Defining Advanced Monitoring Services for Hosted IaaS

Your Data Center Today → Silver Level → Gold Level → Platinum Level → **Your IaaS Offering Tomorrow**

ScienceLogic has created a service catalog for our customers to follow in order to successfully create a cloud IaaS offering. Our goal is to simplify the process, allowing you to offer either advanced monitoring alone, or to incorporate monitoring as a component of their advanced services package. In this document, we have created multiple levels of service, support, SLAs, and their respective pricing to provide you with both price and service flexibility. These give you the ability to mix and match the different levels as an underpinning to the core advanced service offering.

Following careful research and analysis, we have summarized our learning by categorizing cloud offerings into three separate levels: silver, gold, and platinum. The silver level is the base offering, while the gold and platinum offerings become more advanced and profitable. Within each offering, we have listed out the different types of services, service level agreements, and any support packages that are either included or sold for an upcharge. Offering advanced monitoring alone is a realistic option, however, we recommend aligning other service features together with the advanced monitoring in order to create a more compelling, holistic service offering.

This document is specifically intended for those MSP's looking to create a Cloud IaaS offering by building a platform using their IT infrastructure. For those providers wishing to leverage AWS or other IaaS cloud provider infrastructure, please refer to the AWS documentation within SPARC. Similarly, providers looking to offer application level services such as Microsoft Business Productivity Solutions (i.e. IIS, Exchange, SharePoint) should refer to the Microsoft Solutions pack within SPARC. In general, see SPARC for other solution packs that are quickly becoming available.

User Profile 1

If you are a Data Center Services/Hosting Provider or Managed Service Provider that is looking to create an Infrastructure as a Service (IaaS) offering, we have created a simple example of how you could structure your advanced monitoring services as options within your Service Catalog.

Silver Level

Basic Monitoring

(baked into core pricing)

- $0.00 per instance per month, with metric polling provided at 5-15 minute frequency
- Customer Portal sign-on with single dashboard to view graphs and statistics for any metrics, availability alarms, and monitored resources
- Includes metrics free of charge for:
- CPU
- Memory
- Storage
- Network Bandwidth In
- Network Bandwidth Out
- Swap Utilization
- Alignment with base level security services

Gold Level

Detailed Monitoring

(in addition to basic monitoring)

- $0.50 per metric per month, up to $5-10 per virtual server per instance
- Provided at 1-5 minute intervals
- Each instance includes metrics:
- Additional/Detailed metrics for silver level and OS-level data, such as:
  - Datastore Read/Write Latency
  - Disk Read Bytes
  - Disk Write Bytes
  - Disk Read Ops
  - Disk Write Ops
  - Disk Swap Utilization
- Partial months are charged approximately $0.005 per instance per hour
- Basic availability and performance alerting and escalation directly back to the client
- Aligned with mid-level resources and mid-level security and support services

Platinum Level

Additional Services

- Monitoring for Custom Metrics - $0.50 per metric per month, up to $10-15 per device class per server per instance
- Set alarms on any of your metrics to receive notifications or take other automated actions when your metric crosses a specific threshold
- Alarms may also be used to detect and shut down or reboot instances that are unused or underutilized
- $0.10 per alarm per month

  SLA Widget showing timelines and any violations against it
- Chargeback Service:
  - Ability to visualize expected end-of-month costs based on current utilization trajectories
- Aligned with the highest level resources (largest instances per server) and highest level security, SLA, disaster recovery, and support services

Support Features and Pricing

Highly aligned with, but not prescriptive to, the monitoring packages above, service providers have a tendency to offer basic and developer level support on top of silver level monitoring. Similarly, large enterprise-focused service providers tend to do well upselling business and enterprise level support to their platinum level customers. Recommended included support services follow:

Basic Level

- Documentation, White Papers, Best Practice Guides
- Community Forums
- Open Tickets (often limited to 3 per device per month)
- SLAs revolve around availability of service/resources
- Price: Free

Developer Level

- Limited Ticket System
- Phone Support during normal business hours – paid for beyond base number of tickets (i.e. 3 per device per month up to 15-30 minutes)
- 12 hour response time, scaling and generous remediation times
- Price: $49 per month

Business Level

- Unlimited Free Ticket System
- Phone Support
- 1 hour response time
- Tight remediation and escalation times
- Price: baked in or charged at a percentage of monthly usage; discount rate as usage increases (i.e. 10-15% including advanced monitoring/services option

Enterprise Level

- Unlimited Ticket System
- Unlimited Phone Support
- 15 minute response time
- Tightest remediation and escalation times
- Price: baked in or charged at a percentage of monthly usage; discount rate as usage increases (i.e. 15-20% including advanced monitoring option)

Note: Some service providers have commented on the difficulty of upselling advanced monitoring to their mid-sized customers that expect all advanced monitoring to be baked into their offerings. This tends to vary upon the subjective relationship one has with each customer. However, we would not generally see platinum level monitoring as an embedded option for customers, given that custom metrics and customized alarms are typically very costly.

User Profile 2

If you are a Dedicated Hosting Provider, an Infrastructure as a Service (IaaS), or Data Center Operator looking to create a Managed Hosting Offering, then we would advise structuring your advanced monitoring service along the following lines:

Silver Level

- $0.00 per server per month
- Standard availability monitoring of ports and services
- CPU, Disk, and Memory Monitoring
- Online ticketing and ticket archiving
- Detailed backup of performance and utilization
- DNS Manager

Gold Level

- $5-10 per server per physical or virtual server per OS per instance per month
- Includes Silver Level, plus:
- Mounted File System Monitoring
- Network Time Protocol Response Monitoring
- Network Traffic Monitoring
- SNMP Data Monitoring

Platinum Level

- Performance Monitoring
  - $5-45 per unit per month depending on resource allocation, complexity, and inclusion of SLA/support
  - Tracks aspects of hardware performance and utilization across CPU, RAM, and storage
- Performance Trending and Capacity Planning i.e. Tomcat Server Monitoring
- Web Content Verification
- SLA Widget showing timelines and any violations against it
- Chargeback Service:
  - Ability to visualize expected end-of-month costs for current utilization tractories

The next table illustrates the general cost structure for a few dedicated servers. These servers are not prescriptive to the monitoring levels listed above, but providers tend to do well upselling the higher end monitoring with the higher end processors.

Single Processor	Duel Processor	Quad Processor
• Intel Xeon E5-2620 Processor • CPU Speed: 6x2GHz + HT • Cache 1x15MB • RAM: 8GB DDR3 1333ECC • Starting at $399	• Intel Xeon E5-2620 Processor • CPU Speed: 12x2GHz + HT • Cache: 2x15MB • RAM: 16GB DDR3 1333ECC • Starting at $499	• Intel Xeon E7-4830 Processor • CPU Speed: 32x2.13GHz • Cache: 4x24MB • RAM: 32GB DDR 1066 • Starting at $1,599

Support Features & Pricing

Managed Hosting companies do not necessarily have cookie-cutter type support offerings. Lower end IaaS offers monitoring only, while the higher end typically has support baked in to the pricing. With this embedded support comes a higher fee. Based on the model above, we would recommend prescribing monitoring alone to the silver level, while baking in support features to the pricing of the gold and platinum level.

Recommended Included Support Services

- Limited Ticketing System
- Limited 24 x 7 x 365 Phone Support, including DBA support
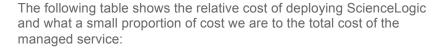- 20 Minute Response Time, and standard MTTR
- Infrastructure Uptime SLAs of no less than 99.99% and apps at 100%

Managed services are becoming a must-have for companies that are looking to expand. Our customers can use the ScienceLogic platform for IT operations, and cloud monitoring organizations can manage the mix of physical, virtual, and cloud. The ScienceLogic platform eases the burden on customers by understanding the constant shift between managing resources and data resulting from the virtualization and cloud trends. To achieve this, we use a correlated set of metrics across both on premise and cloud infrastructures, which speeds troubleshooting and simplifies management workflows.

The following table shows the relative cost of deploying ScienceLogic and what a small proportion of cost we are to the total cost of the managed service:

Managed Services System Type	Silver (per month)	Gold (per month)	ScienceLogic Cost	ScienceLogic COGS
Operating Systems			*Monthly Subscription*	*SaaS*
MS Windows	$125	$375	$12	$15
Red Hat Linux	$125	$375	$12	$15
Databases				
Oracle	$400	$1,400	$12	$15
MS SQL Server	$400	$1,400	$12	$15
Applications				
MS Exchange	$350	$1,400	$12	$15
Active Directory	$350	$1,400	$12	$15
SharePoint	$350	$1,400	$12	$15
Network				
Cisco Router	$75	$225	$12	$15
Cisco Layer 2 Switch	$50	$150	$12	$15

Service Level Agreements

A service level agreement records a common understanding about services, priorities, responsibilities, guarantees, and warranties. As such, we have taken general SLA guidelines and categorized them into three separate levels. These SLA categories are not necessarily prescriptive to the separate monitoring levels, but providers tend to do well upselling the more flexible SLAs with the higher end monitoring.

Silver Level

- Availability: 99.9%
- Maintenance: During normal business hours; may not be able to give much notice
- Service Credits: 5% of net monthly recurring charge
- Backups: VMs with Linux are backed up daily

Gold Level

- Availability: 99.95%
- Maintenance: 00:00-06:00 standard time in region of company; notification announced 48 hours in advance
- Service Credits: 10% credit, but subject to increase if downtime exceeds certain increments, i.e. 99%-99.95% uptime yields a 10% credit, but less than 99% yields a 30% credit
- Backups: Full backups are performed twice a month

Platinum Level

- Availability: 100%
- Maintenance: 7am-7pm 7 days per week; will use reasonable efforts to post notice of the maintenance 7 days in advance
- Service Credits: If availability is less than guaranteed, customer will be eligible to receive a service credit in an amount equal to the prorated sum of the per hour charges for the base compute resource for all active VM instances for the number of qualified outage minutes
- Backups: Customers can optionally configure their own backup methods

Exclusions: In the event of downtime, providers are not always subject to disburse service credits back to their customers. There are certain circumstances to which the downtime is expected (maintenance) or force majeure. Other common exclusions are as follows:

- Denial of service attack, hacker activity, or other malicious event/code targeted against the company
- Downtime issues related to power supplies on customers' servers, load balancers, or switches
- Unavailable time caused by customer misuse of the service/unauthorized changes

Broader Data Center Based Service Offerings Covered by ScienceLogic

ScienceLogic solutions are targeted towards service providers and larger enterprise environments that require mission-critical operations and redundancy. EM7 is highly scalable with extended configurable options including customer portals, integration gateways, and messaging systems. The platform includes available support for all management technologies and software modules. Among the most prominent features associated with device management and monitoring, are visualizations of all layers of the IT architecture, eventing and notifications, service desk (ticketing), knowledgebase, reporting, asset management functionality, account management, and a series of other customizable functions such as credential management, bandwidth billing, and reporting. Each of these layers in the IT stack can themselves be segmented into a variety of service offerings using ScienceLogic, as in some of the examples offered below. SPARC also contains more detailed information on Business Productivity Apps, Dynamic Apps, and the device classes they cover.

Silver Level

Open Source

- Servers & OS: Apache, Hitachi, Intel, Linux, NginX, and Unix
- Hypervisors: Xen, KVM
- Cloud Services: Tier3
- DCIM Infrasturcture: APC, Liebert
- Applications: MySQL
- Collaborative Technologies: Avaya, LifeSize, Polycom
- Security Devices: Intel TxT, McAfee, Palo Alto, SourceFire
- Other Technologies: Chef, Hadoop, Nagios, NetlineDancer, New Relic, Puppet Labs, Printer Technologies , Salesforce.com

Gold Level

Microsoft Windows Servers and OS

- Base-Pack: monitors configuration and performance metrics
- Restart Power-Pack: monitors services marked as automatic and starts them if they are stopped
- Active Directory Power-Pack: contains WMI dynamic apps that provide robust visibility into the configuration, replication, operation, and administration of MS Active Directory

Platinum Level

Microsoft Windows Applications

- Various Microsoft Power-Packs rely on instrumentation against WMI and PowerShell APIs for apps such as IIS and business productivity, including Exchange, SharePoint, and MS SQL
- IIS Power-Pack: contains dynamic applications designed to monitor the performance of the World Wide Web (WWW) publishing service, the Active Server Pages (ASP) device, and Internet Information Services (IIS) on servers running Microsoft Internet Information Services and software

About ScienceLogic

ScienceLogic delivers the next generation IT monitoring platform for the network of everything. Over 15,000 global Service Providers, enterprises, and government organizations rely on ScienceLogic every day to significantly enhance their IT operations. With over 1,000 dynamic management Apps included in the platform, our customers are able to intelligently maximize efficiency, optimize operations, and ensure business continuity. We deliver the scale, security, automation, and resiliency necessary to simplify the ever-expanding task of managing resources, services, and applications that are in constant motion.

ScienceLogic won InfoWorld's 2013 Technology of the Year award, Red Herring's Global 100 Award, Deloitte's Technology Fast 500TM, and MSPmentor 250, among other worldwide recognitions of excellence. For more information, visit http://www.sciencelogic.com.

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