

Solution Overview

Fanatical Support for AWS

With Rackspace Service Blocks



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 while 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 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 experts you need to solve your problems, security assistance, 24x7 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. Our various offers allow customers to customize their service experience.

Cloud Foundation (Required for all Fanatical Support for AWS Accounts)

Cloud Foundation is the entry ticket for Rackspace services. All other services (except Architect & Deploy) are built on top of it. Cloud Foundation includes AWS Cloud Support powered by AWS Certified Rackers and backed by AWS Enterprise Support, unified billing for all 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.

Tooling (Required for all Fanatical Support for AWS Accounts)

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

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 technical Onboarding Managers who have years of deployment experience. Architect & Deploy is required for customers utilizing the Manage & Operate offer.

Manage & Operate

With tooling, automation, monitoring and 24x7x365 access to certified cloud specialists for day-to-day operational support and management, Manage & Operate allows you and your team to rest easy knowing Rackspace has your back. 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/stop schedules for EC2 and RDS instances). Your Rackspace technical support professionals will help you resolve issues quickly and effectively any day of the year, any time of the day.

Cost Governance

We build cost optimization across our offers in various ways, but the Cost Governance offer will help you get the most out of your cost optimization recommendations. Understanding your spend on AWS is complicated, and without the right governance, it can be nearly impossible. Rackspace's Cost Governance will put the right framework in place and to help you manage spend and give you the information you need to answer anyone in your organization.

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

Logbook (Available with Tooling offer)

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:

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 are interested in reviewing. This consolidated view is extremely valuable for managing and auditing access and activities across multiple AWS accounts.

Compass (Available with Tooling offer)

Compass provides direction for managing your AWS environments across a number of dimensions including automated best practice checks, cost optimization, security and inventory management and utilization reporting.

Cost Optimization: The Compass cost optimization feature gives your finance, engineering and management teams the visibility, predictability and accountability they need into all of your cloud costs and usage. Gain clarity around your spending and usage across AWS services, including EC2, S3, RDS, ElastiCache, CloudFront, Redshift, DynamoDb, Glacier, etc., and take advantage of cost-cutting reserved instance purchasing recommendations.

Inventory Management: The Compass inventory feature provides a snapshot of all your assets, resources, services and instances and keeps an audit trail in case it is needed. With simple drill-down inspections,

you can quickly identify running and unused instances, estimated costs, average CPU usage and much more.

Security: The compass security feature unites AWS CloudTrail, Virtual Private Cloud (VPC) and AWS config log intelligence, AWS permission and access monitoring, perimeter assessments, change monitoring and more than 100 best practice checks for security and configuration vulnerabilities.

Utilization: The compass utilization feature provides both summary and detailed CPU, network and usage data for EC2, RDS, ElastiCache, DynamoDb and other services. This delivers the clarity needed to effectively manage your complex AWS environment, enables your team to efficiently identify and address areas of concern and makes you dramatically more operationally efficient.

Best Practices: Compass evaluates over 350 best practices against your environment at all times. You can drill into specific best practices to get additional details, and you can customize the thresholds used for certain checks to meet your specific needs. The best practices report allows you to review your environment across four domains: security, cost, availability and usage.

Waypoint (Available with Tooling Offer)

Waypoint provides a high-level overview of spend, risks, and operations for all your AWS accounts. Waypoint consolidates details of accounts using the tooling offer, and it is available only to users who have access to all AWS accounts within your Fanatical Support for AWS account. The goals of Waypoint are to keep you informed, to provide recommendations and to ensure that we 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 your environments. It is 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 our Fanatical Support for AWS support teams. While CloudWatch is available to Fanatical Support for AWS accounts at all service levels, customers using our 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 these 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 percent for a period of five minutes or more, the CloudWatch alarm is configured to send an alert to a Rackspace-managed SNS (Simple Notification Service), 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 offering includes access to our Passport service at for AWS accounts utilizing 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 (in order 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 percent reduction in running costs).

Instance Scheduler is a "solution". It is 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 Fanatical Support to your business 24x7x365.

Dedicated Technical Onboarding Manager (TOM)

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

Dedicated Technical Account Manager (TAM)

The TAM 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 TAM 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. Our automated systems 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, and we'll be happy to assist.

AWS Escalations

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

Escalations may occur for 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 cloud Foundation is backed by AWS Enterprise Support, we have direct access to AWS Support teams and AWS Technical 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
- Ability to create and manage linked AWS accounts
- Access to tooling (Compass, Waypoint, Logbook) and Manage & Operate add-ons (Passport, Watchman)
- The ability to raise support tickets to quickly resolve any service issues
- Manage users, view invoices and see payment history

Service Operations

With Architect & Deploy, Rackspace will create your AWS environments. With the Architect & Deploy offer, your environment will be built as per 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 on 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 our 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 our Fanatical Support for AWS support teams. If you purchase Manage & Operate, Rackspace will work with you to configure appropriate monitoring for your AWS environment.

Incident Management

Management of 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

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. Rackspace support teams will investigate the incident in accordance with the agreed service level once logged.
- Priority for tickets entered manually via the Fanatical Support for AWS Control Panel are initially set to "Standard." Should 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 & 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 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 Technical 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 “Solved” status. At this point you may close the ticket or respond with feedback if you believe that further work is required.

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 ensure minimum impact on the services.

- The Rackspace Technical Account Manager will be available to work with you on all changes, be they operational, technical or commercial in nature.
- 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.
- 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 to be installed on their behalf via a support ticket; alternatively, customers have the control to 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 the planning and implementation stages, 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 that 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 TAM will provide reoccurring reviews in order 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 Rackspace Compass. The review may include items such as:

- Support tickets
- Monitoring alerts
- Upcoming maintenance events
- Product roadmap updates
- Potential cost optimization
- Rackspace / 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/significant business impact [60-minute response time]
High	Production system impaired/moderate business impact [4-hour response time]
Normal	Issues and requests/minimal business impact [12-hour response time]
Low	General information, questions, and guidance [24-Hour response time] monitoring alerts
Emergency <i>Manage & Operate Customers Only</i>	Business-critical system outage/extreme business impact [15-minute response time] These response times reflect the various types of work Rackers perform for you and will help us identify your most critical tickets to address first.

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, for an additional fee, and with assistance from our trusted partners where needed, will own the process of migrating your applications to AWS. For further information regarding pricing and timelines, please engage your sales representative.

Database Management

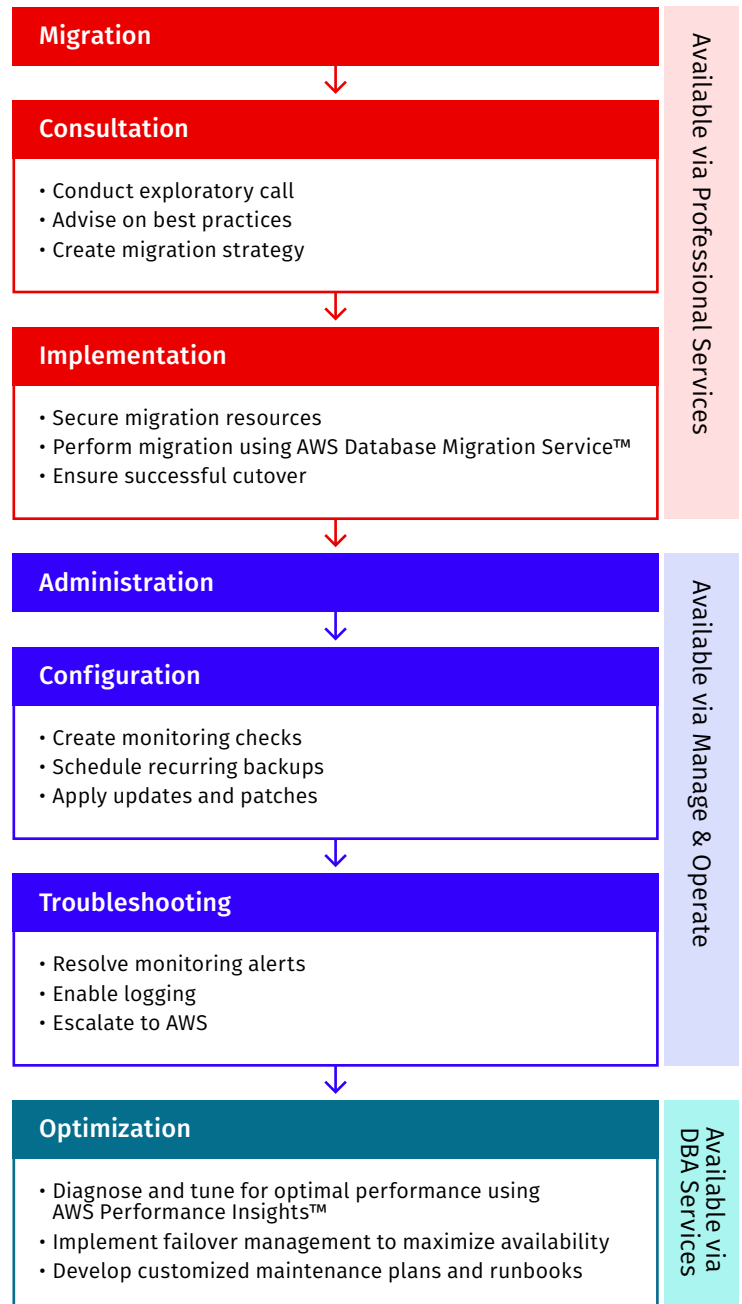
Amazon Data Services Managed by Rackspace is a suite of services designed to streamline and accelerate your ability to leverage Amazon Aurora, Redshift, Glue and Athena. Managing the volume and variety of today's ever-expanding datasets requires purpose-built services and deep expertise. As an AWS Premier Consulting Partner with nearly 20 years of experience managing complex database environments, Rackspace is uniquely positioned to help customers manage and optimize AWS' 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 customers to pick and choose which services they'd like to leverage and when.

Whether you need to:

- 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

Rackspace's team of qualified engineers and DBAs are ready to help.



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 utilizing 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 & 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 we or our partners 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

Fanatical Support for AWS DevOps Service Catalog

	Fanatical Support for AWS (Architect & Deploy, 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 customers' DevOps maturity		•	Professional Services fees

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 & Monitoring Response via ticketing and phone	R, A	C, I
Account Management and Tooling		
Provide named Technical Account Manager (TAM) 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 (Compass)	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, 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 / 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 & 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

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
AntiVirus installation	C, I	R, A, C, I
Application Implementation		
Creation of golden AMIs	C, I	R, A
Configure bootstrapping of supported operating systems 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 (incl .ebextensions)	R, I	A, C, I
Create, test, and deploy ECS/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) incl. 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 / 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 & Management (Logbook)	R, A, C, I	I
CloudTrail Log Management and Custom Lambda Parsing	C, I	R, A, I
AWS Config Triggers & Rule Management	R, A, C, I	I
Response to Alerts within SLAs & 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

Architect & Deploy and Manage & Operate	RACKSPACE	CUSTOMER
Backups & Replication**		
DynamoDB Cross-region Replication	R, C, I	R, A, C, I
RDS Database Backups & Replication	R, C, I	R, A, C, I
Patching		
OS Auto Patching	R, C, I	R, A, C, I
3rd-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.

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 our Manage & Operate customers specifically, we've created the Spheres of Management (SOM) – services we support versus manage.

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	•	

CATEGORY	RACKSPACE SUPPORTED	RACKSPACE MANAGED
Database & Analytics		
AWS Glue		•
Amazon Athena		•
Networking & Content Delivery		
VPC	•	•
CloudFront	•	•
Route 53	•	•
ELB	•	•
API Gateway	•	
Direct Connect	•	
Developer Tools		
CodeStar	•	
CodeCommit	•	
CodeBuild	•	
CodeDeploy	•	•
CodePipeline	•	
Cloud9	•	
X-Ray	•	
Management Tools		
CloudWatch	•	•
CloudFormation	•	•
CloudTrail	•	•
Config	•	
OpsWorks	•	
Service Catalog	•	
Systems Manager	•	•
Trusted Advisor	•	
Personal Health Dashboard	•	
Management Console	•	

CATEGORY	RACKSPACE SUPPORTED	RACKSPACE MANAGED
Security, Identity & 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 & 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 technical Account Manager know; they can recommend an interim partner solution and/or provide your feedback to our 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 a technical Account Manager advising on security or cost-saving measures according to compass
- 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 we managed 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

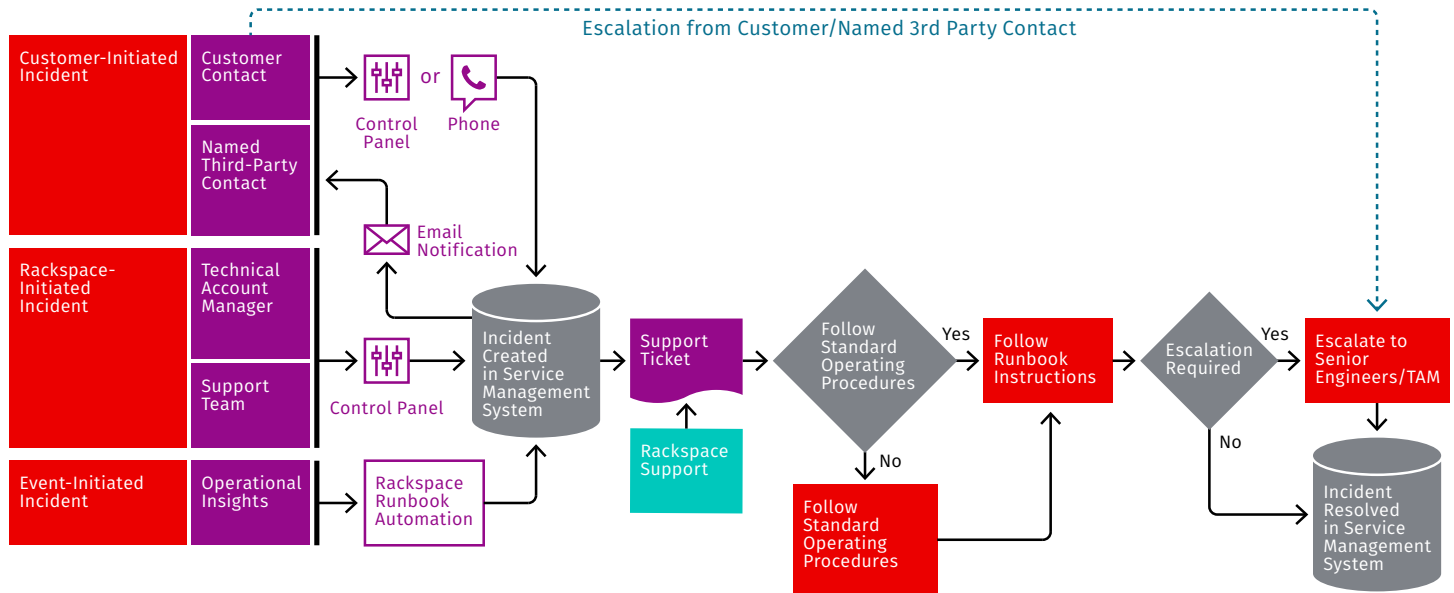
Note V:

- 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

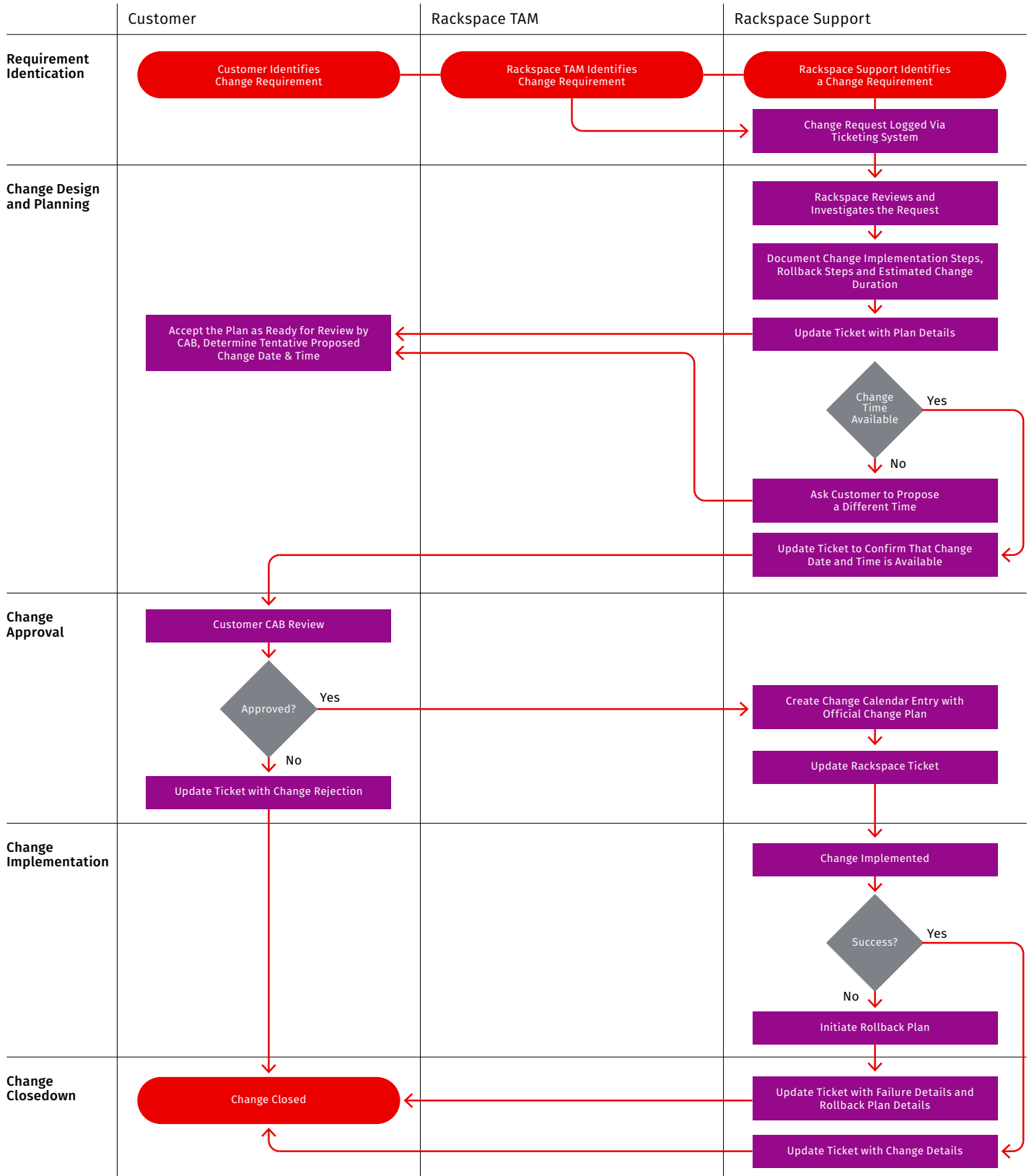
Appendix 3

Support Request (Incident) Management & Resolution Process



Appendix 4

Change Request Management Process



About Rackspace



Rackspace delivers modern IT as a service, helping customers in more than 150 countries drive business results with technology. Our comprehensive portfolio of managed services spans public, private and multi-cloud solutions, applications, data, and security. From first consultation to ongoing operations, Rackspace combines the power of proactive, always-on service with best-in-class tools and automation to deliver technology when and how customers need it. The Rackspace Fanatical Experience™ means customers have unbiased experts on their side, and a trusted partner committed to their success. 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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