Alibaba Cloud
aliyun.com

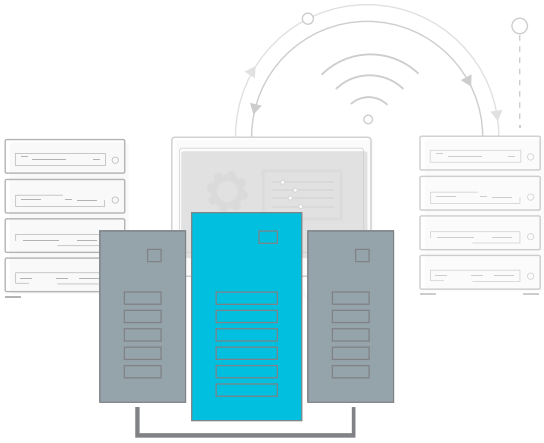
Best Practices for Web Application Hosting

Index

01 Introduction

Today, most organizations varying from small, medium to large-sized enterprises need an efficient web application hosting solution to manage their hosting needs. The uptime and availability of web applications are often coupled with business growth. It is, therefore, necessary to have a robust and resilient infrastructure to create a seamless experience for your customers and thereby empower your business.

This whitepaper aims to provide a quick comparison between traditional and modern modes of web hosting using cloud services and describes how cloud computing has the edge over conventional methods. This document provides a practical reference to real-time business use cases, their impact, and best practices to help IT system managers, solution architects, and technology heads, handle critical deployment scenarios. It also gives you a deep dive into the benefits of Alibaba Cloud services and how it can help you efficiently manage the most demanding web application hosting situations.



Traditional Web Hosting

Modern Web Hosting

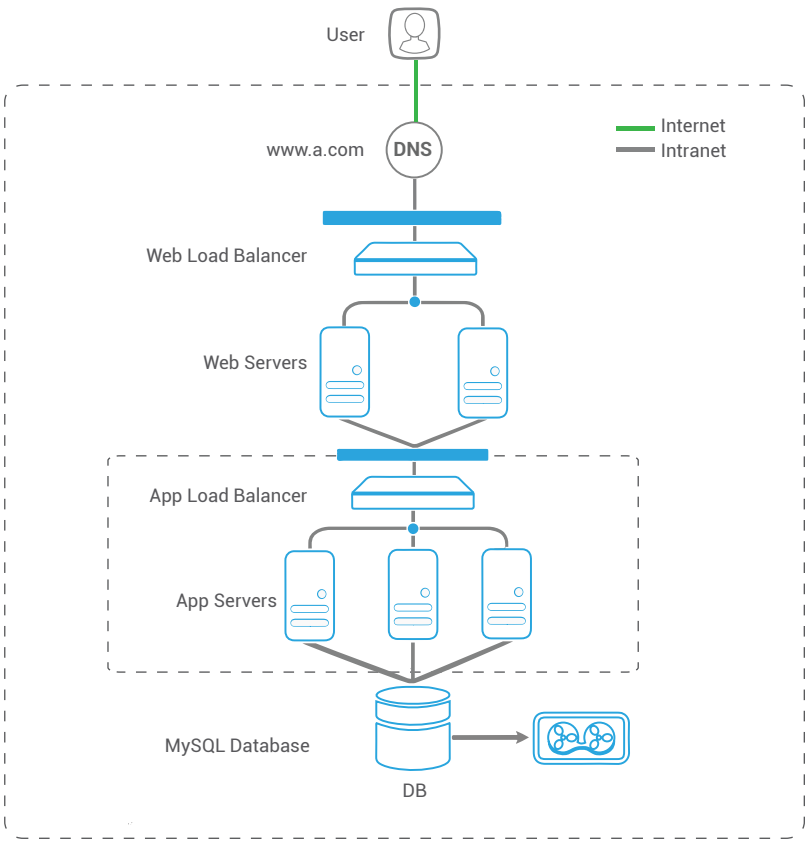
02 Web Application Hosting Using Traditional Methods

2.1 Overview

Traditional web hosting has two forms: Dedicated hosting and shared hosting. With dedicated hosting, you own the complete hardware or servers required for hosting. With shared hosting, you share the resources with other businesses and pay only for a set amount of space on the servers. For both types of traditional hosting, you need to provision additional hardware in advance and scale up the instances manually to handle the expected increase in website traffic. This has a probability of under provisioning or over provisioning of hardware.

2.2 Traditional Web Hosting Architecture

The following diagram depicts a conventional web application hosting architecture most commonly used by developers.



Firewall : Hardware or software solution to open standard port (80, 443)

Web Load Balancer : Hardware or software solution to distribute traffic over web servers

Web Tier : Servers handling HTTP requests

App Load Balancer : Hardware or software solution to distribute traffic over app servers

App Server Tier : Servers handling app specific workloads

Database Tier : Database servers to serve data storage needs

Backups : Optional periodic backups stored on tapes

This architecture follows a standard three-tier web application model with the presentation, application, and persistence layers.

You can launch additional servers manually at any of the three layers to achieve scalability based on your business requirements. This architecture also includes a bare-metal load balancer, which needs to be operated and maintained manually to achieve high availability during heavy traffic. Also, firewalls are used in every layer of the architecture to block malicious traffic.

2.3 Challenges Related to Traditional Web Hosting

With most websites experiencing unpredictable traffic, manual deployment and load-balancing of traffic, using hardware balancers can lead to either under-provisioning or over-provisioning of the infrastructure. Under-provisioning occurs when applications are not able to meet business requirements during peak traffic periods, which hampers customer satisfaction. Over-provisioning occurs during off periods when there is negligible traffic due to which the hardware remains underutilized and leads to inefficient use of capital. Also, the probable security breaches in shared hosting can result in performance issues. For an enterprise business, the hardware is geographically distributed over various locations. Though most of the companies manage this through multiple agencies to reduce costs, management of all the agencies present at distributed data centers from a remote location is both cumbersome and time consuming.

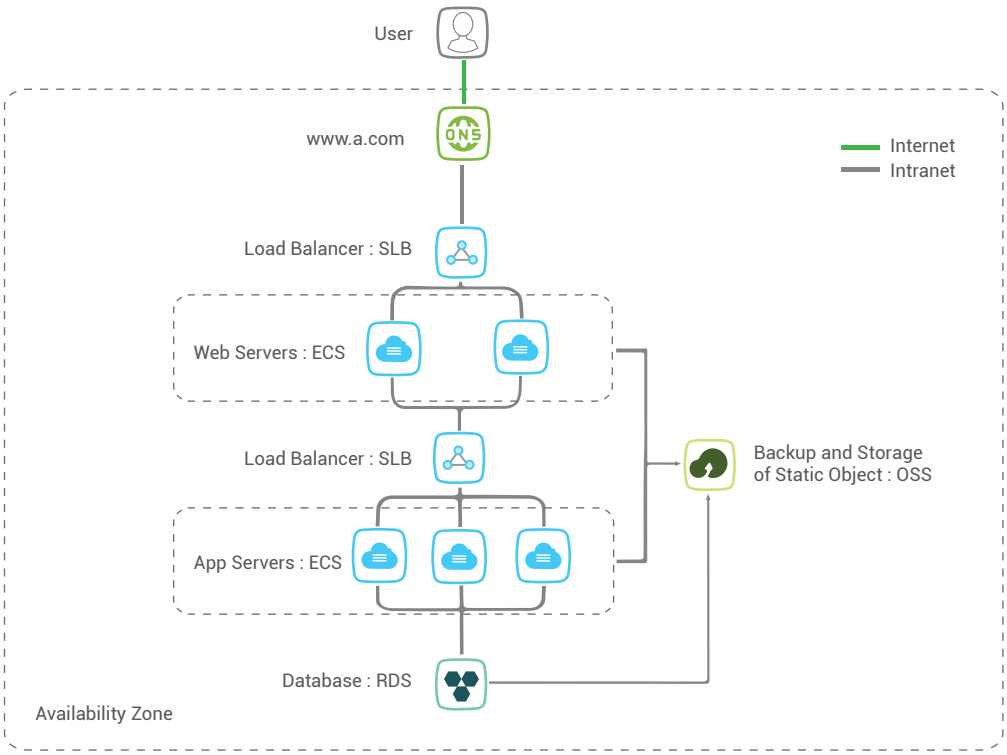
Also, the distributed setup incurs greater costs to manage IT staff and their monitoring require more network, storage and power resources that can prove to be a challenge.

03 Web Application Hosting Using Alibaba Cloud Services

According to recent trends, the majority of elite companies are making the pivotal cloud shift for enhanced web application hosting experience. A cloud web hosting environment allows your web application to utilize on-demand, virtual resources or servers and saves you from investing money into buying new servers. Alibaba Cloud offers a comprehensive web hosting solution with virtual load balancers, security services, and necessary virtual resources for hassle-free deployment on the cloud. This solution balances web traffic across a cluster of virtual servers to ensure zero downtime. It allows you to host your web application on the cloud through a single global account in a secure and cost-effective manner.

3.1 Alibaba Cloud Web Hosting Architecture

The following diagram depicts how the traditional web application hosting architecture functions when deployed using Alibaba Cloud services.



3.2 Key Components

3.2.1 Managing Domains Using Domain Name Service (DNS): In a traditional web hosting architecture, all DNS records are maintained by third-party Domain Registrars (GoDaddy, etc.) and required changes are made using their UI console. Alibaba Cloud DNS allows you to serve and manage all your DNS records by letting you import the name servers into your Alibaba Cloud account. This eliminates the need or overhead of a third-party management console. It automatically routes the requests for your domain to the nearest DNS server and responds with minimum latency. It also resolves requests for your domain name to your Server Load Balancer (SLB) in a particular region. For serving DNS requests in China region, the Alibaba DNS servers provide a unified access time throughout China which would be difficult with contemporary DNS providers.

The following are the key benefits of Alibaba Cloud DNS:

- **Centralized Management:** All the created DNS records are available at a central location within the Alibaba account for easy management. In the case of multiple domains, you can import the relevant domain name servers into AliDNS, which ensures the uncompromised security of the domains.
- **Independent Third-party Resources:** Since the DNS records are maintained and managed using a single Alibaba Cloud account, you don't need to be concerned about shared access of the Domain Registrar's account with other stakeholders.
- **Simplified Auditing Process:** While auditing the entire infrastructure for any project, you can review DNS records and access all the details in a single account. This process saves you from the time-consuming process of navigating to other management console to access required details.

3.2.2 Load Balancing Using SLB Service : In traditional architectures, hardware load balancers are used to handle high-traffic on the web application. Alibaba Cloud offers Server Load Balancer (SLB) service, an on-demand web traffic distribution service, which seamlessly distributes traffic across multiple healthy servers thereby improving the responsiveness of the applications. SLB provides the following benefits:

- **Availability:** Ensures seamless and uninterrupted service during high traffic by keeping a backup of the SLB in a different availability zone so that the endpoint of the primary SLB is shifted to the backup SLB in case of hardware failure
- **Flexibility:** Expands elastically to support increasing application workloads, allows certificates (SSL) installation at the SLB level to save you from the overhead of managing them on multiple servers
- **Security:** Keeps your application secure through Linux Virtual Server SYNPROXY and protects ports from being exposed to backend servers through an additional SLB layer

3.2.3 Hosting Using Alibaba Cloud ECS: In a traditional architecture, servers need to be manually provisioned as per traffic requirements, which leads to failovers during traffic peaks. For such scenarios, Alibaba Cloud offers Elastic Compute Service that provisions on-demand computing resources and automatically scales to meet your business needs. It quickly builds more stable and secure web applications while improving efficiency and reducing costs, allowing you to focus more on core aspects of your business. ECS provides the following benefits:

- **Stability:** Offers 99.999% availability through automatic data migration, backups, and regular system performance alerts
- **Advanced Defense:** Defines access rules through Security Groups (SG) to restrict unauthorized port access and also provides advance defense against password cracking
- **Elasticity:** Lets you upgrade CPU, memory, and bandwidth without restarting ECS and can boot or release up to 100 ECS Instances within minutes
- **High-quality Networks:** Provides 20000 random IOPS & 256 Mbps using Cloud SSD volume with multi-line BGP backbone network access

3.2.4 Storage and Backup of Data Using Object Storage Service: Alibaba Cloud offers various options to store, access, and backup your data efficiently and securely on the cloud. For static storage, it provides Object Storage Service (OSS) to provide automatic data replication and failure recovery. OSS provides the following benefits:

- **Availability:** Offers up to 99.9% service availability by automatically scaling up or down to ensure no disruption of services
- **Reliability:** Supports triple data backup that ensures data reliability of up to 99.99999999%
- **Security:** Provides multi-layered security protection against DDoS attacks and restricts unauthorized access to OSS objects depending upon the access control list (ACL) type
- **High-performance:** Provides unlimited storage expansion capacity and ensures low latency through multi-line BGP network

3.2.5 Database Configurations Using ApsaraDB for RDS: ApsaraDB for RDS is a high-performance online database service based on Alibaba Cloud's distributed system. It supports MySQL, SQL Server, PostgreSQL, and Postgres Plus Advanced Server (PPAS) while providing a comprehensive set of features, including disaster recovery, data backup, monitoring, and migration. It helps to reduce the resources you need to spend on database operations and maintenance. RDS provides the following benefits:

- **Double Hot-standby:** Each relational database machine is hosted in different availability zones within a region to ensure high availability. It switches automatically to another availability zone within a few seconds in case of a failover.
- **Security:** Offers whitelisting of user-defined IP addresses, Anti-DDoS services & SQL Injection attack alarms. Also, it extends multiple backups ensuring up to 99.9999% data reliability.
- **Easy-to-use:** Supports one-click data migration with visual panel operation and is fully compatible with MySQL and SQL server protocols
- **Cost Effective:** Eliminates the overhead of managing and maintaining database machines; ensure smooth failovers while reducing costs for managing the secondary database hosted in a different AZ.

3.3 Additional Services to Complement Alibaba Cloud Web Hosting

3.3.1 Real-time Server Monitoring Using Server Guard: In a traditional architecture, VPN servers need to be provisioned and managed manually to allow access to internal servers. This makes management of login controls cumbersome. Also, mitigation of Trojan and other kinds of attacks requires a lot of manual effort using custom solutions or third-party tools. If many servers are running in the architecture, patch management is done on individual servers, which is very time-consuming.

To tackle these challenges, Alibaba Cloud offers Server Guard, which manages your servers with similar configurations in a logical group that allows batch repairing of vulnerabilities and in-depth webshell scanning of your servers. It also acts as the last line of defense for your server by preventing leakage of server data. It logically groups servers of similar configuration and performs group-wise patch management. Server Guard provides the following benefits:

- **Effective Monitoring:** Provides continuous surveillance of your web applications against threats, vulnerabilities, and illegal access to servers
- **Big Data Defense:** Can intercept high volumes of attacks using a fast and accurate defense model and protects web applications from any potential malware

3.3.2 Health Monitoring Using Cloud Monitor: In traditional architectures, health monitoring of your web applications and server stack is done through the implementation of custom scripts or third-party tools (open source/proprietary). This requires additional resources, cost, and time for management and maintenance of custom solutions. For such scenarios, Alibaba Cloud Monitor, a real-time monitoring service, helps you achieve high levels of security, availability, and fault tolerance for your web applications. Cloud monitor agents are installed on the servers that send the metric data to cloud monitor console. This eliminates the need to write custom scripts to fetch and send data from the servers. The following are key benefits of Cloud Monitor:

- **Real-time Alerts:** Sends real-time alerts for spikes in resource utilizations, network issues, or any possible system failure through a variety of channels, including Social Networking Service (SNS), Social Messaging Service (SMS), instant messenger, and email
- **Configurable Alert Policies:** Allows you to set various alert policies for different resource types in case of resource utilization spikes and provides useful insights into the utilization of resources through real-time tracking of data.
- **Effective Monitoring:** Automates surveillance and performance of deployments, including servers and databases using custom metrics

3.4 Key Considerations: How Alibaba Cloud Services Transform your Web Application Hosting Experience?

Below are the benefits of hosting your web application on Alibaba Cloud:

3.4.1 Multiple Data Centers in a Region

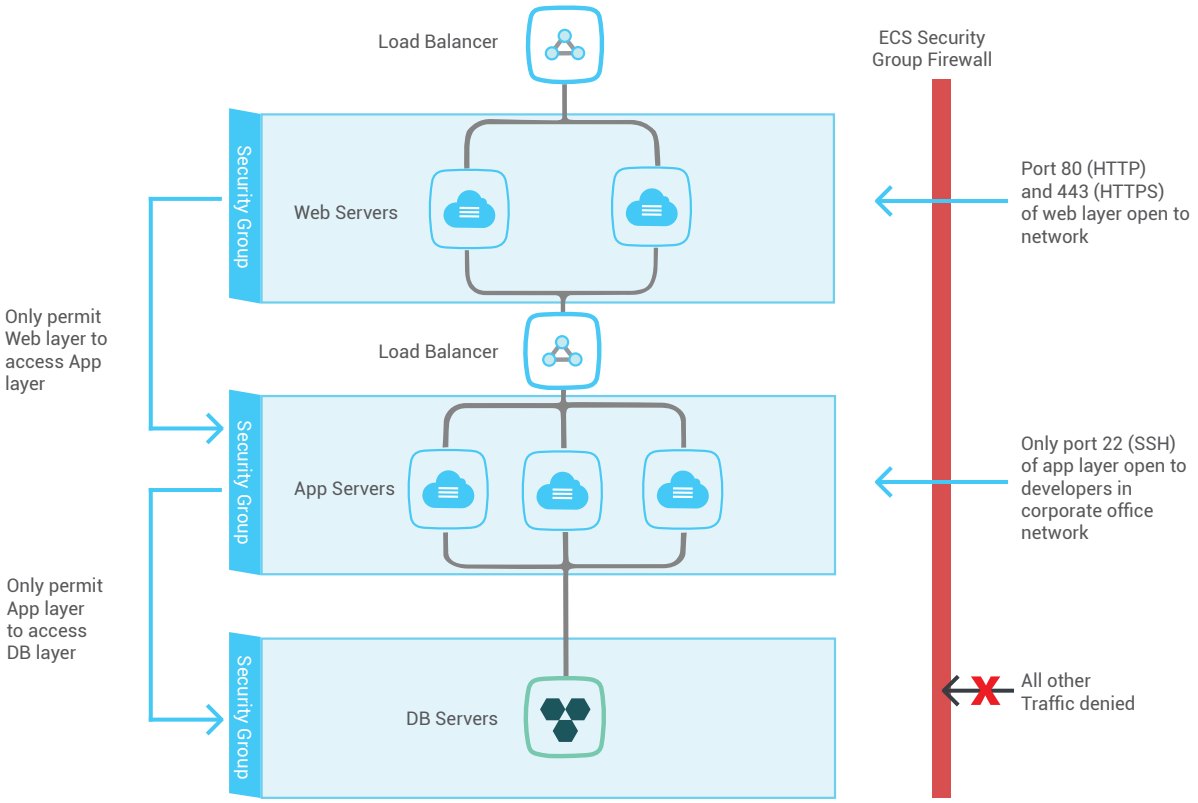
Within every region, Alibaba Cloud has at least two data centers called Availability Zones (AZs). As Elastic Compute Service (ECS) in different AZs is logically and physically separated, Alibaba Cloud provides an easy-to-use model for deploying your applications across AZs for higher availability and reliability. In the case of a hardware failure in one zone, your web application will still be functional using the resources located in a different zone to prevent a loss of service.

3.4.2 High Security for Web Applications

Web application security is one of the major concerns for organizations nowadays with more than 90% of the applications being vulnerable to security attacks. These attacks have the capability to exploit websites and inherent servers, which puts businesses to considerable risks of financial loss. To protect your web applications from such malicious attacks, Alibaba Cloud provides a suite of network and application security services.

- Anti-DDoS: Provides layer-4 to layer-7 (Pro version) network defense capabilities, which include protection against attack types like DDoS, SYN flood, and UDP flood. It also offers 500Mbps~5Gbps of free Anti-DDoS protection for each ECS instance and 100+ Gbps Anti-DDoS protection with Alibaba Cloud's advanced pro version.
- Web Application Firewall (WAF): Protects your web applications from common web exploits that cause application unavailability, compromised security, or excessive consumption of resources. WAF gives you complete control of your applications by letting you define customizable web security rules to block malicious traffic from reaching your applications. You can also create custom rules that prevent common attacks, such as SQL injection attacks, cross-site scripting, and protection against Trojan virus injection.

- **Virtual Firewalls:** When compared with traditional web application hosting DMZ models, ECS offers additional security through virtual firewalls called security groups. Security Groups are similar to an inbound/outbound network firewall, for which protocols, ports, and source IP ranges can be specified and allowed to reach your resources. They provide an efficient way to define access rules for resources on your network. You can deny access to a port range from non-trusted IPs/sources or grant access only through few whitelisted sources to ensure authorized usage of resources. Each ECS instance can be assigned one or more security groups for routing appropriate traffic to each of the resource instances. These security groups prove to be the central point of management by allowing/denying access to virtual servers within the group.



Example: The above diagram depicts the Alibaba Cloud web application hosting architecture and highlights a security group firewall to protect the complete infrastructure.

- For the web server cluster, a firewall security group allows access only on ports 80 and 443 (HTTP and HTTPS)
- For the application server cluster, the security group allows access only from the web servers, which are then routed to app servers serving the application.
- For the DB server, its security group allows access to app data requests from the application servers, which are routed to the DB server. The security group for the DB servers allows access only from the application layer. For security purposes, access to port 22 (SSH) for direct host management is allowed only from whitelisted IPs configured in the security group's firewall rules.

In case, these accesses are not restricted by the security groups; there might be illegal usage or logins, which may impact the performance of application units or lead to tampering of resources.

3.4.3 Treating ECS as Dynamic Resources

In order to build and host a scalable and fault-tolerant application on Alibaba Cloud, a flexible system needs to be designed that takes the dynamic nature of ECS Cloud into account. It is important to understand that cloud resources may become unavailable at certain times or data stored in the cloud may get lost during a failure. Besides, once a new virtual server is provisioned, no assumptions should be made about the IP address allocated to it or even about the location of the host server within an availability zone. To handle such scenarios, Alibaba Cloud allows a user to select the location of the resources and provides Elastic IPs, which are procured for keeping the IP address of a resource as static. In case, a new ECS instance is provisioned, the same EIP can be mapped to the new instance. This saves the effort of changing application configuration files, DNS records and firewall rules for the EIP.

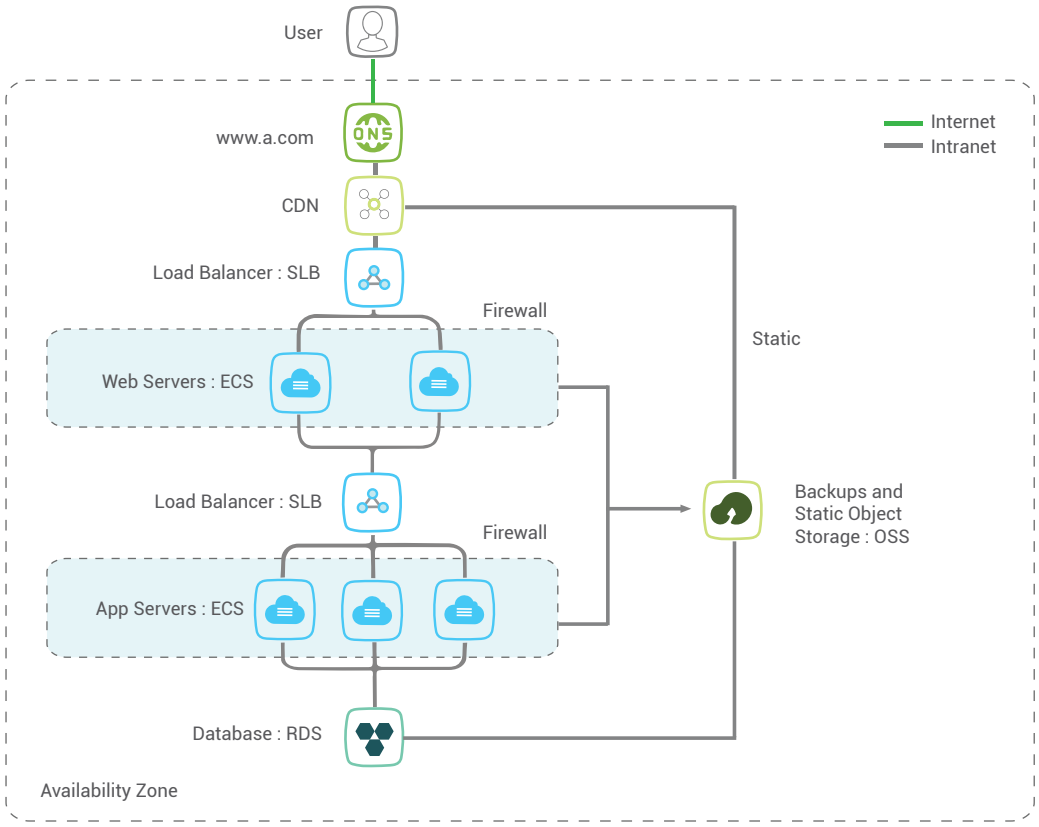
04 Real-life Use Cases: Web Application Hosting Examples

4.1 Upgraded Content Delivery

In traditional web application scenarios, all user requests are served from one single server or central location. When web applications receive a high volume of traffic, servers can be overloaded, which might make sites slower or even make servers crash. Also, if your users are spread across different geographical locations, there may be latency issues as the content is being served from one central location. Therefore, it is necessary to use Content Delivery Network (CDN) for faster content delivery and optimized application performance.

Suggested Architecture:

With Alibaba Cloud CDN, static and streaming content get cached using a growing network of global edge locations. Once cached, future requests are automatically routed to the nearest edge location to ensure content delivery with the best possible performance. This process, in turn, frees up the extra load from servers due to the traffic hitting servers directly, allowing an efficient consumption of compute resources. The following architecture diagram illustrates a typical web application hosting with CDN:



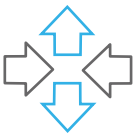
Key Components:

Content Delivery Network: It is a scalable content distribution network service designed to deliver content from origin sites to end users anywhere in the world with low latency. CDN effectively shortens the response time of your website and handles a large volume of traffic easily.

With more than 500 nodes within China and 30+ nodes globally, more nodes are continually being added. The network uses high-quality nodes present all across the world, with a minimum bandwidth and high storage capacity. It boosts your web application performance by guaranteed content acceleration for small and large files, high-speed live streaming, and video broadcasts.

Advantages of This Architecture: CDN can be easily integrated with other Alibaba Cloud services, including Elastic Compute Service (ECS) and Object Storage Service (OSS), which stores the original version of your content. Also, CDN works seamlessly with any non-Alibaba Cloud origin servers while offering flexible payment options with no initial commitments so that you pay only for the content delivered through this service. This hassle-free payment process makes CDN a preferable option to accelerate the performance of your web application.

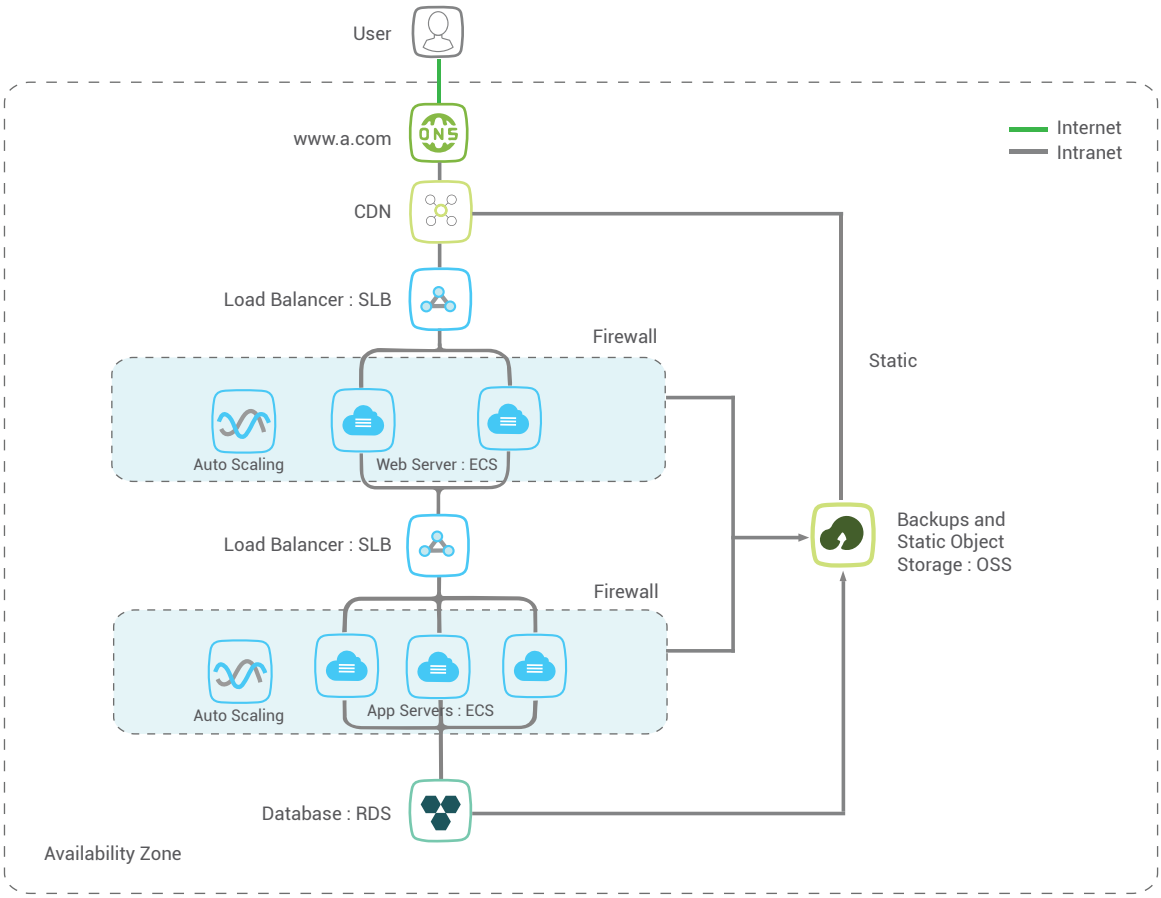
4.2 Auto Scaling



In a traditional hosting model, there are a fixed number of servers needed to be provisioned, with some servers in standby mode to be added manually to handle unpredictable traffic peaks. Let's consider a typical case of an e-commerce website during the festive season or discount periods when traffic is expected to rise drastically. To handle such unpredictable traffic, resources are pre-provisioned based on the expectations to address a possible surge. This provisioning is done on the basis of unreliable capacity planning methods, which can lead to over provisioning due to unutilized server capacity.

Suggested Architecture:

Alibaba Cloud provides an auto-scaling feature that scales the infrastructure up or down depending on the actual usage thresholds rather than relying on rough estimations or forecasts. By using this service, you can maximize cost savings by leveraging on-demand provisioning during high-traffic periods by automatically increasing servers or reducing resources during periods of lower traffic. Auto scaling can dynamically scale web application servers to meet real-time changes in your application or website's traffic. So, instead of relying on unreliable and inaccurate estimations to provision servers, ECS instances can be provisioned automatically according to a set of triggers configured to scale the fleet of servers. Also, servers managed by Auto Scaling are added or removed automatically from the Server Load Balancer, making this deployment option a truly robust setup. The following diagram illustrates a typical web application hosting with an auto-scaling feature:



Key Components:

Auto Scaling: Auto Scaling triggers can be set up based on metrics data obtained directly from Alibaba Cloud Monitor. For example - Auto-scaling can be set to trigger if the CPU utilization has been at 70% or above for the past five minutes or in case your current application uses up 30% of the memory and needs additional resources to carry out cumbersome processes while not increasing the load on the memory resources. You can also provision a fixed number of instances at a particular time and day according to the expected load and your business requirements.

To address such scenarios, the Auto Scaling feature provisions more instances of the same application to distribute the load to improve the application's performance.

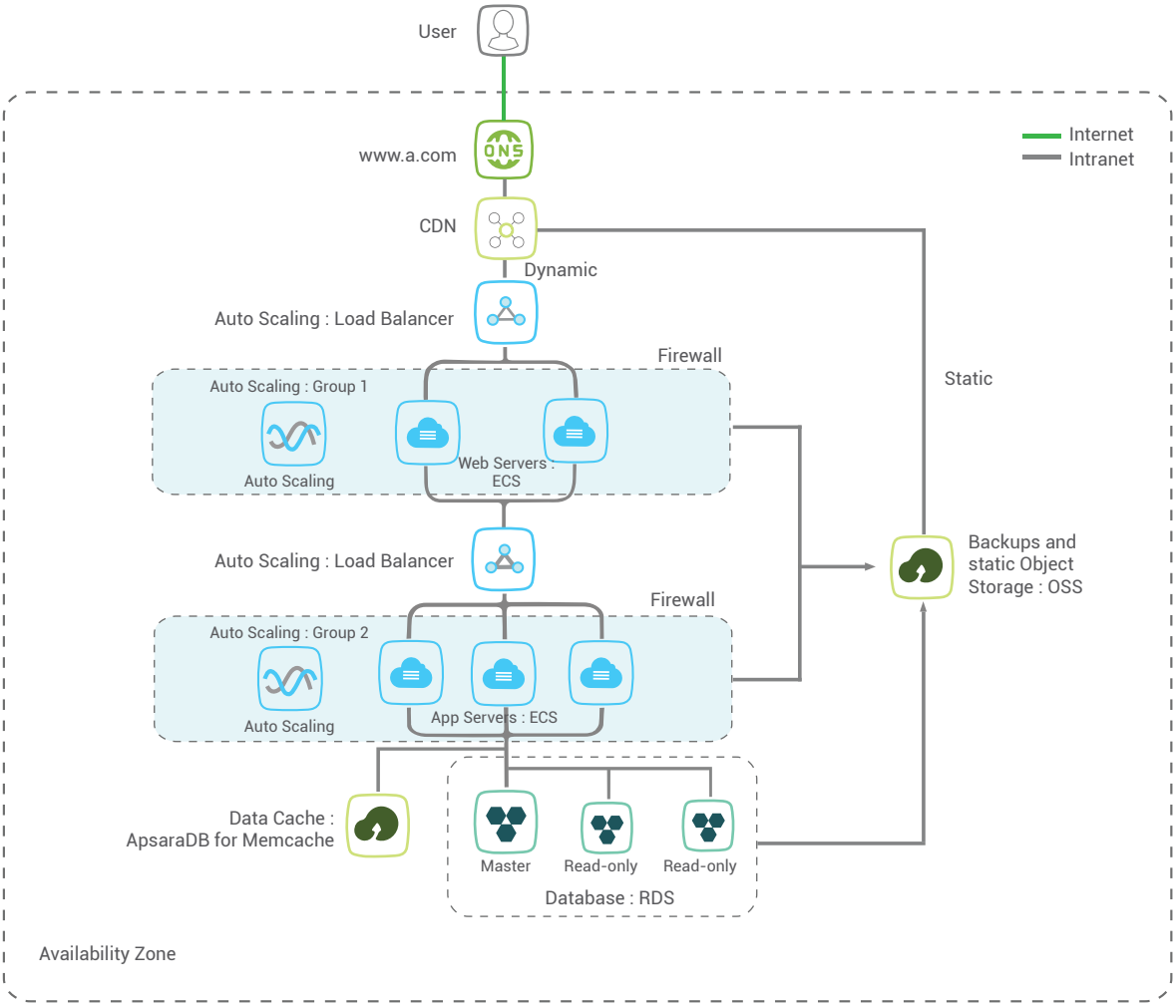
Advantages of This Architecture: This architecture improves the quality and availability of your web applications and protects against any probable single-point-of-failure. In addition to the Auto Scaling service, ECS servers can be scaled up or down directly using ECS APIs, which allows launching, termination, and health inspection of in-service instances.

4.3 Higher IO Performance

With growing business needs, maintaining high performance of your application is crucial. Even the smallest of failures can lead to greater response time and hamper user experience. The traditional single instance database design may not be sufficient enough to meet a large volume of I/O requests. To reduce the burden from the database, write and read requests should be separated into different database instances with an added memcache layer in the middle of the database and web hosting servers. Memcache serves requests through cached responses which saves the effort of complex SQL queries and improves response time. This allows the database to scale out more read-only instances and thereby easily handle more read requests.

Suggested Architecture:

By adding a Memcache layer and read-only database instances, the most queried data will be retained in the cache and read requests will be evenly distributed across scalable read-only database instances.



Key Components:

ApsaraDB for Memcache: ApsaraDB for Memcache is an online open caching service, which provides high-speed access to queries and data while accessing hotspot data. It is a distributed, in-memory solution that supports key-value databases and is compatible with ECS service. It retains hotspot data and reduces the stress from the database to shorten read response time.

ApsaraDB for Read-only RDS: If read requests are more than write requests, a single instance may not be able to handle them, which may impact application performance. To achieve a smoother reading and writing ability, replicas of master instances with read-only accounts can be created by ApsaraDB for RDS in a specific region. This ensures faster response to read/write requests as all the read requests are handled by the replicas while the master instance only caters to write requests.

Advantages of This Architecture:

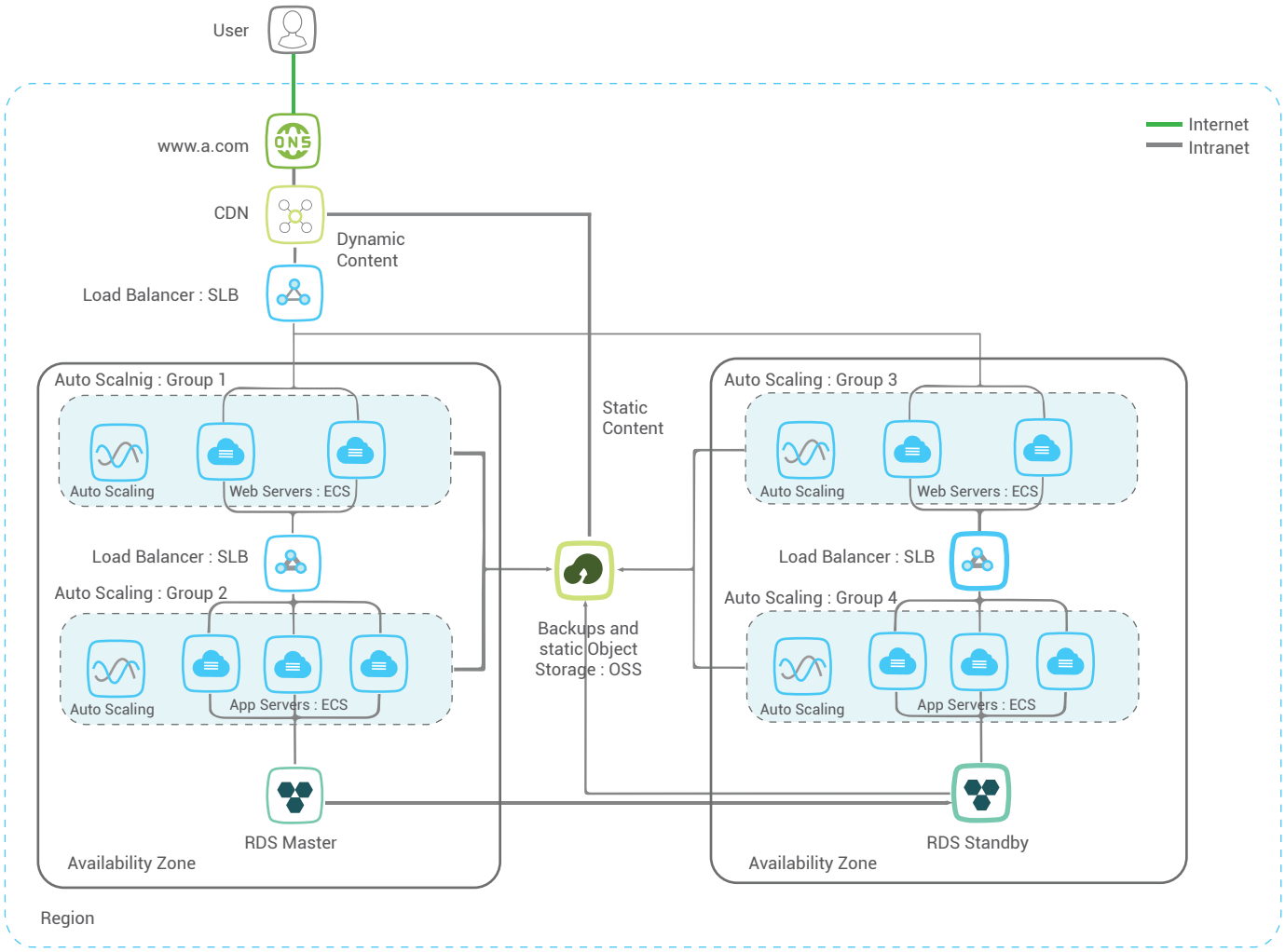
Faster Response Time : In a traditional web application hosting infrastructure, the database layer is the most frequently accessed layer, which can cause performance issues even after scaling up instances. In case same queries are being frequently repeated, you can add a Memcache layer to reduce database load by caching the queried results. New read requests (with low frequency) will be sent to the backend database and can be served by adding more read-only database instances, which will evenly distribute access requests. By integrating both Memcache and read-only instances, the whole database capability is significantly increased and results in a much faster response time.

4.4 Disaster Recovery Across Multiple Data Centers

For businesses with large-scale, mission critical web applications, it becomes crucial to maintain high availability for a seamless user experience. Although Cloud infrastructure ensures protection through security services protecting applications from unfavorable attacks, you still need cross-data center deployments to provide additional security in case of emergencies or unfortunate events, such as data center downtime, etc.

Suggested Architecture:

The following architecture diagram shows the distribution of all servers and database services across multiple data centers and availability zones to ensure disaster recovery on deployments across multiple data centers while acting as a single unit of the web application system.



Key Components:

Server Load Balancer: In case, one data center becomes unavailable, Server Load Balancer automatically detects the issue and directs all traffic to other in-service data centers.

Elastic Compute Service: ECS servers are purposely distributed across data centers present within the same region to provide isolation. This way, the data centers act as a single cluster to guarantee high availability of the web application for end users, even in cases of disaster.

ApsaraDB for RDS: Relational databases are purposely distributed across data centers within the same region to ensure high availability of the databases. If the data center hosting the master database becomes unavailable, the standby database will take effect and become the master database.

Advantages of This architecture:

Complete Automation: This architecture detects server-related problems and provides recovery by switching the production environment with the disaster recovery environment or automatically redirecting traffic to the healthy servers. ApsaraDB for RDS not only maintains a data backup but also switches databases endpoints automatically if the master database machine becomes unavailable, ensuring excellent availability.

Full Resource Utilization: In most traditional solutions, the DR environment is in cold standby, keeping its resources unutilized for the majority of the time, in turn impacting the overall expenditures for businesses. In the suggested cloud architecture, there are no resources dedicated to the DR environment. As soon as any problem occurs, resources from the production environment are used up to assist in disaster recovery. This ensures full utilization of resources, which makes it a cost-effective solution for businesses.

4.5 Multi Region Deployment

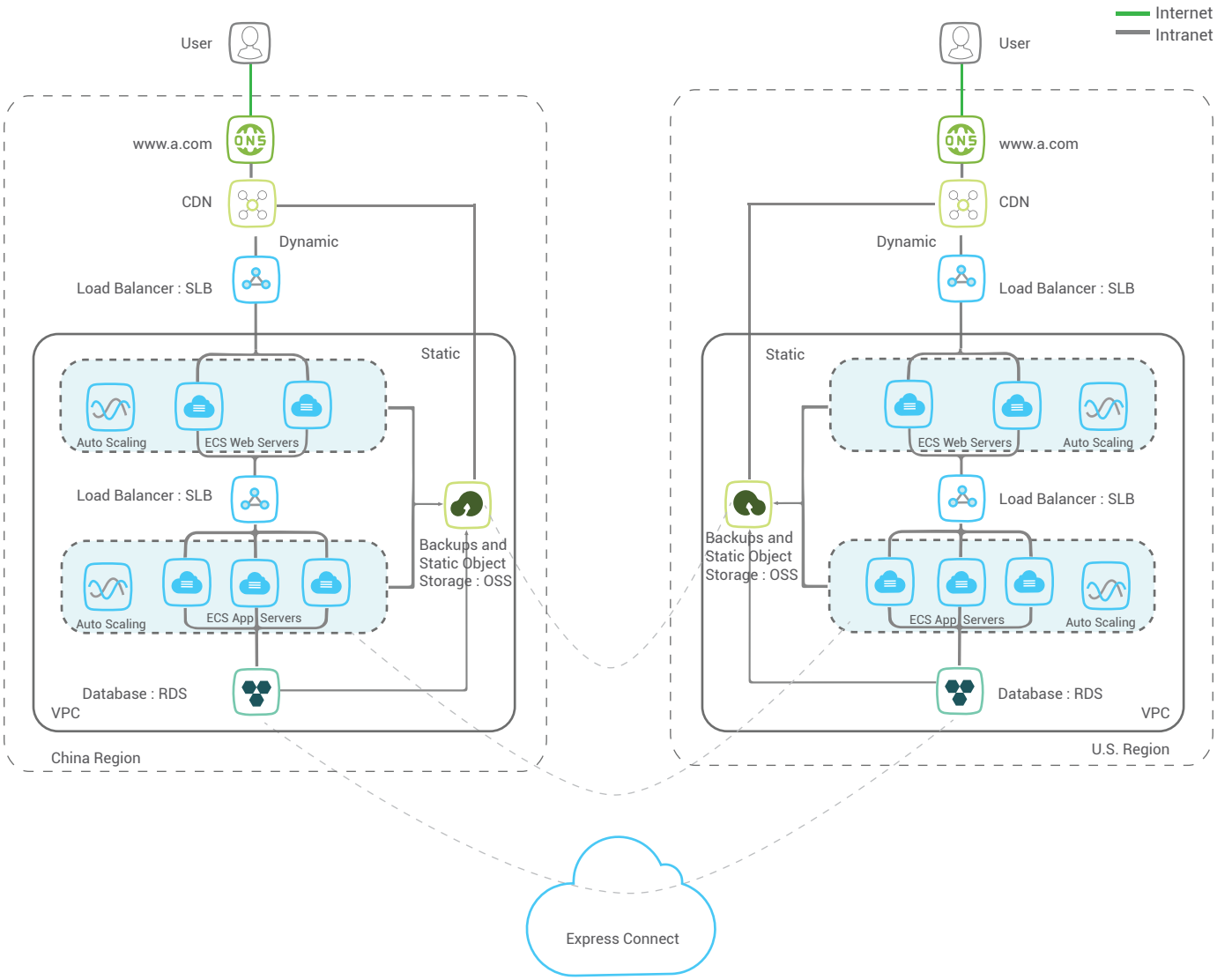
For businesses with presence in multiple countries or planning to expand globally, having a flexible IT architecture is essential for business growth. Such companies need high stability and superior quality of networks to keep up with technology and changing demands.

The primary issue for such companies is the critical need for an efficient and secure network to connect their sites around the world. Leased lines from telecom carriers is a costly option for small or mid-sized enterprise companies.

To address this, Alibaba Cloud offers an easy and cost-effective way to connect with different regions across the world through dedicated lines. It also provides several other solutions to address data replication/synchronization across regions.

Suggested Architecture:

This architecture meets the demand of multi-node deployments across different regions. An application that is deployed in China can also be deployed in the U.S. region at the same time. The two applications communicate with each other at the service and data layers. Using Alibaba Cloud Express Connect, the two VPCs in different regions are connected through a dedicated line allowing ECS instances in the China region to access ECS instances in the U.S. region through the intranet. The two RDS instances in different regions can also synchronize data in real time. Alibaba Cloud OSS allows for cross-region data replication to meet the demands of a large volume of data replication through the Internet.



Key Components:

Virtual Private Cloud Networks: VPC offers logically isolated Cloud-based networks where you can operate resources in a secure and private environment. You can launch cloud resources in a defined virtual network to give you complete control over your virtual networking environment, including a selection of IP address ranges, the creation of subnets, and configuration of route tables. The VPC also opens the network interface to connect with on-premise networks or other VPCs in different regions to act as an extension of your data center.

Express Connect: Provides secure and stable dedicated lines to connect VPCs in different regions to help with the automatic synchronization of users' data between applications.

Real-time Data Synchronization: The database instances offered by ApsaraDB for RDS also need to synchronize data in real time, which can be achieved by either connecting to dedicated line network or using Alibaba Cloud data transmission services.

Object Storage Service (OSS): For large volume data replication, OSS offers cross-region data replication functionality without using Express Connect. Users can replicate data from one bucket in region A to another bucket in region B through the Internet. It is an asynchronous data transmission that takes only a few minutes to complete.

Advantages of This architecture:

Reduced Network Latencies: Services utilized in this architecture are both easy to use and cost effective. They allow you to build your multi-region applications quickly while giving you complete control of your cloud resources to manage and maintain them through one single Alibaba Cloud account. Unlike the traditional mode of hosting, it allows intra-network communication across geographically distributed data centers in the cloud (VPCs). Therefore, this architecture is an ideal solution to reduce network latencies in data transmission across multiple data centers.

Therefore, this architecture is an ideal solution to reduce network latencies in data transmission across multiple data centers located in different regions or on either side of the GFW.

05 Conclusion

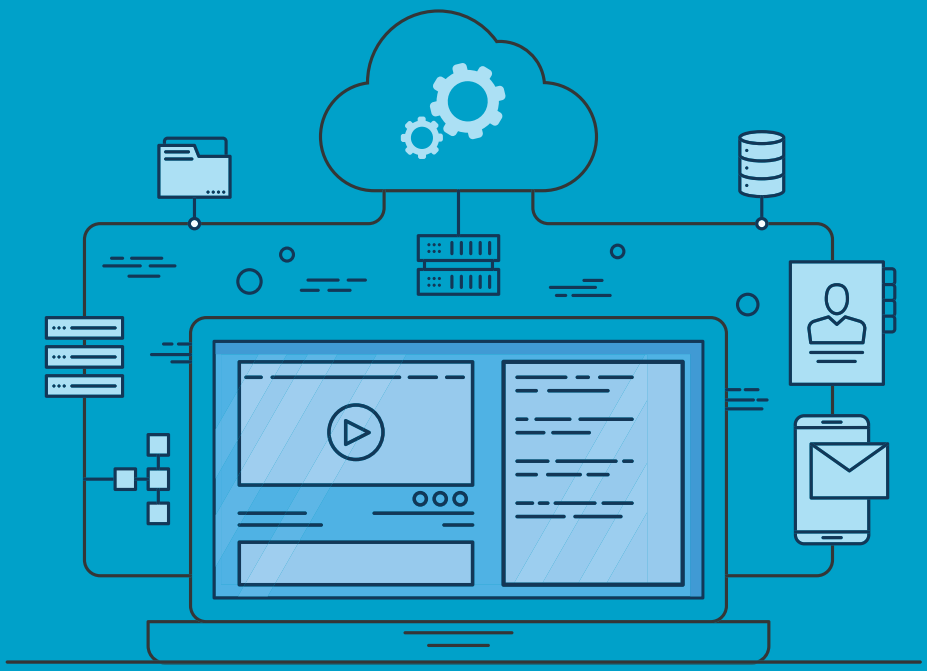
While comparing the traditional and cloud web hosting methods, companies need to look beyond hardware and price to leverage the true inherent value of the hosting solution and the associated business benefits.

In traditional web hosting system, you need to procure, install, manage and maintain the necessary hardware to set up the infrastructure to host your site which can take months or even years. This makes the traditional hosting solution cumbersome, time-consuming and extortionate. In addition to this, most of the large-scale enterprises have a presence in multiple locations needing a dedicated vendor/staff in each of the locations. The management of these vendors from a remote location further adds up to the cost. Also, there are other hidden costs like extra taxations to procure hardware, delivery charges, additional operational overheads like power management costs, etc.

In contrast to this, cloud web hosting offers several revolutionary advantages with a potential to reap huge benefits for your business. While acting as a centralized cloud service provider, you can free up yourself from the tedious manual tasks of site deployment while reducing cost and time to market. Also, cloud web hosting comes up with guaranteed SLAs ensuring high uptime for your website. Besides, it lets you pay as you consume the resources with no hidden costs enabling you to plan your IT budget efficiently.

In conclusion, you can strategize the migration of your web application to the cloud based on the architectural and conceptual considerations discussed in this whitepaper and deliver the expected business value. This way, you can leverage benefits of a cost-effective and fault-tolerant infrastructure that helps in your business growth and allows you to concentrate more on your business instead of spending time in managing your infrastructure.

To know more about Alibaba Cloud Web Hosting Services, visit our website intl.aliyun.com/solutions/hosting



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