

(DfI) Roads EMERGENCY RESPONSE PLAN

WINTER SERVICE SYSTEMS BUSINESS CONTINUITY PLAN



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Signature		Date	
Role	Senior Responsible Owner		

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1. PURPOSE OF THE SERVICES TO BE MAINTAINED

The aim of Winter Service is to help main road traffic move safely and freely in wintry conditions by spreading salt at the most effective times. To carry out this vital service, the purposes of the (DfI) Roads Winter Service Systems are:-

- (a) To assist the Winter Service Duty Controller determine the Salting Action, (ie.) assess the need for action and the level of salting required on the road network in each of their areas.
- (b) To provide administration for the Winter Service function so that all details of decisions taken, problems encountered and salt used during the winter season are held in a database and that correct and up to date information is transmitted to the public via the media.

2. BACKGROUND

The Winter Service Season starts on the 1st October and ends on the 30th April each year. In order to determine the Salting Action, WS Duty Controllers for each Divisional area download and evaluate weather information from the bureau, (VAISALA in Birmingham), and consider where necessary, feedback on road conditions from scouts on the ground. Vaisala operate the bureau and forecast delivery service. Weather forecast information used in the decision making process includes thermal maps of the salting schedule, road surface forecasts graphs and 24 hour text forecasts and amend forecasts.

Vaisala software is used to download this information.

Once the WS Duty Supervisor is informed of the Salting Action, the WS Duty Controller records the decision on the Winter Service database. It is the responsibility of the WS Duty Supervisor to implement the ‘Salting Action’ called by the WS Duty Controller and ensure that all the details of the Salting Operation, such as salt usage, routes to be salted, start and finish times and problems encountered, are entered into the database. (It is the WS Duty Controller’s responsibility to confirm that WS Duty Supervisors have responded to the ‘action call’ and the salting operation has started.)

The Lead Communicator examines this data and relays information on our salting activities to the broadcast media, to ensure the latest news on road conditions is available to motorists, as well as senior management in (DfI) Roads.

Various statistics and reports can be produced as required from the system by (DfI) Roads Headquarters and Divisional staff to ascertain the ‘actions called’, salt usage, etc.

2.1 Personnel

Staff involved in the overall system are as follows: -

1. There are two (DFI) Roads Headquarters staff, which as Client for the system, carry out administrative duties, produce reports and maintain an overview of the system.
2. There are usually five to six Lead Communicators, working on a rota. The Lead Communicator ‘on duty,’ sends an early morning Media Report to the general public, via the Media Distribution List.

3. There are approximately 25 WS Duty Controllers, who work on a rota and determine the salting action across all 4 Divisions. There are 6 WS Duty Controllers on call at any one time, with one Lead Communicator.
4. There are approximately 150 WS Duty Supervisors based in 20 depots across the province, who work on a rota and direct operations at the Salting Depot.

3. HARDWARE AND SOFTWARE

3.1 Hardware

Lead Communicators and WS Duty Controllers have 3G activated laptop PCs that can also operate on the Local Area Network or from remote location via ADSL modem connection to the DRD WAN. (3G option where the Service is available).

All WS Duty Supervisors have access to the intranet application only on standard desktop PCs on the Local Area Network. The application data is held on a central SQL server (the RdsClarSql1 server currently located in Clarence Court) with the front-end interface provided via a web site at <https://pr-drd-iis12tp4/DFI/dfiportal/> This is accessed from the DfI Insite intranet site – both DfI Insite and Winter Service are hosted on the web server RdsClarNet (located in Telecom House).

3.2 Software

The software for the system falls into 2 categories

- Vendor software supplied by Vaisala that provides thermal mapping and weather data at the various (DfI) Roads Sensors, situated around Northern Ireland. The current Memorandum of Understanding (MOU) between (DfI) Roads and the Met Office covers period from (01/10/2015) to (30/09/2020).
- Database application provided and supported by DfI ISB.

4. SYSTEM SUPPLIER SUPPORT - (IE). VAISALA SUPPORT

VAISALA operate and manage the bureau and forecast delivery service during the Winter Service season. Vaisala's Technical Support service is operational 24 hours a day and includes a Helpdesk who respond to problems as they arise – (ice.technical.support@vaisala.com).

If Vaisala are unable to deliver forecasts or/and updates, the Helpdesk can usually access forecast information which can be emailed to WS Duty Controllers directly. Vaisala also have access to some sensor data which they can normally email or fax as tabular or graphical screen shots from the software. Vaisala can also dial stations directly and provide actual station data, if required.

5. FAILURE OF NICS NETWORK.

In the event of complete failure of the NICS network WS Duty controllers and Lead Communicators will need to communicate with the Winter Service providers by Telephone as per Table 1.

5.1 Service Provider details and URL Addresses

Table 1

Service Provider	Contact Details & Web Address
IT Assist	Tel:02890 / 764 355 (Email - ITAssist@nigov.uk)
	Web: http://itassist.nigov.net/
Service Provider	Contact Details & Web Address
MET. Office	Tel: 01392 88 6666 (Email - servicedesk@metoffice.gov.uk)
	Web: http://www.metoffice.gov.uk
Service Provider	Contact Details & Web Address
Irish Salt Sales Ltd.	Tel: 02893 351 151(Email - sales@irishsaltmining.com)
	Web: http://www.irishsaltmines.co.uk
Service Provider	Contact Details & Web Address
Vaisala	Tel: 0121 683 1269 (Email – ice.technical.support@vaisala.com)
	Web: https://rds.vaisala.com/apps/login

6. SYSTEM FAILURE / UNAVAILABILITY

6.1. Temporary return to Clerical Procedures

A temporary return to clerical procedures involves returning to manual collection of data in the event of systems failure and manual analysis of that data, if necessary, to ensure continued, even if limited, delivery of essential services.

The procedures will outline the degree to which service delivery will be limited and the period of time before which an alternative approach, such as the implementation of reciprocal agreements, is required. On restoration of the system, the clerical procedure will involve uploading data, recorded on hard copy or other format to update the system.

7. DOCUMENT CONTROL

7.1 Ownership

This Business Continuity Plan is owned by (DfI) Roads Headquarters and more definitively the (DFI) Roads-HQ Emergency Planning Officer who is responsible for ensuring that the BCP remains fit for purpose.

Any changes or corrections in relation to the clerical procedures in this plan should be addressed in the first instance to the (DfI) Roads Headquarters Network Services Winter Service Representative.

This document no longer details the IT recovery of the “Winter Service Systems” and the details have been removed at the request of the (DfI Core) Information Systems Branch , (ISB), Business Relationship Manager. These aspects of the system are now under the control of ISB in conjunction with IT Assist. ISB now have full responsibility for these areas, which are covered in the “Winter Service Disaster Recovery Plan.”

The development, update and testing of the “Winter Service Disaster Recovery Plan” is under the full control of ISB, who now have full responsibility for these areas.

7.2 Distribution

All (DfI) Roads staff have access to electronic copies of this document, which is held on the DfI Insite intranet site. The electronic version of the document is the only official controlled version. Any printed copies are considered to be uncontrolled and it is the responsibility of the holder to ensure that a printed copy is the correct version, before use.

7.3 Distribution List

Name	Organisation (& Title)
Conor Loughrey	(DfI) Roads (Director of Network Services) – (Acting)
Joe Lawson	(DfI) Roads (Principal Engineer of Network Maintenance, (DFI) Roads-HQ)
John McIlwrath	(DfI) Roads - Emergency Liaison Officer, Network Maintenance, Winter Service, (DFI) Roads-HQ.
Phillip Anderson	(DfI) Roads - Network Maintenance, Winter Service, (DFI) Roads-HQ.
Network Maintenance Managers	(DfI) Roads (Divisions)
Winter Service Duty Controllers	(DfI) Roads (Divisions)
Lead Communicators	(DfI) Roads (Divisions)
Martin Lavery	(DfI) Roads - Staff Officer - Strategic Planning Branch, (DFI) Roads-HQ.
Head of ISB Service Operations	DfI Core Information Systems Branch, (DFI) Roads-HQ.

7.4 Amendment Record – (Document History)

Document Version	Date	Comment
1.0 BCP for Project Board Approval	15/5/07	
2.0 Amendment to Winter Service Duty Controller Checklist	29/10/07	
3.0 Amendment to document to include contact details reference, Web System URL's and Service provider contact details for MET Office; VAISALA; Irish Salt Sales Ltd. And IT Assist.	01/04/11	
4.0 3G Business case approved and Project to supply WSD Duty Controllers and Lead Communicators with 3G initiated – (for users where network coverage is available). Amendment to document to include revised Transport NI Emergency Response Levels.	Aug. 10 01/11/11	
5.0 Rewrite based on TNI BCP template	01/04/12	
6.0 Update to reflect move from Roads Service to Transport NI	July 14	
7.0 Update to reflect move from Department For Regional Development to Department for Infrastructure	1 Aug. 16	
8.0 Update to reflect personnel changes	30 Aug.16	
9.0 Update to reflect changes in the Incident Terminology from 'major' to 'catastrophic' and also to reflect changes in the Outlook Setup in the Procedures contained within the Annexes.	Mar. 17	
10.0 Update in preparation for EU- Exit. Also update to reflect the branding from Transport NI to Department for Infrastructure (DfI) Roads.	Jan. 19	

7.5 Associated Documents

Document Version	Date	Comment
Winter Service Systems Business Continuity Plan – Risk Analysis, Risk Impact Assessment & Business Continuity Options – Version 2	21/03/07	
NICS Secure Remote Access implementation review	09/12/09	
ISB - Winter Service IT Service Continuity Plan	16/12/11	DR1/11/8127
Memorandum of Understanding between DRD ISB and DRD Transport NI 2012	07/03/12	DR1/11/215005
IT Assist / DRD Service Level Agreement http://itassist.nigov.net/it-assist-service-level-agreement.pdf	01/04/09	See link
The ITAssist Service Catalogue is with all Departments, there is no specific IT Assist / DfI Service Level Agreement. http://itassist.nigov.net/our_services	29/1/19	IN1/19/59209

8. PLAN OVERVIEW

This document sets out the contingency and business continuity arrangements and procedures developed to ensure continuity of business of the (DfI) Roads Winter Service Systems in the event of failure, and to ensure continued operation of Winter Services in the period immediately following system failure and during restoration of the system.

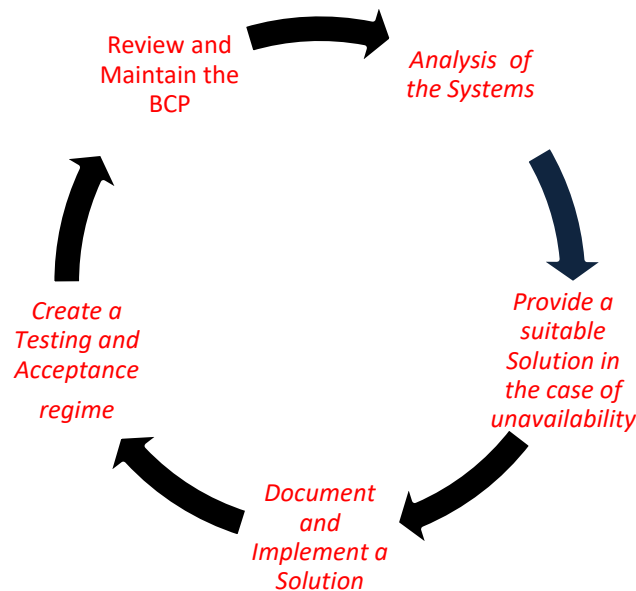
The contingency and business continuity arrangements are based on a temporary return to clerical procedures as the most appropriate contingency and business continuity arrangements for the Winter Service Systems.

This document is to be communicated to all users of the Winter Service Systems and the contingency and business continuity arrangements are to be tested on an annual basis, by Divisions, prior to the start of the Winter Service season or following any significant change to the system or the plan.

This document is to be updated as necessary following tests or significant changes to the contingency or business continuity arrangements. Details of tests and revisions are to be recorded in the table in Annex 1- Record of Tests and Revisions.

The scenarios considered, business continuity arrangements recommended and ownership of these arrangements are summarised in the Incident Scenario Plans Table on page 12, with references to the appropriate section of this document.

Figure 8.1: Winter Service BCP Structure



9. INCIDENT SCENARIOS

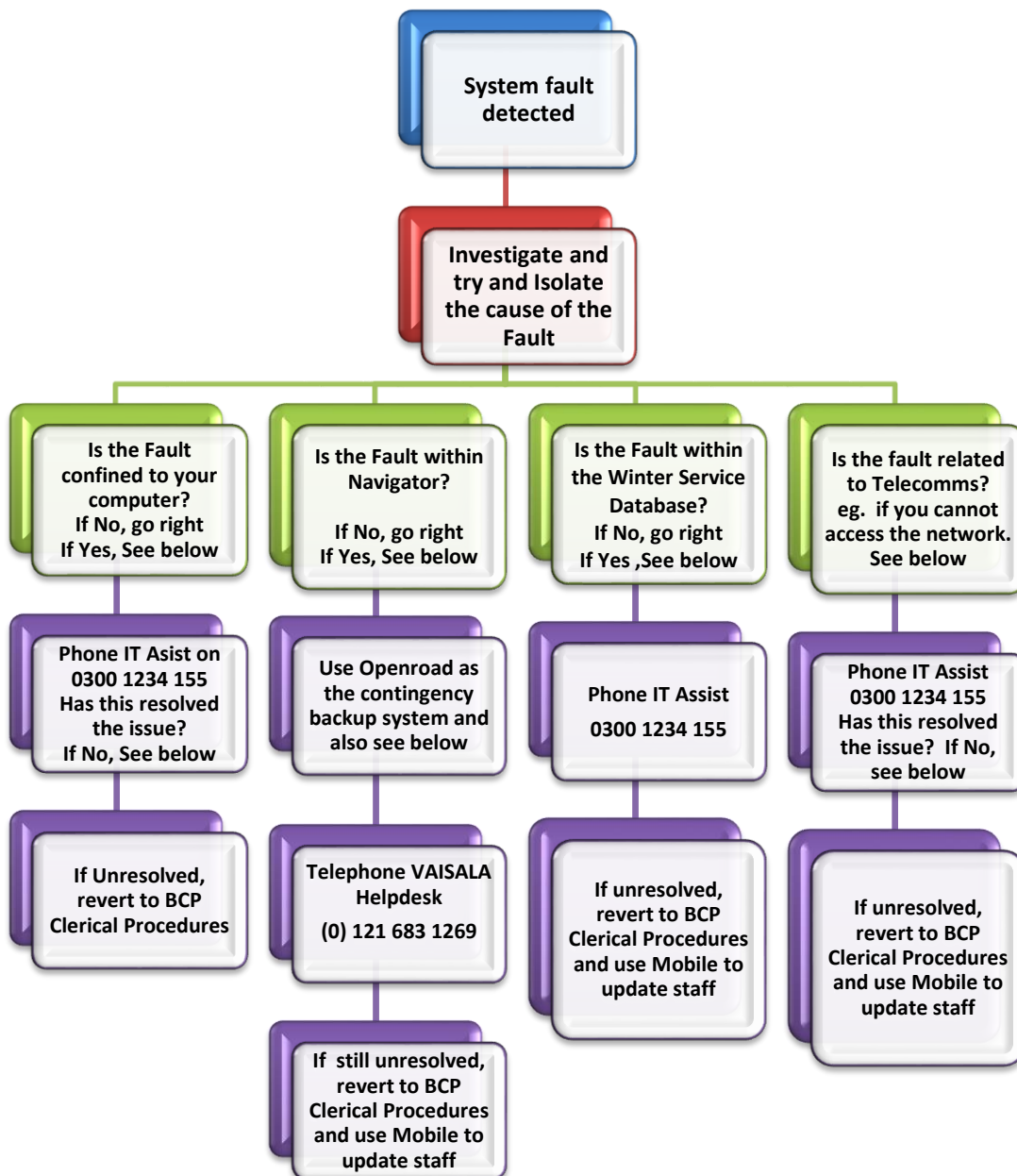
In the event of Major or Localised Destruction at a Regional Office, WS Duty Supervisors will not be able to input their information onto the Winter Service Database.

In the event of Unavailability of the Departmental Network, none of the Regional Offices will be able to input their information onto the Winter Service Database or send Incident Reports, (DFI) Roads-HQ will not be able send upward reports and secure remote access will not be possible from home.

Without Secure Remote Access, no weather forecasting information will be available to WS Duty Controllers, (i.e.) no text forecast, site graphs, thermal maps or camera images and no Winter Service Database to record the WS Duty Controllers Decision or send a Lead Communicator's early morning Media Report.

The recommended response to these situations is to implement a temporary return to 'Clerical Procedures'.

9.1 Flow Diagram of Winter Service Systems Business Continuity Plan Decision tree



9.2 Incident Scenario Plans

Scenario	Recommended Response	Owner(s)	Page Number
Major destruction at a Regional Office or Depot involving physical damage to all system assets and significant damage to accommodation, at that location.	A temporary return to Clerical Procedures should be implemented. Reciprocal arrangements between Regional Offices can be considered for longer term unavailability on a case by case basis.	John McIlwrath - Network Services Phillip Anderson - Network Services	13-16
Long term system unavailability at a Regional Office or Depot , rendering the system assets unusable at that location, during a critical period.	A temporary return to Clerical Procedures should be implemented. Reciprocal arrangements between Regional Offices can be considered for longer term unavailability on a case by case basis. See Divisional Premises BCP's	John McIlwrath – Network Services Phillip Anderson – Network Services	13-16
Major destruction at Headquarters involving physical damage to all system assets and significant damage to accommodation, at that location.	ISB Disaster Recovery Plan	Service Operation Team ISB	
Localised destruction at Headquarters involving physical damage to all system assets, but only minor damage to accommodation at that location.	ISB Disaster Recovery Plan	Service Operation Team ISB	
Long-term unavailability of the departmental network , rendering the system unusable during a critical period, as a result of inability to transfer data across the network.	Temporary return to Clerical Procedures.	John McIlwrath – Network Services Phillip Anderson – Network Services	13-16

10. OBJECTIVES OF THE PLAN

The objectives of this plan are to:-

- Maintain continuance of service in the event of a service affecting failure.
- Describe the processes and procedures to be used to minimise the impact on the business processes should a service failure occur, utilising existing service processes in place where appropriate
- Describe the processes required to be taken in order to address the impact of a service failure.
- Define roles and responsibilities during an incident.

10.1 Audience

This plan is mandatory reading for all (DfI) Roads Staff involved in providing the Winter Service programme.

Each member of the Team will be required to review and print this plan and have it available when required. This will provide easy access to information needed in the early stages of a system failure.

By using this plan and referring to the appendices, users have access to all the information required to implement this BCP.

Other parties that may be involved with the recovery process can access a copy of this Business Continuity Plan, which is available on the Emergency page of the DfI Intranet .

Parties may include:-

- Section Engineers
- Winter Service Duty Controllers
- Strategic Planning Branch
- Lead Communicators
- The Director of Network Services
- ISB
- The Met Office

The overarching ‘NICS Communication Plan’ will detail any internal Departmental procedures that must be followed in the event of a Disaster.

11. ORGANISATIONAL ROLES AND RESPONSIBILITIES

11.1 Overview

The following section provides details of the (DfI) Roads Continuity structure and the roles and responsibilities identified as being required to manage an incident.

The following tables summarise the ‘clerical procedures’ to be followed by ‘key personnel’. These should be used in conjunction with Winter Service Checklists, which are part of the Winter Service Emergency Response Plan and deal with roles and responsibilities of ‘key personnel’.

11.1.1 Winter Service Duty Controller

	DUTY CONTROLLER	Tick Box
1	Consult Met Office by phone about the weather forecast before determining Salting Action	
2	If required, initiate ‘scouting’ to help you in the decision making process	
3	Inform Duty Supervisors (either directly or indirectly via CONTROL*) of the Action Code, time of action, routes to be treated and any additional information or specific instructions including any amendments to the ‘Action Call’	
4	Confirm (either directly or indirectly via CONTROL*) that Duty Supervisors have responded to the ‘Action Call’ and that the ‘salting operation’ has commenced as per instructions.	
5	Retain record of Decisions - use blank copies of Winter Service database input forms to record decisions (NB. These need to be copied in advance and ready for use)	
6	When notified, continue to liaise with the Met Office (and Section Engineers during normal working hours if necessary) about ‘amends to the forecast’ and review Action Code	
7	If required, continue to use scouts on the ground and liaise by phone about road conditions	
8	Send text or phone Lead Communicator detailing Salting Action and also to report any ‘newsworthy items’.	
9	Input decisions onto the WS Database as soon as possible	
10	Fax copy of (p.m.) and (a.m.) Action Calls to the DFI Roads Incident Desk (Fax. No.028 9054 0815) by 09:30 the following morning	

1.1.2 Winter Service Duty Supervisor

	DUTY SUPERVISOR	Tick Box
1	If required, carry out scouting under the direction of the Duty Controller	
2	Report observations by telephone to Duty Controller	
3	Ensure receipt of 'Action Call' determined by Duty Controller	
4	Ensure drivers are aware of the Action Code, time of action, rate of spread, routes to be treated and any additional information or specific instructions including any amendments to the 'Action Call'	
5	Inform Duty Controller by phone of any significant difficulties encountered during the 'salting operation' and also to report any 'newsworthy items'.	
6	Retain records - use blank copies of WS database 'input forms' to record scouting information, Salting Action and problems encountered (NB. These need to be copied in advance and ready for use)	
7	Fax copy of Winter Service Database 'input forms' to Section Engineer (for input to database when available) and Duty Controller	
8	Contact Lead Communicator by telephone on an exception basis and report delays in the operation or problems encountered (NB. where possible before 06:00 for a.m. actions)	

11.1.3 Lead Communicator

	LEAD COMMUNICATOR	Tick Box
1	If necessary, liaise with Met Office by phone about the Weather Forecast including National Severe Weather Warnings	
2	Assess telephone reports from Duty Controllers and Duty Supervisors	
3	Compile Media Report	
4	Contact Duty Press Officer by phone and pass on Media Report	
5	When necessary (Level 1 or 2 only), inform DRM's of situation	
6	Fax copy of Media Report to the DFI Roads Incident Desk (Fax. No.028 9054 0815) by 09:30 the following morning	

11.1.4 Section Engineer

	SECTION ENGINEER	Tick Box
1	During 'normal working hours' ensure Incident Reports are Faxed by the Section Office to the DFI Roads Incident Desk (Fax. No.028 9054 0815) and passed on to the Network Maintenance Manager. Incidents that occur 'outside normal working hours' – Fax 'Follow-Up' Reports to the DFI Roads Incident Desk by 09:30 the following morning	
2	If necessary, during 'normal working hours', consult the Duty Controller about the weather forecast	
3	If necessary, continue to liaise with the Duty Controller about 'amends to the forecast' and review Action Code	
4	Ensure receipt of Winter Service Database 'input forms'	

	from Duty Supervisor and input into the database when available	
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11.1.5 DFI Roads Incident Desk

	DFI ROADS INCIDENT DESK	Tick Box
1	If necessary, liaise with Met Office by phone about the Weather Forecast including National Severe Weather Warnings	
2	Assess Fax Reports from Section Offices	
3	Compile Incident Reports	
4	Pass on Incident Reports to Press Office and (DfI) Roads Senior Management	

* CONTROL – the Control Centre Telephone operator.

The (DfI) Roads Emergency Contact List contains land line telephone numbers, mobile telephone numbers and fax numbers of key personnel. These lists are updated twice yearly by (DfI) Roads-HQ and distributed to Divisions for use in an emergency.

* Divisions are responsible to ensure that their key staff have access to the latest Emergency Contact List.*

12. RESPONSE TO A SYSTEM FAILURE

12.1 Failure

Any party operating the Winter Service programme may declare a ‘system failure’ and shall communicate that fact to the other, by the most expeditious manner possible.

The Full Business Continuity Plan is never invoked automatically, but is invoked by (DfI) Roads Headquarters staff, once a full system failure has been identified and confirmed.

Operationally, many incidents are resolved locally, particularly IT or services related incidents without involving or invoking the full Business Continuity Plan.

Incidents may directly impact upon IT Infrastructure; may impact upon both business and IT Infrastructure or may impact only the business with no direct IT Infrastructure impact. However, it is still essential that the IT Service Desk are informed and updated about any incidents, so that they may facilitate and assist in any Continuity activities.

The current BCP defines incidents that are *minor* (eg. no immediate impact on staff or business activities) or of a short duration (expected restoration within 2 hours), as unlikely to invoke the BCP.

12.2 Incident Classifications

Incident Class	Incident Duration	Action 1
Expected Restoration within 2 hours	< 2 hours	Inform the System Owner and highlight to staff, but no action taken.
Short Term Disruption Expected Restoration within 1 day.	2 hours < 1 days	Inform the Project Team and Executive Committee, possible action taken.
Long Term Disruption,(Maximum Tolerable Period of Disruption for the (DfI) Roads Winter Service Systems), 1 day or more	> 1 days	Invoke full BCP and the (DfI Core) ISB ‘Disaster Recovery Plan’ for (DfI) Roads Winter Service Systems

12.3 Incident Activity Table

The table below expands by incident classification and illustrates some of the initial activities in the event of an Incident:

Incident or Threat Class	Service Level Agreement (SLA)	Outline Activity	Incident Examples	Clarification
<i>Minor</i>	Restore within 2 hours	No BCP Standard service support	Localised Power or server outage. Temporary evacuation	May impact upon Winter Service Operations
<i>Significant</i>	Restore within 1 days	Invoke full BCP	Widespread power or server outage. Protracted building evacuation	Temporary impact upon significant parts of the Winter Service programme
<i>Catastrophic</i>	Restore more than 1 days	Invoke full BCP & (DfI Core) ISB ‘Disaster Recovery Plan’, if required.	Full/partial Building loss. Loss of IT Infrastructure.	Protracted impact upon major elements of the Winter Service programme

As can be seen it is intended that this document will address only *Significant* and *Catastrophic Incidents*. *Minor Incidents* will be addressed, at least initially, by the standard Service Delivery procedure however it should be noted that an Incident may be reclassified as a problem following subsequent investigation or associated events.

12.4 System Failure Definitions

An Incident is ‘any event which is not part of the standard operation of a service and which causes, or may cause, an interruption to, or a reduction in, the quality of that service.’ There are system failure processes already in place within (DfI) Roads to manage Incidents affecting this service.

For the purpose of the (DfI) Roads Winter Service Systems Continuity Plan, these processes have been accepted in full and built on for the escalation and invocation of Business Continuity.

12.4.1 Minor Incident

Where it is determined that the incident is of a *minor* nature, (DFI) Roads-HQ should be kept updated by the instigator of the fault.

An ‘Incident Log’ should be raised and only closed once the incident has been closed and fully resolved to all parties. Establishing good communications at this point is important as it is possible the incident could escalate and become a *catastrophic* incident. Communications could be via telephone, email, text messaging or fax as appropriate.

12.4.2 Significant Incident.

A *significant* disruption which requires the invocation of this BCP is defined as:

“An unplanned event which causes major disruption to the delivery of service and which it is not possible to manage using the standard incident or problem management processes”.

Significant disruptions can come from many causes such as accidental damage (e.g., fire, flood etc.); malicious attack (such as vandalism, computer fraud, etc.), or coincidental disruption (e.g., location evacuated due to other event such as chemical spillage etc).

These are not, of course, an exhaustive list and disruptions can come from any and every cause. The main point is not the cause of the disruption but the effect, which will cause short, medium or long-term disruption.

12.4.3 Catastrophic Incident

A *Catastrophic* Incident could take place in which all, or the majority of, the business infrastructure or IT infrastructure becomes inaccessible or unusable for an extended time period, measured in weeks or months rather than days.

A ‘Disaster Incident’, such as flood or fire, would be more catastrophic to the business than a *catastrophic* incident and would have greater impact for a longer duration than a *significant* Incident.

However in planning and continuity terms both *significant* and *catastrophic incidents* would result an invocation of the full BCP and the necessary fall back actions.

12.4.4 Risks to the Business

There are a host of failure scenarios to be considered which create risks to business. (DfI) Roads recognises the following as potential failure scenarios that could result in an Incident or a Disaster Event:

- Flood, from internal infrastructure, for example of burst pipe;
- Fire, localised or all encompassing;
- Extreme climate, seismic event and weather conditions;
- Building services affected by climate;
- Civil Disorder;
- War and terrorism;
- Malicious damage;
- Total power failure;
- Strike action;
- Communications failure;
- Electronic attack, such as a virus or ‘hacker’;

13. RISK REDUCTION MEASURES

To counter the risks, (DfI) Roads has built a highly resilient infrastructure with no single point of failure. The main services including the primary and secondary Forecasting Services are provided and hosted at separate data centres. (1) **Vaisala** and (2) **Met Office**.

The Winter Service Database is hosted in the Primary Data centre located in BT’s Data centre (DC) in central Belfast. The Disaster Recovery (DR) site is located at Cable & Wireless in Dundonald and is a replica of the primary site. The DR site also houses the development and testing environments. Both data centres have uninterruptible power supplies and backup generators in the event of power failure.

The servers and storage infrastructure have no single point of failure, with servers and disks being replicated on site to provide redundancy. The network Infrastructure also has resilience and redundancy, with each data centre being connected to two sites on the ‘NICS Public Service Network (PSN)’, as well as being interconnected.

Additionally, data is ‘backed up’ onto tape and stored offsite.

14. COMMUNICATION MANAGEMENT

14.1 Communications Plan

If a disaster occurs and invocation is required, it is vital that communications are made

and logged. The roles and responsibilities of the Lead Communicator and ‘key personnel’ are summarised in tables within Section 11 of this document.

14.2 Supplier communication

(DfI) Roads will ensure that all key suppliers are kept informed of any *Significant or Catastrophic Incident*.

15. RECOVERY STRATEGY

The Disaster Recovery strategy and documentation is under the full Control of (DfI Core) Information Systems Branch, (ISB).

16. RECOVERY TIMESCALES

For details, please refer to 12.2 Incident Classifications.

17. BUSINESS CONTINUITY TESTING OF THE RETURN TO CLERICAL PROCEDURES

17.1. Objectives

The objective of a formal Test Review is to ensure: The capture all the necessary information to improve the Recovery Plan, strategy and content.

By the very nature of a BCP, it is not something we use often. Therefore, it is essential that we are confident that the BCP will have the right business and technical objectives and will actually deliver them should we need to use it.

(DfI) Roads will ensure that this is the case by carrying out test and rehearsal exercises which validates the BCP objectives, assumptions and processes. The rehearsals also allow us to confirm that the crisis management aspects are clearly understood, achievable and realistic. (As well as acting as an excellent training aid).

All key aspects of the BCP must be tested at least annually or when there are significant changes to the operational service, organisation or BCP.

Testing serves the purpose of ensuring that the Business Continuity Plan and procedures are appropriate and up to date and ensuring that staff are familiar with the arrangements in the event of an Incident.

Staff familiarity with arrangements will be ensured by requiring relevant staff to acknowledge receipt of the plan and any future updates and to confirm that they have familiarised themselves with the relevant procedures.

Clerical procedures will be tested each year, by Divisions, as part of the “Winter Service Testing Regime” carried out in October - the beginning of the Winter Season. Each Division will arrange testing of the clerical procedures to be carried out by the WS ‘key’ personnel, (as referred to in Section 11 of this Plan), prior to the start of each Winter Service season.

Divisions must confirm that this process has taken place, in response to the Internal Memo

(DfI) Roads – Winter Service Systems Business Continuity Plan – Version 10 (January 2019)

on Winter Service, as sent by the Director of Network Services, at the start of each Winter Service Season.

Where clerical procedures are invoked due to system failure, an ‘Incident Review’ will be carried out as described in Section 18 of the Plan, below, and the procedures will be updated as necessary.

(DfI Core) Information Systems Branch, (ISB) are responsible for the “Disaster Recovery” aspects of the systems and the associated testing procedures and regimes.

18. BCP REVIEW, DEVELOPMENT AND AMENDMENT

In the event of an Incident affecting the Winter Service Systems, the Business Continuity Plan will be activated. Following restoration of the system, a Review of the Incident will be carried out to assess the effectiveness of the contingency arrangements and business continuity plans in practice. The review of the plan will identify ‘lessons learned’ and may result in proposals to improve the Business Continuity Plan.

Details of the Incident and a copy of the ‘Incident Review’ shall be appended to the Business Continuity Plan and revisions to the plan will be recorded in the Document History and in Annex 1.

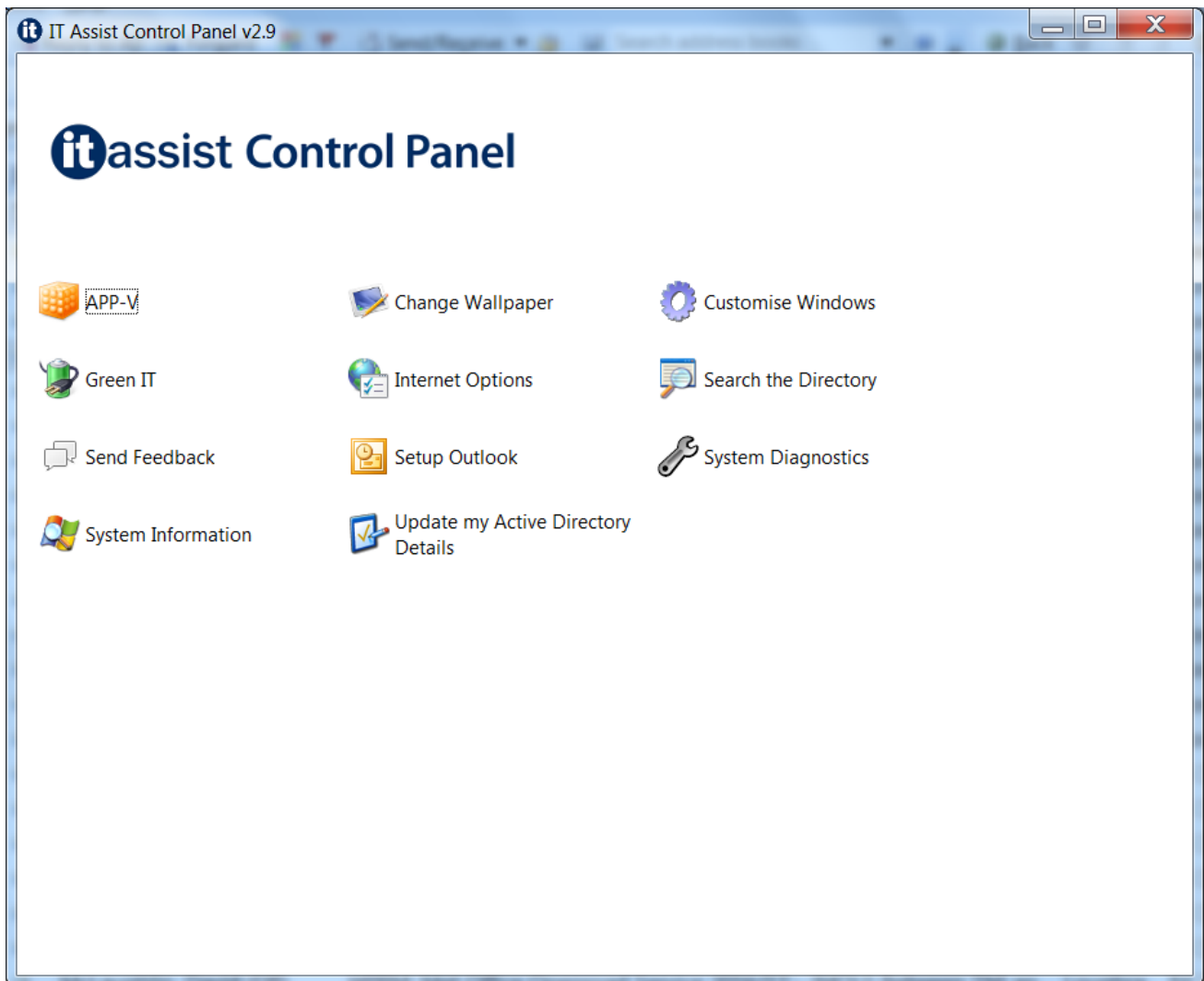
ANNEX 1 – RECORD OF TESTS AND REVISIONS.

Date and Details of Test	Revisions
October 2007 Initial testing completed	Duty Controller checklist amended to ensure that Duty Supervisors have responded to the action call
December 2009	ADSL Lines unavailable due to Network Switch over. Duty Controllers formally advised to switch to Contingency arrangements. Winter Service provided successfully
December 2009 Plan initiated due to loss of ADSL Network	Full review of BCP carried out by (DfI) Roads together with Subsequent report by IT Assist into the ADSL Failure. Outcome: Recommendation that Duty Controllers and Lead Communicators allocated 3G capability.
February 2010	Reviewed and added ‘contact’ details for MET Office; VAISALA; Irish Salt Sales Ltd. and IT Assist to include telephone numbers, Email addresses and URLs of applications.
August 2010	3G Business case approved and Project to supply WSD Duty Controllers and Lead Communicators with 3G initiated – (for users where network coverage is available)
April 2011	BCP Update and amendment completed
October 2012	Confirmation by Divisional Managers that BCP systems are satisfactory
February 2013	Revision to Take out IT related information items covered by (DRD Core) Information Systems Branch , (ISB) in Disaster Recovery Plan
March 2013	SQL Cluster 2 Upgrade - WS Duty Controllers formally advised (15/3/13) to switch to WS Systems BCP clerical procedures (contingency arrangements). Winter Service provided successfully.
December 2013	Ongoing Internet and Intranet Access Problems (23/12/13) - WS Duty Controllers formally advised to switch to WS Systems BCP clerical procedures. Winter Service provided successfully.
January 2014	Scheduled Internet Upgrade for weekend (9-10 February 2014) - WS Duty Controllers formally advised (28/1/16) to switch to WS Systems BCP clerical procedures. Winter Service provided successfully.
July 2014	Update to reflect move from Roads Service to Transport NI
April 2016	Internet Access Disruption (12:00am Midnight) to 5am on Sunday 24/4/16 . WS Duty Controllers formally advised to switch to WS Systems BCP clerical procedures. Winter Service provided successfully.
August 2016	Update to reflect move from Department For Regional Development to Department for Infrastructure
August 2016	Update to reflect personnel changes
March 2017	Update to reflect changes in the Incident Terminology from ‘major’ to ‘catastrophic’ and also to reflect changes in the Outlook Setup in the Procedures contained within the Annexes.
January 2019	Update in preparation of EU-Exit and updated to reflect move from Transport NI to (DfI) Roads

ANNEX 2 - PROCEDURES FOR SETTING UP OUTLOOK ON A NEW OR DIFFERENT PC.

If you are logging on to a new or different PC, your personal email account may not be recognised. In these situations, an Outlook Wizard will normally start to initiate your mailbox. If it does, cancel it, close outlook and then carry out the following procedure.

1. Click on the *Start* button
2. Click on *All Programs*
3. Click on *IT Assist Control Panel*

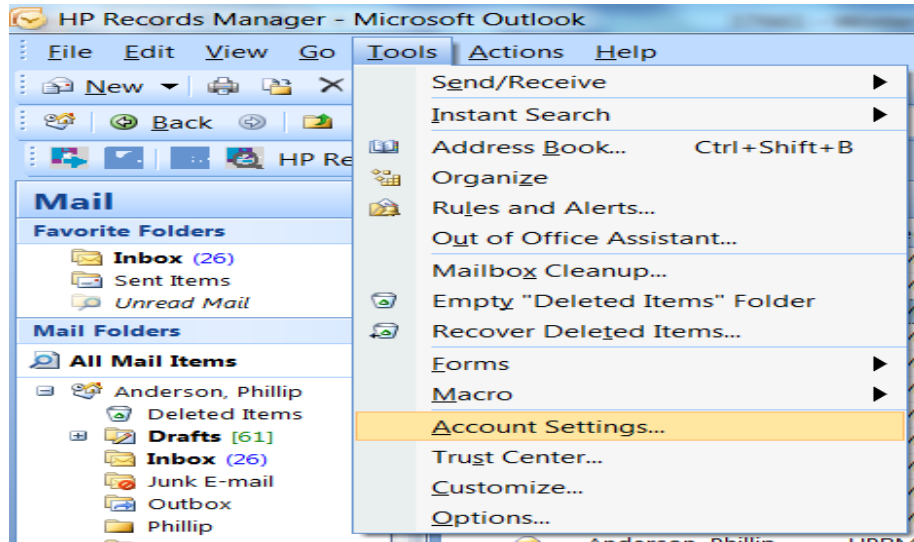


4. Double click on *Setup Microsoft Outlook*

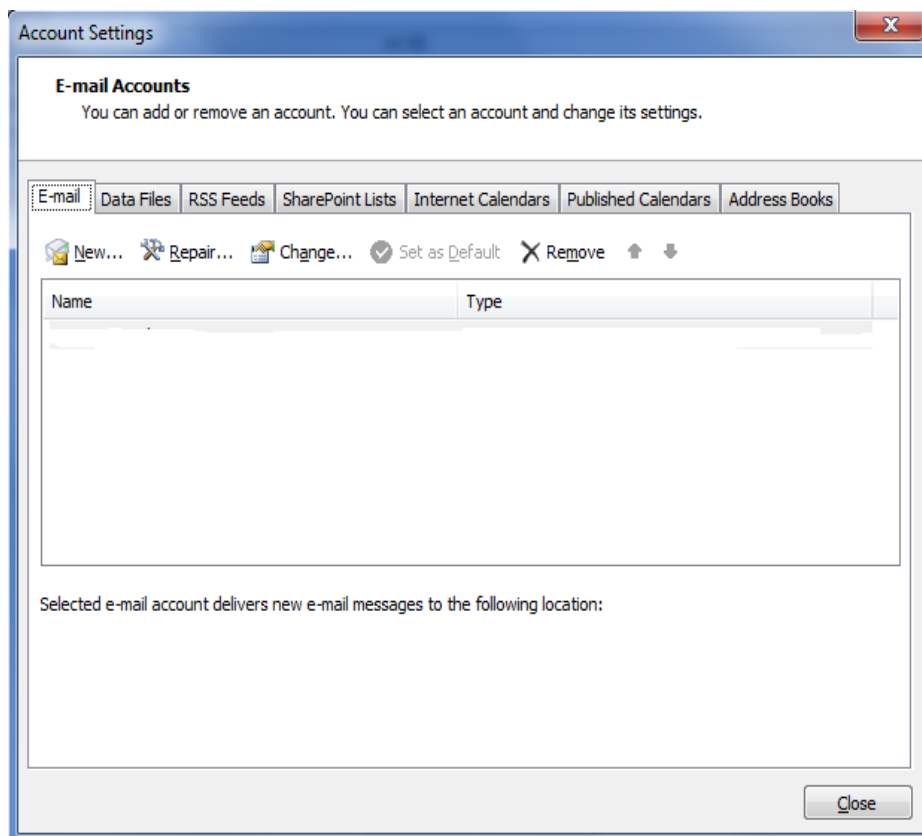
Your email account should now function.

ANNEX 3 - PROCEDURES TO ADD THE 'DFI ROADS INCIDENT DESK MAILBOX' TO YOUR OUTLOOK PROFILE.

- Within Outlook, click on **Tools – Account Settings**:

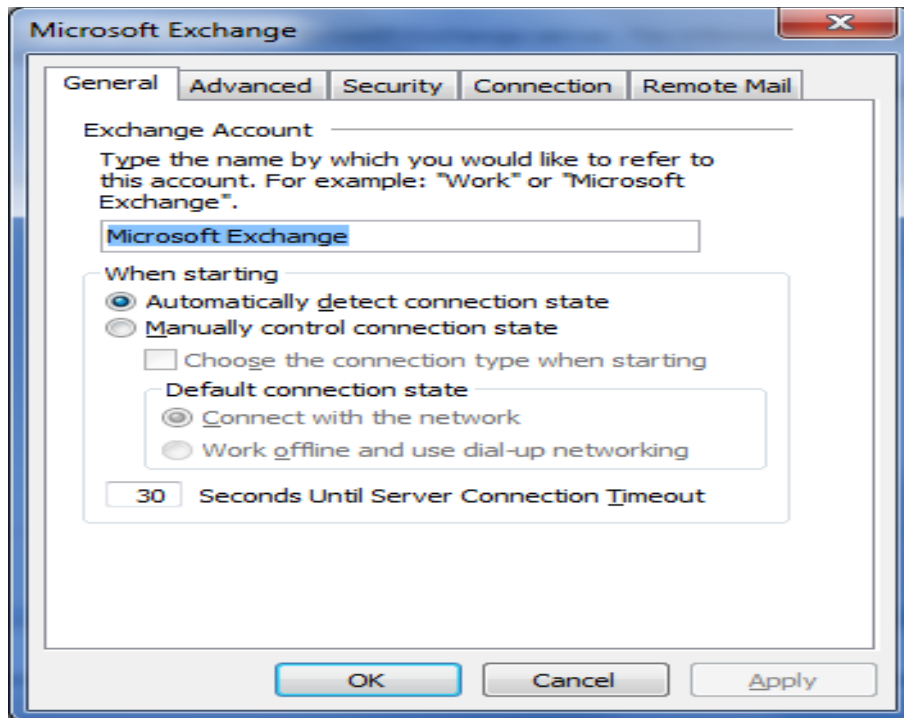


- This will launch the **Accounts Settings** Screen below:

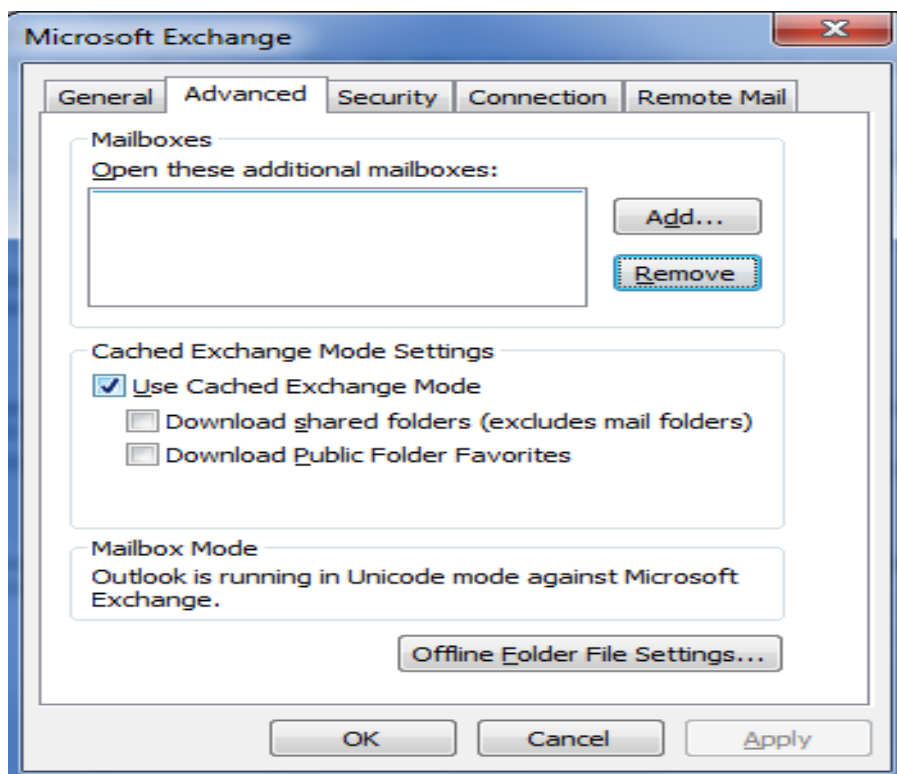


- On the screen shown above, click on the **Change Icon/** button

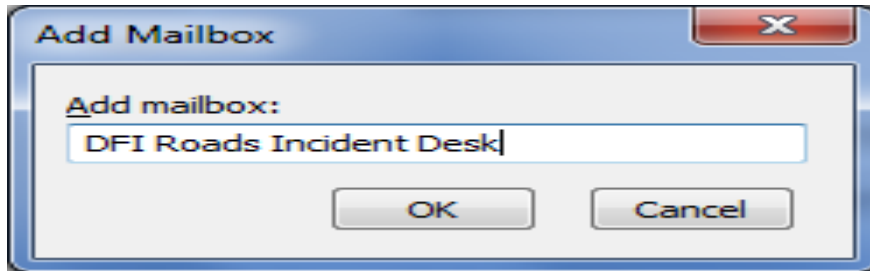
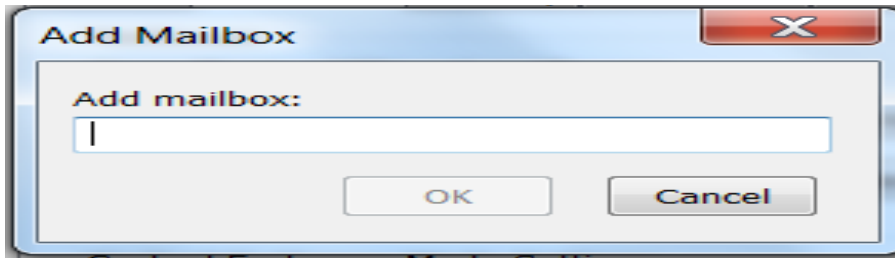
- When this next screen appears, click on the *Advanced* tab:



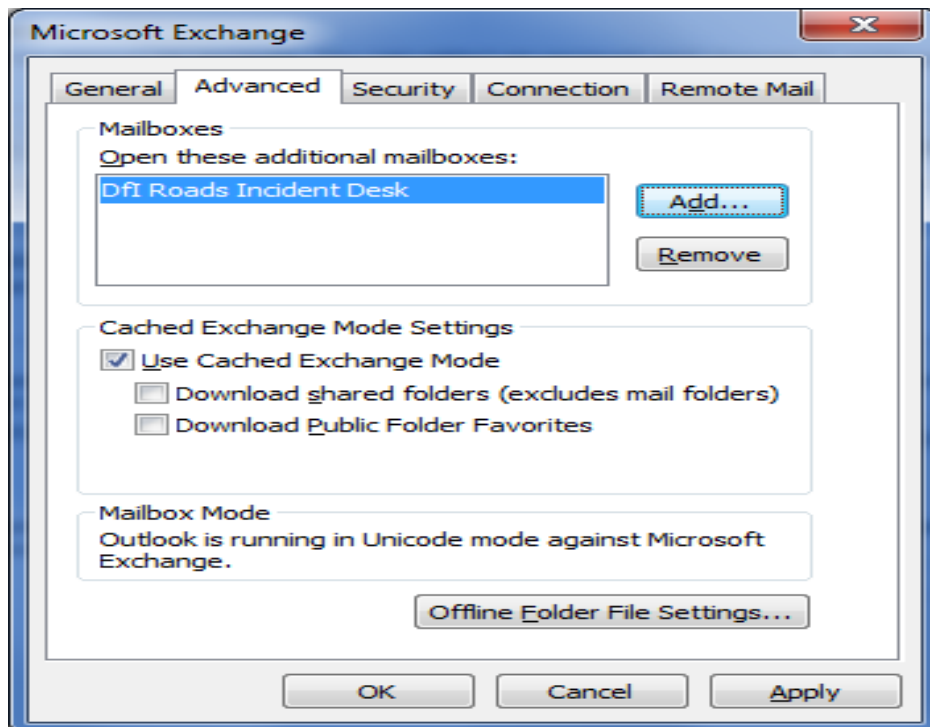
- When this screen below appears, Click on the **Add** button:



- Type in the name of the account, in the Add Mailbox, that you want to see as well as your own.



- Once the account has been added click on **OK** and Apply



- Click on **Next** when you get back to this screen:

The screenshot shows a window titled "Change E-mail Account" with a close button (X) in the top right corner. The main heading is "Microsoft Exchange Settings" with a sub-heading "You can enter the required information to connect to Microsoft Exchange." Below this, there is a text box for the "Microsoft Exchange server" containing the address "2-4176-8b9c-bd10f1f57604@infrastructure-ni.gov.uk". A checkbox labeled "Use Cached Exchange Mode" is checked. Below that, there is a text box for "User Name" containing "Loughran, Aloysius" and a "Check Name" button. At the bottom right, there is a "More Settings ..." button. At the bottom center, there are three buttons: "< Back", "Next >" (highlighted with a blue border), and "Cancel".

- Click on **Finish**

The screenshot shows the same window titled "Change E-mail Account" with a close button (X) in the top right corner. The main heading is "Congratulations!" followed by the text "You have successfully entered all the information required to setup your account." and "To close the wizard, click Finish." On the left side, there is a decorative graphic of three envelopes. At the bottom center, there are two buttons: "< Back" and "Finish" (highlighted with a blue border).

- You should now see the second mailbox, below your own, on your 'Inbox – Microsoft Outlook Screen'.

ANNEX 4 – BUSINESS CONTINUITY PLAN - “FAMILIARISATION CONFIRMATION”

Prior to the start of each winter season, the Director of Network Services will instruct Winter Service Staff to familiarise themselves with the following documents, which includes the Winter Service Systems Business Continuity Plan.

This will be facilitated through the Directors’ Winter Service Memo and will be recorded for audit purposes, as detailed below;

Winter Service Staff are requested to familiarise themselves with the following documents, which can be located at

<https://www.infrastructure-ni.gov.uk/publications/tranportni-emergency-response-plan-rsppg-e035>

The (DfI) Roads Emergency Response Plan EO35

This document describes the procedures to be followed by key personnel when responding to a range of possible emergencies including winter service emergencies. The plan is not intended to deal with the normal range of standard incidents faced by (DfI) Roads on a routine basis.

Its application will therefore generally be limited to Significant, Serious or Catastrophic Events.

The Winter Service Emergency Plan sets out the procedures to be followed by staff when responding to the abnormal closure of roads caused by snow or ice. The plan is not intended to deal with the usual range of salting and snow clearing activities normally faced by (DfI) Roads during normal winter service, rather,

it is intended to deal with extensive heavy snowfalls and prolonged periods of freezing temperatures, resulting in widespread closure of roads and significant traffic disruption.

The Winter Service Systems, Business Continuity Plan sets out the contingency and business continuity arrangements and procedures developed to ensure continuity of Winter Service in the event of system failure.

The contingency arrangements involve a temporary return to clerical procedures for WS Duty Controllers, WS Duty Supervisors, Lead Communicators, (DfI) Roads Section Engineers and the (DFI) Roads Incident Desk.

The (DfI) Roads Winter Service Policy and Procedure Guide, E022

(<https://www.infrastructure-ni.gov.uk/publications/winter-service-rsppg-e022>)

gives details of (DfI) Roads’s Winter Service procedures, including the Action Codes.

Divisions should note that the (DfI) Roads Winter Service policy has been amended to reflect the provision of ‘Park and Ride’ Bus facilities. Where the operation of a (DfI) Roads Park & Ride (P&R) facility requires a bus to leave the main salted road network to service it, the route taken shall be scheduled for treatment including any portion of the bus route within the confines of the car park.

Divisions should re familiarise themselves with the above documents before the commencement of the new winter season.