Commsworld Customer Service Plan

Version 4.4



Introduction and Contents

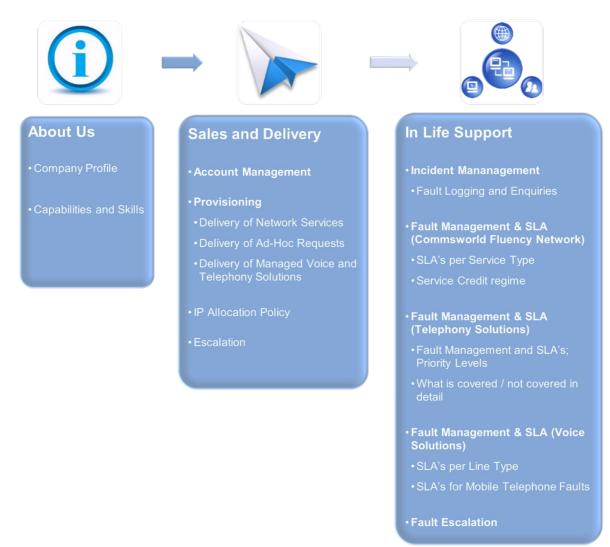
Introduction

Commsworld deliver a Programme of continual service improvement initiatives which are aligned to ITIL best practice and designed to achieve the highest levels of customer satisfaction through innovative and focused Service Delivery.

We understand that communication; regular stakeholder engagement and expectation management is fundamental to ensure outstanding delivery of service to our customers, which in turn contributes towards our key goal of Customer Service Excellence.

This guide has been produced to support our customers in understanding our services; how we deliver and support these services and how best to engage with us.

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Commsworld Company Profile

Commsworld is a leading UK Telecommunications Network Provider and ISP. A true 'Alt Net' in today's fast changing world of communications with a full portfolio of solutions to support all nature of organisations. We have clients across all sectors from Public Sector, Corporate, SME and Indirect.

In May 2018 Commsworld acquired a long established Cloud solutions and IT company and bolstered our capabilities to offer Cloud and Security Solutions inclusive of LAN and WiFi expertise.

We have invested in building a low-latency; resilient high performance UK wide Network inclusive of International interconnects. We have presence in many Data Centres and Exchanges across the country that enables us to deliver cost effective connectivity options from multiple Carriers into single integrated solutions for our clients. We are champions of Dark Fibre as well as the full range of Fibre Ethernet and Copper solutions available in the marketplace and are recognised as fleet-of-foot innovators. As such we are a true alternative to the legacy large providers and a reliable provider when compared to smaller resellers of other people's networks.

Commsworld offers a growing range of Cloud based solutions with a particular focus on Security. Whilst

the world deals with ever changing external threats and keeping our nation safe, now more than ever, the Cloud based solutions and services Commsworld offer and deliver focus on working Safely and Securely. We operate a market leading DDoS mitigation platform where we can offer enhanced protection to our clients, along with a range of Next Generation Cloud Firewall and Cloud VPN solutions. With presence in a number of Data Centres across the UK we offer Colocation, Backup, Storage and Virtualisation options along with direct interconnectivity to the major Public Cloud Providers.

Since our foundation in 1994, Commsworld have always been well recognised in delivering Voice solutions. Today's world is all Unified Communications and we offer the full range of capabilities and functionality, often from our own virtualised environment. We operate our own Billing platform with full integration into the Openreach back end systems allowing us to support our clients in the most effective ways possible.

We are a specialist Contact Centre, Unified Communications and SIP Provider delivering fully resilient designs utilising our own, or our client's, Data Centre presence.

Finally, we focus strongly on Service & Support for our clients with company accreditations inclusive of ISO 27001 and ISO 9001 and staff being certified to ITIL v3 and Prince2. We manage our own Provisioning and Engineering teams inclusive of field Engineers governed by our CRM platform.





Commsworld Company Profile

Our Mission:

To become the market leading network and communications solutions provider of choice as a trusted partner, based on a superior service level for the UK business community.

Our Vision:

To be the provider of choice for digital connectivity and cloud services in the UK, specialising in exceptional delivery to the Enterprise and Public sectors.

Our Viability:

Commsworld are a financially strong company and position ourselves in the market against four key attributes:-

- •
- Responsive
- Delivering Service Excellence
- Market Disruptor
- Innovative



Commsworld Capabilities and Skills





Commsworld Fault Logging & Enquiries

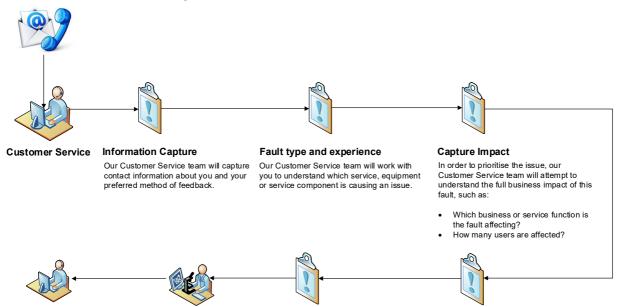
Commsworld realise that occasionally there may be a requirement to raise a fault or technical / general query with us. We have introduced an ITIL qualified, focussed and professional Customer Service & Support team to help you through these occasions. Our Customer service team is operational 24x7x365.

Certain fault types have differing response and resolution SLA's (explained later in this guide) but all faults raised with Commsworld will be resolved as guickly as possible.

A process of prioritisation is applied to all of our incidents / requests and this is determined by the product / service type and the business impact of the reported incident. Additionally, when the incident is related to a Telephone System, the level of support contract your organisation has purchased will also factor in the prioritisation.



An illustration on how we manage these incidents is shown below:



Customer Service

Upon resolution of your fault, our Customer Service team will:

- Confirm resolution actions with you
- Close fault with confirmation email
- Sent Customer Satisfaction survey

Resolver Group

Where our Customer Service team cannot resolve or assist directly. they will pass the issue to our engineers to resolve.

Our technical resolver group operate a 3 tier model of escalation and will work through that model to resolve the incident.



3rd Party Supplier

When our engineers have analysed a fault and deemed it to be a supplier provided service at fault; we will log this with them and manage it to resolution on your behalf

Communicate

To ensure we have captured the issue clearly we will:

- Confirm fault reference
- Repeat the fault detail to you
- Follow up with email to you and provide a web link to your fault on our Incident Management platform

Categorise

Based on what you tell us, our Customer Service team will agree impact categorisation with you as per the SLA matrix provided.



Commsworld Fault Logging & Enquiries

To log a fault or raise a query with us at any time (24x7); in the first instance please contact our Customer Service team on **0330 121 0000** or e-mail **service@commsworld.com** (please note that for urgent or high priority incidents it is important to **call** instead of sending an email).

As per above process flow and to assist us categorise and process your issue effectively upon contacting us, please be prepared to provide the requested information such as fault type (System, Lines, Circuit, Internet or Mobile) circuit / telephone number impacted; business impact; how many users affected and contact details. Please also be aware that as part of normal fault diagnosis, we may ask you to perform a number of trouble-shooting steps including reset / restart of equipment etc.

Please note that Technical Enquiries and Requests for Information should also be logged in this way but do not have SLA's attached to them and can take up to 5 working days to respond (although typically, these are managed well in advance of that).



Commsworld SLA's in respect of services delivered directly via our own Commsworld Fluency network are as follows:

Fibre Ethernet / Pure Fibre

Category	Fault Criteria	Resolution Target	Working Hours
Cat 1	 Line down, no connectivity Less than 10% availability of predicted bandwidth throughput Greater than 10% packet loss 	4 Hours	24x7, 365 Days Per Year
Cat 2	 Intermittent loss of connectivity that has a high degree of impact Where fault is repeatedly demonstrated within 1 hour Greater than 100ms latency 	12 Hours	9am-5pm, Monday- Friday, Excluding Holidays
Cat 3	 Intermittent loss of connectivity Where fault intermittence cannot be demonstrated in 1 hour Bandwidth throughput or other material quality of service issues 	24 Hours	9am-5pm, Monday- Friday, Excluding Holidays
Cat 4	 End User application performance issues - General Service Queries Change Requests 	48 Hours	9am-5pm, Monday- Friday, Excluding Holidays

EFM - Ethernet First Mile

Category	Fault Criteria	Resolution Target	Working Hours
Cat 1	 Line down, no connectivity Less than 10% availability of predicted bandwidth throughput Greater than 10% packet loss 	6 Hours	24x7, 365 Days Per Year
Cat 2	 Intermittent loss of connectivity that has a high degree of impact Where fault is repeatedly demonstrated within 1 hour Greater than 100ms latency 	12 Hours	9am-5pm, Monday- Friday, Excluding Holidays
Cat 3	 Intermittent loss of connectivity Where fault intermittence cannot be demonstrated in 1 hour Bandwidth throughput or other material quality of service issues 	24 Hours	9am-5pm, Monday- Friday, Excluding Holidays
Cat 4	 End User application performance issues - General Service Queries Change Requests 	48 Hours	9am-5pm, Monday- Friday, Excluding Holidays



EoFTTC – Ethernet over Fibre to the Cabinet

Category	Fault Criteria	Resolution Target	Working Hours
Cat 1	 Line down, no connectivity Less than 10% availability of predicted bandwidth throughput Greater than 10% packet loss 	7 Hours	24x7, 365 Days Per Year
Cat 2	 Intermittent loss of connectivity that has a high degree of impact Where fault is repeatedly demonstrated within 1 hour 	12 Hours	9am-5pm, Monday- Friday, Excluding Holidays
Cat 3	Intermittent loss of connectivity Where fault intermittence cannot be demonstrated in 1 hour Bandwidth throughput or other material quality of service issues	24 Hours	9am-5pm, Monday- Friday, Excluding Holidays
Cat 4	End User application performance issues - General Service Queries Change Requests	48 Hours	9am-5pm, Monday- Friday, Excluding Holidays

Radio Ethernet

Category	Fault Criteria	Resolution Target	Working Hours
Cat 1	 Line down, no connectivity Less than 10% availability of predicted bandwidth throughput Greater than 10% packet loss 	12 Hours	9am-5pm, Monday- Friday, Excluding Holidays
Cat 2	 Intermittent loss of connectivity that has a high degree of impact Where fault is repeatedly demonstrated within 1 hour 	18 Hours	9am-5pm, Monday- Friday, Excluding Holidays
Cat 3	 Intermittent loss of connectivity Where fault intermittence cannot be demonstrated in 1 hour Bandwidth throughput or other material quality of service issues 	36 Hours	9am-5pm, Monday- Friday, Excluding Holidays
Cat 4	 End User application performance issues - General Service Queries Change Requests 	48 Hours	9am-5pm, Monday- Friday, Excluding Holidays



Metro Wavelength

Category	Fault Criteria	Resolution Target	Working Hours
Cat 1	 Service down - no connectivity Intermittent loss of connectivity that has a high degree of impact 	5 Hours	24x7, 365 Days Per Year
Cat 2	Reduced Connectivity (low light levels) with a medium to low degree of impact	12 Hours	9am-5pm, Monday- Friday, Excluding Holidays

National Wavelength

Category	Fault Criteria	Resolution Target	Working Hours
Cat 1	 Service down - no connectivity Intermittent loss of connectivity that has a high degree of impact 	10 Hours	24x7, 365 Days Per Year
Cat 2	Reduced Connectivity (low light levels) with a medium to low degree of impact	16 Hours	9am-5pm, Monday- Friday, Excluding Holidays

Cloud Security Solutions (Cloud VPN, Cloud Firewall & DDoS platform)

Category	Fault Criteria	Resolution Target	Response Target	Working Hours
Cat 1	 Unable to access Cloud VPN Unable to access Cloud Firewall Unable to access DDoS Platform 	2 Hours	30 Mins	24x7, 365 Days Per Year
Cat 2	 Intermittent loss of connectivity that has a high degree of impact to any of the provided Cloud Security solutions Where fault is repeatedly demonstrated within 1 hour Greater than 100ms latency 	4 Hours	1 hour	24x7, 365 Days Per Year
Cat 3	 Infrequent loss of connectivity Where fault intermittence cannot be demonstrated in 1 hour Bandwidth throughput or other material quality of service issues 	24 Hours	1 hour	9am-5pm, Monday-Friday, Excluding Holidays
Cat 4	 End User application performance issues General Service Queries Change Requests 	48 Hours	4 hours	9am-5pm, Monday-Friday, Excluding Holidays



ADSL / FTTC (Standard)

Category	Fault Criteria	Response Target	Working Hours
Cat 1	No connectivity	8 hours*	9am-5pm, Monday- Friday, Excluding Holidays
Cat 2	Intermittent loss of connectivity that has a high degree of impact Where fault is repeatedly demonstrated within 1 hour	24 Hours*	9am-5pm, Monday- Friday, Excluding Holidays

ADSL / FTTC (Advanced)

Category	Fault Criteria	Response Target	Working Hours
Cat 1	No connectivity	4 hours*	9am-5pm, Monday- Friday, Excluding Holidays
Cat 2	 Intermittent loss of connectivity that has a high degree of impact Where fault is repeatedly demonstrated within 1 hour 	24 Hours*	9am-5pm, Monday- Friday, Excluding Holidays

Please note that end user performance issues and general service queries will be dealt with as quickly as possible on a best endeavours basis.

For the avoidance of doubt; if an ADSL / FTTC fault is identified to relate to the underlying telephone line, this will be logged with the line provider (BT for example) and will then follow the SLA for line repairs

*Please note that as per industry guidelines in support of National Broadband Infrastructure, the SLA shown is for <u>response only</u>. <u>Resolution</u> to any Broadband fault raised with Commsworld will be achieved as soon as possible.



Fault Resolution Service Credits

In respect of services delivered over the Commsworld Fluency Network; for each failure to resolve **Critical Faults (Cat1)** within the target timescales, you will be able to claim Service Credits at the end of each billing period, as set out below.

Performance beyond Fault Fix Time target	Service Credits
From 1 to 15 hours beyond target, rounded up to the next whole hour.	2.5% of monthly Charge for the affected Customer Premises per whole hour.
More than 15 hours beyond target	50% of monthly Charge for the affected Customer Premises.

For the avoidance of doubt, Services operating on backup or resilient links, line errors and/or other intermittent faults which do not prevent Service use, would be excluded from the Critical Fault category.

Fault resolution times under this section will not apply to any faults that arise during a scheduled maintenance window.

Initially we will work remotely to resolve all network faults. If, after investigation, we consider that the fault has not been resolved or that a solution does not seem imminent, we may arrange for an engineer to visit the affected Customer Premise, or to provide replacement Company Equipment, unless we deem the fault to originate as a direct result of failure at a Customer Premises of any Company Equipment in respect of which we have no management or maintenance responsibility.

Progress towards resolution within Target Clearance Times may be affected by our inability to access Customer Premise(s) or equipment; clear detail on information requested as part of the fault diagnosis process, or your instruction for us to suspend progress for any reason. Should either circumstance occur, we will pause the incident (stop the clock) until action is taken to allow the incident resolution to be resumed. Overall duration of the fault will have the paused time removed from the calculation.

We will calculate total fault duration in seconds up or down to the nearest minute

Service Credits are subject to the following:

- 1) To qualify for Service Credits, you must have reported to us one or more Critical (Cat1) Faults in relation to the particular Connection and not in relation to the network performance reports.
- 2) Service Credits will be applied against the subsequent billing period for qualifying Connections.
- 3) For any billing period, Service Credits will not total more than 50% of monthly recurring connection Charges for each affected Customer Premise.
- 4) You must submit written claims for applicable Service Credits to service@commsworld.com, no later than 30 days following the end of each billing period.
- 5) Acts of God / Force Majeure and faults beyond our reasonable control are excluded from the Service Credit regime.



Commsworld's Contractual support SLA's in respect of **Telephone System Maintenance** are as follows:

- Standard Level effective between the hours of 09:00 to 17:00, Monday to Friday excluding Bank
 Public Holidays
- Enhanced Level effective between the hours of 08:00 to 20:00, Monday to Saturday excluding Bank & Public Holidays
- Total Level effective 24 hours, seven days per week.

The below table illustrates which activities are included / excluded in the various levels of contractual maintenance support.

What is covered?	What is not covered?
For Standard Service Contracts Engineer call-outs between Monday and Friday 09:00 hrs to 17:00 hrs (excluding Bank Holidays)	Non-system specific telephones (i.e. analogue 'domestic' telephones)
For Enhanced Service Contracts Engineer call-outs between Monday and Saturday 08:00 hrs to 20:00 hrs (excluding Bank Holidays)	Batteries for DECT or Cordless Phones
For Total Service Contracts Engineer call-outs 24x7x365 (excluding Public Holidays)	Cabling faults (non Commsworld installed)
Replacement parts including handsets listed on contract, system telephones, curly cords and system components	Accidental or deliberate damage to system
Response times include an engineer call back within one hour for all major or critical outages	Damage caused by power surges (including lightning strikes)
Access to telephone support for minor problems, including assistance with network provider faults (e.g. BT lines)	
Parts and labour repairs for your telephone system	
Priority response over non-contracted customers	
Arrange temporary diversion of incoming lines to a customer specified emergency number whilst telephone outage is being rectified	
Incidental programming changes to existing system – where access to the system is available remotely.	

Please note - resolution activity for faults logged in relation to maintained telephone systems will begin with remote diagnosis and resolution where possible. Engineer site visits will be arranged when remote resolution is not possible or when deemed the most.



Priority Levels

Within each contractual support level we categorise each fault and assign it a priority level depending on the severity of reported fault, or impact on your business as follows:

Priority	Impact	Response	Target Resolution
Level 1	Complete system failure	Within 1 hour	Within 4 hours
Level 2	Medium system failure (most features still working)	Within 4 hours	Within 8 hours
Level 3	Minor system failure (low number of failures)	Next business day response	Within 16 hours

Note: For the avoidance of doubt, for Enhanced & Total Care contracts, only Priority 1 & 2 calls will be progressed outside of normal working hours. Priority 3 calls will be actioned on the next working day.

Software Assurance

Customers who have purchased Software Assurance in relation to their telephony solution hardware maintenance will be supported as follows:

- To ensure that the latest features are enabled on the communications solution, to keep the security measures at their most current levels & to assist in the support of the product, once per annum Commsworld will provide the engineering resource to carry out an upgrade of the core solution & associated applications free of any labour charge, when carried our within the days/times of the support contract, i.e. that for a Mon-Fri 09:00-17:00 contract, the upgrades will be carried out within working hours. Should the end user require this to be performed out-with the contractual period, Commsworld would charge the incremental difference for the labour, back to the client. This means that midweek after 17:00, normally charged at 1.5x our standard rate would be charged at 0.5x rate
- Should a 2nd release become available within the term of contract (annualised), then the client may choose to pay for the upgrade at the rates applicable at that time and in doing so enjoy the benefits of that releases additional features for the work time chosen; mid-week, evening, weekend
- During the resolution of a fault, through triage it is identified that a software update is required, then this will be carried out FOC within the hardware support contract, whether or not a previous upgrade has been completed
- At all times, the above options are based on a valid SWAS contract being in place for the applications being supported.
- It should be noted that if a SWAS contract expires, then a re-enlist fee that equates to 100% of a 1 year contract will apply – this cost being borne by the end user



Telephone Lines

Commsworld may provide physical telephone lines (Analogue, ISDN2, ISDN30) as connectivity for a provided phone system, or simply for adding standard phones to. Resolution of faults reported to us are subject to the associated Care Level as shown below. Care Level 2 (Business Plus) is supplied as standard on all Commsworld telephone lines and faults raised with us will follow that SLA unless care level 3 or 4 has been purchased specifically at time of order.

Care Level	Resolution Target	Working Hours
Care Level 2 business plus	Prioritised on the day, clear by 23:59 next day.	Monday to Saturday, excluding public and bank holidays. For example, report Tuesday, clear Wednesday.
Care Level 3	Report 13.00, clear by 23:59 same day.	Report after 13:00 clear by 12:59 next day, Seven days a week, including public and bank holiday.
Care Level 4	Clear within 6 hours	Any time of day, any day of the year.



Managed Voice / Contact Centre

Category	Fault Criteria	Resolution Target	Response Target	Working Hours
Cat1	Constitutes a loss of the Services which prevents a large group of End Users (of at least 50) from working; or has a critical impact on the activities of the Customer; or causes significant financial loss and/or disruption to the Customer; or results in any material loss or corruption of Customer Data Non-exhaustive examples include: A failure of the Services to provide user authentication service; or at least 50 End Users unable to work.	2 Hours	30 Mins	24x7, 365 Days Per Year
Cat2	Means a Service Incident which:	4 Hours	30 Mins	24x7, 365 Days Per Year
Cat3	Means a Service Incident which:	24 Hours	1 hour	9am-5pm, Monday-Friday, Excluding 25 th / 26 th December & 1 st / 2 nd January
Cat4	Means a Service Incident which has the potential to have a minor adverse impact on the provision of the Services to End Users. Non-exhaustive examples include an inability to access data for a single customer.	48 Hours	2 hours	9am-5pm, Monday-Friday, Excluding 25 th / 26 th December & 1 st / 2 nd January



SIP Trunking

Commsworld may provide SIP Trunks to deliver phone system connectivity over an access circuit. Resolution targets for faults occurring on the SIP Trunk (not the underlying access circuit) are as follows:

Category	Fault Criteria	Resolution Target	Working Hours
Cat 1	Critical Fault Complete Loss of service Multiple sites or services affected	4 Hours	24x7, 365 Days Per Year
Cat 2	High Priority Fault Loss of service Single site or service affected	8 Hours	24x7, 365 Days Per Year
Cat 3	Medium priority fault Disrupted service Multiple or single sites or services	24 Hours (3 working days)	9am-5pm, Monday-Friday, Excluding Holidays
Cat 4	Low priority fault Single Number Destination Quality of service / call quality	56 Hours (7 working days)	9am-5pm, Monday-Friday, Excluding Holidays

Mobile Telephones

Category	Fault Criteria	Response Target	Working Hours
Cat 1	 Phone Lost / Stolen* No service (following restart of phone) 	1 Hour	8:30am to 11:00pm Monday to Friday 9:00am to 5pm Saturday / Sunday Excluding bank holidays.
Cat 2	 Intermittent loss of service that has a high degree of impact Where fault is repeatedly demonstrated within 1 hour 	8 Hours	9am-5pm, Monday- Friday, Excluding Holidays

^{*}Please note that for lost or stolen phones outside of the stipulated hours above; you should contact the carrier directly as follows:

Vodafone -Out of hours 0808 0101280

02 - Out of hours 0845 0705460

EE - Out of hours 0800 956600



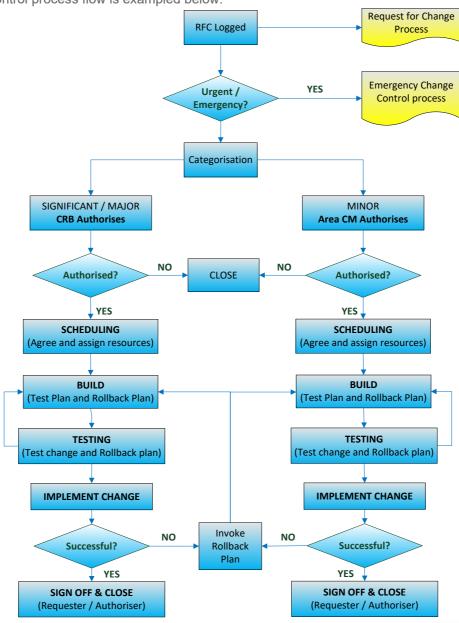
Change Management (Commsworld Fluency Network)

ITIL V3 states that the primary objective of Change Management is to enable beneficial Changes to be made, with minimum disruption to IT Services.

In adopting ITIL Best Practice, Commsworld applies a robust change control policy. To support this policy, Commsworld provides a Service Desk solution to log Requests for Change (RFC) in our corporate CRM; Heads of department in the role of Change Managers who intimately understand the business and technology requirements to agree changes within their area of responsibility and a Change Review Board (CRB) for Significant or Urgent change requests to be agreed collectively. Commsworld's Change Review Board (CRB) is an amalgamation of these department heads who are responsible for the key business areas and the technology employed to deliver our services.

Customers will be informed of a potentially service impacting change at least 10 working days prior to the change.

Our Change control process flow is exampled below.





Escalation – Faults

Commsworld realise that the nature of a fault may change during the fault lifecycle and the impact may become more severe to your business. At this time, you may wish to escalate your fault.

During normal working hours Commsworld's escalation process should always begin with our Customer Service team who will manage the escalation via the below escalation path.

Telephony based escalation:



Head of Engineering – Mark Gallagher (<u>mark.gallagher@commsworld.com</u>) **Chief Operating Officer** – John McDermott (<u>john.mcdermott@commsworld.com</u>)

Network based escalation:



Head of Managed Networks – Ken McKnight (<u>ken.mcknight@commsworld.com</u>) **Chief Operating Officer** – John McDermott (<u>john.mcdermott@commsworld.com</u>)

Outside of normal working hours, escalation begins with the On-Call engineer and follows the same flow as shown above.

Complaints

Issues relating to the overall provision of service and customer experience, including formal complaints should again be logged with our Customer Service team in the first instance (service@commsworld.com) who will escalate your concerns to our Operations Manager — Billy Blyth-Lafferty (billy.blyth-lafferty@commsworld.com / 0131 290 2018).

A formal complaint will be logged and acknowledged within 1 working day and responded to within 10 working days, during which time investigation of the complaint will have taken place and initial findings collated to feed into the response. Our aim is to work towards agreeing a solution with the customer as quickly as possible.

Upon reaching our final position, and in the unlikely circumstance that the complaint has not been resolved to the customer's satisfaction, a Deadlock letter will be issued to the customer which can then be used to pass to the Ombudsman. Customers have up to 12 months to contact the Ombudsman from receipt of a Deadlock letter.



Sales and Provisioning

Provisioning of Network Solutions



Upon proposal and contract acceptance, Commsworld operate a process of delivery which follows the below lifecycle. Each stage of the lifecycle is typical for all Commsworld network services. Where a multi-site provision is required (such as an MPLS WAN), Commsworld will build and agree a project plan which will incorporate these key stages in order to provide the overall solution in accordance with your business requirements, whilst applying best endeavours to ensure site by site sequential preference is taken into consideration to deliver the overall solution, however please note that billing will commence upon completion of individual circuits in a multi-site solution as they become live.

	Working Days			
	Fibre	EFM	EoFTTC	ADSL
Acceptance Commsworld provisioning team internally validate the order to ensure we have all appropriate information to begin the provisioning process	2	2	2	2
Planning				
The planning process includes:				
Up to 5 working days of order processing/validation (supplier)	ducting 20 to 35 1 to 5 3			
Up to 20 working days for planning & build stage (includes conducting			3	1 to 2
Site Survey)				
Up to 10 working days for results following survey completion				
Civils, Cabling, 3rd Party Ordering				
Cable install (civils work if required)				
Site access requests	15 to 45	10 to 25	10 to 15	4 to 13*
Cable testing				
Fit and Test				
Supplier Installation	5	5	5	1
Supplier end to end testing				
Handover				
Final Router installation and throughput testing	_	5 to 10	_	1 to 2
Updating records	5	5 (0 10	5	1 10 2
Handover certificate				
	47 to 92	23 to 47	25 to 30	9 to 20*

*if new telephone line is also required

Whilst the desire is always to have all new circuits operational within a relatively short timescale, the very nature of circuit deployments involving different technologies (Fibre / Copper) and bandwidths into different parts of the country make this a complex exercise.

The above lifecycle shows target timescales to deliver solutions based on different underlying technologies, but any single location could easily fall foul of circumstances that are out with the control of both Commsworld and the client. These are typically topics such as Excess Construction Charges, extra construction delays, Council planning & traffic management, site access issues, wayleave and landlord issues. It is important to understand that any of these items will delay the deployment of circuits if they cannot be handled and



Sales and Provisioning

Provisioning of Network Solutions continued

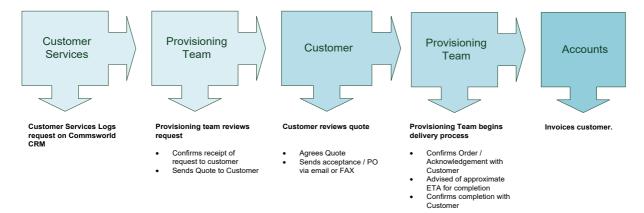
overcome in a timely fashion by all parties, and whilst Commsworld will always make best effort to minimise any impact; responsibility for any such delays is regarded as outside of Commsworld's reasonable control.



Sales and Provisioning

AD-Hoc requests

Provisioning of AD-Hoc requests such as ordering of equipment; arranging for a move or change to an existing service, mobile bolt-ons and so on will follow the below lifecycle:



Escalation

As with faults, there may be occasion whereby the delivery of a solution may require escalation.

Similarly to the previously detailed escalation process, escalation should be requested either through Customer Services or your Provisioning Co-Ordinator and will follow the below escalation path:



Head of Provisioning – James Stewart (james.stewart@commsworld.com) **Chief Delivery Officer** – John McDermott (john.mcdermott@commsworld.com)



IP Allocation Policy

Global pools of IP Version 4 (IPv4) addresses are now entirely consumed. While Fluency has adequate reserves for the medium term, to ensure these last as long as possible, the following policies are now in effect.

What do I get as standard with a Commsworld Fluency circuit?

Commsworld intends to provide a static public IPv4 address with every circuit for as long as possible. This will be a /32 single address for products in the 'broadband' portfolio (ADSL, FTTC etc). This is possible because these services are delivered using PPP, which allows a /32 address to be applied to the customer router without the need for a 'default gateway' address.

Where the delivery is Ethernet (EFM, EoFTTC, Fibre Ethernet), Commsworld will issue a /31 subnet as default (two addresses). This is known as your 'link subnet' because it establishes the link between your equipment and the Commsworld Fluency network, with the first address configured on the Access Node you are connected to within the Commsworld Fluency network, and the second your own equipment.

Customers need to setup their router with the second usable address, using the first address as the default gateway.

Example link subnet: 123.123.123.10/31 Customer Router: 123.123.123.11 Subnet Mask: 255.255.254 Default Gateway: 123.123.123.10

Traditionally a link subnet would be the larger size of /30 (four addresses, two usable in an Ethernet segment), however as most modern routers now support /31s where there are only two devices in the segment, these are preferred. If your equipment doesn't support /31 link subnets, Fluency will issue a /30.

Example link subnet: 123.123.123.20/30 Customer Router: 123.123.123.22 Subnet Mask: 255.255.255 Default Gateway: 123.123.123.21

Will Commsworld provide me with X number of IP addresses?

The short answer is yes, if you can justify them. In principle, if you *absolutely* require a block of addresses, Commsworld will issue them and at the moment there is no additional charge for them. The justification is however very strict, and comes with a caveat:

Because Commsworld do not currently charge for addresses, large address blocks are issued on a discretionary basis. This will depend on the end-user business need and willingness by the customer to conserve addresses where possible. Where customers expect to have large blocks issued and is not supportive in providing information or making reasonable changes to their network topology to accommodate the conservation guidelines - the request will likely be denied outright.



IP Allocation Policy

Before you submit your request, Commsworld will expect you to follow good practice to keep your request as small as possible:

Use NAT (Network Address Translation) and PAT (Port Address Translation) on your router/firewall to allow multiple services to be hosted behind a single address.

If at all feasible one-to-one NAT should be employed to allow the entire IP allocation to be used (using public ranges directly assigned to an Ethernet LAN means three IPs are automatically wasted for network, broadcast and router addresses).

Where multiple services are used for staff only, VPNs should be used to mitigate the need for any of the non-public servers to have public IPs.

To start the IP justification process, you will need to:

- For each IP address required, list the devices that will be using the address with details of the purpose of the device as well as make, model and MAC address.
- For each device, provide a list of applications (with associated port numbers) that require public/external access.
- If appropriate, provide network topology diagrams to explain any need for public addresses within the network infrastructure (routers/firewalls).
- Describe in detail why you can't use any of the conservation measures above to reduce the size of the request.

What is the long-term plan?

There will be a time where IPv4 becomes completely exhausted, and hopefully IPv6 adoption will be much more prevalent. In the meantime, Commsworld has plans to adopt a Carrier Grade NAT (CGN) solution, whereby customers will be given IP addresses within the reserved (non-public) range of 100.64.0.0/10, which Commsworld will automatically NAT at its borders.

Can I have IPv6 now?

Yes, absolutely! If you raise a support ticket, we will allocate a /48 subnet (which gives you 65536 /64 subnets of your own, each with 18,446,744,073,709,551,616 addresses of their own!).

We can even go one further and provide you with your own Provider Independent (PI) allocation of IPv6 addresses straight from RIPE, which you can take with you to any willing ISP in future.

Why might this be useful?

With IPv6, there is no need for NAT - the size of the allocation means all your devices on your LAN are properly routed on the Internet with their own public address. For this reason, we foresee future difficulties when customers move from one ISP to another and find themselves in a situation where they need to completely renumber their network. To mitigate this, a PI allocation of your own, arms you with the knowledge that you own your IP addresses, and your current provider is just temporarily looking after them for you! In the unlikely event that you decide to move away from the Commsworld Fluency network, most competent ISPs should be able to adopt your addresses without too much difficulty.



Billing

Commsworld will invoice our customers as per their agreement with us but will typically follow the below routine:

Recurring Services (Network Services)

Recurring services such as telephone line rental, data circuit rental, mobile line rental and so on will be invoiced in advance as per your agreed payment schedule.

Usage & One off Charges (Network Services)

Usage, such as land line / phone system and mobile calls and texts, data usage outwith agreed plan, mobile bolt-on packages and so on will be invoiced in arrears as per your agreed payment schedule.

System Maintenance

Telephone system Maintenance will be invoiced annually in advance.

Large Projects

Larger projects, such as telephone system installations, network installations and upgrades will be invoiced as per the agreed payment schedule, which may incorporate an initial hardware deposit in respect of telephone system installations.

Small Projects / Ad – Hoc work

Small projects such as a move of equipment, a change to system programming, cabling, hardware upgrades and so on will be invoiced upon completion.

Online Portal

Commsworld offer access to our on line billing platform (Web aBillity Pro) which allows our customers to log in to view their invoices, call detail, recurring charges and other 'live' data within our billing platform.

This provides our customers with the facility to analyse their telecoms usage quickly and accurately in real time.

Access to this valuable service is available to all of our customers upon request to service@commsworld.com whereby login

details and a "quick start" instruction guide will be sent to you.



Billing Enquiries

Billing enquiries should be logged with our Customer Service team (as per the Fault and Enquiries Process noted previously) either via telephone to **0330 121 0000** or email to service@commsworld.com



Commsworld Mobile Guidance

As a provider of end to end Telecommunication and Network Solutions, Commsworld may have supplied your business with Mobile Smart Phones.

Commsworld wish you many months of enjoyment and productivity with your mobile smart phone but we feel it would be remiss of us not to remind you that with the provision of a Mobile Smart Phone, there is a high likelihood that you will make use of its data functionality, and we want to ensure you are comfortable that the Data bundle you have purchased or were supplied with, will meet your requirements.

By Data functionality, we mean any aspect of the phone which uses data to function, such as Email, Internet browsing, software updates, tethering and application downloading (application use in some instances - such as Skype or Instant Messenger).

Also – some of this data may be "pushed" to your phone by the network and therefore you may not realise that you are using data at all in some cases.

Data usage is of course your own responsibility and charges for exceeding your data bundle can be expensive; we therefore recommend that you check your usage regularly upon first receiving your new phone to ensure you do not go over your allocation and therefore incur excess charges. You can usually do this via your phone settings menu, or you can install a usage application such as "My Data Manager" from the Google Marketplace (for Android based phones) which monitors and displays alerts when you reach set data thresholds. There are similar applications on the iTunes store and most are freely available.

An example of data usage scenarios is given below (for illustration only):

1 hour of instant messaging	0.25 to 1MB
1 hour of web browsing	1.5 to 25MB
Download 100 emails	1 to 10MB
100 minutes talk on Skype	Around 50MB
Download 1 photo	0.05 to 2MB
Download 1 MP3	3 to 8MB
Download 1 film trailer	7 to 50MB
1 software download	70 to 800MB
Download 1 film	700 to 1500MB
Streaming 1 hour of video	250 to 500MB
Streaming 1 hour of audio	50 to 150MB

If you are concerned that your Data bundle may not meet your requirements – please do not hesitate to contact your account manager or contact us via service@commsworld.com or phone **0330 121 0000**

If your phone is lost or stolen during normal business hours – please contact Commsworld Customer Service ASAP or outside of normal business hours please contact the appropriate provider (below) to bar the service:

Vodafone -Out of hours 0808 0101280

02 - Out of hours 0845 0705460

EE - Out of hours 0800 956600



Contact

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