



Open iT® Software

Open iT Client as Azure Application Guide

Version 9.8

Version: 9.8

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ADDITIONAL SOFTWARE

The following unmodified tools are included in the Open iT software product or used by the Open iT software:

- Apache HTTP server
- Software under the GNU General Public License
- A standard Perl interpreter
- PHP
- Java
- The Zlib data compression library
- The FOX Toolkit
- TinyXML
- Lua
- Python
- cURL

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Preface

This guide contains the procedures on how to successfully deploy the Open iT client as an Azure application.

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Local Open iT representatives in the region may also be contacted.

Please visit <http://www.openit.com> for international locations and worldwide contact details.

Part I. Prerequisite

Chapter 1. Upload Open iT Client Deployment Script on Azure Storage Account

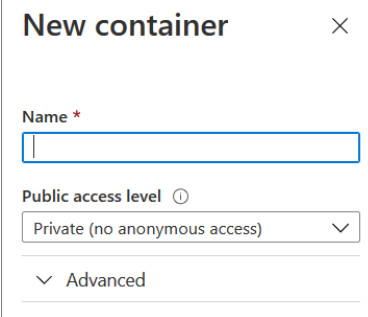
Follow these instructions to upload the Open iT Client deployment script on Azure storage account:

1. Proceed to the next step if there's an existing Storage account. Create a new Storage account in Azure portal. Select the correct Subscription and Resource group.

The screenshot shows the 'Create storage account' page in the Azure portal. The breadcrumb navigation at the top indicates 'All services > Storage accounts >'. The page title is 'Create storage account'. Below the title, there are tabs for 'Basics', 'Networking', 'Data protection', 'Advanced', 'Tags', and 'Review + create'. The 'Basics' tab is selected. A descriptive paragraph about Azure Storage is provided, followed by a link to 'Learn more about Azure storage accounts'. The 'Project details' section asks to select a subscription and resource group. The 'Subscription' dropdown is set to 'Azure subscription 1'. The 'Resource group' dropdown is empty, with a 'Create new' link below it. The 'Instance details' section explains the default deployment model (Resource Manager) and offers a link to 'Choose classic deployment model'. Below this, there are several configuration options: 'Storage account name' (text input), 'Location' (dropdown set to '(US) East US'), 'Performance' (radio buttons for 'Standard' and 'Premium', with 'Standard' selected), 'Account kind' (dropdown set to 'StorageV2 (general purpose v2)'), and 'Replication' (dropdown set to 'Read-access geo-redundant storage (RA-GRS)'). At the bottom, there are three buttons: 'Review + create' (blue), '< Previous' (disabled), and 'Next: Networking >' (disabled).

Figure 1. Creating New Storage Account

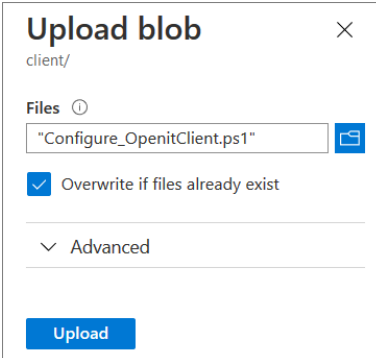
2. Proceed to the next step if there's an existing Container. Open the Storage account, then create a New container.



A dialog box titled "New container" with a close button (X) in the top right corner. It contains a "Name *" field with a text input box. Below it is a "Public access level" section with a dropdown menu showing "Private (no anonymous access)" and a chevron icon. At the bottom, there is a collapsed "Advanced" section indicated by a chevron icon.

Figure 2. CreatiLinkng New Container

3. Upload the **Open iT Client Deployment Script**. The script can be downloaded from this *link*.



A dialog box titled "Upload blob" with a close button (X) in the top right corner. Below the title is the path "client/". The "Files" section has a text input box containing "Configure_OpenitClient.ps1" and a file selection icon. Below this is a checked checkbox labeled "Overwrite if files already exist". At the bottom, there is a collapsed "Advanced" section indicated by a chevron icon, and a blue "Upload" button.

Figure 3. Creating New Container

Part II. Deploying Open iT Client as Azure Application

Chapter 2. Deploy as an Add-on to New Virtual Machine Instance

Follow these steps to deploy Open iT client as an add-on to new virtual machine instance:

1. On Azure portal, create and configure a new virtual machine instance.
2. On the virtual machine creation portal, go to **Advanced** tab and click **Select an extension to install**.

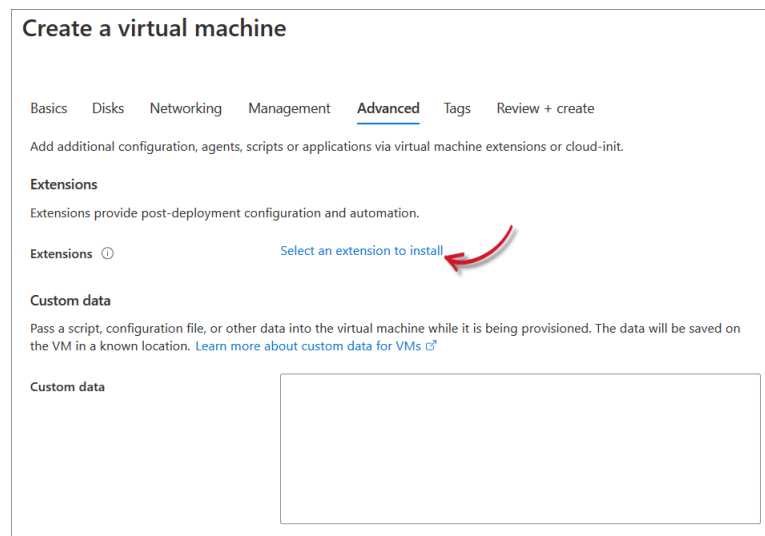


Figure 4. Creating New Virtual Machine

3. On the list of available resources, select **Custom Script Extension** then click **Create**.

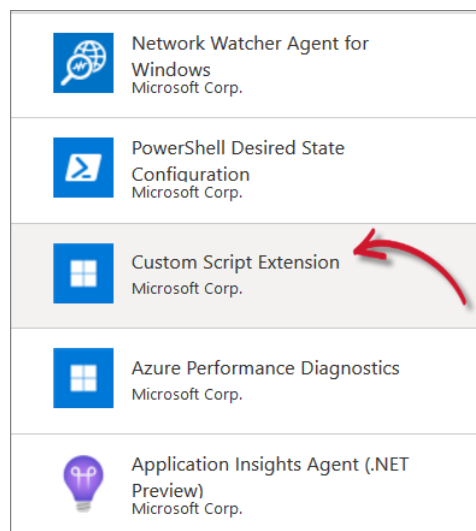



Figure 5. Custom Script Extension

4. Browse the script from the Storage account then select the uploaded Open iT Client Deployment Script.



Install extension

Script file (Required) * ⓘ

✓

Arguments (Optional) ⓘ

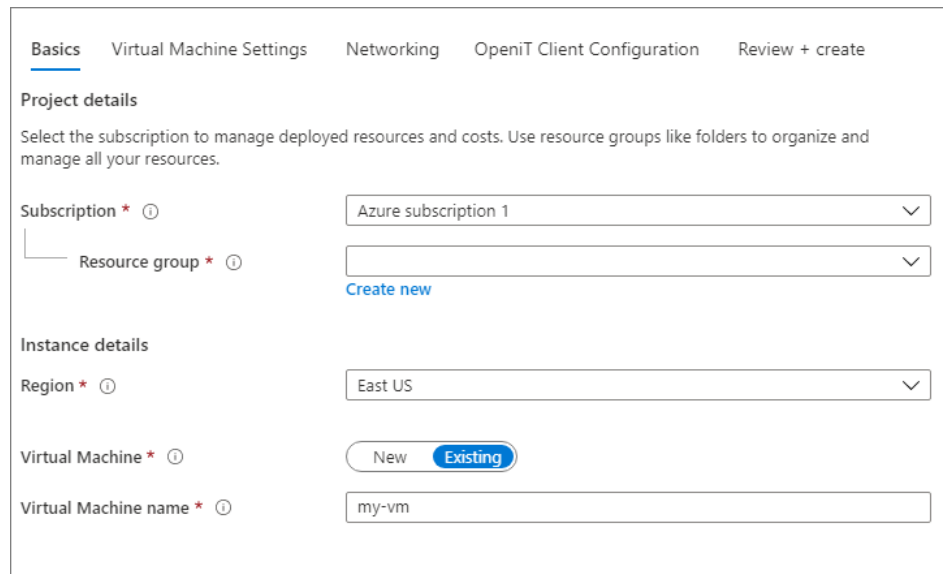
Figure 6. Browsing for Install Extension

5. Click **Ok**.
6. Proceed with virtual machine creation.

Chapter 3. Deploy thru Get It Now

Follow these steps to deploy Open iT client thru Get It Now:

1. In Azure Marketplace, search for **Open iT Client** and click **Get It Now**.
2. Select whether to deploy the Open iT Client on a new or existing virtual machine.



The screenshot shows the 'Basics' tab of the Azure portal deployment wizard for the 'Open iT Client'. The wizard is divided into sections: 'Project details' and 'Instance details'. In the 'Project details' section, there are dropdown menus for 'Subscription' (set to 'Azure subscription 1') and 'Resource group' (empty, with a 'Create new' link below it). In the 'Instance details' section, there is a 'Region' dropdown set to 'East US', and 'Virtual Machine' options with 'New' and 'Existing' buttons, where 'Existing' is selected. At the bottom, the 'Virtual Machine name' is set to 'my-vm'.

Basics Virtual Machine Settings Networking OpeniT Client Configuration Review + create

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ Azure subscription 1

Resource group * ⓘ

Create new

Instance details

Region * ⓘ East US

Virtual Machine * ⓘ New Existing

Virtual Machine name * ⓘ my-vm

Figure 7. Deploy Open iT Client on New or Existing Virtual Machine

3. Supply the necessary information.
4. Click **Create**.

Chapter 4. Deploy on Existing Virtual Machine(s) as an Extension Using Azure Portal

Follow these steps to deploy Open iT client on existing virtual machine as extension using Azure Portal:

1. Identify and select the virtual machine where to install Open iT client.
2. On the left pane of the virtual machine portal, click **Extensions**.
3. Click **Add** to create a new extension.
4. On the list of available resources, select **Custom Script Extension** then click **Create**.

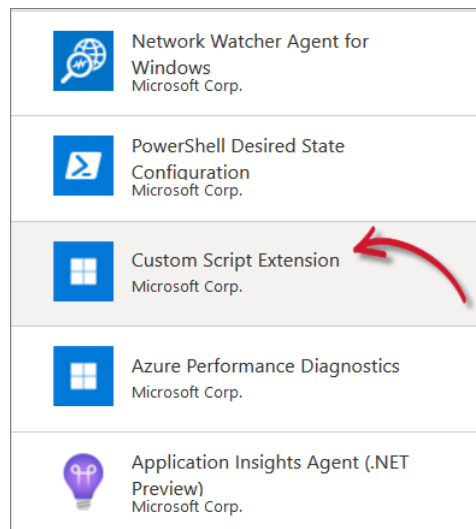


Figure 8. Custom Script Extension

5. Select the uploaded Open iT Client Deployment Script.

A screenshot of the 'Install extension' form in the Azure Portal. The form has a title 'Install extension' at the top. Below it, there are two sections: 'Script file (Required) *' and 'Arguments (Optional)'. The 'Script file (Required)' section has a text input field containing the filename 'Configure_OpenitClient.ps1', which is followed by a green checkmark icon. To the right of this field is a blue 'Browse' button. The 'Arguments (Optional)' section has an empty text input field.

Figure 9. Browsing for Install Extension

6. Click **Ok**.

Chapter 5. Deploy on Existing Virtual Machine(s) as an Extension Using Powershell Script

Follow these steps to deploy Open iT client on existing virtual machine as extension using Powershell Script:

1. Copy and save the script below as a powershell script:

```
param(
    [string] [Parameter(Mandatory = $true)] $SubscriptionId,
    [string] $customScriptExtensionName = 'Install_OpeniTClient_existing',
    [string] [Parameter(Mandatory = $true)] $scriptName = 'Configure_OpeniTClient.ps1',
    [string] [Parameter(Mandatory = $true)] $storageAccountName,
    [string] [Parameter(Mandatory = $true)] $storageAccountContainer,
    [string] [Parameter(Mandatory = $true)] $storageAccountResourceGroup,
    [string] [Parameter(Mandatory = $true)] $storageSubscriptionId,
    [string] $openitServerURI
)

$VMs = Get-AzVM | Where-Object {$_.Name -like '*myvm*'} ## Here you should apply filter
if you want to limit installation to specific VMs

Select-AzSubscription -SubscriptionId $storageSubscriptionId

$fileUri = @"https://$storageAccountName.blob.core.windows.net/
$storageAccountContainer/$scriptName"@

$settings = @{"fileUri" = $fileUri};

$storageKey = (Get-AzStorageAccountKey -Name $storageAccountName
-ResourceGroupName $storageAccountResourceGroup)[0].Value
$arguments = ''
if ($openitServerURI -ne '') {
    $arguments = "-ServerURI $openitServerURI"
}
$protectedSettings = @{"storageAccountName" = $storageAccountName; "storageAccountKey" =
$storageKey; "commandToExecute" = "powershell -ExecutionPolicy Unrestricted -File
$scriptName $arguments"};

Select-AzSubscription -SubscriptionId $SubscriptionId

foreach($vm in $VMs){
    Write-Output "Starting VM $($vm.Name)"
    Start-AzVm -ResourceGroupName "$($vm.ResourceGroupName)" -Name "$($vm.Name)"
    Write-Output "Working on vm $($vm.Name)"
    $extensions = (Get-AzVm -ResourceGroupName "$($vm.ResourceGroupName)" -Name
"$($vm.Name)").Extensions
    foreach($ext in $extensions)
    {
        if($ext.VirtualMachineExtensionType -eq "CustomScriptExtension"){
            Write-Output "Removing CustomScriptExtension with name $($ext.Name) from vm
$($vm.Name)"
            Remove-AzVMExtension -ResourceGroupName "$($vm.ResourceGroupName)" -VMName
"$($vm.Name)" -Name $ext.Name -Force
            Write-Output "Removed CustomScriptExtension with name $($ext.Name) from vm
$($vm.Name)"
        }
    }
}
```



```
Write-Output "$customScriptExtensionName installation on VM $($vm.Name)"

Set-AzVMExtension -ResourceGroupName "$($vm.ResourceGroupName)" `
  -Location "$($vm.Location)" `
  -VMName "$($vm.Name)" `
  -Name "$customScriptExtensionName" `
  -Publisher "Microsoft.Compute" `
  -ExtensionType "CustomScriptExtension" `
  -TypeHandlerVersion "1.10" `
  -Settings $settings `
  -ProtectedSettings $protectedSettings
Write-Output#"-----"
}
```

2. Supply all the required parameters of the script and update the filter to limit installation to specific virtual machines.
3. Run the powershell script.

Part III. Open iT on Azure Resource Manager (ARM) Template

Chapter 6. Adding Open iT Client on Existing ARM Template

To add Open iT on an existing ARM template:

Open ARM Template and append the json block to the template's resources.

```
{

  "apiVersion": "2019-07-01",
  "type": "Microsoft.Compute/virtualMachines/extensions",
  "name": "[concat('<your-virtual-machine-name-here>', '/', 'Install_OpeniTClient')]",
  "location": "<your-virtual-machine-location-here>",
  "dependsOn": [

    "[resourceId('Microsoft.Compute/virtualMachines', '<your-virtual-machine-name-here>')]"

  ],

  "tags": {

    "displayName": "config-openit"

  },

  "properties":{
    "publisher": "Microsoft.Compute",
    "type": "CustomScriptExtension",
    "typeHandlerVersion": "1.10",
    "autoUpgradeMinorVersion": true,
    "settings": {
      "fileUris": [
        "<openit-client-deployment-script-location-here>"
      ]
    },

    "commandToExecute": "[concat('powershell -ExecutionPolicy Unrestricted -File  
<openit-client-deployment-script-filename-here> <arguments-here>')]"

  },

  "protectedSettings": {}

}
```

Fields:

<your-virtual-machine-name-here>

The name of the virtual machine resource on ARM Template

<your-virtual-machine-location-here>

The location of the virtual machine resource on ARM Template

<openit-client-deployment-script-location-here>

The location of the Open iT Client Deployment Script. Use this *link* as the script location or copy and save it elsewhere.



Note

The location endpoint must be accessible in the VM.

In case using Azure storage account as location of the deployment script, supply **protectedSettings** to access it.

```
"protectedSettings": {  
  "storageAccountKey": "<storage-account-key-here>",  
  "storageAccountName": "<storage-account-name-here>"  
}
```

Example 1. **protectedSettings**

<openit-client-deployment-script-filename-here>

The filename of the Open iT Client Deployment Script

<arguments-here>

Pass argument to the script to connect to your Open iT Client to the Open iT Server to do that just replace this field as **-ServerURI http://<yourserver>:<port>**

On this example, Open iT Client will be installed in a VM with name **myvm123** located at **southeastasia**.

```
{  
  
  "apiVersion": "2019-07-01",  
  "type": "Microsoft.Compute/virtualMachines/extensions",  
  "name": "#[concat('myvm123','/', 'Install_OpeniTClient')]",  
  "location": "southeastasia",  
  "dependsOn": [  
    "[resourceId('Microsoft.Compute/virtualMachines', 'myvm123')]"  
  ],  
  
  "tags": {  
    "displayName": "config-openit"  
  },  
  
  "properties": {  
    "publisher": "Microsoft.Compute",  
    "type": "CustomScriptExtension",  
    "typeHandlerVersion": "1.10",  
    "autoUpgradeMinorVersion": #true,  
    "settings": {  
      "fileUri": [  
        "https://raw.githubusercontent.com/openitdotcom/azure-templates/master/  
openitclient-windows/scripts/Configure_OpeniTClient.ps1"  
      ],  
      "commandToExecute": "[concat('powershell -ExecutionPolicy Unrestricted -File  
Configure_OpeniTClient.ps1')]"  
    },  
    "protectedSettings": {}  
  }  
}
```

Example 2. Example ARM Template Snippet with values: