



API Reference

# WorkSpaces Instances



**API Version 2022-07-26**

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# WorkSpaces Instances: API Reference

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# Welcome

Amazon WorkSpaces Instances provides an API framework for managing virtual workspace environments across multiple AWS regions, enabling programmatic creation and configuration of desktop infrastructure.

This document was last published on September 6, 2025.

# Actions

The following actions are supported:

- [AssociateVolume](#)
- [CreateVolume](#)
- [CreateWorkspaceInstance](#)
- [DeleteVolume](#)
- [DeleteWorkspaceInstance](#)
- [DisassociateVolume](#)
- [GetWorkspaceInstance](#)
- [ListInstanceTypes](#)
- [ListRegions](#)
- [ListTagsForResource](#)
- [ListWorkspaceInstances](#)
- [TagResource](#)
- [UntagResource](#)

# AssociateVolume

Attaches a volume to a Workspace Instance.

## Request Syntax

```
{  
  "Device": "string",  
  "VolumeId": "string",  
  "WorkspaceInstanceId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Device

Device path for volume attachment.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Required: Yes

### VolumeId

Volume to be attached.

Type: String

Pattern: vol-[0-9a-zA-Z]{1,63}

Required: Yes

### WorkspaceInstanceId

Workspace Instance to attach volume to.

Type: String

Length Constraints: Minimum length of 15. Maximum length of 70.

Pattern: `wsinst-[0-9a-zA-Z]{8,63}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### ConflictException

Signals a conflict with the current state of the resource.

HTTP Status Code: 400

### InternalServerError

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

### ResourceNotFoundException

Indicates the requested resource could not be found.

HTTP Status Code: 400

### ThrottlingException

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

## ValidationException

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateVolume

Creates a new volume for WorkSpace Instances.

## Request Syntax

```
{
  "AvailabilityZone": "string",
  "ClientToken": "string",
  "Encrypted": boolean,
  "Iops": number,
  "KmsKeyId": "string",
  "SizeInGB": number,
  "SnapshotId": "string",
  "TagSpecifications": [
    {
      "ResourceType": "string",
      "Tags": [
        {
          "Key": "string",
          "Value": "string"
        }
      ]
    }
  ],
  "Throughput": number,
  "VolumeType": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### AvailabilityZone

Availability zone for the volume.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Required: Yes

### ClientToken

Unique token to prevent duplicate volume creation.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

### Encrypted

Indicates if the volume should be encrypted.

Type: Boolean

Required: No

### Iops

Input/output operations per second for the volume.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### KmsKeyId

KMS key for volume encryption.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

### SizeInGB

Volume size in gigabytes.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### SnapshotId

Source snapshot for volume creation.

Type: String

Pattern: `snap-[0-9a-zA-Z]{1,63}`

Required: No

### TagSpecifications

Metadata tags for the volume.

Type: Array of [TagSpecification](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: No

### Throughput

Volume throughput performance.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### VolumeType

Type of EBS volume.

Type: String

Valid Values: `standard` | `io1` | `io2` | `gp2` | `sc1` | `st1` | `gp3`

Required: No

## Response Syntax

```
{
```

```
"VolumeId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### VolumeId

Unique identifier for the new volume.

Type: String

Pattern: vol-[0-9a-zA-Z]{1,63}

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### **ConflictException**

Signals a conflict with the current state of the resource.

HTTP Status Code: 400

### **InternalServerError**

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

### **ServiceQuotaExceededException**

Indicates that a service quota has been exceeded.

HTTP Status Code: 400

## ThrottlingException

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

## ValidationException

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# CreateWorkspaceInstance

Launches a new WorkSpace Instance with specified configuration parameters, enabling programmatic workspace deployment.

## Request Syntax

```
{
  "ClientToken": "string",
  "ManagedInstance": {
    "BlockDeviceMappings": [
      {
        "DeviceName": "string",
        "Ebs": {
          "Encrypted": boolean,
          "Iops": number,
          "KmsKeyId": "string",
          "Throughput": number,
          "VolumeSize": number,
          "VolumeType": "string"
        },
        "NoDevice": "string",
        "VirtualName": "string"
      }
    ],
    "CapacityReservationSpecification": {
      "CapacityReservationPreference": "string",
      "CapacityReservationTarget": {
        "CapacityReservationId": "string",
        "CapacityReservationResourceGroupArn": "string"
      }
    },
    "CpuOptions": {
      "AmdSevSnp": "string",
      "CoreCount": number,
      "ThreadsPerCore": number
    },
    "CreditSpecification": {
      "CpuCredits": "string"
    },
    "DisableApiStop": boolean,
    "EbsOptimized": boolean,
    "EnablePrimaryIpv6": boolean,
```

```
"EnclaveOptions": {
  "Enabled": boolean
},
"HibernationOptions": {
  "Configured": boolean
},
"IamInstanceProfile": {
  "Arn": "string",
  "Name": "string"
},
"ImageId": "string",
"InstanceMarketOptions": {
  "MarketType": "string",
  "SpotOptions": {
    "BlockDurationMinutes": number,
    "InstanceInterruptionBehavior": "string",
    "MaxPrice": "string",
    "SpotInstanceType": "string",
    "ValidUntilUtc": number
  }
},
"InstanceType": "string",
"Ipv6AddressCount": number,
"Ipv6Addresses": [
  {
    "Ipv6Address": "string",
    "IsPrimaryIpv6": boolean
  }
],
"KernelId": "string",
"KeyName": "string",
"LicenseSpecifications": [
  {
    "LicenseConfigurationArn": "string"
  }
],
"MaintenanceOptions": {
  "AutoRecovery": "string"
},
"MetadataOptions": {
  "HttpEndpoint": "string",
  "HttpProtocolIpv6": "string",
  "HttpPutResponseHopLimit": number,
  "HttpTokens": "string",
```

```
  "InstanceMetadataTags": "string"
},
"Monitoring": {
  "Enabled": boolean
},
"NetworkInterfaces": [
  {
    "AssociateCarrierIpAddress": boolean,
    "AssociatePublicIpAddress": boolean,
    "ConnectionTrackingSpecification": {
      "TcpEstablishedTimeout": number,
      "UdpStreamTimeout": number,
      "UdpTimeout": number
    },
    "Description": "string",
    "DeviceIndex": number,
    "EnaSrdSpecification": {
      "EnaSrdEnabled": boolean,
      "EnaSrdUdpSpecification": {
        "EnaSrdUdpEnabled": boolean
      }
    },
    "Groups": [ "string" ],
    "InterfaceType": "string",
    "Ipv4PrefixCount": number,
    "Ipv4Prefixes": [
      {
        "Ipv4Prefix": "string"
      }
    ],
    "Ipv6AddressCount": number,
    "Ipv6Addresses": [
      {
        "Ipv6Address": "string",
        "IsPrimaryIpv6": boolean
      }
    ],
    "Ipv6PrefixCount": number,
    "Ipv6Prefixes": [
      {
        "Ipv6Prefix": "string"
      }
    ],
    "NetworkCardIndex": number,
```

```
    "NetworkInterfaceId": "string",
    "PrimaryIpv6": boolean,
    "PrivateIpAddress": "string",
    "PrivateIpAddresses": [
      {
        "Primary": boolean,
        "PrivateIpAddress": "string"
      }
    ],
    "SecondaryPrivateIpAddressCount": number,
    "SubnetId": "string"
  }
],
"NetworkPerformanceOptions": {
  "BandwidthWeighting": "string"
},
"Placement": {
  "Affinity": "string",
  "AvailabilityZone": "string",
  "GroupId": "string",
  "GroupName": "string",
  "HostId": "string",
  "HostResourceGroupArn": "string",
  "PartitionNumber": number,
  "Tenancy": "string"
},
"PrivateDnsNameOptions": {
  "EnableResourceNameDnsAAAARecord": boolean,
  "EnableResourceNameDnsARecord": boolean,
  "HostnameType": "string"
},
"PrivateIpAddress": "string",
"RamdiskId": "string",
"SecurityGroupIds": [ "string" ],
"SecurityGroups": [ "string" ],
"SubnetId": "string",
"TagSpecifications": [
  {
    "ResourceType": "string",
    "Tags": [
      {
        "Key": "string",
        "Value": "string"
      }
    ]
  }
]
```

```
    ]
  }
],
  "UserData": "string"
},
"Tags": [
  {
    "Key": "string",
    "Value": "string"
  }
]
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### ClientToken

Unique token to ensure idempotent instance creation, preventing duplicate workspace launches.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 64.

Required: No

### ManagedInstance

Comprehensive configuration settings for the WorkSpaces Instance, including network, compute, and storage parameters.

Type: [ManagedInstanceRequest](#) object

Required: Yes

### Tags

Optional metadata tags for categorizing and managing WorkSpaces Instances.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: No

## Response Syntax

```
{  
  "WorkspaceInstanceId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### WorkspaceInstanceId

Unique identifier assigned to the newly created WorkSpaces Instance.

Type: String

Length Constraints: Minimum length of 15. Maximum length of 70.

Pattern: `wsinst-[0-9a-zA-Z]{8,63}`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### **ConflictException**

Signals a conflict with the current state of the resource.

HTTP Status Code: 400

## InternalServerErrorException

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

## ServiceQuotaExceededException

Indicates that a service quota has been exceeded.

HTTP Status Code: 400

## ThrottlingException

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

## ValidationException

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteVolume

Deletes a specified volume.

## Request Syntax

```
{  
  "VolumeId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### VolumeId

Identifier of the volume to delete.

Type: String

Pattern: vol-[0-9a-zA-Z]{1,63}

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

## ConflictException

Signals a conflict with the current state of the resource.

HTTP Status Code: 400

## InternalServerError

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

## ResourceNotFoundException

Indicates the requested resource could not be found.

HTTP Status Code: 400

## ThrottlingException

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

## ValidationException

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DeleteWorkspaceInstance

Deletes the specified Workspace

## Request Syntax

```
{  
  "WorkspaceInstanceId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [WorkspaceInstanceId](#)

Unique identifier of the WorkSpaces Instance targeted for deletion.

Type: String

Length Constraints: Minimum length of 15. Maximum length of 70.

Pattern: `wsinst-[0-9a-zA-Z]{8,63}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

## ConflictException

Signals a conflict with the current state of the resource.

HTTP Status Code: 400

## InternalServerError

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

## ResourceNotFoundException

Indicates the requested resource could not be found.

HTTP Status Code: 400

## ThrottlingException

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

## ValidationException

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)

- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# DisassociateVolume

Detaches a volume from a Workspace Instance.

## Request Syntax

```
{  
  "Device": "string",  
  "DisassociateMode": "string",  
  "VolumeId": "string",  
  "WorkspaceInstanceId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Device

Device path of volume to detach.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Required: No

### DisassociateMode

Mode for volume detachment.

Type: String

Valid Values: FORCE | NO\_FORCE

Required: No

### VolumeId

Volume to be detached.

Type: String

Pattern: vol-[0-9a-zA-Z]{1,63}

Required: Yes

### WorkspaceInstanceId

Workspace Instance to detach volume from.

Type: String

Length Constraints: Minimum length of 15. Maximum length of 70.

Pattern: wsinst-[0-9a-zA-Z]{8,63}

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### **ConflictException**

Signals a conflict with the current state of the resource.

HTTP Status Code: 400

### **InternalServerError**

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

### **ResourceNotFoundException**

Indicates the requested resource could not be found.

HTTP Status Code: 400

### **ThrottlingException**

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

### **ValidationException**

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# GetWorkspaceInstance

Retrieves detailed information about a specific WorkSpace Instance.

## Request Syntax

```
{
  "WorkspaceInstanceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### [WorkspaceInstanceId](#)

Unique identifier of the WorkSpace Instance to retrieve.

Type: String

Length Constraints: Minimum length of 15. Maximum length of 70.

Pattern: `wsinst-[0-9a-zA-Z]{8,63}`

Required: Yes

## Response Syntax

```
{
  "EC2InstanceErrors": [
    {
      "EC2ErrorCode": "string",
      "EC2ErrorMessage": "string",
      "EC2ExceptionType": "string"
    }
  ],
  "EC2ManagedInstance": {
    "InstanceId": "string"
  },
}
```

```
"ProvisionState": "string",  
"WorkspaceInstanceErrors": [  
  {  
    "ErrorCode": "string",  
    "ErrorMessage": "string"  
  }  
],  
"WorkspaceInstanceId": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### EC2InstanceErrors

Includes any underlying EC2 instance errors encountered.

Type: Array of [EC2InstanceError](#) objects

### EC2ManagedInstance

Details of the associated EC2 managed instance.

Type: [EC2ManagedInstance](#) object

### ProvisionState

Current provisioning state of the WorkSpaces Instance.

Type: String

Valid Values: ALLOCATING | ALLOCATED | DEALLOCATING | DEALLOCATED | ERROR\_ALLOCATING | ERROR\_DEALLOCATING

### WorkspaceInstanceErrors

Captures any errors specific to the Workspace Instance lifecycle.

Type: Array of [WorkspaceInstanceError](#) objects

### WorkspaceInstanceId

Unique identifier of the retrieved WorkSpaces Instance.

Type: String

Length Constraints: Minimum length of 15. Maximum length of 70.

Pattern: `wsinst-[0-9a-zA-Z]{8,63}`

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### InternalServerError

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

### ResourceNotFoundException

Indicates the requested resource could not be found.

HTTP Status Code: 400

### ThrottlingException

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

### ValidationException

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListInstanceTypes

Retrieves a list of instance types supported by Amazon WorkSpaces Instances, enabling precise workspace infrastructure configuration.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

Maximum number of instance types to return in a single API call. Enables pagination of instance type results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

### NextToken

Pagination token for retrieving subsequent pages of instance type results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

## Response Syntax

```
{
```

```
"InstanceTypes": [  
  {  
    "InstanceType": "string"  
  }  
],  
"NextToken": "string"  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### InstanceTypes

Collection of supported instance types for WorkSpaces Instances.

Type: Array of [InstanceTypeInfo](#) objects

### NextToken

Token for retrieving additional instance types if the result set is paginated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### **InternalServerErrorException**

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

## ThrottlingException

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

## ValidationException

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListRegions

Retrieves a list of AWS regions supported by Amazon WorkSpaces Instances, enabling region discovery for workspace deployments.

## Request Syntax

```
{
  "MaxResults": number,
  "NextToken": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

Maximum number of regions to return in a single API call. Enables pagination of region results.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

### NextToken

Pagination token for retrieving subsequent pages of region results.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

## Response Syntax

```
{
```

```
"NextToken": "string",  
"Regions": [  
  {  
    "RegionName": "string"  
  }  
]
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

Token for retrieving additional regions if the result set is paginated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

### Regions

Collection of AWS regions supported by WorkSpaces Instances.

Type: Array of [Region](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### **InternalServerErrorException**

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

## ThrottlingException

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

## ValidationException

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListTagsForResource

Retrieves tags for a WorkSpace Instance.

## Request Syntax

```
{  
  "WorkspaceInstanceId": "string"  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### WorkspaceInstanceId

Unique identifier of the WorkSpace Instance.

Type: String

Length Constraints: Minimum length of 15. Maximum length of 70.

Pattern: `wsinst-[0-9a-zA-Z]{8,63}`

Required: Yes

## Response Syntax

```
{  
  "Tags": [  
    {  
      "Key": "string",  
      "Value": "string"  
    }  
  ]  
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### Tags

Collection of tags associated with the Workspace Instance.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### **InternalServerError**

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

### **ResourceNotFoundException**

Indicates the requested resource could not be found.

HTTP Status Code: 400

### **ThrottlingException**

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

### **ValidationException**

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# ListWorkspacesInstances

Retrieves a collection of WorkSpaces Instances based on specified filters.

## Request Syntax

```
{  
  "MaxResults": number,  
  "NextToken": "string",  
  "ProvisionStates": [ "string" ]  
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### MaxResults

Maximum number of WorkSpaces Instances to return in a single response.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 25.

Required: No

### NextToken

Pagination token for retrieving subsequent pages of WorkSpaces Instances.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

Required: No

### ProvisionStates

Filter WorkSpaces Instances by their current provisioning states.

Type: Array of strings

Valid Values: ALLOCATING | ALLOCATED | DEALLOCATING | DEALLOCATED | ERROR\_ALLOCATING | ERROR\_DEALLOCATING

Required: No

## Response Syntax

```
{
  "NextToken": "string",
  "WorkspaceInstances": [
    {
      "EC2ManagedInstance": {
        "InstanceId": "string"
      },
      "ProvisionState": "string",
      "WorkspaceInstanceId": "string"
    }
  ]
}
```

## Response Elements

If the action is successful, the service sends back an HTTP 200 response.

The following data is returned in JSON format by the service.

### NextToken

Token for retrieving additional WorkSpaces Instances if the result set is paginated.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 2048.

### WorkspaceInstances

Collection of WorkSpaces Instances returned by the query.

Type: Array of [WorkspaceInstance](#) objects

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### **AccessDeniedException**

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### **InternalServerErrorException**

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

### **ThrottlingException**

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

### **ValidationException**

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)
- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)

- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# TagResource

Adds tags to a WorkSpace Instance.

## Request Syntax

```
{
  "Tags": [
    {
      "Key": "string",
      "Value": "string"
    }
  ],
  "WorkspaceInstanceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### Tags

Tags to be added to the WorkSpace Instance.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: Yes

### WorkspaceInstanceId

Unique identifier of the WorkSpace Instance to tag.

Type: String

Length Constraints: Minimum length of 15. Maximum length of 70.

Pattern: wsinst-[0-9a-zA-Z]{8,63}

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### InternalServerError

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

### ResourceNotFoundException

Indicates the requested resource could not be found.

HTTP Status Code: 400

### ThrottlingException

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

### ValidationException

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# UntagResource

Removes tags from a WorkSpace Instance.

## Request Syntax

```
{
  "TagKeys": [ "string" ],
  "WorkspaceInstanceId": "string"
}
```

## Request Parameters

For information about the parameters that are common to all actions, see [Common Parameters](#).

The request accepts the following data in JSON format.

### TagKeys

Keys of tags to be removed.

Type: Array of strings

Array Members: Minimum number of 1 item. Maximum number of 30 items.

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: (`[\p{L}\p{Z}\p{N}_ . : / = + \ - @ ] +`)

Required: Yes

### WorkspaceInstanceId

Unique identifier of the WorkSpace Instance to untag.

Type: String

Length Constraints: Minimum length of 15. Maximum length of 70.

Pattern: `wsinst-[0-9a-zA-Z]{8,63}`

Required: Yes

## Response Elements

If the action is successful, the service sends back an HTTP 200 response with an empty HTTP body.

## Errors

For information about the errors that are common to all actions, see [Common Errors](#).

### AccessDeniedException

Indicates insufficient permissions to perform the requested action.

HTTP Status Code: 400

### InternalServerError

Indicates an unexpected server-side error occurred.

HTTP Status Code: 500

### ResourceNotFoundException

Indicates the requested resource could not be found.

HTTP Status Code: 400

### ThrottlingException

Indicates the request rate has exceeded limits.

HTTP Status Code: 400

### ValidationException

Indicates invalid input parameters in the request.

HTTP Status Code: 400

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS Command Line Interface](#)

- [AWS SDK for .NET](#)
- [AWS SDK for C++](#)
- [AWS SDK for Go v2](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for JavaScript V3](#)
- [AWS SDK for Kotlin](#)
- [AWS SDK for PHP V3](#)
- [AWS SDK for Python](#)
- [AWS SDK for Ruby V3](#)

# Data Types

The Amazon WorkSpaces Instances API contains several data types that various actions use. This section describes each data type in detail.

## Note

The order of each element in a data type structure is not guaranteed. Applications should not assume a particular order.

The following data types are supported:

- [BlockDeviceMappingRequest](#)
- [CapacityReservationSpecification](#)
- [CapacityReservationTarget](#)
- [ConnectionTrackingSpecificationRequest](#)
- [CpuOptionsRequest](#)
- [CreditSpecificationRequest](#)
- [EbsBlockDevice](#)
- [EC2InstanceError](#)
- [EC2ManagedInstance](#)
- [EnaSrdSpecificationRequest](#)
- [EnaSrdUdpSpecificationRequest](#)
- [EnclaveOptionsRequest](#)
- [HibernationOptionsRequest](#)
- [IamInstanceProfileSpecification](#)
- [InstanceIpv6Address](#)
- [InstanceMaintenanceOptionsRequest](#)
- [InstanceMarketOptionsRequest](#)
- [InstanceMetadataOptionsRequest](#)
- [InstanceNetworkInterfaceSpecification](#)
- [InstanceNetworkPerformanceOptionsRequest](#)

- [InstanceTypeInfo](#)
- [Ipv4PrefixSpecificationRequest](#)
- [Ipv6PrefixSpecificationRequest](#)
- [LicenseConfigurationRequest](#)
- [ManagedInstanceRequest](#)
- [Placement](#)
- [PrivateDnsNameOptionsRequest](#)
- [PrivateIpAddressSpecification](#)
- [Region](#)
- [RunInstancesMonitoringEnabled](#)
- [SpotMarketOptions](#)
- [Tag](#)
- [TagSpecification](#)
- [ValidationExceptionField](#)
- [WorkspaceInstance](#)
- [WorkspaceInstanceError](#)

# BlockDeviceMappingRequest

Defines device mapping for Workspace Instance storage.

## Contents

### DeviceName

Name of the device for storage mapping.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Required: No

### Ebs

EBS volume configuration for the device.

Type: [EbsBlockDevice](#) object

Required: No

### NoDevice

Indicates device should not be mapped.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 32.

Required: No

### VirtualName

Virtual device name for ephemeral storage.

Type: String

Pattern: `ephemeral(0|[1-9][0-9]{0,2})`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CapacityReservationSpecification

Specifies capacity reservation preferences.

## Contents

### CapacityReservationPreference

Preference for using capacity reservation.

Type: String

Valid Values: `capacity-reservations-only` | `open` | `none`

Required: No

### CapacityReservationTarget

Specific capacity reservation target.

Type: [CapacityReservationTarget](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# CapacityReservationTarget

Identifies a specific capacity reservation.

## Contents

### CapacityReservationId

Unique identifier for the capacity reservation.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

### CapacityReservationResourceGroupArn

ARN of the capacity reservation resource group.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: arn:.\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ConnectionTrackingSpecificationRequest

Defines connection tracking parameters for network interfaces.

## Contents

### TcpEstablishedTimeout

Timeout for established TCP connections.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### UdpStreamTimeout

Timeout for UDP stream connections.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### UdpTimeout

General timeout for UDP connections.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# CpuOptionsRequest

Configures CPU-specific settings for Workspace Instance.

## Contents

### AmdSevSnp

AMD Secure Encrypted Virtualization configuration.

Type: String

Valid Values: enabled | disabled

Required: No

### CoreCount

Number of CPU cores to allocate.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### ThreadsPerCore

Number of threads per CPU core.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)

- [AWS SDK for Ruby V3](#)

# CreditSpecificationRequest

Defines CPU credit configuration for burstable instances.

## Contents

### CpuCredits

CPU credit specification mode.

Type: String

Valid Values: `standard` | `unlimited`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EbsBlockDevice

Defines configuration for an Elastic Block Store volume.

## Contents

### Encrypted

Indicates if the volume is encrypted.

Type: Boolean

Required: No

### Iops

Input/output operations per second for the volume.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### KmsKeyId

KMS key used for volume encryption.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

### Throughput

Volume data transfer rate.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### VolumeSize

Size of the EBS volume in gigabytes.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## VolumeType

Type of EBS volume (e.g., gp2, io1).

Type: String

Valid Values: standard | io1 | io2 | gp2 | sc1 | st1 | gp3

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EC2InstanceError

Captures detailed error information for EC2 instance operations.

## Contents

### EC2ErrorCode

Unique error code identifying the specific EC2 instance error.

Type: String

Required: No

### EC2ErrorMessage

Detailed description of the EC2 instance error.

Type: String

Required: No

### EC2ExceptionType

Type of exception encountered during EC2 instance operation.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EC2ManagedInstance

Represents an EC2 instance managed by WorkSpaces.

## Contents

### InstanceId

Unique identifier of the managed EC2 instance.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EnaSrdSpecificationRequest

Defines Elastic Network Adapter (ENA) Scalable Reliable Datagram (SRD) configuration.

## Contents

### EnaSrdEnabled

Enables or disables ENA SRD for network performance.

Type: Boolean

Required: No

### EnaSrdUdpSpecification

Configures UDP-specific ENA SRD settings.

Type: [EnaSrdUdpSpecificationRequest](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EnaSrdUdpSpecificationRequest

Specifies UDP configuration for ENA SRD.

## Contents

### EnaSrdUdpEnabled

Enables or disables ENA SRD for UDP traffic.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# EnclaveOptionsRequest

Configures AWS Nitro Enclave options for the WorkSpace Instance.

## Contents

### Enabled

Enables or disables AWS Nitro Enclaves for enhanced security.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# HibernationOptionsRequest

Defines hibernation configuration for the WorkSpace Instance.

## Contents

### Configured

Enables or disables instance hibernation capability.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# IamInstanceProfileSpecification

Defines IAM instance profile configuration for WorkSpace Instance.

## Contents

### Arn

Amazon Resource Name (ARN) of the IAM instance profile.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: `arn:.*`

Required: No

### Name

Name of the IAM instance profile.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InstanceIpv6Address

Represents an IPv6 address configuration for a Workspace Instance.

## Contents

### Ipv6Address

Specific IPv6 address assigned to the instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

### IsPrimaryIpv6

Indicates if this is the primary IPv6 address for the instance.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InstanceMaintenanceOptionsRequest

Configures automatic maintenance settings for Workspace Instance.

## Contents

### AutoRecovery

Enables or disables automatic instance recovery.

Type: String

Valid Values: disabled | default

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InstanceMarketOptionsRequest

Configures marketplace-specific instance deployment options.

## Contents

### MarketType

Specifies the type of marketplace for instance deployment.

Type: String

Valid Values: `spot` | `capacity-block`

Required: No

### SpotOptions

Configuration options for spot instance deployment.

Type: [SpotMarketOptions](#) object

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InstanceMetadataOptionsRequest

Defines instance metadata service configuration.

## Contents

### HttpEndpoint

Enables or disables HTTP endpoint for instance metadata.

Type: String

Valid Values: `enabled` | `disabled`

Required: No

### HttpProtocolIpv6

Configures IPv6 support for instance metadata HTTP protocol.

Type: String

Valid Values: `enabled` | `disabled`

Required: No

### HttpPutResponseHopLimit

Sets maximum number of network hops for metadata PUT responses.

Type: Integer

Valid Range: Minimum value of 1. Maximum value of 64.

Required: No

### HttpTokens

Configures token requirement for instance metadata retrieval.

Type: String

Valid Values: `optional` | `required`

Required: No

## InstanceMetadataTags

Enables or disables instance metadata tags retrieval.

Type: String

Valid Values: enabled | disabled

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InstanceNetworkInterfaceSpecification

Defines network interface configuration for Workspace Instance.

## Contents

### AssociateCarrierIpAddress

Enables carrier IP address association.

Type: Boolean

Required: No

### AssociatePublicIpAddress

Enables public IP address assignment.

Type: Boolean

Required: No

### ConnectionTrackingSpecification

Configures network connection tracking parameters.

Type: [ConnectionTrackingSpecificationRequest](#) object

Required: No

### Description

Descriptive text for the network interface.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 1000.

Pattern: `[\S\s]*`

Required: No

### DeviceIndex

Unique index for the network interface.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **EnaSrdSpecification**

Configures Elastic Network Adapter Scalable Reliable Datagram settings.

Type: [EnaSrdSpecificationRequest](#) object

Required: No

### **Groups**

Security groups associated with the network interface.

Type: Array of strings

Pattern: sg-[0-9a-zA-Z]{1,63}

Required: No

### **InterfaceType**

Specifies the type of network interface.

Type: String

Valid Values: interface | efa | efa-only

Required: No

### **Ipv4PrefixCount**

Number of IPv4 prefixes to assign.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **Ipv4Prefixes**

IPv4 prefix configurations for the interface.

Type: Array of [Ipv4PrefixSpecificationRequest](#) objects

Required: No

### **Ipv6AddressCount**

Number of IPv6 addresses to assign.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **Ipv6Addresses**

Specific IPv6 addresses for the interface.

Type: Array of [InstanceIpv6Address](#) objects

Required: No

### **Ipv6PrefixCount**

Number of IPv6 prefixes to assign.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **Ipv6Prefixes**

IPv6 prefix configurations for the interface.

Type: Array of [Ipv6PrefixSpecificationRequest](#) objects

Required: No

### **NetworkCardIndex**

Index of the network card for multiple network interfaces.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **NetworkInterfaceId**

Unique identifier for the network interface.

Type: String

Pattern: `eni-[0-9a-zA-Z]{1,63}`

Required: No

### **PrimaryIpv6**

Indicates the primary IPv6 configuration.

Type: Boolean

Required: No

### **PrivateIpAddress**

Primary private IP address for the interface.

Type: String

Pattern: `(\b25[0-5]|\b2[0-4][0-9]|\b[01]?[0-9][0-9]?)(\.(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)){3}`

Required: No

### **PrivateIpAddresses**

List of private IP addresses for the interface.

Type: Array of [PrivateIpAddressSpecification](#) objects

Required: No

### **SecondaryPrivateIpAddressCount**

Number of additional private IP addresses to assign.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **SubnetId**

Subnet identifier for the network interface.

Type: String

Pattern: subnet-[0-9a-zA-Z]{1,63}

Required: No

## **See Also**

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InstanceNetworkPerformanceOptionsRequest

Configures network performance settings for Workspace Instance.

## Contents

### BandwidthWeighting

Defines bandwidth allocation strategy for network interfaces.

Type: String

Valid Values: default | vpc-1 | ebs-1

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# InstanceTypeInfo

Provides details about a specific Workspace Instance type.

## Contents

### InstanceType

Unique identifier for the Workspace Instance type.

Type: String

Pattern: ([a-z0-9-])\.([a-z0-9]+)

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Ipv4PrefixSpecificationRequest

Specifies IPv4 prefix configuration for network interfaces.

## Contents

### Ipv4Prefix

Specific IPv4 prefix for network interface configuration.

Type: String

Pattern: `.*(?::(?:\d|[01]?\d\d|2[0-4]\d|25[0-5])\.){3}(?:25[0-5]|2[0-4]\d|[01]?\d\d|\d)(?:/\d{1,2})?.*`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Ipv6PrefixSpecificationRequest

Specifies IPv6 prefix configuration for network interfaces.

## Contents

### Ipv6Prefix

Specific IPv6 prefix for network interface configuration.

Type: String

Pattern: (([0-9a-fA-F]{1,4}:){7,7}[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,7}:|([0-9a-fA-F]{1,4}:){1,6}:[0-9a-fA-F]{1,4}|([0-9a-fA-F]{1,4}:){1,5}(:[0-9a-fA-F]{1,4}){1,2}|([0-9a-fA-F]{1,4}:){1,4}(:[0-9a-fA-F]{1,4}){1,3}|([0-9a-fA-F]{1,4}:){1,3}(:[0-9a-fA-F]{1,4}){1,4}|([0-9a-fA-F]{1,4}:){1,2}(:[0-9a-fA-F]{1,4}){1,5}|[0-9a-fA-F]{1,4}:((:[0-9a-fA-F]{1,4}){1,6})|:((:[0-9a-fA-F]{1,4}){1,7}|:)|fe80:(:[0-9a-fA-F]{0,4}){0,4}%[0-9a-zA-Z]{1,}|::(ffff(:0{1,4}){0,1}:){0,1}((25[0-5]|(2[0-4]|1{0,1}[0-9])){0,1}[0-9])\.){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9])){0,1}[0-9]|([0-9a-fA-F]{1,4}:){1,4}:((25[0-5]|(2[0-4]|1{0,1}[0-9])){0,1}[0-9])\.){3,3}(25[0-5]|(2[0-4]|1{0,1}[0-9])){0,1}[0-9])\|([0-9]{1,2}|1[01][0-9]|12[0-8])

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# LicenseConfigurationRequest

Specifies license configuration for Workspace Instance.

## Contents

### LicenseConfigurationArn

ARN of the license configuration for the Workspace Instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: arn:.\*

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ManagedInstanceRequest

Defines comprehensive configuration for a managed WorkSpace Instance.

## Contents

### BlockDeviceMappings

Configures block device mappings for storage.

Type: Array of [BlockDeviceMappingRequest](#) objects

Required: No

### CapacityReservationSpecification

Specifies capacity reservation preferences.

Type: [CapacityReservationSpecification](#) object

Required: No

### CpuOptions

Configures CPU-specific settings.

Type: [CpuOptionsRequest](#) object

Required: No

### CreditSpecification

Defines CPU credit configuration for burstable instances.

Type: [CreditSpecificationRequest](#) object

Required: No

### DisableApiStop

Prevents API-initiated instance stop.

Type: Boolean

Required: No

## EbsOptimized

Enables optimized EBS performance.

Type: Boolean

Required: No

## EnablePrimaryIpv6

Enables primary IPv6 address configuration.

Type: Boolean

Required: No

## EnclaveOptions

Configures AWS Nitro Enclave settings.

Type: [EnclaveOptionsRequest](#) object

Required: No

## HibernationOptions

Configures instance hibernation capabilities.

Type: [HibernationOptionsRequest](#) object

Required: No

## IamInstanceProfile

Specifies IAM instance profile configuration.

Type: [IamInstanceProfileSpecification](#) object

Required: No

## ImageId

Identifies the Amazon Machine Image (AMI) for the instance.

Type: String

Pattern: ami-[0-9a-zA-Z]{1,63}

Required: No

### **InstanceMarketOptions**

Configures marketplace-specific deployment options.

Type: [InstanceMarketOptionsRequest](#) object

Required: No

### **InstanceType**

Specifies the WorkSpace Instance type.

Type: String

Pattern: (`[a-z0-9-]+\.`(`[a-z0-9-]+`))

Required: No

### **Ipv6AddressCount**

Specifies number of IPv6 addresses to assign.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### **Ipv6Addresses**

Configures specific IPv6 addresses.

Type: Array of [InstanceIpv6Address](#) objects

Required: No

### **KernelId**

Identifies the kernel for the instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

## KeyName

Specifies the key pair for instance access.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Required: No

## LicenseSpecifications

Configures license-related settings.

Type: Array of [LicenseConfigurationRequest](#) objects

Required: No

## MaintenanceOptions

Defines automatic maintenance settings.

Type: [InstanceMaintenanceOptionsRequest](#) object

Required: No

## MetadataOptions

Configures instance metadata service settings.

Type: [InstanceMetadataOptionsRequest](#) object

Required: No

## Monitoring

Enables or disables detailed instance monitoring.

Type: [RunInstancesMonitoringEnabled](#) object

Required: No

## NetworkInterfaces

Configures network interface settings.

Type: Array of [InstanceNetworkInterfaceSpecification](#) objects

Required: No

## NetworkPerformanceOptions

Defines network performance configuration.

Type: [InstanceNetworkPerformanceOptionsRequest](#) object

Required: No

## Placement

Specifies instance placement preferences.

Type: [Placement](#) object

Required: No

## PrivateDnsNameOptions

Configures private DNS name settings.

Type: [PrivateDnsNameOptionsRequest](#) object

Required: No

## PrivateIpAddress

Specifies the primary private IP address.

Type: String

Pattern: `(\b25[0-5]|\b2[0-4][0-9]|\b[01]?[0-9][0-9]?)(\.(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)){3}`

Required: No

## RamdiskId

Identifies the ramdisk for the instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 128.

Required: No

## SecurityGroupIds

Specifies security group identifiers.

Type: Array of strings

Pattern: sg-[0-9a-zA-Z]{1,63}

Required: No

## SecurityGroups

Configures security group settings.

Type: Array of strings

Pattern: (?!sg-)[\w .:/( )#,@\[\]\+=&;{}!\$\*-]{0,255}

Required: No

## SubnetId

Identifies the subnet for the instance.

Type: String

Pattern: subnet-[0-9a-zA-Z]{1,63}

Required: No

## TagSpecifications

Configures resource tagging specifications.

Type: Array of [TagSpecification](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: No

## UserData

Provides custom initialization data for the instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 16000.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Placement

Defines instance placement configuration for Workspace Instance.

## Contents

### Affinity

Specifies host affinity for dedicated instances.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Required: No

### AvailabilityZone

Identifies the specific AWS availability zone.

Type: String

Pattern: `[a-z]{2}-[a-z]+\d[a-z](-[a-z0-9]+)?`

Required: No

### GroupId

Unique identifier for placement group.

Type: String

Pattern: `pg-[0-9a-zA-Z]{1,63}`

Required: No

### GroupName

Name of the placement group.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Required: No

## HostId

Identifies the specific dedicated host.

Type: String

Pattern: h-[0-9a-zA-Z]{1,63}

Required: No

## HostResourceGroupArn

ARN of the host resource group.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 2048.

Pattern: arn:.\*

Required: No

## PartitionNumber

Specifies partition number for partition placement groups.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

## Tenancy

Defines instance tenancy configuration.

Type: String

Valid Values: default | dedicated | host

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PrivateDnsNameOptionsRequest

Configures private DNS name settings for WorkSpace Instance.

## Contents

### EnableResourceNameDnsAAAARecord

Enables DNS AAAA record for resource name resolution.

Type: Boolean

Required: No

### EnableResourceNameDnsARecord

Enables DNS A record for resource name resolution.

Type: Boolean

Required: No

### HostnameType

Specifies the type of hostname configuration.

Type: String

Valid Values: `ip-name` | `resource-name`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# PrivateIpAddressSpecification

Defines private IP address configuration for network interface.

## Contents

### Primary

Indicates if this is the primary private IP address.

Type: Boolean

Required: No

### PrivateIpAddress

Specific private IP address for the network interface.

Type: String

Pattern: `(\b25[0-5]|\b2[0-4][0-9]|\b[01]?[0-9][0-9]?)(\.(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)){3}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Region

Represents an AWS region supported by WorkSpaces Instances.

## Contents

### RegionName

Name of the AWS region.

Type: String

Pattern: `[-0-9a-z]{1,31}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# RunInstancesMonitoringEnabled

Configures detailed monitoring for WorkSpace Instance.

## Contents

### Enabled

Enables or disables detailed instance monitoring.

Type: Boolean

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# SpotMarketOptions

Defines configuration for spot instance deployment.

## Contents

### BlockDurationMinutes

Duration of spot instance block reservation.

Type: Integer

Valid Range: Minimum value of 0.

Required: No

### InstanceInterruptionBehavior

Specifies behavior when spot instance is interrupted.

Type: String

Valid Values: hibernate | stop

Required: No

### MaxPrice

Maximum hourly price for spot instance.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 64.

Required: No

### SpotInstanceType

Defines the type of spot instance request.

Type: String

Valid Values: one-time | persistent

Required: No

## ValidUntilUtc

Timestamp until which spot instance request is valid.

Type: Timestamp

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Tag

Represents a key-value metadata tag.

## Contents

### Key

Unique identifier for the tag.

Type: String

Length Constraints: Minimum length of 1. Maximum length of 128.

Pattern: (`[\p{L}\p{Z}\p{N}_ . :/=+\-@]+`)

Required: No

### Value

Value associated with the tag key.

Type: String

Length Constraints: Minimum length of 0. Maximum length of 256.

Pattern: (`[\p{L}\p{Z}\p{N}_ . :/=+\-@]*`)

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# TagSpecification

Defines tagging configuration for a resource.

## Contents

### ResourceType

Type of resource being tagged.

Type: String

Valid Values: `instance` | `volume` | `spot-instances-request` | `network-interface`

Required: No

### Tags

Collection of tags for the specified resource.

Type: Array of [Tag](#) objects

Array Members: Minimum number of 0 items. Maximum number of 30 items.

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# ValidationExceptionField

Represents a validation error field in an API request.

## Contents

### Message

Detailed error message describing the validation issue.

Type: String

Required: Yes

### Name

Name of the field that failed validation.

Type: String

Required: Yes

### Reason

Reason for the validation failure.

Type: String

Required: Yes

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# WorkspaceInstance

Represents a single WorkSpace Instance.

## Contents

### EC2ManagedInstance

Details of the associated EC2 managed instance.

Type: [EC2ManagedInstance](#) object

Required: No

### ProvisionState

Current provisioning state of the WorkSpace Instance.

Type: String

Valid Values: ALLOCATING | ALLOCATED | DEALLOCATING | DEALLOCATED | ERROR\_ALLOCATING | ERROR\_DEALLOCATING

Required: No

### WorkspaceInstanceId

Unique identifier for the WorkSpace Instance.

Type: String

Length Constraints: Minimum length of 15. Maximum length of 70.

Pattern: `wsinst-[0-9a-zA-Z]{8,63}`

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)

- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# WorkspaceInstanceError

Captures errors specific to WorkSpace Instance operations.

## Contents

### ErrorCode

Unique error code for the WorkSpace Instance error.

Type: String

Required: No

### ErrorMessage

Detailed description of the WorkSpace Instance error.

Type: String

Required: No

## See Also

For more information about using this API in one of the language-specific AWS SDKs, see the following:

- [AWS SDK for C++](#)
- [AWS SDK for Java V2](#)
- [AWS SDK for Ruby V3](#)

# Common Parameters

The following list contains the parameters that all actions use for signing Signature Version 4 requests with a query string. Any action-specific parameters are listed in the topic for that action. For more information about Signature Version 4, see [Signing AWS API requests](#) in the *IAM User Guide*.

## Action

The action to be performed.

Type: string

Required: Yes

## Version

The API version that the request is written for, expressed in the format YYYY-MM-DD.

Type: string

Required: Yes

## X-Amz-Algorithm

The hash algorithm that you used to create the request signature.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Valid Values: AWS4-HMAC-SHA256

Required: Conditional

## X-Amz-Credential

The credential scope value, which is a string that includes your access key, the date, the region you are targeting, the service you are requesting, and a termination string ("aws4\_request"). The value is expressed in the following format: *access\_key/YYYYMMDD/region/service/aws4\_request*.

For more information, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

### **X-Amz-Date**

The date that is used to create the signature. The format must be ISO 8601 basic format (YYYYMMDD'T'HHMMSS'Z'). For example, the following date time is a valid X-Amz-Date value: 20120325T120000Z.

Condition: X-Amz-Date is optional for all requests; it can be used to override the date used for signing requests. If the Date header is specified in the ISO 8601 basic format, X-Amz-Date is not required. When X-Amz-Date is used, it always overrides the value of the Date header. For more information, see [Elements of an AWS API request signature](#) in the *IAM User Guide*.

Type: string

Required: Conditional

### **X-Amz-Security-Token**

The temporary security token that was obtained through a call to AWS Security Token Service (AWS STS). For a list of services that support temporary security credentials from AWS STS, see [AWS services that work with IAM](#) in the *IAM User Guide*.

Condition: If you're using temporary security credentials from AWS STS, you must include the security token.

Type: string

Required: Conditional

### **X-Amz-Signature**

Specifies the hex-encoded signature that was calculated from the string to sign and the derived signing key.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

### **X-Amz-SignedHeaders**

Specifies all the HTTP headers that were included as part of the canonical request. For more information about specifying signed headers, see [Create a signed AWS API request](#) in the *IAM User Guide*.

Condition: Specify this parameter when you include authentication information in a query string instead of in the HTTP authorization header.

Type: string

Required: Conditional

# Common Errors

This section lists the errors common to the API actions of all AWS services. For errors specific to an API action for this service, see the topic for that API action.

## **AccessDeniedException**

You do not have sufficient access to perform this action.

HTTP Status Code: 400

## **IncompleteSignature**

The request signature does not conform to AWS standards.

HTTP Status Code: 400

## **InternalFailure**

The request processing has failed because of an unknown error, exception or failure.

HTTP Status Code: 500

## **InvalidAction**

The action or operation requested is invalid. Verify that the action is typed correctly.

HTTP Status Code: 400

## **InvalidClientTokenId**

The X.509 certificate or AWS access key ID provided does not exist in our records.

HTTP Status Code: 403

## **NotAuthorized**

You do not have permission to perform this action.

HTTP Status Code: 400

## **OptInRequired**

The AWS access key ID needs a subscription for the service.

HTTP Status Code: 403

**RequestExpired**

The request reached the service more than 15 minutes after the date stamp on the request or more than 15 minutes after the request expiration date (such as for pre-signed URLs), or the date stamp on the request is more than 15 minutes in the future.

HTTP Status Code: 400

**ServiceUnavailable**

The request has failed due to a temporary failure of the server.

HTTP Status Code: 503

**ThrottlingException**

The request was denied due to request throttling.

HTTP Status Code: 400

**ValidationError**

The input fails to satisfy the constraints specified by an AWS service.

HTTP Status Code: 400