Case for Two Copper PHYs

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Draft 2.2
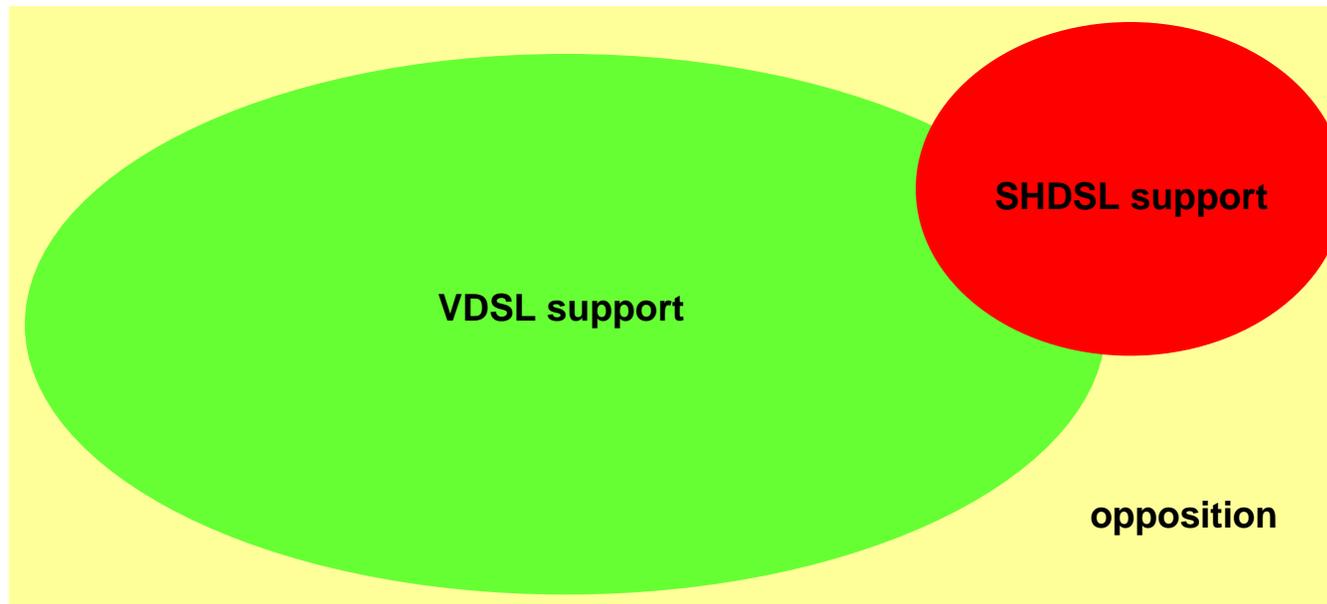
EFM TF
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Context

- **The proposed VDSL baseline (as chosen by the Cu STF) meets the existing objective and gained most support**

- **ILECs and Service Providers have clearly stated requirement for long reach, symmetrical solution**

- **In Edinburgh EFM TF failed to get sufficient support to adopt a baseline for copper**

Support

- **Evidence suggests that the overlap between VDSL & SHDSL support is small**

  The straw poll in Edinburgh which captured both had >>75%

- **This leads to the Great Copper Compromise**

The Great Copper Compromise

- **VDSL alone does not address long reach**

  So the SHDSL fans voted against it

- **Edinburgh proposal for SHDSL also changed the VDSL objective and baseline**

  So the VDSL fans voted against it

- **A good compromise will add the support for each proposal**

  A bad compromise will add the objections for each proposal

- **The Great Copper Compromise is the path forward**

Why We Need Both

- **Short-Reach PHY**

  High-bandwidth, next-generation applications

  Short copper loops (especially outside US)

  Hybrid fiber copper solutions

  Multi service (voice video data)

- **Long-Reach PHY**

  Supports installed copper local loops

  Supports symmetric business services

  Primarily data services
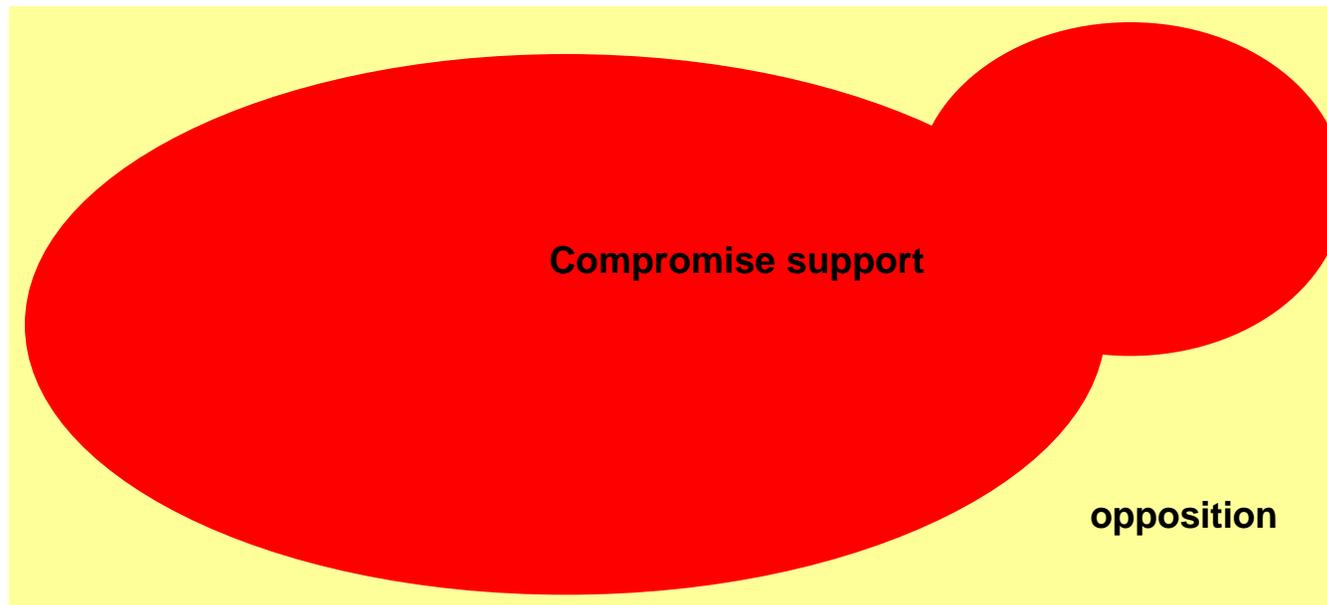
So here it is…

- **Leave the VDSL objective and baseline unchanged**

  The copper track liked it, the VDSL fans love it!

- **Add a new objective (long reach)**

- **Add a new baseline which meets it**

  The long-reach fans have come with a packaged solution:

  An objective and a baseline all ready to roll

- **VDSL + long-reach fans vote for new objective**

- **VDSL + long-reach fans vote for VDSL baseline**

- **VDSL + long-reach fans vote for long-reach baseline**

- **Now we have 2 port types & editing can begin**

Compromise

- **Remember that compromise means moving to reach common ground**

  Just voting for your own part is not compromising

  It is crucial that all of the red area can be counted as positive votes for the whole compromise position

Compromise support

opposition

Motion

- **To adopt an additional objective for P2P copper:**

  PHY for single-pair, non-loaded, voice-grade copper distance >=2700 meters and speed >= 2 Mbps full duplex

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