

Blockchain as a Service

Pricing

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Specifications and pricing

Alibaba Cloud BaaS supports three mainstream engines: Hyperledger Fabric, Ant Blockchain, and Quorum. The Hyperledger Fabric and Ant Blockchain have been GA and this topic describes the billing methods of these two engines.

For Quorum, you can apply for free trial on the Homepage of BaaS.

Billing details for BaaS based on Hyperledger Fabric

The billing items include:

- Billing item 1: blockchain network instances
- Billing item 2: storage space

Billing item 1: blockchain network instances

Description:

Instances that are used to run the BaaS platform. All instances are dedicated instances. The CPU, memory, storage, and I/O resources assigned to an instance are exclusive to this instance, which improves the stability and reliability.

- The operator of the network needs to create a **consortium instance** first, and then invite the participants to join the consortium.
- Participants of the network need to create an **organization instance** and then join the consortium after they confirm the invitation sent by the operator. Note: At the same time, one organization instance can only exist in one consortium.

One Fabric blockchain network is composed of 1 consortium instance + N organization instances, $N \geq 1$. The number of organization instances N is determined by the number of business participants and whether there is an

exclusive requirement. If a participant needs exclusive blockchain node and ledger, as well as chaincode deployment, blockchain user creation and other management functions, the participant needs to create a separate organization instance. An organization instance can be shared if the participants has no exclusive requirement. Consortium instance and organization instances can be purchased and created by a single cloud account or by different cloud accounts.

Billing method: subscription

- **Billing details:** see the following table.

- **Test network: Starter Edition.** Owned by a single customer, this network has one Starter Edition consortium instances and two Starter Edition organization instances to simulate a minimum multi-party transaction scenario, which is suitable for getting started and testing smart contracts.
- **Production Network: Basic Edition and Enterprise Edition.** Instances of this two editions are used for building a production network of multiple parties, meanwhile the network should includes one consortium instance and N organization instances ($N \geq 1$).

Table 1. Instance specifications and billing details

Instance type	Specification	Free storage space	All regions
Consortium (Test network)	Starter Edition	50 GB	Monthly: USD 623
Consortium	Basic Edition	100 GB	Monthly: USD 1,078
	Enterprise Edition	500 GB	Monthly: USD 5,254
Organization	Basic Edition	100 GB	Monthly: USD 735
	Enterprise Edition	500 GB	Monthly: USD 3,645

For more information about how to choose the appropriate specifications based on different business scenarios, see the **Purchase Guide** section.

Billing item 2: storage space

- **Description:**

The storage space is used to store blockchain ledgers and related data. It is based on Alibaba Cloud NAS performance storage type. The blockchain network instance has provided some free storage space. During the running process, when the data exceeds the limit of free storage space, the system scales out automatically to ensure the session continuity and the

availability of connections.

- **Billing method:**

pay-as-you-go. Expenses incurred within an hour are deducted from the balance at the next hourly interval. Make sure that the account balance is sufficient when you use this service.

- **Billing details :**

space exceeding the free quota will be billed based on a pay-as-you-go basis. Expenses incurred within an hour are deducted from the balance at the next hourly interval.

All regions: USD\$0.000472/GB/Hour (Equals to USD\$0.34/GB/Month).

For more information about the details of the pay-as-you-go billing method, see [NAS pricing \(Performance NAS\)](#).

Billing details for BaaS based on Ant Blockchain

The billing items include: Blockchain instances.

Billing item: blockchain instances

- **Description:**

Instances that are used to run the BaaS platform, which contain four nodes by default. All instances are dedicated instances. The CPU, memory, storage, and I/O resources assigned to an instance are exclusive to this instance, which improves the stability and reliability.

- The operator of the network needs to create a consortium first, and then create a blockchain instance, invite the participants to join the consortium. Note: At the same time, one blockchain instance can only exist in one consortium.
- Participants of the network can join the consortium after confirming the operator invitation.

- **Billing method:** subscription

- **Billing details:** see the following table.

Table 2. Instance specifications and billing details

Instance type	Number of nodes	Free storage space per node	All regions
Enterprise Edition	4	6TB	Yearly: USD 160,000

For more information about how to choose the appropriate specifications based on different business scenarios, see the [Purchase Guide](#) section.

Purchase guide

Alibaba Cloud BaaS product series includes Hyperledger Fabric, Ant Blockchain, and Quorum (an enterprise-focused version of Ethereum). This topic describes the features and applicable scenarios of each product series so that you can purchase based on your requirements.

- **Purchase process - Hyperledger Fabric:** describes the process of purchasing a blockchain service based on Hyperledger Fabric.
- **Purchase process - Ant Blockchain:** describes the process of purchasing a blockchain service based on Ant Blockchain.
- **Purchase reference - Hyperledger Fabric:** describes the performances and applicable scenarios of instances that are based on Hyperledger Fabric, which helps you purchase based on your requirements.
- **Purchase reference - Ant Blockchain:** describes the performances and applicable scenarios of instances that are based on Ant Blockchain, which helps you purchase based on your requirements.

Purchase process - Hyperledger Fabric

The BaaS service based on Hyperledger Fabric is commercially available. See the following procedure to apply for the purchase. You can purchase the blockchain network instances based on your business requirements. You can use the BaaS service after you complete the payment.

Before you purchase BaaS resources, you need to apply for the purchase qualification. The procedure is described as follows:

You can go to the [Alibaba Cloud BaaS product page](#) and click **Buy Now**. Fill in the purchase information and complete the purchase. For more information about the product specifications and pricing details, see [Specifications and billing methods](#).

You can also purchase at the console by clicking **Purchase consortium/organization resources**

- i. Log on to the [Alibaba Cloud BaaS console](#).
- ii. On the [Hyperledger Fabric](#) page, click **Create Consortium** or **Create Organization**.
- iii. Configure the resource parameters based on your business requirements at the purchase page.

Recommended configurations:

- i. **Region:** Choose a region that is close to your business applications.
- ii. **Instance parameters:** We recommend that you refer to [Purchase](#)

reference - Hyperledger Fabric and choose the configuration based on your business.

iii. **Duration:** The instances of the BaaS service are subscription-based, and you can choose the appropriate purchase period as needed.

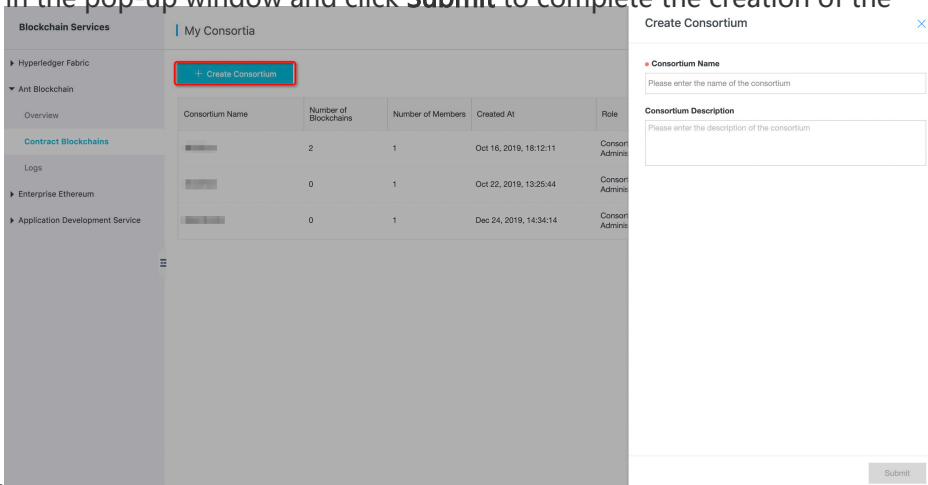
iv. Click **Buy Now** and complete the payment on the payment page.

Purchase process - Ant Blockchain

The BaaS service based on Ant Blockchain is commercially available. See the following procedure to apply for the purchase. You can purchase the blockchain network instances based on your business requirements. You can use the BaaS service after you complete the payment.

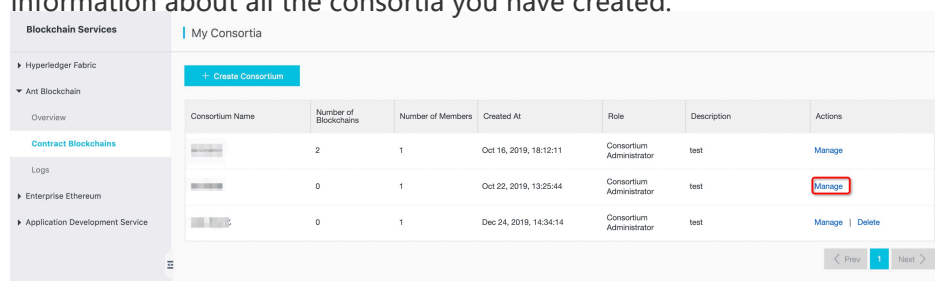
If you are buying for the first time, or if you plan to create a blockchain instance in a new consortium, you first need to go to the console and create the consortium to which the blockchain instance belongs.

Click **Create Consortium** in the console, and fill in the name and description of the consortium in the pop-up window and click **Submit** to complete the creation of the



consortium.

Click **Manage** in the consortium operation item to enter the chain management page. Click **Create Blockchain** to jump to the purchase page. Or you can refresh the open purchase page directly. The **Consortium** column on the purchase page will automatically get information about all the consortia you have created.



Consortium Name	Number of Blockchains	Number of Members	Created At	Role	Description	Actions
[Redacted]	2	1	Oct 16, 2019, 18:12:11	Consortium Administrator	test	Manage
[Redacted]	0	1	Oct 22, 2019, 13:25:44	Consortium Administrator	test	Manage
[Redacted]	0	1	Dec 24, 2019, 14:34:14	Consortium Administrator	test	Manage Delete

Configure your resource parameters on the purchase page.

The screenshot shows a configuration page for Blockchain as a Service. It is organized into three main sections:

- Basic:** Includes a 'Region' dropdown menu with options: China (Hong Kong), Singapore, Australia (Sydney), and Japan (Tokyo). Below it is a note: 'Choose a region that is close to your applications to reduce network latency. Use caution: The selected region cannot be changed after purchase.'
- Instance:** Includes a 'Consortium' dropdown menu with a note: 'Select a consortium. You can also create one in the console.' Below that is a 'Blockchain Name' text input field with a note: 'Enter the name of the blockchain that you want to create. The name must be 1 to 100 characters in length, and can contain digits, letters, and hyphens (-)'. Below that is a 'Specification' dropdown menu with 'Enterprise Edition' selected, and a note: 'By default, a blockchain contains four nodes. Each node provides a storage capacity of 6 TB. We provide you with contract design support, 24/7-hour online support, and services dedicated to VIPs.' Below that is a 'Node Capacity' dropdown menu with 'Scaling' selected and 'Unsupported' as an option.
- Purchase Plan:** Includes a 'Duration' dropdown menu with options: 1 yr, 2 yr, and 3 yr.

Configuration

recommendations:

- **Region:** Choose a region that is close to your applications to reduce network latency.
- **Consortium:** Select a consortium. You can also create one following the above guidance.
- **Blockchain Name:** Enter the name of the blockchain that you want to create. The name must be 1 to 100 characters in length, and can contain digits, letters, and hyphens (-). It is suggested that the name is related to your business. You can modify the name at any time on the console chain management page.
- **Duration:** The instances of the BaaS service are subscription-based, and you can choose the appropriate purchase period as needed.

Click **Buy Now** and complete the payment on the payment page.

After the purchase is complete, you can go to the console to view the progress of your blockchain instance creation. Since the blockchain instance is all exclusive configurations, the creation time generally takes 10-30 minutes. For more information about the product specifications and pricing details, see Specifications and billing methods.

Purchase reference - Hyperledger Fabric

Blockchain network instances based on Hyperledger Fabric include three specifications: Starter Edition, Basic Edition and Enterprise Edition. The Starter Edition is a test network and owned by a single customer, while the Basic Edition and Enterprise Edition is for building a production network

for multiple parties.

The features of the three specifications are shown in the following table.

Feature	Starter Edition	Basic Edition	Enterprise Edition
High availability	Not supported	Supported	Supported
Network isolation	Supported	Supported	Supported
Independent CA services	Supported	Supported	Supported
CA high-availability services	Not supported	Supported	Supported
Join the consortium chain	Not supported	Supported	Supported
Join the business channel	Supported	Supported	Supported
Scalable storage	Not supported	Supported	Supported
ActionTrail	Supported	Supported	Supported
Cryptographic algorithms recommended by China authorities	Supported	Supported	Supported
Security SDK	Not supported	Not supported	Supported
Anti-DDoS Basic	Not supported	Not supported	Supported Advanced protection, please submit a ticket
SGX on-chip encryption	Not supported	Not supported	Not supported
TPS (transactions per second)	No performance data	Maximum: 300 TPS	Maximum: 2,000 TPS
Service Level Agreement	Not supported	Supported	Supported

Scenarios for blockchain network instances of different editions:

Edition	Description	Scenario
Starter Edition	Provides core functions of the blockchain service to facilitate a quick blockchain deployment	Testing trial of the product or build a system for proof of business.
Basic Edition	Provides core functions of the blockchain service and supports basic-level businesses and data operation.	A business system for developers and small or medium-sized enterprises to launch basic businesses.

Enterprise Edition	Supports a larger number of business organizations in the consortium chain. Enterprise Edition provides a more powerful processing performance and a higher transaction data throughput rate.	This service provides important business systems for medium or large-sized enterprises. These enterprises have a large number of business participants or high processing requirements.
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Underlying resources for instances of different editions:

Instance type	Specification	Server specification	The number of servers	Free storage quota
Consortium (Test network)	Starter Edition	4CPU 8GB	2	50 GB
Consortium	Basic Edition	4CPU 8GB	3	100 GB
	Enterprise Edition	16CPU 31GB	3	500 GB
Organization	Basic Edition	4CPU 8GB	3	100 GB
	Enterprise Edition	16CPU 32GB	3	500 GB

Purchase reference - Ant Blockchain

Blockchain network instances based on Ant Blockchain include Enterprise Edition. The features are shown in the following table.

Instance type	Number of nodes	Free storage space per node	Description	Scenario
Enterprise Edition	4	6TB	Supports a larger number of business organizations in the consortium. Enterprise Edition provides a more powerful processing performance and a higher transaction data throughput rate.	This service provides important business systems for medium or large-sized enterprises. These enterprises have a large number of business participants or high processing requirements.