NGA Products
Industry Sub Working Group

6th November 2008, BT Centre, London
Disclaimer

• It should be noted that the proposals for the products outlined in this slide-pack represent Openreach’s current view of those products at the time of publication. These proposals may change through further development and feedback.

• The purpose of this slide-pack is to provide additional information to support CP development initiatives. It does not represent a finalised definition/specification of the products. Any developments carried out by CPs based on the contents of this slide-pack are entirely at the CP’s own risk.

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Agenda

• Welcome

• Focus on FTTC
  – Network and Intermediate Agent Solution
  – Home Environment
  – Migration Processes
  – Consultation update

• DEA Consultation Update

• Close and Review
Focus on FTTC

Network Solution

Chris Clough
GEA – Connectivity Handover Port (illustration)

CP Outside BT Building

CP Remote different BT Building

CP Remote non BT Building

New or Existing Cable

Cable Link Internal Variant 2

Cable Link External / Internal variant 3

ONBS / EBD circuit

BES Circuit

BT Flexibility point

CP Location in Building

CP Aggregation Equipment

CP Flexibility point

Openreach Handover Point

Optical interfaces – GE (1000BaseLX set to Auto-Negotiate)

Existing Products

Connectivity Handover Port

CHP connects, in building only, to flexibility point or CP equipment
VLAN Management at CHP

• Openreach will allocate the tag value
  – Is this a significant issue?

• Single tagged handover only in current design
  – Are there strong requirements for double tagged handover?
  – Network - CHP supports single tagging and double tagging on the same CHP ie CVLANs only, CVLANs within SVLANs only, or both.
  – Is the following a useable minimum set for Pilot?
    • Order CHP with a single SVLAN
    • No shaping of the SVLAN (other than to the CHP size)
    • All Data Port orders on the CHP will be supplied on the SVLAN (no need to specify SVLAN separately on Data Port order)
  – Full requirements – is this correct
    • Multiple SVLANs per CHP. CP options to specify:
      – Size of each SVLAN – no rules on sum of SVLAN sizes. Would be used to shape upstream (in addition to shaping to CHP size)
      – Tag value for SVLAN
    • CP specifies whether to use an existing SVLAN and if so which, to use for each Data Port:
      – Provide / Convert / Transfer
      – Modify
Intermediate Agent insertion - proposal

CP able to select value for remoteID in Intermediate Agent

- **Provide**
  - Value applied as part of the port configuration ahead of service connection by engineer.

- **Transfer**
  (change of CP for the Data Port + new service id)
  - Transfer requires change of CVLAN (new Handover Port)
  - remoteID value change applied as close as possible to CVLAN mapping change
  - EU service down (CP dependent) while CVLAN remoteID values are not aligned.

- **Modify**
  (change of remoteID value for same Data Port)
  - remoteID value change applied as close as possible to CVLAN mapping / throughput rate change(s) so that new service appears in one change as far as EU is concerned (depends on CP config as well)
  - Assumes that CP will support old and new remoteID in parallel for the day of the change
GEA Data Port Ordering - Peak / Upstream

- All new GEA Data Ports will be Provided as:
  - Peak = 20M, Assured = 10M, Upstream = 2M
  - Accept order only if line qual expects highly likely to operate at >=20M
  - Investigating whether possible to offer other values (30 or 40Mbit/s) on provision

- Line will stabilise over a period
  - Report line rate to CP via ANCP – current proposal
    - ANCP version supports reporting of speed values (may not be possible for the pilot)
    - CPs expected to track future changes as vendors upgrade to standard ANCP.
    - CPs can use values to shape their downstream traffic
  - DSLAM estimates Max Achievable Line Rate (MALR).

- Once stabilisation period complete, CP can then Modify:
  - Downstream options for “peak”/“assured” (assured based on peak)
    - A Peak value can only be ordered if d/s MALR is higher than ordered value
    - Options of 20/10, 30/15 or 40/20
  - Upstream can be set separately – not driven from peak downstream
    - An Upstream value can only be ordered if u/s MALR is higher than ordered value
    - Options of
      - 2 / 5 for 20/10
      - 2 / 5 / 10 for 30/15
      - 2 / 5 / 10 / 15 for 40/20
Lines where stable line rate < Peak or < Upstream

- Lines can stabilise below the ordered Peak and/or Upstream
- No pro-active Openreach activity – CP needs to report as a fault
- Accept slow speed fault if line rate below Peak and/or Upstream
  - Attempt to resolve
  - If can’t resolve, then CP should have option to downgrade
    - Ops should place this order and waive charges.
    - No min term reset
  - CP can choose to remain on service - eg for 30M peak but line at 29.5M
    - Still better than 20M which is next level down
    - Assured is 15M rather than 10M + allows upstream up to 10M rather than 5M
  - For discussion
    - Is the speed criteria based on average line rate over a period or instantaneous values?
    - Should Openreach set a slow speed threshold value eg 80% of peak/upstream?
    - Set FTR where CP agrees to keep a line incapable of sustaining ordered peak/upstream?
QoS and traffic shaping

**Downstream**

- VLAN Based Policing to Peak Rate
- Scheduling based on CP .1p values

**Handover Port Options:**
- GE (set to Auto-Negotiate)
- Single Tagged Handover
- Specify outermost tag Ethertype:
  - S VLAN = 0x88-A8
  - C VLAN = 0x81-00 (default)
- Max frame size of 1600 bytes

**CP traffic 802.1p marked (per EU):**
- 802.1p = ‘3,2,1’ = “Should Not Drop”
- 802.1p = ‘0’ = “Can Drop”
- 802.1p = ‘7,6,5,4’ re-marked to ‘3’

Traffic marking is optional. Unmarked traffic treated as “can drop”.

**Upstream**

- Shape/Police End Users to port bandwidth
- Map End Users to CP specified Handover port
- Optional IA insertion for PPPoE or Option 82 for DHCP per VLAN (default is no insertion). CP to specify Remote ID (Under investigation for Pilot)
- VLAN Based Policing to Upstream speed
- Customer 10/100BaseT interface set to Auto-Negotiate. Port based service to EU
QoS – Target / Pilot differences

- Target: .1p bits - 0 = “can drop”, 1-3 = “should not drop, 4-7 will be re-marked to 3
- Pilot:
  - Under congestion between OHP and DSLAM, traffic drop will ignore “can drop” / “should not drop” marking
    However, congestion occurs only when demand to a DSLAM >1G. Expected to be very, very, rare given likely traffic profiles and EU volumes
  - Markings 4-7 will not be re-marked
    May impact ability to get modem management traffic through, otherwise no impact

www.openreach.co.uk/orpg/products/nga/nga.do
Home Environment

Chris Clough / Simon Fisher
Engineering visit process (outside premises)

• Engineer rings EU prior to starting work on cabinet.
  – If no reply, engineer visits premises.
    If nobody present to provide access, then no work is done at the cabinet and the provision is suspended and CP is requested to book a new appointment via KCI.
  – Otherwise, work goes ahead.
  – Note – if engineer misses the appointment, then the CP will be contacted via operations to request a new appointment

• Engineer performs jumpering at the cabinet
  – Short outage on baseband service (minutes). Looking at ways of no break jumpering.
  – Incompatible products no longer work (eg SMPF)
Engineering visit process (at premises)

- 2 hours work within connection charge
  - additional time will not be charged within the Pilot

- NTE5 will be fitted if necessary
  - NTE5 essential in order to allow use of VDSL SSFP
  - Process for external NTEs being worked on

- 3m demarcation
  - Expect to fit NTE in line with existing 3m rule where suitable power outlet available
  - 3m rule will be waived where necessary to access mains power for VDSL2 modem

- Test service
  - Engineer will power up modem and check it trains up correctly at expected speed
  - Connect to Openreach test service to show service works
    - Supported via switching service at the OHP, close to the Handover Port.
    - Is there a reliable way of testing into CP service? Maybe via test account?

- Internal wiring
  - Within the Pilot, if after fitting the SSFP there are still service issues resulting from internal wiring, engineer will attempt to fix

- D side wiring
  - If there are problems with D-side wiring engineer will attempt to fix
Fibre to the Cabinet

NGA Products TWG
GEA FTTCab platform

Assumptions –

• Overlay infrastructure deployment
• Voice and Legacy services supplied from the exchange.
• Premium Broadband product provided as GEA over FTTCab
End User environment

Network termination unit -
• Active NTU containing VDSL2 modem (matched to DSLAM in early days)

• Presenting Ethernet interfaces to End User (similar to FTTP ONT)

• One CP model

• Powering – 230Vac mains adapter (Fat plug)

Home wiring –
• Service Specific Front Plate required to isolate Home Wiring

• Engineer visit will be required in early stages (self install desirable)

• Openreach may offer additional products for Home Wiring beyond the NTU.
Cabinet Deployment Options

The FTTC architecture is based on VDSL2 in a range of housings located at the site of the existing PCPs. PCP sizes can vary but cabinets serving an average of 400 lines can be expected (with a range between 48 and 1100). For an overlay deployment it is expected that remote active cabinet would support a service take-up ranging from 10% to 40% of working lines.

Day 1 options:

**Standalone DSLAM cabinet**
A cabinet for deployment alongside an existing PCP

**Re-shell (\&/or re-build PCP)**
A single cabinet that houses both the existing E-side and D-side connector fields and the VDSL2 DSLAM, for deployment in situations such as poor PCP condition or insufficient space.

**DSLAM Top Box**
An extension enclosure that replaces the roof section of an existing PCP and houses a VDSL2 DSLAM.

Post Day 1 options:

**Underground Remote DSLAM**
A waterproof housing (known as a VDSL2 Brick) placed in the cable joint box to serve a small number of end users.
User Stories / Development Priorities

Toby Gibbard
User Story – Function & Format

• Express customer requirement or business function.

• Format:
  – As a <role>
  – I want to <description of requirement or function>
  – So that I can <description of customer or business objective>

• The User Story expresses the customer need that typically does not evolve over time, but remains constant. The Story does not describe solution.

• Story has associated acceptance criteria. These do evolve over time, typically becoming more stringent, to drive shape and maturity of solution.

• Stories are not detailed requirements.. rather is a ‘promise for a conversation’
Definitions

• We Scope a set of Stories as candidates for a Release.
• We chop the releases into development “Sprints”
  – 2 weeks of intense coding and testing.
• The “stories” scoped into a Sprint are fully defined
  – As part of a “design iteration”
  – 2 weeks of intense design activity which bottom all aspects of the solution
    • Including tests, and costs!
  – Defined stories are COMMITTED into Sprints.
• As coding is done it is tested right away (Continuous Integration Test)
• As stories pass the CIT, they go into e2e test
• Why is this good:
  – We only work on the top priorities
  – We can modify those priorities as we learn
  – We test ALL THE TIME
  – E2E test starts very early on
  – We involve “everyone” in “everything” (Design, Development, Test)
  – Progress is tangible
  – Sprints can in principle deliver to field
Scope

User Story & agile delivery approach covers…

• Product & Product Features
• E2e Service Delivery – L2C, T2R
• E2e Geographical Capacity
Stories, and Scope....

FTTC

Tech Trial

"alpha Trial"

Pilot

Volume

List of prioritised stories for trial (by benefit)

View of “minimum” acceptable scope at iteration 1

Stories scoped for design iteration 1

- story 1
- story 2
- story 3
- story 4
- story 5
- story 6
- story 7
- story 8
- story 9
- story 10
- story 11
- story 12

- story a etc
- story A etc
Stories, and Scope....

FTTC

<table>
<thead>
<tr>
<th>Tech Trial</th>
<th>“alpha Trial”</th>
<th>Pilot</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>story 1</td>
<td>story a</td>
<td>story A</td>
<td>etc</td>
</tr>
<tr>
<td>story 2</td>
<td>etc</td>
<td>etc</td>
<td></td>
</tr>
<tr>
<td>story 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Stories scoped for development in Sprint 1

---

story 4
story 5
story 6
story 7
story 8
story 9

---

story 10
story 11
story 12
Stories, and Scope….

FTTC

Tech Trial

“alpha Trial”

Pilot

Volume

New story added!!

Story priority changed

Stories scoped for development in Sprint 1

Stories scoped for design in iteration 2

So we build in iterations to The minimum needed.
But we expect that minimum To be a “different” one than the one we knew at the start

story 1
story 2
story 3
story 9
story 5
story aa
Story 6
story 5
story 8
story 9
---------
story 4
story 10
story 11
story 12

story a
etc
story A
etc
Release 2 Scoping and Sign off points

**Agreed** list of candidate e2e stories for R2.
**Agreed** list of Stories for Design 1

**Agreed** list of “designed” Stories for Sprint 1 dev.
**Agreed** list of stories for Design 2

**Agreed** stories for Sp2, **Agreed** stories for Design iteration 3 (Sp1 is now “coded”)

Code into e2e test AS SOON as CITd
Release Tested by joint Team (inc. CPs!)
Signed off.
## Initial Customer Experience User Story Sprint Mapping
*(not a delivery commitment)*

### Sprint 1

<table>
<thead>
<tr>
<th>Rank</th>
<th>Customer Experience User Story</th>
<th>Sprint Mapping</th>
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<tbody>
<tr>
<td>1</td>
<td>Customer Establishment</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Provide Connectivity Product</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Order SVLANs</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Provide GEA Product with a existing WLR2 Voice Product</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Provide GEA Product with a existing BTR-C Voice Product</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Provide GEA Product with a existing MPF Product (Voice Only)</td>
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</tr>
<tr>
<td>7</td>
<td>Provide GEA Product with a existing WLR3 Voice Product</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Migration from SMPF with a existing WLR2 Voice Product to GEA</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Migration from SMPF with a existing BTR-C Voice Product to GEA</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Migration from MPF to GEA with MPF voice (where existing supports both Voice &amp; BB)</td>
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</tr>
<tr>
<td>11</td>
<td>Migration from SMPF with a existing WLR3 Voice Product to GEA</td>
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</tr>
<tr>
<td>12</td>
<td>New Trouble Report</td>
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<tr>
<td>13</td>
<td>Assured Service Quality</td>
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<tr>
<td>14</td>
<td>Cease of GEA Services</td>
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<tr>
<td>15</td>
<td>Transfer active GEA services</td>
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<td>16</td>
<td>Modify GEA Service Bandwidth</td>
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<td>17</td>
<td>External User Reports</td>
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<td>18</td>
<td>Cancel Request for In-flight Order</td>
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## Initial Customer Experience User Story Sprint Mapping (not a delivery commitment)

### Sprint 2

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<td>19</td>
<td>Migration from GEA to SMPF with WLR2 Voice Product</td>
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<tr>
<td>20</td>
<td>Amend Request for In-Flight Order</td>
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<tr>
<td>21</td>
<td>Amend Trouble Report</td>
<td>2</td>
</tr>
<tr>
<td>22</td>
<td>Cancel Trouble Report</td>
<td>2</td>
</tr>
<tr>
<td>23</td>
<td>Order and Activity Monitoring/Tracker</td>
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<td>24</td>
<td>Fault and Activity Monitoring/Tracker</td>
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<tr>
<td>25</td>
<td>Migration from GEA with MPF voice to MPF (Voice and Data)</td>
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<td>26</td>
<td>Simultaneous Provide of GEA and WLR3 Product</td>
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<tr>
<td>27</td>
<td>Migration from GEA to SMPF with WLR3 Voice Product</td>
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<td>28</td>
<td>Expedited Provision</td>
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<td>29</td>
<td>Amend Order Details (Reseller &amp; Handover)</td>
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<tr>
<td>30</td>
<td>Migration from GEA to SMPF with BTR-C Voice Product</td>
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## Sprint 3

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<td>Managed Cease triggered by Cessation of WLR2 Service</td>
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<td>32</td>
<td>Managed Cease triggered by Cessation of MPF Service</td>
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<tr>
<td>33</td>
<td>Managed Cease triggered by Cessation of BTR-C Service</td>
<td>3</td>
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<tr>
<td>34</td>
<td>Managed Cease triggered by Cessation of WLR3 Service</td>
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<tr>
<td>35</td>
<td>Cancel Managed Cease</td>
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<tr>
<td>36</td>
<td>Maintain Association of WLR3, WLR2 or BTR-C to GEA services</td>
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<tr>
<td>37</td>
<td>Wider Service Availability (Plan &amp; Build)</td>
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<tr>
<td>38</td>
<td>Wider Service Availability (Handover Points)</td>
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<td>39</td>
<td>Wider Service Availability (Backhaul Capacity)</td>
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<td>40</td>
<td>Modify Care Level</td>
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<td>41</td>
<td>Intermediate Agent</td>
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<td>42</td>
<td>Modify Intermediate Agent</td>
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### Initial Customer Experience User Story Sprint Mapping (not a delivery commitment)

#### Sprint 4

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<td>Notify Outages on Planned Engineering Work</td>
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<td>44</td>
<td>Notify Outages on Major Service Outages</td>
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<td>45</td>
<td>Fault History Report</td>
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<td>46</td>
<td>Special Fault Investigation Product</td>
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<td>47</td>
<td>GEA fault notification to WLR3 Voice product</td>
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<td>48</td>
<td>GEA fault notification to WLR3 Voice product</td>
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<tr>
<td>49</td>
<td>GEA fault notification to BTR-C Voice product</td>
<td>4</td>
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<tr>
<td>50</td>
<td>GEA fault notification to MPF Voice product</td>
<td>4</td>
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<tr>
<td>51</td>
<td>Managed Cease of Connectivity Product</td>
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<td>52</td>
<td>Shift of End</td>
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<tr>
<td>53</td>
<td>Modify SVLANs</td>
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<td>MIS Reports - Internal Reporting</td>
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## Initial Customer Experience User Story Sprint Mapping (not a delivery commitment)

### Sprint 5

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<td>56</td>
<td>Throughput Monitoring</td>
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<td>Number Portability</td>
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<td>58</td>
<td>SLG Payments</td>
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<td>?</td>
<td>? TBC</td>
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Summary

• Overall Ranking has been based on CP input

• Sprint 1 (Design) scope has been locked (to make progress on some of the essential requirements)

• Ongoing opportunity for committed CPs to influence scope of Sprints 2-5 and beyond..
FTTC/GEA Process Overview

Introducing the CP Interface

Andrew Sheppard
Introduction

• This is a very high level overview of the process around the main CP interface points
  – More detailed walk-throughs will be User Story specific

• Two main threads are:
  – Generic Lead to Cash
  – Trouble to Resolve

• This presentation will not cover anything relating to the interconnect and backhaul products
  – These are intended to be existing portfolio items
Lead to Cash
Generic Lead to Cash Process - Overview

**Dialogue Services**

Plan is to build on existing dialogue services. Portal version will definitely be available.

Investigating whether it will be possible to also make available B2B versions

**Order Placement**

New order types will work along existing lines. Improved CP Portal journey was demonstrated at the Open House.

At pilot stage it is only sensible to have this as a portal interface. B2B definitions need to wait for the launched product
Generic Lead to Cash Process – Dialogue Services

End User

Enquiry about GEA service

Choose appointment

Choose appointment

CP

Check MLC using: DN for WLR PSTN LLU ID for MPF

Find spare appointment slots

Confirm appointment

Openreach

Line Check, including MLC availability

Check for appointments

Book Appointment

Next slide
Generic Lead to Cash Process – Place Order

End User

Start Usage

CP

Submit Order

KCI accept/reject

Order complete

Service working?

No

Yes

Openreach

Validate Order

Accept/reject

Provide Service

Initiate Billing

Order complete

No
Trouble to Resolve
Trouble to Resolve Process - Overview

Dialogue Services

Plan is to build on existing dialogue services. Portal version will definitely be available.

Order Placement

New order types will work along existing lines.

At pilot stage it is only sensible to have this as a portal interface. B2B definitions need to wait for the launched product.
Trouble to Resolve Process – Dialogue Services

End User

Raise Fault

Choose appointment

Choose appointment

Next slide if appointment not required

CP

Run Line Test

Find spare appointment slots

Confirm appointment

Next slide if appointment not required

Openreach

Test GEA service and indicate whether appt reqd

Check for appointments

Book Appointment

Next slide if appointment not required
Trouble to Resolve Process – Submit Trouble Report

End User

CP

Openreach

Submit Trouble Report

Validate Trouble Report

KCI accept/reject

Accept/reject

Resolve Fault

Fault clear accepted?

No

Order complete

Resume Usage

Yes

Close Fault

Initiate Billing

Openreach

Order complete

Close Fault

Initiate Billing

End User

Resume Usage
Migration Processes

Chris Clough
Migrating to GEA from SMPF (animated)

Start:
• CPX owns EU, on CPA’s SMPF

Prepare:
• CPB orders GEA for EU (with MAC if CPA ≠ CPB)
• GEA Migrate KCI1 → CPB
• SMPF Cease KCI → CPA
• GEA Migrate KCI2 → CPB
  • CVLAN on CHB CHP specified
  • CCD confirmed
  • CPB able to set up their configuration
• SMPF Cease KC2 → CPA (inc CCD)

Migrate – on CCD (stage 1):
• Openreach configures DSLAM and CHP
• Openreach engineer jumpers at cabinet
  • EU downtime starts when jumpering starts

Migrate – on CCD (stage 2):
• Openreach engineer installs SSFP & Modem
  • EU downtime ends when modem trains up
  • Assumes CPB configures EU ahead of engineer visit

Complete:
• GEA Migrate KCI3 → CPB
• SMPF Cease KCI3 → CPA
  • Frames jumpering remains in place (LIJ) to support PSTN/WLR

NB - PSTN wiring omitted for clarity

www.openreach.co.uk/orpg/products/nga/nga.do
Variations

• Conversion from GEA+WLR to SMPF+WLR
  – Inverse of conversion to GEA except
    • removal of VDSL modem and SSFP is CP/EU responsibility
    • VDSL SSFP expected to support ADSL (SSFP must be removed for ADSL to be available via extension wiring – standard SSFP issue)
    • EU will receive a jiffy bag to return the VDSL modem if they wish
    • Frames task to set up SMPF, service enabled once cabinet jumpering removed

• Adding GEA to MPF
  – the same as for GEA replacing SMPF, except
    • CPA DSLAM can still provide baseband service as MPF still in place

• Conversion from GEA + MPF to MPF
  – As for conversion from GEA+WLR to SMPF+WLR, except
    • CP/EU may have to remove SSFP for MPF based service to work
    • MPF wiring already in place at the frame
FTTC Consultation update

Andrew Sheppard
FTTC Consultation Update

• Consultation commenced on 21st August and closed on 29th September

• Formal responses received from 10 CPs.

• Consultation Summary Report and a revised version of the Product Proposal document were published on: [http://www.openreach.co.uk/orpg/products/nga/nga.do](http://www.openreach.co.uk/orpg/products/nga/nga.do)

• CP respondents were invited to a multi-lateral event on 14-15th October to hold further talks on the product and development plan

• Product is moving into design phase and further collaboration with committed CPs is anticipated (consultation continues in this manner throughout the design and development phases of the delivery)
FTTC Consultation Update

• Clarifications, changes and considerations for the product from CP feedback:
  – Confirmation of inclusion from the start of the Pilot:
    • GEA with MPF line sharing (same CP providing both)
    • 20 Hour response Enhanced Care Level
    • Migration processes for all valid product conversions
    • Un-contended service based on assured rates, not peak rates
    • Services can be configured remotely for CP ownership transfer, re-grading of bandwidth and addition/removal of features
  – Consideration for the pilot:
    • Intermediate Agent
    • Self-Install Service Specific Faceplate (limited introduction for initial testing)
FTTC Consultation Update

- Key clarifications, changes and considerations for the product from CP feedback:
  - Investigate for earliest possible inclusion (post-Pilot):
    - Rationalise components in the home to improve installation (VDSL2 Modem functionality to integrate into SSFP or CP’s CPE)
    - GEA + MPF – Different CPs sharing line offering voice and fast broadband
    - GEA independent of Baseband Voice
    - Sub-20Mbit/s product (if line incapable of delivering 20Mbit/s)
    - Higher speed and symmetric bandwidth options (subject to technical capability)
    - Simultaneous Provide Process, etc...
    - Sub-20 hour care level response
    - Multicast
    - Develop optional enabling functionality for CPs to provide voice over FTTC
DEA Consultation update

Andrew Sheppard
DEA Customer Consultation

• Consultation commenced on 29th September.

• Bi-lateral talks have been held with 10 CPs

• Formal responses to the consultation will be accepted up until Friday 7th November.

• As of 31st October we have received 4 positive responses from Communication Providers and further responses are anticipated by 7th November.

• Points covered in the responses received relate to product specification, deployment strategy, commercials and network design.

• Following conclusion of the consultation and a period of assessment, Openreach will produce a Consultation Response Summary – targeted for publication in early December.
Close and Review

Andrew Sheppard
Industry Events – Diary

Openreach Future Access Forum
20th Nov 08
BT Tower, London

NGA Sub Working Group*
11th Dec 08
09:30 – 13:00
TBC – ‘Livemeeting’ or BT Centre, London

NGA Sub Working Group
12th Jan 09
10:00 – 14:00
BT Centre, London

NGA Sub Working Group*
29th Jan 09
10:00 – 14:00
TBC – ‘Livemeeting’ or BT Centre, London

* These two sub working group events will focus on FTTC only. Invitees will be restricted to CPs who have committed to take part in the pilot.