DESCRIPTION OF UK LINK

June 2017

Version 1 For Approval

Version Control

Version	COR	Date of Change	Changes	Author
1 Draft	-	June 2017	Update to reflect implementation of UNC Modification 0565A.	David Addison

[STANDARD FRONT END TO BE INSERTED]

1. PURPOSE OF THIS DOCUMENT

The purpose of this document is to provide for:

(a) a description of UK Link as envisaged by UNC GTD 5.1.2 including a description of the component parts of UK Link and the relationship between these component parts;

(b) a description of UK Link Gemini as envisaged by UNC GTD 5.1.2; and

(c) a description of the support Services available in relation to UK Link and UK Link Gemini, in particular, the CDSP Service Desk. This document also sets out the process for contacting the Service Desk and the process which will apply once any operational issues are referred to the Service Desk.

1.1.1 For the purposes of this document, references to a UK Link User or UK Link Users exclude the CDSP.

1.1.2 For the purposes of this document, references to Users shall include UK Link Users excluding the CDSP.

2. DESCRIPTION OF UK LINK

This section describes UK Link, and the constituent elements of UK Link . It also outlines the access, interfaces and support facilities available to **UK Link Users.**

2.1 General Description

As stated in GTD 5.1.2 *"UK Link" is the information technology and communications (ITC) systems (in aggregate) used by the CDSP to provide the CDSP Services (including an information exchange system allowing the electronic transfer of information between the CDSP and UK Link Users and access to other parts of such ITC systems).*

UK Link is an integrated set of computer systems, which have been developed to support the operation of the gas transportation system in accordance with the Uniform Network Code by, for example, providing a vehicle by which specific **Code Communications** between UK Link Users can be provided.

The UK Link System also allows additional communications **(UK Link Communications)** for example to view information already input in order to verify its accuracy, or to communicate with another User.
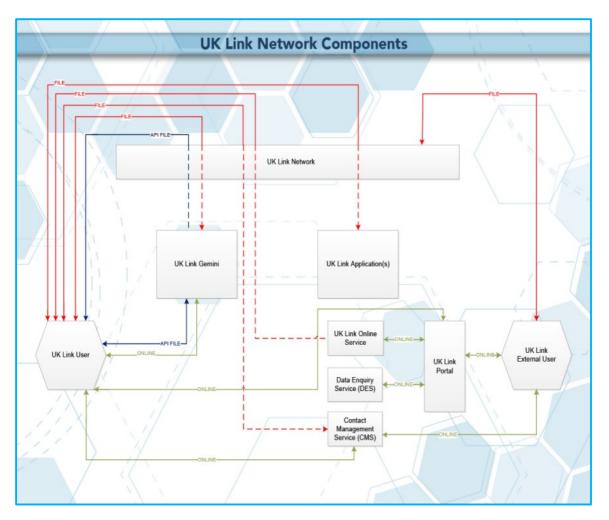
UK Link is operated by the CDSP.

The component parts of UK Link are:

- UK Link Gemini (including UK Link Gemini Exit and UK Link Gemini Online Services);
- UK Link System Application;
- UK Link Portal;
- UK Link Online Services;
- Data Enquiry Service;
- Contact Management Service; and
- UK Link Network.

Each of these component parts is described in more detail below.

The diagram below shows the relationships between the system components:

The system does not validate the accuracy of the data input by Authorised Representatives in Code Communications except where expressly stated in the Data Services Contract or other relevant contract with the UK Link User. The integrity of the data within the database is controlled via application coding checks, and the referential integrity functions inherent within the database and applications system. If a file or record provided by an Authorised Representative is rejected, a message will be sent to the relevant User providing reasons for such rejection. These messages are defined in the UK Link Interface Document (Annex D3).

2.1.1. Parties authorised to access UK Link

The Uniform Network Code (GT D 5.1.2) defines the parties who are considered to be UK Link Users.

Any Party shall cease to be a UK Link User upon the User Discontinuance Date.

UK Link Users can access some components of the UK Link System via online services (including UK Link Gemini using the UK Link Network) and others by sending batch files across the UK Link Network which is described in section [1.1.8].

2.1.2 UK Link Gemini

As stated in GTD 5.2.1, "*UK Link Gemini" means those parts of UK Link which support the implementation of the provisions of TPD Section B in relation to NTS Entry Capacity and NTS Exit Capacity and of TPD Sections E and F in respect of the determination of Energy Balancing Charges*.

In order to balance the gas transportation system, the Transporters need to know how much gas will flow into and out of the National Transmission System on a daily basis. UK Link Gemini is used by Users and the Transporters to support this process.

UK Link Gemini also incorporates the functions that are provided by a discrete system, UK Link Gemini (Exit) – the functions specific to this aspect are described below in section 2.1.2.1.

The main functions provided by UK Link Gemini are:

- Storage Inventories;
- Gas Flow Nominations (and renominations);
- Scheduling;
- Gas Trade Registration from Market Operators;
- Measurement;
- Allocations and Balancing; and
- NTS Invoicing.

In order to flow gas into the National Transmission System users must obtain System Entry Capacity. The UK Link Gemini System is used by UK Link Users (including Distribution Networks) and the Transporter responsible for the National Transmission System to support this process.

UK Link Gemini provides the following key functions:

- NTS Entry Capacity Auctions
- NTS Entry Capacity Transfers
- Constraint Management services
- NTS Invoicing
- NTS Entry Capacity Trading

To the extent described in the UK Link Security Operating Framework and to the extent that they require it, UK Link Users have online access to the UK Link Gemini (Energy & Exit Capacity) system.

2.1.2.1 UK Link Gemini (Exit)

In order to flow gas out of the National Transmission System Users must obtain NTS Exit Flat Capacity. The UK Link Gemini Exit System is used by both UK Link Users (including Distribution Networks) and the Transporter responsible for the National Transmission System to support this process.

The UK Link Gemini Exit System provides the following key functions:

- NTS Exit (Flat) Capacity Application Processes:
- NTS Exit (Flat) Capacity Auction Processes:
- NTS Exit (Flat) Capacity Transfers:
- Assignment of NTS Exit (Flat) Capacity:
- Offtake Capacity Statement (OCS) and Offtake Pressure Statement (OPS)registration:
- Constraint Management services:
- NTS Exit (Flexibility) Capacity – for DNs only:
- Flow Swaps – For DNs only: and
- NTS Invoicing.

2.1.3 UK Link System Application

The **UK Link System Application** provides the functionality of the central UK Link system. This supports the following processes:

- · Maintain Supply Meter Point Register:
- · Maintain Gas Industry Stakeholders:
- · Predict and Allocate Daily Energy:
- · Settle Meter Point Consumption: and
- · Invoice Charges.

The above processes are supported by notional application components:
- · Supply Point Administration:
- · UK Link System Application database:
- · Invoicing: and
- · Connection and Disconnection Store.

Each of these application components is described in more detail below.

2.1.3.1 Supply Point Administration

The Supply Point Administration system (SPA) enables the CDSP to maintain records of every Supply Meter Point – i.e. the Supply Meter Point Register. UK Link Users can interact and update this function using batch files transferred across the UK Link Network, or for specific Supply Meter Points using an email interface. Supply Point Administration consists of two elements: Supply Point Maintenance and Supply Point Measurement.

Supply Point Maintenance is used to support three main functions:

- · supply point nominations, confirmations, withdrawals and isolations;
- · maintenance of supply point details; and
- · portfolio management.

The UK Link System Application relies upon a database, which is described in section 2.1.3.2., provides the information which supports these facilities.

The **Supply Point Measurement** part of SPA collates and consolidates the following:

- · telemetered readings from entry, exit, and storage points to and from the NTS and LDZs, via central control systems; and
- · readings from meters at Supply Meter Points

The UK Link Application will record the meter readings. These measurements enable the CDSP to record the quantity of gas supplied to each meter at each Supply Meter Point in order that the Shipper User can be charged appropriately.

2.1.3.2 UK Link System Application Database

The UK Link System Application Database is the primary store of information relating to Supply Meter Points. The database includes details such as the address, asset information and readings for each Supply Meter Point. It also records details of the Registered User for each Supply Meter Point, relevant appointed organisations and contact details as necessary in the Uniform Network Code. The database is the source of all information on Supply Meter Points and provides this information to the other components of UK Link . This enables, for example, UK Link Gemini to use aggregated readings to calculate the gas transportation charges payable by Users. The database also provides facilities for the components of the UK Link System to update the information in a controlled manner to enable the integrity of the data to be preserved.

2.1.3.3 Invoicing

The CDSP shall in accordance with the Data Services Contract, on behalf of the Transporters, raise invoices each month to cover all of the daily charges (and payments) arising from gas transportation activities and any other charges payable by UK Link Users.

Invoices are generated from the UK Link System Application or from UK Link Gemini and invoices are delivered to Shipper Users as batch files across the UK Link Network.

NTS Invoices are typically generated using UK Link Gemini. The remainder of transportation invoicing is generated using the Invoicing elements of the UK Link System Application.

A Contact Management Service is used to deal with all invoicing and associated queries.

2.1.3.4 Connection and Disconnection Store

This component records details of any connection and disconnection of a meter notified to the CDSP. It shall also generate any notifications that the Transporter is obliged to provide to a UK Link User of any such activity.

2.1.4 UK Link Portal

The UK Link Portal has been designed to provide a single sign on access to the online services provided by the Data Enquiry Service and the UK Link Online Service for **Authorised Representatives** of **UK Link Users**. This element of UK Link also enables **Local Security Officers** to administer access to these online services.

The Security Operating Framework – one of the supplementary documents forming part of the UK Link Manual – describes the functionality available and the procedures for use of this UK Link Portal.

2.1.5 UK Link Online Services

UK Link Users with the correct permissions may access the UK Link Online Service in order to view data held within the UK Link System Application.

Functionality exists for Authorised Representatives of Users to update records, perform small data extracts and schedule larger data extracts.

The screens that are available to UK Link Users are defined in the UK Link Interface Document (Annex D3).

2.1.6 Data Enquiry Service (DES)

The Data Enquiry Service (DES) is an online service designed to be used by Authorised Representatives of UK Link Users to interrogate certain data relating to Supply Meter Points.

It also allows Authorised Representatives of appropriately authorised UK Link Usersthe ability to access further details relating to Supply Meter Points that are within their Supply Meter Point portfolio, and provided that the relevant data permissions exist the relevant UK Link Users can use this service to view data relating to Supply Meter Points that are held within the UK Link System Application.

The screens that are available to UK Link Users are defined in the relevant UK Link Interface Document (Annex D3).

2.1.7 Contact Management Service

The Contact Management Service is an online service for processing contacts with the CDSP.

It enables UK Link Users to raise contacts via batch and online interfaces and provides the ability to track them through to resolution.

The screens that are available to UK Link Users are defined in the relevant UK Link Interface Document (Annex D3).

2.1.8 UK Link Network

The UK Link Network (also known as the Information 'Xchange Network or IXN) is the communications infrastructure which allows UK Link Users to communicate with each other.   The term 'Network' is used to refer to both the network hardware and also the software and services which control and support it.

To the extent that they require it, UK Link Users have access to the main services that the UK Link Network supports:

- · Online access to UK Link Gemini; and
- · File transfer facilities to allow secure, auditable transfer of data in batch files.

External UK Link Users are able to utilise the UK Link Network services in accordance with the UK Link User Agreement between that External UK Link User and the CDSP.

In order to access the UK Link Network, UK Link Users shall require the equipment and software which is described in the UK Link Required Equipment Document (Annex B2).

2.1.8.1 Physical Design

The UK Link Network Wide Area Network (WAN) consists of Gateways and Network Access Points (NAPs) sited at the User premises. The Gateways are PC fileservers which use Microsoft Windows as their operating software.

The Gateways are connected by telecommunications lines of configurable bandwidth supporting Transmission Control Protocol/ Internet Protocol (TCP/IP).

Transmission of data along the telecommunication lines is controlled by NAP equipment (sometimes referred to as routers) which routes messages across a wide area network and can be programmed to send the messages to a predefined address.

The UK Link File Transfer Definition Document (Annex B4) describes address protocols when conveying a file to another User.

Each Gateway and NAP will require an IP Address. UK Link Users and External UK Link Users must register their own addresses in order to avoid potential problems arising from duplication.

The addresses must then be lodged with the CDSP who will maintain and keep secure from unauthorised access a central repository of all registered IP addresses on the UK Link Network.

Online services provided by UK Link Gemini can be accessed from UK Link User premises. In order to access UK Link Gemini Online, UK Link Users shall require software which is described in the UK Link Required Equipment Document (Annex B2).

2.1.8.2 Supporting Services

A controlled file transfer mechanism controls the sending and receiving of batch files between the UK Link Users. The relevant software resides on each of the UK Link Network Gateways and maintains audit trails of all file traffic (including failed transmissions).   Further information is available within the UK Link File Transfer Definition Document (Annex B4).

2.2 Other services

2.2.1 Active Notification

The Active Notification System, independent of the UK Link Network, is provided and operated by National Grid NTS to notify UK Link Users operating within mainland UK of business- or time-critical events which require the UK Link User to respond rapidly. The system is administered by National Grid NTS. This system does not form part of the UK Link.

2.3 CDSP Service Desk

UK Link Users are supported by a Service Desk operated by the CDSP. The purpose of the Service Desk is to: (a) provide the first point of contact for UK Link Users to report any operational problems experienced in accessing or using UK Link; and (b) to raise Service Requests. Please refer to the UK Link Manual Component Document – Annex C2 – IS Service Definition Document for more details.

UK Link Users are able to telephone this Service Desk on the following numbers:

Telephone from the UK: 0845 600 0506
Telephone from outside the UK: +44 121 623 2858

The Service Desk will log all calls received and, if required, pass calls to the appropriate second-line support group. All calls to the Service Desk will be logged and a priority assigned depending on the severity of the problem and its impact. These priorities are defined in the UK Link IS Service Definition Document (Annex C2).

The operational hours of the Service Desk are 24 hours a day 365 days a year.

When calling the Service Desk you will be presented with various options. Upon selection you will be automatically transferred to the appropriate support group to take your call.

The Service Desk should be the first point of contact for reporting any problem which a UK Link User believes could result in a Code Contingency being declared by the CDSP.

The Service Desk is not responsible for queries relating to business processes.

Appendix A - Glossary

Where a reference is stated this document shall have the same meaning as the source reference. In such circumstances this is reproduced to assist the reader, but readers must not rely upon the definition stated.

Term	Synonyms	Reference	Definition / Expansion	Comments
Active Notification System	ANS		Operated by National Grid NTS and used to communicate with UK Link Users at short notice	
Authorised Representatives		UK Link Terms and Conditions Document 4.7.2		
Central Data Services Provider	CDSP	GT D1.2.1(a)		
CDSP Service Desk	Service Desk	UK Link Terms and Conditions Document 10		
Code Communication		GT D5.1(e)		
Code Contingency		GT D5.9.1(b)		
Communication			A generic term used within this document to signify a Code Communication, a UK Link Communication or a message conveyed by the UK Link Network	
External UK Link User		UK Link Terms and Conditions Document 2.2		
GT D			General Terms Section D of Uniform Network Code	
Gateway			A "**Gateway**" is a computer server forming part of the UK Link Network, installed at premises designated by the CDSP and of each User (and in the case of a User forming part of the User Equipment and including Licensed Software).	
Local Security Officers	LSO		Person authorised to administer a User's Authorised Representatives.	
message		GT D5.1(d)		
NAPs			Network Access Points	
SPA			Supply Point Administration system	
Supply Meter Point Register			Record of every Supply Meter Point	
TCP/IP			Transmission Control Protocol / Internet Protocol	
Third Party and Additional		GT D3.7		

Services Policy				
UK Link Communication	message	GT D5.1(d)		
UK Link Network	IXN / I'X		An information exchange system, allowing the electronic transfer of information between the CDSP and Users and certain access (as described in the UK Link Manual) by Users to the UK Link System.	
UK Link User		GT D5.1.2(c)	.	
User Discontinuance Date		TPD V4.1.1		
WAN			Wide Area Network	