ofgem

Title of Product/Paper	*E2E Transition Plan – Inflight Switches Management Approach*		
PBS Reference	D-4.3.4	Date:	12 February-2018
Version	1.0		

CONTENT

1. Product Summary

1.1. At cutover from the existing central systems to the new CSS, some Switch Requests that have been initiated under the old arrangements will be due to become effective on a date after go-live of the new arrangements. These Switch Requests are referred to as 'inflight switches'. A mechanism is required to ensure that no inflight switches are lost, processed twice or fail due to the transition from the legacy systems to the new CSS.

1.2. The proposed mechanism described in this paper will allow consumers to continue switching during the transition period, with little (if any) delay compared to the existing average switching timelines.

1.3. There may also be other 'inflight' transactions, most likely initial registrations and disconnections, but potentially also meter details updates (e.g. change of MAP), change of shipper (without a change of supplier), address updates, and domestic premises indicator updates. This document will also outline the approach to these transactions to minimise material impacts on the consumer and wider industry processes.

1.4. This paper forms part of the DLS Phase E2E Transition product (D-4.3.4).

2. Essential Background

Switching Processes

2.1. Table 1 (below) sets out the existing process for Switch Requests for gas and electricity.

Table 1: Existing switching processes

Step	Electricity	Gas
1	A consumer agrees a contract with a new supplier, either directly with a gaining supplier or via a third party intermediary who will notify the gaining supplier.	

Step	Electricity	Gas
2	Gaining supplier notifies MPRS that they would like to gain responsibility for supply to a meter point.	Gaining supplier notifies their shipper that they would like to gain responsibility for supply to a meter point. The shipper sends a notification to UK Link.
3	MPRS notifies the losing supplier of the loss, and invites them to object in accordance with their supply licence conditions. The losing supplier has 5 working days to raise an objection (known as the 'Objection Window').	UK Link notifies the losing shipper of the loss, and invites them to object in accordance with the gas shipper licence conditions. The shipper passes this notification and invitation to the losing supplier. The losing supplier and shipper have 7 working days[1] to raise an objection (known as the 'Objection Window').
4[2]	If the losing supplier has grounds to object to the switch they will notify MPRS. If the underlying reason for the objection is resolved within the Objection Resolution Window[3], the objection can be withdrawn and the switch will proceed.	If the losing supplier or shipper has grounds to object to the switch the shipper will notify UK Link. If the underlying reason for the objection is resolved within the Objection Window, the objection can be withdrawn and the switch will proceed.
5	The electricity and gas supply licences require suppliers to complete a switch within 21 calendar days of the Relevant Date[4], unless the customer asks for a later date (subject to some exceptions). Suppliers can request a Supply Start Date of up to 28 days in the future in electricity, or 30 days in gas.	
6	The switch will take effect on that date so long as there are no unresolved objections. In a dual fuel switch it is common for each fuel to have a different Supply Start Date.	
7	If a customer cools off, or if a Switch Request is identified as erroneous, the Switch Request may be withdrawn up to the end of the second working day before the Supply Start Date.	If a customer cools off, or if a Switch Request is identified as erroneous, the Switch Request may be cancelled up to the third working day before the Supply Start Date.

2.2. Under the new E2E Switching Arrangements, a switch will progress as follows:[5]

    2.2.1. A consumer will agree a contract with a new supplier, either directly with a gaining supplier or via a third party intermediary who will notify the gaining supplier.

    2.2.2. The gaining supplier sends a Switch Request to the CSS to take over responsibility to supply gas and/or electricity to the consumer's premises. The gaining supplier will specify a Supply Start Date in the Switch Request. At go-

[1] Note that the gas objections window is not *always* 7 working days. In some circumstances, such as bank holidays or periods of system maintenance, it flexes to allow a switch to take effect within 14 calendar days (usually made up of up to 7 working days of objections window, plus 3 days to execute the switch).
[2] For the purpose of this document, 'Objection Resolution Window' is used to refer to the objection resolution rules in both gas and electricity.
[3] The period from the time that the Objection is raised, up to but not including 18:00 hours on the first working day thereafter.
[4] The Relevant Date is: (a) the day on which a customer enters into a contract with the new supplier; or (b) if after entering into the Contract there is a period of time within which the Customer may decide not to proceed with the Contract (the "Cooling Off Period"), the earlier of : (i) the day on which any Cooling Off Period ends; (ii) the day on which the customer and supplier agree that the transfer may proceed during the Cooling Off period; or (iii) 14 days after the day on which the Customer entered into the Contract.
[5] Full details of the new E2E Switching Arrangements can be found in the Design Repository (ABACUS).

live of the new CSS, a Switch Request is expected to switch in 5 working days unless the consumer has chosen a later switch date or the supplier has met certain criteria (still to be defined) that demonstrate that it can switch consumers by the end of the next working day[6]. For suppliers that are switching consumers in 5 working days, this means that if a request is submitted to CSS on a Monday, that supplier can be the registered supplier by 00:00 on Saturday. The maximum lead time for a Switch Request will be 28 days.[7]

2.2.3. The CSS will process the request and create a 'pending registration' against the Registerable Measurement Point(s) (RMPs) contained in the Switch Request.

2.2.4. The CSS will notify the losing supplier that a request has been received, and invite them to object to the switch in accordance with their licence conditions. The losing supplier may raise an objection by sending a message to the CSS within the Objection Window. The Objection Windows will be 1 working day for domestic switches and 2 working days for non-domestic switches in both gas and electricity. If an objection is raised by the losing supplier the Switch Request will be terminated. If and when the underlying reason behind the objection is resolved the gaining supplier must submit a new Switch Request.

2.2.5. A 'pending registration' may be withdrawn by the gaining supplier or annulled by the losing supplier (subject to regulation) until Gate Closure on the day before the Supply Start Date. These actions are given effect by either the gaining or losing supplier sending a request to the CSS to stop the Switch Request.

2.2.6. Provided that no objection, withdrawal or annulment has been sent to CSS, the switch will take effect at midnight on the Supply Start Date.

Cutover to the new Switching Arrangements

2.3. In the run up to cutover to the new arrangements, registration data will form a key part of the migration of data from existing systems to the CSS. The majority of migrated registrations will be active registrations which will not change during the migration period (as most customers will not switch during the migration period). These active registrations will be migrated from the existing systems during the DBT phase and recorded in the CSS as 'active' registrations.

2.4. Some registration data will change during the migration period. This will be captured by delta migrations in the run up to cutover. Further detail on the data migration can be found in the DLS phase product D-4.3.6 (E2E Data Migration).

2.5. A smaller subset of registration data will not have fully progressed to being an active registration at cutover. These are known as 'inflight switches'.

3. Options development and analysis

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[6] The criteria that will allow a supplier to switch consumers by the end of the next working day will be developed during the Enactment phase. After an initial transitional period, all suppliers will be expected to offer consumers a next working day switch..

[7] See Reform Package Spreadsheet (published 21 September 2017).

3.1. In the existing systems, a Switch Request which has not fully progressed to an active registration may have one of a number of statuses, which do not translate exactly into one of the status categories used by the new CSS. For example, a switch may have been objected to but is still within its window for resolution, for which there is no equivalent in the new CSS. Further, switches being progressed in the existing systems are subject to different Objection Windows, lead-time requirements, and deadlines for withdrawal.

3.2. The variation between lifecycles of switches under the existing and new switching systems necessitates a bespoke approach to capturing and managing switches that are inflight at the commencement of cutover.

3.3. Options considered:

3.3.1. Option 1: Migrating inflight switches at their various statuses, and continuing their original lifecycle within the CSS. *(Discounted)*

3.3.2. Option 2: Developing a mechanism to enable all inflight switches in the legacy systems to reach a status that can be easily mapped to the statuses used in the CSS, and migrating such switches at cutover into the new arrangements. *(Preferred)*

3.3.3. Option 3: Imposing a moratorium on switching for a fixed period in advance of cutover, so that no inflight switches exist in the legacy systems. This would involve designating a range of dates before and after go-live as unavailable to be Supply Start Dates. *(Discounted)*

Conclusion

3.4. Option 1, simply migrating inflight switches at their various statuses, would entail the development of complex functional specifications that would only be utilised for the cutover period:

o CSS would need to be able to recognise and apply old policies to inflight switches (e.g. recognising that a switch is 2 days in to a 5 day Objection Window, and allowing a further 3 days). This would require complex transitional business rules.

o Gas switches that start their Objection Window in UK Link will have the invitation to object sent to the gas shipper. In the new E2E Switching Arrangements suppliers interact with the switching system directly, meaning that a supplier may wish to raise/withdraw an objection to a switch that it has no notifications or invitations for. This would require suppliers and shippers to develop complex transitional capabilities.

3.5. Furthermore, this approach would increase the risk of switches failing or the occurrence of erroneous switches, creating a backlog of transactions to process at go-live when the CSS will in its hypercare period. This option would also increase the cost of the data migration.

3.6. Option 3, a moratorium on consumer switching (and therefore having no inflight switches to migrate), was rejected at an early stage. This option would be enacted by imposing a fixed period around cut over during which no Supply Start Date could be selected. Our analysis and stakeholder engagement suggested that to impose such a

moratorium would require a significant programme of consumer messaging and changes to suppliers' consumer–facing systems. It would also have a detrimental effect on some consumers, as before and after go-live of the new E2E Switching Arrangements, some dates would be unavailable to both domestic and non-domestic customers as a Supply Start Date, interfering with end-of-contract switches and exposing customers to potentially higher out-of-contact prices. In addition, there would be a significant backlog of transactions to process at go-live, putting the new CSS under additional strain in its hypercare period.

3.7. Therefore, we have examined a number of mechanisms for implementing Option 2, and recommend one which ensures that all switches that are inflight at cutover have the status 'confirmed' for migration into the new system without significant risk of loss or mistranslation.

3.8. In analysing these mechanisms, we have identified a series of key events that occur within a period for managing inflight switches around go-live of the new switching system. These are summarised in Table 2 below.

Table 2: Events in the management of in-flight switches

Event	Description	How to set	Impact
T1	The last date on which suppliers can submit a switch request to MPRS or UK Link. Switch Requests submitted up to this date can have any Supply Start Date, within the existing business rules. The time between T1 and go-live is referred to as the 'Inflight switch management period' for the purpose of this document.	Set such that all switches entered on this date will complete their Objection Window on T2 (see below).	These Switch Requests can have any switch effective date, so long as it complies with the existing industry regulations (e.g. 14 calendar day lead time in gas, no further than 30 calendar days in the future). Switch requests received by suppliers after this date, or with an effective date later than 28 (electricity) or 30 (gas) days in the future from T1, would be queued in suppliers' own systems, for entering into the CSS after go-live.
T2	The last date on which a Switch Request can be cancelled, withdrawn or objected to prior to cutover. Also the last date that an initial registration can be entered into MPRS or UK Link.	Set as close as possible to go-live, allowing sufficient time for the final delta migration of registration data. This is assumed to be 4 days prior to go-live, to allow time to bring the new system and interfaces online, and to ensure a stable dataset for the final migrations.	Switches with a Supply Start Date between T2 and go-live would definitely be executed after T2. Switches with a Supply Start Date after go-live would be subject to the business rules of the new system regarding withdrawals and annulment once that system is live.

Cut-over	A weekend period immediately prior to go-live where existing systems' switching components will be disabled and the new CSS will be in the process of being brought online.		
Go-live	Commencement date for the new switching arrangements for all suppliers.	We have assumed this to be the Monday following the cutover weekend.	
T3	The earliest Supply Start Date available for a Switch Request that has been entered exclusively in the new CSS.	For the purposes of this paper, this date will be the Saturday following a Monday go-live[8].	This will be the first available Supply Start Date for consumers whose suppliers miss T1 for raising a Switch Request.

Objection Windows

3.9. Variations on this mechanism can be achieved by making adjustments to the Objection Windows in the legacy systems. A shorter Objection Window allows for a shorter inflight period (by setting T1 closer to cutover), and therefore fewer switches to manage during and after cutover. However, this necessarily creates additional work for the existing central system providers, suppliers and shippers.

3.10. The disparity between the existing Objection Windows in gas and electricity, and the new CSS, gives rise to four options for setting T1, and managing inflight switches:

3.10.1. Option 1: The Objection Windows are harmonised in line with the gas Objection Window. This will require electricity suppliers and MPRS to make an interim change to their systems, and cause electricity-only switches to be stopped from entering the central systems earlier than is necessary. (Discounted)

3.10.2. Option 2: The Objection Windows are harmonised in line with the electricity Objection Window, meaning that gas suppliers and shippers, and UK Link, will need to make an interim change to their processes in the run-up to cutover. (Preferred)

3.10.3. Option 3: The Objection Windows for gas and electricity are reduced to match the Objection Windows in the new CSS, 1 working day for domestic switches and 2 working days for non-domestic switches. *(Discounted)*

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[8] In the transitional period immediately following go-live suppliers will be expected to offer to switch customers within 5 working days. Suppliers will be able to switch faster than 5 working days, and up to the next working day, during the transitional period if they can do so without harming consumers. The criteria for this assessment will be determined in the Enactment phase of the Programme. For suppliers who meet such criteria, T3 will be closer to go-live.

3.10.4. Option 4: Disparate Objection Windows for gas and electricity are maintained during the in-flight switch management period, necessitating a T1g for gas and a T1e for electricity. *(Discounted)*

Conclusion

3.11. Option 3, to implement the new Objection Windows in the existing systems, was our initial preferred position, as it enables some process change to be brought forward for suppliers ahead of the main cutover, spreading the delivery risk for those parties. However, following further analysis, it we rejected this option due to the significant change it would require for shippers in gas, who would need to process objection requests within 1 working day. This would be a nugatory exercise, as shippers do not interact with the new CSS.

3.12. Option 4, to maintain the existing disparate windows, was rejected due to the complexity this would create for front line staff advising customers during the transition period. Specifically, this would set T1 for electricity switches later than for gas, so front line staff would need to identify and explain to some customers that their gas switch would be processed much later than their electricity switch. In these cases, there would be further complexity if a customer cools off before cutover as front line staff must determine if the switch request has been submitted to the central systems or is waiting in a queue within the suppliers' own systems. Conversely, maintaining the same date for T1 across both fuels simplifies this process, with a single date to determine if a customer's transaction has left the suppliers' system. This approach would also run counter to the programme objective of harmonising gas and electricity processes.

3.13. Option 1, extending the electricity Objection Window, was rejected in favour of Option 2, reducing the gas Objection Window. Xoserve have advised the Objection Window in UK Link is parametrised, so can be adjusted with relatively little direct cost to shippers. The minor reduction in the Objection Window for shippers will not generate cost, as shippers must already comply with reduced windows over bank holidays and during system downtime.

3.14. Reducing the Objection Window in gas would not reduce the overall switching timeline in the current arrangements within the in-flight switch management period. A Switch Request registered in UK Link during this period would still need to follow the 14-calendar day lead-time rule.

3.15. Under the MRA, if an electricity switch is objected to on the 5th day of its Objection Window, an additional day is granted to resolve the objection. Under our proposed approach to managing inflight switches, this additional day for resolution would not apply for switches entered on T1. The practical effect would be that a switch objected to on T2 would be queued in suppliers' systems until after go-live, if the customer still wished to proceed with the switch. In order to operationalise this, MPAS systems would reject any switch resolution messages received on the day after T2, so suppliers would be aware of the need to resubmit the switch request to CSS. This would only impact those switches which were raised on T1 and objected to on T2, and would have the effect of shortening the amount of time available for resolution of the objection. We consider that this has little or no cost implication for suppliers. MPAS operators would be required to change the function of their systems to facilitate the rejection of objection resolutions after T2, but we consider that the additional cost that this would impose is unlikely to be significant. This approach has been judged to be the lower cost and risk option. The alternative approach would be to move T1 earlier. This

presents significantly increased risk, as it creates an additional day of queued switches (up to 30,000 switches) to feed into the CSS in the hypercare period.

4. Our preferred option for managing in-flight switches

4.1. Under our preferred option:
- o Gaining suppliers and shippers will process all Switch Requests received before a fixed date (T1 in Table 2) until they reach the end of a harmonised, 5 working day Objection Window for both gas and electricity in their respective central systems.

- o Following T2, Switch Requests that have not been objected to by the losing supplier or shipper, or withdrawn by the gaining supplier or shipper, will be denoted as 'confirmed' and entered into CSS as Registration Management Requests[9].

- o Switch requests received by gaining suppliers after a fixed date (T1) will be queued by suppliers in their own internal systems. After go-live of the new Switching Arrangements, these can be entered into the CSS.

<u>Timeline for the inflight switch management period</u>

4.2. Some example scenarios are shown in Table 3:

Table 3: Example scenarios for progressing in-flight switches under our chosen option

Calendar Days Before Go-Live	14	13	12 (T1)	11	10	9	8	7	6	5 (T2)	4	3	2 (CO)	1 (CO)	0 (GO)					+5 (T3)
Not inflight – executed before go live (gas or electricity)[10]	SR	O	O	O	O			O	CR	CR	NC	NC	NC	EX						
Inflight – fastest gas			SR	O	O			O	O	O	NC	NC	NC	NC	CR	SE	EX			
Inflight – fastest electricity			SR	O	O			O	O	O	NC	NC	NC	NC	EX					
Inflight – future dated	SR	O	O	O	O			O	CR	CR	NC	NC	NC	NC	CR	SE	EX			
Inflight – unresolved objection			SR	O	O			O	O	O	SH	SH	SH	SH	SR	O	CR	CR	SE	EX
Inflight – missed T1				SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SH	SR	O	CR	CR	SE	EX

Code	Description
SR	Registration (switch) request submitted to central system.
O	Objection window.
CR	Confirmed registration – registration is past the objections window, and can be withdrawn or annulled, subject to business rules of the system the registration is in.
SE	Secured switch – after gate closure on this day, the switch cannot be withdrawn or annulled and will definitely go ahead.
EX	Switch executed – the gaining supplier will be responsible for the RMP from midnight at the start of this day.
SH	Supplier held registration – switches queued in the suppliers' systems for entry directly into the CSS.

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[9] For further details, see Product D-4.3.6 (E2E Data Migration)
[10] This example assumes that the change to a 5 Working Day Objection Window has already been implemented in UK Link.

NC	No changes – denotes days on which no changes can be made to a pending registration as systems are in cutover.
Shading	Denotes a non-business day.
CO	Cut over
GO	Go live of the CSS – First day of live operation

4.3. Table 3 shows that:

- o A Switch Request entered into the current arrangements can have a Supply Start Date of any date during the transition from the current to the new arrangements.

- o The selection of a Supply Start Date will be subject to the business rules of whichever system the Switch Request is initially entered into. So, case 2 shows that a gas switch entered into UK Link on T1 cannot become effective before day 3 of the new arrangements.

- o A Switch Request entered into the current arrangements before T1 can be future dated up to 28 days for electricity or 30 days for gas.

- o If a Switch Request entered into the current arrangements is objected to by the losing supplier, and that objection is not resolved before the end of the Objection Resolution Window (and before T1), the supplier must re-enter the switch request into the new arrangements at go-live. The earliest that the switch can become effective is day 5 of the new arrangements.

- o After T1, switch requests received by gaining suppliers must be queued in their own systems until go-live of the new arrangements.

4.4. Confirmed Switches migrated into the CSS during cutover (i.e. those submitted before T1, with a Supply Start Date of go-live or later) will become subject to the business rules of the CSS, meaning that they can be withdrawn or annulled by the gaining and losing suppliers until gate closure. At go-live the CSS will send 'Switch Confirmed' notifications in relation to these switches. This notification is sent to the gaining and losing suppliers, gaining and losing shippers (if appropriate), and DCC (for smart meters). This serves two purposes: (a) providing the suppliers with the Switch ID, enabling them to request withdrawals or annulments, and (b) confirming to those parties that the Switch Request migrated successfully.

4.5. Where a customer requests a switch after T1 and before go-live (and requests a switch to be effected as soon as possible), this will take a maximum of 16 calendar days to become effective. This does not represent a worse outcome than the current requirement in the supplier licence that a switch be effected within 21 days.

4.6. Where a losing supplier objects to a switch after T1 and before T2, gaining and losing suppliers and the customer will have the remainder of the Objection Resolution Window (see table 1) to resolve the objection. Failure to resolve the objection will mean that the switch must be resubmitted following go-live (up to 12 days later, if the Objection Resolution Window closed on T1). Following resubmission after go-live, the switch could be effective in 5 working days. This may mean that a customer's switch becomes effective up to 23 days after the customer first engaged with their new prospective supplier. However, as this would result from an objection raised by the losing supplier, this would not necessarily represent a breach of the supplier

licence provided the gaining supplier had taken all reasonably practicable steps to resolve the objection.

4.7. We have proposed that electricity switches that are objected to on T2, where that is the 5th day of the Objection Window, are not granted an additional day for resolution to minimise the number of in-flight switches and to maintain harmonisation of the gas and electricity Objection Window during the inflight switch management period.

Processing queued switch requests

4.8. When the CSS is live it would be unwise to attempt to process 12 days' of switch requests within the first day, as this would put the new system under an abnormal load. Therefore a 'catch up' period would be required. During this period suppliers would be subject to additional regulation to smooth the level of demand on the system. This additional regulation may involve prioritising domestic switches or those with a more immediate Supply Start Date. Facilitating this smoothing through regulation rather than systemised constraints within the CSS avoids nugatory cost in building and testing a part of the system that will only be used once.

4.9. The CSS runs validation checks on switch requests, including checking that there is not already a pending registration held against an RMP. During the 12 days between T1 and go live, a customer may approach 'supplier B' to switch, and then approach 'supplier C' without informing supplier B of their wish to cancel. If the switch requests are processed in a random order, the CSS may receive supplier C's switch request before supplier B's.

4.10.   These requirements will be managed through transitional regulatory requirements, to be developed during the Enactment phase.

Other inflight transactions

4.11.   Initial registrations can be completed through the existing systems until T2, as there is no Objection Window for an initial registration. After T2, initial registrations must be queued in the suppliers' systems until go-live. Initial registrations can be future-dated, so if suppliers are expecting customers to move into new properties during the time between T2 and go-live they can enter initial registration transactions with the appropriate effective date. Therefore, the 4-day downtime is not anticipated to have any material impact on customers.

4.12.   Other transactions such as change of Meter Asset Provider (MAP), change of domestic indicator, address updates, and change of shipper (outside of a change of supply) also need to be managed during the inflight period. As a principle, any data item that will be mastered in an *existing* central system in the New Switching Arrangements may be updated in that system until any scheduled downtime prior to go-live[11]. This would apply for change of MAP, as that data is simply synched to CSS, so changes could be applied in CSS very shortly after go-live. However, any data items mastered in CSS, such as shipper or domestic indicator, would need to be submitted to the existing systems by T2 in order to be migrated into CSS. Any transactions raised after T2 would need to be queued in the supplier's system and submitted to CSS after

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[11] This may be later than T2, as the existing systems may not turn off all of their functionality for the whole cutover period. For example, MPAS systems may continue to process meter point location updates beyond T2. The System Integrator and E2E Coordinator function will have responsibility for overseeing the deadlines for processing these transactions, and ensuring they are communicated to the relevant industry parties.

go-live. There is no impact to consumers or material impact to other industry processes if these transactions are delayed by a few days.

<u>Scope of the inflight arrangements</u>

4.13. These inflight arrangements apply to both domestic and non-domestic switch requests in the inflight switch management period. For this reason, it is suggested that peak days for non-domestic switches are avoided for cutover and go-live, for example the 1st of the month.

4.14. Unique sites in gas are expected to be phased out by the time the CSS is live. If this is not the case, we recommend that unique sites are not permitted as inflight switches.

5. Impact summary

5.1. A summary of anticipated impacts of the proposed solution is provided below:

Table 4: Summary of impacts of the proposed approach

Consumer impact – Switch date choice	No impact. A switch can take effect on any date during transition, so long as the switch request is submitted prior to T1. This lead time requirement is in line with existing processes and regulations.
Consumer impact – switch speed	Minimal impact. Customers should not experience a longer than 21 day switch where there are no objections raised. Attempts to smooth the number of switches going into the system at go-live could lead to delays for some consumers. Regulatory frameworks would be adjusted to ensure suppliers are not penalised for delays outside of their control.
Consumer impact – erroneous switches	Erroneous switches identified after T2 and due to be effective on or before go-live could not be withdrawn and would go ahead. After go-live of the new system, a new switch would need to be raised to repatriate the customer. Processes already exist to handle this, though it can be complicated. If an erroneous switch had an effective date of 1 or more days after go-live it could be withdrawn or annulled in line with the new business rules.
Cost to suppliers	Reducing the gas Objection Window is expected to have a limited cost impact on suppliers. The main cost would be in creating and managing a process to record and hold switch requests received between T1 and go live, and feeding these into the CSS as required by the smoothing arrangements.
Cost to shippers (gas only)	No significant cost implications are anticipated, as shippers simply object on behalf of suppliers and will continue to do so until T2. Depending on the current processing of messages between suppliers, shippers and UK Link, shippers may have to reconsider the choreography of receiving an objection from a supplier and passing this on to UK Link. However, as the gas objections window does currently flex (and recently reduced to 2 days for Project Nexus transition), it is expected that shippers are already able to manage such requirements.
Cost to current switching systems (MPAS and UK Link)	Xoserve needs to change their objections window to 5 working days. Testing this functionality would carry some cost, although this is expected to be minimal. This change can be

	undertaken at any time prior to the inflight switches management period. MPAS operators and Xoserve would need to reject certain message types after T1 and T2. Specifically, new switch requests must be rejected after T1. Initial registration requests, objection resolution messages, and updates to data items that will be mastered in CSS must be rejected after T2.
Impact on other central systems (ECOES and DES)	No impact anticipated.
Risk of lost/delayed switches	This option involves 12 days of switch requests queued in supplier systems, to feed into the CSS at or shortly after go-live. Entry of these into the CSS would need to be regulated and smoothed, to prevent placing too high a demand on the new system in its hypercare period.
Impact on data migration	Only 'confirmed' and 'secured' registrations would be migrated into the new system[12].

6. Required actions

6.1. Various industry participants must take action in order to give effect to the preferred inflight switch management approach, proposed above. Table 5 below summarises these actions.

Table 5: Actions required by industry participants

Affected party	Activity	Requirement/type of requirement
CSSP(s)	Develop smoothing mechanism for addressing inflight switches.	Contractual relationship with DCC (Role of procuring CSS Providers)
Suppliers	Business process change to stop sending switch requests to the existing registration services after T1. Create mechanism to queue switches between T1 and go-live, with switch requests timestamped to facilitate chronological entry into the CSS. Manage entry of queued switches into CSS, smoothing the flow into the system.	Transitional requirements in REC
Shippers	Prevent files from being sent to UK Link in relation to switching after T2.	Creation of transitional requirement in UNC
	Process objection messages sent by suppliers within the reduced 5 working day Objection Window.	Contractual relationship with suppliers
Xoserve	Align gas Objection Window with electricity.	Transitional requirements in REC
Xoserve/MPRS	Stop accepting files in relation to switches after T2.	Transitional requirements in REC

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[12] See the E2E Design Repository (ABACUS) for a full explanation of registration statuses in the CSS.

6.2. The CSS and Core Systems Integrator function will have responsibility for overseeing the detailed development of the inflight switch management regulations and technical solutions.

6.3. Suppliers will be responsible for changes to their systems to record and hold switches. However, they may be expected to demonstrate the ability to chronologically queue switches received between T1 and go-live.

6.4. Harmonisation of the Objection Windows in gas and electricity could take effect well in advance of go-live. This could marginally de-risk the transition period by separating out some of the required business changes. Engagement with Xoserve and suppliers has indicated that this option would not significantly increase the cost. However, changes to UK Link need to be part of Xoserve's work plan, so this decision would need to be made well in advance of the planned implementation date. The main cost driver for suppliers is business process (training) changes, rather than system changes.

7. Assumptions

7.1. This solution rests on a number of assumptions that may require further validation or incorporation into requirements:

7.1.1. Assumes that UK Link and MPAS systems hold switch requests between the completion of the objections window and the date they become effective in a format that can be identified and translated into the new CSS.

7.1.2. Assumes that the data migration allows for confirmed switches to enter CSS, without having previously gone through the other stages in a registration lifecycle, and can become subject to the usual system logic for confirmed switches.

7.1.3. Assumes that the validation rules in MPAS/UK Link are sufficiently similar to those in CSS such that no switch request that passes validation in MPAS/UK Link would fail validation or be rejected by the CSS for any other reason.

7.1.4. Assumes that unique sites in gas have been eliminated prior to go-live of the CSS. If this is not the case, it is recommended that unique sites are not permitted to be inflight switches (i.e. such switches must be executed in the system they are initiated in). This can be handled through code modifications or transitional requirements.

7.1.5. Assumes that it is possible to do the final migration and cutover in 2-4 days. If this is not the case, the options would be:

7.1.5.1. Extend the inflight period beyond 12 days, requiring more regulatory flexibility around the 21 day switch requirement, and resulting in delayed switches for consumers.

7.1.5.2. Reduce the objections window. Although introducing the new objections policy in the existing systems was rejected in the in-flight switch analysis, a less radical reduction to 3 or 4 working days could be practical and enable the in-flight switch period to stay within 12 days.

8. Stakeholder Engagement

8.1. Our proposed approach to in-flight switches has been discussed and developed in depth at the Delivery Forum.

8.2. The Delivery Forum broadly agreed with our recommendation pursue a mechanism to enable migration of 'confirmed' switches to CSS, rather than impose a market-wide moratorium or attempt to migrate switches at all their various stages of progression.

8.3. Forum members generally supported proposals to harmonise objection windows prior to go-live, although there was no common position adopted on whether this should be implemented well in advance of go-live. We concluded that there was not sufficient support for earlier harmonisation of the objections window to warrant the potentially significant impact on gas shippers.