



Department for  
**Transport**



# TCA Liaison Days Cambridge 5<sup>th</sup> June 2008

ITSO Services Ltd, 4<sup>th</sup> Floor, Quayside Tower  
252-260 Broad Street, Birmingham B1 2HF

Tel: 0121 634 3700 Fax: 021 634 3737  
[www.itsoservices.org.uk](http://www.itsoservices.org.uk)





# Introduction

ITSO Services Limited (ISL) is a non profit company set up for non smart TCAs in preparation for ENCTS. ISL is wholly separate from ITSO Ltd. Its purpose is to provide services to non smart Travel Concession Authorities (TCAs) who need to produce compliant concessionary passes but who are not currently “ITSO smart”

The Department for Transport has signed a three year contract with ITSO Services Ltd, extendable up to a further four years to provide the following services:

ITSO Services Ltd, 4<sup>th</sup> Floor, Quayside Tower  
252-260 Broad Street, Birmingham B1 2HF

Tel: 0121 634 3700 Fax: 021 634 3737  
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# Introduction

## Introduction of the ISL Team

- Helen Mitchell
  - Head of Operations and Delivery (ISL) and Business Development (ITSO Ltd)
- Kim Clarke
  - Senior Business Support Manager
- Anthony McLaughlin
  - Business Support Manager
- Mark Palmer
  - Customer Helpdesk Advisor

Our office is based on 4<sup>th</sup> Floor, Quayside Tower,  
252-260 Broad Street, Birmingham B1 2HF



# Introduction

I have signed up to ITSO Services but what will ISL do for TCAs?

- Helpdesk
  - As a licensed operator ISL has to provide a helpdesk from 09:00 to 17:00 Monday to Friday under the term of the ITSO Operating Licence
- User Support & Guidance Documentation
- ISAM Provision
  - To either bureaus or direct to TCAs



# Introduction

- Concessionary Transaction Collection and Depository (CTCD)
  - Or otherwise known as a HOPS/AMS
- Stop Listing / Hot Listing
- TCA Migration
  - Individual support, guidance and project plan
- ISL Website
  - Where you can find a range of information and documents



# Agenda

- What we have achieved so far
- Lessons learnt
- ISL HOPS
- Stop Listing / Hot Listing
- TCA Open Forum – Your chance to have your say and share your experiences
- Lunch
- TCA Open Forum – Continued
- TCA Migration
- In House / Bureau Pass Production
- Supplier Integration
- Guidance & Documentation
- Pass Validation
- AOB



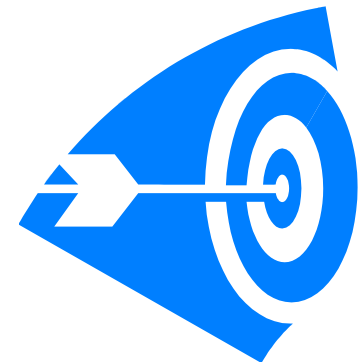


## What has been achieved so far....

- 253 TCAs in ISL (79 Schemes)
- A total of 6.3 millions cards are in circulation
- ISL and TCAs produced the following through there chosen bureaus:

– Fujitsu	2,198,291
– Euclid	1,668,335
– Payne Security	230,000
– Novacraft	250,653
– ESP	241,416
– In House	107,865
– Smart Citizen	9,118

**Total** **4,705,678**

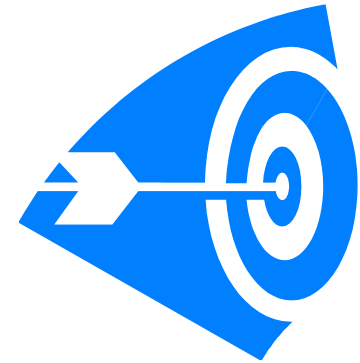




## What has been achieved so far...

What the non ISL Card Schemes produced – 1.6 million using their own HOPS:

– Centro	430,000
– GMPTE	360,000
– NoWcard	300,000
– Merseytravel	267,743
– Nottinghamshire CC	137,500
– Cheshire	136,066
<b>Total</b>	<b>1,631,309</b>





## What has been achieved so far...

- All card bureaus and PERSO POST providers were required to go through integration and testing with the ISL HOPS before the bulk of live ISAMs were released

### Card bureaus with completion dates

- Fujitsu (ESP) 11<sup>th</sup> December 2007
- Euclid 25<sup>th</sup> January 2008
- Unicard 25<sup>th</sup> January 2008
- Smart Citizen 25<sup>th</sup> January 2008
- Payne / Burrell 29<sup>th</sup> February 2008
- Novacraft 7<sup>th</sup> March 2008
- The integration testing included, connectively, POST to HOPS interface and message verification and validation



# Lessons Learnt - ISL

## What worked

- ISL HOPS is currently the biggest ITSO HOPS in the UK
- Production and encoding of ENCTS Concessionary Cards before 1<sup>st</sup> April
- Non framework support and getting them fully integrated
- ISL's provision of ISAMs
- ISL's support and distribution of information

## What didn't work

- Non framework suppliers – no contract for integration support with the ISL HOPS
- Remaining Concessionary Cards that did not go out in time
- Sheer volume of data to the ISL HOPS in a compressed timescale
- IPE 14s, this was an oversight and there was confusion with the cost associated to IPE 14s
- Ad hoc ISAM provision due to volumes being profiled



# ISL HOPS

- HOPS Response Times
  - ITSO Specification 2.1.1 (Annexe C) states the maximum communication of HOPS to POST has a timeout of 250 hours (10.4 days)
    - At the peak period of HOPS activity ISL reached 7 days
  - Down Time
    - In February for a couple of hours - this was to increase the speed to allow more processing for a supplier
- HOPS
  - Who sent what to the ISL HOPS
  - Message content including duplicates



# ISL HOPS

## Important information on the HOPS functionality

Key functionality: Generation of Class 0 & 3 messages

- **What is a Class 0 Message**

- Acknowledgement messages sent from the HOPS to a POST, this confirms that smart card data has been stored onto the central back office system

- **Why is Class 0 Messages important**

- Without Class 0 messages, there would be no way of confirming whether data has been added to the ISL HOPS
- ISAMs don't fill up and still enable you to print cards



# ISL HOPS

## What is a Class 3 message?

- Encrypted message from ISL HOPS to POST to “keep alive” ISAMs (which have a limited lifespan that can only be extended by the issuing of a Class 3 message) after 254 days the ISAM will stop working
- Card Bureau provider and TCA must ensure that frequently polling of Class 0 message and when necessary the application of a Class 3 messages



# ISL HOPS

## Class 3 Messages

- The management of Class 3 messages is part of the ongoing integration project formulated by ISL. The first class 3 messages will need to be applied as follows:
  - Fujitsu Bureau from 1<sup>st</sup> August 2008
  - Euclid Bureau from 22<sup>nd</sup> August 2008
  - Novacraft Bureau from 7<sup>th</sup> September 2008
  - Unicard Bureau from 25<sup>th</sup> September 2008
  - Smart Citizen Bureau from 26<sup>th</sup> September 2008
  - Payne Bureau from 26<sup>th</sup> September 2008
  - ESP Bureau From 1<sup>st</sup> October 2008

The first class 3 messages for TCAs producing in house will start from the 25<sup>th</sup> September. ISL will be in contact direct with those TCAs



# ISL HOPS

ISL receives 3 reports on a daily basis from the ISL HOPS displaying current HOPS summary statistics.

(As of 17.38 on Wednesday 28<sup>th</sup> May 2008)

- Shell accounts: 4,718,224
- Data frames processed: 35,910,114
- Duplicate data frames: 1,107,936

Class 0 messages awaiting collection by bureau

Bracknell:	1
ESP bureau:	4998
Euclid:	192
Novacraft:	112
Payne:	70
South Gloucestershire:	2
Unicard:	3



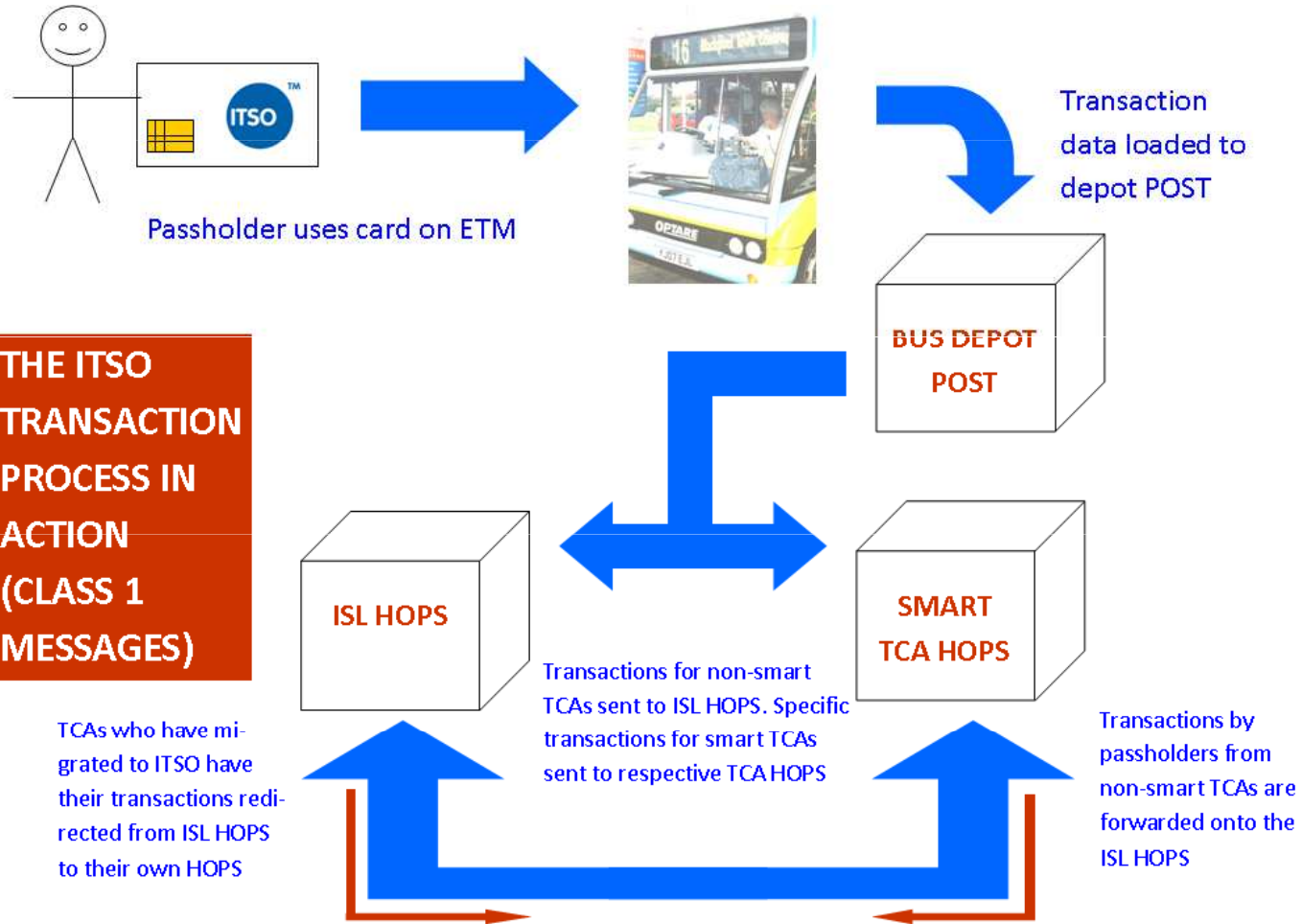


## HOPS → HOPS

- In order for the ISL HOPS to receive transactions made by ISL TCA passes, the ISL HOPS is required to communicate with other HOPS in the ENCTS scheme, a process known as HOPS to HOPS communication.
- Transactions recorded by card readers in smart TCAs are firstly sent to the HOPS in that smart area and then sent as 'not-on-us' messages to the ISL HOPS where they will be processed and held.



# HOPS → HOPS



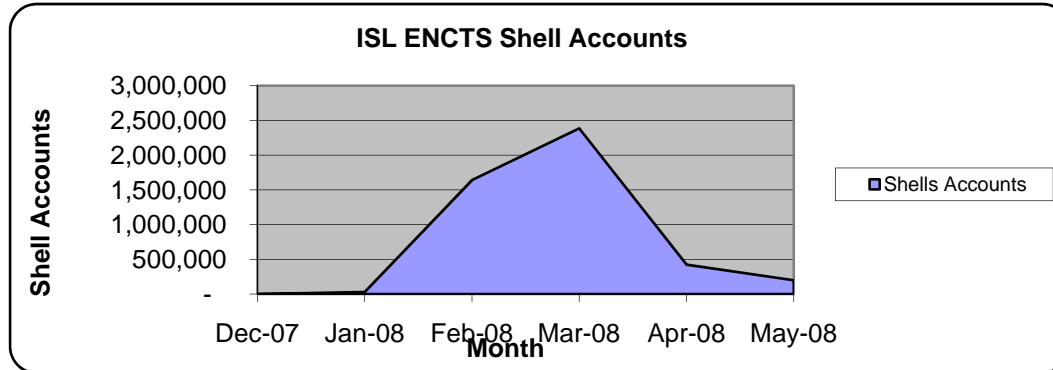
ITSO Services Ltd, 4<sup>th</sup> Floor, Quayside Tower  
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# ACT



**ENCTS Shell Accounts over time**

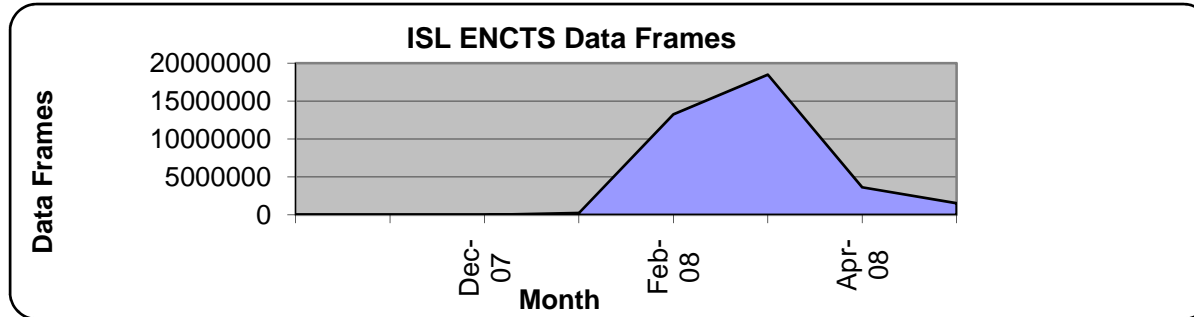
Dec-07  
 Jan-08  
 Feb-08  
 Mar-08  
 Apr-08  
 May-08

**Shells**

50  
 31,004  
 1,642,730  
 2,387,034  
 424,412  
 199,670  
**4,684,900.00**



# ACT



## ENCTS Data frames over time

## Data frames

Dec-07	354
Jan-08	253,803
Feb-08	13,264,226
Mar-08	18,494,349
Apr-08	3,637,441
May-08	1,538,669
	<b>37,188,842</b>

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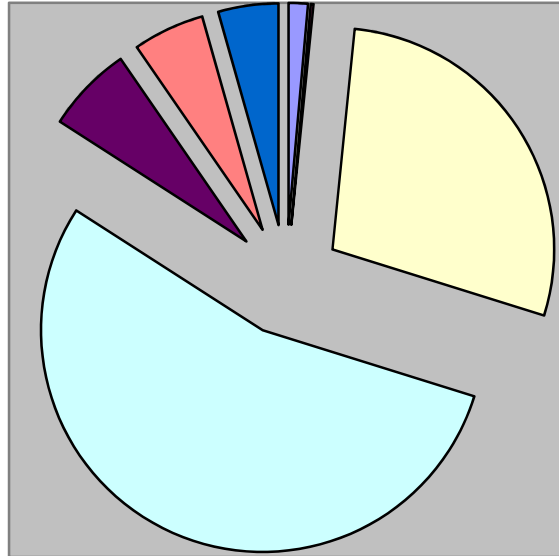
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## ISL ENCTS Product Accounts

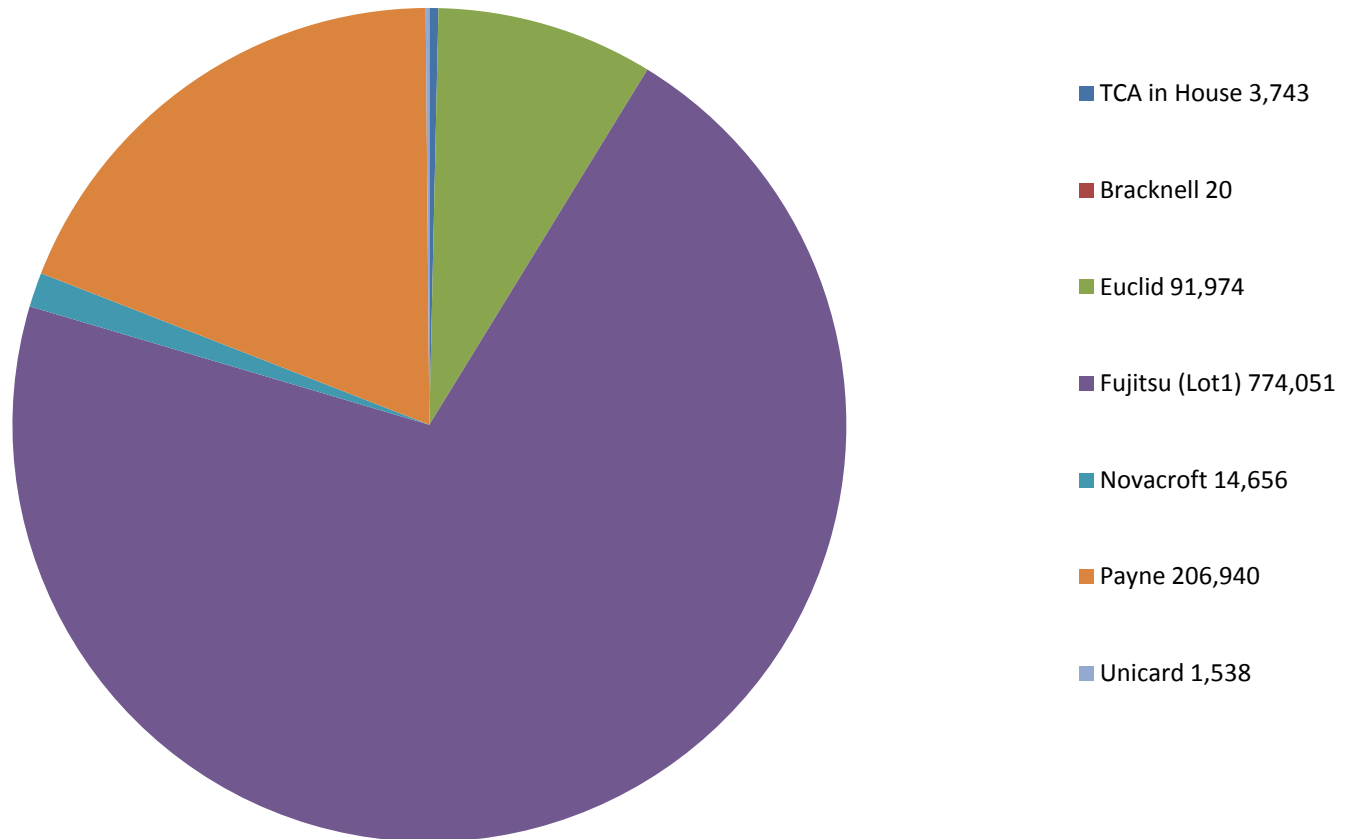


- TCA in house 124,352 = 1.4%
- Bracknell 18,220 = 0.2%
- Euclid 2,514,554 = 28.2%
- Fujitsu (Lot1) 4,836,559 = 54.3%
- Novacraft 562,528 = 6.3%
- Payne 464,115 = 5.2%
- Unicard 391,492 = 4.4%



# ACT

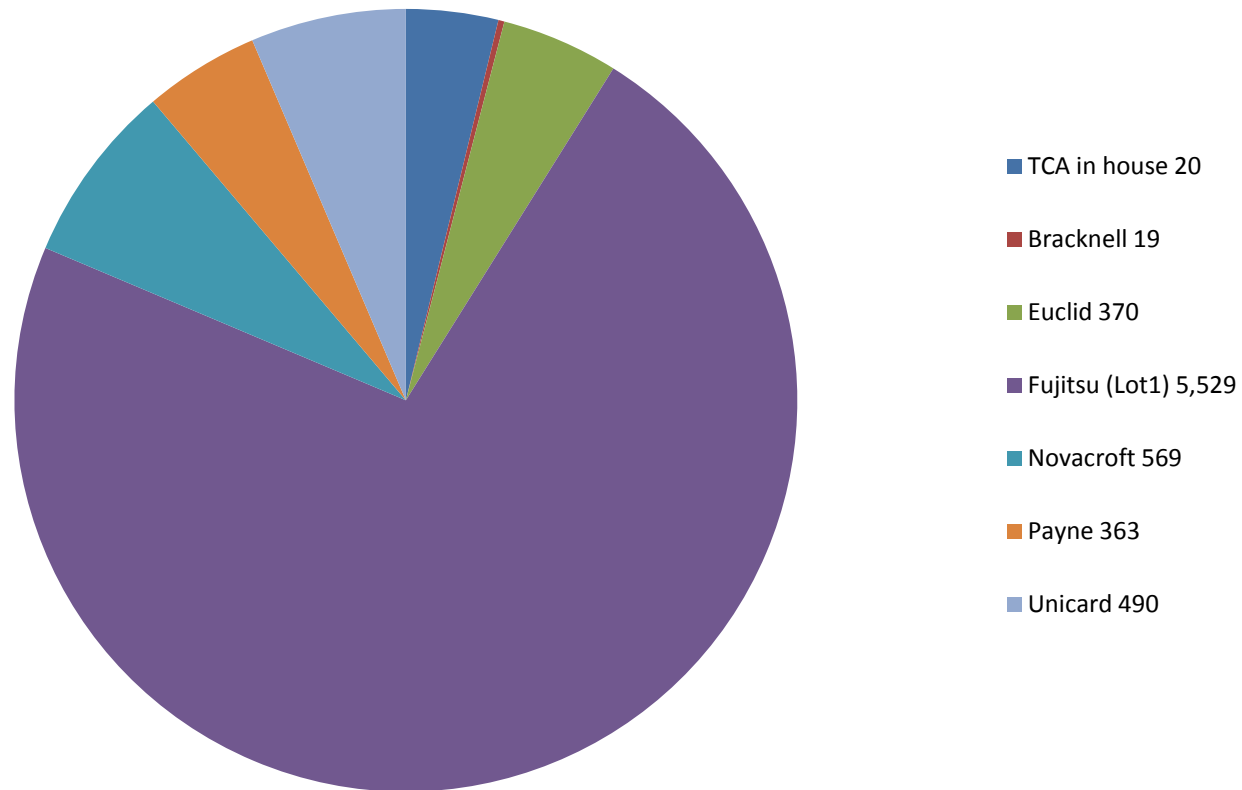
## Duplicate data frames





# ACT

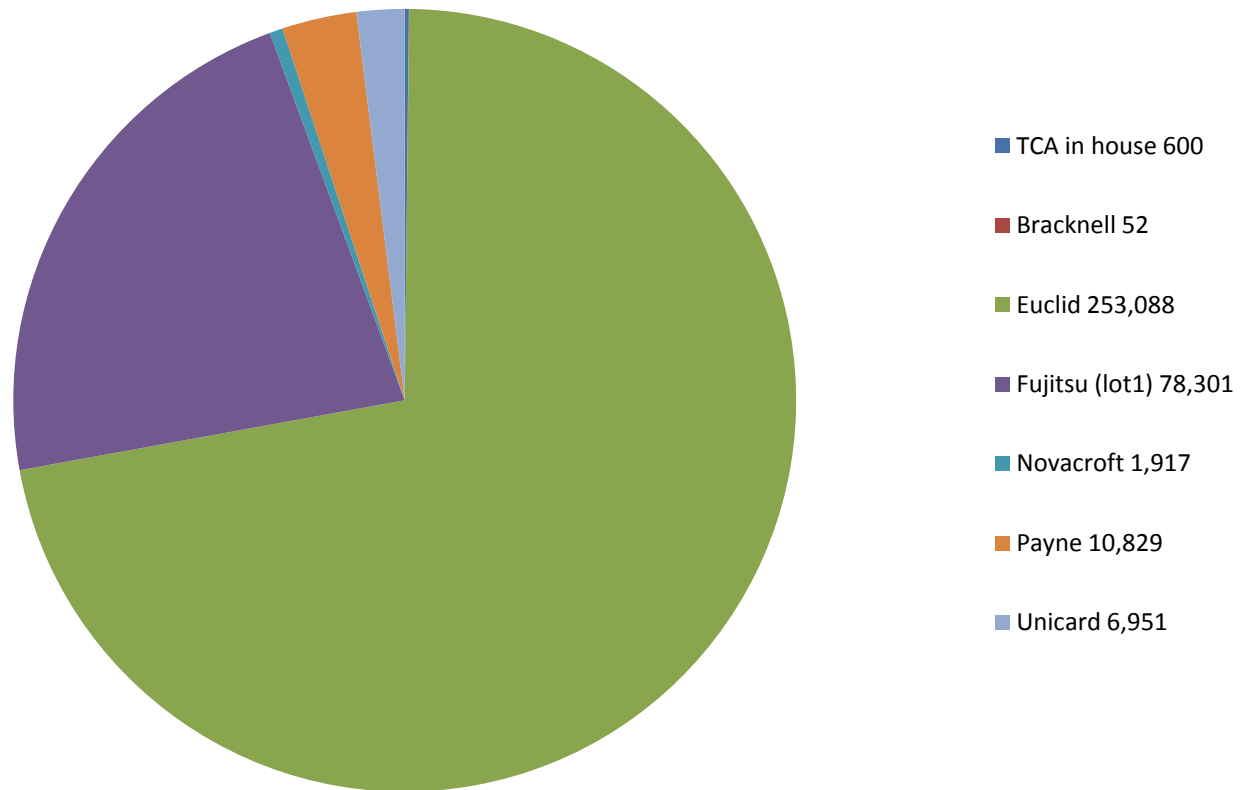
## Duplicate Shells





# ACT

## Failed data frames





## Stop Listing Q & As

- *There has been some confusion regarding the terminology to be used when talking about Hot Listing. Can you elaborate on the correct terminology?*
  - The correct terminology - Stop Listing (the passive process) Hot Listing (the active process). This has been confirmed with ITSO and the Department for Transport
- *Why does ITSO Services need this information?*
  - ITSO Services under the current circumstances is the only body that can inform the ISL HOPS of cards that are required to be stop listed. CMS suppliers have no provision or authority to do this on behalf of TCAs or ITSO Services. Therefore in order for a card to be authentically stop listed on the back office system, the information must come to ITSO Services



## Stop Listing Q & As

- *What if a TCA has an exiting agreement with a third party for CMS?*
  - ITSO Services is aware that some TCAs have contracted out their stop listing procedures to CMS suppliers. This is acceptable; the TCA will have to sign an amended “Annexe A” letter to confirm that their third party supplier will send the list on behalf of the TCA, to an agreed format and timetable direct to ISL. Please contact ISL at [helpdesk@itsoservices.org.uk](mailto:helpdesk@itsoservices.org.uk) or on 0121 634 2758 to request “Annexe A”
  - Suppliers offering CMS to produce stop listing files, without consulting ISL



## Stop Listing Q & As

- *What if a TCA has not received data for stop listing cards?*
  - Again, it has been brought to the attention of ITSO Services that some CMS suppliers have not provided the information required by ITSO Services as outlined in the stop listing template. ITSO Services would advise any TCA currently in this situation to inform ITSO Services of this delay, and also to monitor the situation with the supplier. ITSO Services will be chasing up TCAs who have passed on no stop listing information at all
- *Can my CMS supplier interface directly with the ISL HOPS?*
  - No, there is no interface from the ISL HOPS into any CMS. ISL does not have the DfT remit, budget or resource to initiate third party integration projects

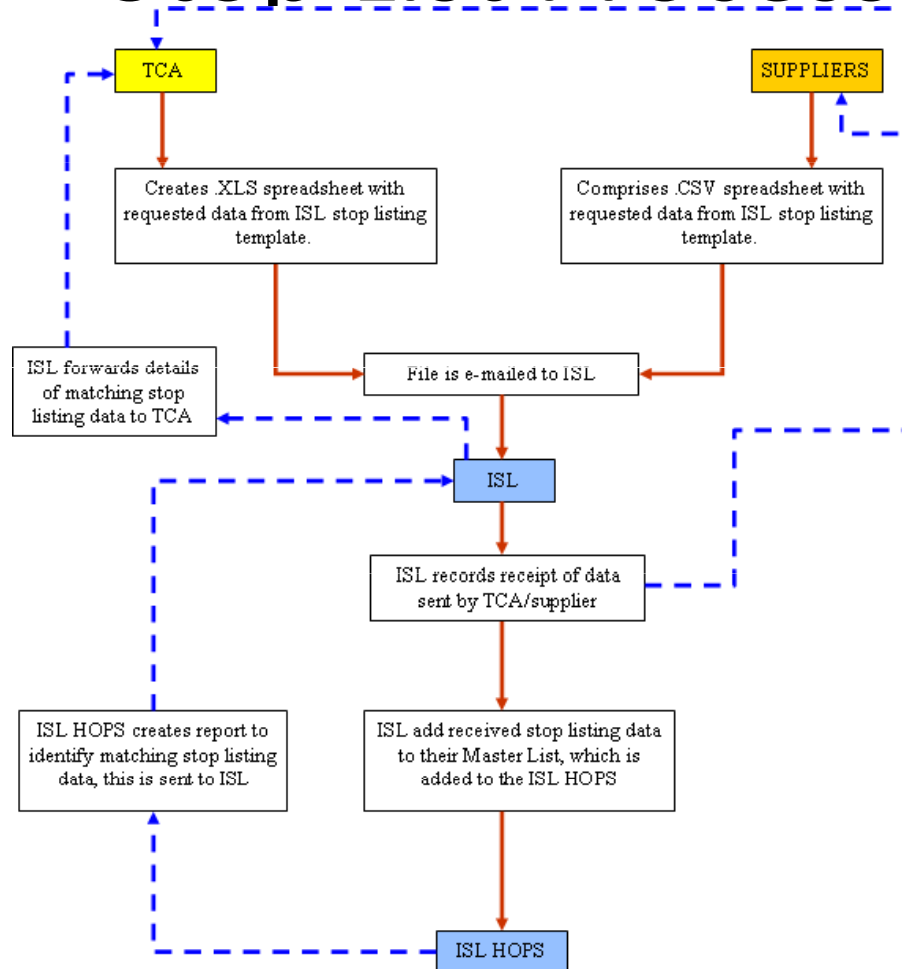


## Stop Listing Q & As

- *If a TCA is physically destroying cards securely, do I still have to add them to the stop list?*
  - No, this is not always necessary
- *Do the TCAs need to set their own Business Rules on stop listing?*
  - Yes, but there will be a TAN (Technical Advice Note) issued from ISL & DfT to all TCA's
- *Can a TCA have direct access to data contained in the master stop list?*
  - At the moment no, when the TCA becomes smart stop lists and hot lists can be shared by schemes



# Stop List Process





# Stop Listing Process

## Overview of the current process

- Concessionaire informs TCA that they have lost their card
- TCA inform ISL that a card has been lost
- ISL informs the HOPS that a card should be put on the Stop List or sent via their 3<sup>rd</sup> party CMS
- If a lost card is used fraudulently for a **second** time then it is moved to the hot list
- All cards that have been destroyed will not need to be added to the stop list



# TCA Open Forum

- What worked/didn't work?
- How can ISL improve or do better?
- Are there any other particular services TCAs require from ISL?





## Lunch

The ISL & DfT team will be available, so feel free to ask any questions that you may have

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## TCA Open Forum Continued ....

- What worked/didn't work ?
- How can ISL improve or do better?
- Are there any other particular services that TCAs require from ISL?





# TCA Migration

## When?

ISL will assist the TCAs to migrate out of the ISL HOPS, this is currently being funded by the DfT

- *I am part of a scheme, can we all migrate at the same time?*
  - Yes
- *I am part of a scheme but some TCAs do not want to go Smart or be part of a consortium or can I migrate on my own?*
  - Yes
- *How does a scheme physically migrate away from the ISL HOPS?*
  - The TCAs Product accounts will be migrated out, however the Shell accounts will remain in the ISL HOPS not shell
- *Does my TCA have to reissue cards?*
  - If they migrate out of ISL, No



# TCA Migration

What does a TCA need to do?

- Become a ITSO member
- Sign the Operating Licence
- Register products
- Procure ISAMs
- Procure their own HOPS / AMS
- Request the Primary ISAM





# TCA Migration

## How long will it take?

- ITSO Membership – once in receipt of paperwork can take up to 2 working days
- Procurement of a HOPS can take up to 100 days (the fastest time can be 56 days)
- ISAM (ordered by ITSO) can take up to 10 working days
- Primary ISAM up to 5 working days
- Registering IPE's up to 2 working days

## TCA Migrating Documentation

- The first TCAs will start to migrate in September 2008, the guidance notes are in working progress and will be trialled with the first migrating TCAs before being released



# TCA Migration

- As a result of Local Government Reorganisation (LGR), ISL will lose 24 TCAs in April 2009 & will be replaced with 5 new councils
- A further 9 TCAs will be migrating into their own HOPs (a total of three schemes)
- This will leave ISL with 220 TCAs which is 71 schemes to migrate

**ISL would encourage TCAs to work together in partnership**

**Any TCA thinking of migrating out of the ISL HOPS, please make ISL your **first** port of call.**

- Please note: ISAM Provisions are time restricted, if you are considering migrating, please consult ISL immediately to secure ISAMs in plenty of time. (Should ITSO have no operating stock, there will be a 9 month waiting period due to demand.)



# TCA Migration

The following shows a Single TCA with its own product OID which then becomes smart:

At Migration

<i>Glossary</i>	<i>Before Migration</i>	<i>After Migration</i>
<p>The Shell OID is an identifier of the Issuer of the Shell</p> <p>The Shell is the data structure stored in a smartcard or other Customer Media, which acts as an envelope within which ITSO Products may be stored.</p> <p>An Account maintained by an ITSO Product Owner relating to a specific, uniquely numbered, ITSO Product.</p> <p>A lower hierarchy number representing an identifying Cost Centre for the Issuing Authority of a Concessionary pass.</p>	<p>The Shell OID is Assigned and Registered to ITSO Services Ltd.</p> <p>The Product OID is Assigned to the TCA</p> <p>The CPICC is Assigned to the TCA</p>	<p>A <b>NEW</b> Shell is Registered to the TCA</p> <p>The <b>SAME</b> Product OID is migrated to now refer to the <b>NEW</b> TCA Shell</p> <p>The <b>SAME</b> CPICC is migrated as part of the Product</p>



# TCA Migration

The following shows a scheme where all the TCAs in a scheme go smart together:

At Migration

<i>Glossary</i>	<i>Before Migration</i>	<i>Migrated TCA</i>	<i>Remaining non smart TCAs</i>
<p>The Shell OID is an identifier of the Issuer of the Shell</p> <p>The Shell is the data structure stored in a smartcard or other Customer Media, which acts as an envelope within which ITSO Products may be stored.</p> <p>An Account maintained by an ITSO Product Owner relating to a specific, uniquely numbered, ITSO Product.</p> <p>A lower hierarchy number representing an identifying Cost Centre for the Issuing Authority of a Concessionary pass.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; background-color: #e0f7fa;">Shell OID</div> <div style="font-size: 2em;">→</div> <div style="border: 1px solid black; padding: 5px; background-color: #e0f7fa;">Product OID</div> <div style="font-size: 2em;">→</div> <div style="border: 1px solid black; padding: 5px; background-color: #e0f7fa;">CPICC</div> <div style="font-size: 2em;">→</div> </div>	<p>The Shell OID is Assigned and Registered to ITSO Services Ltd.</p> <p>The Product OID is Assigned to the Whole Scheme (and not a single TCA)</p> <p>The CPICC is Assigned to the TCA</p>	<p>A <b>NEW</b> Shell is Registered to the TCA</p> <p>A <b>NEW</b> Product OID is Registered to the TCA</p> <p>The <b>SAME</b> TCA CPICC is related to the <b>NEW</b> Product OID</p>	<p>The <b>SAME</b> Shell (as before migration) continues to be Registered to ITSO Services Ltd</p> <p>The <b>SAME</b> Product (as before migration) continues to be Registered to the Scheme</p> <p>The <b>SAME</b> TCA CPICCs (as before migration) continues to be related to the Scheme Product OID</p>



# TCA Migration

The following shows what happens when a TCA comes out of a scheme and goes smart on its own:

At Migration

<i>Glossary</i>	<i>Before Migration</i>	<i>After Migration</i>
<p>The Shell OID is an identifier of the Issuer of the Shell</p> <p>The Shell is the data structure stored in a smartcard or other Customer Media, which acts as an envelope within which ITSO Products may be stored.</p> <p>An Account maintained by an ITSO Product Owner relating to a specific, uniquely numbered, ITSO Product.</p> <p>A lower hierarchy number representing an identifying Cost Centre for the Issuing Authority of a Concessionary pass.</p>	<p>The Shell OID is Assigned and Registered to ITSO Services Ltd.</p> <p>The Product OID is Assigned to the Whole Scheme (and not a single TCA)</p> <p>The CPICC is Assigned to the TCA</p>	<p>A <b>NEW</b> Shell is Registered to the Scheme</p> <p>The <b>SAME</b> Product OID is migrated to now refer to the <b>NEW</b> Scheme Shell</p> <p>The <b>SAME</b> set of CPICCs are migrated as part of the Scheme Product</p>



# In House (and Bureau) Pass Production

## Select your supplier for the in house equipment

- Agree date of when the equipment is to be installed
- Agree who will order your ISAMs

## ISL will need to know the following

- Annual card turnover (this will allow us to work out your card number range)
- How many Perso POSTS you are having
- How many ISAMs you require and products required



# In House Pass (and Bureau) Pass Production

## SSL Certificate

- You will need to contact [gary.watts@card.co.uk](mailto:gary.watts@card.co.uk)
- The cost is £200

ISL will need to know if any TCA is thinking about moving from current card bureau

- This will have an impact on ISAMS



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## In House Pass (and Bureau) Pass Production

This is the list the 19 TCAs that are producing cards in-house and still using the ISL HOPS:-

Stoke on Trent

East Riding

Nexus

West Yorkshire PTE

East Devon

Reading

Stratford

Bournemouth/Poole

Gloucester

South Glos

Maidenhead

Bath & NE

North East Lincs

Windsor

Leicestershire

North Somerset

Oxford

Luton

Bracknell



## Warning!!!

- TCAs need to check that their new proposed supplier have the correct ITSO Specification to issue ENCTS Cards
- Has the new proposed supplier ever printed ITSO Cards?
- The correct specification
  - ITSO Specification is v2.1.2 but the latest version v2.1.3 has been released
  - <http://www.itso.org.uk/page49/Home/ItsoSpecification>



## Warning!!!

If you contract with another card bureau, please ensure that they conform with ISL's processes and procedures as ISL will not be involved in any of the following:

- Disputes with your proposed supplier
- Certification
- Integration
- Fabrication of volume of cards

**If you are in any doubt then please contact ISL**



# Supplier Integration

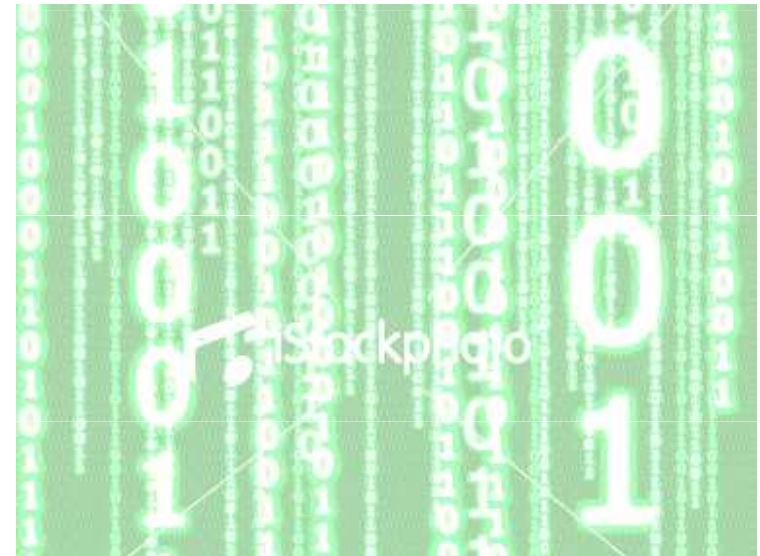
- An integration assessment was sent to all suppliers on 17.4.08 to respond to ISL by 2.5.08
  - To date we have received 3 completed assessments
  - These have been sent to ACT to comment on then, a project plan will be set up for all suppliers so they are aware of when there integration work will be done



# Supplier Integration

## Second Shell OID

- What is it?
- Why do we need it?
- Any implications?





## Guidance & Documentation

- DfT and ISL are working together and will be issuing a “Technical Advice Note 5” (TAN 5) end of July 2008 on guidance on “Procedures for Stop Listing and Hot Listing for Concessionary Travel Passes in England”
- Guidance Notes for TCA Migration is currently working progress but we hope to trial the notes when the first TCAs migrate, before these documents will be distributed



# Pass Validation

## Service Overview

- This is an optional service
- Independent verification
- This is not intended to remove the responsibility of the pass supplier
- Not intended to replace any testing that has been agreed between pass issuers and pass suppliers



# Pass Validation

## Requirements

- Access online <http://www.itso/or.uk/validation.asp>
- Complete details and submit the ITSO CMD application
- Contact [validation@itso.org.uk](mailto:validation@itso.org.uk)



# Pass Validation

## Illustrative Scenarios

- A change in supplier
- A change in scheme layout
- A change in an element of the pass ordering process, such as implementation of a new “Card Management System”
- The addition of new products to the passes
- The process of bringing production and encoding in-house



# Pass Validation

## Service Pricing

- Up to 10 passes £250
- 11 to 20 passes £500
- 21 to 30 passes £750
- 31 or more passes £750 + £25 per additional pass over 30
- It is recommended by ITSO that two passes for each product combination are tested



# Pass Validation

## Planning

- ITSO will confirm the service timescales when an order is taken providing the provisional and then confirmed date of service
  - A minimum of ½ day to validate a batch of ten passes
  - A minimum of 3 days following validation for passes to be returned to service user



# Pass Validation

## Service Results

- Following the CMD validation service, ITSO will update the validation form and show all the parameters that were validated for that CMD. Each parameter will be confirmed as a pass or fail, for those that fail and explanation will be provided as to the nature of the failure
- The marked up forms will be returned along with the CMD's and each ISAM as appropriate



# AOB

## ISL Website

- Revamp
- TCAs Members only section
- All Q&As will be posted to the website

## Feedback questionnaire

- To be completed before the end of today and handed back to a member of the ISL team





# AOB

## Any Questions!

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# AOB

## Thank you for your time today

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