MHHS
PROGRAMME
Industry-led, Elexon facilitated

SITB - Certification Guide for SIT MPOs

Document owner	Document number	Version	Status:	Date
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1.1 UPDATES TO ONBOARDING

	Author	Version	Change Detail
07/05/2024	Edward Bowyer	V1.0	Created document

This Onboarding guide is published for the SIT testing phase of the MHHS Programme - this is subject to update and change for future phases / enduring / BAU and will be re-published in line with any updates.

1.2 Key Terminology Explained

Term	Description
ADO	Azure DevOps
AKV	Azure Key Vault
API	Application Programmable Interface
ARO	Appointed Responsible Officer
CER	A .CER is an SSL Certificate File Format
CSR	Certificate Signing Request
CSV	Comma-Separated Values
CI	Component Integration Testing
DIP	Data Integration Platform
DCP	DIP Connection Provider
DNS	Domain Name System
GS	GlobalSign
MFA	Multi-Factor Authentication
PFX	Personal Information Exchange
SIT	System Integration Testing
SRO	Senior Responsible Officer
SSL	Secure Socket Layer
SSL OV	SSL Organisation Validation

3.1 Introduction

The E2E Onboarding process involves a fixed sequence of activities which must be followed accurately and in the correct order, to ensure successful onboarding completion and therefore readiness to perform the DIP SIT/CIT.

This guide assumes you have already onboarded into the SIT environment and require a new certificate for use in the SIT-B environment.

Please note that all steps in this guide must be performed through the SIT Portal (certificate functionality is not available in the SIT-B environment).

There are two scenarios described in this guide:

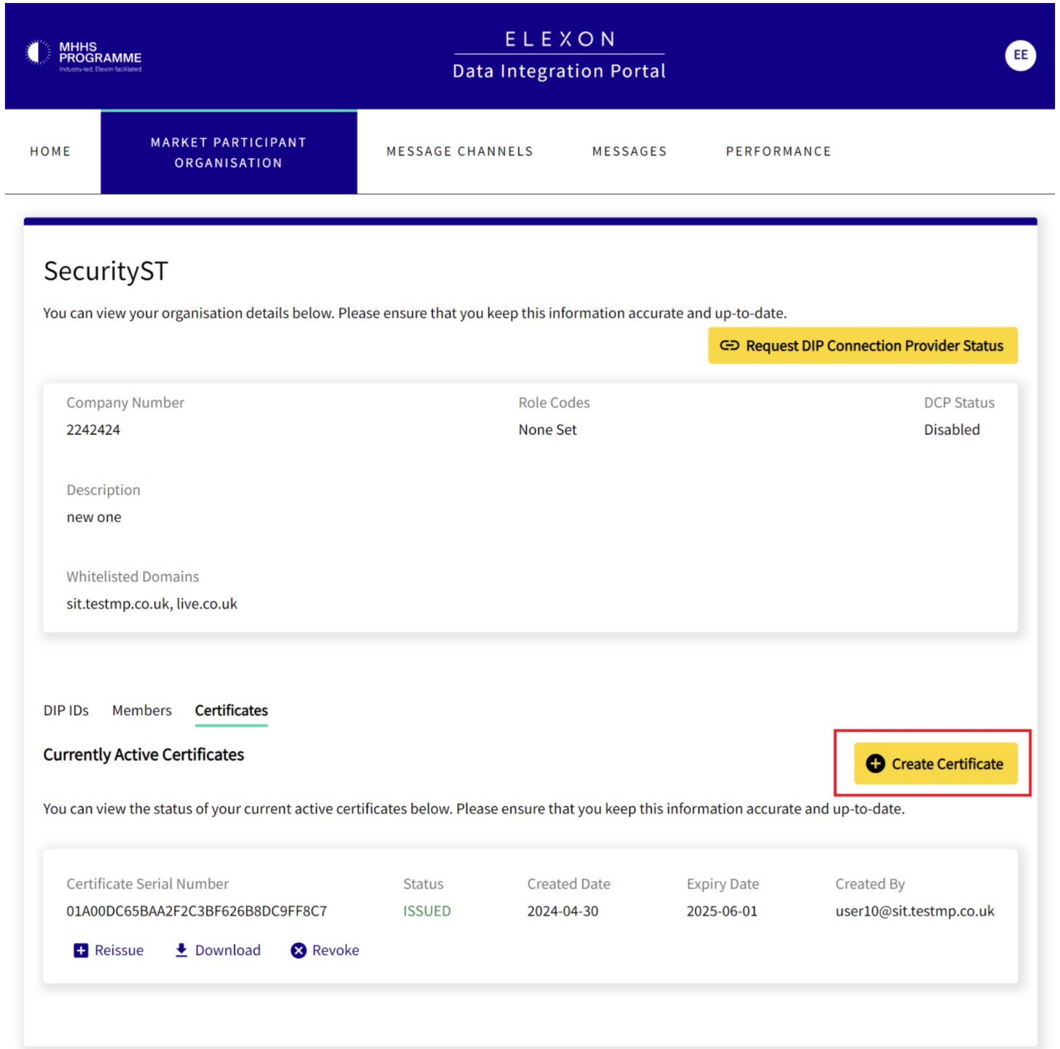
1. Create a new certificate for an existing domain, OR
2. Registering a new, alternate domain and creating a certificate for that new domain

If you require scenario 2, you must first inform the Service Desk (Support@Energydataintegrationplatform.co.uk).

Section 1 –
Create a new certificate against an existing domain

Generating a new certificate

To create a new certificate, first log in as an **MP Certificate Admin** user, navigate to the Certificates tab on the details view of the Market Participant Organisation you wish to generate for, and click the **Create Certificate** button.



SecurityST

You can view your organisation details below. Please ensure that you keep this information accurate and up-to-date.

Company Number	Role Codes	DCP Status
2242424	None Set	Disabled

Description

new one

Whitelisted Domains

sit.testmp.co.uk, live.co.uk

Currently Active Certificates

You can view the status of your current active certificates below. Please ensure that you keep this information accurate and up-to-date.

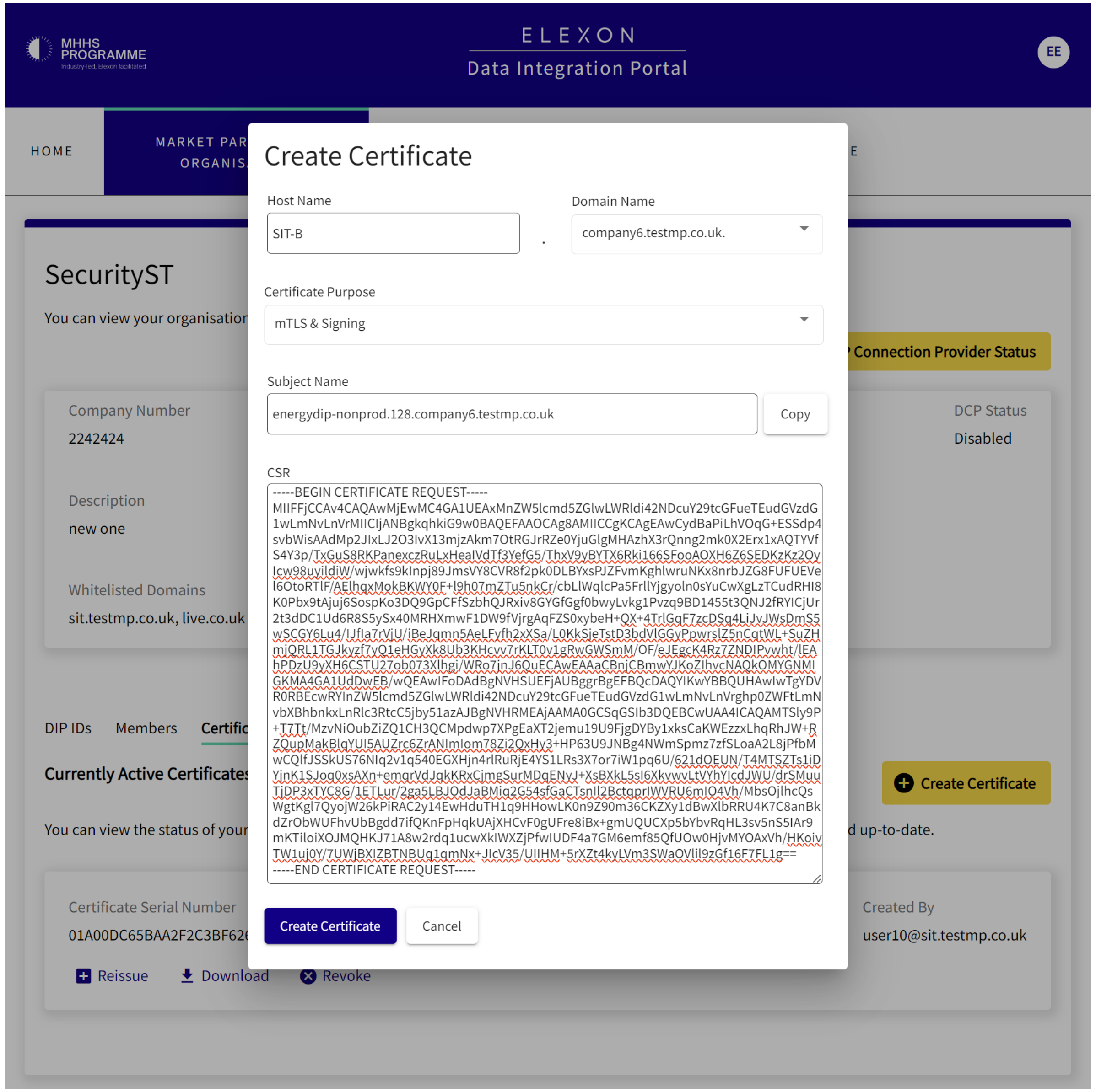
Certificate Serial Number	Status	Created Date	Expiry Date	Created By
01A00DC65BAA2F2C3BF626B8DC9FF8C7	ISSUED	2024-04-30	2025-06-01	user10@sit.testmp.co.uk

Enter new certificate details

In the Create Certificate dialog, please enter all the required details for the new certificate, refer to the E2E Onboarding Guide - Section 5 for detailed assistance if required.

Click **Create Certificate**.

The newly created certificate will now appear at the top of the currently active certificates and can be downloaded for use



SecurityST

You can view your organisation

Company Number
2242424

Description
new one

Whitelisted Domains
sit.testmp.co.uk, live.co.uk

DCP Status
Disabled

Currently Active Certificates

You can view the status of your … d up-to-date.

Certificate Serial Number
01A00DC65BAA2F2C3BF62

Created By
user10@sit.testmp.co.uk

Create Certificate

Host Name
SIT-B

Domain Name
company6.testmp.co.uk.

Certificate Purpose
mTLS & Signing

Subject Name
energydip-nonprod.128.company6.testmp.co.uk

Copy

CSR

```
-----BEGIN CERTIFICATE REQUEST-----
MIIFFjCCAv4CAQAwMjEwMC4GA1UEAxMnZW5lcmd5ZGlwLWRldi42NDcuY29tcGFueTEudGVzdG
1wLmNvLnVrMIICIjANBgkqhkiG9w0BAQEFAAOCAg8AMIICCgKCAgEAwCydBaPiLhVOqG+ESSdp4
svbWisAAdMp2JIxLJ2O3IvX13mjzAkm7OtRGJrRZe0YjuGlgMHAzhX3rQnng2mk0X2Erx1xAQTYVf
S4Y3p/TxGuS8RKPanexczRuLxHeaIVdTf3YefG5/ThxV9yBYTX6Rki166SFooAOXH6Z6SEDKzKz2Oy
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l6OtoRTlF/AElhqxMokBKWY0F+l9h07mZTu5nkCr/cbLlWqlcPa5FrllYjgyoln0sYuCwXgLzTCudRHI8
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2t3dDC1Ud6R8S5ySx40MRHXmwF1DW9fVjrgAqFZS0xybeH+QX+4TrlGqF7zcDSq4LiJvJWsDmS5
wSCGY6Lu4/IJfIa7rVjU/iBeJqmn5AeLFyfh2xXSa/L0KkSjeTstD3bdVlGGyPpwrslZ5nCqtWL+SuZH
mjQRL1TGJkyzf7yQ1eHGyXk8Ub3KHcvv7rKLT0v1gRwGWSmM/OF/eJEgcK4Rz7ZNDIPvwht/lEA
hPDzU9yXH6CSTU27ob073Xlhgi/WRo7jnJ6QuECAwEAAaCBnjCBmwYJKoZIhvcNAQkOMYGNMI
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R0RBEcwRYInZW5lcmd5ZGlwLWRldi42NDcuY29tcGFueTEudGVzdG1wLmNvLnVrghp0ZWFtLmN
vbXBhbnkxLnRlc3RtcC5jby51azAJBgNVHRMEAjAAMA0GCSqGSIb3DQEBCwUAA4ICAQAMTSly9P
+T7Tt/MzvNiOubZiZQ1CH3QCMpdwp7XPgEaXT2jemu19U9FjgDYBy1xksCaKWEzzxLhqRhJW+R
ZQupMakBlqYUI5AUZrc6ZrANImIom78Zi2QxHy3+HP63U9JNBg4NWmSpmz7zfSLoaA2L8jPfbM
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dZrObWUFhvUbBgdd7ifQKnFpHqkUAjXHCvF0gUFre8iBx+gmUQUCXp5bYbvRqHL3sv5nS5IAr9
mKTiloiXOJMQHKJ71A8w2rdq1ucwXkIWXZjPfwIUDF4a7GM6emf85QfUOw0HjvMYOAxVh/HKoiv
TW1uj0Y/7UWjBXIZBTNBUq1qmNx+JIcV35/UIIHM+5rXZt4kyLVm3SWaOVlil9zGf16F7FL1g==
-----END CERTIFICATE REQUEST-----
```

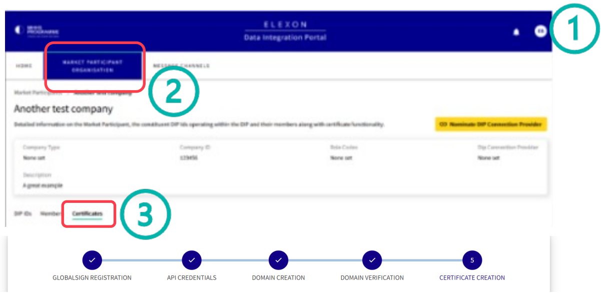
Certificate Admin: Generate mTLS & Signing Cert within the DIP

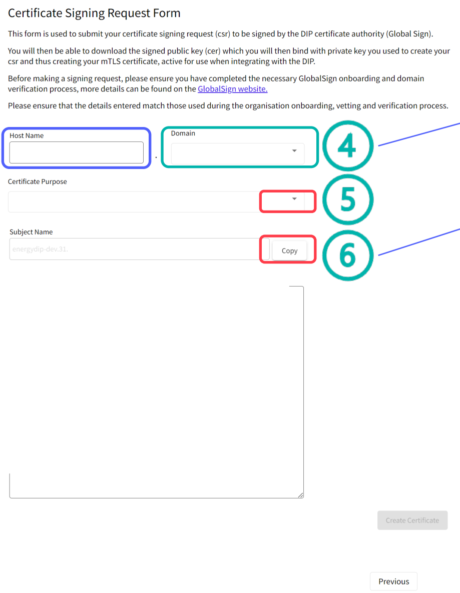
1

Login to the DIP as Certificate Admin (1)

Select MP MENU (2) then 'Certificates' Tab (3)

1. Enter the required Host Name & Domain (4)
2. Select 'Certificate Purpose' to choose a "mTLS" (for DCPs), "Signing" (for MPs) or "mTLS & Signing" certificates (both) (5)
3. SUBJECT NAME is pre-set – CLICK 'COPY' (6)





Certificate Signing Request Form

This form is used to submit your certificate signing request (csr) to be signed by the DIP certificate authority (Global Sign).

You will then be able to download the signed public key (cer) which you will then bind with private key you used to create your csr and thus creating your mTLS certificate, active for use when integrating with the DIP.

Before making a signing request, please ensure you have completed the necessary GlobalSign onboarding and domain verification process, more details can be found on the GlobalSign website.

Please ensure that the details entered match those used during the organisation onboarding, vetting and verification process.

Host Name: . Domain:

Certificate Purpose:

Subject Name: energydip-dev.31.

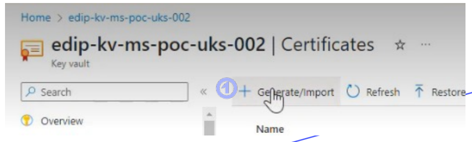
Enter both fields: overall this should make up the address you want to receive messages on from the DIP (e.g. sit-dipwebhook.testmp.co.uk) where First part is Host Name and second is Domain Name. Field can be left blank if Signing Certificate

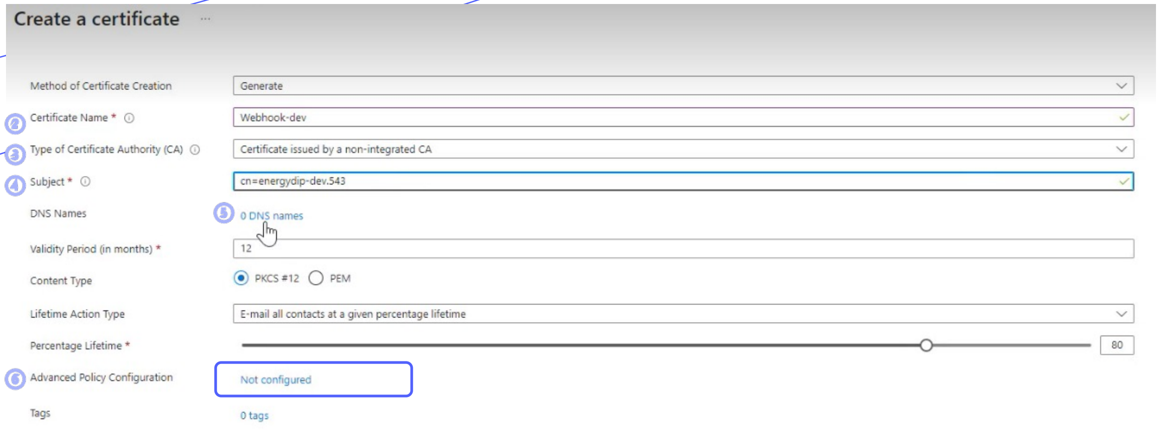
2

It is critical that a new CSR is generated using the details from the previous step

Open the Certificate Creation Tool (e.g. Azure Key Vault)

1. Click (select) to generate a certificate (in AKV click Generate/Import)
2. Give the certificate a name (no spaces)
3. Choose 'Certificate used by non-integrated CA' from drop down
4. Enter '**cn=**' then paste the SUBJECT NAME copied in STEP 1 (6)
5. IMPORTANT – click 'DNS Names' and complete the 2 entries
6. Click 'Not configured' next and ensure Key Size is 4096


Home > edip-kv-ms-poc-uks-002
edip-kv-ms-poc-uks-002 | Certificates
Key vault
Search
Generate/Import
Refresh
Restore
Overview
Name
1



Create a certificate

Method of Certificate Creation: Generate

Certificate Name *: Webhook-dev

Type of Certificate Authority (CA): Certificate issued by a non-integrated CA

Subject *: cn=energydip-dev.543

DNS Names: 0 DNS names

Validity Period (in months) *: 12

Content Type: ● PKCS #12 ○ PEM

Lifetime Action Type: E-mail all contacts at a given percentage lifetime

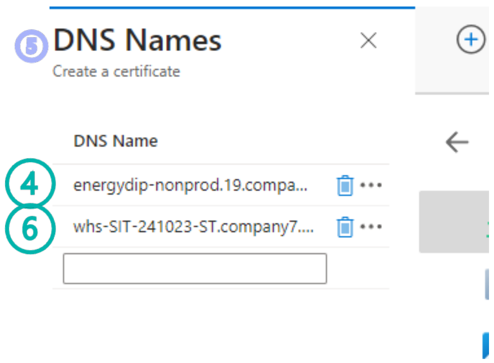
Percentage Lifetime *: 80

Advanced Policy Configuration: Not configured

Tags: 0 tags

3

You must add DNS Name entries as advised from 4 and 6



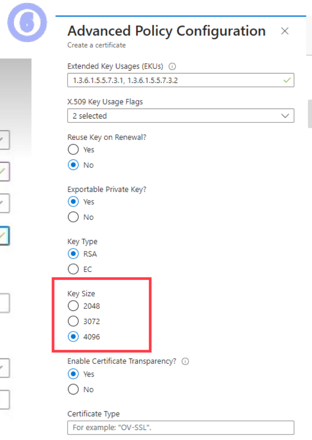
DNS Names

Create a certificate

DNS Name

energydip-nonprod.19.compa...

whs-SIT-241023-ST.company7....



Advanced Policy Configuration

Create a certificate

Extended Key Usages (EKUs): 1.3.6.1.5.5.7.3.1, 1.3.6.1.5.5.7.3.2

X.509 Key Usage Flags: 2 selected

Reuse Key on Renewal? ○ Yes ● No

Exportable Private Key? ● Yes ○ No

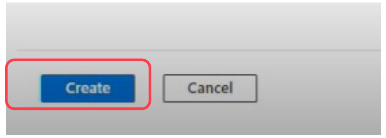
Key Type: ● RSA ○ EC

Key Size: ○ 2048 ○ 3072 ● 4096

Enable Certificate Transparency? ● Yes ○ No

Certificate Type: For example: "OV-SSL".

To complete the certificate creation click 'Create' button



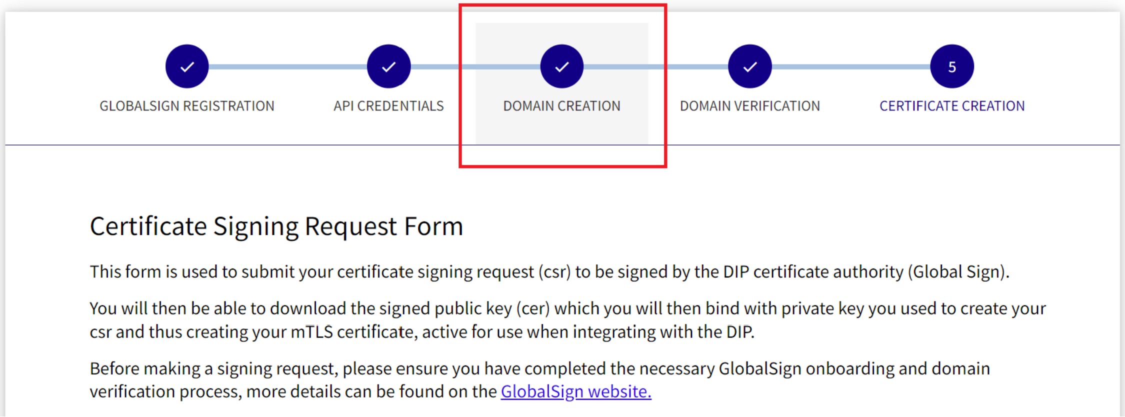
Section 2 – Create a new certificate against a new domain

Create a new certificate against a new domain

To add a new domain, you must first let the Service Desk know your intent and they will contact you once ready to proceed.

To add a new domain, once you've been informed by the Service Desk, log in as an **MP Certificate Admin** user, navigate to the Certificates tab on the details view of the Market Participant Organisation you wish to add a new domain for.

You will see the Certificate Signing Request form loaded as the Organisation already has a domain verified. To add a new one, click back to step three on the stepper.



Certificate Signing Request Form

This form is used to submit your certificate signing request (csr) to be signed by the DIP certificate authority (Global Sign).

You will then be able to download the signed public key (cer) which you will then bind with private key you used to create your csr and thus creating your mTLS certificate, active for use when integrating with the DIP.

Before making a signing request, please ensure you have completed the necessary GlobalSign onboarding and domain verification process, more details can be found on the GlobalSign website.

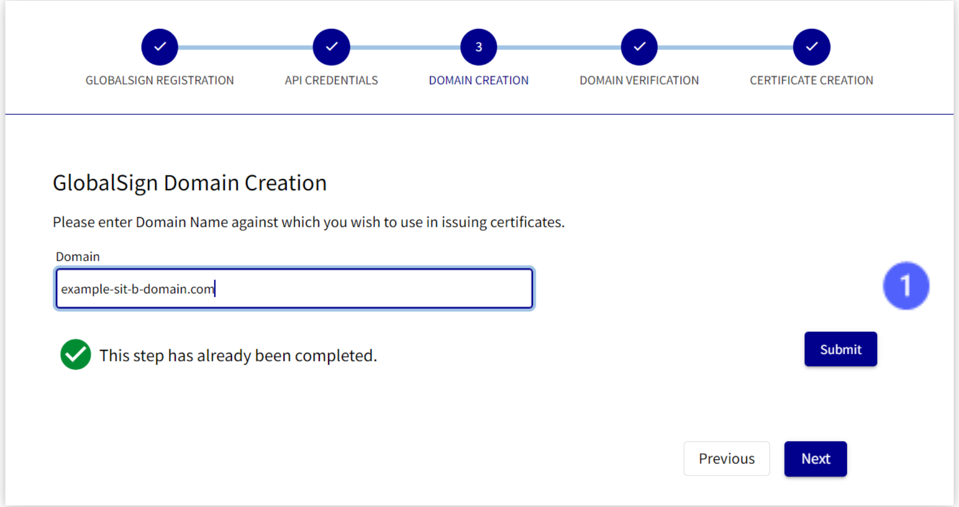
SECTION 2 – Create a new certificate against a new domain

Adding a new domain

It will show as already completed. Enter the new domain (remember not to add https://) and click submit.

Upon successful adding a new domain, click Next to go to the verification.

Please refer to the E2E Onboarding guide – section 5 for more details.

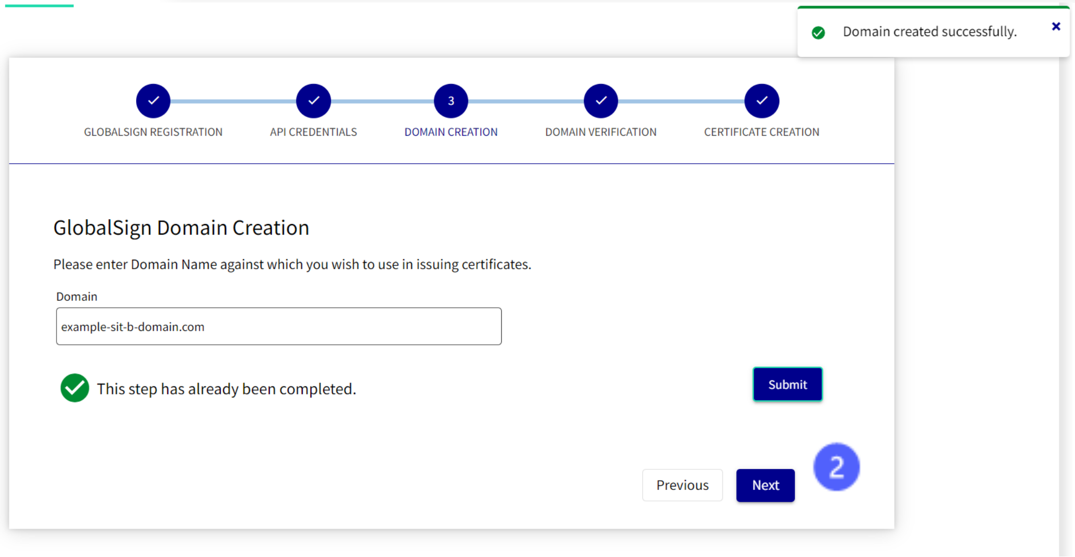


GlobalSign Domain Creation

Please enter Domain Name against which you wish to use in issuing certificates.

Domain: example-sit-b-domain.com

This step has already been completed.



Domain created successfully.

GlobalSign Domain Creation

Please enter Domain Name against which you wish to use in issuing certificates.

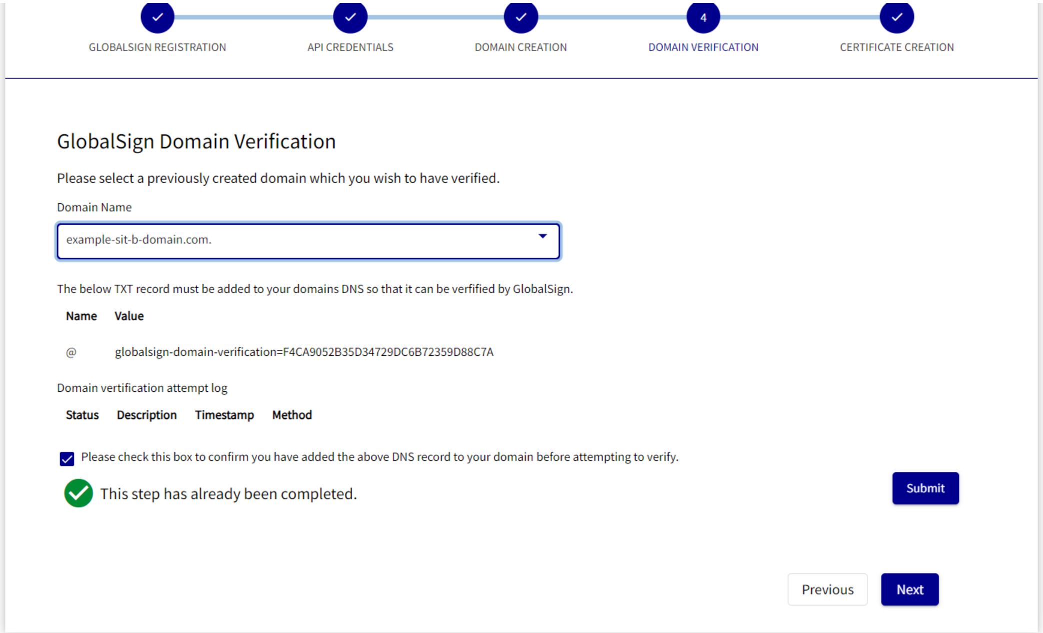
Domain: example-sit-b-domain.com

This step has already been completed.

Verifying a new domain

On the domain verification screen, select the newly added domain to view the TXT record details, add these to your new domain. Please refer to the E2E onboarding guide – Section 5 for detailed steps to undertake this process

.



GlobalSign Domain Verification

Please select a previously created domain which you wish to have verified.

Domain Name

example-sit-b-domain.com.

The below TXT record must be added to your domains DNS so that it can be verfified by GlobalSign.

Name	Value
@	globalsign-domain-verification=F4CA9052B35D34729DC6B72359D88C7A

Domain vertification attempt log

Status	Description	Timestamp	Method

☑ Please check this box to confirm you have added the above DNS record to your domain before attempting to verify.

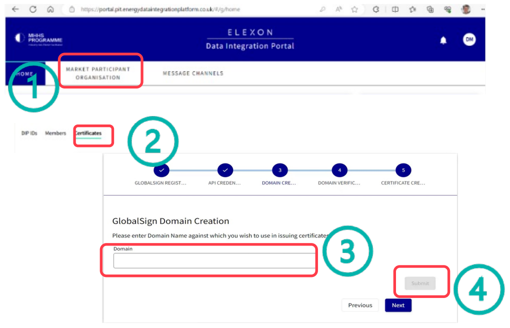
✓ This step has already been completed.

Troubleshoot Domain adding and verification flowchart

The Certificate Admin will work with a DNS domain admin to complete the Domain verification by updating the domain DNS.

1

Follow steps 1-3 to enter the MPs **Domain Name being used for GlobalSign verification** into the GlobalSign Domain Creation field **DOMAIN**, then click 'SUBMIT' (4)'

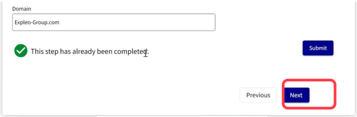


GlobalSign Domain Creation

Please enter Domain Name against which you wish to use in issuing certificates

Domain

You should get a green tick and message 'This step has already been completed' Click NEXT Button (4)'



Domain

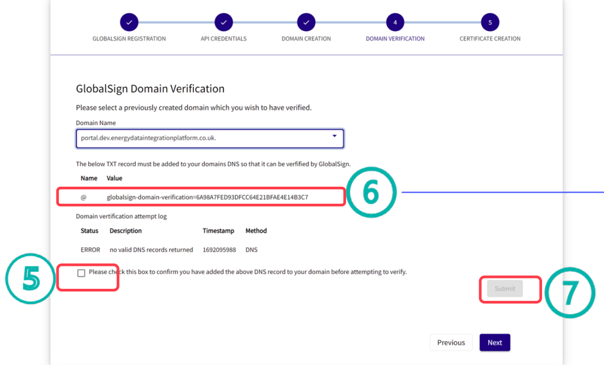
Expleo-Group.com

✓ This step has already been completed.

2

Once you have clicked next, you will be asked to **reselect the DOMAIN Name from the dropdown and a** TXT Record will appear (6)

NOTE that a '.' may appear after the Domain Name – this is not an issue and you should proceed



GlobalSign Domain Verification

Please select a previously created domain which you wish to have verified.

Domain Name

portal.dev.energydataintegrationplatform.co.uk.

The below TXT record must be added to your domains DNS so that it can be verfified by GlobalSign.

Name	Value
@	globalsign-domain-verification=6A98A7FED93DFCC64E21BFAE4E14B3C7

Domain vertification attempt log

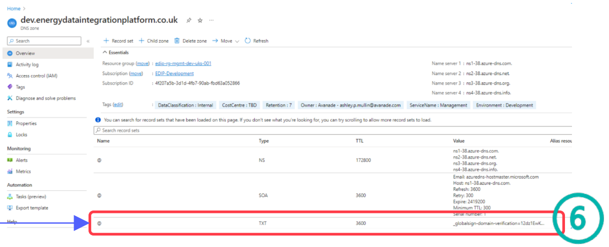
Status	Description	Timestamp	Method
ERROR	no valid DNS records returned	1692095988	DNS

□ Please check this box to confirm you have added the above DNS record to your domain before attempting to verify.

Please take a note of the '**Name**' = '**@**' and the **VALUE is a 'txt'**, and pass both to **DNS Admin** for insertion into the DNS BEFORE clicking (5).

3

DNS Admin should add the record details into the DNS (6) with the values specified = '@' and the txt into VALUE



dev.energydataintegrationplatform.co.uk

Resource group (move) : edip-rg-mgmt-dev-uks-001

Subscription (move) : EDIP-Development

Subscription ID : 4f207a5b-3d1d-4fb7-90ab-fbd63a052866

Name server 1 : ns1-38.azure-dns.com.

Name server 2 : ns2-38.azure-dns.net.

Name server 3 : ns3-38.azure-dns.org.

Name server 4 : ns4-38.azure-dns.info.

Tags (edit) : DataClassification : Internal | CostCentre : TBD | Retention : 7 | Owner : Avanade - ashley.p.mullin@avanade.com | ServiceName : Management | Environment : Development

You can search for record sets that have been loaded on this page. If you don't see what you're looking for, you can try scrolling to allow more record sets to load.

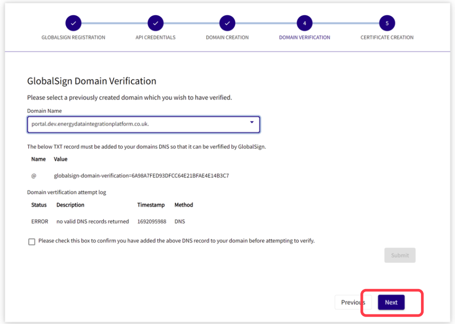
Search record sets

Name	Type	TTL	Value	Alias resou
@	NS	172800	ns1-38.azure-dns.com. ns2-38.azure-dns.net. ns3-38.azure-dns.org. ns4-38.azure-dns.info.	
@	SOA	3600	Email: azuredns-hostmaster.microsoft.com Host: ns1-38.azure-dns.com. Refresh: 3600 Retry: 300 Expire: 2419200 Minimum TTL: 300 Serial number: 1	
@	TXT	3600	_globalsign-domain-verification=12dz1EwK...	

Certificate Admin, on confirmation DNS Record has been added (can be up to 1Hr), will click the Check box (5) and then click the SUBMIT button (7)

4

Certificate Admin can check SUCCESS or FAIL of verification: If Successful click 'Next'



GlobalSign Domain Verification

Please select a previously created domain which you wish to have verified.

Domain Name

portal.dev.energydataintegrationplatform.co.uk.

The below TXT record must be added to your domains DNS so that it can be verfified by GlobalSign.

Name	Value
@	globalsign-domain-verification=6A98A7FED93DFCC64E21BFAE4E14B3C7

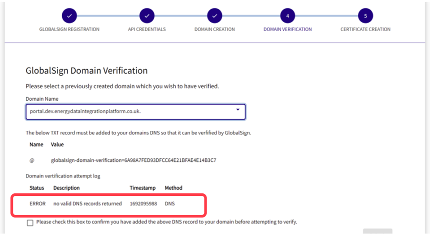
Domain vertification attempt log

Status	Description	Timestamp	Method
ERROR	no valid DNS records returned	1692095988	DNS

□ Please check this box to confirm you have added the above DNS record to your domain before attempting to verify.

Domain Validation Successful

The DNS entry should not be removed as it is used for renewals



GlobalSign Domain Verification

Please select a previously created domain which you wish to have verified.

Domain Name

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The below TXT record must be added to your domains DNS so that it can be verfified by GlobalSign.

Name	Value
@	globalsign-domain-verification=6A98A7FED93DFCC64E21BFAE4E14B3C7

Domain vertification attempt log

Status	Description	Timestamp	Method
ERROR	no valid DNS records returned	1692095988	DNS

□ Please check this box to confirm you have added the above DNS record to your domain before attempting to verify.

Domain Validation Failed!

Return to Step 2 and repeat DNS verification process

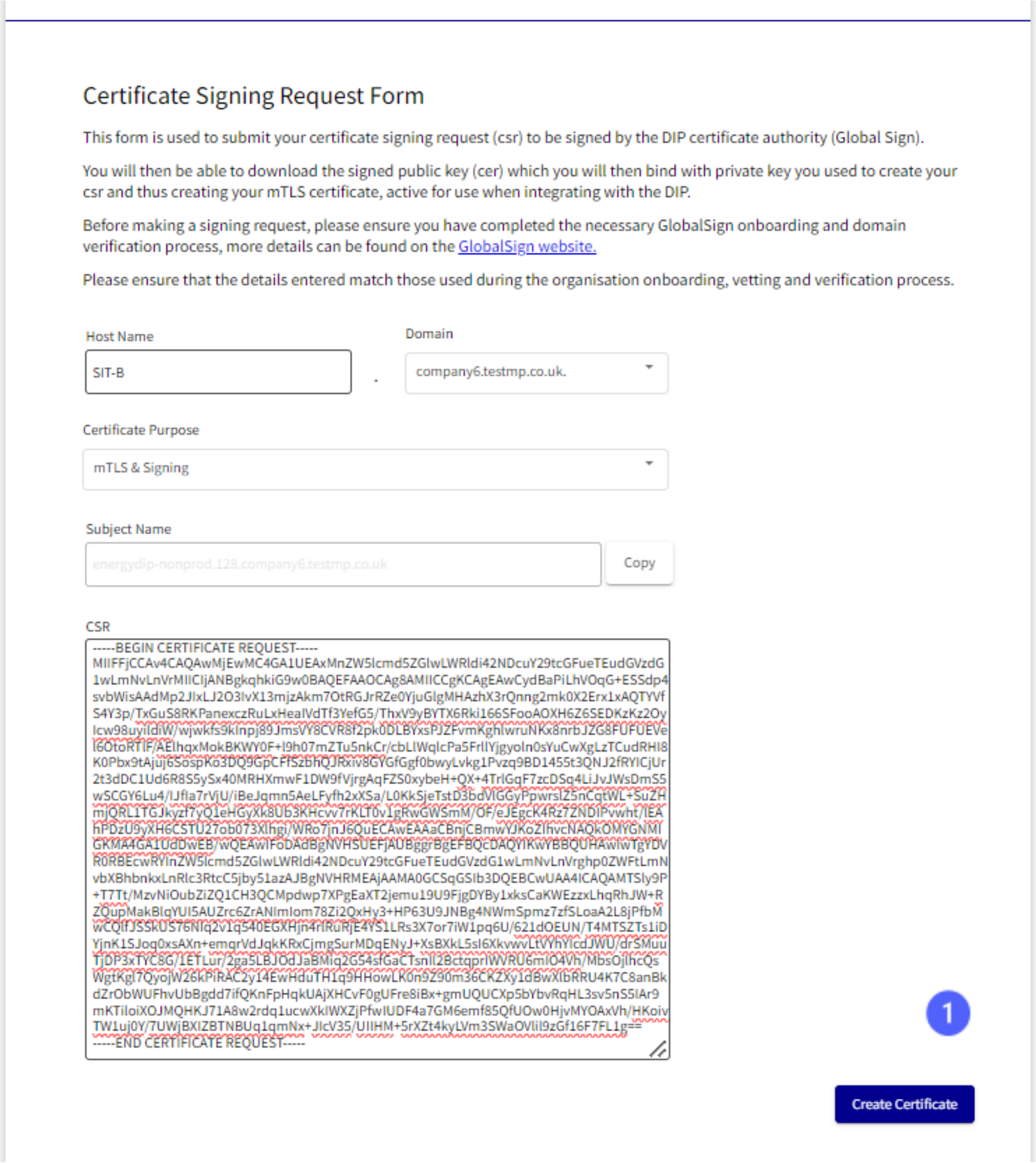
Create a new certificate with the new domain

Once the domain is successfully verified.

Please enter all the required details for the new certificate, refer to the E2E Onboarding Guide - Section 5 for detailed assistance if required.

Click **Create Certificate**.

The newly created certificate will now appear at the top of the currently active certificates and can be downloaded for use.



Certificate Signing Request Form

This form is used to submit your certificate signing request (csr) to be signed by the DIP certificate authority (Global Sign).

You will then be able to download the signed public key (cer) which you will then bind with private key you used to create your csr and thus creating your mTLS certificate, active for use when integrating with the DIP.

Before making a signing request, please ensure you have completed the necessary GlobalSign onboarding and domain verification process, more details can be found on the GlobalSign website.

Please ensure that the details entered match those used during the organisation onboarding, vetting and verification process.

Host Name: SIT-B . Domain: company6.testmp.co.uk.

Certificate Purpose: mTLS & Signing

Subject Name: energydip-nonprod.128.company6.testmp.co.uk

CSR

```
-----BEGIN CERTIFICATE REQUEST-----
MIIFFjCCAv4CAQAwMjEwMC4GA1UEAxMnZW5lcmd5ZGlwLWRldi42NDcuY29tcGFueTEudGVzdG
1wLmNvLnVrMIICIjANBgkqhkiG9w0BAQEFAAOCAg8AMIICCgKCAgEAwCydBaPiLhVOqG+ESSdp4
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l6OtoRTlF/AElhqxMokBKWY0F+l9h07mZTu5nkCr/cbLlWqlcPa5FrllYjgyoln0sYuCwXgLzTCudRHI8
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-----END CERTIFICATE REQUEST-----
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Thank you