



# Getting started

## Cloud Manager

Tom Onacki  
June 09, 2021

# Table of Contents

- Getting started ..... 1
  - Enable Global File Cache using Cloud Manager ..... 1
  - Deploy additional Core instances. .... 10

# Getting started

You use Cloud Manager to deploy the Global File Cache Management Server and Global File Cache Core software in the working environment.

## Enable Global File Cache using Cloud Manager

In this configuration you will deploy the Global File Cache Management Server and Global File Cache Core in the same working environment where you created your Cloud Volumes ONTAP system using Cloud Manager.

Watch [this video](#) to see the steps from start to finish.

### Quick start

Get started quickly by following these steps or scroll down to the remaining sections for full details:



#### Deploy Cloud Volumes ONTAP

Deploy Cloud Volumes ONTAP in Azure or AWS and configure SMB file shares. For more information, see [Launching Cloud Volumes ONTAP in Azure](#) or [Launching Cloud Volumes ONTAP in AWS](#).



#### Deploy the Global File Cache Management Server

Deploy an instance of the Global File Cache Management Server in the same working environment as the instance of Cloud Volumes ONTAP.



#### Deploy the Global File Cache Core

Deploy an instance, or multiple instances, of the Global File Cache Core in the same working environment as the instance of Cloud Volumes ONTAP and join it to your Active Directory domain.



#### License Global File Cache

Configure the Global File Cache License Management Server (LMS) service on a Global File Cache Core instance. You will need your NSS Credentials or a Customer ID and Subscription Number provided by NetApp to activate your subscription.



#### Deploy the Global File Cache Edge instances

See [Deploying Global File Cache Edge instances](#) to deploy the Global File Cache Edge instances in each remote location. This step is not done using Cloud Manager.

## Deploy Cloud Volumes ONTAP as your storage platform

In the current release, Global File Cache supports Cloud Volumes ONTAP deployed in Azure or AWS. For detailed prerequisites, requirements, and deployment instructions, see [Launching Cloud Volumes ONTAP in Azure](#) or [Launching Cloud Volumes ONTAP in AWS](#).

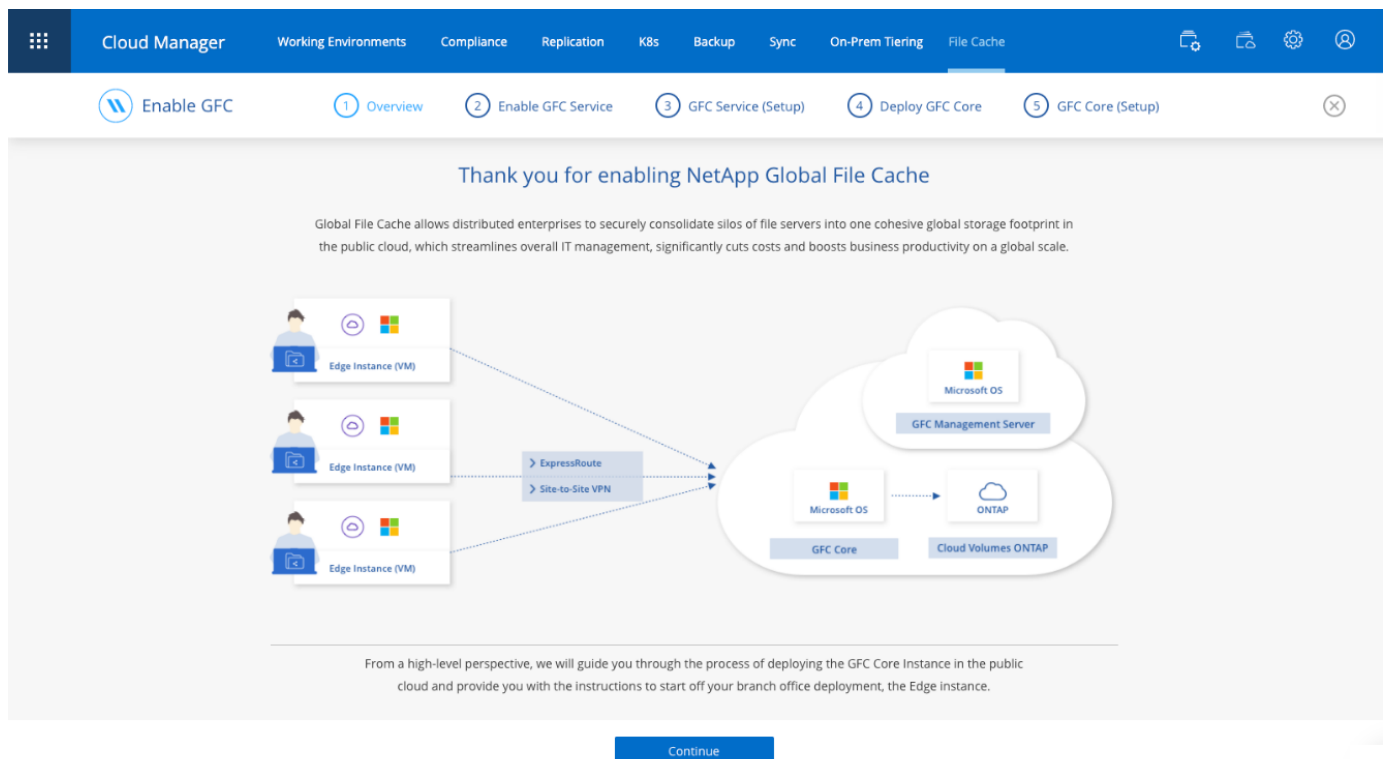
Note the following additional Global File Cache requirement:

- You should configure SMB file shares on the instance of Cloud Volumes ONTAP.

If no SMB file shares are set up on the instance, then you are prompted to configure the SMB shares during the installation of the Global File Cache components.

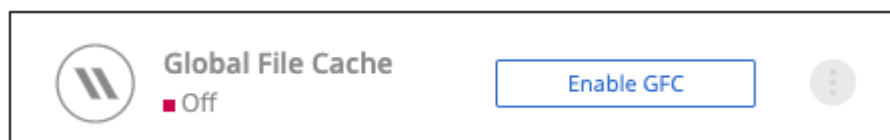
## Enable Global File Cache in your working environment

The Global File Cache wizard walks you through the steps to deploy the Global File Cache Management Server instance and the Global File Cache Core instance, as highlighted below.



### Steps

1. Select the working environment where you deployed Cloud Volumes ONTAP.
2. In the Services panel, click **Enable GFC**.



3. Read the Overview page and click **Continue**.
4. If no SMB shares are available on the Cloud Volumes ONTAP instance, you are prompted to enter the

SMB Server and SMB Share details to create the share now. For details about the SMB configuration, see [Storage platform](#).

When finished, click **Continue** to create the SMB share.

### SMB Setup

#### SMB Server

Active Directory Domain

gfc.netapp.com

Name Server IP Address

10.0.2.4

Active Directory Admin User

cvoadmin

Active Directory Admin Password

\*\*\*\*\*

#### SMB Share

Volume Name

Enter Volume Name

Volume Size(GB)

Select Aggregate

Select Aggregate

Share Name

Enter Share Name

Thin provisioning

Enabled ⓘ

Deduplication

Enabled ⓘ

- On the Global File Cache Service page, enter the number of Global File Cache Edge instances you plan to deploy, and then make sure your system meets the requirements for Network Configuration and Firewall Rules, Active Directory settings, and Antivirus exclusions. See [Prerequisites](#) for more details.

## Enable Global File Cache Service

### Licensing Global File Cache:

Once you've completed this deployment process, you will need your NSS Credentials to activate your subscription. If you haven't purchased or received your NetApp Global File Cache licenses, which are available as an Edge-based license, they can be purchased through your NetApp Partner or NetApp Sales Representative.

How many edge instances are you planning to deploy?

### Before you begin:

Here are the most important requirements for your environment before you can deploy the NetApp Global File Cache solution:

Configure the required Network Configuration and Firewall Rules for Global File Cache



Create a "Service Account" in your Active Directory domain: GFC.NETAPP.COM



Update Antivirus Exclusions for your Windows Server infrastructure by committing the required exclusions to your Antivirus services



For more information on all the solution requirements [Click Here](#)

Continue

6. After you have verified that the requirements have been met, or that you have the information to meet these requirements, click **Continue**.
7. Enter the admin credentials you will use to access to the Global File Cache Management Server VM and click **Enable GFC Service**. For Azure you enter the credentials as a user name and password; for AWS you select the appropriate key pair. You can change the VM/instance name if you want.

## Global File Cache Service (Setup)

### Information

Subscription Name	OCCM Dev
Azure Region	eastus
VNet	Vnet1
Subnet	Subnet2
Resource Group	occm_group_eastus

### Credentials & Virtual Machine

Local Admin Name

Local Admin Password

VM Name

[Enable GFC Service](#)

8. After the Global File Cache Management Service is successfully deployed, click **Continue**.
9. For the Global File Cache Core, enter the admin user credentials to join the Active Directory domain, and the service account user credentials. Then click **Continue**.
  - The Global File Cache Core instance must be deployed in the same Active Directory domain as the Cloud Volumes ONTAP instance.
  - The service account is a domain user and it is part of the BUILTIN\Backup Operators group on the Cloud Volumes ONTAP instance.

## Deploy Global File Cache Core

### Active Directory and Admin Credentials

Provide administrative credentials to join the GFC Core instance to the Active Directory domain

Join Active Directory Domain ⓘ

Admin User ⓘ

Admin Password ⓘ

### Account User Credentials

Provide Service Account credentials

Service Account User ⓘ

Service Account Password ⓘ

Continue

10. Enter the admin credentials you will use to access to the Global File Cache Core VM and click **Deploy GFC Core**. For Azure you enter the credentials as a user name and password; for AWS you select the appropriate key pair. You can change the VM/instance name if you want.



## Global File Cache Core (Setup)

### Information

Subscription Name	Subscription_1234567891234...
Region	East US   Virginia
VNet	VNet_1234567
Subnet	10.0.0.0/24
Resource Group	Resource Group 1

### Credentials & Virtual Machine

Local Admin Name

Admin@netapp.com

Local Admin Password

\*\*\*\*\*


VM Name

GFC-CORE-1234


Local Admin Name & Password are inherited from the Global File Cache Management Service. The Virtual Machine Name is associated to your Cloud Manager Account

Deploy GFC Core

11. After the Global File Cache Core is successfully deployed, click **Go to Dashboard**.

 Global File Cache


#### Global File Cache Management Instance

 www.working-environment-1.com  
Hostname

ON  
Status

141.226.210.219 IP Address	East US Region	VNet1 VNet	10.10.10.10/24 Subnet	RGName Resource Group	26% CPU Utilization
-------------------------------	-------------------	---------------	--------------------------	--------------------------	------------------------

#### 1 Working Environment

 Working Environment\_1  
Name

High Availability  
Type

ON  
Status

2  
Core Instances

Add Core Instance

⬆

**Instance Core 1** | ON  

www.working-environment-1.com Hostname	141.226.210.219 IP Address	26% CPU Utilization	2.5 TB Network Inbound ⓘ	2.5 TB Network Outbound ⓘ	Deploy GFC Edge
---	-------------------------------	------------------------	-----------------------------	------------------------------	-----------------

The Dashboard shows that the Management Server instance and the Core instance are both **On** and working.

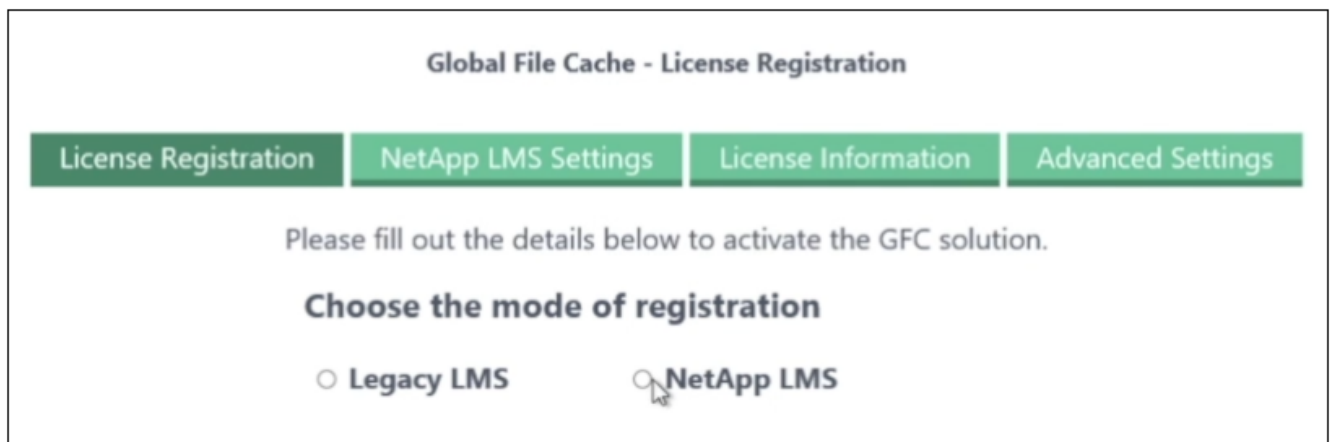
## License your Global File Cache installation

Before you can use Global File Cache, you need to configure the Global File Cache License Management Server (LMS) service on a Global File Cache Core instance. You will need your NSS Credentials or a Customer ID and Subscription Number provided NetApp to activate your subscription.

In this example, we will configure the LMS service on a Core instance that you just deployed in the public cloud. This is a one-time process that sets up your LMS service.

### Steps

1. Open the Global File Cache License Registration page on the Global File Cache Core (the Core you are designating as your LMS service) using the following URL. Replace `<ip_address>` with the IP address of the Global File Cache Core:  
[https://<ip\\_address>/lms/api/v1/config/lmsconfig.html](https://<ip_address>/lms/api/v1/config/lmsconfig.html)
2. Click “**Continue to this website (not recommended)**” to continue. A page that allows you to configure the LMS, or check existing license information, is displayed.



Global File Cache - License Registration

License Registration | NetApp LMS Settings | License Information | Advanced Settings

Please fill out the details below to activate the GFC solution.

**Choose the mode of registration**

☐ Legacy LMS ☒ NetApp LMS

3. Choose the mode of registration:
  - “NetApp LMS” is used for customers who have purchased NetApp Global File Cache Edge licenses from NetApp or its certified partners. (Preferred)
  - “Legacy LMS” is used for existing or trial customers who have received a Customer ID through NetApp Support. (This option has been deprecated.)
4. For this example, click **NetApp LMS**, enter your Customer ID (preferably your email address), and click **Register LMS**.

Global File Cache - License Registration

License Registration
NetApp LMS Settings
License Information
Advanced Settings

Please fill out the details below to activate the GFC solution.

**Choose the mode of registration**

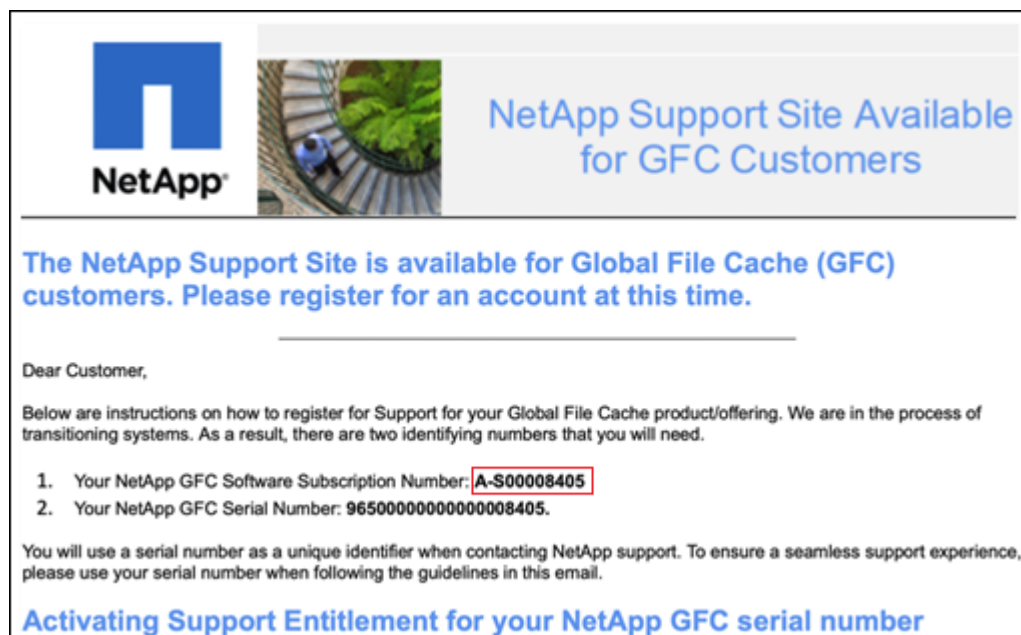
☐ Legacy LMS
☒ **NetApp LMS**

Customer Id: 
✕

\* Choose a unique identifier for your GFC deployment, preferably your email address

REGISTER LMS

5. Check for a confirmation email from NetApp that includes your GFC Software Subscription Number and Serial Number.



6. Click the **NetApp LMS Settings** tab.
7. Select **GFC License Subscription**, enter your GFC Software Subscription Number, and click **Submit**.

You will see a message that your GFC License Subscription was registered successfully and activated for the LMS instance. Any subsequent purchases will automatically be added to the GFC License Subscription.

8. Optionally, you can click the **License Information** tab to view all your GFC license information.

### What's Next?

If you have determined that you need to deploy multiple Global File Cache Cores to support your configuration, click **Add Core Instance** from the Dashboard and follow the deployment wizard.

After you have completed your Core deployment, you need to [deploy the Global File Cache Edge instances](#) in each of your remote offices.

## Deploy additional Core instances

If your configuration requires more than one Global File Cache Core to be installed because of a large number of Edge instances, you can add another Core to the working environment.

When deploying Edge instances, you will configure some to connect to the first Core and others to the second Core. Both Core instances access the same backend storage (your Cloud Volumes ONTAP instance) in the working environment.

1. From the Global File Cache Dashboard, click **Add Core Instance**.

2. Enter the admin user credentials to join the Active Directory domain, and the service account user credentials. Then click **Continue**.
  - The Global File Cache Core instance must be in the same Active Directory domain as the Cloud Volumes ONTAP instance.
  - The service account is a domain user and it is part of the BUILTIN\Backup Operators group on the

Cloud Volumes ONTAP instance.

## Deploy Global File Cache Core

### Active Directory and Admin Credentials

Provide administrative credentials to join the GFC Core instance to the Active Directory domain

Join Active Directory Domain ⓘ

Active Directory Domain

Admin User ⓘ

Enter Admin User

Admin Password ⓘ

Enter Admin Password

### Account User Credentials

Provide Service Account credentials

Service Account User ⓘ

Enter Service Account User

Service Account Password ⓘ

Enter Service Account Password

Continue

3. Enter the admin credentials you will use to access to the Global File Cache Core VM and click **Deploy GFC Core**. For Azure you enter the credentials as a user name and password; for AWS you select the appropriate key pair. You can change the VM name if you want.

## Global File Cache Core (Setup)

### Information

Subscription Name	Subscription_1234567891234...
Region	East US   Virginia
VNet	VNet_1234567
Subnet	10.0.0.0/24
Resource Group	Resource Group 1

### Credentials & Virtual Machine

Local Admin Name

Admin@netapp.com

Local Admin Password

\*\*\*\*\*

VM Name

GFC-CORE-1234

Local Admin Name & Password are inherited from the Global File Cache Management Service. The Virtual Machine Name is associated to your Cloud Manager Account

Deploy GFC Core

4. After the Global File Cache Core is successfully deployed, click **Go to Dashboard**.

1 Working Environment

Working Environment\_1

Name

High Availability

Type

ON

Status

2

Core Instances

Add Core Instance

Instance Core 1 | ON

www.working-environment-1.com

Hostname

141.226.210.219

IP Address

26%

CPU Utilization

2.5 TB

Network Inbound ⓘ

2.5 TB

Network Outbound ⓘ

Deploy GFC Edge

Instance Core 1 | ON

www.working-environment-1.com

Hostname

141.226.210.219

IP Address

26%

CPU Utilization

2.5 TB

Network Inbound ⓘ

2.5 TB

Network Outbound ⓘ

Deploy GFC Edge

The Dashboard reflects the second Core instance for the working environment.

## Copyright Information

Copyright © 2021 NetApp, Inc. All rights reserved. Printed in the U.S. No part of this document covered by copyright may be reproduced in any form or by any means-graphic, electronic, or mechanical, including photocopying, recording, taping, or storage in an electronic retrieval system-without prior written permission of the copyright owner.

Software derived from copyrighted NetApp material is subject to the following license and disclaimer:

THIS SOFTWARE IS PROVIDED BY NETAPP "AS IS" AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. IN NO EVENT SHALL NETAPP BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

NetApp reserves the right to change any products described herein at any time, and without notice. NetApp assumes no responsibility or liability arising from the use of products described herein, except as expressly agreed to in writing by NetApp. The use or purchase of this product does not convey a license under any patent rights, trademark rights, or any other intellectual property rights of NetApp.

The product described in this manual may be protected by one or more U.S. patents, foreign patents, or pending applications.

RESTRICTED RIGHTS LEGEND: Use, duplication, or disclosure by the government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252.277-7103 (October 1988) and FAR 52-227-19 (June 1987).

## Trademark Information

NETAPP, the NETAPP logo, and the marks listed at <http://www.netapp.com/TM> are trademarks of NetApp, Inc. Other company and product names may be trademarks of their respective owners.