

FANATICAL SUPPORT FOR MICROSOFT AZURE



TABLE OF CONTENTS

OVERVIEW	3
REGION AVAILABILITY	3
SERVICE LEVEL MANAGEMENT	3
Multiple Subscriptions and Service Levels	3
Service Matrix	4
EXPANDED SERVICES DESCRIPTION	5
Supporting Your Azure Environment	5
AVIATOR	5
NAVIGATOR	5
24x7x365 Support	6
ADD-ON SERVICES	10
Migration Assistance	10
Database Support	10
Rackspace Application Services (RAS)	11
Rackspace Managed Security (RMS)	11
Custom DevOps Professional Services	12
DevOps Maturity and Strategy Planning	12
APPENDIX 1	13
Roles and Responsibilities	13
APPENDIX 2	17
Supported Azure Services	17
APPENDIX 3	20
Subscription Management	20
APPENDIX 4	21
Frequently Asked Questions	21
ABOUT RACKSPACE	23

OVERVIEW

Many businesses want to leverage the power of Microsoft® Azure® without having to incur the challenge and expense of managing it themselves. Some businesses lack the technical expertise or capacity to operate cloud infrastructure, tools and applications, while others may have the ability, but choose to maintain focus on their core business. Many larger businesses are on a multi-phase journey to the cloud, requiring transition and management services that can adapt to an evolving set of needs.

Fanatical Support® for Microsoft Azure is the answer for businesses facing these challenges. Rackspace blends technology and automation with human expertise to deliver ongoing architecture, security and 24x7x365 operations backed by Azure-certified engineers and architects.

REGION AVAILABILITY

Fanatical Support for Microsoft Azure is available to Rackspace customers deploying infrastructure into all Azure regions existing as of the publication date of this document, with the exception of Microsoft Azure Government regions (e.g., U.S. government) and China. Contact a Rackspace representative if you have questions about supported regions.

Some Azure regions are available only to customers with specific billing addresses in that region. Contact a Rackspace representative if you have questions about supported regions.

SERVICE LEVEL MANAGEMENT

Fanatical Support for Microsoft Azure has been crafted to address the core challenges that businesses face in implementing and operating Azure environments. We offer our customers a choice of two service levels: Aviator™ and Navigator™.

Aviator: Aviator provides tooling and access to human expertise, incorporating best practices and 24x7x365 operational support for your Azure environment. Aviator is for customers who need more of a comprehensive support experience, including guest virtual machine management. We will perform environment build and deployment activities in addition to ongoing management of IaaS VM assets (monitoring, patching and antivirus). To receive Aviator support, resources must be deployed via the Azure Resource Manager (ARM).

Navigator: The Navigator service level is designed for customers who want to retain a hands-on capability for the configuration and management of their Azure environment, while relying on Rackspace as a trusted advisor with 24x7x365 availability. Navigator is available for Cloud Solution Provider (CSP) customers only.

At this level, customers will have access to people and resources relating to architecture and best practices guidance, standardized deployment templates, Azure service health notifications, and the Rackspace Customer Portal. In addition, Rackspace will serve as an escalation point for issues relating to the Azure platform and services.

MULTIPLE SUBSCRIPTIONS AND SERVICE LEVELS

SLA offerings are applied at the subscription level. A customer can have multiple Azure subscriptions with a mix of Aviator and Navigator service levels for their account.

SERVICE MATRIX

SERVICES	NAVIGATOR	AVIATOR
Access to Rackspace Opinionated Azure Resource Manager (ARM) Templates · Ability to deploy opinionated resource templates employing Rackspace best practices	Access to self-service templates	Assisted deployment from Rackspace infrastructure template repository; access to self-service templates
Azure Monitoring · Automated alert generation from predefined monitors · Integration with Rackspace incident management systems	Notification of Azure- wide outages and service degradation	Leveraging Azure and Rackspace monitoring systems for standard events; up to five custom monitors
Fanatical Support for Microsoft Azure Control Panel · Access to the Fanatical Support for Microsoft Azure customer portal	✓	✓
Architecture Guidance · Based on Microsoft and Rackspace practices from certified Azure architects · Scheduled scoping calls	Limited best-practice guidance	Rackspace will customize architecture to your specific application
Technical Onboarding Manager (TOM) · Personal contact to assist with onboarding	Initial guidance only	Rackspace coordinates the process of getting your workloads up and running on Azure
Configuration Assistance · 24x7x365 access to a Rackspace team that's experienced in Azure that will assist with configuration changes	Consultation provided upon request	Consultation and implementation
Service Delivery Manager (SDM) · Personal contact for ongoing business and technical assistance	✓	✓
Service Management · Tracking and management of requests for information/change, incident and service management via the Rackspace ticketing system	✓	✓
Escalation Support · Ownership of incidents and issues relating to Azure, including Microsoft Premier Support escalations	✓	✓
Detailed Design Document · Detailed Azure design based on application and requirements analysis	Additional services available	✓
Deployment Activities · Resource deployments performed by Rackspace engineers	Additional services available	✓
Operating System Support		✓
Customer Runbook Documentation · Rackspace-coordinated runbook design and escalation list		✓
Account Review · Review Microsoft best practices and Rackspace recommendations · Review resource usage and cost-optimization opportunities · Technical environment review (alerts, performance) · Runbook evaluation		✓
Incident Response	Urgent: < 4 hours Standard: < 24 hours	Emergency: < 15 min Urgent: < 1 hour Standard: < 4 hours
ADD-ON SERVICES		
Migration assistance · Assistance getting your app and data migrated to Azure · Depending on requirements, available from Rackspace and/or Rackspace-approved partners	Additional services available	Additional services available
Custom DevOps Professional Services	Additional services available	Additional services available
DBA Services		Additional services available
Rackspace Application Services		Additional services available
Rackspace Managed Security		Additional services available

See Supported Azure Services appendix for a list of Azure features currently covered.

EXPANDED SERVICES DESCRIPTION

SUPPORTING YOUR AZURE ENVIRONMENT

TECHNICAL ONBOARDING MANAGER AND SERVICE DELIVERY MANAGER

Rackspace will assign a Technical Onboarding Manager (TOM) during the implementation of your environment. The TOM is your personal contact for assistance with the Rackspace onboarding process. At the Navigator service level, the TOM provides initial guidance on using your account. At the Aviator service level, the TOM coordinates the process of getting your environments up and running on Azure.

Rackspace will also assign a Service Delivery Manager (SDM) to each customer to help guide you through the Rackspace support process and oversee the management of your account. Each SDM is backed by a team of Azure-certified engineers, responsible for 24x7x365 monitoring and operational support of your Azure environments.

ARCHITECTURAL GUIDANCE AND IMPLEMENTATION

For Aviator customers, Rackspace will design, build and deploy your Azure solution. Aviator customers will have access to experienced Rackspace personnel who can assist with environment architecting and planning. This assistance is available through our implementation phase, or via scheduled guidance calls and standard ticket correspondence. Aviator customers can engage Rackspace for comprehensive application architecture review. Once we have completed the environment build, per the configuration agreed upon during the implementation process, our Azure support team will provide the day-to-day support of your Azure environments, addressing incidents and change management as well as day-to-day management via a customer runbook. Navigator customers will be limited to using the standardized deployment templates only, and architectural guidance and implementation are not provided.

Rackspace has a repository of proprietary and opinionated best-practice templates that will be available to both Navigator and Aviator customers. Using ARM templates for deployments helps ensure your environment will have up-to-date security improvements, access to the latest Azure services as released by Microsoft, and faster VM deployment times.

AVIATOR:

- Access to template library
- Rackspace will deploy templates on the customer's behalf
- Rackspace will troubleshoot deployment failures
- ARM template creation will be limited to basic infrastructure and services (VM, storage, network, App Service, Azure SQL Database, etc.) and existing gallery software items. Rackspace can create custom ARM templates through a Professional Services engagement (further changes to custom templates after creation are the responsibility of the customer).

NAVIGATOR:

- Access to template library
- Customer is responsible for all template deployment and troubleshooting

TICKETING PROCESS

One of the primary ways that you can interact with Rackspace is by creating a ticket in the Rackspace Customer Portal (<https://my.rackspace.com>). Once logged in, click the "Tickets" button from the menu to create a new ticket or view an existing ticket. Our automated systems will also create tickets for events on your Azure account that require either your attention or the attention of a Rackspace employee. For example, our Azure monitoring suite will create a ticket when an alarm is raised, allowing a Rackspace employee to triage the alarm and take appropriate action. Any time a ticket is updated, you will receive an email directing you back to the Rackspace Customer Portal to view the latest comments. You can also call the 24x7x365 Support Team at any time.

Incident Response: All customer-submitted requests are automatically categorized as Standard requests. Rackspace will respond to your support requests in the following time frames:

Standard: If your Azure resources are functioning normally but you require information or assistance, wish to schedule maintenance, or require the completion of any other non-immediate tasks, we will respond to your support request within four hours at the Aviator service level and 24 hours at the Navigator service level.

Urgent: If your Azure resources are at less-than-optimal performance, we will respond to your support request within one hour at the Aviator service level and four hours at the Navigator service level.

Emergency: If you cannot access your Azure resources via standard methods, we will respond within 15 minutes (Aviator only).

Note: For requests that require an urgent or emergency classification, please call the 24x7x365 support line directly.

CUSTOMER RUNBOOKS

During the implementation process, Rackspace will work with you to create a customized monitoring response runbook. This runbook defines the immediate responses (IRs) the Rackspace support team will use as the standard operating procedures for servicing your monitoring alerts. Our IRs include custom escalation procedures in accordance with your business needs and best practices. These customer runbooks are designed to present the right information at the right time to our support teams to enable a world-class support experience. Providing relevant and focused guidelines to our support teams increases availability of customer solutions.

ACCOUNT REVIEW

Account reporting is available upon request and provides an overview of your environment's performance, as well as operational elements such as the status of backups, patching and antivirus. This includes recommendations around the use of various types of Azure resources, alerts/tickets review, investigation for performance improvements and cost optimization (Aviator only).

24x7x365 SUPPORT

MONITORING

Rackspace utilizes Azure Operational Management Suite (OMS) as the primary monitoring and reporting platform for Fanatical Support for Microsoft Azure for customers at the Aviator support level. In association, each VM (Linux/Windows) will have the OMS monitoring agent installed and registered with the customer workspace. While OMS is available to all Azure subscribers, customers using our Aviator service level can opt to have Rackspace respond to monitoring alarms. As an Aviator customer, you can work with your Fanatical Support team to create the customized monitoring solution that best fits your needs. The Rackspace standard set of global alerts covers anti-malware, Windows active Directory, MSSQL, IIS, Azure activity logs, general system health and availability, Platform-as-a-Service metrics, and numerous Linux and Windows performance counters. Rackspace monitoring is a combination of the systems responsible for creating Rackspace support tickets and the certified Azure experts who take the actions necessary to mitigate the indicated alarm conditions 24x7x365.

Rackspace has defined the following alert categories and severities. Rackspace will respond to the alerts in the same time frames as stated above.

MONITOR TYPE	SEVERITY CATEGORY
URL Monitors (Application Insights)	Emergency
OMS Resource Monitors (CPU/RAM/Disk)	Standard
Antivirus Alerts	Standard

During the implementation process for Aviator customers, Rackspace will confirm any monitoring requirements and can assist in the creation of URL monitors for service availability upon request.

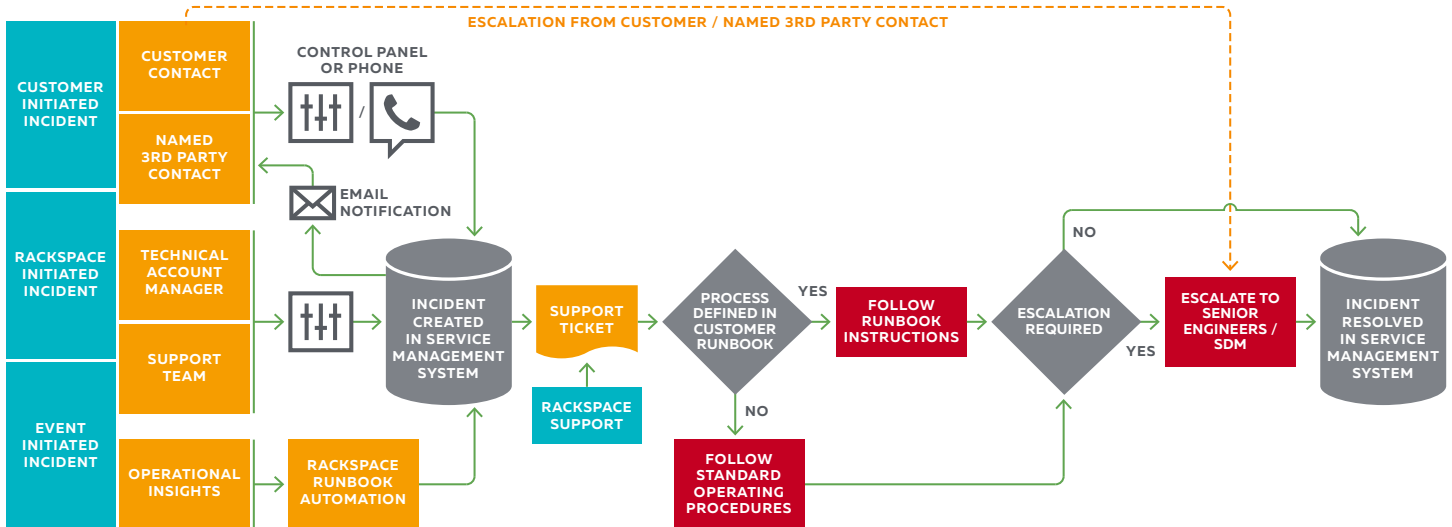
INCIDENT MANAGEMENT

Incident management refers to the management of incidents where restoration of services is the primary objective. Rackspace endeavors to restore normal service as quickly as possible when an incident occurs.

Rackspace will apply a consistent approach to all incidents, except where a specific approach has been previously agreed upon with you in accordance with your accounts runbook. Incidents can be initiated by named account contacts or Rackspace or Azure event management tools such as Operations Management Suite (OMS). You can expect the following from the Rackspace incident management process:

- All incidents are logged in tickets accessible via the Rackspace Customer Portal (<https://racker.my.rackspace.com/portal/home>). Rackspace support teams will investigate the incident in accordance with your service level, once logged.
- Priority for tickets entered manually via the Customer Portal is initially set to "Standard." Should you desire an escalation of priority, please phone your Rackspace support team or your assigned Service Delivery Manager. Incidents logged with a specific priority will not be changed to another priority without the agreement of all parties involved.
- Prior to investigation, Rackspace support will carefully review instructions on your account (documented via the account runbook).
- Rackspace will collaborate with you as well as with any third parties you nominate as technical contacts on your account to resolve the incident.
- At all times, you will have visibility into which support engineer is working on the incident.
- Rackspace support teams will communicate regularly with you throughout the incident, detailing their findings and any actions taken.
- If a support engineer is unable resolve an incident, they may escalate the incident at any time until resolution is achieved. This escalation may be hierarchical (to a more senior engineer or the Service Delivery Manager) or functional (involving specialized technical expertise from other functional groups or Microsoft).
- The action required to resolve an incident will vary depending on investigative findings. In some cases, a proposed solution may be complex or cause additional disruptive impact to your Azure environments. In these cases, the incident will be handled as a change through the Rackspace change management process, and you will be consulted to determine the time window during which the solution or change may be implemented. Alternately, you may be required to take action to resolve the incident, which will be communicated should such a need occur.
- An incident is deemed closed when you confirm that it is resolved. This is achieved through the incident ticket being set to "Solved" status. You may also phone into the 24x7x365 support line to discuss a change and request a ticket be created.

INCIDENT MANAGEMENT PROCESS



CHANGE MANAGEMENT

Change management includes a standardized set of procedures that enables Rackspace to deliver efficient and prompt handling of all changes in an organized manner to help ensure minimum impact on the services.

- Your Rackspace Service Delivery Manager will be available to work with you on all operational, technical and commercial changes to the environment.
- All changes will be managed through the Rackspace ticketing systems. This supports long-term tracking of all information and the optimum delivery of services through the various lifecycle processes of deployment, change management, incident management, etc.
- Rackspace will raise a ticket accessible via the Rackspace Customer Portal for changes that are owned or initiated by Rackspace. Conversely, you can raise a ticket for situations where Rackspace support is required for any changes owned and initiated by your business. You may also call the 24x7x365 support line to discuss a change and request that a ticket be created.
- Rackspace will organize the support engineers with specific domain expertise to manage the change as scheduled, keeping you fully informed on progress.
- For changes or upgrades to your own internal infrastructure, you are responsible for coordinating with your internal resources and third-party contacts to manage the change as scheduled, keeping Rackspace informed of the progress via a Rackspace support ticket.

SUPPORT IMPROVEMENT PLANS

Rackspace will always strive to provide Fanatical Support to your account. However, if an issue arises or you are dissatisfied with the service you are receiving from Rackspace, a Service Improvement Plan (SIP) can be developed by your Service Delivery Manager. A SIP will address your concerns and assign and track actions to completion until the support you receive on your environment meets your expectations. The objective of the SIP is to define specific initiatives aimed at improving services and processes. The resulting initiatives could be either initiatives pursued by Rackspace or initiatives which require your cooperation.

The development of the plan will be done in conjunction with you and requires your agreement on the actions that will be completed while the SIP is in place. Your Service Delivery Manager will complete regular reviews with you on the progress made against each action documented in the SIP. Once all actions are complete, you are required to agree before the SIP can be closed. It may be necessary to have a "closure" meeting to discuss each action.

PATCHING

During the implementation process, Rackspace will consult with you on your patching needs.

NOTE: Rackspace will not patch middleware or customer applications due to the potential of harming customer environments when not thoroughly tested in their specific environment.

BACKUPS

Upon customer request, Rackspace Support teams will configure, manage, monitor and troubleshoot the native Azure IaaS VM backup service. Image-level backups are non-intrusive and provide customers with the ability to restore an entire virtual machine. Currently, Azure supports application-consistent backups for Windows and file-consistent backups on Linux. If data needs to be restored from a backup vault, you may log a ticket within your Rackspace Support team.

Rackspace is not liable for the integrity of restored data. We recommend that customers regularly test restoration as part of normal business continuity planning.

ANTIVIRUS

For Aviator customers with a Windows environment, Rackspace will configure and install, by default, the Microsoft anti-malware agent. The agent will be enabled with a set of exclusions predefined by Microsoft and Rackspace. Once the agent is installed, customers will receive notifications for malware events via the Rackspace ticketing system.

OPERATING SYSTEM SUPPORT (AVIATOR ONLY)

Aviator customers will receive operating system support for their IaaS VM instances. Support services are categorized as managed patching, managed antivirus (Windows only), managed backup, and remote configuration and troubleshooting.

For in-depth information on Rackspace OS system support:

Linux: <https://support.rackspace.com/how-to/linux-spheres-of-support-for-dedicated-and-managed-ops/>

Windows: <https://support.rackspace.com/how-to/cloud-servers-with-managed-operations-support-for-windows/>

AZURE SERVICE HEALTH EVENT NOTIFICATIONS

Azure service health event notifications are published by Microsoft and allow you to view service health messages that may affect your environment. Service health notifications can be informational or actionable, depending on the class. Rackspace will relay the notifications to you via our ticketing system and assist with any escalations to Microsoft as required.

SECURE SERVER ACCESS (AVIATOR ONLY)

Rackspace has created a proprietary tool that is used to provide managed access to your IaaS VM resources. This tool helps to ensure that all Rackspace access to your IaaS VM resources is secure, time-limited and audited. In addition, Rackspace has established a bastion server management standard, which must be present in the customer environment.

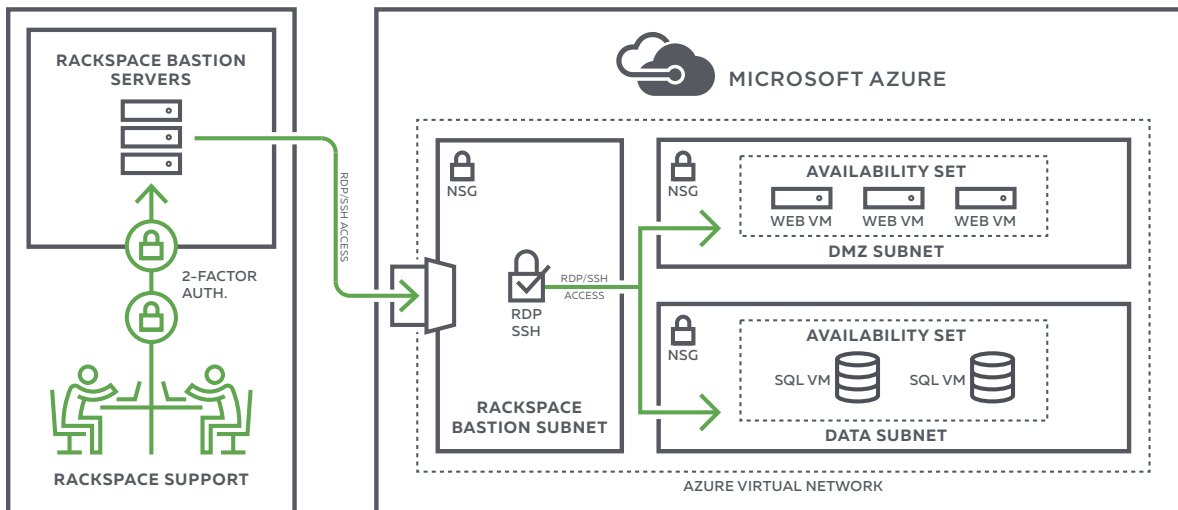
BASTION DETAIL

Rackspace support engineers will connect to the bastion server from known and controlled networks in various Rackspace data centers using the remote desktop protocol (RDP) or SSH. Once access has been established, support engineers will access your environment using RDP and/or WinRM and/or SSH from the bastion host. Traffic from the bastion host will pass across the Azure bastion virtual subnet to the various subnets within your Azure virtual network.

Rackspace will create the bastion server within a specific subnet and will create one bastion per virtual network (VNET). The preferred virtual machine for the bastion host is:

INSTANCE	CORES	RAM	DISK SIZE	OPERATING SYSTEM
a1v2	1	2GB	30GB	CentOS 7

THE FOLLOWING DIAGRAM IS AN EXAMPLE BASTION SERVER DEPLOYMENT



ADD-ON SERVICES

MIGRATION ASSISTANCE

Transitioning from an existing environment to Azure requires specific expertise and resources skilled in technology transformation, migration planning and risk mitigation. For an additional fee and with assistance from other businesses where needed, Rackspace will own the process of migrating your applications to Azure. Please engage your sales representative for further information regarding pricing and timelines.

DATABASE SUPPORT

Rackspace has extensive experience and comprehensive support expertise to provide database support for MSSQL. We operate teams of highly trained and certified database experts focused on delivering an exceptional experience, 24x7x365.

Our experts are available through every stage of your project, from architecture and design to administration and monitoring.

As part of our Aviator offer, Rackspace will provide support for Azure Microsoft SQL Server® instances, including installation, configuration, monitoring, troubleshooting and support, as illustrated in the table below.

Rackspace will also perform these services for databases within the customer's environment upon request.

In addition to the database support offered within Aviator, and for an additional fee, Rackspace can provide advanced DBA services tailored to your specific needs.

INCLUDED IN AVIATOR	ADVANCED DBA ADD-ON SERVICES
<ul style="list-style-type: none">· Best-Practice Guidance· Knowledge Base· Community Support	<ul style="list-style-type: none">· General Consultation· Advanced Architecture Design· Partner Engagement
<ul style="list-style-type: none">· Database Setup and Configuration· MSSQL Server Cluster Initial Setup· User Administration· Security Administration· Database Health Monitoring	<ul style="list-style-type: none">· Performance Tuning and Diagnostics· Data Import and Export· MSSQL Server Mirroring and Log Shipping· MSSQL Server Cluster Maintenance/Change
<ul style="list-style-type: none">· Backup and Recovery (limited to full Db restores)· Configuration of MSSQL Server Backups (Db and transaction log)· Monitoring/Troubleshooting MSSQL Backup Job Failures	<ul style="list-style-type: none">· Customized Maintenance Plans· Refresh and Migrate Data Between Instances and Data Centers· Advanced Restore Requests (point-in-time recovery)
<ul style="list-style-type: none">· Availability Issues in Production	<ul style="list-style-type: none">· In-Depth Incident Retrospective

BENEFITS OF OUR DBA ADD-ON SERVICES:

- Get expert help designing the right database architecture: Our DBAs will help you across your project lifecycle, including during the critical early decisions about application architecture, business continuity, replication, and data model and key query optimization.
- Improve uptime and reduce incidents in production: Our administration and troubleshooting services include migration, backup, restore and advanced monitoring of your application in production to help reduce downtime and incidents that may impact your business.
- Focus your resources on your business requirements: Database administrators are a scarce and expensive resource. By relying on Rackspace DBA Services for your MSSQL Server, your current team can focus on implementing those requirements that only you can execute, while letting our team support yours.
- Reduce the burden on your DBA staff with Fanatical Support: Your business does not sleep, and neither does ours. Our DBA Services team will look after your application 24x7x365, using our tool set of database health monitoring, replication monitoring, backups, recovery and customized maintenance plans, among others.

Please engage your sales representative for further information regarding DBA Services pricing.

RACKSPACE APPLICATION SERVICES (RAS)

Available as an add-on service for Aviator customers, Rackspace Application Services (RAS) extends Fanatical Support up the stack to the application layer. RAS provides application expertise, performance monitoring and proactive support for your mission-critical websites and applications. RAS enables end-to-end transaction visibility and real-time end-user experience monitoring using industry-leading tools, meeting uptime requirements for mission-critical applications with a cost-effective model. RAS is available in blocks of 10, 20 or 40 hours per month. Benefits include:

- The ultimate application services experience (we set up, monitor and proactively optimize the environment)
- 100% production platform uptime guarantee with approved HA environments
- Proactive guidance to ensure stable application environments
- Proactive application and infrastructure monitoring and tuning for maximum application performance
- Constant analysis of performance metrics and trending reports
- Highly customized solutions delivering a complete view of your environment
- End-user experience analysis and incident detection
- Real-time transaction-level monitoring
- Diagnostic performance reporting

RACKSPACE MANAGED SECURITY (RMS)

Available as an add-on service for Aviator customers, Rackspace Managed Security (RMS) protects your IT environment against advanced persistent threats (APTs) and other cyberattacks. RMS provides deep expertise, leading technology and advanced threat intelligence, tailored to your business needs, for a 24x7x365 defense – often at a significantly lower total cost of ownership (TCO) than internally developed security operations centers and comparable managed security service offerings.



REASONS TO CHOOSE RACKSPACE MANAGED SECURITY

- 24x7x365 detection and response: Our experienced Rackspace security team monitors and manages your environment around the clock, responding to threats based on your specific business needs and IT requirements.
- Leverage security experts: Use Rackspace Managed Security service as a security force multiplier. We can tailor support to meet your security goals, whether it's strategic planning for best-practice cloud security or tactical day-to-day security monitoring and threat analysis.
- Employ industry best practices and advanced security solutions: Rackspace works closely with a select list of security providers, giving you access to collective expertise from across the industry, along with advanced technology to protect your managed cloud.
- Meet security goals while lowering TCO: The advanced security protection of Rackspace Managed Security can significantly lower TCO over internally developed security operations centers and comparable managed security service offerings.

FEATURE	BENEFITS
HOST AND NETWORK PROTECTION	Get advanced host and network protection platforms targeted at zero-day and non-malware attacks as well as traditional compromise tactics.
SECURITY ANALYTICS	Leverage a leading security information and event management (SIEM) platform, paired with big data analytics platforms, to collect and analyze data from your environment.
VULNERABILITY MANAGEMENT	Get advanced scanning and agent technologies to understand environment specifics and respond to threats and attacks based on your needs.
LOG MANAGEMENT	Use Rackspace to collect standard operating system logs and assist in identifying additional data that may be collected.

CUSTOM DEVOPS PROFESSIONAL SERVICES

Rackspace has extensive experience working with DevOps methodologies, practices and toolchains and can assist customers, via a Professional Services engagement, in adopting DevOps methodologies and practices inside their own organizations.

Rackspace DevOps Professional Services has two methods of delivering DevOps outcomes for customers:

- Working with you to identify and implement any additional custom tooling necessary to achieve your business goals
- Assisting you in evaluating and assessing the maturity of DevOps practices within your organization if you are in the early stages of your DevOps journey

You can expect the following from our Professional Services engagement:

- Creation of in-depth customization for your application utilizing the Microsoft DevOps toolchain
- Assistance in the writing of customized configuration management code using third-party tools
- Implementation and customization of continuous integration/continuous deployment (CI/CD) toolchains using third-party tools
- Custom plug-in integration between DevOps and ChatOps tools like Slack

DEVOPS MATURITY AND STRATEGY PLANNING

As part of a DevOps Professional Services engagement, Rackspace will help deliver the outcomes required via internal or trusted partner-led resources. These are one-time engagements using an agreed-upon fixed time box, where we, or third parties with which we work, can help with application-specific engineering requirements. These include, but are not limited to, assistance with configuration management, continuous integration/continuous deployment and release management.

- Learn the principles, benefits and tools behind a successful DevOps culture.
- Discover the techniques for building modern applications that are self-healing and self-sustaining.
- Review your current build and deployment processes with our experts.
- Develop a roadmap that outlines your goals and timelines and defines how to integrate DevOps automation into your environment.
- Classify applications and identify key stakeholders to help drive the adoption of DevOps practices.

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APPENDIX 1:

Roles and Responsibilities

There are two parties involved in supporting your Azure environment, specifically:

- You, the customer (including any in-house IT resources)
- Rackspace, our Microsoft-certified support experts

For Aviator service level customers, the table below outlines the responsibilities of these parties during your Azure platform deployment. For Navigator customers, Rackspace will provide a Service Delivery Manager (SDM), consolidated billing across accounts and access to the Azure console user management tools.

KEY:

R = Responsible – Those who do the work to achieve the task.

A = Accountable – The one ultimately answerable for the correct and thorough completion of the deliverable or task, and the one who delegates the work to those responsible. In other words, an accountable must sign off (approve) work that a responsible provides. There must be only one accountable specified for each task or deliverable.

C = Consulted – Those whose opinions are sought, typically subject matter experts. Involves two-way communication.

I = Informed – Those who are kept up to date on progress, often only on completion of the task or deliverable. Involves just one-way communication.

SERVICE LEVEL ACTIVITIES	RACKSPACE	CUSTOMER
ACCOUNT MANAGEMENT AND TOOLING		
Provide named Service Delivery Manager (SDM) resource	R, A	C, I
Standard account reporting	R, A	C, I
Identify opportunities for cost and performance optimization	R, A	C, I
Provide opinions and best practices around account architecture, security and resiliency	R, A	C, I
Create a Rackspace account with an owner/contributor role within the customer's subscription to enable Rackspace automation	C, I	R, A
DISCOVERY		
Understand business objectives and current challenges (e.g., migration to Azure, refactoring current Azure footprint)	R, A	C, I
Schedule and conduct deep-dive discovery session	R, A	C, I
Understand systems SLAs, RTO, PPO requirements	R, A	C, I
DESIGN/ARCHITECTURE		
Define architecture options to be considered (e.g., lift & shift vs. refactoring)	R, A	C, I
Agree on high-level design (HLD) architecture	C, I	R, A
Generate high-level application/logical diagrams for proposed architecture(s)	R, A	C, I
Generate detailed infrastructure schematics for proposed architecture(s) (e.g., VNET, subnets and network security group design, etc.)	R, A	C, I
Create solution design document	R, A	C, I
Design for high availability and security-first approach	R, A	C, I
Design for sizing, scalability and performance	R, A	C, I

SERVICE LEVEL ACTIVITIES	RACKSPACE	CUSTOMER
INFRASTRUCTURE IMPLEMENTATION		
Deployment of Azure infrastructure (networking, storage and compute) using Rackspace's opinionated ARM template library	R, A	C, I
Configure IaaS components with VM extensions (anti-malware, monitoring and diagnostics)	R, A	C, I
Deployment of images outside of Rackspace Spheres of Support (SoS)	C, I	R, A
User acceptance testing (UAT) and sign off environment deployment	C, I	R, A
Configure and test WAN connectivity for ExpressRoute and site-to-site VPN (Rackspace data centers and managed subscriptions)	R, A	C, I
Configure and test WAN connectivity for ExpressRoute and site-to-site VPN (customer data centers and unmanaged subscriptions)	C, I	R, A
Initial governance assistance through deployment of resource groups and implementation of Azure tagging for Rackspace-managed deployments	R, A	C, I
Implementation of ongoing change management for Azure infrastructure components	R, A	C, I
NETWORK AND ACCESS SECURITY IMPLEMENTATION		
Consult on identity access management (IAM) roles and polices	C, I	R, A
Define Network Security Groups and rules requirements	C, I	R, A
Implement Network Security Groups and rules	R, A	C, I
Operating system user management as per Rackspace Spheres of Support (SoS)	C, I	R, A
Antivirus installation as per Rackspace Spheres of Support (SoS)	R, A	C, I
APPLICATION IMPLEMENTATION		
Deployment of application code and management of source control (Git/VSTS, etc.)	C, I	R, A
Migration of application data	C, I	R, A
Database schema creation, migration and import	C, I	R, A
Development and deployment of configuration management artifacts (Chef, Salt, Ansible, etc.)	C, I	R, A
Creation and management of continuous integration/continuous deployment pipelines	C, I	R, A
ACTIVE DIRECTORY		
Initial deployment of Azure Active Directory (AAD)	R, A	C, I
Configuration, maintenance and administration of Azure Active Directory (AAD) as needed to provide access for Rackspace engineering teams	R, A	C, I
Configuration, maintenance and administration of Azure Active Directory (AAD) as needed to provide access for clients or other third-party vendors	C, I	R, A
Configuration of AD Connect replication service to extend on-premises AD environment to Azure Active Directory (AAD)	C, I	R, A
Configuration of Active Directory Domain Services (ADDS)	C, I	R, A
Promotion of new domain controller on IaaS VM in Azure	R	A, C, I
Extending domain controller to new IaaS VM in Azure	R	A, C, I
Procurement, allocation and management of Azure Active Directory premium licenses and features (Basic, P1, P2)	C, I	R, A

SERVICE LEVEL ACTIVITIES	RACKSPACE	CUSTOMER
MONITORING		
Deployment and management of Rackspace standard OMS log analytics monitoring platform	R, A	C, I
Initial deployment of Azure Application Insights workspace	R, A	C, I
Configuration of up to three (3) web test availability monitors	R, A	C, I
Configuration and management of Application Insights dashboards and custom event logging/alerting	C, I	R, A
Configuration of Application Insights synthetic transaction URL monitors	C, I	R, A
Configuration of application performance monitoring (APM) services like Application Insights, New Relic, AppDynamics, etc.	C, I	R, A
Configuration of any custom OMS alerts	C, I	R, A
TICKETING/ALERTING		
24x7x365 access to Fanatical Support for Rackspace standard monitoring services, including initial responses, escalations and troubleshooting of incidents within Rackspace response time SLA guarantees	R, A	C, I
Ongoing definition, management and maintenance of Rackspace's standard OMS monitoring platform, including the definition of alert triggers, thresholds and remediation instructions	R, A	C, I
Initial response, escalation and troubleshooting of custom alerts on Azure, including non-standard OMS alerts, APM alerts, etc.	C, I	R, A
BACKUPS AND DISASTER RECOVERY		
Creation of an Azure Recovery Service vault (RSV)	R, A	C, I
Creation and management of VM backup policies and schedules to Rackspace standards	R, A	C, I
Monitoring and remediation of backup failures on Rackspace standard backup service	R, A	C, I
Verification of validity of backup data/methodologies	C, I	R, A
Backup restoration testing	C, I	R, A
Backup restoration request	R	A, C, I
Installation/configuration/management of Azure file-level backup agents and service	C, I	R, A
AZURE SITE RECOVERY (ASR)		
Design of DR/BCP strategy, including end-to-end environment failover processes, communication strategy or any related activity for the creation of a disaster recovery or business continuity plan	I	R, A
Design of ASR architecture to Rackspace best-practice standards for approved workloads from one Azure region to another	R, A	C, I
Configuration of simple ASR Recovery Plan using a single failover group (custom scripting excluded)	R, A	C, I
Configuration of custom ASR Recovery Plan using multiple failover groups and/or custom scripting	C, I	R, A
Configuration of Azure-to-Azure ASR replication services	R, A	C, I
Configuration of ASR replication module in Rackspace monitoring platform	R, A	C, I
Emergency failover using pre-configured ASR Recovery Plan	R	A, C, I
Perform ASR "Test Failover" service once every six months, allowing validation of infrastructure failover orchestration as well as data replication services (application failover testing excluded)	R, A	C, I
Application failover testing following ASR "Test Failover"	C, I	R, A
24x7x365 incident response for ASR replication issues	R, A	C, I

SERVICE LEVEL ACTIVITIES	RACKSPACE	CUSTOMER
PATCHING		
Installation/configuration of automated OS-level patching via the OMS update management service	R	A, C, I
Installation/configuration of automated OS-level patching via automatic updates within OS	R	A, C, I
Deployment/configuration/management of any other patch management service	C,I	R, A

APPENDIX 2:

SUPPORTED AZURE SERVICES

Customers of Fanatical Support for Microsoft Azure are able to select from the Azure product groups listed below to build their hosted infrastructure. Rackspace provides best-practice opinions (developed both with Microsoft and through our experience) around the Azure product set.

BELOW ARE THE SUPPORTED AZURE SERVICES:

Note: Some products listed below may be subject to different terms, conditions, service level agreements and levels of support.

- **COMPREHENSIVE SUPPORT:** Rackspace has substantial support expertise and has developed specific support services.
- **REASONABLE EFFORT:** Reasonable activities undertaken to resolve issues but with no guarantee of resolution. Escalation management to Microsoft where required. Over time, best-effort features may transition into Comprehensive Support.

Customers are able to deploy resources outside the list documented below; however, Rackspace does not represent expertise in these areas. Rackspace support can be engaged for special escalation scenarios; however, feedback and responsiveness may be limited. Any Azure feature or service not listed below is considered Reasonable Effort.

FEATURE	REASONABLE EFFORT	COMPREHENSIVE SUPPORT
COMPUTE		
Virtual Machines		✓
Virtual Machine Scale Sets	✓	
Cloud Services	✓	
Batch	✓	
WEB & MOBILE		
Web Apps		✓
Logic Apps	✓	
Functions	✓	
API Apps	✓	
DATA & STORAGE		
SQL Database		✓
Storage		✓
Import/Export	✓	
Redis Cache		✓
Cosmos DB		✓
Search		✓

FEATURE	REASONABLE EFFORT	COMPREHENSIVE SUPPORT
ANALYTICS		
HDInsight	✓	
NETWORKING		
Virtual Network		✓
Traffic Manager		✓
ExpressRoute		✓
Azure DNS		✓
Load Balancer		✓
VPN Gateway		✓
Application Gateway		✓
MEDIA & CDN		
CDN	✓	
HYBRID INTEGRATION		
Service Bus	✓	
Backup		✓
IDENTITY & ACCESS MANAGEMENT		
Azure Active Directory		✓
Multi-Factor Authentication	✓	
Azure Active Directory B2C	Unsupported	
Azure Active Directory Domain Services	✓	
DEVELOPER SERVICES		
Visual Studio Team Services	✓	
Azure DevTest Labs	✓	
MANAGEMENT		
Scheduler	✓	
Automation		✓
Log Analytics		✓
Key Vault		✓
Security Center	✓	
Application Insights	✓	

FEATURE	REASONABLE EFFORT	COMPREHENSIVE SUPPORT
INTERNET OF THINGS (IOT)		
Notification Hubs	✓	
Machine Learning	✓	
Event Hubs	✓	
Stream Analytics	✓	
Azure IoT Hub	✓	
AZURE SITE RECOVERY (ASR)		
Azure-to-Azure ASR		✓
Hyper V-to-Azure ASR		○
VMware®-to-Azure ASR	✓	
Bare Metal-to-Azure ASR	Unsupported	

○ Service available as an add-on

APPENDIX 3

SUBSCRIPTION MANAGEMENT

OWNER/CONTRIBUTOR ACCESS

To complete onboarding and enable full support for your Azure subscription, Rackspace requires owner or contributor access. Several of our support offerings require that the owner/contributor account be an “organizational account” rather than a “Microsoft account.” If you are unable or unwilling to provide an organizational account for owner/contributor, some support services may not be available, or may be limited in scope.

The owner/contributor account credentials will be stored within a secure password repository at Rackspace and utilized by our technicians during support, troubleshooting, deployment and other similar activities.

AZURE ACTIVE DIRECTORY SERVICE PRINCIPAL

Rackspace must deploy an Azure Active Directory Service Principal. Service Principals in Azure AD are used to assign permission levels to securable resources within the scope of a particular Azure subscription. When associated with an Azure AD application, they can be used to enable programmatic access to Azure resources within that subscription.

When Fanatical Support for Microsoft Azure is enabled for a subscription, a Service Principal is created and granted read/write access to the resources within that subscription. This allows Rackspace automation systems to interact with the subscription in order to facilitate management and integration tasks such as portal views and resources tracking.

Service Principals are granted a role-based access control (RBAC) security group. This allows a granular assignment of permissions to specific resources and access levels for the service principal. When a code-flow or programmatic access model is used with a Service Principal, a key is used to authenticate against Azure AD. This key is easily expired in case it ever becomes compromised or if access via the Service Principal should be revoked.

APPENDIX 4:

FREQUENTLY ASKED QUESTIONS

Q: What is the main difference between Navigator and Aviator?

A: The Navigator service level is designed for customers who want to retain a hands-on capability for the configuration and management of their Azure environment while relying on Rackspace as a trusted advisor with 24x7x365 availability. Aviator extends the benefits of Navigator through additional tooling and increased access to human expertise, incorporating best practices and 24x7x365 operational support for your Azure environment. Aviator is for customers who want more of a Comprehensive Support experience, including guest virtual machine management.

Q: I have different environments (development, testing, production) and would like a different service level for each environment. How do I do that?

A: Service levels are applied to a subscription. So you would need a minimum of two subscriptions, one for each service level. For example, if you want Navigator for development and testing, then you could combine both of those environments into a single subscription and have a second subscription for your production environment under Aviator to receive our Comprehensive Support service.

Q: If I have an existing deployment, can I purchase Aviator for it?

A: Yes. Rackspace will perform an analysis of the environment to ensure supportability at the Aviator level. This evaluation may result in recommended remediation activities that can be handled by the customer or Rackspace (service fees may apply).

Q: Can I purchase Aviator if I am using Classic (ASM) resources?

A: No. Because of the nature of our support tools and automation for Aviator, we only support Azure Resource Manager (ARM) resources.

However, Rackspace can assist in migrating Classic resources for a fee.

Q: Can I downgrade from Aviator to Navigator?

A: Yes. However, the agents that were installed for Rackspace's monitoring, backup and antivirus will need to be un-installed, and the environment will no longer receive monitoring alerts from Rackspace.

Q: If I purchase Azure through Rackspace under the Cloud Solution Provider (CSP) agreement, do I have to choose a specific support level?

A: No. The CSP program offers the convenience of a single purchasing point for both Azure services and Fanatical Support for Microsoft Azure. Both Navigator and Aviator are available for CSP customers.

Q: If I am a Navigator customer, will Rackspace deploy my resources?

A: No. Under the Navigator service level, customers are required to deploy their own resources. Rackspace is available for consultation purposes.

Q: If I am an Aviator customer, am I required to have Rackspace deploy my resources?

A: No. Rackspace provides established standards for resource deployment in order to help ensure supportability. However, failure to abide by these standards may impact support service capabilities.

Q: If I am a Navigator customer and I have an issue, how does Rackspace determine whether it is supported at the Azure platform level?

A: If the situation is unclear, we suggest submitting a ticket for Rackspace evaluation. We have common criteria we leverage to help determine which layer may be presenting issues. For example, you may have a VM that is performing poorly but are unsure what the performance issue is.

For Navigator customers, we would check the Azure health and audit logs for indications of platform service issues. We may enable diagnostics for the storage container used by the VM and look for instances of resource starvation. However, Rackspace will not log on to the actual VM or review any operating system performance counters.

Q: Is there a limit to the number of escalations I can have at each service level?

A: No. However, Navigator customers with substantial numbers of cases may be encouraged to increase service levels in order to provide more of a Comprehensive Support experience.

Q: Can I consume additional Rackspace Azure service offerings on Navigator, such as Rackspace Managed Security (RMS) or DBA Services?

A: No. You must have the Aviator service level to consume RMS or DBA services.

Q: How does Rackspace leverage Azure Resource Manager (ARM) templates?

A: Rackspace has a number of proprietary and best-practice templates that will be made available to both Navigator and Aviator customers.

Navigator:

- Access to template library
- Customer is responsible for all template deployment and troubleshooting

Aviator:

- Access to template library
- Rackspace will deploy templates on the customer’s behalf
- Rackspace will troubleshoot deployment failures
- ARM template creation:
 - ARM template creation will be limited to basic infrastructure and services (VM, storage, network, App Service, Azure SQL Database, etc.) and existing gallery software items.
 - Rackspace can create custom ARM templates through a Professional Services engagement. Further changes to custom templates after creation are the responsibility of the customer to initiate.
 - Customer will have access to templates that relate to add-on Rackspace offerings (RMS, SharePoint, etc.).

Q: Will we have different SLAs between Navigator and Aviator?

A: Yes. The following table illustrates our response-time SLAs for Navigator and Aviator:

PRIORITY	NAVIGATOR	AVIATOR
Emergency	N/A	< 15 Minutes
Urgent	< 4 Hours	< 1 Hour
Standard	< 24 Hours	< 4 Hours

Q: What are the typical build timelines for new deployments?

A: This is dependent upon the size of the environment and the complexity of the configuration.

ABOUT RACKSPACE

Rackspace is the #1 provider of IT as a service in today's multi-cloud world. We deliver certified expertise and integrated managed services across public and private clouds, managed hosting and enterprise applications. Because Rackspace partners with the leading technology providers, including Alibaba®, AWS, Google, Microsoft®, OpenStack®, Oracle®, SAP® and VMware®, we are uniquely positioned to provide unbiased advice on the technologies that will best serve each customer's specific needs. Rackspace was named a leader in the 2018 Gartner Magic Quadrant for Public Cloud Infrastructure Managed Service Providers, Worldwide and has been honored by Fortune, Glassdoor and others as one of the best places to work. Based in San Antonio, Texas, Rackspace serves more than 150,000 business customers, including a majority of the Fortune 100, from data centers on five continents.

Learn more at www.rackspace.com or call us at **1-800-961-2888**.

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