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henderson**

**Service levels
Benchmarking study and analysis
PHASE 2 REPORT**

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Legal and Regulatory Advisors

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1 Introduction

In Phase 1 of this project, Webb Henderson undertook a detailed analysis of the Service Level Agreement (**SLA**) and Service Level Guarantee (**SLG**) regimes for Local Loop Unbundling (**LLU**) and Wholesale Line Rental (**WLR**) services in 10 jurisdictions across the globe. We also looked at applicable regimes in the electricity, water and postal sectors in the UK.

The Phase 1 report analysed, in some material detail, the key features of these regimes, the elements of the service journey covered by SLAs, the compensatory and/or penalty regimes for breach and how these regimes had come about, as well as the underpinning regulatory frameworks.

As part of our review, we also determined, on the basis of largely public data where available, which incumbents were performing relatively well in delivery and fault repair of LLU and WLR in absolute terms (i.e. looking to the absolute time taken to deliver a service and/or perform effective fault repair on that circuit rather than performance against SLAs).

For Phase 2 of the project, we were asked to develop our research by reviewing and identifying key themes and trends from the Phase 1 data, in particular, looking at the best performing incumbents and regimes and, critically, assessing what factors may have driven this absolute best performance.

This part of the project is not a review of the SLA and SLG regimes *per se* but the absolute performance of the incumbents on the metrics identified below, plus any wider themes that are relevant.

This report is structured as follows:

- a) a recap of the methodology applied in Phase 1, a summary of the relevant findings from Phase 1 and an explanation of the methodology applied for the purposes of the Phase 2 analysis;
- b) a summary of the findings of Phase 2;
- c) a series of recommendations; and
- d) more detailed explanation of our findings by country and for different regulated sectors in the UK.

2 Methodology

2.1 Methodology for Phase 1 analysis

Countries analysed:

- UK
- Australia
- Denmark
- New Zealand
- France
- Belgium
- Germany
- Netherlands
- Ireland
- Spain



Desk based analysis of incumbents' reference offers or equivalent:

- delivery times
- fault repair commitments
- penalties
- enhanced service levels
- prices



Research into how incumbents are regulated:

- regulatory body
- powers and scope
- regulatory intervention (setting service levels, consultations, notifications)
- summary of enforcement powers
- examples of enforcement in practice



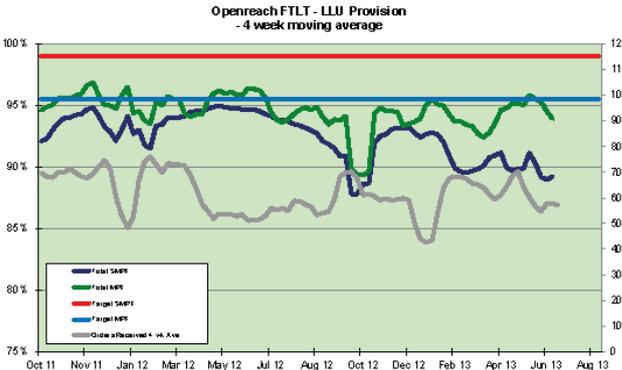
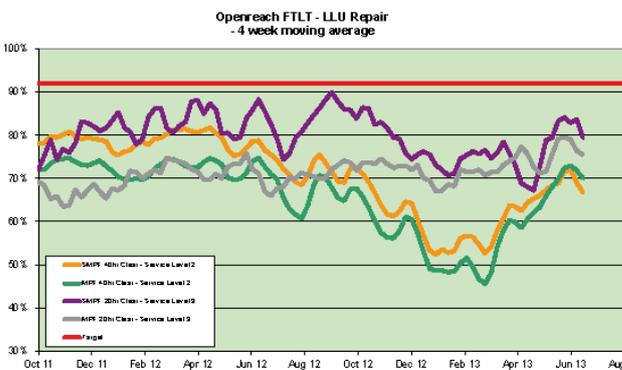
Research on public KPIs:

- published by the regulator
- published by the incumbent
- comparison of KPI results against reference offer service levels

2.2 Summary of relevant findings from Phase 1 review

(a) LLU reference offer v. actual performance

The table below summarises actual performance against LLU SLAs for delivery and fault repair:¹

Country	Delivery commitments	Fault repair commitments	Actual performance
UK	Within (at least) 10 working days	<p>SML1 – end of next working day + 1 working day</p> <p>SML2 – end of next working day</p> <p>SML3 - In by 1pm fix the same day, in after 1 pm, fix the next working day</p> <p>SML4 - 6-hour repair</p>	<p>First Touch – Last Touch Right First Time delivery KPI:</p>  <p>Source: OTA²</p> <p>SMPF target (red); SMPF actual (dark blue); MPF target (light blue); MPF actual (green)</p> <p>Fault repair KPI:</p>  <p>Source: OTA²</p> <p>Target (red); actual (other colours, representing different SMLs for SMPF and MPF)</p> <p>The above graphs demonstrate a generally poor performance from October 2011 to April 2013. The target for delivery is rarely met for MPF, and SMPF fell as low as 87%, never meeting the 98% target. Fault repair KPIs are unsatisfactory with the 40 hours downtime SLA falling as low as 45% in March 2013.</p>

¹ The data in this table is from our detailed Phase 1 research and the detail on the offers is included in our Phase 1 report.

² The main source of public data on Openreach performance is via the OTA KPI publication. See <http://www.offta.org.uk/charts.htm>. Based on the data available, Openreach has been falling short of its service level commitments consistently, in particular on fault repair.

Country	Delivery commitments	Fault repair commitments	Actual performance
Australia	<p>Intact metallic path in place: 3 Clear Working Days</p> <p>No Intact metallic path in place: between 10-30 Clear Working Days for remote and rural areas and between 5-30 Clear Working Days for all other areas</p>	<p>Band 1 and 2 – by the end of the first Clear Working Day after the Fault report is logged by Telstra.</p> <p>Band 3– by the end of 2 Clear Working Days after the Fault report is logged by Telstra.</p> <p>Band 4 – by the end of 3 Clear Working Days after the Fault report is logged by Telstra.</p>	<p>The following LLU figures are extracted from the Equivalence Report³ which Telstra publishes under its structural separation obligation. A positive percentage means that Telstra has met and surpassed the service level associated with a Metric and a negative figure means Telstra has fallen short of a Metric.</p> <p>Telstra reported the following variances for the relevant Metrics:</p> <ul style="list-style-type: none"> - for Metric 14 (relating to a connection where there is an Intact metallic path in place): a variance of +4.59% above its commitment to complete 95% of LLU cutovers within 5-30 days of a customer request for service; - for Metric 15 (relating to a connection where there is no Intact metallic path in place): a variance of +9.32% above its commitment to offer an appointment that occurs within 3 working days after the date the request for an LLU cutover is received; and - for Metric 16 (relating to fault repairs): a variance of – 5.59% if applying the ‘conditions’ and -11.67% if not applying the ‘conditions’ as the percentage of faults rectified: <ul style="list-style-type: none"> • for Band 1 and 2, by the end of the first working day after the fault report is logged by Telstra; • for Band 3, by the end of 2 working days after the fault report is logged by Telstra; and • for Band 4, by the end of 3 working days after the fault report is logged by Telstra. <p>Telstra’s reporting requirements are set out in a Structural Separation Undertaking (SSU) which covers a range of services, including WLR and LLU. Telstra largely reports on a relative rather than absolute basis which means the published figures indicate if Telstra’s own retail arms were treated better or worse than its wholesale customers.</p> <p>However, the above figures relating to Telstra’s LLU service are reported on an absolute basis. Telstra maintains that it does not offer LLU to its own retail arm, so it cannot report on a relative basis. Instead, other nominated measures are relied on to track Telstra’s absolute performance in the provision of LLU services. A series of benchmark metrics (e.g. 95% availability) are used against which Telstra’s absolute performance is tracked.</p>
Denmark	<p>20 business days (with a technician visit)</p> <p>18 business days (without a technician visit)</p>	<p>Within 12 business days of the date of the report</p>	<p>In January and February of 2013, TDC in Denmark exceeded its service levels for</p> <ul style="list-style-type: none"> - delivering a service where delivery requires a technician at an average of 100% (where the target is 95% within 20 business days) - in January, 95% were delivered in 17 days – in February, 95% were delivered in 5 days), and - delivering a service where delivery does not requires a technician at an average of 96.6% (where the target is 95% within 18 business days) – in January, 95% were delivered in 5 days – in February, 95% were delivered the next working day). <p>Although TDC’s good results ought to earn Denmark a top place in this benchmark, these KPIs must be considered in the light of extremely lenient delivery deadlines which range from 18 to 20 days. Compared to the 3 to 10</p>

³ <http://www.telstrawholesale.com.au/download/document/operational-equivalence-report-dec-12.pdf>

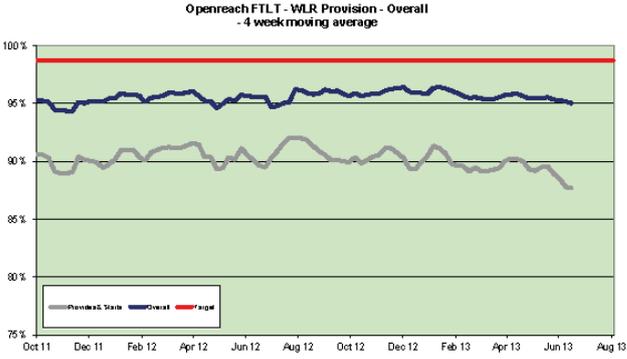
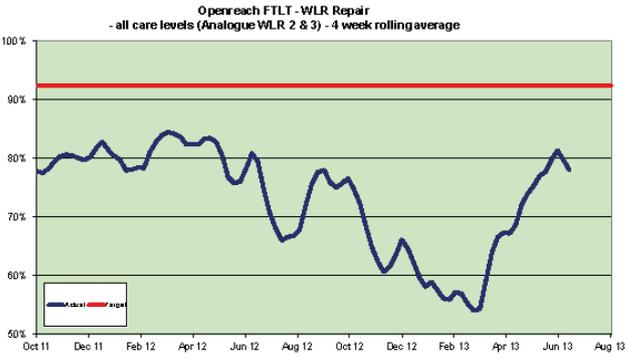
Country	Delivery commitments	Fault repair commitments	Actual performance
			days usually promised in other countries, these delivery times are very long and heavily qualify the value of good KPIs.
Germany	Within 7 business days of receipt of the order	Within 24 hours of receipt of the fault report	Deutsche Telekom has not published details of its performance against these requirements (also the case for WLR).
New Zealand	There is no real delivery time. Chorus will notify a customer of an RFS ⁴ date within 6 consecutive days of receipt of the order, and will meet the RFS date at 90% of the time. No specified time from order.	There is no clear timeframe for this. Chorus will notify the customer of the expected restoration date within 8 Fault Restoration Hours of receipt of the fault, and meet the notified time 90% of the time.	<p>Based on Chorus' February 2013 performance, provisioning SLAs generally performed several points above the contractual average. However, that in terms of provisioning, Chorus is unusual in that no contractually defined delivery date is set, but rather Chorus only promises to provide a date (Ready for Service "RFS"). This was achieved 99% of the time within 6 days, beating the 90% SLA. 97% of orders were completed within the RFS date (SLA is 90% for this).</p> <p>Fault resolution follows a similar principle whereby only a promise to provide (within 8 hours) an expected restoration date binds Chorus. This too was done 99% of the time, 9 points over the SLA and the actual resolution within the expected restoration date took place 98% of the time (SLA is 90%).</p> <p>Despite apparent loose SLAs (which begin with a promise to provide a date before actually committing to said date), if both elements (promise of date + actual completion by promised date) are considered in conjunction, then Chorus' performance is relatively high.</p>
France	Within 7 working days of the date of notifying the customer of the acceptance of the order (no service level for notification acceptance)	2 days from the date of receipt of a fault report unless a visit at the end user's premises is required. Customer can purchase a 4 hours downtime or 10 hours downtime fault SLA option	<p>Delivery commitments 96.7% of orders completed before 7 days, the average length of time being 2.9 days.</p> <p>Fault resolution does not perform well with only 62.9% of the faults being resolved within the SLA.</p> <p>Only 1 month's worth of KPIs (January 2013) are currently published on France Télécom's website.</p>
Belgium	<p>Where a visit is required: 95% within 10 working days, 99% within 20 working days</p> <p>Where a visit is not required: 95% within 8 working days, 99% within 18 working days</p>	By the end of the second working day after receiving the fault report (day of the trouble ticket opening + 1)	<p>Based on the most recent data, delivery service levels were exceeded by 2 – 3 points, with a particularly high percentage beyond the 30 minute period at 60% - 70% of orders being validated within 30 minutes.</p> <p>The basic fault repair service level is measured on the basis of the day that the fault is logged + 1 day. Belgacom has met these deadlines, typically, within 4 – 14 hours. Invalid faults tickets or faults that are found to have been created by the customer are not included within this calculation.</p> <p>For the improved service levels, whilst the most expensive option (4 hours downtime time) is only guaranteed 60% of the time, in fact, Belgacom achieves this 86 – 87% of the time. The cheapest option (8 hours downtime) is achieved at a high rate: 98% of the time.</p>

⁴ Ready for Service
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Country	Delivery commitments	Fault repair commitments	Actual performance
Netherlands	<p>New Line Service (NLS) type 1 : 8 business days NLS type 2 : 21 business days NLS type 3: 50 business days</p> <p>KPN is exempted from complying with the SLAs if the customer deviates from quarterly order forecasts it must provide to KPN.</p>	<p>80% within 10 hours on a business day 95% within 20 hours on a business day 100% within 40 hours on a business day</p>	<p>This data is not publicly available.</p>
Ireland	<p>10 Working Days</p>	<p>3 working days - 73% 6 working days - 92% 11 working days - 100%</p>	<p>Figures for December 2012 show that the 10 working day commitment was met 95.79% of the time, very close to the 95.22% Eircom provides to its own subscribers. Fault repair after 11 days was achieved 100% of the time and both the 6 and 2 working day commitments are beaten, with 99% performance each.</p>
Spain	<p>Anywhere between 4 days (standard delivery) and 45 days (depending on what components of the service need to be installed - this depends on the operator, and the arrangements that it has with the provider, e.g. co-location at the exchange)</p>	<p>Incident of high priority : 6 hours Incident of medium priority: 24 hours Incident of low priority (other incidents): 72 hours</p>	<p>This is not publicly available information.</p>

(b) WLR reference offer v. actual performance

The table below summarises actual performance against LLU SLAs for delivery and fault repair:

Country	Delivery commitments	Fault repair commitments	Actual performance
UK	<p>Provision transfer orders: completed and available to use by midnight on the date provided in acknowledgement notice.</p> <p>Orders for provision of new supply: all orders for new supply will be completed and activated by midnight on the date provided in the acknowledgement notice.</p> <p>Appointments to be available within 13 days (if required).</p>	<p>SML1 – end of next working day + 1 working day⁵</p> <p>SML2 – end of next working day⁶</p> <p>SML3 - In by 1pm fix the same day, in after 1 pm, fix the next working day⁷</p> <p>SML4 - 6-hour repair</p>	<p>WLR rental right first time KPI:</p>  <p>Source: OTA2</p> <p>Target (red); actual (blue)</p> <p>For orders not requiring a technician visit, Openreach has not been meeting the targeted SLAs – generally it has been approximately 5% below the SLA. This is in contrast with orders that require a technician visit for which Openreach has fallen at least 12 – 15% below the targeted SLA.</p> <p>WLR rental fault repair KPI:</p>  <p>Source: OTA2</p> <p>Target (red); actual (blue)</p> <p>Openreach has been consistently underperforming against the targeted SLA for fault repairs. This descended to meeting the targeted SLAs as infrequently as 60% of the time in February 2013⁸.</p>

⁵ Working day = Monday to Friday, 8am-6pm

⁶ See footnote 1 above

⁷ Working day = Monday – Sunday (including bank holiday) 7am – 9pm Monday-Friday and 8am to 6pm Saturday – Sunday

⁸ <http://www.offta.org.uk/charts.htm>

Country	Delivery commitments	Fault repair commitments	Actual performance
Australia	<p>Previous service available (i.e. reconnection of service) (Metric 1):</p> <p>Urban – 2 Clear Working Days</p> <p>Major Rural – 2 Clear Working Days</p> <p>Minor Rural – 2 Clear Working Days</p> <p>Remote – 2 Clear Working Days, each from the relevant order date.</p> <p>New service (Metric 2):</p> <p>Urban – 5 Clear Working Days</p> <p>Major Rural – 10 Clear Working Days</p> <p>Minor Rural – 10 Clear Working Days</p> <p>Remote – 15 Clear Working Days, each from the relevant order date.</p>	<p>Urban – 1 Clear Working Day after the Fault report is logged by Telstra.</p> <p>Major Rural and Minor Rural – 2 Clear Working Days after the Fault report is logged by Telstra.</p> <p>Remote – 3 Clear Working Days after the Fault report is logged by Telstra.</p>	<p>The following variances were reported in the Equivalence Report⁹:</p> <ul style="list-style-type: none"> - Metric 1: (in-situ connection, previously used but deactivated) business variance: 12.21% and residential variance: 3.88%. - Metric 2: (in-situ connection but never used before) business variance: 18.12% and residential variance: 7.96% - Metric 3: (non-situ connection requiring cabling) business variance: 15.53% and residential variance: 18.84% - Metric 4: (technician appointments for delivery met on time) business variance: 0.66% and residential variance: 2.26% - Metric 5: (fault repair) business variance: <u>-4.92%</u> and residential variance: <u>-3.95%</u> - Metric 6: (fault repair appointments met on time): -business variance: -0.18% and residential variance: -0.13%

⁹ <http://www.telstrawholesale.com.au/download/document/operational-equivalence-report-sept-12.pdf>

Country	Delivery commitments	Fault repair commitments	Actual performance
Denmark	<p>Full automatic orders – day of order + 1 business day</p> <p>Orders that can be executed without a technician’s visit at the end user’s premise, and without digging or construction work – day of order + 6 business days</p> <p>Orders that can only be executed by technician’s visit at the end users place, but without digging or construction work – day of order + 12 business days</p> <p>Orders that can be executed either with or without a technician’s visit at the end user’s place, but requires digging or construction work – day of order + 20 business days</p> <p>Orders that can only be executed by technician’s visit at the end user’s place, but either with or without digging or construction work – day of order + 20 days</p>	<p>Standard service level:</p> <ul style="list-style-type: none"> - On site fault remedy procedure – 100 hours in average (based on TDC’s statistics) - Customer visit (booking intervals) - 4 and 8 hour intervals <p>Faults are resolved between 1 hour to the next working day depending on the SLA chosen by the customer – please see the reference offer for more details as the information is too voluminous to include in this table.</p>	TDC was contacted and confirmed that it does not publish KPIs for WLR.
Germany	Deutsche Telekom does not offer a regulated WLR product.		

Country	Delivery commitments	Fault repair commitments	Actual performance
New Zealand	<p>There is no predetermined delivery date, but only a promise to provide a Ready for Service (RFS) date within 6 hours of the deemed acceptance time of the order.</p> <p>Order acknowledgement within 4 hours</p> <p>Rejection acknowledgement within 4 hours</p> <p>Confirm completion of order within 4 hours after completion</p>	<p>No faults occurring within 5 days: target is 90%</p> <p>Acknowledge fault reports within half an hour of receipt: : 90%</p> <p>Provide RFS date within 8 hours of fault being reported: 90%</p> <p>Restore fault within RFS date: 90%</p> <p>24/7 Online fault management availability: 99.8%</p>	<p>Based on the figures published at Telecom Wholesale's own initiative (but not officially ratified by the Commerce Commission), the average fault repair performance is better for wholesale than for retail. Provisioning levels are between 97% and 98%, well above the 90% provisioning SLAs. A poor performance is noted for WLR if bundled with broadband (as low as 81%) but, according to Telecom Wholesale, this is due to an unfair performance metric. The average time to provisioning is 1 day which is fast (and better than retail which took up to 4.7 days in June 2012).</p> <p>The time to restore faults was on average 14 hours between March 2012 and March 2013, 1 hour less than for retail.</p>
France	<p>No later than 8 days from the date of acceptance of the order, 21 days for group orders.</p>	<p>For an analogue line: 48 hours (on working days only) from when the customer's notification is registered by France Télécom's support technician.</p> <p>For an ISDN line: 4 hours (on working days only) from when the customer notifies France Télécom (France Télécom's technical support working days only)¹⁰</p>	<p>Residential orders</p> <p>The average delivery times on existing lines were exceeded by 6 calendar days in most cases (from 8 calendar days to 2 calendar days) and France Telecom managed to achieve a total of 98.1% of deliveries within 8 calendar days. Only 10 orders took more than 30 days to deliver.</p> <p>The average time to deliver services to premises which required some building work was 24 calendar days, and only 4.5% of orders were delivered in less than 8 calendar days, 187 took longer than 30 calendar days (note that France Telecom is not bound by any services levels for orders that require building works).</p> <p>France Telecom managed to only resolve 50.6% of faults within 2 working days, and a total of 1818 faults took longer than 3 working days.</p> <p>Business orders</p> <p>The average delivery time was quite long – at 10 -11 calendar days and similarly the overall percentage of lines delivered on time was only achieved 72.7% of the time.</p> <p>Resolution of faults within the service level timeframe was achieved at 80%</p>
Belgium	N/A	N/A	N/A

¹⁰ Working hours/days not defined in the offer.

Country	Delivery commitments	Fault repair commitments	Actual performance
Netherlands	<p>WLR NLS type 1: X+12 business days, with an approved preferred date X+4</p> <p>WLR NLS type 1b: (with technician visit, relocation and combinations with MDF possible, at request) X+15, with an approved preferred date X+4</p> <p>WLR NLS type 2: X+15 business days, with an approved preferred date X+9</p> <p>WLR NLS type 2b: with technician visit: X+17, with an approved preferred date X+9</p> <p>WLR NLS type 3: (always requires a technician visit): X+50 business days, with an approved preferred date X+30</p>	<p>WLR LC Basic WLR HC Basic (Above ground): <10 Service hours 80% <20 Service hours 95% <40 Service hours 100%</p> <p>(Underground): <1 Business day 80% <2 Business days 95% <5 Business day 100%</p> <p>WLR LC Premium WLR HC Premium (Above ground): <8 Clock hours 80% <24 Clock hours 95% <48 Clock hours 100%</p> <p>(Underground): <8 Clock hours 80% <24 Clock hours 95% <48 Clock hours 100%</p>	<p>This is not publicly available.</p>
Ireland	<p>98%¹¹ of orders to be completed by 5pm on the day following the date of the order</p>	<p>73% within 2 working days, 92% within 5 working days and 100% within 10 working days</p>	<p>On average, Eircom met 95.5% of targets (across all different order types) for delivery of the service.</p> <p>For the 2 day service level (target at 73%), Eircom achieved 68.06%; for the 5 day service level (target at 92%), Eircom achieved 92.2% and for the 10 day service level (target at 100%), Eircom achieved 98.57%.</p>

¹¹ The percentage varies depending on the type of order placed, ranging from 80% to 98% to be completed within the above timeframe. Note that the order types are not defined in any publicly available documents.

Country	Delivery commitments	Fault repair commitments	Actual performance
Spain	<p>Connection or disconnection of WLR (without performance preselection), within 2 business days of receipt of order.</p> <p>Connection or disconnection of WLR (with performance preselection), within 5 business days of receipt of order.</p> <p>Connection or disconnection of WLR within 12 business days of receipt of order.</p> <p>Connection of WLR and broadband services within 12 business days of receipt of order</p>	<p>Complaint concerning provision of services: 2 working days</p> <p>Complaint concerning infrastructure : 2 working days</p> <p>Complaint concerning billing: 10 working days</p>	<p>Although Telefonica is required to provide the regulator with KPIs for its wholesale performance, these are not available to the public and our contact with the regulator has not enabled us to have access to this documentation.</p>

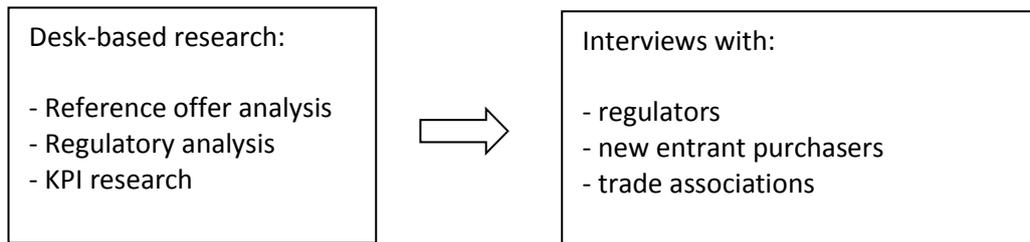
2.3 Methodology for Phase 2 analysis

Based on the data gathered in Phase 1 and summarised above, we selected Ireland, Belgium and Australia as the best performing jurisdictions on WLR and LLU delivery in absolute terms. Each regime however has specific characteristics and anomalies that we will draw out later in this report. In SLA and SLG measures and particularly on absolute performance terms, the devil is very much in the detail and hence our closer inspection of these regimes drew out many interesting points which we have highlighted below.

We discounted a number of other jurisdictions which had potentially reasonably well performing delivery and fault repair statistics but which were erratic or where the commitment levels set under the SLA and SLG regimes meant that they were not obliged to retain that level of service.

Interestingly, in Denmark, for example, the incumbent materially exceeded the service level targets set under the SLAs, albeit the targets set for the incumbent were palpably some of the weakest and offered the greatest flexibility to the incumbent and thus being able to beat the targets was not surprising. In other jurisdictions, performance against the SLA was strong but the incumbent was able to select the delivery date and have the SLA measured against this. We did not consider this to represent an appropriate benchmark.

In certain jurisdictions, the data is simply not available to permit an effective benchmarking of actual performance and thus we have not included them here. Our methodology for this part of the review for the selected countries is set out below:



We performed detailed desk-based research on these jurisdictions and interviewed the regulators as well as market entrants/wholesale customers and other market participants.

In conducting our research we focused on the following elements in our interviews to determine the core factors driving absolute performance:

- the SLA and SLG regimes and scale of penalties/rebates in driving absolute performance;
- performance culture of the relevant organisation, including management culture;
- history/time since privatisation;
- availability of resources at the organisation e.g. scale of the field force and present financial position of the incumbent (in particular if it impacts on resource);
- private/public status of the organisation;
- partnership with other private organisations and outsourcing arrangements in place;
- nature of infrastructure (e.g. copper v fibre and focus of investment on same);
- status of the infrastructure e.g. age/length of loops;
- public funding for the incumbent and access to same;
- governmental/regulatory intervention, including functional or structural separation or the threat of same; and
- any other criteria that have led to the performance of the incumbent being good or bad e.g. climate, unionisation of workforce, CRM/ IT choices/ age of IT infrastructure, resource at regulator or expertise within new entrants.

We asked our interviewees to score each of these factors on a scale of one to ten, where one means that factor is not deemed influential on absolute delivery or fault repair and ten is highly influential. These opinions were obviously somewhat subjective but it led to a number of interesting correlation factors that we draw out below.

We also reviewed the outcomes from our reviews of the electricity, water and postal sectors in the UK from Phase 1.

Finally, we developed some analysis on correlation factors from Phase 1, in particular:

- a) LLU price regulation, to see whether different forms of price regulation contribute to 'best practice' in SLAs and SLGs. This area of analysis also covers linked approaches to quality of service regulation; and

- b) whether different jurisdictional approaches to compensation and penalty payments within SLGs make any difference to performance.

3 Summary of findings

3.1 Factors that have a positive impact on performance

Regulatory intervention – score 7-9

Regulatory intervention is critical, but not just on SLAs and SLGs.

All of our interviewees cited regulatory intervention as the most important factor in driving absolute performance outcomes – scoring it around 7-9 on impact. Effective SLAs and SLGs are deemed to be an important element of effective regulatory intervention, but a range of other regulatory factors are critical precursors to effective SLA and SLG regimes. In particular, the effective regulatory determination of the product set is paramount, with clarity on its scope and sufficient longevity to encourage investment (the “first generation” regulatory requirement). The imposition of an effective price point for the service is also important (“second” generation regulatory issues). Finally, there is an increased recognition of the importance of an effective SLA and SLG regime to incentivise delivery and fault repair (“third” generation regulatory issues) and that such a regime should go beyond mere non-discrimination.

Regulation of service levels still remains in its infancy. See for example the limited coverage of these matters in the latest draft Commission Recommendation on Cost Orientation and Non-Discrimination¹² and also the BEREC guidance on wholesale remedies¹³. BEREC calls for transparent RIOs, active NRA engagement in setting of SLAs and SLGs, proactive penalties, and KPIs set by NRAs and monitored effectively, although detail on the specifics of an effective regime are not further elaborated, nor critically is the rationale which should underpin any effective SLA and SLG regime.

The level of development of SLA and SLG regimes in the telecoms sector is limited at the present time and Phase 1 of our review highlighted the huge divergences across different jurisdictions. In particular, there is a lack of consistency or understanding among policy makers as to the principles that should guide any intervention. For example, is the purpose of SLAs/SLGs to replicate a competitive market/negotiation and to encourage investment (as underpins most cost orientation regulation), to encourage non-discrimination, to actually encourage better performance or a combination of these factors? The rationale underpinning most regimes is opaque at best and thus unsurprisingly the outcomes are highly divergent.

We covered in Phase 1 of this study the elements that make up an effective SLA and SLG regime. Our interviewees drew out many of the themes we had identified in Phase 1 as to what makes an effective regime. We set out some of these themes below and will develop these in the country chapters.

In particular:

The devil is in the detail and regulators will have to intervene in a detailed and effective manner in a range of matters. In other words, where the approach is to regulate de novo, on each new product set that appears, generally via the normal service request process, detailed regulatory intervention

¹² <http://ec.europa.eu/digital-agenda/en/news/draft-commission-recommendation-consistent-non-discrimination-obligations-and-costing>

¹³ http://berec.europa.eu/eng/news_consultations/whats_new/1274-the-revised-berec-common-positions-on-wholesale-local-access-wholesale-broadband-access-and-wholesale-leased-lines

will be needed on every matter, in the manner now seen as normal on product definition and pricing determinations. This will need to cover all elements of the order journey and not just the general product deployment, but also ancillary services, e.g. exchange activation and access to ordering and fault repair systems.

Intervention in the detailed negotiation process by appropriately qualified regulatory personnel is seen as key (Belgium). Any outcomes must, however, be market tested by potential customers (cf. Australia). The regulator needs to have credible powers to intervene effectively in the event of failed negotiations. In other words, there needs to be a credible threat of a mandated outcome.

Commercial negotiations to deliver performance outcomes without this threat were deemed sub-optimal.

There also must be on-going effective oversight of performance by both the NRA and market participants.

SLA/SLG regime – score 5 -7

The sanctions for breach need to be credible and set at a level that will actually incentivise enhanced performance. In Australia and Belgium, this was the threat of separation or aggressive intervention on structures. In Ireland, there was the imposition of a financially large bond recouped by performance enhancements.

Also, credible recourse to wider sanctions e.g. performance bonds (Ireland), access to courts and systems allowing damages (Australia) and more aggressive intervention on structures, have a real impact.

Capped or predictable penalties were deemed ineffective in altering behaviours (UK). In Australia, wholesale customers of the incumbent had sought to retain their pre-existing access to compensatory damages rather than a more certain (and automatic) regime.

Carve-outs from the regime must be carefully constrained, with material issues raised around forecasting carve-outs, i.e. if you fail to achieve a forecast then the SLAs and SLGs will not apply (Belgium), and caps that allow too much flexibility on performance, e.g. any services above x% target that do not meet performance SLAs are not subject to any sanction/SLG payment (Ireland). Wide-ranging contractual carve-outs for force majeure incidents and for “matters beyond our reasonable control” (MBORCs), in particular for poor weather, were cited as major concern in all jurisdictions and were viewed as a mechanism by which the incumbent could evade compliance with the SLA and SLG regime.

A focus solely on non-discrimination will not deliver absolute improvements, not least where the incumbent is not consuming the same inputs as new entrants (Australia). Rather this needs to be coupled with absolute performance metrics.

Common SLA and SLG regimes are needed across related product sets to allow for simultaneous provides.

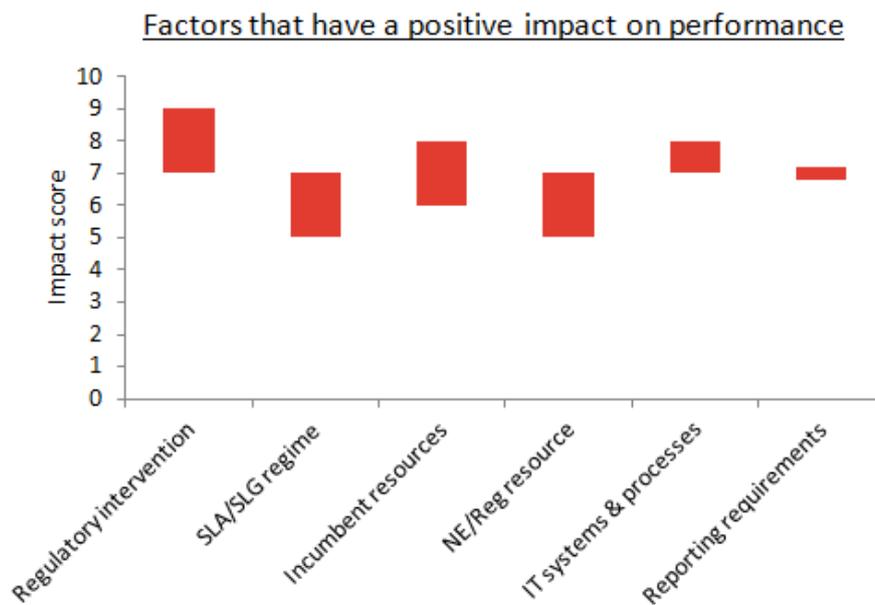
Given all these concerns and caveats and barriers to an effective SLA and SLG regime, it is not surprising that the general SLA/SLG regime and its impact in our surveyed countries only scored

The power and willingness of the regulator to intervene in respect of IT systems and processes is also an important factor in ensuring that sufficiently reliable and granular performance data is available. A key problem in the UK is the lack of transparency about what data Openreach has available, which makes holding Openreach to account more difficult. Greater oversight of the systems and processes available to Openreach might ultimately increase accountability and, in turn, performance.

Other factors - Reporting requirements – score 7

Regular reporting requirements were unanimously identified by respondents as an important factor for improving incumbent performance. Increased transparency gives the regulator greater insight into the incumbent's operations. Wholesale users also found that granular reports enabled them to point to particular deficiencies in performance when making complaints to the regulator.

The figure below summarises in diagrammatic form the above factors which our review has shown to have a positive impact on performance:



3.2 Factors that have a detrimental impact on performance (where 10 is highly detrimental)

Prioritisation of resources on NGA – score 5

There was a consistent concern across all jurisdictions as to the level of resource being moved onto next generation access services, and away from LLU and other services, and the lack of transparency on the allocation of resources between services.

Lack of protections against discrimination in favour of incumbent - score 5

The lack of separation of incumbent staff or the lack of effective protection mechanisms to stop preferential treatment of faults or repairs were cited in all jurisdictions as factors having a detrimental impact of performance. Although there are often metrics in place to highlight any wide

ranging breach of non-discrimination principles, concerns were expressed that there are still cases where the incumbent may be prioritising its own delivery or repair, but this is often difficult to substantiate.

Off-shoring of staff – score 5

Off-shoring of customer service staff dealing with requests for orders or fault repair and issues around performance of same were cited as having a negative impact on performance. In particular, in Ireland and the UK, where fault and delivery orders were, or had been, posted to a remote offshore location, there were concerns around the quality of data input and the corresponding impact on performance – not least misreporting of faults or faults being put in a queue process outside of the normal metrics due to a fault in the incumbent’s input process or systems.

Carve-outs from SLAs/SLGs - score 9

Carve-out from performance and repair metrics for weather-related incidents, in particular in the copper environment, were seen as massively over-broad and over-deployed. For example, wholesale users in Australia noted that Telstra regularly claimed broad exemptions for weather-related events over large areas and for extended periods. Similar concerns were also cited in the UK and Ireland.

Broad exemptions and carve-outs can undermine the effectiveness of having a service level regime. It can also raise the potential for discriminatory behaviour where carve-outs are used by a wholesale provider to avoid their regulatory obligations. Under the Australian regime, where a fault is logged with Telstra and an exemption applies, Telstra is only required to give the wholesale customer the next available time – this could often be weeks away (rather than the 3 - 5 days required under the SSU) and the wholesale user is required to accept the allocated time. This clearly raises the potential for discrimination between the incumbent’s retail arm and other wholesale customers.

Lack of information on incumbent’s performance – score 7

The lack of meaningful information and data on the incumbent’s operations was regularly cited as detrimental to performance. This was the case even in those jurisdictions that required regular reporting by the wholesale provider. In many cases, respondents noted that high level information was not enough; a sufficient level of granularity was required to allow wholesale users and the regulator to identify and address potential problems.

This issue was raised by wholesale users in Australia. Respondents claimed that, although Telstra was required to monitor its absolute performance, the data that was reported in many cases was not sufficiently granular to be meaningful to wholesale customers. However, one respondent did note that Telstra now provides wholesale users with a fault workload ‘heat map’ which has been useful.

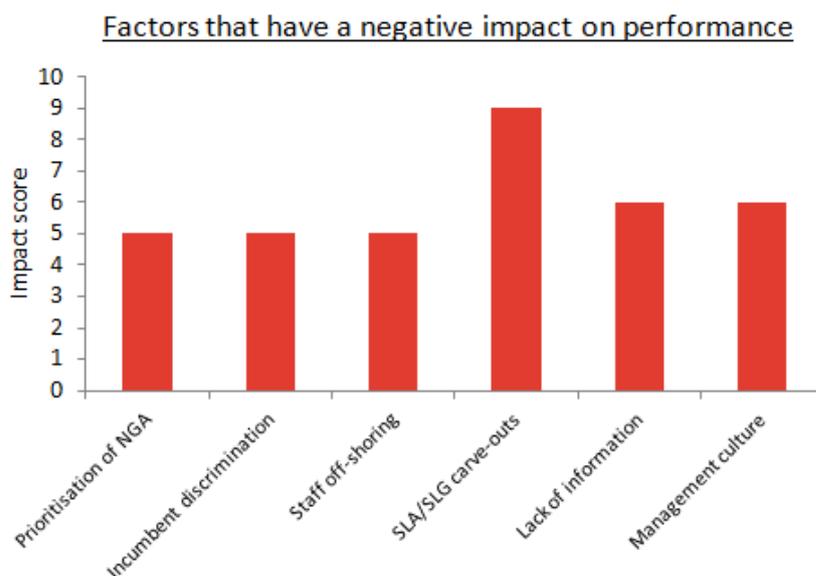
Management culture – score 5

There appear to be strong correlations between a culture of delivery and absolute outcomes. This is very hard to objectively map. However, the organisations where there is a professional ethic on delivering outcomes are seen as delivering more effectively than others. This is an areas where the UK consistently scored most poorly in our discussions. There is a perception that there is a lack of

concern within Openreach at hitting targets or creating solutions that deliver for the customer. Openreach is seen as having most of the systems and processes that one would expect of an organisation of its scale and size, including the CRM tools and IT interfaces with engineers and technicians, but it has consistently failed to deliver or deploy resource in the most effective fashion. From our interviews, it appears that targets relating to service delivery and thus SLA and SLG exposure are not flowed down to the operational level, thus making Openreach unconcerned as to hitting those targets and thus reducing their effectiveness. There were also concerns as to the extent to which service staff were incentivised (or not) to treat wholesale customers as customers and not competitors.

On a related point, an incumbent may not always have a financial incentive to invest in particular infrastructure or services, which can impact on how management allocates finite resources. This point was raised by a wholesale customer in Australia who pointed out that Telstra Wholesale will often be reluctant to improve its LLU services because Telstra does not provide LLU services to its own retail arm. Investments in LLU tend to be viewed as a sunk cost for Telstra Wholesale as it does not benefit Telstra Retail.

The figure below summarises in diagrammatic form the above factors which our review has shown to have a negative impact on performance:



3.3 Observations from other sectors in the UK

The regulators in other sectors in the UK have been substantially more willing to intervene to mandate detailed and enforceable performance targets. These include a variety of incentive measures to improve performance. For example, mechanisms have been built into the price control regime in the water and electricity sectors to penalise the regulated entity for poor service performance.

There also seems to have been greater attention devoted to the asset base required to deliver a particular outcome.

Sanctions are also more readily deployed. For example, Ofwat has imposed sanctions on water companies on several occasions in the past for sub-standard performance.

4 Recommendations

The UK regime, having previously been one of the most advanced regimes, appears to be falling behind. There have been positive developments internationally which have not been replicated in the UK regime. The time for a review in the UK appears clear.

More benchmarking needed

There is little international benchmarking in this area, or at least not in the public domain, and thus little awareness of best practice. As far as we are aware, this study will be one of the few to address this issue on a global basis.

Regulators also do not generally consider the approaches being taken in other sectors, even where they are multi-sector regulators. There is no doubt, however, that there is value in conducting more cross-sectorial analysis, in particular given the materially more advanced regimes in many sectors in terms of addressing absolute performance.

From our analysis of other regulated sectors in the UK, it is clear that they have a variety of regulatory mechanisms for ensuring the maintenance of quality of service (although these tend to focus on areas where the regulator is enforcing consumer centric metrics and there is no wholesale customer in the frame who can be a de facto enforcer of terms). In particular, the electricity and water sectors typically have incentive mechanisms built into the price control framework, whereby the regulated entity is penalised (or rewarded) if it fails to meet (or exceeds) defined quality of service standards. This type of mechanism might be a useful adjunct to SLAs/SLGs. Regulators in the electricity and water sectors have also tended to set quite prescriptive quality of service standards and have been proactive in taking enforcement action for failure to meet these standards.

Move away from non-discrimination

The delivery of strong absolute performance is not the focus of regulators at the present time, even in the best performing countries. Although they are gradually starting to address absolute performance, regulators are primarily focused on non-discrimination. However, there are a number of issues in relying on non-discrimination to deliver service quality. In particular, where the incumbent's retail arm does not purchase the same wholesale input as its external customers, the incentive to improve performance to external customers is dampened. Moreover, where there is separation between the incumbent's retail and wholesale arms, the pressure of competition at the retail level is unlikely to drive improved performance at the wholesale level. External customers may, in any event, be affected to a greater extent than the incumbent's retail arm by poor performance, to the extent that this results in delay or disruption to the switching process.

The focus of regulators on non-discrimination, rather than absolute performance, appears to be for two reasons. First, to deliver on their commitments to ensure fair treatment of new entrant operators and the non-discrimination obligations flowing from EU and national law (and the undertakings in Australia). Second, there is a general perception that setting absolute performance metrics is too difficult and that an easier route to deliver performance outcomes is to set up SLA and SLG regimes, predominantly driven by non-discrimination and largely enforced by customers. Having said that, there is an increasing recognition that more than non-discrimination is needed and

mechanisms are being developed to assist in setting better and more effective incentives to drive better absolute performance. This is particularly true in countries where there is no consumption of the wholesale input by the incumbent's retail arm.

There are few underpinning principles that regulators can look to in determining what the principles of the regime should be. As such, there is a divergence in approach. When asked, regulators recognised that the best outcome is the replication of commercial outcomes in a regulated environment but this will require more detailed intervention and engagement than is presently undertaken in the telecoms sector.

The challenge for regulators is that it is hard to determine what is best practice in terms of absolute performance and the legal regimes do not assist. In the EU, the requirement to provide access on "fair and reasonable" terms is a very loose obligation and provides little guidance on what is actually required in practice.

The most detailed review, outside of the UK 2008 service level review, is that included in the BEREC review in 2012 on remedies in the wholesale local access market. This simply notes the need for reasonable access to certain services. It does however indicate some useful additional requirements in terms of SLA and SLG regimes that enforce non-discrimination, cover the payment of penalties automatically, and also KPI regimes. The latest draft EC Recommendation on Cost Orientation and Non-Discrimination also presses for the imposition of Equivalence of Input type remedies on incumbents, predominantly for fibre based access services.

Detailed exposition of the principles that should underpin SLA and SLG and more focus on outcomes that replicate commercial market place.

It is critical that regimes enunciate more clearly the underpinning principles of their regimes and constantly measure performance both from the perspective of non-discrimination and in absolute terms.

There should be a presumption on SLA and SLG remedies being in place for each new product set and the matter not started from scratch with each new product set.

The NRA must be actively involved in the creation of the SLA and SLG regime for a product set.

Ideally, there should be a presumption that there will be a SLA to cover each element of the product journey, with the core elements of the SLA pre-agreed before commercial discussions are undertaken. There should also be KPIs and other metrics, as well as effective sanctions to compensate customers and to act as an incentive to improve performance.

Benchmarks on deliverable performance from commercial contracts should be used to guide SLAs. The burden of proof should be on the incumbent to justify derogations from the SLA/SLG regime.

Changes to price control regime to incentivise improved performance

There are various ways in which price controls could be used to incentivise improved performance.

As noted above, one approach used in other regulated sectors, in particular electricity and water, is to build incentive mechanisms into price controls which penalise (or reward) the regulated company for failing to meet (or exceeding) defined quality of service standards.

Another approach is to modify the assumptions used in the price control modelling.

In Ireland (where the LLU service performance of Eircom is superior to that of Openreach in the UK), ComReg has set LLU prices for Eircom using a bottom up model based on the long run average incremental cost of a 'most efficient' network. This involved ComReg setting a very ambitious line fault index level for Eircom within the LLU price e.g. it built in to the LLU price a line fault index number (8%) which was far lower than Eircom actually operated to at the time of the price determination (12.5%). In effect, a 36% improvement in line faults was built into the LLU price in Ireland.

The incentive may only apply in a particular cost control period. Thus, investing in enhanced quality of service only makes sense for the particular period of the charge control before the costs are reset.

Credible threat of regulatory intervention for consistent poor performance

Experience from other countries and from other sectors in the UK demonstrates that regulatory intervention (or the threat of the same) can have a material impact and is critical to improving absolute performance.

For example, in 2008, Eircom's fault levels and repair times were deemed to be unacceptable by ComReg. ComReg determined that Eircom had to improve its QOS levels or risk being subject to financial penalties. Eircom did end up having to pay penalties. It appears that ComReg's intervention, combined with its approach to LLU price setting, has led to higher LLU service levels than might otherwise be expected.

Enhanced role for the OTA

The OTA has played an important role in facilitating industry dialogue and monitoring Openreach's service performance. Nevertheless, there are a number of factors which limit its effectiveness, including its inability to require parties to participate in negotiations, the non-binding nature of its recommendations and the fact that it does not cover the full range of Openreach's regulated services. This contrasts, for example, with the role of the Independent Telecommunications Adjudicator in Australia, which has the power to adjudicate on certain issues and make determinations on spend and prioritisation by the incumbent telecoms operator up to 10 million Australian dollars in one year. The ITA may also recommend regulatory intervention or determine a potential breach of competition law.

Strengthening the powers of the OTA and extending its remit would be helpful in areas where detailed analysis is needed, but it needs greater enforcement powers to bolster this data centricity.

Structural remedies as a last resort

If the above recommendations are not effective in delivering performance enhancements, then wider functional or structural remedies might need to be considered, albeit as a last resort. The

possibility of using structural remedies is recognised in the present EU regime and were deployed in Australia and threatened in other jurisdictions.

Compensation and penalty payment levels

There does not appear to be a common approach across jurisdictions for setting penalties and compensation payments built into SLGs/SLAs.

On a very tentative level, it seems that both the level of penalty payments for fault duration, and whether they are capped, may contribute to service level performance.

In Ireland, Comreg sets penalty payments for delays to LLU faults on the basis of a complex formula which takes accounts of the number of faults and how long faults remain unrepaired. This then adds up to cumulative compensation payments to service providers. It appears that Comreg has effectively left Eircom's penalty payments uncapped, i.e. there is no time limit to the number of days a penalty may apply for.

From our interviews, it is also clear that the customers of the incumbent see unpredictable penalties as critical to driving performance as it means the incumbent is unable to simply cost the relative cost of failing to deliver against the return on the product set.

Sky has commented¹⁵ on the intrinsic disincentive contained in Openreach's charge control: operating costs and capital investment cannot be recouped, but savings can. While the rationale for this model was to drive efficiency, it potentially operates as a disincentive for Openreach to invest to improve its service. It has also noted that any compensation payments due by Openreach can be factored into future costs of the product, which again could reduce the incentives on Openreach to avoid incurring liability for the compensation payments in the first place.

More tightly controlled/limited carve-outs from SLAs/SLGs

A key concern in all the jurisdictions we reviewed is the wide-ranging nature of contractual carve-outs from SLAs/SLGs for force majeure events or MBORCs.

One possibility would be to limit carve-outs to genuinely force majeure events and to prevent the use of more wide-ranging carve-outs or to place a greater onus on the incumbent to justify why such carve-outs are justified.

The 'life cycle' concept

The different jurisdictions reviewed as part of our Phase 1 analysis started their SLA/SLG regimes for LLU from different positions and needs.

In Ireland, LLU had low levels of penetration and Eircom had low levels of service and high levels of copper line faults. In Belgium, there were significant difficulties in service providers achieving agreement with Belgacom on service levels/SLGs. In both these jurisdictions, the regulators intervened aggressively to resolve these deficits. Several years later, these jurisdictions show higher levels of LLU service performance.

¹⁵ http://stakeholders.ofcom.org.uk/binaries/consultations/fixed-access-markets/responses/BSkyb_Additional_Paper_1.pdf

Conversely, the UK was already one of the most advanced LLU markets in the EU when the current SLA/SLG regime was introduced. However, performance against the SLAs appears poor and other regimes are introducing more innovative and new remedies to the mix, including in terms of the elements of the service journey covered, the scale of penalties in play and intervention in systems stacks, etc.

Reflecting on these differences, it does appear that different regulatory regimes have different life cycles.

This is evidenced by the more developed precedents and principles being deployed in other jurisdictions which might be of use to the UK. It is clear that more effective regulatory engagement is needed in order to improve service standards in the UK.

5 Country review

5.1 Australia

Based on the data gathered in Phase 1, Australia was identified as a leading jurisdiction in the delivery of WLR and LLU in absolute terms. The Australian regulator has taken steps in recent years to identify and address areas where wholesale customers have historically experienced poor performance. Our interviews uncovered two particularly important steps that were taken by the ACCC in recent years:

- the decision to structurally separate Telstra’s wholesale and retail arms; and
- the implementation of an extensive new reporting regime under the SSU, including requirements for Telstra to investigate and report where it has failed to meet a particular metric.

The separation and monitoring of Telstra’s relative performance between its own retail arm and other wholesale customers appear to have been key factors behind Telstra’s improved performance.

Since the SSU regime came into effect last year, Telstra has largely met and surpassed its metrics for the connection of LLU retail customers (i.e. Metrics 14 and 15). Telstra has gradually improved its fault repair services, but it continues to fall short of its performance targets under Metric 16. Telstra has attributed its sub-standard fault repair numbers to ‘extreme weather’ and ‘workload’, which are both valid exemptions under the SSU, but it has still committed to investigate and identify ways to improve its performance in these areas.

The increased transparency afforded by the new reporting requirements in the SSU has allowed the ACCC to remain relatively hands-off while still giving Telstra an incentive to improve its performance. The emphasis in Australia continues to be to allow private operators to compete with minimal regulatory intervention. The ACCC has maintained an oversight role, but it is only involved from an equivalence perspective – the ACCC monitors the state of competition in the market (e.g. through reporting on ‘declared services’ under the SSU), but it does not enforce service levels. The ACCC is supported by an Independent Telecommunications Adjudicator (ITA) that has the power to resolve escalated non-price equivalence complaints that are brought under the SSU.

The SSU also introduced the concept of automatic service level rebates but these have yet to be implemented. The introduction of automatic rebates under the SSU was supposed to make it easier for wholesale users to obtain payment from Telstra for missed service levels. However, to date, Telstra and its wholesale customers are at an impasse on how an automatic service level rebate regime will operate under a Service Level Deed that is currently being negotiated by the parties. In the interim, the Consumer Service Guarantee (CSG) service level regime continues to operate.

This is not to say that the Australian regime is without its faults. In our interviews with Telstra’s wholesale customers, a number of claims were made that, if true, would serve to undermine the perceived success of the new SSU regime. These claims included the following:

- Telstra is required to monitor its absolute performance at a relatively high level so the data that is reported is not sufficiently granular to be meaningful to wholesale users;

- the service levels that were put in place merely codified business practices that were already occurring so the metrics have not led to any real performance improvements by Telstra;
- the carve-outs and exceptions that were included in the SSU (e.g. extreme weather and high workload) are too easy to claim with only little justification when Telstra fails to meet its service levels; and
- there is not enough reporting on Telstra's retail arm which makes it difficult to claim discrimination by other wholesale users.

However, despite these criticisms, there was general consensus that the new reporting requirements in the SSU were a step in the right direction. The quarterly reports provide a level of transparency that previously did not exist. Wholesale users can now point to particular deficiencies in Telstra's performance when making complaints to the regulator.

With greater visibility on Telstra's operations, there is optimism across the industry that as Telstra is forced to explain itself, it will gradually choose to improve its performance over time rather than continue to fight with access seekers and the regulator over inadequacies in its services.

5.2 Ireland

Our findings from the Phase 1 report show pro-active involvement by the regulator, ComReg, in setting Eircom's service levels, as evidenced by the regulator's numerous notices discussing each service level in detail at a level not seen in other countries.

Combined with the industry involvement, as well as ComReg's clearly defined enforcement powers, the ground appears to be favourable for good performance against contractual SLAs.

The focus does remain on non-discrimination with recent action against Eircom over performance on WLR on these grounds, but absolute performance is dealt with under the USO regime.

Published KPIs show that Eircom has indeed discharged many of its obligations towards its wholesale customers. There is room for improvement nevertheless which could take the form of a reduction in the number of carve-outs which help the incumbent look good on paper but do not necessarily translate into a good experience for customers. Forecasting requirements and weather exclusions were often cited as excessively broad.

Our engagements with local purchasers of Eircom services noted the following:

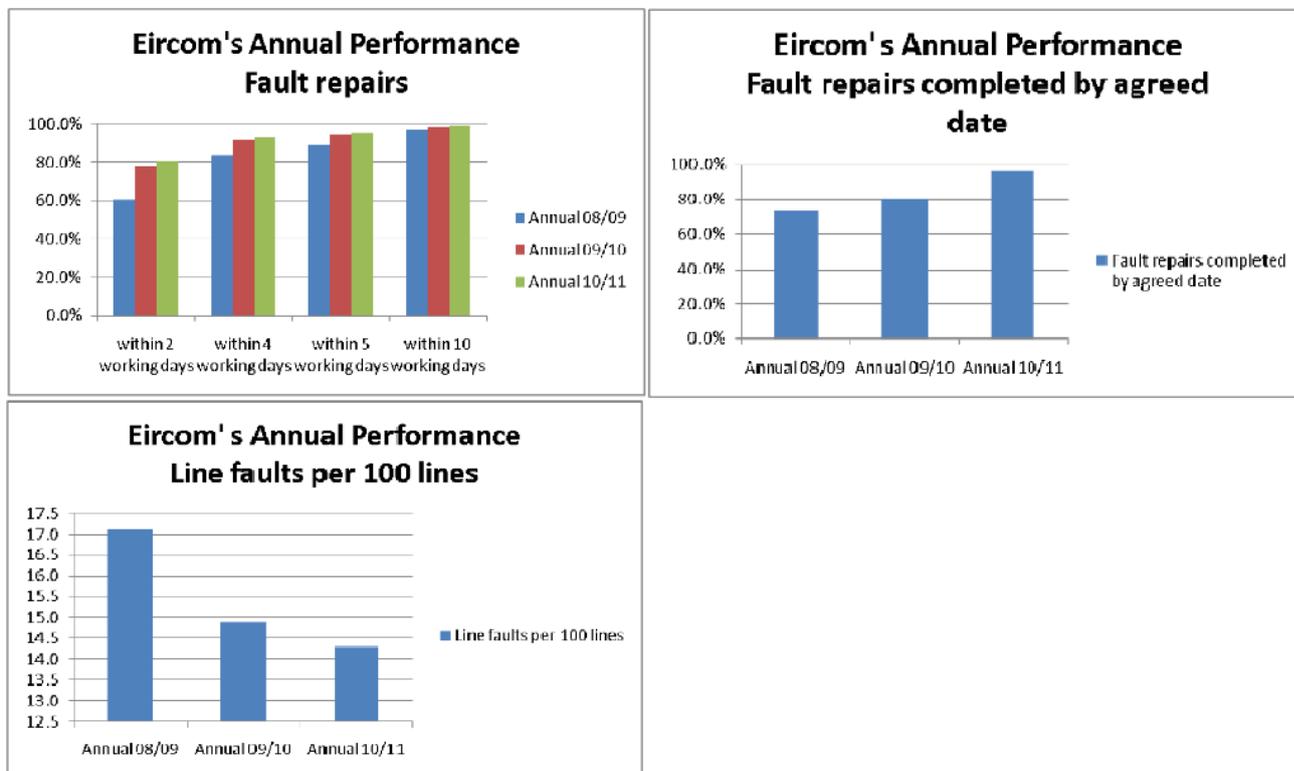
The level of effort required to keep moving the dial on these issues is large and requires detailed engagements with Comreg and Eircom on each product set.

The most effective intervention was the establishment of a €10 million corporate bond¹⁶ to guarantee Eircom's USO performance requirements, set after material performance failures of Eircom and which was set at such a level as to be influential on Eircom's performance. Eircom parted with €115,000 of the €10 million bond for failing to achieve its USO fault repair targets. ComReg has noted that:

¹⁶ <http://www.comreg.ie/fileupload/publications/ComReg1179.pdf>

“Since ComReg established the legally binding performance targets, Eircom’s performance in respect of connections, fault repairs and fault occurrence has improved markedly. There are also indications that this improvement in Eircom’s performance is continuing¹⁷. ”

The charts below, taken from ComReg’s decision, set out Eircom’s improved performance:



The actual performance targets of the SLAs are not seen as being sufficiently taxing. Service credits are generally not paid as the targets are met. This is due to both the time available to the incumbent to deliver against the SLA and also the “double gate”. In other words, if Eircom achieves the relevant x% target, the remainder of failures fall outside of the scheme.

SLAs are not available for access to the ordering and gateway system, although we understand that such SLAs being negotiated.

On the other hand, the relative flexibility of the SLA and SLG regime and the delivery in less time than mandated means wholesale providers can take a commercial decision to offer better SLAs and SLGs to end users than are presently provided by the incumbent.

As with most other jurisdictions, it is the assurance of in-life products and fault repair on same which is most often cited as problematic.

Another gap is the lack of back-to-back SLAs for delivery of multiple products to reflect bundled product offerings at the retail level. This was a common issue across jurisdictions.

¹⁷ <http://www.comreg.ie/fileupload/publications/ComReg1179.pdf>

There was a feeling that data is sufficiently granular to allow analysis of issues but the actual performance targets were too lax. However, the trade association we spoke to believed that there remained too many carve-outs from the data provided to make it totally fit for purpose.

The lack of forecasting carve-outs was welcomed and deemed useful to the effectiveness of the regime.

However, carve-outs for weather-related MBORCs were seen as too wide and not sufficiently constrained.

Resource was not deemed to be an issue, largely on the basis of union pressure, but there were concerns as to the upcoming impact of further headcount reductions coupled with the move to fibre roll out and the determination that a truck roll would be used for each new order.

However, resource was blamed for previous failings e.g. the performance improvement plan on WLR was deemed sufficiently incentivising to Eircom.

Interestingly, one respondent noted that WLR was relatively expensive and could easily fund the additional resource required to deal with delivery and fault issues.

One interviewee commented on the level of Eircom's WACC and the potential to tie Eircom's ability to recover its WACC to improvements in its performance.

5.3 Belgium

In Belgium, the SLA and SLG regimes are highly developed and Belgacom's KPI data shows very good performance against its SLAs.

However, notwithstanding Belgacom's good absolute service performance, take-up of LLU services in Belgium is limited. This is deemed to be for two reasons: relative price points of wholesale and retail services and the move to sub loop unbundling very early in the development cycle for LLU investment which deterred investment.

We understand that one wholesale customer has ceased purchasing regulated products from Belgacom altogether and is exiting the market and another, we are told, is moving to secure wholesale services on a purely commercial basis.

This would suggest that first generation (access) and/or second generation (price) regulatory measures have not been entirely successful and should be addressed before third generation (driving performance) can be successfully tackled.

Similar to the position in Ireland, the Belgian regulator has been heavily involved in setting service levels in Belgium. It instituted a major review of the regime. It identified a material number of deficiencies with the existing regime and made specific attempts to address these. As with other countries, forecasting requirement carve-outs and lenient SLAs were considered to be obstacles to the achievement of enhanced performance.

The outcome of this process was a materially enhanced series of SLAs and SLGs as well as aggressive regulatory intervention in the setting of these as well as oversight of their application. The Belgian regulator maintains this was the result of pressure on the incumbent to produce enhanced SLA and

SLGs or face material regulatory intervention including the threat of functional or structural separation.

The improvements were set by engagements with industry and a series of working groups (cf. Australia).

The on-going processes of developing SLA and SLGs is done with senior level engagement by the regulator in the process, both legal and technical, with the incentive to secure outputs via industry engagement but in an accelerated process. The regulator also reserves the right to mandate IT and system stack enhancements to improve or adhere to service level requirements. Access has been granted to the calendar and appointments system which was deemed positive.

Other developments which have been made include the ability for wholesale customers to use their own technicians for LLU delivery, but this was subsequently restricted to certain exchanges.

Resourcing is seen as sufficient and is rarely used as a rationale for service non-delivery. Belgacom uses a mixture of outsourced and internal resource.

Belgium therefore provides an interesting case study, although the development of the SLA and SLG process for LLU appears to have come too late in the genesis of these products.

6 Other regulated industries in the UK

In Phase 1, we provided a summary of the applicable service level regulation in the water, electricity and postal sectors in the UK.

Our analysis demonstrates that the electricity and water sectors have much more detailed service level requirements, greater regulatory involvement in setting these requirements and a greater degree of enforcement by regulators in order to ensure compliance.

Whilst these service level requirements tend to be focused on the consumer-facing business, they nevertheless provide a useful benchmark and illustrate the different types of approaches that can be used to drive improved performance, in addition to compensation regimes. In particular, the credible threat of regulatory sanctions and the incentive properties built into the price control framework appear to be effective tools for improving service levels. In the water sector, Ofwat imposed fines of between £0.47 million and £1.4 million on three separate water companies in 2008 for providing a sub-standard service to customers¹⁸. At the time, Ofwat noted that it was appropriate to impose financial penalties, in addition to any compensation that may have been payable to customers, in order to provide a sufficient incentive to meet the relevant performance standards going forward¹⁹. In addition to the threat of regulatory sanctions, Ofwat has also included a service incentive mechanism as part of its price control arrangements. Adjustments of between +0.5% and -1.0% can be made to the price control based on the regulated company's historic service performance, measured on the basis of both quantitative and qualitative factors²⁰.

¹⁸ Thames Water was fined £1.4 million, Severn Trent was fined £1.1 million and Southern Water was fined £0.47 million.

¹⁹ http://www.ofwat.gov.uk/regulating/enforcement/enforcenotices/not_fne_svt_gssfail.pdf

²⁰ http://www.ofwat.gov.uk/regulating/aboutconsumers/sim/prs_web201211sim.pdf.