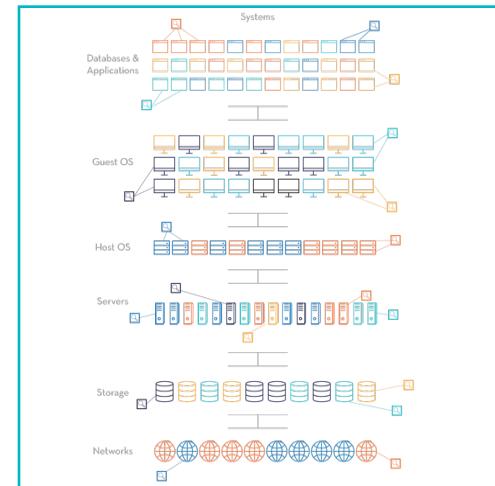
# The 4 Approaches to Monitoring Hybrid IT Environments

# 4 APPROACHES TO MONITORING HYBRID IT ENVIRONMENTS

There are a number of approaches to IT infrastructure monitoring that have emerged over the years. While each approach evolved from specific customer and market requirements, they were often influenced by vendor motivations. Each provides benefits and challenges for different types of IT environments, but only some are effective for managing modern hybrid IT environments. These approaches can be effectively summarized in four main categories:



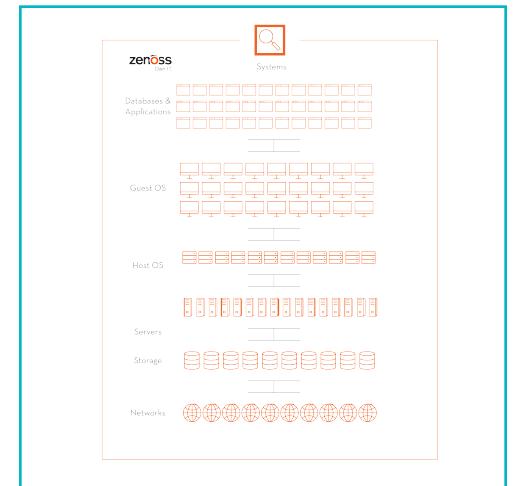
LEGACY FRAMEWORKS



POINT SOLUTIONS



VENDOR STACKS



UNIFIED HYBRID IT MONITORING



# LEGACY FRAMEWORKS

The original monitoring frameworks, developed by vendors such as IBM, HP, BMC and CA Technologies, were designed to provide insight into the static building blocks of traditional data centers like servers, storage and network switches.

other companies, resulting in a set of disparate tools that often require manual integration with the same vendor's products or are simply separate tools not suitable for integration. This obviously introduces additional licensing fees and significant integration costs.

Unfortunately, the legacy architectures that these tools were built on predate mainstream adoption of modern technologies such as converged infrastructure, virtualization and cloud. As such, they were not architected to monitor today's dynamic environments. In most cases these frameworks require additional tools (and additional costs) to gain visibility into modern IT environments. And in many cases legacy vendors have 'developed' modern monitoring capabilities by acquiring

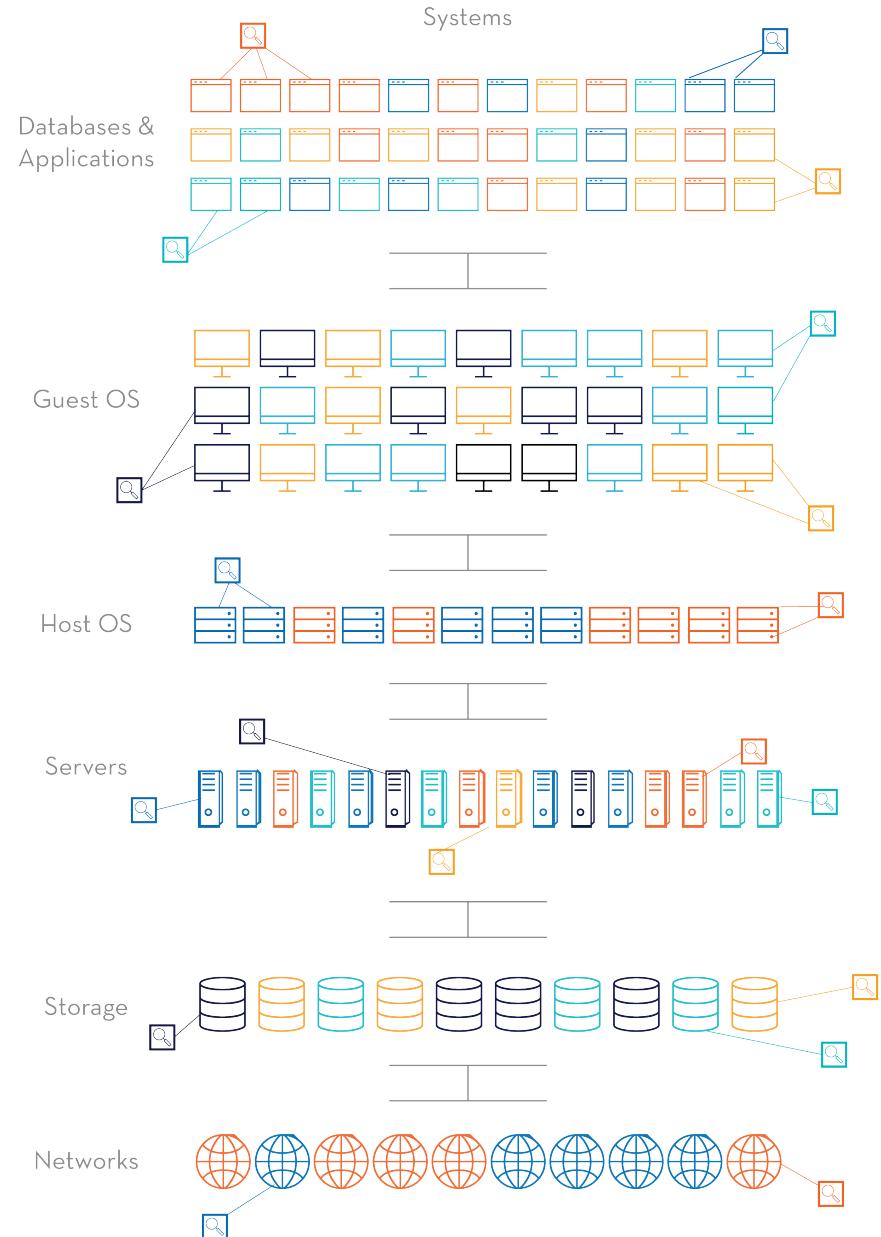
If you're trying to monitor hybrid IT environments with legacy frameworks, you end up with vendor lock-in accompanied by all the downside of tool sprawl, siloed information and management complexity. This situation is exacerbated as new technologies (e.g., containers and micro-services) continue to evolve.

# POINT SOLUTIONS

Point solutions are monitoring tools designed for specific technology areas like networking or database management, and are intended to provide deep insight into specific technology silos. These tools can allow isolated IT teams to gain granular insight into the hardware or systems they control and manage.

However, this approach inevitably results in the walling off of information between groups, causing a lack of visibility and even finger-pointing when problems occur. If you know you have a network issue, using a network monitoring tool can help. But if you haven't already isolated the problem area (e.g., network, storage, database, application) tracking it down with point solutions is time consuming at best and impossible at worst.

While they are typically less expensive than more comprehensive offerings, point solutions have limited use in isolating issue root causes when the source of the issue is unknown (it goes without saying that if you know the source of the issue, it's not that helpful for a point solution to help you find it).





# VENDOR STACKS

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These solutions are monitoring tools provided directly by vendors of some specific IT technology, such as servers, storage hardware or virtualization software. They are typically vendor-specific, designed only for the technology offered by that vendor. They can deliver thorough coverage for the systems or software provided by that vendor, and have in some cases made attempts to extend basic monitoring beyond their own platforms.

These tools can be suitable for integrating with other tools in their own portfolio and with some of the vendor's technology partners, but are often problematic for heterogeneous environments, as the providers are generally opposed to

supporting competing products (e.g. Hyper-V and Azure are both Microsoft products, but VMware or AWS would be competing technologies to those offerings). Thus, vendor lock-in is almost a given.

While capabilities can vary significantly, vendor stack monitoring solutions are generally solid for monitoring a specific vendor's technology stacks. But for any non-homogeneous (multi-vendor) environment, the vendor stack approach falls down. Vendor stack monitoring cannot provide the end-to-end visibility that is required for isolating and resolving issues in modern, dynamic environments.

# UNIFIED HYBRID IT MONITORING

Solutions that are positioned as “unified” are those architected to provide holistic coverage across all system types, software platforms, applications, and even physical locations. Unified solutions are open and extensible platforms, designed with plug-in capabilities that enable the rapid addition of new system types to be monitored and even of new monitoring capabilities. These solutions are inherently designed for heterogeneous environments, and in many cases are primarily targeted at large enterprise-class ecosystems. Because of the dynamic nature of modern technologies, these solutions also enable automation capabilities with adjacent IT systems like configuration management databases (CMDBs), incident management systems, and provisioning & orchestration platforms.

Unified monitoring solutions are designed to provide visibility for cloud, virtual and physical IT environments. These solutions are engineered for modern, dynamic environments, taking a service-centric approach that provides IT performance and risk insights into each customer’s unique IT ecosystem. This is accomplished through real-time analytics that adapt to the ever-evolving data center and cloud, as well as emerging technologies such as containers and micro-services. This enables IT teams to identify and address IT issues in any environment before business disruptions occur.

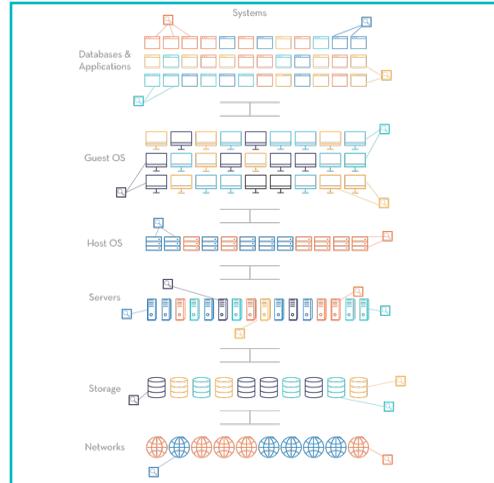
Unified monitoring solutions are uniquely positioned to monitor today’s complex, hybrid IT environments, and more importantly are architected to be extensible and monitor new technologies and systems as they evolve.



# KEY TAKEAWAYS



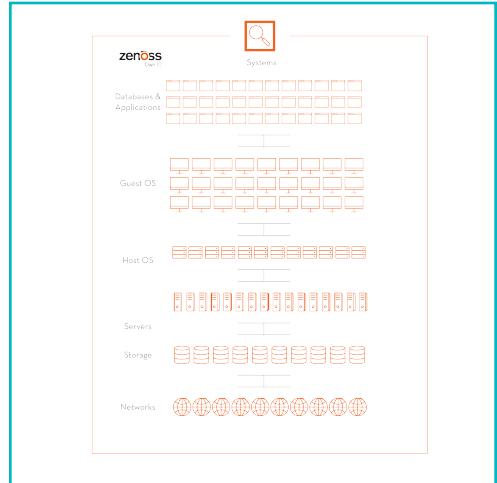
LEGACY FRAMEWORKS



POINT SOLUTIONS



VENDOR STACKS



UNIFIED HYBRID IT MONITORING

- 1. Designed for static environments.
- 2. Often consist of multiple, disparate tools.
- 3. Unable to support emerging technologies.

- 1. Designed to monitor one IT function.
- 2. Often result in information silos.
- 3. Offer virtually no value in isolating issues end-to-end.

- 1. Designed to monitor one IT function.
- 2. Often result in information silos.
- 3. Offer virtually no value in isolating issues end-to-end.

- 1. Designed for modern hybrid IT environments.
- 2. Open and extensible.
- 3. Provide holistic end-to-end view of IT service health.

For more information on Zenoss  
virtualization monitoring solutions:

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