Service Description for

Hybrid IT Monitoring as a Service

Powered by ScienceLogic

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Executive Summary

This document describes a new managed service that helps MSPs monetize the rapidly growing cloud computing market. While cloud adoption is proceeding rapidly, especially for testing and development projects, the lack of visibility that enterprise customers have into public cloud services and Hybrid IT creates a major pain point that cannot be solved easily and which acts as a significant barrier to cloud adoption for mission-critical workloads. Legacy monitoring tools are typically very difficult and costly to extend for seamless visibility into public cloud services, while the more cloud-centric tools have little or no coverage for the extensive tail of legacy IT systems that may remain on-premise for a considerable time yet.

ScienceLogic has extensive experience in monitoring a broad base of IT infrastructure elements – whether physical, virtual or cloud - across networks, virtual and physical servers, storage, and applications. Based around an MSP-centric, multi-tenanted monitoring platform, ScienceLogic enables MSPs to develop new service offerings that deal with any or all of these customer infrastructure elements – enabling either a broad-based Hybrid IT monitoring service or a technology-specific monitoring service to be introduced - without requiring extensive investment in software development or customizations.

With a broad-based service, multiple use cases and multiple customer segments, the market may be quite broad in scope. This document addresses three main use cases that include traditional on-premise monitoring, public cloud monitoring and the Hybrid IT monitoring scenario. There are multiple service tiers that can be created for each use case and these are defined below.

The value to an MSP who establishes this class of monitoring capability goes well beyond the revenue from the monitoring service alone. It extends into becoming a strategic platform for bundling this management visibility and proactive monitoring into a range of other Managed Services, including premium-level services in hybrid cloud, public and private cloud hosting, and cloud migration services. All of these services can be delivered with the same platform and utilized internally by Operations teams as an essential ingredient of a high quality Operations Center. This ensures that customers and Operations teams are on the same page with consistent views of service delivery and performance.

While in this case the monitoring platform is the same, the services are marketed differently - not as monitoring services but as premium-level business services that happen to include enhanced visibility or stronger SLAs because of the bundled monitoring visibility.

Market Opportunity

No studies are available that document the size of the market for Monitoring as a Service – however the unified IT monitoring market is a $XXB annual opportunity growing at X% CAGR according to XXX. Using an estimate for that fraction of the market devoted to monitoring software used by MSPs for operational support, we estimate that the managed services portion represents 20% of the monitoring software market. Many MSPs do not attempt to monetize the investments they make in monitoring software, seeing it as an expense rather than a separate potential revenue source.

The main Enterprise uses cases are:

- Traditional on-premise IT infrastructure monitoring (networks, servers, applications and storage - plus private cloud)
- Public Cloud and Multi-cloud monitoring
- Hybrid IT monitoring

Within these use cases there are multiple pain points for the enterprise - including loss of visibility into public cloud offerings and the inability to manage all of the newly emerging hybrid IT infrastructure in a consistent and cohesive way - meaning significant increases in cost and reductions in operational effectiveness when managing disparate environments with disparate tools.

For MSPs the pain points are rather different. Instead of operational or technology related, their problems are largely related to skill shortages or resource gaps for some combination of product management, marketing or go-to-market expertise, which inhibits the creation, deployment and market rollout of new managed services and revenue streams. It is in this area that ScienceLogic brings considerable expertise and resources, specifically aimed at helping MSPs succeed with Managed Services built around the ScienceLogic platform.

The Challenge and Opportunity in On-premise Monitoring

For those MSPs with roots in hosting and colocation services, the management of on-premise customer assets is a significant challenge, since it moves them away from their traditional comfort zone and appears to represent a significant unknown for them. However the largest MSP organizations are the traditional carriers who have been offering managed WAN and LAN services for many years – demonstrating a significant opportunity for those smaller operators who approach that market and bring their hosting, data center and cloud expertise to distributed network and systems management opportunities in hybrid IT – and necessitating an on-premise approach.

Added value delivered by including on-premise monitoring comes from several problem areas that MSPs can solve for customers, including:

Virtual machine and hypervisor performance, availability, and dependency mapping.
VMs (on all mainstream hypervisors including VMware, Hyper-V, Citrix Xen and KVM) can be tracked easily in ScienceLogic for availability, performance, and Top N visibility including CPU, memory, disk and I/O utilization levels in live, historical performance views. For complex cross-domain troubleshooting, MSPs can use live dependency mapping to view interdependencies such as storage mounted to VMs in a private cloud stack, or AWS-based cloud elements interacting with on-premise private cloud components based on VMware. This type of visibility is critical for advanced data center applications based on converged infrastructure devices such as FlexPod, vBlock, Nutanix and others – where visibility of configuration is at a premium.

Dependencies between IT elements in true hybrid infrastructures.
A simple example here is the AWS-based web server group that links back to private on-premise or hosted storage infrastructure. This occurs where data sovereignty issues dictate that data cannot reside off-premise or in a cloud provider. In this case an MSP can show a hybrid infrastructure in a single view and track performance of each element and the dependencies between them.

Software Defined Data Centers
In the advanced SDN-based data centers, Cisco ACI is rapidly becoming a standard for software defined, highly configurable and dynamic data centers. Cisco ACI is a new technology that some enterprise customers may not have resources and expertise to support – leaving a managed service opportunity for MSPs to capture. By monitoring Cisco ACI infrastructure with ScienceLogic, MSPs can provide a managed service that makes ACI simple for the customer and delivers live dashboard views of Cisco ACI virtual network element performance along with visibility of associated VMs in the data center.

Strategic Value of a Monitoring Service to the MSP

A monitoring service based on ScienceLogic brings the following aspects of strategic value to an MSP:

- Recurring revenue stream that helps with customer retention – with high gross margins
- Differentiator against other MSPs who have limited monitoring or service visualization offerings
- Another way to reach potential customers
- Visibility of new projects leading to increased account control
- Positions the MSP as a trusted advisor
- Significant pull-through of additional Consulting and professional services
- Upsell to new managed infrastructure services (Managed Private Cloud, etc.) beyond monitoring alone

Add monitoring to existing managed service offerings – a major differentiator with enhanced visibility/reporting – become stickier, reduce churn, and extend contract length

Customer Value Proposition

The customer-facing messaging for a managed Monitoring service is as follows:

Customer Problem

- Insufficient IT staffing and/or expertise to cost-effectively monitor their infrastructure.
- Prior attempts to upgrade in-house or off-the-shelf tools failed to provide the level of device/technology coverage needed to proactively head off problems
- Lack of visibility, tools or skills to support public cloud technology
- Concerned about the rate of change that may obsolete their chosen tools
- Desire to reduce capex and move to a more opex-based business model
- Need increased flexibility to add or remove services on demand

Value Proposition

Here are a variety of values that the MSP can bring to an enterprise customer by offering Monitoring as a Service. It is important to realize that the value of the service extends well beyond the value of the ScienceLogic system.

An MSP monitoring service based on ScienceLogic enables the enterprise to

- Simplify, control and reduce the cost of IT support by contracting an MSP to monitor their infrastructure.

- Monitoring their entire hybrid IT environment, including hosted or on-premise private cloud, public cloud and multi-cloud as well as legacy IT elements in a single holistic view

- Free up IT staff and reduce internal support costs and enable staff to be reassigned to more strategic projects, while achieving greater monitoring coverage of their infrastructure.

- Outsource monitoring and management of complex new technologies to an MSP with critical mass of skills while the technology is new and hard to assimilate.

- Engage a single entity responsible for a segment of IT infrastructure to simplify management and increase accountability for performance and service quality – helping IT organizations meet internal SLAs and user expectations.

As a result the customer can focus on IT service delivery to the business without diverting staff time to build and operate internal monitoring systems.

3-Tiered Service Overview

In order to accommodate varying levels of customer sophistication, budget and demand, we recommend creating a monitoring service with multiple service tiers and different deliverables and/or SLA metrics at each tier. In outline these are described below. Detailed descriptions of the specific service deliverables for each service tier are contained in the Service Deliverables section.

Baseline service items for all service Tiers

As a baseline there is typically a pre-deployment survey to create an initial view of the devices to be monitored. While this changes as the customer infrastructure changes, it provides a level of initial expectation setting. There are also monitoring system infrastructure costs to be covered for the deployment of virtual or physical data collector appliances and any additional database or administrative appliance hardware. Labor costs at this stage should also be covered with setup fees for initial system configuration, arrangement of connectivity to the customer systems, configuration of customer information on the monitoring system and initial testing.

Basic Service Tier

This Tier includes basic availability (up/down status) monitoring for a range of infrastructure elements, which may include any or all of the following:

Network devices (routers, switches)
Physical or virtual servers
Public Cloud-based servers
Physical or virtual storage
Public Cloud-based storage

Given the extensibility and ease of deployment of the monitoring capability within the ScienceLogic platform we believe it is important to offer the ability to monitor on-premise elements as well as any hosted assets. While many MSPs have some reticence in this area due to some of the logistical complexity, it is an important differentiator and is an important capability for customers.

In this category the simplest forms of monitoring are often provided at very low cost to the customer. This information is based on typical Ping or SNMP polling methods to check connectivity to remote devices and to check device status (up/down) for simple network devices or physical servers or storage LUN monitoring only. Once more performance information is being collected (a higher tier of service) from higher value infrastructure such as routers, virtualized devices, load balancers or converged infrastructure devices, the value delivered is significantly higher and price points can be increased or covered within a higher service tier.

This most basic level of service (ping-based availability check) is frequently sold at a low margin or close to cost as a loss leader, however stronger entry-level pricing can be achieved by building standardized reports or dashboard views into a customer-facing portal to make the results easy to access and easy to consume.

Example service features in this basic service category include:

- Ping devices for availability - at either low cost or no cost.
- Ping and poll routers, switches via SNMP for availability (up/down)
- Poll and direct touch (via WMI and PowerShell) for server availability
- Ping and Poll only to Load Balancers and Converged Infrastructure devices – or consider removing these high-value devices to a higher service tier
- Single Dashboard via customer portal with trouble-ticket summary and basic reports on ticket closure rates and availability summaries

Greater value can potentially be delivered at this level – either with more detailed performance visibility (rather than device up/down only) or within service-based views rather than device-based views – but generally these types of deliverables would apply in a higher service tier.

In many cases a 24x7 break-fix support option is included in a basic monitoring service where the MSP manages the exchange of a faulty device and arranges RMA operations with vendors on behalf of the customer. Alternatively the MSP will simply notify a device vendor who will conduct the exchange.

Advanced Service Tier

An Advanced Service Tier typically covers the same device categories as the basic service level but adds extended visibility. This visibility is based on greater depth of monitoring to track and record device performance detail over time. This has greater value for troubleshooting and capacity planning and can be made visible to the customer in the form of historical performance reports and real-time dashboard options. In some cases the Advanced Service tier can be invoked to cover high-value devices such as Load Balancers or Firewalls or Converged Infrastructure devices, or may simply be extended to include tracking of critical parameters for high-value devices such as exploded configuration for CI devices, or interconnections for VMs, etc.

Typical performance parameters that can be tracked over time for device classes include:

Routers

CPU utilization
Memory utilization
WAN Port statistics – Packets in/out

Physical Servers

CPU utilization
Memory utilization
Disk utilization

Virtual Servers

For virtualization hosts (such as VMware ESXi or Microsoft Hyper-V, Citrix XenServer or KVM server) – track hypervisor statistics for the host as well as individual machine statistics for each VM. These parameters include:

CPU utilization
Memory utilization
Disk utilization

Operating systems

Windows
Linux

The range of OS performance metrics that can be collected is very extensive and dynamic and falls outside the scope of this document. Essentially any performance parameter from any device can be incorporated into the Advanced Service Tier – and captured and archived in the ScienceLogic platform. This enables operational troubleshooting by the MSP operations team when a fully managed service is in place – or at least makes this information available to the customer for self-managed instances.

The main mechanism for capturing device-specific monitoring parameters and applying the appropriate monitoring templates automatically to groups of customer devices is through the ScienceLogic PowerApps. ScienceLogic ships over 1500 device or technology-centric PowerApps within the product, enabling out of the box monitoring templates to be applied, while also delivering pre-built dashboards and dashboard widgets to help MSPs build dashboard views for customers (or groups of customers) in minutes.

Advanced service options may include higher value device types as well as pre-built Dashboard views and daily/weekly/monthly reporting.

Premium Service

At the Premium Tier, a monitoring service typically delivers the high functionality of the Advanced Tier but with added levels of customization – or at least a broader range of reports or custom dashboards and customer notification included in the service. A variety of additional services can be added to convey special treatment of the customer – including account reviews or additional customization options with professional services – such as the addition of 3rd party integrations into the standard monitoring service to add extra capability (such as integration with ticketing and CMDB systems such as ServiceNow, or integration of Application Performance Management views from New Relic into a ScienceLogic dashboard for specific customers).

Custom dashboards are an excellent way to expose the richness of the platform and the service to the customer. The dashboarding function is a standard feature inside the ScienceLogic platform requiring no additional license fees – and is extremely simple to implement across an entire customer base in bulk - without provisioning each customer singly and individually. Even so, many MSPs are intimidated by the concept and fail to capitalize on the opportunity.

Custom dashboard 'development' can be done in minutes – without developer effort – by selecting and populating a set of dashboard widgets and connecting them to the various data sources inside the product. As a result it is very easy to expose exactly the view that a particular customer needs, while expending very little effort to do so – an ideal recipe for a high margin service. Dashboards can be built to support all IT infrastructure device categories with pre-built widgets for (LIST). These dashboard widgets are also live and interactive and support the ability to drill down by selecting an item in one widget and then viewing specific parameters in a related widget – to allow time scrolling, parameter drilldown, selection of one device from a group for further analysis, etc.

Customers value this dashboarding since they find it so difficult with the traditional reporting tools available to them inside the enterprise – and they often lack the skills to create the appropriate reports. So considerable value and differentiation can be achieved by the MSP who adopts dashboarding for premium-level services.

At the Premium level the MSP can also move a portion of their customer base away from simple device-centric infrastructure management by grouping devices together into IT services. All of the servers, storage and network components that comprise a specific business service can be grouped as a whole and shown with a dependency map that tracks their interdependencies in real time. The MSP can then create custom dashboards and monitoring templates that focus on IT Service Management – managing the infrastructure at the business/service level rather than at the technology or device level, and reporting in a service-centric context. This class of service typically involves a level of up-front consulting/PS project work to discover and classify infrastructure elements into business services for the customer and to build maps of the dependencies between the infrastructure elements within each service such that ITSM-based views can be constructed. As a result, this Tier of service can create significant stickiness with

the customer and provide access to extensive C-level interaction and relationships, since the nature of this type of engagement transcends a pure technology discussion.

For example:

- 3-level Custom Dashboards tailored for Executive views and server or network-centric operational views
- Broader sets of performance reports
- Quarterly account reviews with recommended actions (upsell opportunity)
- Construction of ITSM views for visualization and instrumentation of customer business services.

How Managed Services are Bought and Sold

It is rare for an MSP to offer monitoring in a single service covering multiple classes of IT devices together – unless delivered as part of a broader outsourcing project, or if a follow-on project adds a new class of devices to an existing monitoring project. Typically services are sold by MSPs - and bought by customers - as individual technology-specific point services – such as Managed Router, Managed LAN, Managed Firewall, etc. – if only because technologies themselves are typically procured by the enterprise as groups of devices for a single technology (WAN routers, LAN switches, Firewalls, Load balancers, Web servers, etc.) As a result these devices are typically refreshed together in separate projects with separate budgets, on separate timelines and depreciation schedules. MSPs who try to 'sweep the board' to monitor 'everything' may find it challenging to bid, price and manage a subset of the total device population in each category or across multiple categories.

Our strong advice is to build a set of managed services that can be offered together but which are sold and quoted as separate line items for each technology or device category, even when sold together to cover multiple technologies inside a single account.

Functional Approach to Service Tiers

So far we have discussed the range of monitoring parameters that can be monitored and captured within a Managed Service for a particular technology. Technology aside, the functionality within the service definition can of course vary tremendously. This section discusses options for building out a Managed Service offering based on the functionality delivered – regardless of the technologies being monitored.

This section discusses the addition of MSP services – over and above monitoring functionality – to create a more balanced, more appealing, less monitoring-centric offering. This applies especially where the MSP sales force finds monitoring a difficult concept to sell. In general it is much easier for MSP sales teams to sell managed services for technology categories, than it is for them to sell monitoring per se.

1. Notification Service – basic level monitoring for a technology (networks, servers, virtual machines, etc.) which provides notification to the customer. The MSP operates the monitoring system on behalf of the customer but does not investigate the underlying cause of events or alarms – it merely provides notification to the customer for the customer operations team to handle.

2. Monitor and Manage – may include multiple levels per technology to either provide a basic or advanced service and to provide notifications as above, while also opening trouble tickets on behalf of the customer with associated device vendors or service providers – and tracking those tickets to resolution. The MSP operates the monitoring system on the customer's behalf but also acts as a proxy for the customer in opening tickets with service providers, but the MSP does not take ownership of the trouble resolution process or provide an operational SLA for network or system performance.

3. Fully Managed Service – in this case the MSP operates the ScienceLogic monitoring system on the customer's behalf and provides an additional level of service by taking responsibility for service levels and trouble resolution. In this case the MSP is typically also one of several device or service providers to the customer. In this case the ScienceLogic system monitors the same devices – perhaps to a different level of depth, in order to provide operational insight for the MSP as well as visibility for the customer. Operational and customer-facing dashboard views, reports and various SLA parameters all become important parts of the service deliverables in this case, with value accruing to both the customer and the MSP.

Service Definitions

This section covers a detailed description of service deliverables for each tier of managed service. The structure in the following table is assumed:

Service Type	Service Tier Basic	Advanced	Premium
Network Monitoring	Ping router WAN port Customer portal	CPU utilization Memory utilization Packets in/out Standard Live Dashboard	Alert on Thresholds Custom Dashboards
Physical Server monitoring	Server Up/down availability Customer portal	CPU utilization Memory utilization Disk utilization Standard Dashboard	Alert on Thresholds Custom Dashboards
Virtual Server Monitoring	Host and VM Up/down availability Customer portal	CPU, Memory, Disk utilization Standard Dashboard	Alert on Thresholds Custom Dashboards
Private Cloud Monitoring	Aggregation of Managed VM availability	Aggregated Performance Monitoring Individual VM conditions Top N VM performance	Additional Dashboards
Public Cloud Monitoring	Compute & Storage availability	Cloud compute and storage performance Asset Mapping Standard Dashboard	Alert on Thresholds Custom Dashboards
Firewall Monitoring	Customer portal Device Up/Down	Standard Dashboard	Custom Dashboards
Storage Monitoring	Device up/down and LUN availability Customer portal	Converged Infrastructure support (FlexPod, Nutanix, etc.) Capacity reporting	Capacity Alerts Custom Dashboards

Service Tiers by Technology Category

Specific service deliverables for each service Tier are defined below. While it is possible to monitor any combination of devices in the customer's infrastructure, the assumption would be that a Managed Service Provider packages this service towards a specific set of devices in common, such as Managed Router, or Managed LAN or Managed Virtual Server or Managed Private Cloud. This occurs primarily because of enterprise buying patterns. Enterprise customers tend to deploy or refresh groups of equipment at the same time – installing new firewalls, refreshing all LAN switches, or WAN routers in single projects – all on different timelines and with different depreciation timelines which do not necessarily coincide.

Monitoring-as-a-Service: Service Tiering

Bronze Tier

Bronze	Un-Managed	Managed
Monitoring system design	Yes	Yes
Monitor all IT infrastructure 24 x 7 x 365	Yes	Yes
Monitor On-premise Networks, Servers, Storage elements for Availability (such as Ping for IP-addressable elements)	COMPANY sets up and maintains monitoring system. Customer uses the system day to day	COMPANY manages all monitoring for Customer
Monitor Cloud-based Networks, Servers, Storage elements for Availability (such as Ping for IP-addressable elements)	COMPANY sets up and maintains monitoring system	COMPANY manages all monitoring for Customer
Alerting	Alerts to Customer	Handled by COMPANY
Trouble-ticketing	Customer responsible	COMPANY opens ticket
Problem resolution	Customer responsible	COMPANY works ticket
Customer Dashboards	Yes	Yes - preset
Portal	Yes	Yes

Silver Tier

Silver	Un-Managed	Managed
All Bronze service deliverables, Plus:		
Monitor on-premise Networks, Servers, Storage and Cloud elements for performance	Customer uses XYZ service to monitor element performance	COMPANY monitors element performance and notifies Customer on exceptions
Monitor Cloud-based Networks, Servers, Storage elements for performance	Customer uses XYZ service to monitor element performance	COMPANY monitors element performance and notifies Customer on exceptions
Alerting on performance thresholds	To Customer	Handled by COMPANY
Trouble-ticketing	Customer responsible	COMPANY opens ticket
Problem resolution	Customer responsible	COMPANY works ticket
Dependency Maps	Customer created	COMPANY created
Customer Dashboards	Yes	Yes – preset (6-8)
Portal	Yes	Yes

Gold Tier

Silver	Un-Managed	Managed
All Silver service deliverables, Plus:		
Dependency Maps	Yes – customer defined	Yes
Custom Dashboarding	Yes – customer created	COMPANY created
Custom Service-centric Device Group views	Yes – customer created	COMPANY created
Custom Service Health alerting	Yes – customer created	COMPANY created

Go-To-Market Strategies

Selling the Monitoring Offer – Competing Approaches

1. Low cost monitoring products

As MSP sales teams approach customers to offer a monitoring service they will invariably encounter objections based on availability of multiple low-cost or open-source monitoring options. While most of these can be eliminated as competitors since they only address single point monitoring challenges (networks or servers or cloud elements only) there are very few that cover multiple technologies in a single platform or service.

The majority of these solutions are products that require customers to install, configure, operate and maintain. Often these are sold as software without a server platform. So immediately the customer is involved in a new server procurement, build and integration. On completion of the buildout the customer then needs to set up and configure the monitoring for himself and dedicate a technician to manage the monitoring system and conduct the monitoring and take action. So many MSPs forget that they are competing here against product solutions – not against services. The value of the MSP service typically far surpasses that of the competing product approach – simply due to operational staffing need on the part of the customer – regardless of any differences in the monitoring functionality on offer.

2. SaaS-based Monitoring solutions

In cases where a competing service is on offer- frequently these are simply point software solutions offered as SaaS. Rather than competing directly on functionality or pricing, the MSP should compete by showing the additional value of the monitoring service itself in terms of diagnostic expertise and day to day operation of the monitoring service – which is often not fully realized by the enterprise customer organization. SaaS and other solutions can consume significant amounts of staff time and can therefore be costly to own and maintain. The ScienceLogic platform is extremely cost-effective to operate for an MSP and therefore a single MSP operator should be able to support multiple customers – effectively providing a more cost-effective solution than a pure SaaS offering alone.

Bundling with other services

Monitoring as a Service may be a complex service offering for some MSPs to sell. In cases where the MSP has an experienced sales team who has previously sold monitoring or network & systems management products, this service may be readily assimilated into the product bag of the sales force. In other cases where sales teams have a more service-centric background such as Telco or hosting service sales, it may be preferable to consider a bundled approach.

The bundling monitoring into a managed infrastructure (IaaS or PaaS) service, MSPs can make the sales process easier for the customer. For example, a Managed Private Cloud service may offer a variety of virtualized servers in varying configurations along with an orchestration platform – all under a monthly service fee, the addition of a monitoring option can differentiate such a service and serve as an advanced service tier – such as Managed Private Cloud Gold/Silver/Bronze. In this case the Gold, Silver or Bronze tiers can be defined much as the three tiers of the Monitoring service, added into the hosted cloud service – effectively adding 24/7/365 monitoring along with high value-added features such as live dashboarding, fault notification, advanced reporting, etc. This differentiates the cloud offering itself, without expecting the sales team to fully grasp all the nuances of a monitoring-only offering and therefore avoiding comparisons with low-end monitoring solutions that can reduce deal velocity.

We believe this approach is extremely attractive and will help accelerate an MSP's go-to-market strategy and achieve greater sales force acceptance than a pure monitoring service alone. For more detailed discussion on this topic, please see our upcoming Service Definition template for an Advanced Managed Private Cloud Service based on ScienceLogic that will be published in 2015.