Cabinet Office

Canvass Reform

National Data Matching Instructions

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1. Purpose of the National Data Matching Instructions

1.1. Each year, before conducting the annual canvass, Electoral Registration Officers (EROs) must disclose data to the Minister for the Cabinet Office as part of the national data matching step. This involves the checking of information about existing electors on the register against data held by the Department for Work and Pensions (DWP). The purpose of the exercise is to help identify properties where electors may have changed. This information should then be used to determine the route used to canvass each property.

1.2. The purpose of this document is to supplement the Electoral Commission's guidance on data matching for the annual canvass. This document provides instructions on the process of national data matching which is run by the Cabinet Office.

1.3. These instructions are directed towards the ERO and the duties they carry out. As these duties may, in practice, be carried out by deputies and/or appointed staff, we use the term 'you' throughout this guidance to mean the ERO and whoever is carrying out the ERO's functions on their behalf.

1.4. This is the first version of this document. It was issued in May 2020.

2. Electoral Commission Guidance

2.1. The Electoral Commission has published their full suite of guidance on the reformed canvass, including guidance on data matching. The guidance provides key information on national data matching, including how to plan for this step of the canvass process. To access this guidance, please use the link below:

https://www.electoralcommission.org.uk/i-am-a/electoral-administrator

2.2. To find information on the important considerations for planning your data matching step, please navigate to 'Delivering the annual canvass - England/Scotland/Wales [select your country as appropriate]' / 'Developing plans for the annual canvass' / 'Planning for data matching'.

2.3. To find information on the data matching step in general, please navigate to 'Delivering the annual canvass - England/Scotland/Wales [select as your country appropriate]' / 'Data matching for the annual canvass'.

This section of the guidance includes information on what data matching is, what data you need to include and exclude, how and when to send your data and how to process the results and allocate properties to canvass routes.

3. Legislation

3.1. Regulations amending the annual canvass process in the Representation of the People (England and Wales) Regulations 2001[1] ("the 2001 Regulations") and the Representation of the People (Scotland) Regulations 2001[2] ("the 2001 Scotland Regulations"), and making provision for the canvass data matching, came into force on 31 December 2019 in respect of the parliamentary register for England, Wales and Scotland and the local government register in respect of England[3]; on 22 January 2020 in respect of the local government register in Wales; and on 27 April 2020 in respect of the local government register in Scotland.

3.2. The legislation sets out that the Minister for the Cabinet Office may notify the registration officer in writing as to the requirements in regards to national data matching processing. Specifically, Regulation 32ZBB(2) of the 2001 Regulations and 2001 Scotland Regulations (as amended) provides that the data is to be disclosed in the format and through such an infrastructure system as notified to the registration officer in writing by the Minister for the Cabinet Office. This guidance sets out these ministerial requirements (in a box preceding explanatory or descriptive material on the relevant process). The matching data must be disclosed in such format and through such an infrastructure as set out in the ministerial requirements.[4]

4. What is national data matching?

4.1. A brief outline

4.1.1. Each year, before conducting the annual canvass, you must disclose data to the Minister for the Cabinet Office as part of the national data matching step. The Cabinet Office's Canvass Data Matching Service (CDMS) will then facilitate a comparison of information about existing electors on your register against data held by the Department for Work and Pensions (DWP).

4.1.2. The purpose of the exercise is to help you identify properties where the composition of residents may have changed. This information should then be used to determine the route you will use to canvass each property.

[1] SI 2001/341
[2] SI 2001/497
[3] See The Representation of the People (Annual Canvass) Amendment Regulations 2019 (SI 2019/1451)
[4] See Regulation 32ZBB(2) of the 2001 Regulations and the 2001 Scotland Regulations.

MINISTERIAL REQUIREMENTS

These instructions are issued by the Minister for the Cabinet Office under regulation 32ZBB(2) of the Representation of the People (England and Wales) Regulations 2001 and the Representation of the People (Scotland) Regulations 2001. You must disclose data for the data matching in the format set out in paragraph 4.2.1.

4.2. **What data must I send for national data matching?**

4.2.1. All electors must be matched on their address including postcode, first name and surname as a minimum. Electors must also be matched on their address' Unique Property Reference Number (UPRN), their middle name, previous name, and DOB if you hold this information.

Required for Data Matching	Matched where available
➔ First Name ➔ Surname ➔ Address Line 1 ➔ Postcode	➔ Previous Name ➔ Middle Name ➔ DOB ➔ UPRN

5. Scheduling your national data matching upload

5.1. **When can I do my national data matching upload?**

5.1.1. National data matching will be open from the start of June until the end of August. Please note that national data matching is available on weekdays only, excluding Bank Holidays in England and Wales. National data matching will be open during Bank Holidays in Scotland. There may be an option to book your data matching beyond this date if required, but please email canvass-reform@cabinetoffice.gov.uk to request this. These dates are subject to change where extenuating circumstances require and the Cabinet Office would be in touch to confirm if this occurs.

5.2. **The Scheduling Tool and its purpose**

5.2.1. Each Local Authority / Valuation Joint Board (LA/VJB) will choose the date for their national data matching upload. You must then book your upload data using the Scheduling Tool.

5.2.2. The Scheduling Tool's main purpose is to enable you to book a date for your national data matching upload. It is essential that you book your upload date via the Scheduling Tool.

5.3. Accessing the Scheduling Tool

5.3.1. The Scheduling Tool can only be accessed through a secure link that the Cabinet Office will email to the main three individual work email addresses that we hold for your team, plus your team's public email address. The email will come from: no-reply@registertovote.service.gov.uk.

5.3.2. The link you will be sent is individual to each LA/VJB. Once you have received that email, please click on the unique link in order to access the Scheduling Tool. If you are unable to access this link, please refer to section 9.2 below.

5.4. Preparation before booking your upload date

5.4.1. We would recommend reading all the instructions below so that you have the right information to hand before scheduling your national data matching date.

5.4.2. Importantly, please make sure you are certain that your upload date is correct and will not change before proceeding to book. There is no option on the Scheduling Tool to 'hold a date' for a few days while you make this decision or to amend this date, so you will need to be certain that you are happy with your date before booking it.

5.4.3. You are able to open the link more than once, so if you open the link to see what the system is like and do not book your date, you will be able to re-open the link.

5.4.4. Before you go onto the Scheduling Tool, it is also worth considering what alternative upload dates would fit into your canvass plan in case the date you wish to book has been filled up.

5.4.5. Unless you receive more up to date information from the Cabinet Office, you will not be able to book a date after 31 August via the Scheduling Tool.

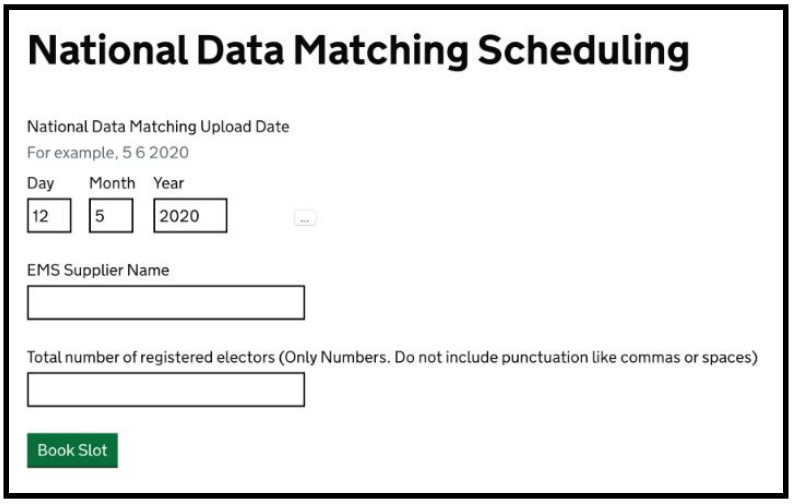
5.5. Booking your upload date in the Scheduling Tool

5.5.1. When you have loaded the Scheduling Tool, you will need to input your:

- National Data Matching Upload Date
- EMS Supplier Name
- Total Number of Registered Electors

For the total number of registered electors, please make sure this number is as accurate as possible. Please do not include any punctuation such as commas and spaces when inputting your total number of registered electors.

Figure 1



5.5.2. Please see Figure 1 above for an example of how the Scheduling Tool will look. Please make sure you format your date as per the format in that example.

5.5.3. Once you have chosen your upload date and filled out the other details required, all users will then need to click 'Book Slot'.

5.6. **How do I know if my booking has been successful?**

5.6.1. If you have been successful in booking your preferred upload date (i.e. there is capacity for you to upload on the date you have selected), you will then see a new screen that reads 'Booking Successful' and that confirms your scheduled upload date. Please see Figure 2 below for an example.

Figure 2

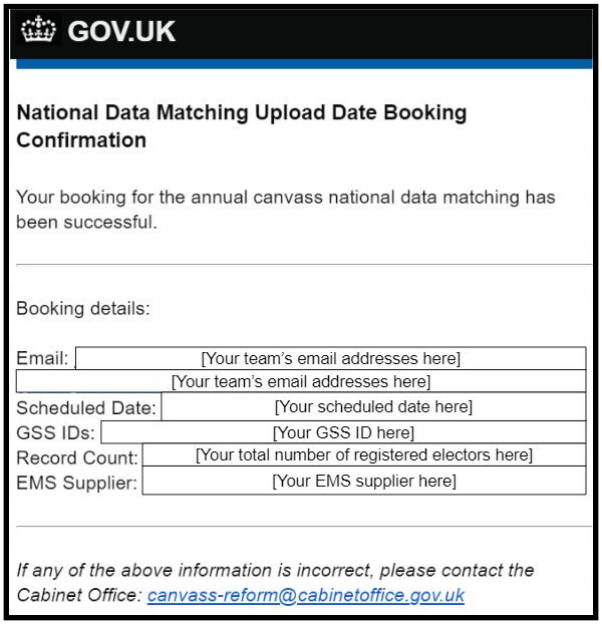
5.6.2. The Scheduling Tool will not allow you to book an upload date if there is not enough capacity for your LA/VJB to be included on your selected date. If the date you have selected is full to capacity, then please repeat the process until you have selected a date that has capacity for your electorate.

5.6.3. If you are able to access the Scheduling Tool but are unable to book an upload date due to a system malfunction (e.g. unable to get to the confirmation screen included above as the webpage crashes), then please try your link again and go through the same steps. If this problem remains, please contact canvass-reform@cabinetoffice.gov.uk.

5.7. Confirmation of booking

5.7.1. Once you have made a booking, you should receive an email from no-reply@registertovote.service.gov.uk that confirms the details of the booking. This email will be sent to the same email addresses that received the Scheduling Tool email with the unique link. Please see Figure 3 below for an example.

Figure 3



GOV.UK

National Data Matching Upload Date Booking Confirmation

Your booking for the annual canvass national data matching has been successful.

Booking details:

Email:	[Your team's email addresses here]
	[Your team's email addresses here]
Scheduled Date:	[Your scheduled date here]
GSS IDs:	[Your GSS ID here]
Record Count:	[Your total number of registered electors here]
EMS Supplier:	[Your EMS supplier here]

If any of the above information is incorrect, please contact the Cabinet Office: canvass-reform@cabinetoffice.gov.uk

5.7.2. Please note that once you have booked your upload date successfully, the link your team was sent will expire and you will not be able to use it again.

5.8. Can I change my upload date after I have already booked?

5.8.1. If you have completed the booking process successfully and then later discover that there has been unforeseen circumstances that require you to change your upload date, you will need to email canvass-reform@cabinetoffice.gov.uk with a request to change your date and an explanation of the change in circumstances.

5.8.2. The Cabinet Office will then manually delete your previous booking and send a new unique link. This will be sent to the same email addresses that were used to send your previous link.

6. Before your upload date

6.1. Do I need to check my connection to the CDMS before uploading?

6.1.1. Most of you should be able to upload without connectivity problems so long as you upload using the same network infrastructure as when you successfully completed your most recent upload and download. By network infrastructure here, we mean ensuring permission settings and firewall rules are in place and the necessary ports are open in order to establish a secure connection.

6.1.2. As a result, you need to ask your local IT team whether any system changes have been made since you successfully did your last upload and download well in advance of your national data matching upload date. Please see section 9.7 below if your local IT team confirms that there has been a change to your network infrastructure and section 9.8 if you are unable to obtain an answer from your local IT team.

6.1.3. Checking this with your IT is particularly important if you intend to attempt your national data matching upload from a new working location; for example, if you attempt it from your home instead of the office. If you are unsure, we would recommend replicating the situation and network infrastructure of your last successful upload/download to CDMS as closely as possible.

MINISTERIAL REQUIREMENTS

These instructions are issued by the Minister for the Cabinet Office under regulation 32ZBB(2) of the Representation of the People (England and Wales) Regulations 2001 and the Representation of the People (Scotland) Regulations 2001. You must disclose data for the data matching through the infrastructure system as set out in paragraph 6.2.1.

6.2. How do I upload my data for national data matching?

6.2.1. On the day you have booked to upload your data, you must upload the relevant electors or 'records' to the CDMS so that they can then be matched against DWP data.

6.2.2. For practical instructions on how to do the upload, please consult the detailed instructions provided by your EMS supplier.

6.2.3. You must start uploading your data before 10.00am on your booked upload date. This will help the Cabinet Office to return your results in a timely manner by increasing the likelihood that your upload has completed in time for the data to be sent to DWP on the same day.

6.2.4. If you think you will be unable to begin your upload before 10.00am, please contact canvass-reform@cabinetoffice.gov.uk well in advance.

6.2.5. Please note that we cannot guarantee when the next available upload date will be if you do not upload your data on time on your booked upload date.

6.2.6. We would recommend that you ensure you have the correct EMS updates installed well in advance of your upload date.

7. Downloading your results

7.1. How and when do I download my results?

7.1.1. The service level agreement with DWP for the Cabinet Office to receive your results is five working days; as with verification, we will endeavour to return the match results sooner.

7.1.2. You will receive an email from the Cabinet Office confirming when your results are available. Please refer to your EMS suppliers instructions for an explanation of how your download will work.

7.1.3. It is important that your results are downloaded as soon as possible. Please be aware that due to data retention rules your data may be deleted if you do not download your results.

8. National Data Matching Checklist

Action	Completed
Work out your preferred upload date for national data matching, including preferred alternatives, as part of your canvass planning.	
Once you have received a link to the Scheduling Tool, use it to book your national data matching upload date.	
Speak to your local IT team to make sure you are able to connect to the Cabinet Office's CDMS well in advance of your upload date.	
Ensure you have the correct EMS updates installed well in advance of your upload date.	
Upload your data to the CDMS before 10.00am on the date you have booked.	
Once you have received a notification that your results are ready, download your data or check that it has downloaded automatically, depending on your EMS.	

9. Frequently Asked Questions

9.1. **Why is it essential that I book my upload date using the Scheduling Tool?**

9.1.1. Firstly, because there is a limit on how many electors or 'records' can be sent to DWP for national data matching on any given day, the Scheduling Tool ensures that the limit is not exceeded.

9.1.2. Secondly, the Scheduling Tool also makes sure that the file you upload is sent to DWP for national data matching on the correct date. Attempting to upload on a date that you have not booked via the Scheduling Tool will mean that we cannot guarantee when your data will be sent to DWP for national data matching. The Scheduling Tool automatically updates the CDMS so that the latter knows whose data it can expect each day. As a result, the latter is less likely to send your data to DWP on a date that you have not booked because it will not be aware that the data is there.

9.2. **What if my Scheduling Tool link does not work?**

9.2.1. The link requires a PSN connection to open the Scheduling Tool. If you try accessing the Scheduling Tool using an unsecure PSN connection, then the webpage will not open.

9.2.2. If the link does not work, please try copying and pasting the booking link into another browser (please avoid using Internet Explorer).

9.2.3. If the link does not work in the new web browser, please try the link again on a computer/laptop where you have previously been able to download your IER response file, if you are not doing so already.

9.2.4. If you do not have access to the Scheduling Tool on the computer/laptop described in section 9.2.3 either, please click on this link or copy and paste it into your web browser: https://api.registertovote.service.gov.uk/psn_status. The ideal response to receive here is a 'PSN successful' response. Whether or not your PSN connection was successful, please now contact your local IT team, explaining the access problem you are experiencing and including:

a) The results of this PSN test. Your PSN status should help to diagnose the problem.
b) A request for them to check whether the link is being blocked by any firewalls and that all the relevant ports are open. For example, some firewalls only accept 'api.registertovote.service' if it falls at the start of the URL, but the Scheduling Tool's link does not include 'api.registertovote.service' until later on, and so this may need to be whitelisted.
c) Annex A below, where there is a Connectivity Checklist for the Scheduling Tool that will help them to give you access.

Please note that the Scheduling Tool will be open and available through the link unless you receive communications from the Cabinet Office stating otherwise.

9.2.5. If your local IT team confirms that you should have access to this link and still cannot open it - or if they are unavailable - please forward the email that includes your Scheduling Tool link to canvass-reform@cabinetoffice.gov.uk and add:

- Your first preference upload date
- Your second preference upload date
- Your EMS supplier name
- Your total number of registered electors

We will then endeavour to book your upload date on your behalf as soon as we can. While we have stated elsewhere that you should not forward the email outside of your organisation, this is an exception to that rule.

9.2.6. Once your date is booked, please make sure to check the details of your booking are correct in your confirmation email. If you notice any of the details are incorrect, please contact the Cabinet Office immediately.

9.3. **I am a shared service/VJB. Will I receive one Scheduling Tool link for each council under my remit?**

9.3.1. Most shared services and VJBs will receive one Scheduling Tool link. You would only receive separate links if you have separate digital infrastructure within your team. If you have received one link and believe that you should have received more, or vice versa, please email us as canvass-reform@cabonetoffice.gov.uk.

9.3.2. If you have separate digital infrastructure for each council, please ensure you input the right electorate number for each council when you use each of your Scheduling Tool links.

9.4. **I am a shared service/VJB. What if I cannot book the same upload date for all my councils?**

9.4.1. Please contact us at canvass-reform@cabinetoffice.gov.uk if you cannot book your upload dates for all your councils on the same day and we will provide assistance.

9.5. **My council is merging with/de-merging from another authority. How will this affect my upload and use of the Scheduling Tool?**

9.5.1. Please make sure you inform canvass-reform@cabinetoffice.gov.uk if this is the case so that we can ensure your national data matching process is properly configured to match your digital infrastructure.

9.5.2. Authorities that have completed a full merger of their electoral services function over the last few years will not usually be contacted in this process and will instead be treated as a single entity.

9.6. **What happens if I do not not book an upload date via the Scheduling Tool?**

9.6.1. You will receive reminder emails on a regular basis until you have booked your upload date.

9.7. **What should I do if my network infrastructure has changed since I last conducted an upload to/download from the CDMS?**

9.7.1. If your IT team has made changes to your network infrastructure and you need to check connectivity to the CDMS then please refer to the Connectivity Checklist below in Annex B.

9.7.2. If you miss your scheduled upload date due to connectivity problems, we cannot guarantee when the next available upload date will be.

9.8. **What if my local IT team is unable to provide any information regarding system changes that may have taken place since my last successful upload/download to CDMS?**

9.8.1. If you are unable to obtain clarity from your local IT team regarding any system changes, the success of your upload may be affected. However, there are provisions you can take in an attempt to mitigate that risk.

9.8.2. In this circumstance, you should endeavour to replicate the situation and network infrastructure of your last successful upload/download to CDMS as closely as possible. For example, you may consider uploading/downloading data from the same workstation in the office, rather than a laptop at home, in order to increase the likelihood that the data transfer will be successful. This setting is more likely to have the same pathways into CDMS.

9.9. Is there anything else I need to do before my upload date?

9.9.1. As mentioned in section 6.2, you will also need to ensure you have installed the correct EMS updates to conduct national data matching. Your EMS supplier will contact you to inform you of any required updates. If you have any questions regarding EMS updates, please contact your EMS supplier and/or local IT team as appropriate.

9.9.2. It is important to ensure that you have the correct EMS version installed to complete national data matching on your scheduled upload date. In the event that you fail to upload on your scheduled upload date due to having an old version of your EMS installed, we would not be able to guarantee when the next available upload date would be.

9.10. What should I expect in my results?

9.10.1. For guidance on what results you will receive, please refer to the Electoral Commission guidance referenced in section 3 of this document.

9.10.2. Please note that national data matching occurs at the elector level, which means each elector is matched individually against data held at DWP. When the national data test results are downloaded, you are receiving those individual match results. Your EMS will then aggregate the results - including any local data matching that you may have conducted - to provide you with your property level match results.

9.11. When will I receive my data accuracy score?

9.11.1. Your data accuracy score for national data matching (and any local data matching that you may have completed) is only available after you have completed your canvass and published your revised register.

9.11.2. This is because data accuracy scores are a comparison between the matching results and the information you found out in the canvass or, in other words, the information on your revised register. As a result, you need to have the revised register published to generate the correct data accuracy score.

9.11.3. Please note that a data accuracy score indicates each data set's ability to accurately indicate which route properties should have gone down under the reformed canvass. It is not an exact calculation of the accuracy of that data set itself.

9.11.4. Your EMS will generate your data accuracy score(s) once you have published your revised register. Please consult your EMS supplier's instructions or speak to your EMS supplier for further information regarding accessing your data accuracy score.

Annex A - Accessing the Scheduling Tool - Connectivity Checklist

This annex is intended to help local IT teams within LAs/VJBs to diagnose and resolve issues when accessing the Scheduling Tool that enables electoral services teams to book their national data matching upload dates for the annual canvass. Problems connecting to the Scheduling Tool are usually caused by network settings at the local site level. No changes to the Cabinet Office's canvass application and firewall configuration have occurred and therefore issues on the application side are unlikely. If an LA/VJB experiences difficulty when accessing the Scheduling Tool, we suggest that you start investigations by carrying out the following tasks to diagnose the problem.

1	Check local IT firewall settings: a. Check your firewall rules and confirm that they are allowing traffic to and from scheduling-canvass.registertovote.service.gov.uk. b. If not, please look at your firewall logs for outbound and inbound traffic to ensure that there are no denials.
2	Confirm the following settings have been configured correctly, as seen below: a. TCP Port 443 is open b. Scheduling Tool IP is xx xxx 81.147. c. If you are working remotely, ensure that the address you are working from is a PSN IP address that has been whitelisted. A PSN IP address Should start with 51 xx xxx xx.
3	Check to see where your PSN connection is routed. a. If it is routed through your EMS software supplier, please try to connect from your software and ensure that the firewall is configured to allow traffic to and from scheduling-canvass.registertovote.service.gov.uk. b. A possible solution may be to add a conditional forwarder on your DNS for scheduling-canvass.registertovote.service.gov.uk with the IP server mentioned above. c. If you are going through a proxy server, please ensure the traffic is routed correctly by checking the settings. If that does not work, please contact your EMS software supplier. d. You can also add a firewall rule in the PSN firewall that allows access to the IP address.

Annex B - National Data Matching Upload/Download Connectivity Checklist

This annex is intended to help local IT teams within LAs/VJBs to diagnose and resolve issues when connecting to the CDMS. Problems connecting to the service are usually caused by network settings at the local site level. No changes to the Cabinet Office's canvass application and firewall configuration have occurred and therefore issues on the application side are unlikely. If an LA/VJB experiences difficulty connecting to the service, we suggest that you start investigations by carrying out the following tasks to diagnose the problem.

1	Check that you are connected to the correct PSN host: Full hostname: *api.registertovote.service.gov.uk* PSN IP address: *xx.xxx.80.84* Port: *443* Server type: *Web* MX Pref Change Type: *Add domain*
2	Run connectivity tests: a. Check that you can resolve the xx.xxx.80.84 IP address to the 'api.registertovote.service.gov.uk' hostname using either ping or nslookup. b. Check your PSN connectivity: Using a web browser that is on the same machine as the EMS system, load the following URL: https://api.registertovote.service.gov.uk/psn_status. If connectivity is working, the page should display the message: *'Connectivity test successful'.* c. Run any connectivity tests built into your EMS.

3	Check local IT settings (the majority of connectivity issues are caused by misconfiguration at the local site level): a. Check the configuration of the conditional forwarder: The conditional forwarder needs to be set up on the DNS server to the following domain name: registertovote.service.gov.uk. The DNS resolvers for connection over PSN should be: ● Xx.xx.255.42 ● Xx.xx.255.58 b. Check firewall and routing: The route on the firewall that points to the PSN should be xx.xxx.0.0/17. If this is incorrect, the IP address for the host cannot be resolved. You should also check that the firewall Network Address Translates (NATs) the source IP address to a registered address through the firewall. Check firewall logs for outbound and inbound traffic to ensure no denials. c. Check your proxy settings: Check with your EMS supplier that the proxy is set correctly within the EMS application.
4	If you still can't connect: a. Contact your EMS supplier to troubleshoot the EMS software to ensure there is no issue with the EMS software itself. b. Provide the IER Support Centre with your PSN IP address so we can check what is happening to your traffic.