SUMMARY POLICY ISSUE PAPER – FOR DESIGN AUTHORITY DECISION

Title of Paper	**Switching Programme Transition Strategy**		
Issue Ref		Date: 6 October 2016	
Issue Owners / Author	Barry Coughlan and James Crump / Graeme Barton (Author)		
Discussed at User Group	29 September 2016	Discussion at EDAG Group	13 October 2016
Issued to DA	20 October 2016	Discussion at DA	27 October 2016

Summary and recommendation

1. The issue considered by this paper is how the transition from current switching arrangements to new could be structured. We have developed a set of options for how the transition could be run. The transition strategy will be included in Design Baseline 1, which will inform a request for information to cost up the Switching Programme reform packages. Based on responses from market participants a more detailed transition approach will be developed next year and finalised by the end of the programme Detailed Level Specification (DLS) phase.

2. The transition strategy will ensure we have confidence that the new arrangements work at go-live and beyond, and are delivered in an efficient and robust way. Transition problems could arise due to the scale of change, the need for different industry parties to understand and be capable of delivering changes by set dates, or due to the lack of processes or contingencies to address errors. The strategy should mitigate risks that arise from implementing the new arrangements to an acceptable level.

3. The chosen strategy will impact the cost and reliability of the implementation of the new switching arrangements for different industry parties. It could also create competition issues if there is any differential impact on suppliers.

4. We have considered a large number of options for how the transition can be structured. Full detail of the options long-list is included in the main document accompanying this paper. Having considered the pros and cons of this long-list we focused on a short-list of two core options:

   Option A Big bang: A 'strict' big bang implementation would mean that all market participants implement all of the new switching arrangements at the same time and the new arrangements should go-live for all consumers at the same time. A date would be set for the new arrangements to go live, following a design, build and test phase, after

which all new change of supply requests would be processed under these new arrangements. This option could apply to all models of the solution architecture.

Option B Phased implementation of components of the design: This option is primarily designed with solution architecture option 3 in mind. The delivery of a new MIS database could be separated from the CRS database, reducing the amount of change happening simultaneously at the point of go-live. The first phase could comprise either the CRS or the MIS. A final decision on which part should be delivered first would be taken during the programme DLS phase.

5. In addition to these two high level options, there are a series of further issues that we outline in the paper, which will be given further detailed consideration in the programme DLS phase:

Additional controls: The transition options could be combined with additional controls that may act to mitigate delivery risks and minimse disruption associated with implementation. We propose to consider the need for additional controls during the DLS phase once we have a fuller understanding of the solution architecture, and other aspects of delivery. These controls could include:

- Extending the time for change of supply requests to be processed within the new arrangements;
- Managing publicity or consumer awareness activities in the initial post-implementation period to ensure consistency, clarity and simplicity of communications, until we are confident that the arrangements are functioning as intended; and
- Increased monitoring and support to resolve early life issues.

In-flight switches: A plan will be developed during the DLS phase for the operation of the cut-over point for 'in-flight' switches at the date of implementation, and this could link to the detailed data and infrastructure migration approach. Our initial preference is to avoid any overlapping operations of legacy and new switching arrangements. To do this, all switch requests in legacy systems could be held for up to 28 days by suppliers before the implementation date and would be converted into registration requests in the format required by the new switching arrangements. They would then be processed using the new switching arrangements after the implementation date. We expect that this will be less complex and there will be less risk of 'lost' registration requests.

Delivering benefits to consumers ahead of full programme delivery: Depending on the chosen model for the solution architecture, and the length of the design, build and test phase, it could be a substantial amount of time before consumers see the benefits of the Switching Programme changes. Early implementation of some changes is attractive as it could enable consumers to take advantage of faster switching at an earlier date. However, requiring market participants to make changes to existing systems ahead of full implementation of the new switching arrangements could create additional expense or create additional challenges for reliable switching. Therefore, in addition to the

options outlined below, we also want to seek stakeholder views on some steps that could be taken by all market participants to deliver benefits to consumers ahead of full programme delivery. Specifically, we want to explore whether some benefit could be delivered by:

- Reducing the objections window to 1-2 days;
- Implementing the chosen method for dealing with cooling off events, and so not 'holding back' switches until after the cooling off period has expired; and
- Moving to calendar rather than business day processing of batch registration requests.

6. **Recommendations:**

Our recommendation for the transition strategy is dependent on the chosen solution architecture model. At this point we recommend that if either solution architecture option 1 or 2 is chosen that a big bang approach to transition is adopted.

If solution architecture option 3 is chosen, we recommend that delivery be conducted in two waves, the CRS database as one and the MIS database the other. We do not make a recommendation at this point as to which of these should be developed first.

We also recommend that we keep on the table options for delivering some benefits to consumers ahead of overall programme delivery. We intend to test the cost of these options with relevant industry parties through our RFI. These options are:

- Reducing the objections window to 1-2 days;
- Implementing the chosen method for dealing with cooling off events, and so not 'holding back' switches until after the cooling off period has expired; and
- Moving to calendar rather than business day processing of batch registration requests.

Questions for Design Authority (DA)

i. Do EDAG members agree with the two transition options?
ii. Do EDAG members agree with the recommendations in the paper?
iii. We invite comment from DA members on our proposed approach to developing additional controls to mitigate delivery risks during the DLS phase.
iv. We invite comment from DA members on the cost, impact and risk of attempting to deliver some benefit to consumers ahead of full programme delivery.

Summary of key points from stakeholders

7. In general, stakeholders have suggested a preference for conducting the transition in a manner that reduces as far as possible any period during which both current and new switching arrangements run in parallel. Doing so would help to keep costs down and reduce the risk of error, such as switches being 'lost', during the transition.

8. They have indicated that a big bang approach to the transition would minimise the period of simultaneous running. It may also help to reduce the complexity of delivery plans, as there would not necessarily be overlapping periods of build, test and go-live of different components. Communication of the changes to consumers could also be more straightforward, as they could expect to see all changes at once.

9. The Delivery Strategy User Group and External Design Advisory Group (EDAG) expressed support for the transition strategy options and recommendations presented. Both groups continued to emphasise that the programme should not seek to differentiate between market participants or consumers.

10. However, they highlighted that more detailed consideration will need to be given to the practical planning of the chosen transition method during the DLS phase, in particular on the links to data and infrastructure migration, as the analysis to date has been based on a high-view of the solution architecture options. At EDAG, stakeholders also questioned whether all parties would be ready for go-live and indicated that the programme's position on market participants' readiness should also be answered in the detailed planning.

11. Stakeholders also expressed general support for testing, through the RFI, the potential to deliver early benefit from the Switching Programme to consumers, for example through compressed objections window. However, they suggested that any such early measures should not increase the risks to consumers, should not prioritise speed of delivery over reliability for consumers, and avoid nugatory work for market participants.

POLICY ISSUES PAPER – CONTROL SHEET

Title of Paper	**Delivery Strategy – Transition Strategy v3.0**		
DA Issue Ref		Date:	17 October 2016
Issue Owner (Accountable)	Barry Coughlan		
Author of Paper (Responsible)	Graeme Barton		
Status of Paper	1 – Initial Development and Review 2- Draft for Work Stream Leads 3 – Draft for User Group Review 4 – Draft for EDAG Review 5 – Final Recommendation to DA		
Timing	Planned review cycle for transition strategy: User Group – 27 September 2016 (for review); EDAG – 13 October 2016 (for review); and Design Authority – 27 October 2016 (for approval).		
Dependencies	Inbound dependency on the development of solution architecture shortlist		

Circulation	Workstream Leaders / Design Team / User Group / EDAG /DA Huddle / Website

Issue	Transition from current switching arrangements to new switching arrangements.		
Impacts Domestic?	Yes	Impacts Non-Dom?	Yes
Policy Objective (and reference to ToM v2)	Within the Target Operating Model (TOM) v2, the Switching Programme scope is stated to include "defining and executing a transition and implementation scheme for the Centralised Registration Service (CRS) and new switching arrangements." Our objective for the transition strategy is to determine a structure to effectively manage the change from current switching arrangements to new. This will ensure we have confidence that the new arrangements work at go-live and beyond, and are delivered in an efficient and robust way. The transition strategy should mitigate risks that arise from implementing the new arrangements, be clear and understandable, such that each party is aware of what they need to deliver by when, and should identify contingencies to enable any arising issues to be handled in a timely and cost-effective manner.		
Previous Positions on this/related Issues	N/A		

Summary of Recommendations	Our recommendation for the transition strategy is dependent on the chosen solution architecture model. At this point we recommend that if either solution architecture option 1 or 2 is chosen that a big bang approach to transition is adopted. If solution architecture option 3 is chosen, we recommend that delivery be conducted in two separate waves, the CRS database as one and the MIS database the other. We do not make a recommendation at this point as to which of these should be developed first. We also recommend keeping on the table several options for delivering some of the benefits of the switching programme to consumers earlier than overall programme delivery. We intend to explore the cost, impact and risk associated with these options through the RFI early in the new year before deciding whether it is worthwhile considering them further.

Internal and External Engagement	
Business Process Design	Multiple drafts circulated for WS lead review
Regulatory Design	
Delivery Strategy	
Commercial Strategy	
DIAT	
Legal	
Other Ofgem Teams	Discussion with smart metering team to understand links and lessons learned
Meetings at which this paper has been discussed	
Workstream Leaders	Multiple drafts
User Group	V1.0 product discussed at 5 July meeting and V2.0 product discussed at 27 September meeting.
EDAG	V3.0 product discussed at 13 October meeting.
Ofgem Design Authority	V3.0 product discussed at 27 October meeting.

Version Control Log		
Version number	Date	Note
V0.8	22/6/16	Internal DS draft
V0.9	22/6/16	Presented to WS leads for review
V1.0	29/6/16	Presented to User Group, incorporating some points raised by WS leads
V1.1	12/7/16	Incorporating User Group comments and started to consider solution architecture options
V1.2	18/8/16	Altered transition options according to solution architecture presented to EDAG 18/8/16
V1.3	9/9/16	Draft transition strategy for DT and WS leads discussion and review
V1.4	19/9/16	Updated transition strategy after DT and WS leads comments

V2.0	23/09/16	Draft for User Group review
V2.1	3/10/16	Updated draft based on User Group feedback
V3.0	6/10/16	Draft for EDAG review (no changes required) and Design Authority approval

POLICY ISSUES PAPER – CONTENT

Issue

1. Our objective for the transition strategy is to determine the structure that will be used to effectively manage the change from current switching arrangements to new. This will ensure we have confidence that the new arrangements work at go-live and beyond, and are delivered in an efficient and robust way. The strategy should strike the appropriate balance between delivering the benefits of faster, more reliable switching to consumers quickly and the delivery risk. The transition strategy should mitigate risks that arise from implementing the new arrangements to an acceptable level. It should also be clear and understandable, such that each party is aware of what they need to deliver by when, and should identify contingencies to enable any issues arising to be handled in a timely and cost-effective manner.

2. Making switching faster and more reliable for consumers is likely to require significant changes to industry systems and processes. Moving from current to new switching arrangements, if not managed correctly, could have a negative impact on consumers' experience of switching, and to surrounding industry processes such as billing, balancing and settlement. The implementation will take place after the new arrangements have been tested within the Design Build and Test (DBT) phase, which should significantly mitigate risks associated with go-live. However, transition problems could arise due to the scale of change, the need for different industry parties to understand and be capable of delivering changes by set dates, or due to the lack of processes or contingencies to address errors. If sufficient time and resource is not allowed and a transition strategy is not put in place to effectively manage these implementation risks, the reliability of the new switching arrangements may be compromised. Equally, if the pace of the transition is too slow, the benefits to some or all consumers could be significantly delayed.

3. Reliability during the transition period is important for all stakeholders as switching arrangements underpin retail market processes. Any problems for market participants would also have a significant impact on stakeholders' relationships with consumers. More widely, from the consumer perspective, reliable implementation is vital to ensure that they are able to engage more in the market using the new switching arrangements. The transition strategy will impact the cost and reliability of the implementation of the new switching arrangements for different industry parties. It could also create competition issues if there is any differential impact on suppliers.

4. Within this strategy, we have developed two transition options. These options provide a high-level framework for delivering the three solution architecture options developed by the Business Process Design (BPD) workstream. The transition strategy options will be included in Design Baseline 1 and the Request for Information (RFI) early in the new year. The purpose of Design Baseline 1 is to provide stakeholders with enough information to respond to the RFI and enable us to test the cost and impact of the respective options.

5. Based on future refinements to the solution architecture, and stakeholder feedback on the transition strategy options in the RFI, a more detailed transition approach will be developed next year, for finalisation by the end of the Detailed Level Specification (DLS) phase. This next phase of work will develop in detail how elements of the transition will be sequenced, and reflect links to other parts of delivery such as data migration and testing. Any changes or refinements made to other areas of the programme that relate to the transition will also be reflected in this detailed transition approach.

6. Within the scope of the transition strategy are the structure of the move from current to new switching arrangements and mechanisms for managing the risks associated with this change, in conjunction with other elements of the Delivery Strategy where necessary.

7. Out of scope for the transition strategy is:

    - the definition of 'next day' switching (covered by the BPD workstream);
    - staged reductions to the switching window, ie any gradual reduction in switch times from seven days to three days to next day;
    - market trials (covered by testing strategy)[1];
    - communication of the changes to consumers (covered by consumer awareness campaign strategy); and
    - any post-implementation arrangements post go-live to address early life issues and instability (covered by post-implementation strategy).[2]

Essential Background

Target Operating Model

8. Within the Target Operating Model (TOM) v2[3], the Switching Programme scope is stated to include "defining and executing a transition and implementation scheme for the Centralised Registration Service (CRS) and new switching arrangements." It details the planned activities to develop a Transition and Implementation Scheme (TIS) or "how the market moves from current arrangements to the new switching arrangements".

9. The TOM v2 outlines some of the potential options for moving from current to new switching arrangements:

[1] A market trial is defined in the testing strategy as follows: *"a trial takes place within a representative subset of the live environment using some of the intended user base albeit under controlled conditions that emulate the real energy market environment and before launch. The market trial will not involve any live consumer switches."*
[2] The diagram in Appendix 1 summarises the different activities associated with the DBT and implementation of the new switching arrangements. This indicates some of the activities associated the each Delivery Strategy product.
[3] Ofgem, Updated Target Operating Model and Delivery Approach, 17 November 2015

> "12.36. The TIS will define how the CRS and the new switching arrangements will be implemented. Options for the implementation technique include all parties implementing at the same time (ie 'Big Bang'). An alternative would be for a more gradual or 'staged' approach (eg based on geographic regions, market segments (including meter type or consumer types) or restrictions on volumes of transactions). A further alternative would be for the CRS to incorporate the functionality to process transactions using current file formats such that more ambitious suppliers could adopt the new arrangements more quickly whilst others undertook a slower transition."

10. Additionally, the TOM v2 states that the "TIS aims to manage transitional issues and implementation risks for industry and consumers." The level of change required to move to the new switching arrangements will mean that there will be residual delivery risks, even assuming testing, assurance, systems integration and other elements of delivery are managed effectively. This strategy provides a framework to manage these risks to ensure a smooth implementation period for industry and consumers.

11. The TOM v2 indicates that the programme's ambition is to introduce new switching arrangements by 2019. The programme also recognises government's ambition that these reforms are delivered by 2018. The transition strategy has an important bearing on the delivery date for these programme changes. We do not set out a delivery date in this paper as this will be determined within the DLS phase when we will develop a more refined view of the time required for the design, build and test phase of the programme. To enable us to do that, the RFI will seek information from market participants on the cost, impact and time required for delivery of the options presented in this paper.

Related issues

12. The transition strategy has been developed in light of policy and solution architecture outputs from the Switching Programme's BPD workstream. This workstream has produced the shortlist of four solution architecture options for the new switching arrangements that will be included in the RFI, one of which is a 'do nothing' option.[4]

13. As explored later in this paper, the scale of change required to deliver certain options is significantly greater for some over others. At a high-level, the options mean that there will be significant change to current processes when the new switching arrangements are introduced. The changes proposed will affect registration systems, as well as individual party systems and processes.

14. The transition strategy has a wider outbound dependency for other programme workstreams. The detailed transition plan developed during the DLS phase will set out the timing of the release of the CRS and MIS and these timings will need to be reflected in the procurement plan. This could be of particular relevance if the

[4] A draft version of these solution architecture options is included for reference in Appendix 4.

procurement plan decides to break procurement into different 'lots'. For example, a separate procurement for any central registration system and market intelligence service.

15. There is also an impact on the contract DCC enters into with service providers because it will determine the implementation approach and timing of service delivery. The transition strategy could influence cost and change control mechanisms we design to share risk and/or provide efficiency incentives for DCC, and the definition of any associated implementation milestones.

16. In addition, the transition strategy and wider Delivery Strategy requirements will need to be reflected in the new regulatory and governance arrangements being developed as part of the Regulatory Design workstream.

17. The transition strategy is one part of the overall Delivery Strategy, which contains other workpackages: data cleanse, data migration, governance and assurance, systems integration, testing, and post-implementation. The activities associated with these workpackages during the DBT phase and implementation, and links and dependencies between them, are summarised in Appendix 1. Our Delivery Strategy will need to function coherently, so it is important that this detailed approach developed during the DLS phase effectively links up with other parts of the workstream. In particular, this detailed planning will consider how different elements of the overall delivery approach are sequenced and link together.

18. There are other policy changes outside the programme that could interact with the delivery of the changes to switching arrangements, including work on half-hourly settlement, smart metering, code governance, as well as other work implementing recommendations from the Competition and Market Authority's report into the energy market. We will continue to engage closely with these programmes with a view to identifying and addressing any interdependencies and/or sequencing issues as part of our detailed planning of the delivery during the DLS phase.

Analysis

19. Below we set out our analysis of the issues related to, and high-level options for, moving from current to new switching arrangements. The following sections cover:

- How we have developed our transition options;
- A summary of two high-level options, 'big bang' and phased, and their advantages and disadvantages;
- Specific options for phasing the transition;
- Why we have ruled out some of the phasing options;
- A brief description of the solution architecture options presented by the BPD team, considering how the transition strategy may interact with them;

- Risks and issues we have identified that relate to the transition; and
- Principles derived from consideration of best practice frameworks and lessons learned in previous energy and other sector programme delivery.

Process for developing options

20. In order to develop the transition options presented later in this paper, we followed an iterative process and sought to engage with stakeholders at an early stage. We initially considered the two high-level methods for transition (big bang and phasing) set out in the TOM v2 on a standalone basis in order to understand any initial preferences from industry parties. We then created the long-list of all of the phased options (as detailed later in this paper), and considered whether any presented obvious problems. This was done before the solution architecture short-listed options were confirmed in order to capture all of the potential ways that the new switching arrangements could be delivered.

21. The long-list of options was discussed with the Delivery Strategy Design Team, User Group, External Design Advisory Group (EDAG) and Design Authority. The feedback from these groups informed the pros and cons for each of the options set out below.

22. This paper now reconsiders the long-list with an understanding of the solution architecture options that will be included in the RFI. To do this, we have revisited the long-list to determine whether there are any new options, and reconsidered each of the options to determine whether, in light of the solution designs, any became more or less appealing.

High-level standalone methods for transition

23. As suggested in the TOM v2, there are two high-level transition options: a big bang or phased approach. We describe what we mean by these two high-level approaches, and outline some of their pros and cons below.

Big bang

24. A big bang implementation would mean that all market participants implement all elements of the new switching arrangements at the same time and the new arrangements should go-live for all consumers at the same time. This would mean that all consumers would be able to take advantage of faster, more reliable switching from a single go-live date.

25. At a high-level, a big bang transition has a number of potential benefits, as it:

- Ensures all consumers would see the benefits of the new switching arrangements at the same time;
- Is potentially cheaper to deliver, as it avoids the costs that might be incurred by running both current and new systems and processes simultaneously;

- Is likely to be clearer for industry participants than a phased alternative, as there is a straightforward, quick move from current to new arrangements;
- May mean that it is easier for frontline staff to communicate what is happening, and when, to consumers; and
- Avoids unnecessary distortions to competition as all parties have to work to the same timelines.

26. However, there are also a number of potential risks to adopting a big bang approach, which could have negative impacts on consumers and industry participants, including:

- There is a significant amount of change to deliver all at once, which may mean that errors in one area have damaging impacts for others, potentially beyond switching, such as balancing or settlement;
- Even with comprehensive testing and assurance arrangements, some issues and errors may only arise in a live environment, and these would be more likely to occur and have a wider impact in a 'big bang' in comparison to a phased approach;
- Even with proper controls and incentives there is a risk that the delivery of the programme has to move at the rate of the slowest; and
- Delivering everything at once means that it could be a significant amount of time before consumers see any benefits, as all new systems and processes need to be in place before faster, more reliable switching is delivered.

Phased

27. A phased transition approach means that the implementation of new switching arrangements would not be fully implemented at the same time. Instead they could be more staggered according to various parameters, for example, fuel type, geography or as a controlled volume increase.

28. At a high-level, a phased transition presents some benefits, including:

- It can help to break the work down into more manageable work packages, so that there is less risk of overall delivery failure;
- Some phased approaches may enable lessons to be learnt from any errors made during the delivery of certain aspects, or rolling out to consumers in phases can ensure that the experience of later waves of consumers is less likely to be negative; and
- Phasing may also facilitate a slightly earlier go-live if parts of the new switching arrangements can be separated, meaning consumers could see some benefits sooner.

29. However, phasing presents challenges, including:

    - For most of the phasing options, some consumers would see the benefits of faster switching later than others. It is undesirable to differentiate or leave behind any consumers groups within the implementation;
    - A phasing approach could introduce its own risks and it would require the development of temporary processes for transition period;
    - Some phasing options might also require old and new systems to run concurrently;
    - Could complicate testing arrangements as multiple releases would need to be tested; and
    - It could complicate any consumer awareness campaign communicating what is happening when to consumers.

30. Early feedback from Design Team, User Group, EDAG and Design Authority indicated industry participants have an in-principle preference for a big bang approach ensuring that all market participants implement all elements of the new switching arrangements at the same time. This was partly because a big bang would be less costly to implement as it would minimise parallel running of current and new arrangements. For the same reason, it would reduce the complexity of delivery, as the change from current to new arrangements and systems could happen simultaneously, rather than different elements going live on a staggered basis. However, some stakeholders felt that to provide confidence that the new arrangements would be successful at go-live, a period of de-risking was needed during the initial implementation, such as a 'controlled launch' or period of shadow operations. Consumer groups also suggested that there should be no differentiation between consumers in the go-live approach and go-live should be at the same time for all consumers.

31. Other feedback suggested that there were aspects of Agile delivery principles that could be adopted across the Delivery Strategy; in particular in the incremental release of parts of the new switching arrangements to deliver early consumer benefit. These aspects of Agile delivery will be considered in elements of this transition options presented later, but it is more widely noted that the various stages of development and design within the Switching Programme are linked to consultation with stakeholders and therefore Agile principles for programme management and delivery have been embedded to an extent. However, considering the number of stakeholders involved in the Switching Programme and nature of the programme delivery in a regulated environment, a full Agile approach would be unrealistic as the ability to be flexible in delivery would somewhat limited or very costly.

32. Appendix 2 details the pros and cons associated with each long-list transition methods we identified. A summary table is also presented below, with a Red, Amber,

Green (RAG) indicator to highlight whether our own consideration and feedback received has led us to rule options out or consider them in more detail.

Option		How option would work	Feedback
1) Functionality / Consumer	a) Phased implementation of functional elements of new switching arrangements, such as MIS, CRS	This could be done by building from core-registration functionality and initially operating a registration-only CRS model, and over time move towards consolidated model with a MIS enquiries and reporting service.	It was suggested that there could be benefits separating the implementation of the different parts in the new switching arrangements. In particular this provides some increased flexibility if the programme wishes to enable earlier implementation of faster switching. This could still ensure that all market participants implement the elements of the new arrangements at the same time, therefore not differentiating between consumer groups.
	b) Domestic / Non-domestic	Either domestic or non-domestic consumers offered faster switching first and CRS populated with their data.	Rule out: there are difficulties separating the switching processes for domestic and non-domestic consumers and any separation would still require the parallel operation of legacy and new switching arrangements for a more prolonged period.
	c) Fuel type	Either electricity or gas consumers first would be able offered faster switching and the CRS populated with their data. Once CRS is populated with data for one fuel type, data for the other fuel type would be mapped against this.	Rule out: presents particular problems for the consumer journey as it would separate the switches for electricity and gas. This was also against the ultimate objective of Switching Programme which seeks to harmonise processes for both fuel types.
	d) Meter type	Faster switching arrangements would be operational for different meter types at different times. For example, this could mean that smart meter consumers are offered faster switching first, and then faster switching is offered for all different meter types (including credit, PPM,	This option warrants more detailed consideration as phasing by meter type could provide increased flexibility if there is a desire to implement faster switching earlier. However, consumer representatives and suppliers expressed concerns about treating consumers differently based on their meter types. This phased approach could also

		DTS).	confuse consumers as they might not know their meter type.
2) Geography	a) Region	Transition phased as a controlled region rollout. New switching arrangements would initially be switched on in only one region, before gradually moving onto other regions in the UK.	Rule out: poses particular supplier competition concerns as this could conflict with different supplier footprints. There were also concerns that this would require prolonged periods of parallel running of legacy and new switching arrangements.
	b) Postcode	Transition phased by scattered postcodes. New switching arrangements would be fully operational, but the offering of faster switching would be selected only for those within selected postcodes.	Rule out: presents front-line operational difficulties and could confuse consumers.
3) Supplier / Participant		Phased by individual suppliers or market participants based on their readiness. Suppliers who are not ready for faster switching would not be able to gain customers on the basis of faster switching, and would do so under existing processes.	Rule out: the programme does not wish to implement the new switching arrangements for different suppliers at different times, and it also has a differential impact on consumers. It also presented challenges of parallel running of any central switching processes.
4) Volume		Controlled volume increase, based on volume caps on the number of customers who can switch under new arrangements.	Rule out: could undermine the initial implementation of the new switching arrangements if newly engaged consumers were prevented switching at faster speeds. However, the principle of a controlled volume roll-out could be beneficial for a very short period to manage the initial strain on the new switching systems or as a contingency if risks materialise.
5) Progressive migration		Faster switching would be gradually implemented for those requesting change of supply, and then those who have not requested	Rule out: the front-line implementation is difficult and the data migration approach could interfere with the ability to process a consumer's initial change of supply request at a

		change of supply would be swept up in a data migration to the new CRS.	faster speed as data would have to be migrated first. It would also require parallel running of any central switching processes.
6) Method of consumer interaction		The Switching Programme changes could initially be implemented only for those who have switched via direct interaction with suppliers, followed by those who have requested switches through Third Party Intermediaries (TPIs).	Rule out: restricts consumers' engagement with the new switching arrangements as TPIs will have a key role to play in the operation of the new market. New switching arrangements would also be likely to be used to process switches regardless of their source. May be possible to set different timelines for switches to be processed depending on their source, but as indicated earlier this is outside the scope of the transition strategy.

33. Some of the long-list options are not mutually exclusive and could be combined. However, combinations of the phasing options are not judged to be particularly beneficial as they create additional complexities and could confuse front-line consumer implementation.

34. Based on our own high-level assessment of the pros and cons of the long-list of options, and stakeholder feedback, phasing by meter type warranted further consideration as it was suggested that this could potentially offer some flexibility for earlier implementation of the new switching arrangements.

35. For example, early implementation of programme changes for smart meters already in the central DCC databases could allow faster switching for SMETS 2 consumers and then, after this, faster switching for all other meter types at the same time.

36. However, our consideration of the solution architecture suggests that this is unlikely to offer significant early implementation of faster switching as central switching arrangements would need to be developed, irrespective of the meter type. Even if it was possible to implement new switching arrangements significantly earlier for smart meter consumers, there are many other significant challenges to this approach:

    - It is undesirable to differentiate or leave behind any consumers groups within the implementation. Consumers without SMETS 2 meters would still be left behind. The types of consumers that would see the benefits later would depend on the manner in which each supplier rolls out smart meters, though if prepayment meter consumers are deprioritised in the early stages of the rollout this may mean that many vulnerable consumers do not see the benefits of the improved switching arrangements until later.

- Complicates front-line implementation as consumers may not know if they have a smart meter. In particular, they are unlikely to know if it is a SMETS 2 held in the DCC database.
- Complicates consumer awareness and media campaigns for the launch of new switching arrangements as public messaging would need to tie up with different launch dates.
- Any focus on implementation to smart metered consumers first could delay the implementation for other meter types.
- Although implementation to smart meter consumers could potentially introduce a positive incentive to support rollout plans for the Smart Meter Implementation Programme, consumers may consider that they are being forced to get a smart meter in order to benefit from faster switching. There is also a potential risk that delays to the smart meter rollout would delay the delivery of Switching Programme changes.

37. Therefore, it is undesirable to use any phasing approach to stage the implementation of different meter types and no distinct meter type or smart meter phasing is proposed. This would have a negative impact on some consumers as the benefits of the Switching Programme changes would be seen by some later than others, potentially by a significant amount of time.

38. Instead, to retain flexibility for earlier implementation of the new switching arrangements the focus should be on an incremental phasing parts of the new switching arrangements, such as the CRS database and MIS database, to enable earlier delivery of benefits to consumers. This is considered in the options presented later in this paper.

The design

39. The new switching arrangements have been designed by the BPD workstream. Their outputs include a set of options for the solution architecture of the new CRS. They also include a range of recommendations, and in some cases options, for how different aspects of the new switching arrangements should operate, including objections and cooling off arrangements for instance. These outputs have been combined into packages of options, a brief overview of which are included in Appendix 4. The options are:

- Option 0: Do nothing;
- Option 1: Do minimum (improving existing switching arrangements);
- Option 2: CRS database with XML messaging middleware; and
- Option 3: CRS database, Market Intelligence System (MIS) database with XML messaging middleware.

40. The ‘do nothing’ option is not considered as part of this paper. This option will be included in the programme’s design baseline 1 as a counterfactual against which the pros and cons of other options can be considered.

41. The focus of this paper is on developing a transition strategy for options 1, 2 and 3. We consider the scale of change involved in delivering each of the options and the possibility of breaking up their delivery into separate modules.

42. Additionally, we consider whether, were the overall delivery of the programme to take a substantial amount of time, it would be possible to deliver some benefit to consumers sooner. Later in the paper we suggest a number of ways this could be achieved, and seek stakeholder views on their desirability.

Risks and Issues

43. The transition strategy forms an important part of our overall Delivery Strategy. It is clear that the different work packages within the Delivery Strategy will be attempting to mitigate similar risks. We have held workshops to identify these areas of overlap, and to identify where there may be gaps in coverage, so as to be able to provide a comprehensive view of the ‘moving parts’ within the Delivery Strategy.

44. Implementation of the new switching arrangements will take place after the completion of the DBT phase, which means that the new arrangements will have passed all stages of testing and other assurance gates, which may include a market trial. The DBT exit criteria will be satisfied and the ‘go’ decision will have been made to progress to implementation of the new switching arrangements. This means that the residual risk for the transition to manage should be low.

45. Nevertheless, the delivery risks we see as being most relevant to the transition strategy are highlighted below.

    - New processes and systems cannot be exhaustively tested so there is a risk that some design issues and defects emerge in full scale operation in the live environment. The impact of these issues and defects could be significant for switching, registration or other non-switching related areas such as settlement.

    - The complexity of the solution and hence the amount of change to deliver in the transition period compounds the likelihood of issues and defects being still present at go-live.

    - If phased transition option is chosen, running the DBT for some components in parallel with the go-live of other components creates additional complexity.

    - It takes time to transfer knowledge and for all participants to become familiar with the new arrangements which can lead to additional issues over and above design issues and defects.

    - There may be increased consumer demand on switching processes once go-live is publicised, which may further compound the impact of issues and defects.

- Concurrent change across the industry may mean that parties could struggle to meet the demands of several concurrent industry change projects and there is a risk that various implementation plans could conflict.

46. These risks will be partly mitigated by testing and trialling as mentioned above, and also by an effective post-implementation period. However, the transition strategy can play a role in mitigating these risks.

47. Given the impact of these risks on the effective operation of the energy retail market, consideration needs to be given to whether a contingency plan should be developed for the implementation of new switching arrangements incase any severe risks materialise. With effective testing, trialling, transition and post-implementation, the probability of an 'extreme' situation should be very low. Detailed contingencies are not provided at this point as these will be developed in more detail in the DLS phase of the programme.

48. Various additional transition issues to be considered are highlighted below.

- **Consumer switches 'in-flight' at date of transition:** 'In-flight' switches can either progress based on existing arrangements, or they can be swept up under new arrangements. A plan will be developed during the DLS phase for this operation of the cut-over point for switches. Our initial preference within this strategy is to avoid any overlapping operations of legacy and new switching arrangements. To do this, all switch requests in legacy systems could be held for up to 28 days by suppliers before the implementation date and would be converted into registration requests in the format required by the new switching arrangements. These would then be processed under new switching arrangements after the implementation date. This is preferred as there is less risk of switches being 'lost'.

- **Solution architecture scope:** A thick solution architecture scope could encourage a phased transition as additional complexity and scale of change for this would make a big bang less suitable. However, a thin solution architecture scope could also be complex as there would be less reliance on central infrastructure, and instead increased messaging between participants and reliance on a range of peripheral systems. This could involve many parties, thus creating many potential points of failure. This will also be considered in the transition options later.

- **Infrastructure migration:** The implementation of the new switching arrangements may require a period of down-time for updates to be made to existing systems. Additionally, or alternatively, some 'transitional' architecture could be developed that would allow some industry systems to move to the new arrangements, while others continue as previously. We have not considered these potential elements of migration to date. However, in future programme phases we will assess whether it is possible to use any middleware component of the new switching arrangements to support the transition, and consider whether

transitional architecture could provide a contingency should some parties not be ready for go-live at the same time as others.

- **Other industry changes:** In determining the transition and go-live dates, there will be consideration of other policy implementations that may be happening at the same time within implementation planning during DLS phase. This will ensure that multiple industry changes do not conflict with implementation of the new switching arrangements.

- **Time of year to introduce new switching arrangements:** The transition plan should be designed in light of contracting rounds and peak switching periods across the calendar year.

49. These issues will be revisited to develop the detailed transition approach during the DLS stage of the programme.

Best practice and lessons learned

50. We have considered best practice frameworks and previous deliveries of programmes within the energy industry and elsewhere. This included best practice frameworks such as Information Technology Infrastructure Library (ITIL) and Agile, and programmes such as the initial introduction of competition to the electricity and gas markets, the current Smart Metering Implementation Programme and Project Nexus. Some of the important principles that should be considered within the transition strategy are highlighted below:

    - A high level of risk is involved in a single release go-live strategy, and this requires a very high level of confidence to enable implementation.

    - Risks often occur when new components are brought together or new components interact with surrounding systems.

    - Individual participants should not hold the programme back.

    - Incremental and phased release of functionality can be beneficial. This often involves an initial release of some functionality or an initial go-live with a restricted consumer base.

    - Consumers should be put in the centre of the work, in order to receive maximum benefits as early and frequently as possible. Emphasis should be placed on delivering items that add significant value in a timely manner.

    - The implementation of new arrangements should not be regarded as the end of the programme as things always go wrong and risks often materialise after go-live. There is a need for transition approach which mitigates the risks of things going wrong during implementation, as well as a post-implementation period focused on resolving issues.

- Flexibility and contingency planning is crucial and it is necessary to have the ability to make changes quickly to the system if needed and manage any significant risks that materialise during the implementation. This is particularly important in large multi-party programmes where there is a significant degree of change.

- Late regulation or policy changes can have a significant impact. This needs to be considered in detailed planning, but also managed and controlled with later stages of the programme.

51. These principles have been considered by, and are reflected within, the transition options presented below and wider Delivery Strategy products.

Options

52. Based on our assessment of the long-list of transition options, stakeholder feedback on these options, and having considered the design of the solution architecture, we have focused on two high-level options for structuring the transition. These are:

    - Option A: Big bang

    - Option B: Phased implementation of components of the design

53. As noted earlier, transition options are modelled against three solution architecture options, but no transition strategy is required for the 'do nothing' option.

54. Both of the options outlined below could be combined with additional controls that may act to mitigate delivery risks and minimise disruption associated with implementation. These controls include:

    - Extending the time for change of supply requests to be processed within the new arrangements;

    - Managing publicity or consumer awareness activities in the initial post-implementation period to ensure consistency, clarity and simplicity of communications, until we are confident that the arrangements are functioning as intended; and

    - Increased monitoring and support to resolve early life issues.

55. In relation to the issue of 'in-flight' switches at the date of implementation, a detailed plan will be developed during the DLS phase and this could link to the detailed data and infrastructure migration approach. Our initial preference is to avoid any overlapping operations of legacy and new switching arrangements. To do this, all switch requests in legacy systems could be ‘held’ by suppliers for up to 28 days before the implementation date and would be converted into registration requests in the format required by the new switching arrangements. They would then be processed using the new switching arrangements after the implementation date. We

expect that this will be less complex and that there will be less risk of 'lost' registration requests.

56. Depending on the chosen model for the solution architecture, and the length of the design, build and test phase, it could be a substantial amount of time before consumers see the benefits of the Switching Programme changes. In addition to the options outlined below, we also want to seek stakeholder views on some steps that could be taken by all market participants to deliver benefits to consumers ahead of full programme delivery. Specifically, we want to explore whether some benefit could be delivered by:

    - Reducing the objections window to 1-2 days;
    - Implementing the chosen method for dealing with cooling off events, and so not 'holding back' switches until after the cooling off period has expired; and
    - Moving to calendar rather than business day processing of batch registration requests.

57. We intend to seek information on the cost, impact and risk of these measures through our RFI in the early next year to determine whether there is value in implementing these changes ahead of overall programme delivery.

Option A: Big bang

58. A 'strict' big bang implementation would mean that all market participants implement all of the new switching arrangements at the same time and the new arrangements should go-live for all consumers at the same time.

59. A date would be set for the new arrangements to go live, following a design, build and test phase, after which all new change of supply requests would be processed under these new arrangements.

60. This option could apply to all models of the solution architecture, though the amount of change needed before the new arrangements could go live would obviously differ significantly. Option 1 would require the least change, while option 3 would involve substantially more.

Option B: Phased implementation of components of the design

61. Under this option the delivery of the solution architecture design would be split into separate parts.

62. This option is primarily designed with solution architecture option 3 in mind. It does not appear practical to split the CRS database into separate sub-components. Simultaneously running some parts of the new CRS database in conjunction with elements of the existing arrangements may not be possible, and would in any event be costly and complex to develop. For this reason there is limited value in applying this mode of transition to solution architecture option 2. Additionally, the scale of

change involved in moving to solution architecture option is more modest, so phasing different parts of its delivery may introduce unnecessary complexity.

63. For solution architecture option 3, the delivery of a new MIS database could be separated from the CRS database, minimising the amount of change happening simultaneously at the point of go-live. The first phase could comprise either the CRS or the MIS. A final decision on which part should be delivered first would be taken during the programme DLS phase.

64. Within the DLS phase, we will also consider whether it is possible or desirable to further separate the MIS database into sub-components. However, based on current knowledge of the solution architecture and for the purpose of the options presented at this stage in the programme, we propose that the MIS database should be delivered in a single release. This would minimise the complexity of delivery by reducing the number of overlapping waves of build, test, and go-live.

Options assessment

65. The objective of the transition is to strike the appropriate balance between delivering the benefits of faster, more reliable switching to consumers quickly and ensuring business continuity so that early switchers do not have a poor consumer experience.

66. The following options assessment is supported in more detail by analysis against the Switching Programme Design Principles contained in annex 3.

67. As explained earlier, additional controls could be combined with either transition option in order to mitigate the remaining implementation risk. However, we also understand control measures can present their own challenges. For example, there may be practical difficulties restricting publicity when the new arrangements go live and, instead, the focus should be on managing the clarity and simplicity of communications during the initial post-implementation period. Therefore, we will consider the need for additional controls during the DLS phase once we have a fuller understanding of the solution architecture, and other aspects of delivery.

68. In addition to the two transition options we have outlined, we also want to explore benefits and costs of implementing some changes ahead of overall programme delivery. Early implementation of some changes is attractive as it could enable consumers to take advantage of faster switching at an earlier date. However, requiring market participants to make changes to existing systems ahead of full implementation of the new switching arrangements could create additional expense. In particular, we are mindful of, and would seek to avoid, potential nugatory costs of building new processes into legacy systems. Additionally, we understand there could be an impact on the reliability of the change of supply process if changes, such as compressed objections, are implemented ahead of full programme delivery.

69. We intend to keep options for early delivery of some changes open at this point, and will test their cost, impact and risk through the RFI early next year, though we do not

make a firm recommendation as to whether they should be pursued at this point. We will form a view as to whether these are worth considering further in light of costs and suggested timelines for delivery provided in response to the RFI.

Option A assessment: Big bang

70. The big bang approach would implement all new switching arrangements at the same time for all market participants and consumers. This is beneficial as it avoids any adverse effects on competition between market participants, avoids the differentiation of different consumer groups and minimises dual running of legacy and new switching arrangements.

71. The big bang approach simplifies the front-line implementation for suppliers and should be easy for consumers to understand as there will be one chosen date when the faster switching will be enabled. This also simplifies any future consumer awareness campaigns.

72. Although the testing of the new switching arrangements will be complete, which should mean that there is low risk associated with the new arrangements, there is generally an elevated risk associated with big bang implementations as all systems and participants would go-live simultaneously. The requirement for all systems and participants to go-live simultaneously could also hold back delivery if key components or participants face delay.

73. Considering the solution architecture options, the suitability of a big bang implementation is closely related to the scale of change. The scale of change for the 'do minimum' option is relatively small and therefore the associated risk may suggest that this could be appropriate for solution architecture model one.

74. For solution architecture option 2 the scale of change is greater and, therefore, there is greater implementation risk. However, as outlined earlier in the paper, it may not be possible or practical to attempt to break the CRS database into separate sub-components for the purposes of delivery. To do so may require changes to existing systems that would only be required for a short amount of time. For this reason a big bang approach may also be most suitable for option 2.

75. Solution architecture option 3 would entail the largest amount of change. Attempting to deliver all of this change simultaneously could pose risks to the successful delivery of the programme. Errors found in one part of the new switching arrangements during the DBT phase could delay the entire programme. It could also mean that a phased approach is eventually adopted in any event.

Option B assessment: Phased implementation of components of the design

76. This option would involve the implementation of the new switching arrangements in separate waves. Each wave would be implemented by all relevant market participants, and for all consumers, at the same time. This avoids any adverse effects

on competition between market participants and the differentiation of different consumer groups.

77. An early release of functional components could enable consumers to take advantage of the new switching arrangements at an earlier date. Additionally, this adds flexibility to the implementation as delays in the DBT phase of some components could be managed and may not prevent the release of others.

78. Phasing the implementation of the new switching arrangements in two releases could minimise the down-time associated with the implementation. However, the exact time involved in each phase, and the gap between them will need to be carefully considered so as not to unduly delay full delivery and/or incur unnecessary costs.

79. Separating delivery into different waves could add complexity to the delivery phase, as each wave will entail its own build and test timelines, which will likely overlap. This risk is not unmanageable, but effective governance and clear timelines, entry and exit criteria will be required to ensure that the progress of separate waves can be effectively tracked.

80. As noted above, this option has been designed primarily with solution architecture option 3 in mind. The level of change involved in option 1 is relatively small, while it does not seem practical to separate the delivery of the CRS database within option 2 into different waves.

81. For option 3, however, the implementation of the CRS database and MIS database could be separated, with each running to its own timelines.

82. We do not make a firm proposal at this point as to which element should be implemented first. Given the existence of ECOES and DES, delivery of the MIS database may be quicker than the CRS database, and may provide benefits to consumers in terms of both the reliability and speed of switching as it would align gas and electricity datasets. However, it is likely to contain more data points that the CRS database, and so its build and test may take longer to deliver reliably. We welcome stakeholder views on the sequencing of the two proposed waves should this mode of transition be chosen.

Recommendations

83. Our recommendation for the transition strategy is dependent on the chosen solution architecture model. At this point we recommend that if either solution architecture option 1 or 2 is chosen that a big bang approach to transition is adopted.

84. If solution architecture option 3 is chosen, we recommend that delivery be conducted in two waves, the CRS database as one and the MIS database the other. We do not make a recommendation at this point as to which of these should be developed first.

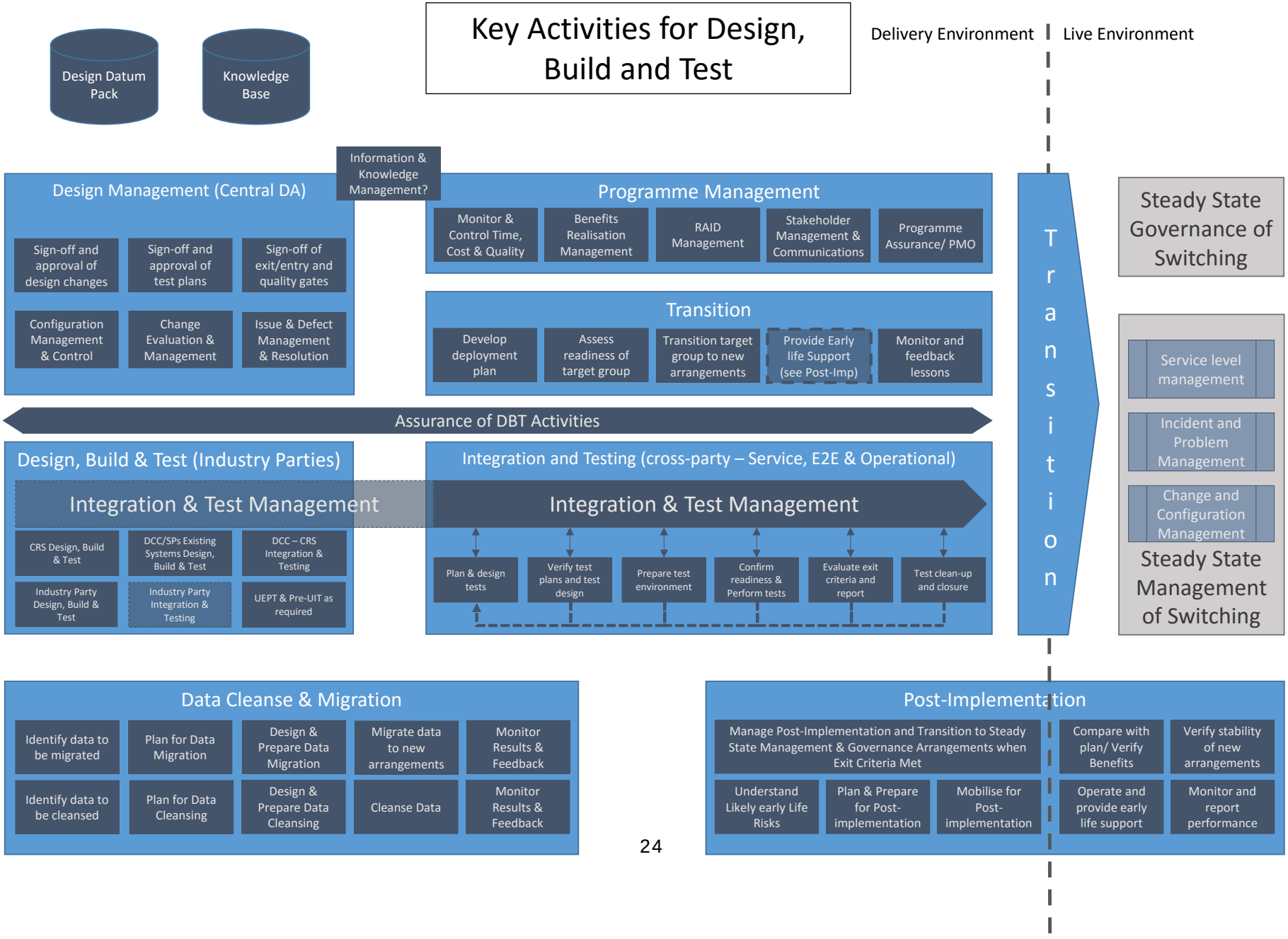
85. We also recommend that we keep on the table options for delivering some benefits to consumers ahead of overall programme delivery. We intend to test the cost, impact and risk of these options with relevant industry parties through our RFI. These options are:

    - Reducing the objections window to 1-2 days;
    - Implementing the chosen method for dealing with cooling off events, and so not 'holding back' switches until after the cooling off period has expired; and
    - Moving to calendar rather than business day processing of batch registration requests.

86. **We welcome stakeholder views on these recommendations. In particular we invite comment on the sequencing of the two delivery waves, and on the practicality, cost and/or complexity of attempting to deliver some benefit to consumers ahead of full programme delivery.**

87. This transition strategy document, once approved by the programme Design Authority after review by the User Group and EDAG, will be included in Design Baseline 1 for costing as part of the RFI early in the new year. A more detailed transition approach will be developed next year and finalised by the end of the programme DLS phase. Any changes or refinements in the solution architecture or other parts of the programme that impact the transition to the new arrangements will likely be reflected in the transition approach. It is not our intention to revisit this high-level transition strategy document unless necessary.

Appendix 1: Diagram summarising key activities for DBT



Appendix 2 – Transition long-list assessment

Phasing Option	Pros	Cons
Functional / consumer a) Building from core-registration b) Domestic / Non-domestic c) Fuel type d) Meter type	• Transition to an initial core CRS could be used to enable earlier go-live date. • Controlled data migration. • Adds increased flexibility to BPD and systems architecture. • Reduced need for temporary processes and system building. • May help achieve "early wins".	• Need to run existing systems during the transition period, minus change of supply functions. • Possible difficulties considering the operation of settlement data. • Affects procurement. • Risk of losing momentum. • Complicates testing arrangements.
Geography a) Region b) Postcode	• Controlled roll-out, which allows risk management and adds flexibility. • Could link to assurance framework. • Consumer familiarity, as previous (eg tv systems changes have phased by geography).	• Need to run existing systems during the transition period. • Operational difficulties directing information in different directions according to regions or postcodes. • Isolating regional data and determining boundaries potentially difficult within systems. • Regional boundaries do not match across electricity and gas systems. • Disadvantages some consumers, especially dual fuel and large non-domestic consumers.
Supplier / Participant	• Mitigates risk of being held hostage by the rate of the slowest. • Provides flexibility for parties to determine their own pace.	• Difficult to plan transition and implementation based upon suppliers' future readiness. • Disadvantages some consumers. • Need to keep running existing systems during the transition period.
Volume	• Controlled phasing, enabling regular checks on progress and problems. • Mitigates risk of being held hostage by the rate of the slowest.	• Difficulties with front-line implementation and consumer messaging. • Need to run existing systems during the transition period.
Progressive migration	• Reasonable "sample" first wave of consumers. • Aids pilot and testing.	• Fully operational CRS still required for day-one. • Need to keep running existing systems during the transition period. • Difficult to achieve timescales for next-day switching if only transfer data to CRS when

		change of supplier requested. • Difficulties locating repetitive switchers. • Complicates testing.
Method of consumer interaction	• Provides additional time to test TPIs engagement with new switching arrangements. • Controls number of consumers initially engaging with new switching arrangements.	• Fully operational CRS still required for day-one. • Need to keep running existing systems during the transition period. • Difficulties with front-line implementation and consumer interaction. • Interferes with TPIs engagement in market.

Appendix 3 – Transition Options Evaluation vs. Design Principles

	Option A: Big Bang		
Design Principle	Solution Architecture Option 1: 'Do minimum'	Solution Architecture Option 2: CRS database plus middleware	Solution Architecture Option 2: CRS database, MIS database plus middleware
Impact on Consumers			
1 Reliability for customers	Increased risk associated with big bang implementation suggests there may be more early life reliability problems.	Increased risk associated with big bang implementation suggests there may be more early life reliability problems.	Increased risk associated with big bang implementation suggests there may be more early life reliability problems.
2 Speed for customers	Should not have any impact on customer switching speeds. After implementation, all switching should be at faster speeds.	Should not have any impact on customer switching speeds. After implementation, all switching should be at faster speeds.	Should not have any impact on customer switching speeds. After implementation, all switching should be at faster speeds.
3 Customer Coverage	No differential impact on different customer groups proposed	No differential impact on different customer groups proposed	No differential impact on different customer groups proposed
4 Switching Experience	Increased risk associated with big bang transition poses increased risk to consumer experience during early life	Increased risk associated with big bang transition poses increased risk to consumer experience during early life. This risk is also heightened by increased scale of change associated with this solution option.	Increased risk associated with big bang transition poses increased risk to consumer experience during early life. This risk is also heightened by increased scale of change associated with this solution option.
Impact on Market Participants			
5 Competition	No impact on competition as all market participants going live at same time	No impact on competition as all market participants going live at same time	No impact on competition as all market participants going live at same time
6 Design - Simplicity	No need for any additional complexity during transitional period	No need for any additional complexity during transitional period. However, the scale of change creates additional problems designing one big bang transition for all new switching arrangements.	No need for any additional complexity during transitional period. However, the scale of change creates additional problems designing one big bang transition for all new switching arrangements.
7 Design – robustness	No need for additional processes during transitional period	No need for additional processes during transitional period. Considering scale of change, big bang transition may prove less robust and greater risk.	No need for additional processes during transitional period. Considering scale of change, big bang transition may prove less robust and greater risk.
8 Design – flexibility	Big bang offers less flexibility within implementation	Big bang offers less flexibility within implementation, especially considering the scale of change for new arrangements.	Big bang offers less flexibility within implementation, especially considering the scale of change for new arrangements.
Impact on Delivery, Costs and Risks			

	Option A: Big Bang		
Design Principle	Solution Architecture Option 1: 'Do minimum'	Solution Architecture Option 2: CRS database plus middleware	Solution Architecture Option 2: CRS database, MIS database plus middleware
9 Solution cost/benefit	Minimises parallel running of old and new systems, so minimises implementation cost	Minimises parallel running of old and new systems, so minimises implementation cost	Minimises parallel running of old and new systems, so minimises implementation cost
10. Implementation			
10a. Implementation Speed	Although very short big bang implementation period, implementation of all do minimum arrangements may be delayed as all parts of new arrangements need to be ready for go-live	Although very short implementation period, implementation of all new switching arrangements may be delayed as all parts of new arrangements need to be ready for go-live. This risk is heightened by the larger scale of change implementing a central CRS database.	Although very short implementation period, implementation of all new switching arrangements may be delayed as all parts of new arrangements need to be ready for go-live. This risk is heightened by the larger scale of change implementing a central CRS database and MIS database.
10b. Implementation Risk	Higher risk associated with big bang. There are also reduced contingency options during the implementation.	Higher risk associated with big bang, especially considering the large scale of change when implementing a central CRS database. There are also reduced contingency options.	Higher risk associated with big bang, especially considering the large scale of change when implementing a central CRS and MIS database. There are also reduced contingency options.
10c. Implementation Ease	Some difficulties associated with one implementation release for all new parts within existing system arrangements.	Considering scale of change, difficulties to implement upgrades to existing CRS arrangements and central CRS database in one big bang	Considering scale of change, difficulties to implement upgrades to existing switching arrangements, central CRS database and MIS database in one big bang

	Option B: Phased implementation of components of the design		
Design Principle	Solution Architecture Option 2: 'Do minimum'	Solution Architecture Option 3: CRS database plus middleware	Solution Architecture Option 4: CRS database, MIS database plus middleware
Impact on Consumers			
1 Reliability for customers	Ability to learn from issues that arise during implementation should increase reliability of switching arrangements during their early life	Ability to learn from issues that arise during implementation should increase reliability of switching arrangements during their early life	Ability to learn from issues that arise during implementation should increase reliability of switching arrangements during their early life
2 Speed for customers	Implementation should not have any impact on customer switching speeds	Implementation should not have any impact on customer switching speeds	Implementation should not have any impact on customer switching speeds
3 Customer Coverage	Apart from a short controlled consumer go-live time, no differential impact on different customer groups proposed	Apart from a short controlled consumer go-live time, no differential impact on different customer groups proposed	Apart from a short controlled consumer go-live time, no differential impact on different customer groups proposed
4 Switching Experience	Staged implementation provides ability to resolve issues during transition and increases confidence in early life consumer interaction with switching arrangements	Staged implementation provides ability to resolve issues during transition and increases confidence in early life consumer interaction with switching arrangements	Staged implementation provides ability to resolve issues during transition and increases confidence in early life consumer interaction with switching arrangements
Impact on Market Participants			
5 Competition	No impact on competition as all market participants going live at same time	No impact on competition as all market participants going live at same time	No impact on competition as all market participants going live at same time
6 Design - Simplicity	Two staged releases of functionality increases the complexity for minimal change associated with this solution option. May be disproportionate.	Two staged releases of functionality increases the complexity for the transition period. In particular, it creates complexity by splitting delivery of the CRS database.	Two staged releases of functionality increases the complexity for the transition period. However, this also breaks down the implementation on top of existing systems into more manageable chunks.
7 Design – robustness	There are increased number of contingencies offered if problems encountered during transition	There are increased number of contingencies offered if problems encountered during transition	There are increased number of contingencies offered if problems encountered during transition
8 Design – flexibility	Provides flexibility as delivery of the first release is evaluated before proceeding to subsequent release, and problems identified can be rectified for later release	Provides flexibility as delivery of the first release is evaluated before proceeding to subsequent release, and problems identified can be rectified for later release	Provides flexibility as delivery of the first release is evaluated before proceeding to subsequent release, and problems identified can be rectified for later release
Impact on Delivery, Costs and Risks			

	Option B: Phased implementation of components of the design		
Design Principle	Solution Architecture Option 2: 'Do minimum'	Solution Architecture Option 3: CRS database plus middleware	Solution Architecture Option 4: CRS database, MIS database plus middleware
9 Solution cost/benefit	Longer implementation period and period of parallel running associated with functional implementation of do minimum option increases cost and may be disproportional.	Longer implementation period and period of parallel running means there is increased cost. However, this is more proportional to deal with the scale of change.	Longer implementation period and period of parallel running means there is increased cost. However, this is more proportional to deal with the scale of change.
10. Implementation			
10a. Implementation Speed	Although longer implementation period, separating release of some functional components could allow earlier implementation of faster switching for consumers	Although longer implementation period, separating release of some functional components could allow earlier implementation of faster switching for consumers	Although longer implementation period, separating release of some functional components could allow earlier implementation of faster switching for consumers
10b. Implementation Risk	There is additional implementation risk associated with this functional implementation	There is also additional implementation risk associated with a separated functional implementation. However, it helps to mitigate wider implementation risks of upgrading existing switching arrangements and central CRS database in one big bang.	There is also additional implementation risk associated with a separated functional implementation. However, it helps to mitigate wider implementation risks of upgrading existing switching arrangements and central switching and MIS database in one big bang.
10c. Implementation Ease	In addition to the difficulties associated with the implementation of new components within existing system arrangements, there are problems of separating these minimal changes into two releases.	In addition to the difficulties associated with implementation of new switching arrangements, there are additional problems separating the delivery of the CRS database into two releases.	Although difficulties associated with implementation of new switching arrangements, the separation of the upgrades to existing switching arrangements and implementation of new central switching and MIS database eases implementation.

Appendix 4 – DRAFT Solution Architecture shortlist

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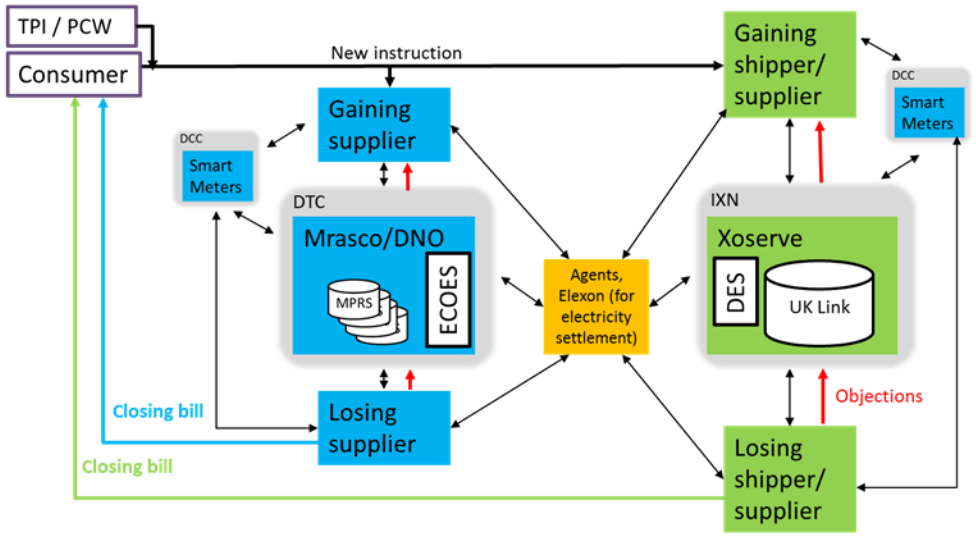
Do nothing



- Switching request processed once every working day
- No harmonisation or rationalisation,
- Objections managed within 5-7 days
- Gas nomination process continues
- Market intelligence Service (MIS) managed by **DES/ECOES**
- No change to the regulatory framework
- No improved reliability

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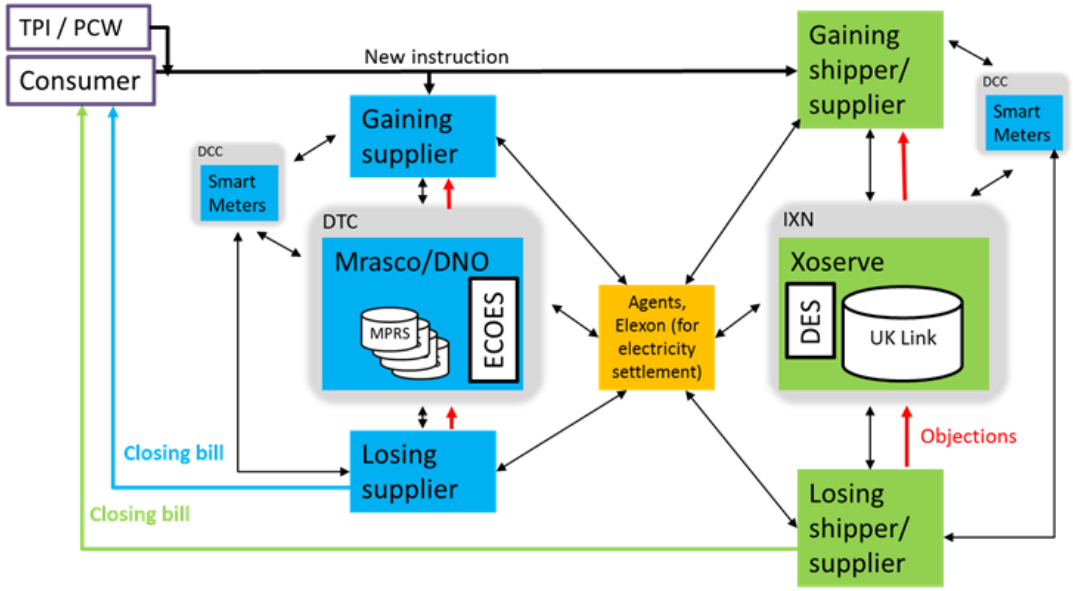
Do minimum



- Daily batch processing on calendar days
- No harmonisation or rationalisation
- Objections managed within 24 hours (compressed objections process)
- Cooling off managed with new 'switch forward' process
- Gas nomination process removed
- Market intelligence Service (MIS) managed by **DES/ECOES**
- Minor updates to the regulatory framework
- No improved reliability

8

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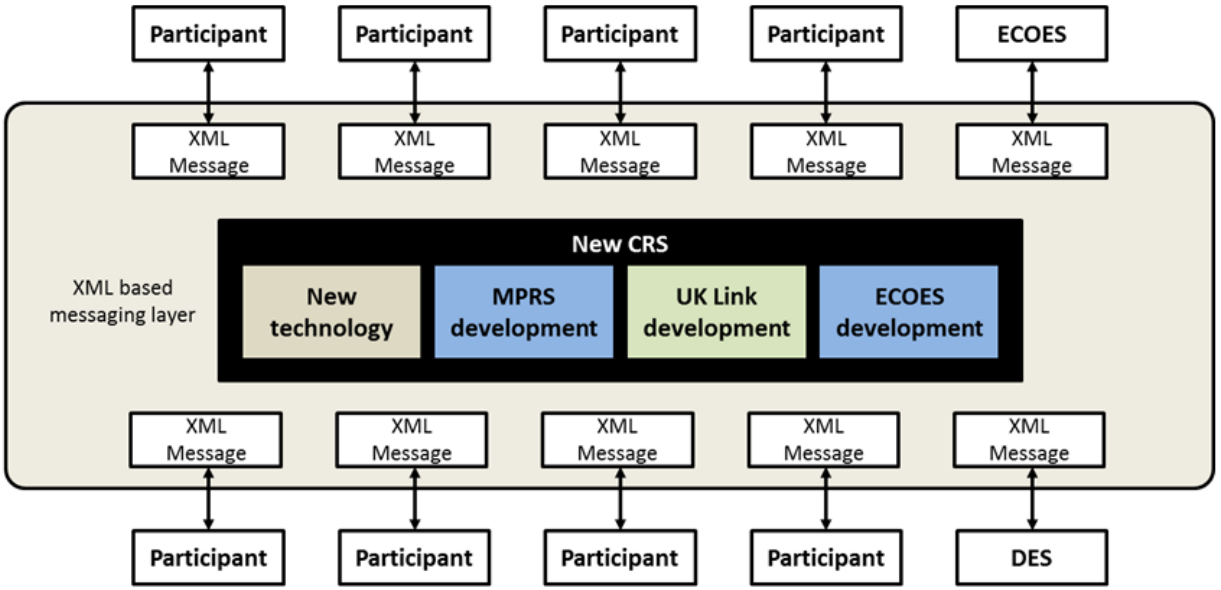
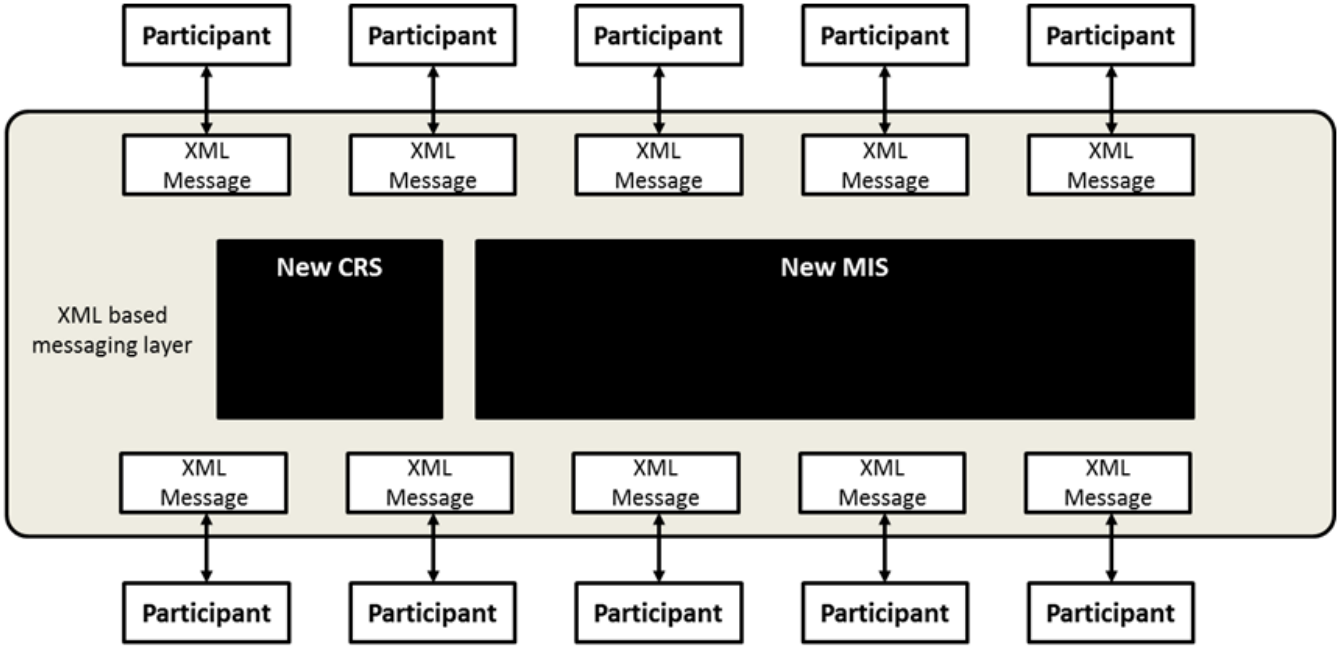
Switching database with middleware (XML communications) layer



- Daily batch processing on calendar days
- Harmonisation and rationalisation of switching processes
- Objections managed using instant reactive message flow between
- Gas nomination process removed
- Market intelligence Service (MIS) managed by **DES/ECOES**
- Changes to the regulatory framework
- Much improved reliability.

ofgem Making a positive difference for energy consumers

Switching database and MIS database with middleware (XML communications) layer



- As previous option plus
- Removal of ECOES and DES
- Much improved reliability