

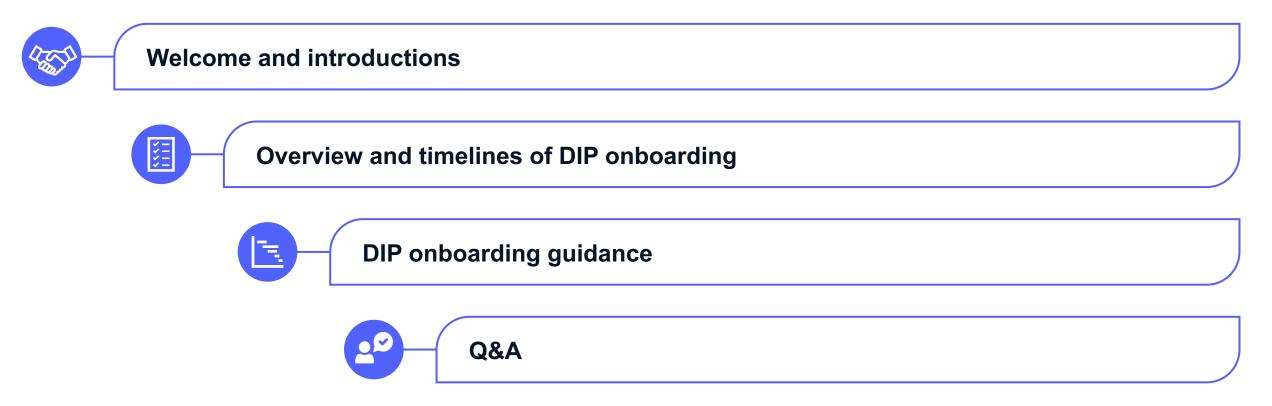
MHHS Webinar: Non-SIT LDSO DIP Onboarding

MHHS Webinar

26 July 2024

MHHS-DEL2940

What we'll cover today







Please send in your questions using sli.do #DIP

Questions will be answered at the end of the webinar.

A complete Q&A will be made available on the website.

Non-SIT LDSO DIP Onboarding timelines



DIP Onboarding has three high level stages:

- Phase 1 Login, GlobalSign Verification and Initial Setup
- Phase 2 Technical Setup
- Phase 3 Smoke Testing

LDSO can proceeding through Phase 1 and 2 at their own pace. Please note: DIP Portal will not be available 23 August till 2nd September. If you are looking to set up URLs via API, this can only be done after 2nd September,

Phase 3 would only look to commence once IR8 Deployment has taken place. We would look to agree a window to conduct smoke testing with each LDSO so that support can be provided.



The DIP Onboarding Guide

Context

The MHHS Data Integration Platform (DIP) is provided by Elexon and developed by Avanade to allow the different Market Participants in the electricity market to exchange messages.

The onboarding guide provides a step-by-step instructions to enable a Market Participant (MP) to complete all tasks required to successfully onboard to the DIP.

Possible to delegate responsibility of these tasks to a Third-Party (DCP – DIP Connection Provider), however, some of the initial key on-boarding steps <u>must</u> be undertaken by a full-time employee of the Parent MP.

A full interactive demo of the on-boarding process can be found:

https://www.youtube.com/watch?v=8K3fWSJFv0k



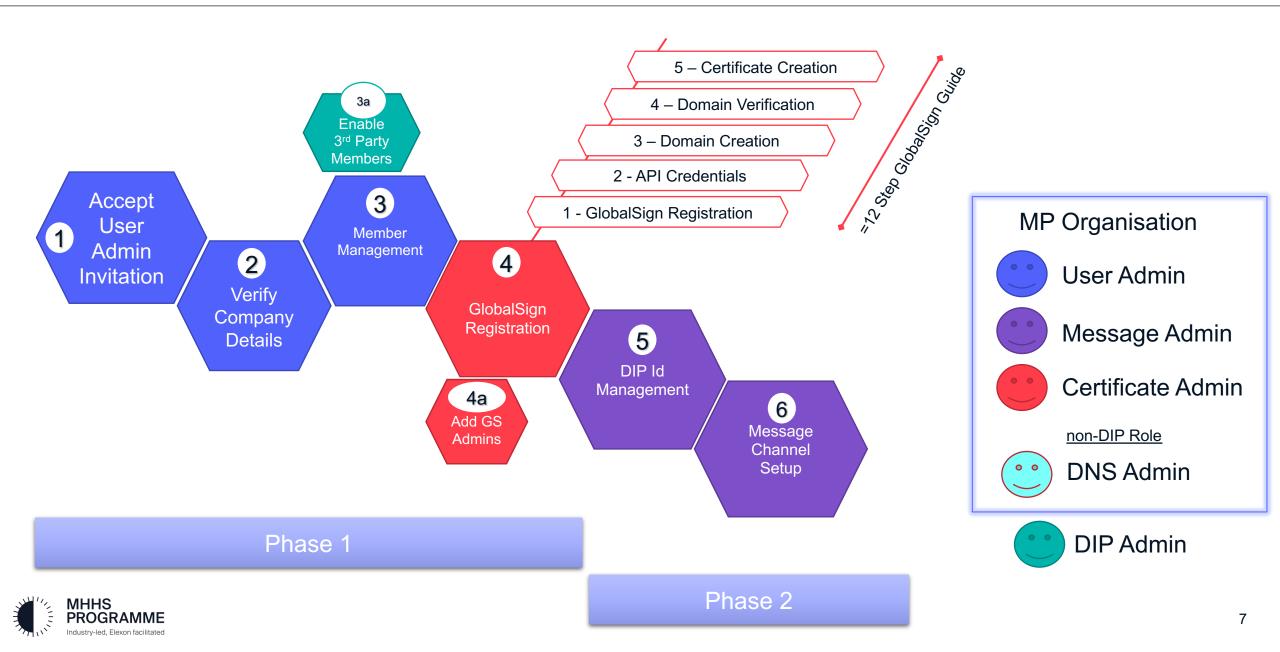
DIP Member Roles

Within the DIP there are four Market Participant member roles which can be assigned. Any organisation member invited to the DIP can have either a single role or be assigned multiple roles (allowing all four assigned to one person).

Role	Description
User Admin	The User Admin is the person who will receive the invitation from the DIP Team to join the DIP. The User Admin role, when assigned to any member, provides the functions to add other DIP Members and manage DIPID's.
Certificate Admin	The Cert Admin is responsible for all certificate management, including registration, GlobalSign verification, completion of the certificate upload, and ongoing certificate maintenance. Given the scope of the role this may be multiple people at different parts of the process.
Message Admin	Will have the control and ownership of all activities relating to message processing, replay and management.
Analytics Reader	Will only have access to review the DIP Dashboard feature.



The DIP Onboarding Guide



Support and Assistance

Support and Assistance

The process to onboard to the DIP has many intricate steps. We fully believe that if prepared correctly, these steps should complete successfully and allow a smooth onboarding, however, we understand that sometimes things do not go as you expect, and a helping hand is needed.

If this situation arises, please send an email to DIP@mhhsprogramme.co.uk & LDSO_QT@mhhsprogramme.co.uk

with your contact details, description of the step/stage you have reached, a short description of the problem you have encountered and someone will respond as soon as possible.

Preparation Reminder

Before onboarding please complete the following actions:

- 1. Have ready the assigned Certificate Admin details
- 2. Have your registered Company Name, the associated Company Number and a brief company description
- 3. Have your DNS admin prepared and ready for the DNS activity (Section 4)
- 4. Have your Certificate Admin, with the ability to manage through the conversion of certificates, on hand to assist (Section 4 and 5)
- 5. Do not add additional Market Participants during onboarding: wait until onboarding completion. The User Admin can add new members or/and instigate a DIP Connection Provider (DCP) link after an ACTIVE Certificate has been uploaded

Post Onboarding

Ensure you have set up to optimise your DIP experience:

- 1. Read the DIP User Guides to understand the functions and features in detail
- 2. Ensure at least 2 each of User Admin, Certificate Admin and Message Admin are invited and joined the DIP to allow cover during holiday or absence situations
- 3. Remember that members can have multiple roles use according to your needs
- 4. Try out the 'links' and supporting materials





Section 1 – Accept User Invitation

The Invitation to Join the DIP

The process for onboarding will commence with the Market Participant's (MP) nominated **MP User Admin** receiving an email from the Programme **DIP Manager/Team** inviting them to join the DIP: The Qualification Team will contact your organisation prior to your onboarding to receive the name of the MP User Admin.

The email sent to the MP User Admin will contain a link to the DIP 'Sign in' home page which is shown in the forthcoming pages.

Multi-Factor Authentication (MFA) is a mandatory set up for all users who will be accessing the DIP. The MFA set up will initiate during the first sign in of each invited user and an MFA request will occur each time any user signs in thereafter.

Once the MP Admin has been set-up, they then have the control of sending out invites

Preparation

- 1. Have MS Authenticator available on your phone to enable MFA
- 2. Complete and return your **DIP Onboarding Preparation Pro-Forma** to <u>LDSO_QT@mhhsprogramme.co.uk</u>



Section 1 – User Admin Invitation

Invitation to join the DIP

The invitation from the DIP Manager/Team will arrive to the **MP User Admin** email address provided. The process will begin with the MP User Admin clicking on the 'link to the DIP Portal Sign in' within the email invitation they receive from the DIP Team.

These steps are the same for all MP Users after they have received the Invitation e-mail.

Example email>



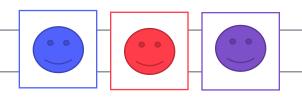
NOTE: The DIP has been designed to operate optimally on current or current-1 versions of Chrome or Edge browsers.

Other browsers may work but may not perform in an optimal way.

If you do not receive the invite, once you are advised it has been sent, please use this link to get started: Https://portal.uit.energydataintegrationplatform.co.uk

You should ensure this is WHITE listed and is not subject to quarantine or a suspected phishing delay.





Section 1 – Sign in to the DIP

The initial Sign-in to the DIP

Sign in to DIP:

- 1. You will be able to use your own, current email address to sign in
- 2. Set up your authenticator tool on your mobile or secondary device in advance: Microsoft Authenticator is recommended

Sign-in to the DIP

Please follow steps 1-4 to complete the User.

ELEXON Data Integration Portal	Microsoft Sign in EmailName@Company.com Can't access your account? Back Next	
	C Sign-in options Keep your account secure Voor organization requires you to set up the following methods of proving who you are. Microsoft Authenticator Start by getting the app	If you have assigned a NEW EMAIL ADDRESS to an enrolling individual there will be a request to 'Reset your Password'. Please follow instructions given.
име	On your priore, intell the Microsoft Authenticator app. Doublished now After you install the Microsoft Authenticator app on your divice, choose "Heat". I want to use a different authenticator app Next	Support Team <support@energydataintegrationplatform.co.uk< td=""></support@energydataintegrationplatform.co.uk<>



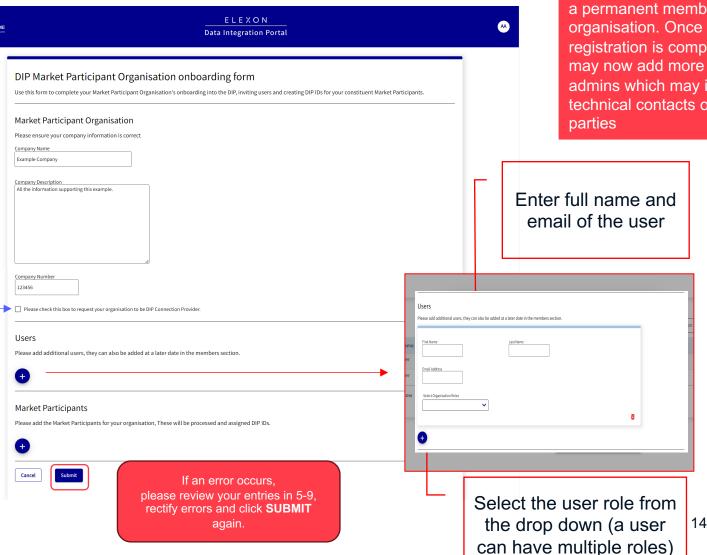
Section 2 – Verify Company Details

Section 2 – Verify Company Details

Verify Company Details



The User Admin must enter/check the company details and create a Certificate Admin user or assign Cert Admin role to themselves if operating in both roles. Optional Mandatory Market Participant Organisation Company Name Check/ amend Company Name if required 5 Example Company **Company Description** All the information supporting this example Check/ amend Company Description if required 6 Check/ amend Company Number if required 123456 (Click here if you are acting as a DCP in the DIP) Users Click the '+' to create a Cert Admin if the Pro-forma has not advised the User Admin is 8 Ð also the Cert Admin Market Participants Please DO NOT ADD any Market Participants: 9 Ð This is not relevant to your company's onboarding Cancel



Note for Step 8

Your first Cert Admin must be a permanent member of your organisation. Once vetting and registration is complete, you may now add more cert admins which may include technical contacts or 3rd



Section 3 – Member Management

Section 3 – User Admin Home Page

The User Admin Home Page

On completion of a successful submission of the required details the following screen will be displayed for the User Admin.

The User Admin will be provided the 'DIP IDs' and 'Members' tab, Cert Admin the 'Certificates' tab, and if you have both roles all three will appear.

HHHS PROGRAMME	IPANT	ELEXON Data Integration Portal		PU 1
Elexon MHHS Data Integration Pr Welcome to the Data Integration Pr the process of data exchange and d	gration Portal ortal (DIP) - the innovative solution for efficient and to offers a range of features designed to promote energy	ansparent communication between energy market particip efficiency and conservation. Our user-friendly portal allow nitions and functionality around messages exchanged upo	s market participants to easily Explore tutorials, articles and help	5
	MHHS PROGRAMME Name Instrume HOME MARKET PARTICIPANT ORGANISATION	Da Message channels	ELEXON ta Integration Portal	
	Super Energy Co Detailed information on the Market Particips Company Type	ant, the constituent DIP IDs operating within the DIP and the Company Number	ir members along with certificate functionality.	Nominate DIP Connection Provide DIP Connection Provide
	Supplier, Distributor Description Our company is Whitelisted Domains superenergy.co.uk, energydataintegratio	1234567 nplatform.co.uk, mailinator.com, accenture.com, energyda	SUP1, SDS, MDR, ADS, EES, SUP	None set soft.com

Portal Area	Description
1	Identity of the logged in user
2	ELEXON Header Bar
3	Navigation/Menu options
4	Welcome Area
5	Common tools and functions

Further details of functions and features, by Portal Role Types, will be available in the MHHS **DIP Portal User Guide**

> In the UIT environment the portal will have Yellow banners/menus

User Admin Management of User Roles

The User Admin will 'Sign In' to the DIP and add new members (users). It is advised that a Message Admin is added as a first task.

1 Click SIGN IN	\rightarrow (2	Sign in with email/password—	Complete MFA	4 Review the Member	rs list	
1 Click SIGN IN	N	Sign in with email/password	<page-header><text></text></page-header>	• MHHS WARNER HANNE HOME MARKET PARTICIPANT ORGANISATION Energy Demo Ltd	ELEXON Data Integration Portal constituent DIP IDs operating within the DIP and their members along with certif Company Number Role Codes 1234567 None Set	ficate functionality.
					Role V3@Energydataintegrationplatform.co.uk MP User Admi cicate03@Energydataintegrationplatform.co.uk MP Certificate	> Eait • Onboard



Section 3 - Adding New Members to the DIP

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Adding the Message Admin and Additional Users

The User Admin should sign in, access the Members tab in Market Participants, and create the Message Admin using 'Create Member':

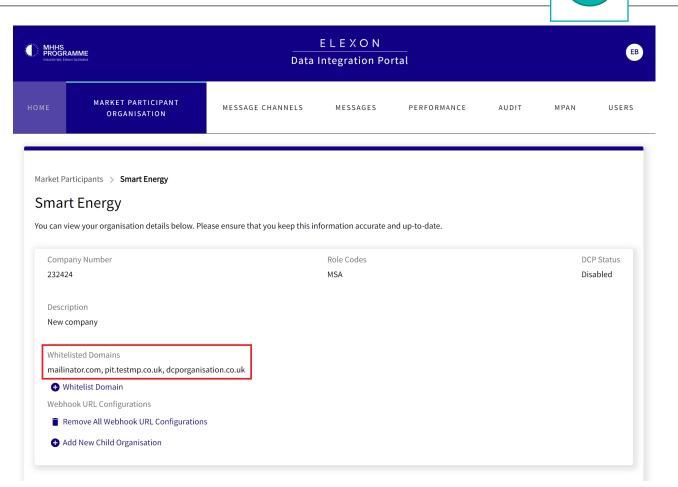
1 Click 'Create Member' in the Members tab			3 Click 'Confirm' to send the invitation
DIP IDs Members	🕒 Create Member 🍸 Filter	Search	
First Name ▼ Last Name Email ID	Role Role Codes	Actions	Select Organisation Role
David Gardiner pitmpde.user03@Energydataintegrationplatfor	o.uk MP User Admin	🖍 Edit 🛛 🔳 Offboard	This field is required
David Gardiner pitmpde.certificate03@Energydataintegrationp	orm.co.uk MP Certificate Admin	Edit Offboard	Cancel Confirm
Showing items 1 - 2 of 2 Show 10 All		< 1 >	
 Add First Name, LAST Name and a valid Email Address Click drop-down to see available roles Select 'MP Message Admin' 	Create New User Profile First Name Last N	ame	 Recommended Action: It is advised that each Market Participant has at least 2 User Admin, 2 Certificate Admin and 2 Message Admin's to ensure cover is provided during potential situations of absence. It is also acceptable for one person to hold multiple roles.
	Select Organisation Role	1	Please ensure you have cover for all potential access needs.
MHHS	Note : If you require a domain which isn't listed, ple be whitelisted.	ase contact the DIP Admin for it to Cancel Confirm	To Edit) a members role, click the Edit button against that members name.

Section 3 – Member Management

Inviting users from outside your organisation

You are only able to add members to your organisation who have e-mail addresses featuring whitelisted domains, assuming you checked the 'Whitelist DCP's domains' option when nominating a DCP, you should see that organisations domains listed. If not, or you need additional domains whitelisted, or undertake adding members before you've allocated a DCP, please contact the support helpdesk.

Once verifying the desired domain is present, navigate to the member tab



0 0





Section 4 – GlobalSign Registration & API Key Generation

Interface Code of Connection

OFGEM have programme requirements around security and non-repudiation. This means:

- 1. All messages passing through the DIP must be digitally signed and authenticated by API keys
- 2. Connections between MPs, or their agents, to the DIP must be secured via an mTLS connection.

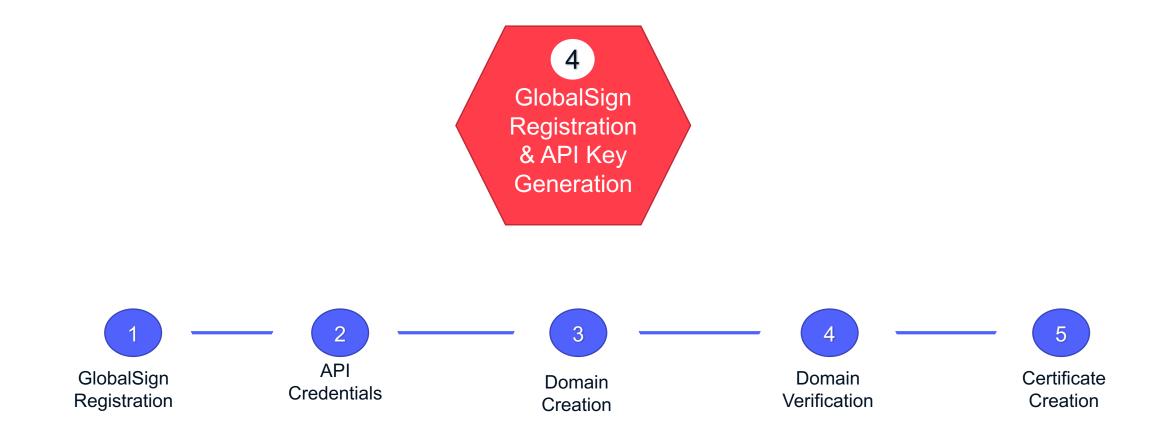
The Interface Code of Connection provides a description of how parties need to interact with the DIP.

The DIP Certificate Authority (DCA) is managed by GlobalSign

- Each Market Participant is responsible for their own message signing, therefore, whether you are using a DCP or not, the Market Participant must complete the DNS and Certificate process for message signing.
- The DNS is validated by GlobalSign and therefore must belong to the Market Participant. The DNS can be the Market Participant's web domain or any other domain associated with the organisation.
- If using a DIP Connection Provider (DCP), the DCP should use their own mTLS certificate, and then use the MPs certificates for signing messages. The respective Market Participant's Signing certificate **must** be used to sign their messages.
- API keys used in message exchange must belong to the MP













The Certificate Admin must follow the following steps to initiate the GlobalSign Registration process:



- Check details of MP Company Details are correct
- Select 'Certificates' tab to show 5-stage 3 GlobalSign Registration and onboardin screen

4 Click the 'link' to GlobalSign MHHS Se registration page

MHHS PROGRAMME Charanteel Theorem Test and			. E X O N egration Portal		
e MARKET PARTICIPANT ORGANISATION					
exon MHHS Data Integration Portal				Quick Links	s
lcome to the Data Integration Portal - the innovative so ndly portal allows market participants to easily onboar	lution for efficient and transparent communication d into the DIP and monitor communications, whi	on between energy market participants. Our platform simplifies the proc le accessing latest interface definitions and functionality around messag	ss of data exchange and offers a range of features designed to pro is exchanged upon the platform		torials, articles and help
ent message channels	With the second	F	LEXON		nboarding processi
Message Channel ID 🔻	MHHS PROGRAMME TRATE AT LAST ALL MALE		tegration Portal	A (B)	codes?
F-032	HOME MARKET PART				
033	ORGANISA	TION			
-034	Market Participants > Another te	ist company			
	Another test compa	ny			
	Detailed information on the Market functionality.	Participant, the constituent DIP Ids operating within the D	P and their members along with certificate	GD Nominate DIP Connection Provider	
tails	Company Type None set	Company ID 123456	Role Codes None set	Dip Connection Provider None set	
lans	Description				
	A great example				
	DIP IDs Members Certifica	tes			
stado	_ _				
-stage					
arding			•	•	
Ū		1	0 0	•	
		GLOBALSIGN REGISTRATION API	CREDENTIALS DOMAIN CREATION	DOMAIN VERIFICATION CERTIFICATE CREATION	
		GlobalSign Registration			
S Services		Please visit the GlobalSign registration	page at https://www.globalsign.com/en.m	d complete information requested to register.	
2 2011000			on and may contact your head office to ver	ify the Nominating Officer. Once verified, the use	
		In the GlobalSign portal please create A the DIP.	PI credentials and authentication certificat	te. Once created press Next to upload them into	୍ଷ
					У

IMPORTANT

NOT CLICK 'NEXT' until complete GlobalSign stration.



The GlobalSign Registration and Verification

After clicking the link to the GlobalSign Services for MHHS home page, the Certificate Admin must complete the following steps.

Read the GlobalSign MHHS introduction and scroll down screen

ata Integration Po 🔮 GlobalSign Services 🧔 Docum	one-relitivo programme entr 🏟 Gas Imagestor R. 🏚 Programme Calab 🚼 Microsoft 355 prod 🔕 Home Microsoft 3 🔢 MiHE-2011256, SL. 🔡 Stas Imagestori Fo		ଷ୍ଟ 🖉 \star 🖬 🕯
• ش	ose another country or region to see products and services that are available in your current location.	EN / United Kingdom	Continue 🛞
۲	SlobalSign` ⊌GMO	Contact Us +44 1622 766 766 Atlas Login GCC L Solutions IoT Partner Resources Support	ngin EN/English Company Shop
	GlobalSign Services fo Programme	or MHHS	
		ATLAS ONBOA PROCESS	

GENERAL NOTES

- 1. Ensure you follow the GlobalSign steps as outlined in the Onboarding Guide. DO NOT skip any steps / follow steps out of sequence.
- 2. Always check your spam when you're stuck or expecting an email from GS.
- 3. Wait for confirmation that account binding is done from GS and API credential ready to use before using your credentials. Otherwise, your certificate will be created before the API Keys gets bound to your account, and you will run into problems with your certificate down the line.

Complete the form in the lower half of the GlobalSign MHHS screen

Get Started with Atlas

About You

Tell us a bit about yourself

First Name *	Last Name *
Job Title *	Contact Phone Number
Email *	

Your Organisation

Please provide the official registration details of your organisation

I'm not a robot	reCAPTCHA		
Country *		~	
City *	* Postal Code *		
Address Line One *	Address Line Two		
Company Name *	Website *		

View our Privacy Policy to understand how we collect and use your personal data

Submit

IMPORTANT INSTRUCTIONS

- 1. The details entered in fields FIRST NAME, LAST NAME, JOB TITLE in the 'About You' section should be the person dealing with the certificate request (Cert Admin) and GlobalSign vetting. Global Sign will contact the named individual and verify they are a current full-time employee and authorised to create a signing certificate.
- 2. The EMAIL ADDRESS provided is where all Global Sign communications will be sent for vetting only.

This should be the **Certificate Admin's** email address.

It is also acceptable to have a 'generic' email which is available to multiple people to monitor but must be accessible by the Cert Admin.

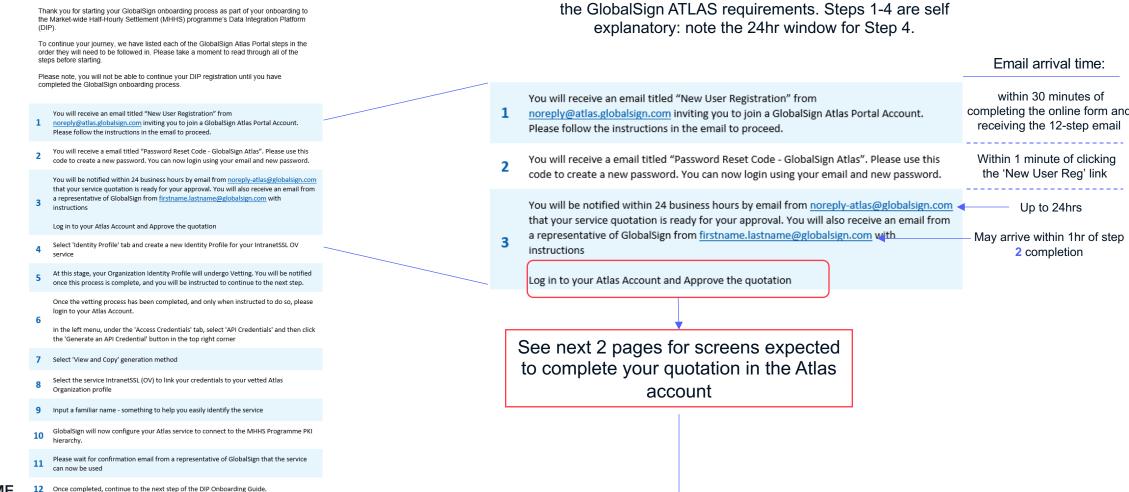
- 3. Please enter a direct contact number of the Cert Admin into 'Contact Phone Number': utilised to help in case the primary verification is unsuccessful
- 4. Click 'I am not a robot' then SUBMIT to conclude



The GlobalSign Registration and Verification

The email from GlobalSign will include their 12-step guide in the way of an itemised checklist – please follow as instructed.

After completing and submitting the GlobalSign Online Form an email will be received (as below) with a 12-step guide



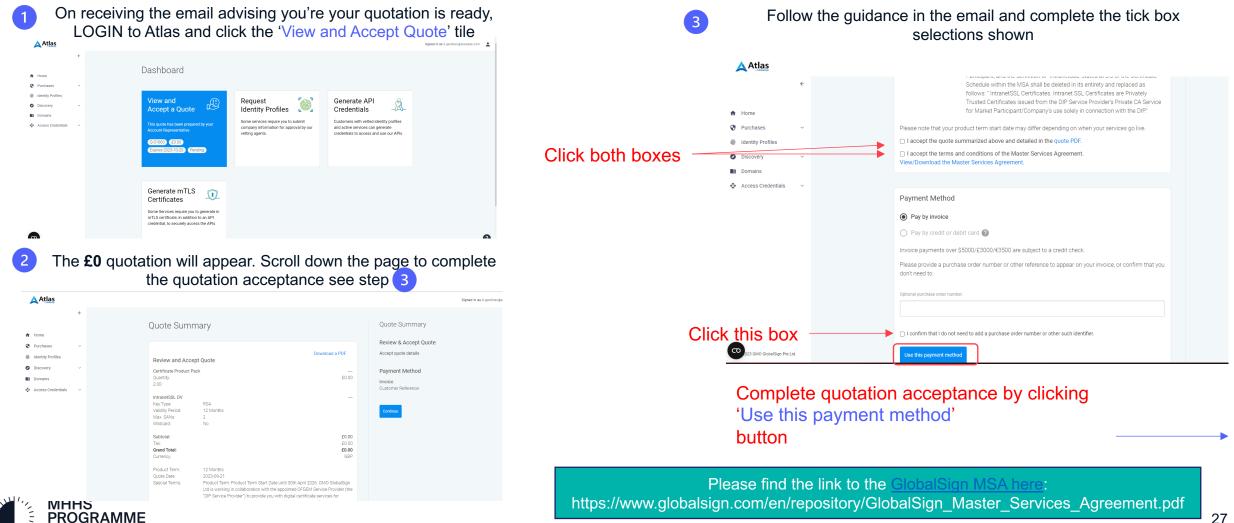
The following pages will provide guidance on the key steps of



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GS Step 3 - Approve the quotation (1 of 2)

NOTICE: Your quotation is ready', a BLUE TILE will appear in your dashboard. Click this to continue through the onboarding process.



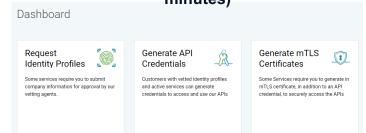


GS Step 3 - Approve the quotation (2 of 2)

4

4	4 The following screen will appear when you accept the payment method – please click RETURN to DASHBOARD			5 S	tart STEP 4 (of the 1 new	2-step guide o mustard colou		licking the
Atlas		Signed in as d.gardiner@avanade.com	Atlas					Signed in as d.gardiner@avanade.com
 ← Mome Purchases identity Profiles O Discovery ⊂ Domains Access Credentials 	Your order is complete. Your service is now available, but may require additional setup. Return to dashboard	Order Summary Review & Accept Quote Payment Method Imolee Customer Reference: Not Provided	 Home Purchases Identity Profiles Discovery Domains Access Credentials 	•	Dashboard To Do Create at least one unique identity profile for intranetSSL oV products in your account. Request an identity profile	Generate API Credentials & Customers with vetted identity profiles and active services can generate credentials to access and use our APIs	Generate mTLS Certificates Some Services require you to generate in mTLS certificate, in addition to an API credential, to securely access the APIs	

The DASHBOARD will default to the below 3 tiles - please await the MUSTARD TILE in Step **5** before proceeding (up to 20-30 minutes)







GS Step - 4 Create the Identity Profile

This requires accuracy in completion of the Identity Profile. Each field will be used to verify the name provided is a known full-time employee of the company ORGANISATION NAME (O). ADVICE – let your receptionist know an anonymous call may be received to avoid issue

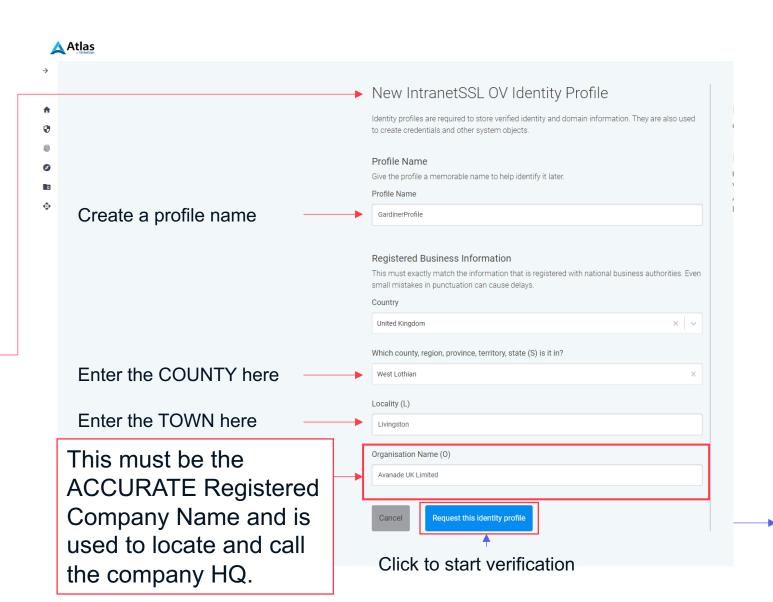
- You will receive an email titled "New User Registration" from <u>noreply@atlas.globalsign.com</u> inviting you to join a GlobalSign Atlas Portal Account. Please follow the instructions in the email to proceed.
- You will receive a email titled "Password Reset Code GlobalSign Atlas". Please use this code to create a new password. You can now login using your email and new password.

You will be notified within 24 business hours by email from <u>noreply-atlas@globalsign.com</u> that your service quotation is ready for your approval. You will also receive an email from a representative of GlobalSign from <u>firstname.lastname@globalsign.com</u> with instructions

- Log in to your Atlas Account and Approve the quotation
- 4 Select 'Identity Profile' tab and create a new Identity Profile for your IntranetSSL OV service

Please note that the 'identity profile' tab is the MUSTARD TILE shown step 5 on the previous page







GS Step 5 - GlobalSign Verification

Step 5 is the pause in the middle of the process where GlobalSign, through their own mechanisms, will conclude the vetting.

As shown below, there is a 72hr window for verification before you can proceed with steps 6-12.

Step 5 involves the original submitted name (Cert Admin) being vetted by telephone call, against the 'Organisation Name' entered in the Identity Profile		 DO NOT PROCEED UNTIL A VERIFICATION EMAIL HAS BEEN RECEIVED! Complete items 6-10 when verification is received. Step 11 – you must await the email confirming verification was successful before finishing the onboarding 12 			
1	You will receive an email titled "New User Registration" from <u>noreply@atlas.globalsign.com</u> inviting you to join a GlobalSign Atlas Portal Account. Please follow the instructions in the email to proceed.	The completion of the IDENTITY PROFILE	6	Once the vetting process has been completed, and only when instructed to do s login to your Atlas Account.	o, please
2	You will receive a email titled "Password Reset Code - GlobalSign Atlas". Please use this code to create a new password. You can now login using your email and new password.	starts the 72hr verification process		In the left menu, under the 'Access Credentials' tab, select 'API Credentials' and the 'Generate an API Credential' button in the top right corner	then click See next
	You will be notified within 24 business hours by email from <u>noreply-atlas@globalsign.com</u> that your service quotation is ready for your approval. You will also receive an email from	The time taken for	7	Select 'View and Copy' generation method	pages for
3	a representative of GlobalSign from <u>firstname.lastname@globalsign.com</u> with instructions	verification may take only a few hours however it should	8	Select the service IntranetSSL (OV) to link your credentials to your vetted Atlas Organization profile	detailed screens for
	Log in to your Atlas Account and Approve the quotation	not exceed 72hrs after completing step 6	9	Input a familiar name - something to help you easily identify the service	items 6-10
4	Select 'Identity Profile' tab and create a new Identity Profile for your IntranetSSL OV service				
5	At this stage, your Organization Identity Profile will undergo Vetting. You will be notified once this process is complete, and you will be instructed to continue to the next step.		10	GlobalSign will now configure your Atlas service to connect to the MHHS Programierarchy.	
	once and process is complete, and you will be instructed to continue to the next step.		11	Please wait for confirmation email from a representative of GlobalSign that the can now be used	service

12 Once completed, continue to the next step of the DIP Onboarding Guide.

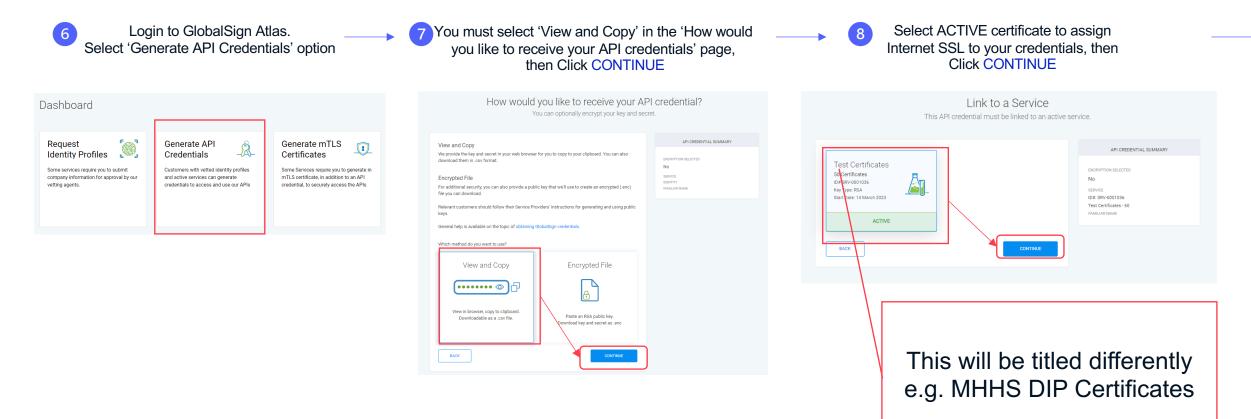
DO NOT DDOCEED LINITIL & VEDIEICATION EMAIL UAS

What happens during GlobalSign (GS) vetting?

GS will call the HQ number that they have uncovered from their secure vetting process. It doesn't matter if the contact is located at the HQ, or not; what they seek is that the HQ either i) transfers their call to the contact so they can speak with them; or ii) gives them the contact's phone number (can be landline or mobile) or email address so they can contact them. If neither of the above happens, GS they will send a postal challenge letter for that contact, to the registered business address so that they (GS) can be contacted directly.

GS Steps 6-10 - Generating API credentials

The Certificate Admin must complete the API Certificate generation within the Global Sign Atlas system once 'Identity Validation' has been confirmed.







Generating API credentials with GlobalSign Continued.....

9

Give the credential a familiar name (any text you wish) and record this safely and click 'CONTINUE'

Add a Familiar Name					
Create a label to distinguish this from similar cred	entials.				
FAMILIAR NAME	API CREDENTIAL SUMMARY				
BACK CONTINUE	ENCRYPTION SELECTED No SERVCE ID#: SRV-0001036 Test Certificates - 50 FAMILJAR HANKE onboarding_key				
Enter and take a note name' ther CONTIN	n click				

Click 'Download key and secret as .csv' button and save file. Alternatively (and) click both the API Key and API Secret 'Copy Key to clipboard' and store in a .txt file for the next stage.

10

Success! Now Securely Save your API Key & Secret

If you lose this API secret, you'll need to generate a new API credential.

API KEY	ŗ	
186610baff175cae	COPY KEY TO CLIPBOARD	Ì
		-!
API SECRET		171
	COPY SECRET TO CLIPBOARD	ו
DOWNLOAD KEY & SE	CRET AS .CSV	!
API DOCUMENT	TATION D	
VIEW & MANAGE API	CREDENTIALS	
RETURN TO DAS	SHBOARD	

PLEASE NOTE!

You must DOWNLOAD the .CSV. Once you navigate away from this page you cannot return to access this content.

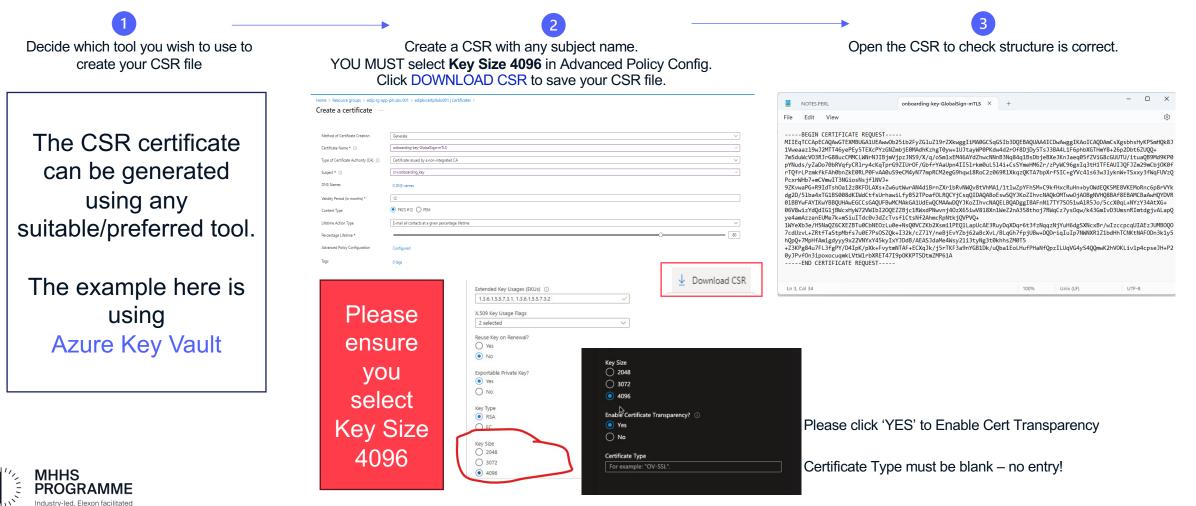


•••

Generating API Credentials - PFX Certificate

GlobalSign provided the API Key and Secret. The DIP requires a validated certificate in PFX format together with these API credentials. The following will be conducted outside of the DIP by someone with technical understanding of generating a certificate.

Select a CSR generation tool and create a CSR Certificate: All examples shown are based on the use of Azure Key Vault. See Addendum if using OpenSSL.

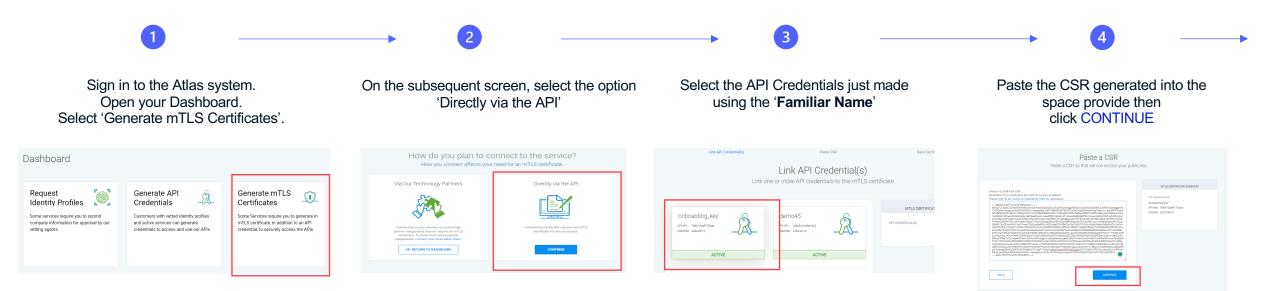




Generating the correct key format for upload to the DIP

The Certificate Admin must return to the GlobalSign Atlas system to complete the next stage of certificate preparation for the DIP.

NOTE: If you have appointed a new Cert Admin into the Atlas account, they can complete the following steps.

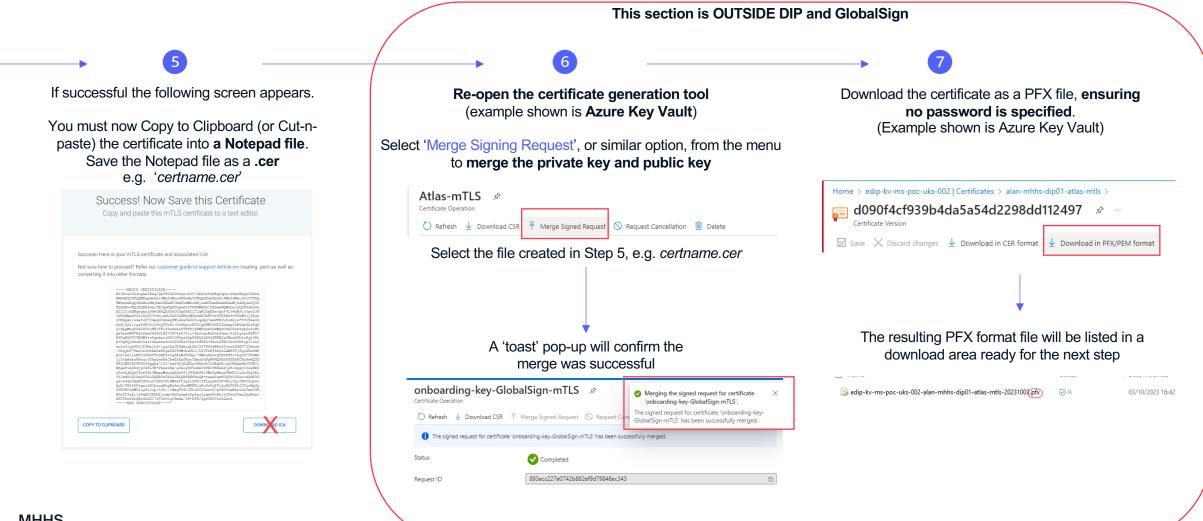






Create a PFX Certificate for Upload to the DIP

The output from the GlobalSign system requires the key to be converted to PFX format. This is completed using Azure Key Vault:





Step 2 – API Credentials

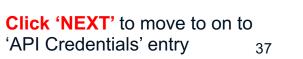
Step 2 – API Credentials



The Certificate Admin will return to the 'Certificates' tab as below and click the NEXT button to proceed:

A 🏠 C D 🖉 🖲 🍕 🦉 ---← C @ https://portal.pit.energydataintegrationplatform.co.uk/#/g/ho MHHS PROGRAMME 1 MC Data Integration Portal RKET PARTICIPAN ORGANISATION Elexon MHHS Data Integration Portal A (B) Welcome to the Data Integration Portal - the innovative solution for efficient and transparent communication **Data Integration Portal** friendly portal allows market participants to easily onboard into the DIP and monitor communications, Recent message channel HOME MESSAGE CHANNELS Message Channel ID 🔻 Message Channels Name ORGANISATION Notification of Annual Consumption IF-031 Market Participants > Another test company IF-032 Consumption Amendment Request Another test company IF-033 Supplier Service Provider Appointment Reques Detailed information on the Market Participant, the constituent DIP Ids operating within the DIP and their members along with certificate GD Nominate DIP Connection Provider Supplier Service Provider Appointmer IF-034 functionality. Company Type Role Codes **Dip Connection Provide** Company ID 123456 None set None set None set Description A great example DIP IDs Members Certificates CERTIFICATE CREATION GLOBALSIGN REGISTRATION API CREDENTIALS DOMAIN CREATION DOMAIN VERIFICATION **GlobalSign Registration** Please visit the GlobalSign registration page at https://www.globalsign.com/en and complete information requested to register. GlobalSign will then carry out verification and may contact your head office to verify the Nominating Officer. Once verified, the user wil be notified via e-mail and access to GlobalSign portal provisioned. In the GlobalSign portal please create API credentials and authentication certificate. Once created press Next to upload them into the DIP.



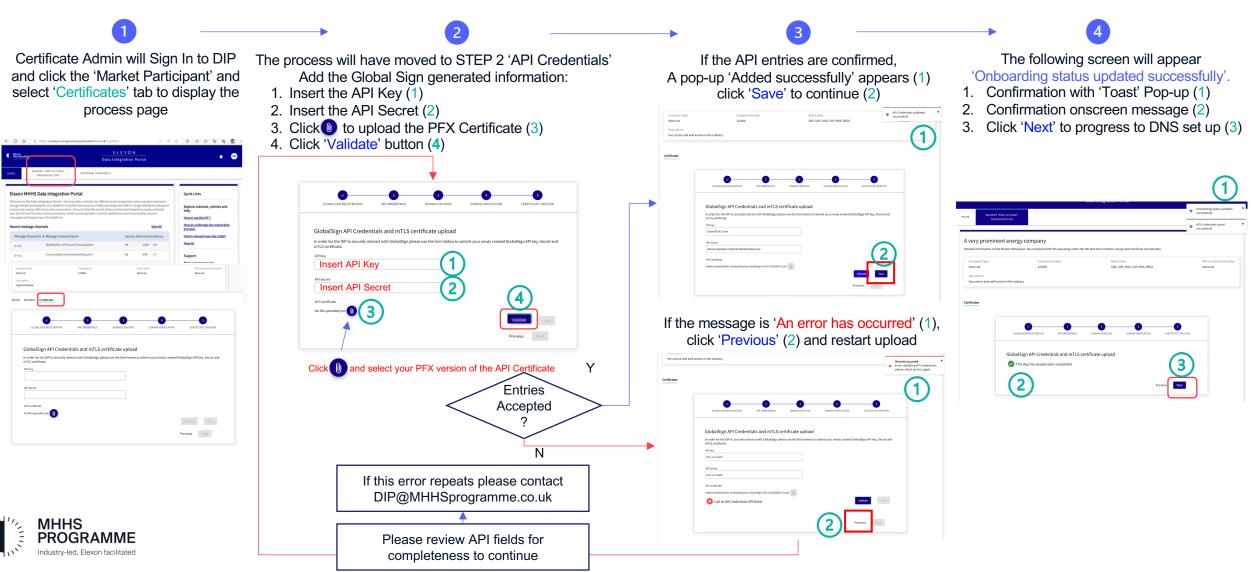


Step 2 – API Credentials



Upload API Credentials

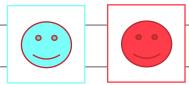
The Certificate Admin must now upload the GlobalSign API Key & Secret, together with the PFX Certificate, to the DIP.





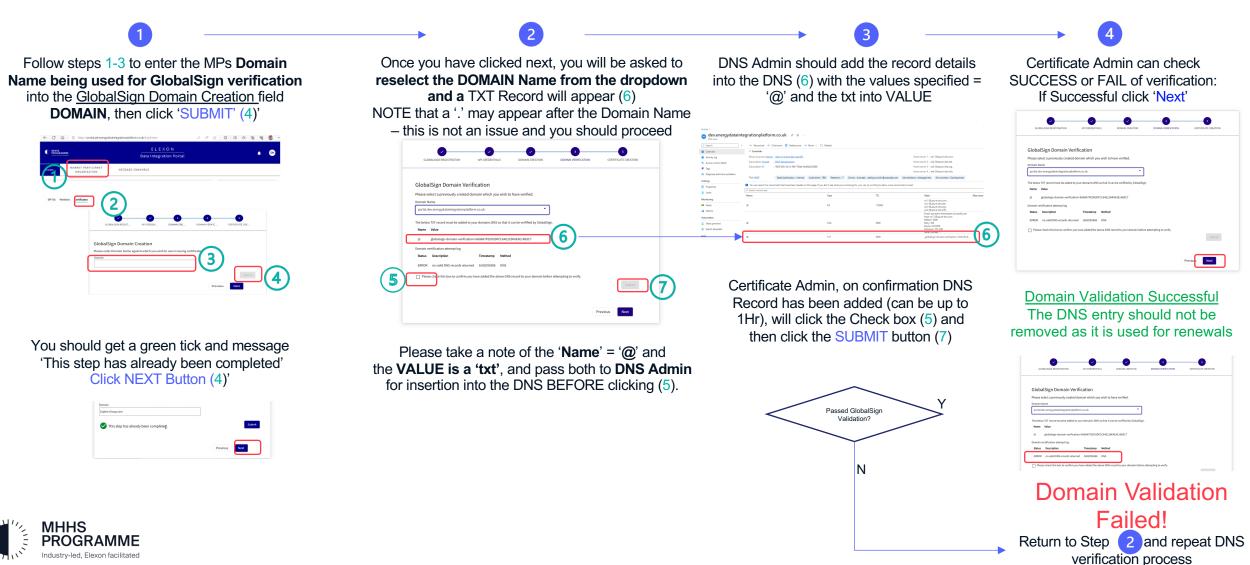
Step 3 & 4 – Domain Creation & Verification

Step 3 & 4 – Domain Creation & Verification



Register the Domain in DNS and validate in the DIP Portal

The Certificate Admin will work with a DNS domain admin to complete the Domain registration in DNS.





Step 5 – Certificate Creation

Step 5 – Certificate Creation



Generate mTLS & Signing Certificate

Login to the DIP as Certificate Admin (1)

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

- 1. Enter the required <u>Host Name & Domain</u> (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 (crit to be signed by the DIP certificate authority (Global Sign). You will then be able to download the signed publick ley (cry which you will then find with private ley you used to create your cry and than ceasing your mTJ. Certificate, active for use when integrating with the DIP. Helder making a signing request, places are used with the DIP. Helder making a signing request, places are used to an explore the necessary Global Sign onboarding and domain verification process, mere details can be found on the <u>flacebalane</u> methods.

Previous



It is critical that a new CSR is generated using the details from the You must add DNS Name entries as previous step advised from 4 and 6 Open the Certificate Creation Tool (e.g. Azure Key Vault) **DNS Names** \times (+)In Click (select) to generate a certificate (in AKV click Generate/Import) Create a certificate Give the certificate a name (no spaces) <u>@</u>2. Choose 'Certificate used by non-integrated CA' from drop down **@**3. DNS Name Enter 'cn=' then paste the SUBJECT NAME copied in STEP 1 (6) <u></u> 4 energydip-nonprod.19.compa... Î ··· IMPORTANT - click 'DNS Names' and complete the 2 entries **6**5. Click Not configured' next and ensure Key Size is 4096 6 1 ... **6**. whs-SIT-241023-ST.company7.... Home > edip-ky-ms-poc-uks-002 📻 edip-kv-ms-poc-uks-002 | Certificates « (1)+ Generate/Import () Refresh ₽ Search Overview Advanced Policy Configuration Extended Key Lisanes (EKLIs) Create a certificate 1.3.6.1.5.5.7.3.1, 1.3.6.1.5.5.7.3 X.509 Key Usag 2 selected Method of Certificate Creation Reuse Key on Renew Generate () Yes No Certificate Name * 🕕 Webhook-dev Exportable P Type of Certificate Authority (CA) () Certificate issued by a non-integrated CA O No Subject * 🛈 cn=energydip-dev.543 Key Type RSA 0 DNS names DNS Names O EC 12 hr Key Size Validity Period (in months) 3072 PKCS #12 PEM Content Type 4096 Enable Certificate Transparency? Lifetime Action Type E-mail all contacts at a given percentage lifetime Yes O No Percentage Lifetime * 80 Certificate Type Advanced Policy Configuration Not configured Tag 0 tags To complete the certificate creation click 'Create' button

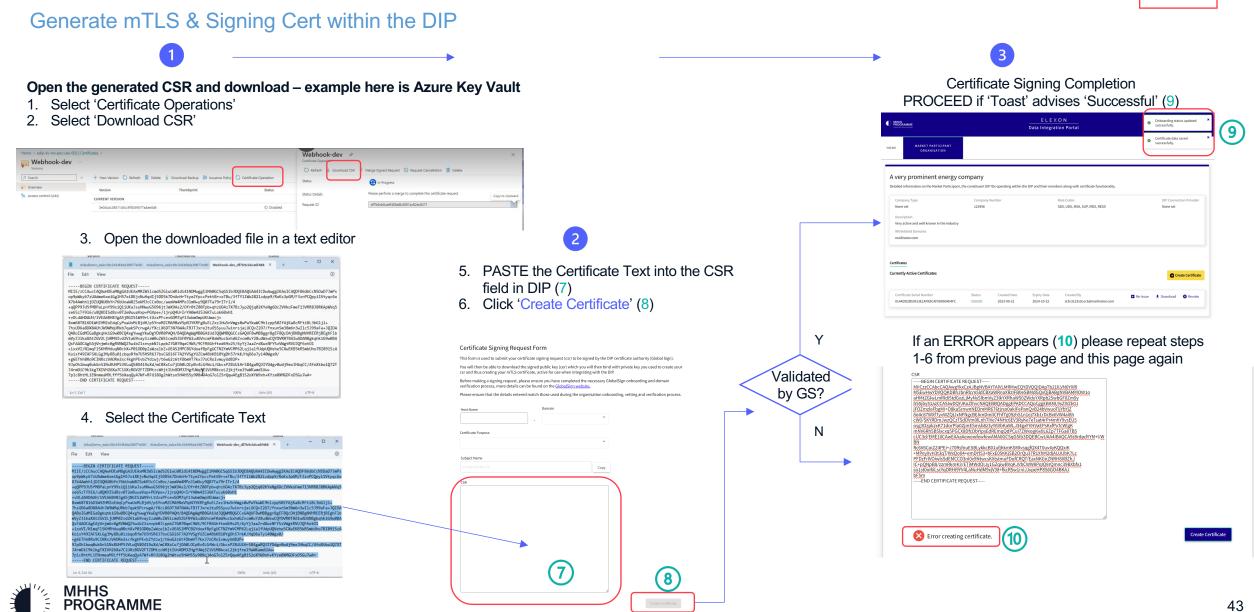
Create

Cancel

Step 5 – Certificate Creation

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Step 5 - Certificate Creation

Certificate Admin will check certificate is now ACTIVE within the DIP

The Certificate Admin will be presented with a list of certificates associated with the organisation and can DOWNLOAD the ACTIVE certificate.

he list of your available certificates are displayed within Market Participant menu (1) Click 'Certificates' tab (2) and check certificate is ACTIVE (3). Click Download (4) to utilise the new ACTIVE certificate.						Οļ	en the downloaded Certi Check validity by compa Check Subje	ring Serial N ı	umber matche
MI-HIS PROGRAMME		Data	E L E X O N a Integration Portal		ه و		Certificate neral <mark>Details C</mark> ertification Path	×	
ME MARKET PARTICIPANT ORGANISATION Ket Participants > Another test company alied information on the Market Participa	any 1	SSAGE CHANNELS	their members along with certificate func	nctionality. GO Nom	inate DIP Connection Provider		Certificate Information Windows does not have enough information to verify this certificate.	General Details Certification I Show: <all></all>	Path
Company Type None set Description A great example	2)	Company ID 123456	Role Codes None set		Dip Connection Provider None set		Issued to: GLOBALSIGN TEST CERTIFICATE - FOR TESTING PURPOSES ONLY Issued by: GlobalSign Non-Public HVCA Demo Valid from 07/09/2023 to 06/12/2023 [Install Certificate] Issuer Statement	Signature Asch algorithm Signature Asch algorithm Signature Asch algorithm Valid from Valid from Subject Dishler Kew	ul 91 soorcasonaeou sersi 16 eha2566 Globaligon Non Public HVCA D 07 September 2023 12:53:58 GLOBALISOT TEST CERTIFICA ENA TATIBATERY)
Certificate Serial Number 7348000010	Status Active	te is expiring in 11 days Date Created 2022-11-15T15:12:00.147Z	Expiry Date 2023-11-15T15:12:00.147Z	Created By Peter Macintosh	Re-Issue Download		OK		Edit Properties Copy to File
ificates History	Ŭ			Y Filter Q Search	h				
ertificate Serial Number	Status	Created	Expiry Date	Created By	Actions				
48000009	Active	2022-10-15T12:12:00.147Z	2023-10-15T12:12:00.147Z	Rodrigues M. Washinton	± Download				



Step 5 – Certificate Creation

Merge the signed certificate

Final stage of the process must be conducted within the Certificate Generation tool chosen earlier (e.g. Azure Key Vault)

At this stage you must re-open the tool you generated your A 'toast' pop-up will confirm the merge certificate from (e.g. Azure Key Vault) was successful Select menu option 'Merge Signing Request' (or similar option) Webhook-dev 🖉 mhhs-dip-mtls-and-signing 🖉 Certificate Operation Merging the signed request for certificate Certificate Operation 'mhhs-dip-mtls-and-signing'. 🕐 Refresh 🞍 Download CSF T Merge Signed Request 🚫 Request Cancellation 📋 Delete The signed request for certificate 'mhhs-dip-mtls-and 🕐 Refresh 🞍 Download CSR 🗍 Merge Signed Request 🛇 Reques signing' has been successfully merged. Status 🕄 In Progress 1 The signed request for certificate 'mhhs-dip-mtls-and-signing' has been succ Please perform a merge to complete this certificate request Status Details Status Completed df7b9cb6ca6f488a8b3891ac82ec8371 Request ID 22a711323fe847d09f8ad7fd2b1a3c11 Request ID Select the FILE downloaded from the DIP Portal The certificate must now be downloaded as a PFX WITHOUT Password (a .cer file - example shown below) Select the certificate and choose 'Download in PFX/PEM Format' 49a48cfbe8ab4dcdbb22efccb8b3961a MHHS-DIP-Certificate-01F7C0143456CD7A0CFDA138A616B44F.cer Certificate Version 🖫 Save 🗙 Discard changes 🞍 Download in CER format Download in PFX/PEM forma Properties 13/10/2023, 11:35:19 Created 13/10/2023. 11:35:19 Updated



This certificate is now available to be used for mTLS and signing when sending messages to the DIP

5

If you are using a DCP you must give this to your DCP. Use certificate to sign messages (See CoCo for how to sign a message)

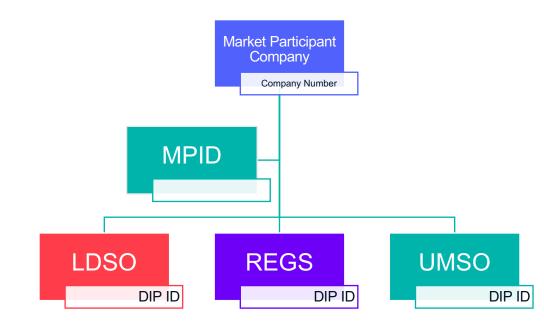


You have successfully onboarded to the DIP



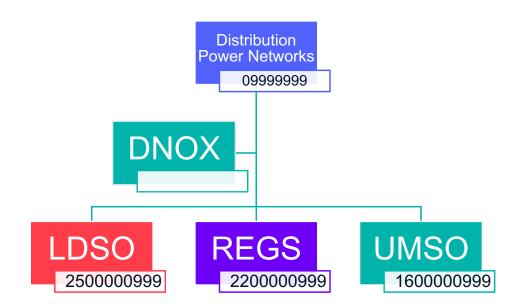
Step 5-Setting up DIP IDs

Market Participant Data Setup

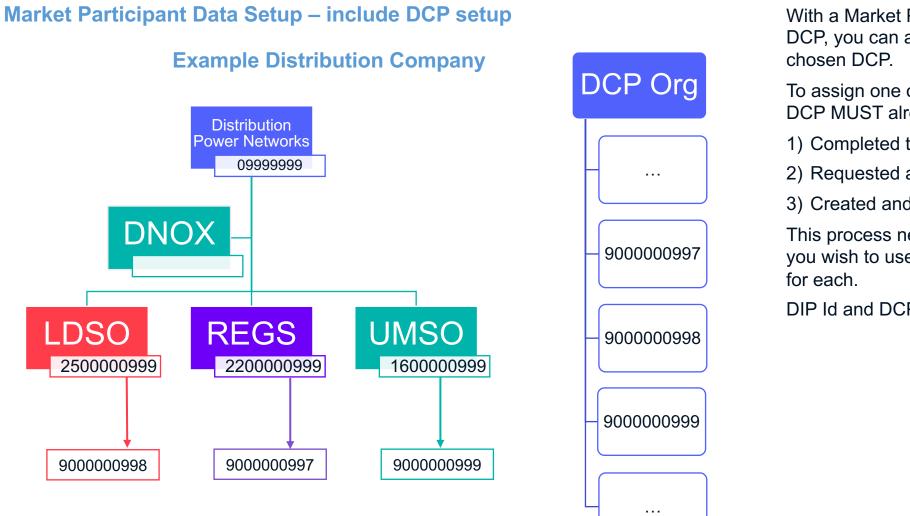


All the data required for on-SIT LDSO has been set-up in advance in terms of DIP IDs & DCP IDs

Distribution Power Networks Company







With a Market Participant Organisation using a DCP, you can assign a particular role to your chosen DCP.

To assign one of your company roles to a DCP, the DCP MUST already have

1) Completed their onboarding in advance

2) Requested and approved DCP Status and

3) Created and shared a DCP ID with you.

This process needs to be repeated for each role you wish to use a DCP for, requiring a new DCP ID for each.

DIP Id and DCP ID have a strict 1:1 mapping



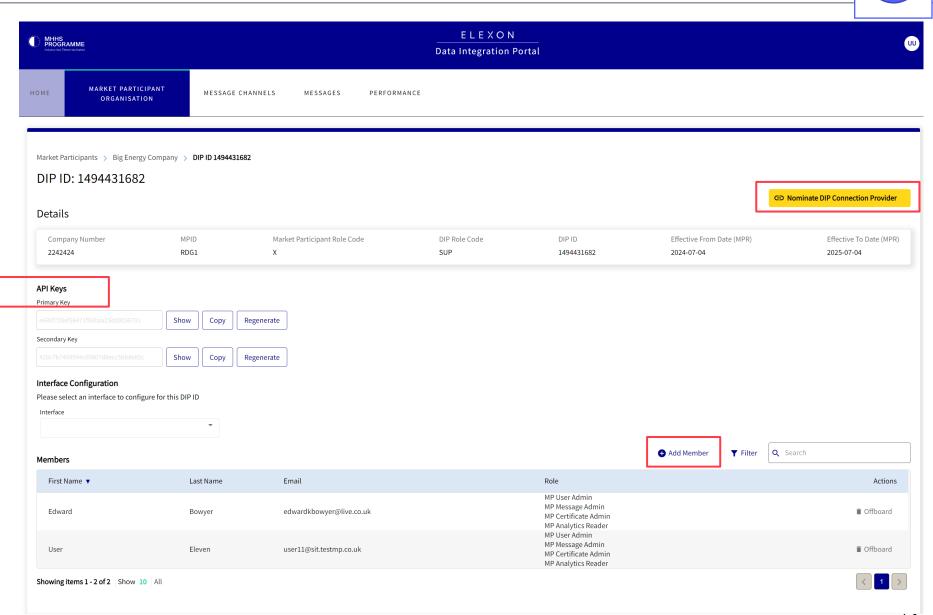


Select DIP ID to administer:

MHHS PROGRAM	1ME actifiated				ELEXON Data Integration Port	tal		U
IOME		PARTICIPANT M ANISATION	ESSAGE CHANNE	LS MESSAGES	PERFORMANCE			
	ergy Cor w your organis	mpany ation details below. Please er	nsure that you keep	this information accurate a	and up-to-date.			
	iy Number				Role Codes			DCP Status
2242424					SUP, VAS			Active
Descripti	ion							
new one	2							
	ted Domains np.co.uk, live.c	o.uk, esgglobal.com						
	1embers Ce w the status of	ertificates your DIP IDs below. Please er	nsure that you keep	this information accurate a	and up-to-date.	Create New DIP ID Filter	Q Search	
DIP ID 🔻	,	DIP Role Code	MPID	MP Role Code	Effective From Date (MPR)	Effective To Date (MPR)		Actions
1086576	5131	VAS	ABCD	n/a	2024-07-15	2025-07-15	🖍 Edit	Delete
1494431	.682	SUP	RDG1	х	2024-07-04	2025-07-04	🖍 Edit	Delete
Showing iter	ms 1 - 2 of 2	Show 10 All					(< 1 >



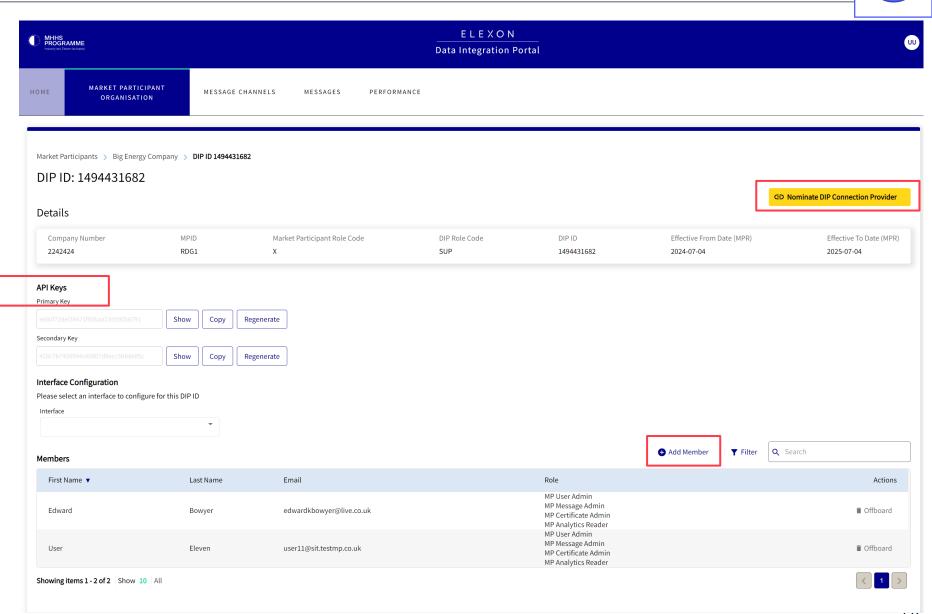
- 1. Nominate DCP
- 2. API Keys
- 3. Add Member





0 0

- 1. Nominate DCP
- 2. API Keys
- 3. Add Member





0 0

Step 5 – Nominate a DCP for a DIP ID

Select DIP ID to nominate a DCP for

Identify the DIP ID you wish to nominate a DCP for and click it

This will take you to the DIP ID details view.

Click the 'Nominate DIP Connection Provider' button.

Nominate DIP Connection Pro	ovider for DIP ID	1252210018
Market Participant		
		~
DIPID)
		~
Whitelist DCP's domains?		
	Cancel	Nominat

2

DIP ID 🔻	DIP Role Code	MPID	MP Role Code	Effective From Date (M	PR) Effective Te	o Date (MPR)		Actions
1252210018	MSA	QAWD	т	2024-06-24	2025-06-24	Ļ	🖍 Edit 👔	i Delete
M Po	HHS ROGRAMME avanued Ceser Inclused	A DTICIDANT		E L E X O Data Integration			E	в
НОМЕ		ARTICIPANT	MESSAGE C	HANNELS MESSAGE	S PERFORMANCE	AUDIT	MPAN USERS	
DI		018	arket Participant Role Co		IP ID Effective Fr 252210018 2024-06-24	GD Nominate	DIP Connection Provider Effective To Date (MPR) 2025-06-24]
Plea	erface Configuration use select an interface to erface mbers	configure for	this DIP ID	€ Ad	d Member 🏾 🍸 Filter	Q Search		
	First Name 🔻	Last Nam	ne Email		Role		Actions	
	Cert	Admin	certadm@r	nailinator.com	MP Certificate Admi	'n	Offboard	
	User	Admin	useradmin	1@mailinator.com	MP User Admin		Offboard	
Sho	wing items 1 - 2 of 2 Sh	ow 10 All						



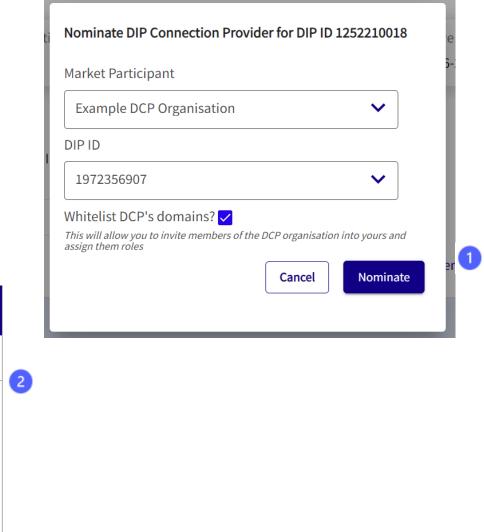
Select correct DCP ID to nominate

Your desired DCP should have already created a DCP ID in the portal and shared it with you. Select you desired DCP from the Market Participant field and then the DCP ID they have shared with you.

You must also tick the 'Whitelist DCP's domains' if you intend to add DCP users as members of your organisation to allow them to perform administration tasks, for example create certificates or generate API Keys. Please note, if you do not see your desired DCP listed, please ask them to create a new DCP ID for you.

Once happy with the nomination details, click the nominate button.

MHHS PROGRAMME Industry-letl. Eleven facilitated		ELEXON Data Integration Portal				•	DCP nominated successfully				
OME	MARKET PARTICIPANT ORGANISATION		MESSAGE CHANNELS		MESS	AGES	PERFORMAN	CE A	AUDIT	MPAN	USERS
	unts > Smart Ener	gy 🗲 DIP ID	1252210018								
		gy 🗲 DIP ID	1252210018					<u>ල</u> සං	evoke DIP	Connection Pre	ovider
DIP ID: 12	252210018		1252210018 Irticipant Role Co	de DI	IP Role Code	DIP ID	Effective	रू Re		Connection Pro	
DIP ID: 12 Details	252210018				IP Role Code SA	DIP ID 1252210018		From Date (
DIP ID: 12 Details	252210018 Imber MPID QAWD	Market Pa						From Date (MPR)	Effective To Da	ate (MPR)







Section 6-Message Channel Set-up

Section 6 – Message Channel Setup

MHHS PROGRAMME Induty wit Encontraction		ELEXON Data Integration Portal			UU
HOME MARKET PARTICIPANT MES ORGANISATION	SSAGE CHANNELS MESSAGES PERFORMANCE				
Market Participants > Big Energy Company > DIP ID 1 DIP ID: 1494431682	.494431682				CD Nominate DIP Connection Provider
Details Company Number MPID 2242424 RDG1	Market Participant Role Code X	DIP Role Code SUP	DIP ID 1494431682	Effective From Date (MPR) 2024-07-04	Effective To Date (MPR) 2025-07-04
Secondary Key	ppy Regenerate			Add Member Y Filter	Q Search
IF-003 - Not configured	Email		Role		Actions
IF-004 - Not configured IF-006 - Not configured	edwardkbowyer@live.co.uk		MP User Admin MP Message Admin MP Certificate Admin MP Analytics Reader		Offboard
User Eleven	• user11@sit.testmp.co.uk		MP User Admin MP Message Admin MP Certificate Admin MP Analytics Reader		Offboard



Section 6 – Message Channel Setup

MHHS PROGRAMME Fourskel Deor/Naver			E L E X O N Data Integration Portal			U
HOME MARKET PARTICIPANT ORGANISATION	MESSAGE CHANNELS MESSAGES	PERFORMANCE				
Market Participants > Big Energy Company > D	NP ID 1494431662					
DIP ID: 1494431682						GD Nominate DIP Connection Provider
Company Number 2242424	MPID RDG1	Market Participant Role Code X	DIP Role Code SUP	DIP ID 1494431682	Effective From Date (MPR) 2024-07-04	Effective To Date (MPR) 2025-07-04
API Keys Primary Key #EDET25E4564719505422365555711 Show Secondary Key #25C197605964585764ec55666857 Show Interface Configuration Please select an interface to configure for this DIP ID Interface IF-001 - Configured Publication Configuration The Publication Configuration Publication URL https://dignenargy.com/W001 Max Message Count	Copy Regenerate Copy Regenerate	▶ Edit	Clear			
Max Payload Size Kb						
Opt Out Preferences Providing the ability to selectively Opt-Out of receive Select Event Code [InitialRegistration] Preference Time Range Description N/A N/A It is not currently possible to Opt Out of [InitialRegistrat SUP DP Ios.	ring messages for specific Event Codes on Interface IF	-001 for this DIP ID				
Λινι⊏						

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Section 6 – Message Channel Setup

MHHS PROGRAMME Fourskel Deor/Naver			E L E X O N Data Integration Portal			U
HOME MARKET PARTICIPANT ORGANISATION	MESSAGE CHANNELS MESSAGES	PERFORMANCE				
Market Participants > Big Energy Company > D	NP ID 1494431662					
DIP ID: 1494431682						GD Nominate DIP Connection Provider
Company Number 2242424	MPID RDG1	Market Participant Role Code X	DIP Role Code SUP	DIP ID 1494431682	Effective From Date (MPR) 2024-07-04	Effective To Date (MPR) 2025-07-04
API Keys Primary Key #EDET25E4564719505422365555711 Show Secondary Key #25C197605964585764ec55666857 Show Interface Configuration Please select an interface to configure for this DIP ID Interface IF-001 - Configured Publication Configuration The Publication Configuration Publication URL https://dignenargy.com/W001 Max Message Count	Copy Regenerate Copy Regenerate	▶ Edit	Clear			
Max Payload Size Kb						
Opt Out Preferences Providing the ability to selectively Opt-Out of receive Select Event Code [InitialRegistration] Preference Time Range Description N/A N/A It is not currently possible to Opt Out of [InitialRegistrat SUP DP Ios.	ring messages for specific Event Codes on Interface IF	-001 for this DIP ID				
Λινι⊏						

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Advice for OpenSSL users

OpenSSL Commands required during onboarding

API Credential Certificate

To generate the CSR and Private Key:

openssl req -new -newkey rsa:4096 -nodes -keyout apicert.key -out apicert.csr -subj "/CN=<enter API credential Subject Name Here>"

To merge the Private Key and Certificate into a PFX:

openssl pkcs12 -export -out apicert.pfx -inkey apicert.key -in apicert.cer -password pass:

mTLS/Signing Certificate

To generate the CSR and Private Key:

openssl req -new -newkey rsa:4096 -nodes -keyout mtlscert.key -out mtlscert.csr -subj "/CN=<enter Subject Name here>" -addext "subjectAltName = DNS:<enter Subject Name here>, DNS:<enter Hostname plus Domain here>"

To merge the Private Key and Certificate into a PFX:

openssl pkcs12 -export -out mtlscert.pfx -inkey mtlscert.key -in mtlscert.cer -password pass:





Adding GlobalSign Admins



Guidance for Certificate Admin

Up to this point in the process, the Certificate Admin has been responsible for the vetting process and completion.

At this point of the process you may wish to assign additional Cert Admins to complete the upcoming sections as more technical knowledge is required to complete the next onboarding steps. Please note, this could be someone from the DCP or a 3rd Party technical Person.

As well as adding the Cert Admin to the DIP they should also be added as a new User Admin within GlobalSign. See next page for details.

Please Note:

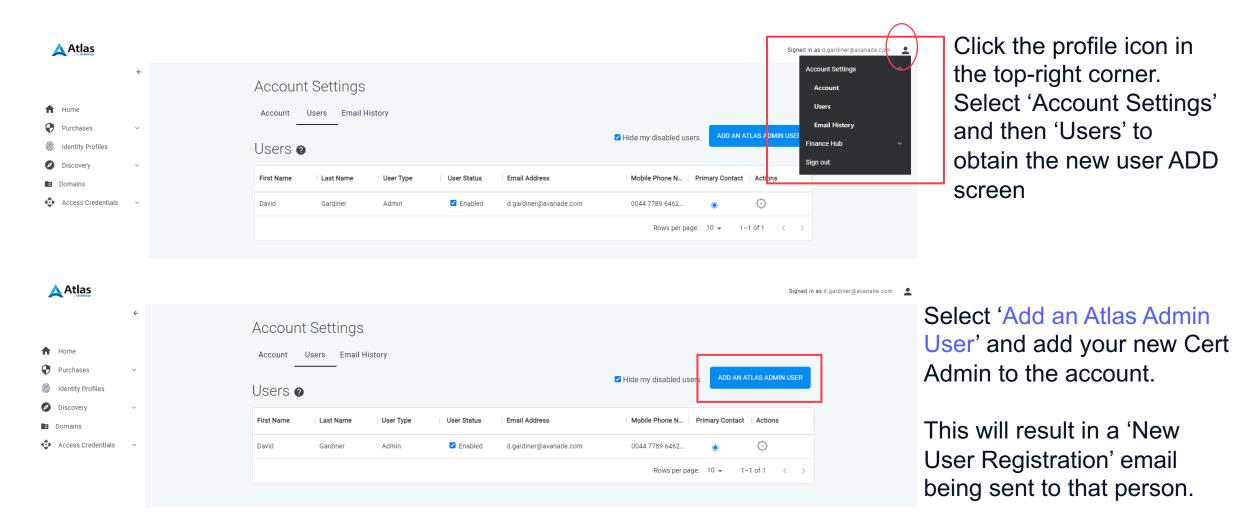
Additional Cert Admins are not mandatory at this point – you can continue through the process should you wish. If you decide to not add a new Cert Admin please ignore the next slide.



Step 4b – Create the PFX Certificate



Assigning a new Cert Admin to GlobalSign Atlas account







Please send in your questions using sli.do #DIP

Questions will be answered at the end of the webinar.

A complete Q&A will be made available on the website.

DIP Queries & Technical Support

- For DIP queries, please contact the DIP mailbox: <u>DIP@mhhsprogramme.co.uk</u>
- For LDSO QT queries, please contact the mailbox: <u>LDSO_QT@mhhsprogramme.co.uk</u>
- For technical support, including access to the Collaboration Base, please contact our IT Helpdesk at <u>ITHelp@mhhsprogramme.co.uk</u>

PPC Bilaterals

- The PPC Team is available for monthly bilateral sessions with all Programme participants
- The sessions are used to enable a two-way conversation between the participants and the Programme wider Programme team members can join these sessions as requested
- Contact <u>PPC@mhhsprogramme.co.uk</u> to schedule your next meeting

MHHS Website

- The <u>MHHS website</u> provides access to publicly available information on the Programme. It includes the latest information on the Programme workstreams, governance, news and upcoming events.
- There is a dedicated page for DIP information to support participants with onboarding: <u>https://www.mhhsprogramme.co.uk/dip/dip-</u> guidance-documents
- You can find the DIP Onboarding FAQ on the DIP guidance page. We recommend all participants use this while completing DIP Onboarding.

The Collaboration Base

- The Collaboration Base is the window to the Programme, providing access to documents for information, collaboration and review
- There is a dedicated page for DIP information to support participants with onboarding: <u>https://mhhsprogramme.sharepoint.com/sites/Mar</u> <u>ket-wideHalfHourlySettlement/SitePages/DIP-</u> Guidance-Documents.aspx
- You can find the DIP Onboarding FAQ on the DIP guidance page. We recommend all participants use this while completing DIP Onboarding.

Newsletter

- · The Clock is the Programme's weekly newsletter
- It provides you with updates and key information to support delivery of the Programme
- It signposts events, plans, reporting, and documents to assist in planning, design, development, testing and delivery
- To sign up, please contact the PPC team <u>PPC@mhhsprogramme.co.uk</u> or register by clicking in the footer of any page on the <u>MHHS</u> <u>website</u>



End of DIP Onboarding Guide

Thank you

