Solution Overview

Fanatical Support for AWS

with Rackspace Service Blocks

aws

Overview

Many businesses want to realize the power of AWS 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. Others may have the ability, but choose to maintain focus on their core business. Many larger businesses are on a multi-phased journey to the cloud, requiring transition and management services that can adapt to an evolving set of needs.

Fanatical Support® for AWS with Rackspace Service Blocks™ is the answer for businesses facing these challenges. As a premier consulting partner, Rackspace provides customized cloud service offerings to meet specific needs — providing the flexibility to change or grow your cloud services as your AWS needs change, and increase value by delivering the most needed services and support. This includes architecture help, access to the experts you need to solve your problems, security assistance, 24x7x365 management, cost governance and many other value-added services — all backed by AWS-certified engineers and architects.

Our Offers

Fanatical Support for AWS has been crafted to address the core challenges businesses face in implementing and operating AWS environments. Rackspace Service Blocks allow you to customize your service experience.

Platform Essentials (required for all Fanatical Support for AWS accounts)

Platform Essentials is the base platform for Rackspace Managed Public Cloud services upon which all other services are built. Platform Essentials includes AWS Cloud Support powered by AWS Certified Rackers and backed by AWS Enterprise Support, unified billing for all of your Rackspace platforms and other Managed Public Cloud Accounts, and access to the Fanatical Support for AWS Control Panel to manage all AWS accounts and user management.

Rackspace has built industry-leading tooling that provides customers with better insight into their Fanatical Support for AWS environment. This tooling gives a customer access to CloudHealth, Waypoint and Logbook. More details about these tools can be found in the Tooling & Automation section below.

Cost Optimizer
Cloud computing requires continuous monitoring, analysis and adjustment to ensure that you are not wasting resources and that the resources you are investing in are driving your business forward. Included in Platform Essentials is Cost Optimizer, the most comprehensive cost management support for your AWS deployment, providing clear insights into your AWS spend and recommendations on how to reduce cost.

Cost Optimizer delivers expert Rackspace advice and guidance on maximizing the cost efficiency and spend optimization of your cloud investment. You get complete access to actionable resource information using best practice guidelines, leading cost tooling and usage reporting and analytics.

Architect & Deploy

This service is for customers seeking to expedite their migration to AWS using proven design, automation and migration methodologies — all executed by Rackspace solution architects, AWS-certified build engineers and onboarding managers who have years of deployment experience. Architect & Deploy is required for customers using the Manage & Operate offer.

Discover & Enhance

Certified cloud experts review your existing public cloud environment to identify areas for enhancement. Based on your input, Rackspace engineers apply best practices to update your public cloud infrastructure so that you can be confident it will continue to meet your business needs, while helping to minimize costs and maximize availability, security and performance. Discover & Enhance is required for customers who have an existing AWS environment and who would like to leverage the Manage & Operate offer.

Manage & Operate

This service block provides tooling, automation, monitoring and 24x7x365 access to certified cloud specialists for day-to-day operational support and management. Manage & Operate includes access to additional tooling, like Passport™ (an instance access request control tool), Watchman (turns monitoring alerts to tickets for Rackers to address) and Instance Scheduler (configuration of custom start and stop schedules for EC2 and RDS instances). Your Rackspace technical support professionals are available around the clock and will help you resolve issues quickly and effectively.

Complex Cloud Operations

As a business matures or its cloud spend increases, operating AWS can become more complicated. Complex Cloud Operations will help you manage the interconnections and interdependencies with Rackspace experts that have worked with other similarly complex cloud deployments. Whether you desire a deeper technical relationship to drive outcomes or need assistance handling your architecture's complexity, Complex Cloud Operations can assist.

Tooling & Automation

CloudHealth (available with Platform Essentials)

CloudHealth is the leading multi-cloud management platform designed to drive increasing business value at every stage of your cloud journey.

Visualize and report: CloudHealth lets you categorize and view your assets by any logical business group (e.g., line of business, environment, application) to gain visbility and access all your data in one place. You can use these groupings to create and subscribe to reports and dashboards to discover trends.

Optimize and recommend: Get actionable recommendations to reduce cost, improve security and streamline performance. This includes everything from RI recommendations, flagging security vulnerabilities, untagged infrastructure or underutilized assets across all your AWS accounts.

Govern via policies: Define what the desired state should be in your AWS environment, and then get alerted anytime cost, usage, configuration, performance or security drifts from the desired state.

Automate via actions: CloudHealth can take actions, such as start, stop, terminate or resize assets when certain policy conditions are met. For example, you might set a policy to flag unattached disk storage after 14 days, alert the owner, take a snapshot, and then terminate it. This allows you to spend less time running your cloud environment hands-on yet maintain high levels of optimization and security.

Logbook (available with Platform Essentials)

AWS and Rackspace generate detailed control plane logs for the vast majority of activities that occur on your Fanatical Support for AWS account(s). This data is aggregated from a number of different sources, including:

- **AWS CloudTrail:** Detailed logs of AWS API requests made on your account(s) to supported AWS services.

- **Fanatical Support for AWS shared management system and user interfaces:** View control panel logins and other actions (e.g., creating a new linked AWS account or modifying control panel user permissions).
- **Fanatical Support for AWS environment access:** Any time a Rackspace employee or one of your employees creates an access request to provision a temporary bastion for access to your AWS environment, view the specific resources they had access to, the source of their access request and other associated details.

The Logbook section of the Fanatical Support for AWS control panel provides insight into all of the activities noted above. You can view the activities for a specific AWS account or a combination of accounts, and filter the results to find the specific activities you're interested in reviewing. This consolidated view is extremely valuable for managing and auditing access and activities across multiple AWS accounts.

Waypoint (available with Platform Essentials)

Waypoint provides a high-level overview of spend, risks and operations for all of your AWS accounts. Waypoint consolidates details of accounts using the tooling offer, and is available only to users who have access to all AWS accounts within their Fanatical Support for AWS account. The goals of Waypoint are to keep you informed, provide recommendations and help ensure Rackspace and your team work together to improve your experience.

Waypoint collects information by using both AWS APIs and custom Rackspace APIs to provide a consolidated view across all of your environments. It's like an executive summary for a Rackspace account review. Waypoint is both a near-real-time dashboard (for the current month) and an end-of-month snapshot (for past months) for details such as spend, usage, ticketing and alarms. Waypoint stores up to 12 months of past reports. Users with access to all AWS accounts within a Fanatical Support for AWS account can access Waypoint in the Fanatical Support for AWS control panel.

Watchman (available with Manage & Operate)

AWS CloudWatch is the primary monitoring system used by Fanatical Support for AWS support teams. While CloudWatch is available to Fanatical Support for AWS accounts at all service levels, customers using the Manage & Operate offer opt to have Rackspace respond to alarms generated by CloudWatch. Rackspace Watchman is a combination of the systems responsible for creating Rackspace support tickets from the alarms and the certified AWS experts who take the actions necessary to mitigate the indicated alarm conditions, 24x7x365.

CloudWatch alarms are configured to trigger when the value of a specified metric deviates from its expected value for a specified period of time. For example, if CPU utilization on an EC2 instance exceeds 80% for a period of five minutes or more, the CloudWatch alarm is configured to send an alert to a Rackspace-managed Simple Notification Service (SNS), which is consumed by Rackspace Watchman to generate a ticket for further investigation by a Racker.

CloudWatch allows for the creation of custom metrics to allow monitoring of the resources that are most critical to the uptime of your applications. As a customer with Manage & Operate accounts, you are able to collaborate with your Fanatical Support team to create the customized monitoring solution that best fits your needs.

Passport (available with Manage & Operate)

The Fanatical Support for AWS offer includes access to Passport for AWS accounts using Manage & Operate. This is the same capability that Rackers use to access your environment. Passport manages the provisioning of short-lived, access-limited, fully audited bastion servers within your AWS account(s). Passport solves for both network connectivity and authentication into your environments.

Passport's primary concept is an access request. Each access request defines and tracks which user is accessing your account, which specific EC2 instances they are accessing, the duration of the access request and the reason for the access. Access requests default to expiring after 55 minutes (to optimize for the hourly billing of the bastion instances), but can be extended in one-hour increments up to 11 hours and 55 minutes. A bastion instance will only ever be used by a single user, helping to ensure the integrity of the bastion operating system for each subsequent access request.

AWS Instance Scheduler (available with Manage & Operate)

AWS Instance Scheduler is an AWS-provided solution that enables customers to configure custom start and stop schedules for their EC2 and RDS instances. The solution can help reduce operational costs by stopping resources when they are not needed, and start them back up based on a defined schedule. The most common example is stopping DEV instances outside of working hours (reducing weekly utilization from 168 hours to 50 hours — yielding a 70% reduction in running costs).

Instance Scheduler is a "solution," not an AWS "service," so you will not find it in the AWS console. It is composed of a number of AWS services that are packaged together into a CloudFormation template. It's important to note that it does not feature a user interface. The solution is developed, maintained and packaged by AWS. It is deployed, configured and managed by Rackspace

Human Expertise

Your Fanatical Support for AWS Team

Fanatical Support for AWS provides dedicated resources to deliver ongoing service and support for your applications. Rackspace provides you with certified AWS solutions architects and engineers ready to deliver 24x7x365 support to your business.

Dedicated Onboarding Manager (OM)

When you purchase Architect & Deploy, the OM is your personal contact for assistance with the Rackspace onboarding process. As your dedicated guide, your OM will work with you to coordinate the deployment of your AWS environment.

Dedicated Account Manager (AM)

The AM is your primary point of contact for all account issues and will own the management of day-to-day operations for your AWS environments.

AWS-Certified Cloud Engineers

Each account manager is backed by a team of AWS-certified engineers responsible for 24x7x365 monitoring and operational support of your AWS environments.

How to Contact Support

Tickets

One of the primary ways that you can interact with a Racker is by creating a ticket in the Fanatical Support for AWS control panel. Once logged in, click the Support button in the black bar at the top of the screen and follow the links to create a new ticket or view an existing ticket. The automated system will also create tickets for events on your AWS account(s) that require either your attention or the attention of a Racker. For example, our Rackspace Watchman tool will create a ticket when an alarm is raised, allowing a Racker to triage the alarm and take appropriate action. Any time a ticket is updated, you will receive an email directing   you back to the control panel to view the latest comments.

Phone

You can call the 24x7x365 support team to speak live to a Racker, who will be happy to assist you.

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AWS Escalations

Rackspace is the sole point of contact for supporting your AWS environments. As part of Platform Essentials, if AWS ever needs to be contacted, Rackspace will do so on your behalf.

Escalations may occur in the following scenarios:

- A service limit increase (e.g., c1.xlarge ec2 instances in U.S. West)

- An issue that requires the involvement of a specific AWS product team to resolve

- An issue where multiple customers are impacted (AWS service outages)

- AWS SLA credit requests

Since Rackspace Platform Essentials is backed by AWS Enterprise Support, Rackers have direct access to AWS support teams and AWS account managers for emergency or critical escalations.

Fanatical Support for AWS Control Panel

As a Rackspace customer, you can access everything related to your Rackspace-managed AWS account(s) via the Fanatical Support for AWS control panel at: https://manage.rackspace.com/aws.

The Fanatical Support for AWS control panel provides:
- Federated access to the AWS console

- The ability to create and manage linked AWS accounts

- Access to tooling (CloudHealth, Waypoint, Logbook), and Manage & Operate add-ons (Passport, Watchman)

- The ability to raise support tickets to quickly resolve any service issues

- Access to user management, invoicing and payment history

Service Operations

With Architect & Deploy, Rackspace will build your AWS environments according to the agreed-upon configuration. If you elect to purchase Manage & Operate, Rackspace will provide the day-to-day support of your AWS environments, addressing incident and change management as well as day-to-day management via a customized runbook.

Customer Runbooks

If you purchase Manage & Operate, Rackspace will work with you to create a customized monitoring response runbook. This runbook defines the Rackspace support team's standard operating procedures for response to monitoring alerts in your AWS environment, and includes custom escalation procedures in accordance with best practices and your business needs. These customer runbooks are designed to present the right information, at the right time, to the support teams. It's important to be able to respond quickly and effectively to service disruptions. Providing relevant and focused guidelines to our support teams increases the availability of customer solutions.

Monitoring

AWS CloudWatch is the primary monitoring system used by the Fanatical Support for AWS support teams. If you purchased Manage & Operate, Rackspace will work with you to configure appropriate monitoring for your AWS environment.

Incident Management

The goal of the Manage & Operate service is managing incidents where restoration of services is the primary objective. Rackspace endeavors to restore normal service as quickly as possible when a problem or incident occurs. Rackspace will apply a consistent approach to all incidents.

Incidents can be initiated by either:

- Named customer contacts

- Rackspace service personnel

Event management tools (e.g., Rackspace Watchman or AWS CloudWatch)
- All incidents are logged in tickets accessible via the Fanatical Support for AWS control panel. Once logged, Rackspace support teams will investigate the incident in accordance with the agreed service level. The priority for tickets entered manually via the Fanatical Support for AWS control panel are initially set to "Standard." If you encounter a performance-impacting incident and need to escalate, please set your ticket priority to "Urgent." 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 custom runbook and account management guidelines). Rackspace will collaborate with you as well as with any third parties you nominate as technical contacts through the Fanatical Support for AWS control panel to resolve the incident.

- The Rackspace support teams will communicate regularly with you throughout the incident, detailing their findings and any actions taken. If a support engineer is unable to resolve an incident, he or she may escalate the incident at any time until resolution is achieved. This escalation may be hierarchical (to a more senior engineer or the account manager), or functional (involving specialist technical expertise from other functional groups or AWS).

- 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 AWS 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 need occur.

- An incident is deemed closed when you confirm that it is resolved. This is achieved through the incident ticket being set to the "Solved" status. At this point you may close the ticket or respond with feedback if you believe that further work is required.

Change Management
In Manage & Operate, 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 ensure minimum impact on the services.

- The Rackspace AM will be available to work with you on all changes, including operational, technical or commercial.

- All changes will be managed through the Rackspace ticketing and change management 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 Fanatical Support for AWS control panel for changes that are owned or initiated by Rackspace. Conversely, you should raise a ticket for situations where Rackspace support is required for any changes owned and initiated by your business. You may also phone into the 24x7x365 support line to discuss a change and request that a ticket be created.

- Rackspace will organize the support engineers with the specific domain expertise to manage the change as scheduled, keeping you fully informed on progress.

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- You are responsible for changes or upgrades to your own internal infrastructure and will coordinate with your internal resources and third-party contacts to manage the change as scheduled, keeping Rackspace informed of the progress via a ticket documented in the Fanatical Support for AWS control panel, should it affect delivery of services.

Ongoing Management with Manage & Operate

Operating System Patching

Rackspace can enable automatic patching within the operating system for Fanatical Support for AWS customers. This includes all operating-system-related patches of any supported EC2 instances within your AWS account(s). Customers can request specific hotfixes or service packs be installed on their behalf via a support ticket. Alternatively, customers can install these patches themselves. 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 customers' environments when not thoroughly tested in their specific environment.

Backups

The primary backup solution for an EC2 instance data on the AWS platform is currently the snapshot feature of AWS Elastic Block Storage (EBS). During Architect & Deploy or Discover & Enhance, Rackspace will work with you on scheduling EBS snapshots and defining a snapshot retention policy for your account.

Should an EBS snapshot job fail to run or a snapshot action fail, Rackspace Watchman will create a ticket for your Rackspace support team to investigate further.

Should you ever need data restored from an EBS snapshot, you may log a ticket in the Fanatical Support for AWS control panel. Please include information regarding the EC2 instance and EBS volume you need restored, and to what EC2 instance the snapshot should be attached. Rackspace will only restore an EBS snapshot to a new volume, and you will be responsible for validating any restored data and moving it into your application. Backup options for AWS Elastic File system (EFS) are also available.

Account Reviews

Your account manager will provide reoccurring reviews to analyze the performance of a customer's AWS environment and provide recommendations for cost optimizations. This includes recommendations around the use of reserved instances, root causes of alerts, and investigation for performance improvements coupled with reporting data from AWS Trusted Advisor and CloudHealth. The review may include items such as:

- Support tickets
- Monitoring alerts
- Upcoming maintenance events
- Product roadmap updates
- Potential cost optimization
- Rackspace and AWS best practice recommendations
- Recent environment changes
- Upcoming customer events
- AWS announcements

Response Time SLA

You have the ability to set the following severity levels:

Urgent	Production system outage and significant business impact [60-minute response time]
High	Production system impaired and moderate business impact [4-hour response time]
Normal	Issues and requests, and minimal business impact [12-hour response time]
Low	General information, questions and guidance [24-hour response time] monitoring alerts
Emergency *Manage & Operate Customers Only*	Business-critical system outage and extreme business impact [15-minute response time] These response times reflect the various types of work Rackers perform for you and help identify your most critical tickets to address first.

Service Matrix

AWS Account Management	Platform Essentials	Architect & Deploy	Discover & Enhance	Manage & Operate	Complex Cloud Operations
Customer Control Panel A consolidated view and management of all AWS accounts	●				
AWS Config and CloudTrail Preconfigured Rackspace configures these AWS native tools on your accounts for comprehensive tracking and auditability	●				
Cloud Billing Dashboard A consolidated view of your usage, invoices and payment history	●				
Identity Management	**Platform Essentials**	**Architect & Deploy**	**Discover & Enhance**	**Manage & Operate**	**Complex Cloud Operations**
Identity Federation from Rackspace IDP to AWS Ability to securely federate into your AWS accounts from the customer control panel without a separate log-in	●				
AWS IAM and STS security best practices implemented by default Rackspace implements AWS security best practices on all your AWS accounts Role-Based Access Control	●				
Compliance	**Platform Essentials**	**Architect & Deploy**	**Discover & Enhance**	**Manage & Operate**	**Complex Cloud Operations**
Certified Level 1 Payment Card Industry (PCI) Service Provider on AWS Rackspace complies with a set of security standards for companies that accept, process, store or transmit credit card information	●				
HIPAA Workloads on AWS Rackspace acts as business associate to support customers with HIPAA workloads	●				
Logbook	**Platform Essentials**	**Architect & Deploy**	**Discover & Enhance**	**Manage & Operate**	**Complex Cloud Operations**
Rackspace Account and AWS CloudTrail Activity A blended time series view of this activity aggregated across all accounts and regions	●				
CloudHealth	**Platform Essentials**	**Architect & Deploy**	**Discover & Enhance**	**Manage & Operate**	**Complex Cloud Operations**
Cost Reporting Dashboards of AWS usage and billing details with self-service ability to filter and export reports	●				
Cost Alerting Self-service budget alerting functionality based on set AWS spending thresholds	●				
Cost Optimization Savings opportunities with self-service reports of idle, unused and mis-provisioned resources and Reserved Instance purchase recommendations	●				
Inventory Management Cross-account and cross-region resource inventory, per service usage details, resource tagging reports and more	●				
Security Reporting Self-service reporting on CloudTrail, Config, VPC and security group analysis, perimeter assessments, and IAM and permission reporting	●				
Utilization Reporting Self-service reporting on CPU/RAM and network heat maps	●				
Waypoint	**Platform Essentials**	**Architect & Deploy**	**Discover & Enhance**	**Manage & Operate**	**Complex Cloud Operations**
Total Spend Summary Dashboards of monthly totals of Rackspace and AWS account spend	●				
Total Operations Summary Dashboards of monthly summaries of tickets, alarms and AWS resources	●				
Priority Best Practices Report of security, availability, performance and AWS Trusted Advisor recommendations	●				

Passport	Platform Essentials	Architect & Deploy	Discover & Enhance	Manage & Operate	Complex Cloud Operations
Secure VPC Access On-demand bastion provisioning with fine-grained network permissions				●	
Secure EC2 Access Automated SSH key management across all EC2 instances				●	
Best Practices and Architecture	**Platform Essentials**	**Architect & Deploy**	**Discover & Enhance**	**Manage & Operate**	**Complex Cloud Operations**
Detailed Design Diagram Design of deployment based on analysis of your application and requirements, and adherence to AWS and Rackspace best practices		●			
Best Practice Assessment Automated tooling conducts multi-point assessment of existing public cloud environment with best practice recommendations and remediation			●		
Architecture Diagrams of Existing Infrastructure On-demand visual depictions of your current AWS deployments					●
Well-Architected Reviews Environment review conducted by WAR-certified solution architect centered on the AWS pillars of operational excellence, security, reliability, performance efficiency and cost optimization					●
AWS Training Sessions Scheduled training sessions for members of your team on AWS subjects relevant to your business					●
Guidance on Big Data, Serverless Computing and Containers Guidance on new public cloud technologies from AWS experts					●
Cloud Deployment	**Platform Essentials**	**Architect & Deploy**	**Discover & Enhance**	**Manage & Operate**	**Complex Cloud Operations**
Deployment Status Meeting Weekly scheduled meeting to review outstanding action items, dependencies and risks with your team and the Rackspace implementation team		●			
Creation of Deployment Templates Templates built using cloud-native infrastructure orchestration to use for recurring deployments		●			
Deployment of AWS Environment AWS environment deployed by build engineers using default OS configurations		●			
Infrastructure Configuration Management Creation and maintenance of basic scripts for post- deployment infrastructure configuration management					●
Cloud Support	**Platform Essentials**	**Architect & Deploy**	**Discover & Enhance**	**Manage & Operate**	**Complex Cloud Operations**
AWS Infrastructure Guidance AWS-certified Rackspace engineers available 24x7x365 for guidance, best practices and escalation support for your AWS infrastructure	●				
Backed by AWS Enterprise Support Your account receives AWS enterprise support privileges to be used by Rackspace during incident escalations	●				
Cloud Management	**Platform Essentials**	**Architect & Deploy**	**Discover & Enhance**	**Manage & Operate**	**Complex Cloud Operations**
AWS Infrastructure Management AWS-certified Rackspace engineers available 24x7x365 for configuration, monitoring and management of your AWS infrastructure				●	
Cloud Networking	**Platform Essentials**	**Architect & Deploy**	**Discover & Enhance**	**Manage & Operate**	**Complex Cloud Operations**
VPN Provisioning (AWS side) Creation of AWS side of VPN connections, including the definition and configuration of customer gateways, Virtual Private Gateways, and VPN connections		●			
VPN Troubleshooting (AWS side) Management of AWS side of VPN connections, including the definition and configuration of customer gateways, Virtual Private Gateways, and VPN connections				●	
VPN Monitoring (AWS side) Via AWS provided Lambda function(https://aws.amazon.com/ answers/networking/vpn-monitor/): solution provided by AWS as-is, and Rackspace support cannot modify the created Lambda function				●	

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OS Management	Platform Essentials	Architect & Deploy	Discover & Enhance	Manage & Operate	Complex Cloud Operations
Red Hat Enterprise Linux 6 Support Instance creation, deletion and management of Red Hat Enterprise Linux 6 OS				●	
Red Hat Enterprise Linux 7 Support Instance creation, deletion and management of Red Hat Enterprise Linux 7 OS				●	
Amazon Linux 2017.09 Support Instance creation, deletion and management of Amazon Linux 2017.09 OS				●	
CentOS 6 Support Instance creation, deletion and management of CentOS 6 OS				●	
CentOS 7 Support Instance creation, deletion and management of CentOS 7 OS				●	
Ubuntu LTS Version 14.04 Support Instance creation, deletion and management of Ubuntu LTS Version 14.04 OS				●	
Ubuntu LTS Version 16.04 Support Instance creation, deletion and management of Ubuntu LTS Version 16.04 OS				●	
Windows Server 2008 R2 Support Instance creation, deletion and management of Windows Server 2008 R2 OS				●	
Windows Server 2012 Support Instance creation, deletion and management of Windows Server 2012 OS				●	
Windows Server 2016 Support Instance creation, deletion and management of Windows Server 2016 OS				●	

Patching	Platform Essentials	Architect & Deploy	Discover & Enhance	Manage & Operate	Complex Cloud Operations
SSM Automation Setup of periodic SSM automation to generate new AMI from an existing AMI that upgrades all distribution packages and Amazon software		●			
Maintenance Windows (Auto-Scaling Group) For instances in an Auto-Scaling Group (ASG), setup customer-specified maintenance windows in which to apply the updated AMI to a specified set of ASGs		●			
Maintenance Windows (No AGS) For instances not in an ASG, setup customer-specified maintenance windows in which to install patches on a regular basis by scheduling patching to run as a Systems Manager Maintenance Window task		●			
SSM Agent for AWS Systems Manager Support Installing and troubleshooting SSM agent for AWS systems manager				●	
Patching Errors Troubleshoot patching errors				●	
Modifying Patch Groups Modify patch groups as requested				●	
Modifying Maintenance Windows Modify maintenance windows as requested				●	
Patch Compliance Reporting On-demand report of patch compliance detail				●	
Patch Compliance Issues Remediation of patch compliance issues				●	
Custom Patch Baseline Create and modify custom patch baseline				●	
Custom Pre- or Post-Scripts Create custom pre- or post-scripts to apply before and after patching					●
Automating Patching Develop automatic patching via configuration management (Chef/Puppet/Ansible/etc.)					●

Monitoring	Platform Essentials	Architect & Deploy	Discover & Enhance	Manage & Operate	Complex Cloud Operations
Account Monitoring Configuration Initial configuration of Rackspace standard monitors for incident ticket creation		●	●		
Updates to Account Monitoring On-demand changes to configuration of Rackspace standard monitors				●	

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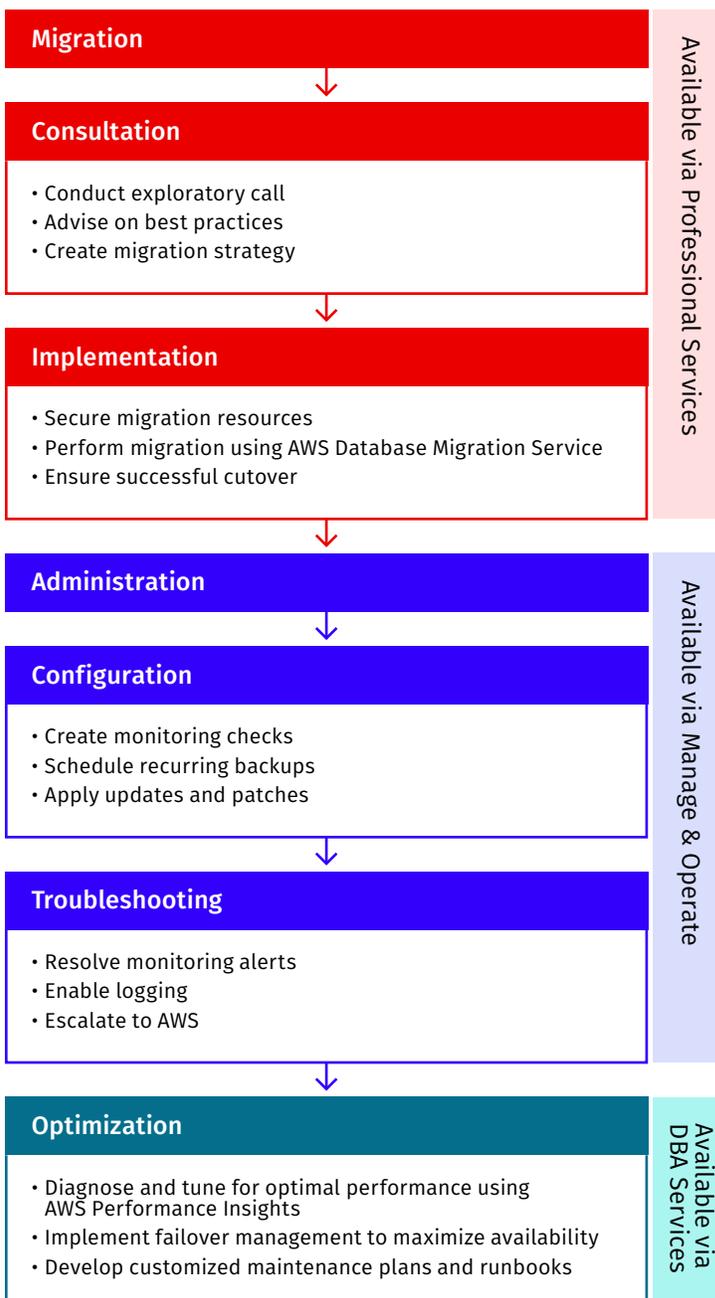| Incident Response	Platform Essentials	Architect & Deploy	Discover & Enhance	Manage & Operate	Complex Cloud Operations
Incident Management Remediation of issue from monitoring alert				•	
Escalation Path Escalation path for incidents using runbooks				•	
Problem Management ITIL problem management of recurring incidents to remediate underlying issue					•
Rackspace Resources	Platform Essentials	Architect & Deploy	Discover & Enhance	Manage & Operate	Complex Cloud Operations
Billing Specialists Access to billing specialists to answer questions about invoices and payments	•				
Named Onboarding Manager (OM) OM coordinates the process of getting your AWS environment up and running		•	•		
Named Account Manager (AM) AM serves as your main point of contact at Rackspace for ongoing business assistance with your AWS environment	At Rackspace service spend above $1,500			•	
Named Technical Resource Your resource contact participates in your Change Advisory Boards and stand-ups					•
Business Review Activities	Platform Essentials	Architect & Deploy	Discover & Enhance	Manage & Operate	Complex Cloud Operations
Account Reporting and Dashboards Review Your AM reviews reporting and dashboards that summarize your account usage details	At Rackspace service spend above $1,500			•	
Operational Activity Review Your AM reviews operational actions done on your account, such as tickets opened, SLAs met and outcomes achieved	At Rackspace service spend above $1,500			•	
Cost Optimization Review Your AM reviews cost savings opportunities for your AWS accounts	At Rackspace service spend above $1,500			•	
Quarterly Business Review Your AM delivers a quarterly business review that details spend and operational actions of the prior three months and plans activities for the next quarter	At Rackspace service spend above $1,500			•	
Roadmap Reviews In-depth roadmap reviews for Rackspace offers and AWS products					•
Best Practices Review and Remediation Detailed review of recommendations in security, availability, performance and AWS Trusted Advisor with remediation plan					•
Cost Control	Platform Essentials	Architect & Deploy	Discover & Enhance	Manage & Operate	Complex Cloud Operations
Architectural Recommendations Quarterly recommendations of architecture changes geared to reduce AWS account spend					•
Cost Savings Recommendations and Implementation Monthly actions to implement approved cost saving recommendations by terminating idle or unused resources, right-sizing resources and updating previous generation resources					•

Additional Services

Application Migration Assistance

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

Database Management

Amazon Data Services Managed by Rackspace is a suite of services designed to streamline and accelerate your ability to leverage Amazon Aurora, Redshift, Glue and Athena. Managing the volume and variety of today's ever-expanding datasets requires purpose-built services and deep expertise. As an AWS Premier Consulting Partner with nearly 20 years of experience managing complex database environments, Rackspace is uniquely positioned to help customers manage and optimize AWS's leading RDBMS and data warehouse services along with serverless service, such as Amazon Glue and Athena, to prepare, load and query vast sets of data more efficiently and effectively than ever before. Built to be modular, our end-to-end solution allows you to pick and choose which services you'd like to leverage, and when to leverage them. Our teams of qualified engineers and DBAs are ready to help you:

- Plan and execute complex migrations

- Manage operational tasks to ensure full functionality

- Optimize for performance and availability

- Streamline the complex task of managing the volume, variety, velocity, veracity, validity, and volatility of datasets

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Migration

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Consultation
- Conduct exploratory call
- Advise on best practices
- Create migration strategy

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Implementation
- Secure migration resources
- Perform migration using AWS Database Migration Service
- Ensure successful cutover

Available via Professional Services

↓

Administration

↓

Configuration
- Create monitoring checks
- Schedule recurring backups
- Apply updates and patches

↓

Troubleshooting
- Resolve monitoring alerts
- Enable logging
- Escalate to AWS

Available via Manage & Operate

↓

Optimization
- Diagnose and tune for optimal performance using AWS Performance Insights
- Implement failover management to maximize availability
- Develop customized maintenance plans and runbooks

Available via DBA Services

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Custom DevOps Professional Services

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

As part of Architect & Deploy and Manage & Operate offers, Rackspace will provide standard, platform-level DevOps support using the native AWS DevOps toolchain including installation, configuration, monitoring, troubleshooting and resolution, when issues arise.

NOTE: For additional details, including roles and responsibilities and the Spheres of Management, please see Appendices 1 and 2 of this document. Rackspace 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.

Custom Professional Services

- Creation of in-depth customization for your application using the native AWS DevOps toolchain (e.g., AWS CodeCommit, AWS CodePipeline, AWS CodeDeploy, AWS OpsWorks, etc.).

- Assistance in the writing of customized configuration management code using third-party tools (e.g., Chef, Ansible, Salt, etc.).

- Implementation and customization of continuous integration and continuous deployment (CI/CD) toolchains using third-party tools (e.g., Jenkins, CircleCI, TeamCity, Octopus Deploy, etc.).

- Custom plugin integration between DevOps and ChatOps tools like Slack.

DevOps Maturity and Strategy Planning

- 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 automation into your environment.

- Classify applications and identify key stakeholders to help drive the adoption of DevOps practices.

As part of a Professional Services engagement, Rackspace will help deliver the outcomes required via internal or trusted partner-led resources. These are one-time engagements carried out within a predetermined amount of time, where Rackspace or key partners help with application-specific engineering requirements. These include, but are not limited to, assistance with configuration management, continuous integration, continuous deployment and release management.

Fanatical Support for AWS DevOps Service Catalog

	Fanatical Support for AWS (Platform Essentials, Architect & Deploy, and Manage & Operate)	Professional Services	Pricing Model
Standard Native AWS DevOps Tools Platform-level support of standard AWS DevOps tools	●		Included
Custom Native AWS DevOps Tools Application-level customization of AWS DevOps tools		●	Professional Services fees
Third-Party Configuration Management Custom implementation of third-party tools (e.g., Chef, Ansible, SaltStack, Docker)		●	Professional Services fees
ChatOps Integration Custom plug-in integration between DevOps and collaboration tools (e.g., Slack)		●	Professional Services fees
DevOps Advisory Workshops and training to advance DevOps maturity		●	Professional Services fees

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Appendix 1

Service Relationships (Roles and Responsibilities)

It is anticipated that there are two parties involved in supporting your AWS environment, specifically:

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

R=Responsible :: **A**=Accountable :: **C**=Consulted :: **I**=Informed

Architect & Deploy and Manage & Operate	Rackspace	Customer
Support Operations		
Provide 24x7x365 Support and monitoring response via ticketing and phone	R, A	C, I
Account Management and Tooling		
Provide named AM resource	R, A	C, I
Conduct account reviews	R, A	C, I
Regularly identify opportunities for cost and performance optimization	R, A	C, I
Consolidate billing across AWS accounts	R, A	C, I
Consolidate AWS console user management across AWS accounts	R, A	C, I
Consolidate AWS CloudTrail data across regions and accounts (Logbook)	R, A	C, I
Provide secure network access to environment via short-lived bastion service (Passport)	R, A	C, I
Provide opinionation and best-practices around account architecture, security and resiliency (CloudHealth)	R, A	C, I
Provide prioritized escalation to our own named AWS resources if needed	R, A	C, I
Discovery		
Understand business objectives and current challenges (e.g., migration to AWS, refactoring current AWS footprint, providing MSP to existing AWS footprint, etc.)	R, A	C
Schedule and conduct deep-dive discovery session	R, A	C
Understand systems SLAs, RTO and RPO requirements	R, A	C
Design / Architecture		
Define architecture options to be considered (e.g., Lift & Shift vs. refactoring)	R, A	C
Decide on presented architecture(s)	C, I	R, A
Generate high-level application and logical diagrams for proposed architecture(s)	R, A	C, I
Generate detailed infrastructure schematics for proposed architecture(s) (e.g., VPC and subnet design, etc.)	R, A	C, I
Author solution design document	R, A	C, I
Infrastructure Implementation		
Create, test and deploy infrastructure (CloudFormation, EC2, AutoScale, Security Groups, etc.)	R, A	C, I
User acceptance testing	C, I	R, A
Configure and test WAN connectivity (DirectConnect, site-to-site VPN) (RS Controlled side)	R, A, I	R, C, I
Create, test and deploy Elastic Beanstalk configuration	R, A	C, I
Create, test and deploy Elastic Container Service configuration	R, A	C, I
Ensure proper resource tagging of infrastructure components	R, A	C, I
DNS configuration (Route53)	R, A	C, I

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Architect & Deploy and Manage & Operate	Rackspace	Customer
Network and Access Security Implementation*		
Create, test and apply IAM roles and polices	R, C, I	R, A, C, I
Create, test and apply Security Groups and NACLs	R, C, I	R, A, C, I
Operating system user management (outside of Passport tool)	C, I	R, A
Anti-virus installation	C, I	R, A, C, I
Application Implementation		
Creation of golden AMIs	C, I	R, A
Configure bootstrapping of supported OS using CloudFormation or Autoscale Launch Configuration	R, A	A, C, I
Arrange extended scope application engagement (ProServ, etc.)	R, A, C	C, I
Migration of application data	C, I	R, A
Database schema creation, migration and import	C, I	R, A
Create, test and deploy Elastic Beanstalk configuration (including .ebextensions)	R, I	A, C, I
Create, test and deploy ECS and Docker container configuration	R, C, I	R, A, C, I
Development and deployment of configuration management artifacts (Chef, Salt, Ansible, etc.)	C, I	R, A
Creation and management of continuous integration and continuous deployment pipelines	C, I	R, A
Monitoring		
Configuration of OS monitoring (CloudWatch)	R, A, I	C, I
Configuration of AWS service monitoring (CloudWatch), including VPC, EC2, RDS, SQS, ElastiCache, Dynamo	R, A, C, I	I
Configuration of Base App monitoring (e.g., IIS, MS-SQL) - (CloudWatch)	R, A, I	C, I
Configuration of Base App monitoring (e.g., IIS, MS-SQL) - (other)	R, A, I	C, I
Configuration and management of log aggregation (e.g., Splunk, CloudWatch, Syslogs)	R, C, I	R, A, C, I
Configuration of Application Synthetic transaction monitors	C, I	R, A, C, I
Configuration of Application Performance Monitoring (e.g., New Relic, AppDynamics, etc.)	C, I	R, A
Ticketing and Alerting		
Definition of alert triggers, thresholds and remediation	R, A, I	C, I
Configuration of standard alerts	R, A, C, I	I
Configuration of custom alerts	R, C, I	R, A, I
SNS Configuration (for standard CloudWatch alerts)	R, A, C, I	I
CloudWatch Logs Configuration and Management (Logbook)	R, A, C, I	I
CloudTrail Log Management and Custom Lambda Parsing	C, I	R, A, I
AWS Config Triggers and Rule Management	R, A, C, I	I
Response to Alerts within SLAs and initial troubleshooting	R, A	C, I
Backups & Replication**		
EBS Snapshot backup management	R, C, I	R, A, C, I
EBS Snapshot restores	R, C, I	R, A, C, I
File-level backup and retrieval	C, I	R, A, C, I
S3 lifecycle policy creation and optimization	R, C, I	R, A, C, I

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Architect & Deploy and Manage & Operate	Rackspace	Customer
Backups & Replication**		
DynamoDB cross-region replication	R, C, I	R, A, C, I
RDS database backups and replication	R, C, I	R, A, C, I
Patching		
OS auto patching	R, C, I	R, A, C, I
Third-party patching system	C, I	R, A, I

* Security responsibilities are shared between Rackspace and customer

** Customer is accountable for validating work Rackspace is performing around backup and replication activities. Rackspace is not liable for ensuring integrity of customer data. Regular testing and validation of backed up data should be a part of a customer's ongoing disaster recovery and business continuity planning.

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Appendix 2

Spheres of Management

Regardless of service level, all Fanatical Support for AWS customers have access to the complete portfolio of AWS services. For Manage & Operate customers specifically, Rackspace has created the Spheres of Management (SOM) — these are services Rackspace supports versus manages.

Support: Rackspace offers best-practice advice, documentation, troubleshooting assistance and issue ownership through closure (inclusive of escalation to AWS).

Manage: In addition to the support deliverables, Rackspace configures, troubleshoots, patches, monitors, backs up and optimizes services based on your individual requirements

Category	Rackspace Supported	Rackspace Managed
Compute		
EC2	●	●
ECS	●	●
EKS	●	●
Elastic Container Registry	●	●
Lightsail	●	
Batch	●	
Elastic Beanstalk	●	●
Fargate	●	
Lambda	●	
Serverless Application Repository	●	
Storage		
S3	●	●
EBS	●	●
EFS	●	●
Glacier	●	
Storage Gateway	●	
Database & Analytics		
RDS	●	●
DynamoDB	●	
ElastiCache	●	●
Redshift	●	●
Neptune	●	
Elastic MapReduce	●	

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Category	Rackspace Supported	Rackspace Managed
Database and Analytics		
AWS Glue		●
Amazon Athena		●
Networking and Content Delivery		
VPC	●	●
CloudFront	●	●
Route 53	●	●
ELB	●	●
API Gateway	●	
Direct Connect	●	
Developer Tools		
CodeStar	●	
CodeCommit	●	
CodeBuild	●	
CodeDeploy	●	●
CodePipline	●	
Cloud9	●	
X-Ray	●	
Management Tools		
CloudWatch	●	●
CloudFormation	●	●
CloudTrail	●	●
Config	●	
OpsWorks	●	
Service Catalog	●	
Systems manager	●	●
Trusted advisor	●	
Personal Health Dashboard	●	
Management console	●	

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Category	Rackspace Supported	Rackspace Managed
Security, Identity and Compliance		
IAM	●	●
Cloud directory	●	
Cognito	●	
Guardduty	●	
Inspector	●	
Macie	●	
Certificate manager	●	●
Cloud hsm	●	
Directory service	●	
Key management service	●	
Shield	●	
WAF	●	
Artifact	●	
Messaging		
SQS	●	●
SNS	●	●
SES	●	●

Note I: Although not listed, Rackspace does support services in the following categories: migration, media services, machine learning, analytics, mobile services, AR & VR, application integration, customer engagement, business productivity, desktop and app streaming, Internet of Things (IoT) and game development.

Note II: Using a number of KPIs, Rackspace is continuously evaluating which services to promote to managed next. If there's a service that you'd like to see managed that isn't today, please let your AM know. They can recommend an interim partner solution and/or provide your feedback to the Rackspace product team for consideration.

Note III: To expand on the definition of support:

- Best-practice advice could range from a solutions architect recommending a specific CloudFormation template to an AM advising you on security or cost-saving measures according to CloudHealth.

- Documentation could range from a support engineer supplying a Rackspace-authored knowledge center article to a build-engineer providing an AWS-authored white paper.

- Escalations to AWS could range from Rackspace submitting a request for information, to Rackspace raising a case requiring immediate attention for an issue.

Note IV: To expand on the definition of manage:

- Each of the 20+ AWS services Rackspace manages today is accompanied by extensive internal documentation.

- From solutioning, to build, to the ongoing management of your services, Rackspace consults this documentation — in conjunction with your individual requirements — to deliver consistent value.

Note V:

- Rackspace cannot troubleshoot the contents of running containers or provide support for container images.

- The customer is accountable for creating, updating and troubleshooting docker images.

- The customer is accountable for the task definition (configuration).

Note VI: The services under the managed section may be limited by the native features offered by AWS. In the absence of these native features, Rackspace may provide additional tooling to satisfy the request, but this is not guaranteed to exist for all AWS services.

Appendix 3

Support Request (Incident) Management & Resolution Process
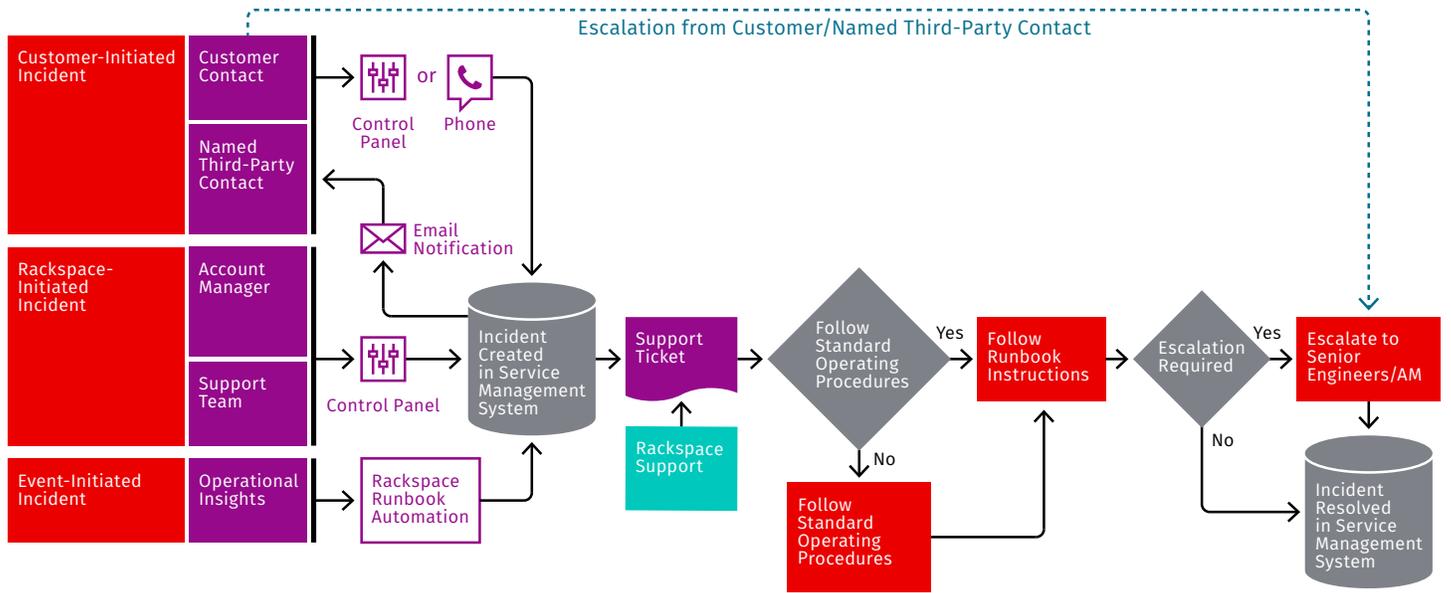
Appendix 4

Account Assumption Process for Platform Essentials Service Block

This process involves formally assigning your existing AWS account to Rackspace for management, which can be initiated by submitting a request via the Fanatical Support for AWS control panel.

Certain steps in the assumption process are dependent on the customer to complete and will impact timing of the completion of the legal assumption process.

The following steps outline the account assumption process:

1. Customer Creation of Rackspace (parent) Account: Navigate to https://cart.rackspace.com/aws to create the parent Rackspace account that will be used to house any new AWS accounts or assumed AWS accounts. A credit card is required for signup, and you must agree to Rackspace/AWS Terms and Conditions.

   (Customer Dependent)

2. **Submit Assumption Request:** Submit the assumption request via the Rackspace Fanatical Support for AWS control panel, found here: manage.rackspace.com. You will need the following information to complete this step:
   - AWS Account Number
   - Legal Company Name
   - Legal Company Address
   - Authorized Signatory Name
   - Authorized Signatory Email Address

   (Customer Dependent)

3. **Customer Documentation Signoff:** Rackspace will require your approval of the Assumption Addendum via a support ticket. You will need the following information to complete the Assumption Addendum:
   - Customer Legal Name
   - Customer/Account Name
   - Tax ID
   - Company Address
   - Assignor Contact/Email/Telephone
   - AWS Account Numbers

   (Customer Dependent)

4. **AWS Review and Approval:** Rackspace sends a request to AWS to review and approve the account assumption request. AWS will confirm if any custom legal or pricing terms exist that need to be transferred to Rackspace. Once completed, AWS will approve the account assumption.

   (AWS: 5 business days)

5. **Complete Account Prerequisites:** A ticket is generated requesting that you update the AWS account root user to a Rackspace email address and disable MFA (if applicable). Minimum requirements include:
   - No access keys existing for the root account
   - The account is not consolidated under a payer account or serving as a payer account with linked child accounts

   (Customer Dependent)

6. **Rackspace Complete Legal Assumption:** A combination of automatically applied default settings and manual changes are completed by Rackspace to finalize and complete the legal transfer of your AWS account to Rackspace. Rackspace support fee (billing) begins.

   During this step, a Rackspace build engineer will apply the Rackspace account defaults. For all AWS accounts managed by Rackspace, whether created via the Fanatical Support for AWS control panel or created directly with AWS and transferred to Rackspace, Rackspace automatically applies several default settings to the account based on best practices developed in cooperation with AWS. For the full list of these account defaults, please refer to the Account Defaults section of the Fanatical Support for AWS Product Guide. You should not change or disable any of these default settings, as they are critical to delivery of Fanatical Support in your environment.

   (Rackspace: 5 business days)

7. **Support and Service Delivery:** Access to 24x7x365 support begins. You will be assigned to a dedicated Account Manager who will be your primary point of contact for all account issues and will own the management of day-to-day operations for your AWS environments.

   (Rackspace/Customer: Ongoing Post-Onboarding Phase)

About Rackspace

At Rackspace, we accelerate the value of the cloud during every phase of digital transformation. By managing apps, data, security and multiple clouds, we are the best choice to help customers get to the cloud, innovate with new technologies and maximize their IT investments. As a recognized Gartner Magic Quadrant leader, we are uniquely positioned to close the gap between the complex reality of today and the promise of tomorrow. Passionate about customer success, we provide unbiased expertise, based on proven results, across all the leading technologies. And across every interaction worldwide, we deliver Fanatical Experience™. Rackspace has been honored by Fortune, Forbes, Glassdoor and others as one of the best places to work.

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

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