# Appendix 1 – Measurement Review and Recommendations

This section will review each potential measurement in detail and offer a recommendation on whether to include in a future Quality of Service scheme. The measurement definitions for recommended metrics can be found in the Quality of Service Definitions Document, which is attached as an appendix.

**Recommendation**:

A measurement, by service type, which confirms the average time to deliver a service, once an order has been made between a consumer and the service provider. Mobile telephony is to be excluded on the grounds that the delivery timescales are not comparable to other delivery expectations.

As with any recommended time-based measurement, only the fastest 95% of events should be included.

End-User Reported Faults

No service is offered with a guaranteed reliability, and consumers will potentially be subject to a service failure from time to time.

Ofwat measure water suppliers network reliability by identifying network outages per 1000Km (excluding third party caused issues). Similarly, Ofgem measure the number of outages experienced per 100 customers, and also requires the service providers to identify the average duration (in minutes) of the outages. Whilst this may be useful for the regulator, the output is not consumer friendly, or even advertised to the consumer. The common factor between these two is that the fault rates are only based around major network disruptions. Individual consumer reported faults are not included in these metrics. This is similar to the mobile providers, as it is perceived within the mobile TopNetUK forum that consumer fault reports are not common place.

ETSI recommends measuring fault rates based upon all consumers reported faults, and excluding those which are beyond the boundary of the service provider, i.e. within the consumer's premises. The measure is recommended to be differentiated between "direct" and "indirect" providers, due to the difference in the service offering.

Ofcom also acknowledge that one of the main reasons for consumer complaints is loss of service\connectivity issues. [redacted]

[redacted]

A review of the reported fault rates experienced by the fixed-line telecommunications consumers suggests that faults are experienced approximately once every eight years, Pay TV every four years, and broadband annually. The mobile service providers were unable to provide any indication of fault rates, [redacted] However, the fixed-line telecommunications providers have proved that this differentiation is possible.

Some mobile providers are able to capture call interruptions, i.e. where a network connection drops and the consumer loses the call. It has been mentioned that some providers would not charge for the call if the consumer re-establishes the connection. Whilst it is understood that these events may not always be reported by the consumer to the service provider, this may be a useful metric to report. This is partly covered by the TopNetUK measurements, but only based upon test scenarios, not on actual consumer events.

End-User Repeated Fault Reported

This study has found that service provider studies on consumer satisfaction require issues to be dealt with quickly and effectively. If a consumer experiences the same issue time after time, then they are likely to churn.

As we have already identified, consumer experiences on actually encountering a fault on some products are rare, so what is important is that when a fault does occur, then it should be completely resolved first time. Our experience from using this measure in the Comparable Performance Indicators suggested that some service providers found it difficult to produce, but those who could collate the data found repeat rates of approximately 10-15%. On Pay TV and Broadband, the results are likely to be higher due to the higher fault report rates.

With any measurement looking into repeated events, a timescale between events is important. If too short, true repeated events may be omitted. Similar to Early Life Failures we believe that 30 days is an appropriate timescale for measuring repeated faults. Beyond this range, it would be difficult to be certain that the fault causes are related.

When attempting to identify whether one event is a repeat of another, service providers usually group faults into categories, i.e. network, switches, premises, equipment. If the two faults are found to be in the same group then it would count as a repeat. From a consumer viewpoint, this may not be important, as their issue would be that their service has been affected more than once. It would not be appropriate to penalise a service provider for faults beyond their control, and we recommend that faults found within the consumer's control should be excluded, i.e. internal wiring, handsets, other consumer equipment etc.

**Recommendation**:

A measurement, by service type, which confirms the percentage of faults which are a repeat (within 30 days) of an earlier fault report being repaired

**Recommendation**:

A measurement, by service type, which confirms the average time to restore a service, once a fault has been reported by a consumer to the service provider which will exclude any delay caused by the consumer.

As with any recommended time-based measurement, only the fastest 95% of events should be included.

[redacted] suggests that complaints resolved at the 1st point of contact should be excluded from the complaint measure, as these complaints normally involve the customer service representative simply apologising for the problem. Therefore, only complaints which require some actual processing should be included. The only drawback is that it may be difficult to differentiate in an operational environment between those complaints where the agent has only apologised to those which require further investigation. Agents will probably get confused with the requirements and not record those where an apology has been given.

Based upon this research, processing time again is the main factor for measuring a complaint, i.e. how quickly can the consumer's issue be resolved. It may be worth supporting this measurement with a customer satisfaction survey to identify the percentage of complaints resolved to the complainant's satisfaction[redacted]

It is important to define when a complaint should be identified as processed and a sensible view is when the service provider has confirmed its final action to the complainant. This may be verbally or in writing.

**Recommendation**:

A measurement, which is not by service type, on the average time to process a complaint, based upon calendar days. As with any recommended time-based measurement, only the fastest 95% of events should be included.

Ofwat require the water suppliers to identify the percentage of billing contacts dealt with within 5 working days. Although this is not necessarily aimed at identifying the ratio of billing issues, it is attempting to ensure that billing matters are dealt with quickly.

The consumer would benefit from knowing which service providers offer bills which are accurate and easy to understand, with no payment errors. A recommended metric would be to compare the number of billing contacts received to the number of bills issued. A billing contact would be identified where a consumer calls, writes or e-mails the customer service centre. This would require a specific method for recording billing contacts. Many service providers' record billing issues through their ACD "log code" facility, although for some a system and process would need to be introduced. A measure of this nature requires strict control and monitoring, and could be costly to implement and enforce.

**Recommendation**:

A measurement, which is not by service type, on the percentage of contacts (enquiry and complaints) received relating to issued bills.

The object of this measurement is to identify the time a caller spends in a queue waiting for the next available agent. If a consumer perceives they may have to contact the provider from time to time, and is expected to queue for 30 minutes each time, this may influence their decision when choosing the provider.

[redacted]

[redacted]

Ofwat consider that measurements for call centres are important, but have only implemented measures identifying the percentage of callers which do not get through to the provider, i.e. abandon calls and engaged tones. The latter is considered to be inappropriate for this day and age as ACD queuing systems have virtually abolished the engaged tone effect.

**Recommendation**:

A non-product specific measurement which confirms the average time to connect a call to a customer service agent.

Abandon Calls

The objective of this measure is to identify the number or percentage of contacts missed. A missed contact translates to poor customer service, or indeed potential lost revenue to sales centres.

Feedback from the reviews concluded that abandons are considered an important consumer related event, and has been suggested by [redacted] that this be included as a future Quality of Service measurement.

This review has also identified that there are many reasons why consumers would abandon calls and not wait to be connected to an agent, some include:

- Degree of motivation – how important the call/contact is to the consumer
- Availability of substitutes – can they get the answer elsewhere, i.e. website
- Level of expectations – do they have to wait a long time every time they call or did they get right through the last time
- Time available
- Who is paying for the call – callers may not wait as long if they are paying the phone charges

Measuring abandon calls would be something the service providers could do easily and cheaply, as the information is already gathered. It just needs to be collated and formatted. The results might give an expectation of the availability of the service providers call centre, but based upon the potential reasons for abandoning calls, the results may not be comparable between service providers, i.e. if a provider offers free calls into the service centre, there abandons may be low, but it does not mean they will be easy to contact.

**Recommendation**:

Not to measure abandon calls as this would not be fair and comparable between service providers.

Call Handling Time & Call Transfers

Two further usual customer service measures are used to identify the skills of the agents handling the calls. A short call handling time may be perceived as an agent skilfully and quickly resolving the customer issue. Experience has also noticed that this may not always be true and could simply be representative of an agent mishandling the call. Call transfers could be due to a number of reasons, including:

- 1st agent not having the required skill-set
- consumer calling the wrong number or pressing wrong IVR options
- or where the consumer requests to discuss their issues with a specific agent

**Recommendation**:

Although these measures may be useful to the service provider in internal performance management, the consumer satisfaction on how the call was handled could only be identified through consumer satisfaction surveys. No specific measurement is recommended.

Broadband Specific Measurements

Broadband is relatively new in comparison to fixed-line telephony, mobile telephony and Pay TV, and it's the product which appears to have the main focus due to the demand and provision difficulties. With broadband bundled into other product offerings and advertised in some areas as "free", it is not surprising that demand is high.

However, as the product is new to many, the technical terminology can be confusing at best. Therefore, any metrics which aim to identify the quality of service need to be in terms which are universally understood. For example, if metrics compared bit error rates and latency, many consumers would not be interested. If, on the other hand, metrics identified the average time to download a 350Megabite movie, or a 30Megabite music file, then most consumers would be able to relate to this.

During discussions with [redacted], it was identified that technical aspects of the broadband service are being measured through an agency called Epitiro, which silently monitors most of the main broadband providers. A review with Epitiro highlighted the following potential metrics:

- Connection Speed
- Download Speeds
- FTP Speed
- Ping Time
- E-mail round trip time

Although these sound technical, the actual translation of these metrics were discussed individually with [redacted]

Connection Time

The time it takes for the internet browser to connect to the Internet. There are a number of commands the modem undertakes to contact the service provider, negotiate, authenticate and assign a network address. [redacted] agreed that its common practice in the broadband market for modems to be left switched on, and therefore, even if measured it may not prove to be a useful metric for consumers. If the review included dial-up internet, then both agreed this would be a useful measurement.

FTP Speed

This was promoted by Epitiro as a useful measurement as they believed more broadband service providers are offering the service with free web-space, where the consumer can upload information about themselves. It was believed that consumers are being given this facility but are unaware of the transmission capability to upload and download information to their website. This was thought to be a bit out of date by [redacted] as their belief is that consumers are more likely to upload information to community websites, such as YouTube. A comparable measurement for FTP speeds to other network sites was not believed to be useful to consumers, and not every consumer would be interested in FTP uploading.

Ping Time

This measurement may be of interest to gamers, those who use the broadband for fast interactive media. This metric is also offered by Epitiro but when the output was reviewed the differences in Ping Time between service providers appeared to be negligible. It was also mentioned by Epitiro that some service providers would not want to advertise that their Ping Time was more favourable than others for very similar reasons to the broadband speed. Therefore, this metric was considered not to be useful for consumers.

E-Mail Speed

This metric was considered useful by Epitiro to indicate the average time a standard sized file would take to be e-mailed across the service provider's network. The measurement used by Epitiro requires a file to be sent by the e-mail host through SMTP, across the network and virtually back to itself to be received by POP3. [redacted] that this is not a usual scenario, and that e-mails are likely to travel across networks. They are also seen to be a non real-time communications platform, so why measure the real-time capability. Therefore, this metric was considered not to be useful for consumers.

ETSI guide 201 057 part4 suggests measurements for internet access covering Audio; Video; and Data transmission. Many of the measurements, such as conversational voice, streaming audio, videophone etc are more delivery and content related, and would either be raised as faults or identified through customer satisfaction surveys. When dealing with visual or content issues, some consumers may be more tolerant to imperfections, and it would be difficult to measure these.

**Recommendation**:

In summary, by reviewing the input into the various broadband technical measurements, we recommend a measurement which enables consumers to identify the average download speed for a given service. This is believed to be the only technical measurement which could be communicated to consumers in a way which may assist their knowledge and understanding of the product and provide useful information when selecting a service provider.