Cloud Managed Services

Cloud Managed Services for Azure

Service Description



Gold Cloud Platform

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Introduction

The cloud delivers business agility by giving you an environment that can evolve and adapt continually. But this agility comes at cost: ensuring security, effective technology use, cost-efficiency, and operational oversight in this shifting landscape requires ongoing management.

Fortunately, Lightstream makes things simple. We give you the cloud expertise you need to design architectures that deliver the best business outcomes and ongoing management services that keep your cloud optimized as your business changes and grows.

You can rest easy knowing your cloud:

- Follows Azure best practices for
 - o Security
 - o Finance
 - o Technology
 - o Operations
- Is built with architectures that deliver the best business outcomes
- Is modern, using that latest updates, features, and services
- Is simple and easy to manage
- Is managed effectively, in partnership with experts who educate your staff

This document provides an overview of Lightstream Cloud Managed Services. It includes a discussion of the three different tiers customers can choose from and provides detailed information about the services.



Lightstream Cloud Managed Services Tiers

Every organization is unique and has different cloud management challenges. Some businesses lack the technical expertise or capacity to operate cloud infrastructure, tools and applications while others may have the ability but want to focus on their core business. Others still are looking to enable and educate their staff from experts who have seen and done it all.

To meet these diverse needs, Lightstream offers managed services at the following tiers:*

Platinum

Lightstream becomes a partner in your cloud journey, adding Certified Cloud Engineer skills to your team. We will gain a deep understanding of your business needs and cloud goals, actively assist you in building and maintaining an ideal cloud environment, and also help you monitor, manage, and maintain your cloud on an ongoing basis.

Gold

Lightstream experts review your environment and advise your staff on an ongoing basis to ensure you are making the right tradeoffs in your architecture to achieve the best business outcomes.

Silver

Free subscriptions to cloud management software, training, and user groups give your organization the information you need to create a cloud built for your business. Lightstream will meet with your staff periodically to fill in any gaps.

About Security Services

Security is fundamental to protecting your information, systems, and assets. It's vital for businesses to ensure data can only be accessed by authorized users and systems and data is protected against loss.

Lightstream ensures your cloud is secure through the following services.

Expert Security Reviews (P/G)

A Certified Cloud Engineer reviews available data to ensure your cloud follows best practices for:

- Identity and Access Management
- Detective Controls, Infrastructure Protection
- Data Protection
- Incident Response

See Appendix A. Data Evaluated in a Security Review for detailed information.

^{*} We indicate services available at each tier with "P" for Platinum, "G" for Gold, and "S" for Silver. Services are cumulative: Platinum includes all Gold and Silver services and Gold includes all Silver services.



Security Development and Remediation (P)

Lightstream actively assists Platinum customers with security activities, including development and remediation for items identified in ongoing security reviews.

At the Gold tier, Lightstream provides recommendations for remediation that your staff implements.

Tier 1 Technical Advisement (P/G)

Whenever you need assistance, Lightstream is here to help. You will have the direct phone number and email of a named contact.

Cloudcheckr Security Software and Training (P/G/S)

All tiers of Lightstream Cloud Managed Services include a subscription and training for Cloudcheckr software. This product dramatically improves visibility into your security posture, including the following:

- Log intelligence
- Best practices and alerts
- Perimeter assessment
- Configuration assurance
- User permissions

See the <u>cloudcheckr web site</u> for details.



About Finance Services

Lightstream finance services ensure your cloud spend is aligned to your technology needs. A Lightstream Cloud Financial Expert will ensure you aren't overspending on technology or services you aren't actively using – and will work with you to adjust your spending as cloud needs evolve.

Lightstream ensures your cloud is cost-efficient through the following services.

Reserved Instance Management (P)

Purchasing Reserved Instances (RIs) is one of the most effective ways for companies to reduce cloud spend, but determining exactly what you need can be challenging and time consuming.

At the Platinum tier, Lightstream offers a fully managed Reserved Instance program where we:

- Establish an RI strategy that aligns to your business strategy
- Assess your environment and identify sources of waste
- Negotiate and procure RI contracts
- Monitor and make adjustments as your environment changes
- Review performance and savings on an ongoing basis
- Provide ad hoc support and education about RI contracting

Expert Financial Reviews (P/G)

A Cloud Financial Expert will provide ongoing advice and consultation to ensure you have the visibility, including dashboards and reports, to effectively manage your cloud finances and achieve your strategic objectives.

At the Platinum tier, Lightstream will assess cloud spend on an ongoing basis and meet with your staff regularly to review and provide recommendations for cost optimization.

Lightstream Connect Subscription and Training (P/G/S)

All tiers of Lightstream Cloud Managed Services include a subscription and training to Lightstream Connect software. This product is a clear, concise, and thorough reporting platform that makes it easy to manage cloud spend through the following features:

- Summary level reporting of each cloud account by day, month, and product category
- Reporting of the cloud environment by various tags
- Breakout of compute spend by server class, product type, region, and platform
- Detailed analysis of compute environment by VM type, platform, availability zone, and cost, by day and month
- Summary and secondary level views of spend trends
- Analysis and reporting of RI opportunities by RI contracting cluster, including savings and Azure fees by contract term and type
- Performance of each and RI contract, including utilization and financial results, by day

Lightstream can create custom reports for Platinum tier customers, as needed.



About Technology Services

The cloud enables organizations to deploy any technology they need on the fly. While this accelerates business, it also makes it easy to waste money excessively overprovisioning resources or risk quality by under-provisioning resources.

Lightstream ensures your cloud technology is optimized through the following services.

Ongoing Cloud Best Practice Reviews (P/G)

Lightstream reviews your environment on an ongoing basis to ensure:

- Alignment between line of business technical requirements and cloud best practices
- Assets and resources are tagged to streamline monitoring and management
- Reporting reflects information important to business

Ongoing Technology Reviews (P/G)

Lightstream reviews your environment on an ongoing basis to ensure your cloud follows best practices for technology. We review all available data and analytics to assess your environment and develop strategies to improve:

- Cost-efficiency
- Availability
- Usage (over- or under-utilization)

See Appendix B. Data Evaluated in a Technology Review for details.

Technical Remediation (P)

Lightstream creates a remediation plan for items identified in reviews and will assist or even perform remediation activities.

Level 1 Technical Advisement (P/G)

Lightstream staff can assist you with the following technology activities:

- Optimizing resources and configuration (P/G):
 - o Compute
 - o Storage
 - o Network/CDN
 - o Database
 - o Security
- Build and assist with technical proofs of concept (POCs) (P)
- Research and assist with defining requirements and building product-specific technical capabilities (P)

Research and Development Services (P)

Lightstream can research and provide infrastructure recommendations to help you achieve your general cloud initiatives.

Project-Specific Cloud Professional Services (P/G)

Ensure project success by adding a Lightstream Certified Cloud Engineer to your staff. We will review your line of business requirements and perform professional services SOW-based work to help you achieve any business goal.

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Cloudcheckr technical software and training (P/G/S)

All tiers of Lightstream Cloud Managed Services include a subscription and training for Cloudcheckr software. This product dramatically improves visibility into your technical environment, including:

- Asset Inventory
 - o Aggregated Metrics
 - o Inventory Tracking
 - o Asset Snapshots
 - o Drill-Down Analytics
- Cost
 - Spend Optimization
 - Best Practices
- Resource Utilization
 - o Comprehensive Analytics
 - o Actionable Insights
 - o Instance Rightsizing
 - o Best Practices
 - o IOPS Analysis and Rightsizing
- Automation Framework
 - o Security
 - o Continuous Monitoring
 - o Scalable Resource Managemento Automatic Snapshots

 - o Cost Optimization
 - o Best Practice Checks

See the cloudcheckr web site for details.

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About Operational Oversight (P/G)

Lightstream lets you keep staff focused on value added work versus cloud infrastructure management. Designated contacts monitor your environment on an ongoing basis, perform reviews and schedule meetings to present findings, and take calls whenever you need assistance. Following are the tasks your contacts perform.

Client Engagement Manager (P/G)

Facilitates support requests

- Provides general assistance for:
 - o Billing questions⁺
 - o Vendor ticket⁺
 - o Escalation of issues to an engineer
- Custom reporting
 - o Escalation to developers
 - o Escalation to finance

Coordinates meetings, including:

- General business and cloud reviews
- Security best practice reviews
- Finance best practice reviews
- Technology reviews
- Operations best practice reviews
- Managed RI reviews
- Training sessions for Lightstream Connect and Cloudcheckr

Technical Account Management tasks

- New Accounts⁺
- Product Update Briefings
- Announcements for events, training, best practice user group meetings, and updates

Certified Cloud Engineer (P/G)

- Assists with creating your overall cloud strategy (P/G)
- Performs analysis of cloud environment, reports technical and security findings, and provides recommendations (P/G)
- Creates remediation plan and assists with implementation (P)

SLAs for Support Requests

We respond to all support requests as soon as possible, but no longer than:

- Platinum: 4 hours
- Gold: 8 hours
- Silver: 12 hours

The acknowledgement includes the following information:

- 1. The question we received.
- 2. Confirmation that we are working on it.
- 3. Estimated timing for the next step(s).

⁺ Indicates services that are not available to Azure EA customers.



Appendix A. Data Evaluated in a Security Review

The following list shows all data points a Lightstream Certified Cloud Security Engineer reviews when evaluating your security posture:

App Service Web Apps SSL Certificates Expiring soon App Service with SSL Disabled Application Gateway with Web Application Firewall (WAF) Disabled Application Gateways Using an Unsecure Protocol Application Gateways without Full End-to-End SSL Blob Containers Set to Full Public Read Access **Blocklisted Public IP Addresses** Containers That Allow Public Blob Access Load Balancer Rule with a non-SSL Port Enabled Managed Disk Without Delete Lock Network Security Group with No Resources Network Security Groups Inbound Rules Set to All IPs and All Ports Network Security Groups Inbound Rules Set to All IPs and All Ports (No Resources) Network Security Groups Inbound Rules with Potentially Dangerous Ports Exposed Network Security Groups Inbound Rules with Potentially Dangerous Ports Exposed (No Resources) Network Security Groups Inbound Rules with Specific Ports Exposed Network Security Groups Inbound Rules with Specific Ports Exposed (No Resources) Network Security Groups Outbound Rules Set to All IPs and All Ports Network Security Groups Outbound Rules Set to All IPs and All Ports (No Resources) Network Security Groups Outbound Rules Set To All Ports Network Security Groups Outbound Rules Set To All Ports (No Resources) Network Security Groups Outbound Rules with Dangerous Ports Exposed Network Security Groups Outbound Rules with Dangerous Ports Exposed (No Resources) Network Security Groups Outbound Rules with Potentially Dangerous Ports Exposed Network Security Groups Outbound Rules with Potentially Dangerous Ports Exposed (No Resources) Premium Redis Cache Firewall Allows Broad Range of IPs Premium Redis Cache Instance with No Firewall Rules **Publicly Accessible SQL Servers** Redis Cache with a non-SSL Port Enabled Redis Cache without a Resource Lock Small Application Gateway Usage SQL Server Database with Transparent Data Encryption Disabled SQL Server Database without a Resource Lock SQL Server Firewall Allows Broad Range of IPs SQL Server Without a Failover Group SQL Server without a Resource Lock Storage Account Blob Services without Encryption Enabled Virtual Machines in Subnets Without Forced Tunnelling Virtual Machines Not Protected by a Security Group Virtual Machines Not Using Managed Disks Virtual Machines with Unencrypted Disks Virtual Machines Without Boot Diagnostics Enabled Web Apps With Expired SSL Certificate



Appendix B. Data Evaluated in a Technology Review

This section provides detailed information about the data a Lightstream Certified Cloud Engineer reviews when evaluating your technical environment.

Cost Data

App Service Plans with no Apps Application Gateways with No Rules Idle SQL Database Instances Load Balancers with No Rules Redis Cache Idle SQL Server with No Databases Stopped or Deallocated Virtual Machines with Disks Attached Stopped Virtual Machines Unattached Managed Disks Unused Virtual Machine Images Virtual Machines Can Be Upgraded To Newer Version of Same Size Virtual Machines Idle Virtual Machines Running as Dedicated

Availability Data

App Service Plan Is Unavailable App Service Plans with Apps with an Unknown Health Status Application Gateways with Empty Backend Address Pools Application Gateways with Fewer than 2 Healthy Machines Load Balancers with All Backend Address Pools Containing No Network Interfaces Load Balancers with Fewer Than 2 Healthy Machines Managed Disk without Backup Protection Redis Cache Using Basic-Tier Pricing SQL Server Database With Less Than 10% of Free Storage Unhealthy Virtual Machines Unhealthy Virtual Machines Attached to Load Balancers Virtual Machines with Unknown Health Status

Usage (over- and under-utilization) Data

App Service Has Exceeded Usage Quota App Service without AutoHeal Enabled App Service without Backup Scheduling Enabled Over-Utilized App Service Plan CPU Over-Utilized Virtual Machine CPU Storage Accounts without Secondary Location Under-Utilized App Service Plan CPU Under-Utilized App Service Plan Memory Under-Utilized Virtual Machine CPU Under-Utilized Virtual Machine CPU Under-Utilized Virtual Machine CPU