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# Azure SLA

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# AZ 900: Questions and Answers – Part 28

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**Q521:** You can improve composite SLA by adding redundant service to your application

Yes  No

**Q522:** SLA is a formal agreement between Microsoft and a customer. Which of the following aspects are outlined by the SLA agreement?

- a) Scalability
- b) Elasticity
- c) Fault Tolerance
- d) Availability



Q5:

You have an Azure application that uses the services shown in the following table.

Service	Service Level Agreement (SLA)
Azure Virtual Machine	99.9%
Azure SQL Database	99.99%

How would you calculate the composite SLA for the application?

- a)  $0.999 \times 0.999 = 0.9989001$
- b)  $0.999, 0.999 = 0.9999 = 99.99\%$
- c)  $0.9999 \times 0.9999 = 0.9989001 = 99.89001\%$
- d)  $0.999, 0.999 = 0.999 = 99.9\%$

You can also simply:  $99.9 \times 99.99 = 9989.001$

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Article • 12/01/2022 • 4 contributors

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The Service Level Agreement Estimator sample shows how to calculate the SLA of your architecture.

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## Composite SLAs

Composite SLAs involve multiple services supporting an application, each with differing levels of availability. For example, consider an App Service web app that writes to Azure SQL Database. At the time of publication, these Azure services have the following SLAs:

- App Service web apps = 99.95%
- SQL Database = 99.99%

What is the maximum downtime you would expect for this application? If either service fails, the whole application fails. The probability of each service failing is independent, so the composite SLA for this application is  $99.95\% \times 99.99\% = 99.94\%$ . That's lower than the individual SLAs, which isn't surprising because an application that relies on multiple services has more potential failure points.

You can improve the composite SLA by creating independent fallback paths. For example, if SQL Database is unavailable, put transactions

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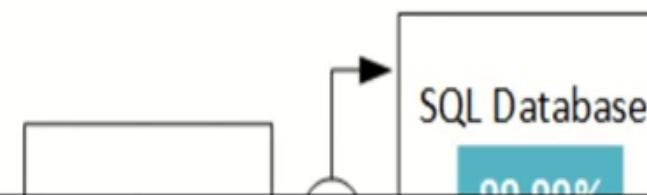
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Service web app that writes to Azure SQL Database. At the time of publication, these Azure services have the following SLAs:

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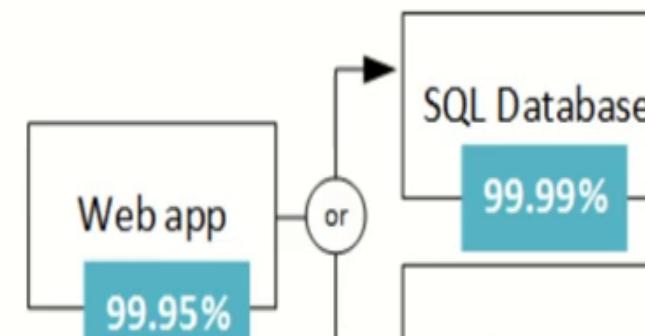
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which isn't surprising because an application that relies on multiple services has more potential failure points.

You can improve the composite SLA by creating independent fallback paths. For example, if SQL Database is unavailable, put transactions into a queue to be processed later:



**Q523:** You have an Azure application that uses the services shown in the following table.

Service	Service Level Agreement (SLA)
Azure Virtual Machine	99.9%
Azure SQL Database	99.99%

How should you calculate the composite SLA for the application?

- a)  $0.999 / 0.9999 = 0.9991 = 99.91\%$
- b)  $\text{Max}(0.999, 0.9999) = 0.9999 = 99.99\%$
- c)  $0.999 * 0.9999 = 0.9989001 = 99.89001\%$
- d)  $\text{Min}(0.999, 0.9999) = 0.999 = 99.9\%$

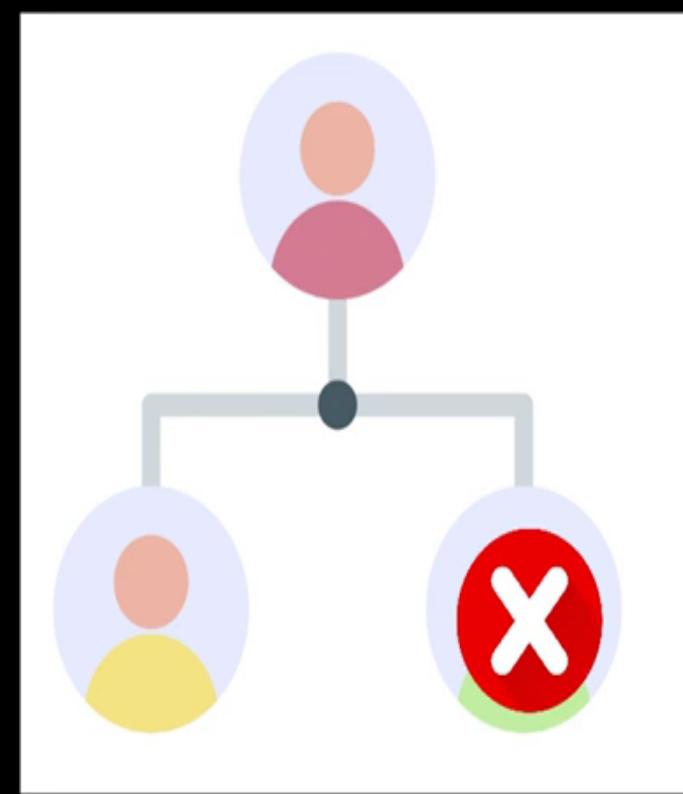
You can also simply:  $99.9 \times 99.99 = 9989.001$

**Q524:** Adding more dependent services to application improve the composite SLA.

Yes       No

**Q524:** Adding more dependent services to application improve the composite SLA.

Yes       No

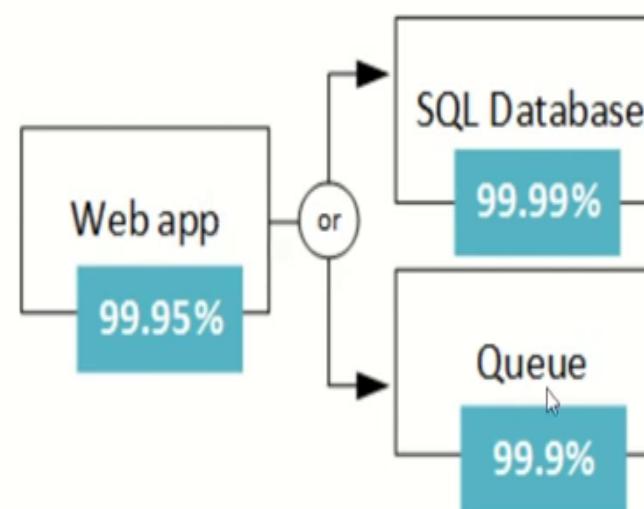


**Q525:** Adding redundant services to application improve the composite SLA.

Yes  No

services has more potential failure points.

You can improve the composite SLA by creating independent fallback paths. For example, if SQL Database is unavailable, put transactions into a queue to be processed later:



With this design, the application is still available even if it can't connect to the database. However, it fails if the database and the queue both fail at the same time. The expected percentage of time for a simultaneous failure is  $0.0001 \times 0.001$ , so the composite SLA for this combined path is:

- Database or queue =  $1.0 - (0.0001 \times 0.001) = 99.9999\%$

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**Q525:** Adding redundant services to application improve the composite SLA.



<input type="radio"/>	Yes	<input type="radio"/>	No
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**Q526:** The service configuration can impact on the SLA that Microsoft provides.

Yes       No

Many services allow for extra configuration options like Availability Zones for Azure VMs, which increase the SLA.

**Q527:** What's the SLA for Azure Maps in terms of guaranteed uptime?

- a) 99 percent
- b) 99.9 percent
- c) 99.99 percent

**Q528:** Azure services in public preview are subject to a Service Level Agreement (SLA).

Yes

No

Public previews are excluded from SLAs and in some cases, no support is offered.

**Q529:** Companies can increase the Service Level Agreement (SLA) guaranteed uptime by adding Azure resources to multiple regions.

Yes       No

The SLA guaranteed uptime is increased (usually to 99.95 percent) when resources are deployed across multiple regions.



**Q530:** The Service Level Agreement (SLA) guaranteed uptime for paid Azure services is at least 99.9 percent.

Yes       No

**Q530:** The Service Level Agreement (SLA) guaranteed uptime for paid Azure services is at least 99.9 percent.

Yes       No

SLA's vary based on the resource type and the location distribution of the resource. However, the minimum uptime for all Azure services is 99.9 percent. •

**Q531:** Companies can increase the Service Level Agreement (SLA) guaranteed uptime by purchasing multiple subscriptions.

Yes       No

The number of subscriptions is unrelated to uptime SLA's.

**Q532:** Adding a third virtual machine reduces the composite SLA. How can companies offset this reduction?

- a) Increase the size of each virtual machine.
- b) Deploy extra instances of the same virtual machines across the different availability zones in the same Azure region.
- c) Do nothing. Using Azure Load Balancer increases the SLA for virtual machines.

If one availability zone is affected, your virtual machine instance in the other availability zone should be unaffected.

**Q533:** A Standard support plan is included in an Azure free account.

Yes       No

An Azure free account comes with a 'basic' support plan, not a 'standard' support plan.



**Q534:** Which Service Level Agreement (SLA) is provided for Azure services in public preview?

- a) Each service defines its own SLA
- b) The SLA will be 99%
- c) The SLA will be 1% less than the general availability (GA) SLA
- d) The SLA will be 99.95%

**Q535:** A Premier support plan can only be purchased by companies that have an Enterprise Agreement (EA).

Yes       No

**Q536:** All Azure services in private preview must be accessed by using a separate Azure portal.

Yes       No

**Q536:** All Azure services in private preview must be accessed by using a separate Azure portal.

Yes       No

Services in private preview can be viewed in the regular Azure portal. However, you need to be signed up for the feature in private preview before you can view it. Access to private preview features is usually by invitation only.

**Q537:** Azure services in public preview can be used in production environments.

Yes     No

**Q537:** Azure services in public preview can be used in production environments.

Yes       No

You can use services in public preview in production environments. However, you should be aware that the service may have faults, is not subject to an SLA and may be withdrawn without notice.



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**Q538:** If your company uses an Azure free account, you will only be able to use a subset of Azure services.

Yes       No

Azure Free Account gives you 12 months access to the most popular free services. It also gives you a credit (200 USD) to use on any Azure service for up to 30 days. ☺

**Q539:** You can create up to 10 Azure free accounts by using the same Microsoft account.

Yes

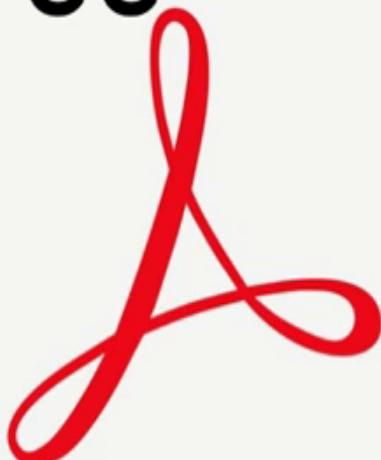
No

You can only create one free Azure account per Microsoft account.

**Q540:** All Azure free accounts expire after a specific period.

Yes       No

All free accounts expire after 12 months.

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Part 27	Part 28
<b>Q: 503</b>	<b>Q: 527</b>
<b>Q: 512</b>	<b>Q: 532</b>
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