Purpose of draft

- Describes usage of Service Codes (SC) by DCCP
- Allocates SC for some well-known services
- Updates RFC 4340
How this works
WG 01,02 updates

- Lots of comments and inputs
- Historical section added
- Removed new semantics for SC=0
- Discussions with Eddie Kohler
Fixed open-issues marked in previous revs
Technical argument seems good now (to me)
Benchmarking Services section updated
Change to IANA policy?

- Well-known ports have been clarified.
- Alternatives SIP, SRV.
- Suggested at last IETF...
  - All applications should be able to easily get ports:
    - “IANA should allocate well-known DCCP ports on demand to anyone to applies, without requiring a specification or additional justification.” MH
  - Could allocate port at IANA with SC value?
When no port...

- Do we have to register these at IANA?
- You may not need one (even if no signaling)!

- But, hashes can clash...
- SC resolves this and uniquely identifies apps
Suitable algorithm?

```c
int sport; /* server port */

s_port = sc[0]^(sc[1]<<3)^(sc[2]<<5)^(sc[3]<<7)| 0xC000;
```

- RFC4340, would restrict this to the top 16k ports:
  - “Well Known and Registered Ports SHOULD NOT be used without registration.”

- Is this OK? - can we allow more?
So... current suggestion:

- Use one of these methods:
  - Use a well-known port
  - Choose & use an out-of-band signal
  - Hash the SC to a server port
- If you need, ask IANA for your own well-known port
- So.... do we really NEED to make allocation easier?
DCCP Port Numbers registry

- Similar to UDP, TCP, SCTP...
- But, labels ports with SC
- DCCP can use the same port more than once
- RFC 4340: "Multiple DCCP registrations for the same port number are allowed as long as the registrations' Service Codes do not overlap."
- COULD have more than one entry per port!
- Do we really need multiple lines per port?
Specific updates to 4340

Applications SHOULD NOT use a Service Code of zero.

Application writers that need a temporary Service Code value SHOULD choose a value from the private range (Section 2.3).

Applications intended for deployment in the Internet are encouraged to use an IANA-defined Service Code. If no specific Service Code exists, they SHOULD request a new assignment from the IANA.

An implementation SHOULD allow more than one Service Code to be associated with a passive server port, enabling multiple applications, or multiple versions of an application, to listen on the same port, differentiated by Service Code.

An implementation SHOULD provide a method that informs a server of the Service Code value that was selected by an active connection.

A specific Service Code value MAY be associated with more than one server port value.
Are we finished yet?

- We need to clarify IANA allocation
- Offers to help with Appendix with API for SC
  - (or remove and do it some other day)
- Comments please!