Flomatik Network Services

Ofcom, Wholesale Local Access Market Review, Consultation on Duct and Pole Access Remedies

Consultation Response

Introduction

Flomatik is an industry recognised and results-driven Network Services company and works with clients who are under pressure to deliver extraordinary technological and operational change; clients that value a partner that can respond quickly and achieve optimal results.

The company provides its clients with right-sized solutions for each project, from key personnel, to whole teams, turnkey services and through to full functional outsourcing. Complex projects are delivered by developing shared understanding to generate efficient and effective solutions that reduce project complexity and uncertainty, saving clients both time and money.

At our heart lies a passion for quality and success, embodied by a team of outstanding and committed specialists. The organisation blends the experience and wisdom of long-standing professionals, with the hunger and excitement of new talent.

Flomatik are both a BTOR Accreditor and BTOR accredited

Flomatik have an extensive understanding of BTOR infrastructure and the entire, somewhat convoluted DPA application process; valuable prerequisites when undertaking DPA survey and analysis for CSPs.

To realise each project, Flomatik provides its clients with a dedicated BTOR Accreditor and accredited team of Survey and Planning Engineers.

Each turnkey project is delivered within a PMO framework and supported by specialist Project Managers. The team handles all DPA activities and surveys, starting with the DPA mapping applications, BTOR portal applications and through to the submission of the meticulously completed BTOR survey sheets, to ultimately deliver detailed summary reports for the client.

We're experienced

With our unique, practical experience of network planning with various technologies, architectures and business models, Ofcom acknowledges and consults with Flomatik as a leading player in the DPA movement; and working alongside Ofcom with CSPs, construction companies and technology tool suppliers, Flomatik continually develops its knowledge, processes and service offerings in this area, to bring valuable competitive advantage for its clients.

We use tools and automation

With a bespoke development of the LatLonGO® mobile GIS software, integrated to our core QGIS application and loaded with Ordnance Survey (OS) base maps, we acquire the existing BTOR network records, cleanse them and augment this inventory view with real-world survey data. This efficient, automation-led process enables Flomatik to realise high quality, repeatable surveys, backed up by clear, image-rich and geo-tagged records.

Following detailed analysis clients are provided with a combination of map-based utilisation diagrams, highlighting both the usable and non-usable routes in each area or design, along with fuller summary reports that identify the overall DPA usage opportunities and other key network build information.

We optimise design

To take maximum advantage of existing BTOR DPA capacity, Flomatik can create the network design proposals from scratch, or optimise existing client designs as required.

We deliver a business case

Full technical business cases are offered to ambitious CSPs that seek to make swift decisions within time-pressured implementations. These might be for DPA exclusively, or combine a part-DPA build with elements of more traditional construction.

Response to the Consultation Questions

Question 4.1: Do you agree with our proposals for a specific access obligation, which includes an obligation on BT to make adjustments to its physical infrastructure when its network is congested? Please provide reasons and evidence in support of your views

Flomatik is in broad agreement with the specific access obligation and offer the following points for consideration:

Congestion Relief and Capacity Augmentation

The network access obligation will support the uptake of PIA by CP's. However, Flomatik believes that the degree of usage will be contingent on the level of clarity regarding the engineering actions that BTOR will or will not undertake in specific congestion relief and capacity augmentation circumstances.

To support high take-up and avoid implementation delays, Flomatik recommends that BTOR and CP's agree a base set of **common** congestion relief and capacity augmentation circumstances, and resultant BTOR actions to resolve them. It is equally important that common circumstances that **will not** result in congestion relief or capacity augmentation are also defined, so that all parties are clear as to when and when not PIA congestion relief or capacity augmentation will be provided by BTOR. Whilst it is not practible to provide a definition for all possible circumstances, taking this approach should cover >90% of eventualities. Ideally, this should be completed prior to BT publishing its draft PIA Reference Offer and should be produced under the management of the OTA2 Passives Working Group.

Whilst we agree that there are several different options to relieve DP pole dropwire capacity, we are concerned that a lack of definition regarding the engineering rules supporting the obligation could result in unpredictability as to where an individual premise may be served from. That is, prior to a CP deploying its 'premises passed' infrastructure, mapping of individual premises to their intended serving DP pole must be agreed. If BTOR is afforded the post-build flexibility to determine which DP pole a premise will be served from due to 'capacity' issues, this could lead to significant infrastructure rework and unforecasted cost for the CP. Two possible resolutions are 1) Pre-determined premise/DP pole mapping, agreed by the CP & BTOR through the PIA survey process for a defined geography and premises grouping or 2) Simple engineering

rules. E. g. Where a DP pole has reached the maximum number of dropwires it can support, BTOR will as a first choice replace the copper dropwire of the premise to be served by the CP with a Hybrid dropwire.

In light of the above, we would advocate also that ducted copper cable lead-ins should also be replaced by a Hybrid lead-in where there is insufficient duct space to accommodate new cables. This should provide an increased PIA yield and greater certainty for CP's on PIA-derived customer connects through ducted underground lead-ins. We appreciate that this will not be universally feasible, due to engineering difficulties surrounding the removal of existing copper lead-in cables. Note: If BTOR were to deploy its own FTTP access network en-mass, they would probably pursue this action to create lead-in capacity, rather than build costly new civils infrastructure.

First Mover Advantage

A stated aim of the Access Remedy is to 'promote competition and investment' in rival networks. If not already covered, OFCOM and Industry should consider a possible scenario that within a specific Geography DPA/PIA usage may be constrained to no more than one CP. In simple form, the BT access network duct infrastructure and capacity tapers off from the Exchange out to the premises within its serving area, and where a CP overlays its own network, increased capacity usage may exacerbate existing area pinch points and limit other CP's ability to efficiently deploy their FTTx networks. Therefore, first mover advantage may drive higher volumes than those considered by OFCOM in the consultation in the early years of the reset PIA product's life.

Given that PIA can considerably accelerate the overall network construction cycle, in contrast to a traditionally constructed civils infrastructure, our view is that OFCOM's prediction regarding volumes and timing may be overly conservative, due to the high potential of a 'land grab' rush for PIA from CP's.

Challenge Process

To resolve any inconsistencies or possible discrimination we would suggest that within BTOR's Reference Offer that a 'challenge' process is offered where a CP's request for enabling works is denied.

Question 4.2: Do you agree with our proposals on the scope of PIA: (1) To broaden usage through a mixed usage generic rule; (2) To modify the PIA condition to define geographic scope by

reference to telecoms providers' local access networks. Please provide reasons and evidence in support of your views.

Flomatik supports the proposals relating to the PIA mixed usage generic rule and the revised PIA geographic scope. We offer the following points for consideration:

Mixed Usage Generic Rule

To provide greater clarity for CP's on PIA 'mixed usage', it would be helpful to provide some specific, real life cases of what would be deemed within and outside the proposed 'mixed usage' scope.

- Would a Metro Area Network that was in part configured at the physical access layer with PIA, that provided point-to-point and point-to-multipoint connectivity, that delivered broadband and voice services to multiple end points be considered as being within the proposed 'mixed usage' scope?
- Where a CP provides a Dark Fibre wholesale service utilising PIA within its physical access and backhaul network layer would this be considered as being within the proposed 'mixed usage' scope?
- Where a PIA derived physical access network layer provides point-to-point & point connectivity to 3,4 & 5G Mobile Cell Sites, would this be considered as being within the proposed 'mixed usage' scope?
- What are the specific usage cases where a CP would not be able to consume PIA as they are outside the 'mixed usage' scope?

PIA Geographic Scope

It is our view that a CP should be able to use PIA within its network physical access layer, in full or in part to provide layer 2/3 Wide/Metro Area Network connectivity between contiguous PIA enabled areas (i.e. between BT Exchange Areas). If this is not the case it will limit the business case for CP's that plan to deploy large scale geographically contiguous FTTP networks.

Question 5.1: Do you agree with our proposed imposition of a no undue discrimination SMP condition on BT? Please provide reasons and evidence in support of your views.

Flomatik agrees with the proposed imposition of a no undue discrimination SMP condition on BT.

Question 6.1: Do you agree with our proposed approach to the processes and systems relating to planning and surveying? Please provide reasons and evidence in support of your views.

Flomatik is in broad agreement with the proposed approach to the processes and systems relating to planning and surveying. We offer the following points for consideration:

PIA Database

The introduction of BTOR's Digital MAP is a very positive step. We agree with Ofcom's conclusion in setting an obligation on BTOR for industry access to a PIA Database as an ancillary service and would advocate that as part of BT's revised Reference Offer it provides detail on the system data associated with all assignable elements and their status (planned, built, used capacity, assigned capacity, registered defects, A1024 planned corrective actions etc.).

We would further advocate that the mapping of a ducted underground lead-in from the served premise to its final DP chamber is provided within the PIA Database data set. The rationale being that it defines the full section of a lead-in and, importantly, provides the direction of the swept T, which will not always be apparent from the BTOR network drawing. This will reduce any misinterpretation and support CPs in mapping their overlay FTTP network through the optimal duct infrastructure to each premise. Misinterpretation, not detected at the survey stage, will only be identified at the network deployment stage and may result in significant CP rework and delays.

Furthermore, the mapping of a premise's ducted underground lead-in to the correct parent BTOR DP chamber will also provide a valuable aide in assessing a CP's optimal location for its own overlay splitter/distribution point locations. The physical mapping of a U/G DP chamber to a premise served can be readily derived from BTOR copper DP records and Flomatik believes that, from a systems development perspective, the inclusion of the data within the PIA Database should not be difficult.

From a distribution pole perspective, DP records will provide a valuable indication of deployed dropwire capacity and premise mapping will indicate whether radial distribution is in play. Again, this is a valuable aide in a CP determining the best possible usage of PIA to deploy large scale FTTP networks. BTOR's DP records, if made available in part, would provide a good indication of the 'as is' capacity for each DP pole and also the physical mapping of a DP pole to its served premises, therefore identifying at 'desktop planning' if a DP pole provides radial feeds or not.

DP records are held within the BTOR domain for both underground and overhead distribution, and we cannot see any valid reason for these records not to be presented to CPs through the proposed BTOR's PIA Database.

To support large scale PIA usage, an ability to import BTOR network records in a standard GIS data format (shape file) and at a scale equivalent to at least a BT Local Exchange area is required. Limiting access to this data will be counter productive to the success of the DPA/PIA Remedy.

Assigned Capacity Status

For effective and efficient processes to be developed for PIA usage, all reserved PIA capacity - be it for BTOR's own use or that of a CP – must be indicated (as status 'reserved') for all assignable network elements. There is no requirement to identify for whom it is reserved. Without this, CP's might waste considerable planning efforts, assuming capacity where it is already allocated.

Ancillary Service – Route Proving

A BTOR PIA ancillary service for 'duct route proving; would be helpful as part of the surveying process. This would assist the pre-order assessment of PIA with respect to the levels of enablement required, thus a CP would be able to formulate a statistical or targeted usage of this ancillary service. This service should also be included as a self-service option as outlined in sections 6.111 - 6.114 of the consultation document.

Question 6.2: Do you agree with our proposed approach to the processes for build works and enabling works? Please provide reasons and evidence in support of your views.

We are in broad agreement with the proposed approach to the processes for build works and enabling works. We offer the following points for consideration:

SLA's and SLG's

In regards of both build works and enabling works we believe that SLA's and SLG's are critical to the success of PIA. Therefore, we believe that OFCOM should set an appropriate timeline for BTOR and Industry to agree appropriate SLA's and SLG's, with appropriate compensation levels for failure events that impact individual CP's business plans.

BTOR Systems Roadmap

As systems are also critical to the success of PIA, our assumption is that BTOR will detail its systems roadmap within its Reference Offer, if this is not the case we would recommend that it does so. Along with order automation and other in train systems developments that are critical to widespread PIA usage by CP's, we think that it would be prudent to set milestones by which specific functionality must be delivered by.

We note the timing of BT's draft and final PIA Reference Offer is across a 12-month period and also from the Mott Mcdonalds systems paper that their estimate of full system functionality is between 18-24 months. Therefore, we conclude that it is imperative that CP's have a clear view of what system functionality and

data will be available to them from the final Reference Offer being published and beyond. From this a CP will be better able to assess when they may wish to commence their usage of PIA on an industrial scale.

Diversionary Works

We noted the absence of reference to Diversionary works within the maintenance section of the consultation document, this needs to be appropriately covered within BTOR's Reference Offer.

Question 6.3: Do you agree with our proposed approach to processes relating to the connecting the customer stage? Please provide reasons and evidence in support of your views.

Flomatik supports the proposed approach to processes relating to the connecting the customer stage and offers the following for consideration:

Overhead Dropwire – Defacto Rule

Further to our earlier comments, we believe that a defacto usage rule for Overhead lead-ins should be applicable where there are no health & safety issues associated with an existing DP pole. Where a CP has ordered, or installed Facilities on a BTOR pole and the pole has no free capacity for another dropwire, BTOR must replace the existing copper dropwire, with a Hybrid, to any premise where the CP has an order to provide service to the occupants.

SLA's and SLG's

With regards to connecting customers, we believe that SLA's and SLG's are critical to the success of PIA. Therefore, we suggest that OFCOM should set an appropriate timeline for BTOR and Industry to agree appropriate SLA's and SLG's, with appropriate compensation levels for failure events that impact individual CP's business plans.

Question 7.1: Do you agree with our proposed form of price regulation for PIA rental and ancillary charges? Please provide reasons and evidence in support of your views.

Flomatik supports the proposed form of price regulation for PIA rental and ancillary charges and offers the following observation:

Price Cap Period

We agree with the need for a pricing cap on PIA rental charges and would strongly recommend that the cap period is extended beyond the consultation period and is set across a timeframe more in line with major network infrastructure investment cases. Without greater certainty of the PIA charges across an extended

network build, customer connections and network operations many CP's may be dissuaded from the significant, protracted FTTx investments required.

Question 7.2: Do you agree with our proposed approach to the recovery of network adjustment costs? Please provide reasons and evidence in support of your views.

Flomatik supports the proposed approach to the recovery of network adjustment costs and offers the following observations:

Proposed Method

The proposed method for setting a per-Km cost threshold for 'spine duct' and a per-premise cost threshold for 'lead-ins' for the recovery of network adjustment costs is logical and pragmatic. Without sight of the actual numerical cost value of the thresholds, or the assumptions and their associated values as determined by BTOR, it's difficult to comment further. We eagerly await the Ofcom PIA pricing consultation later this summer.

Ancillary Charge Threshold

Setting a threshold level, above which ancillary charging will be applied, will have a positive impact where the work is undertaken by a CP, as they will be incentivised to keep under the cost threshold. However, where BTOR undertake the network adjustment works the incentive to keep costs under the threshold may be lessened, and thus dissuade CP's from taking ancillary services from BTOR.

Question 7.3: Do you agree with our proposed approach to the recovery of productisation costs? Please provide reasons and evidence in support of your views.

Flomatik is in broad agreement with the proposed approach to the recovery of productisation costs and offer the following observation:

Productisation Cost Recovery

CP's that choose not to consume PIA/DPA may feel that BTOR's cost recovery of systems & process enablement, through downstream BTOR products and services, is unfair. Why should they fund their competitor's use of this product? Whilst our view is that any impact on downstream product & service pricing will be minimal, Industry may require assurances; that this should not present an opportunity for undue price rises, with the majority of any PIA cost burden being passed via PIA pricing to its users.