

61 RIPE / ROME

15-19 November 2010

THE BATTLE OF OPTICS



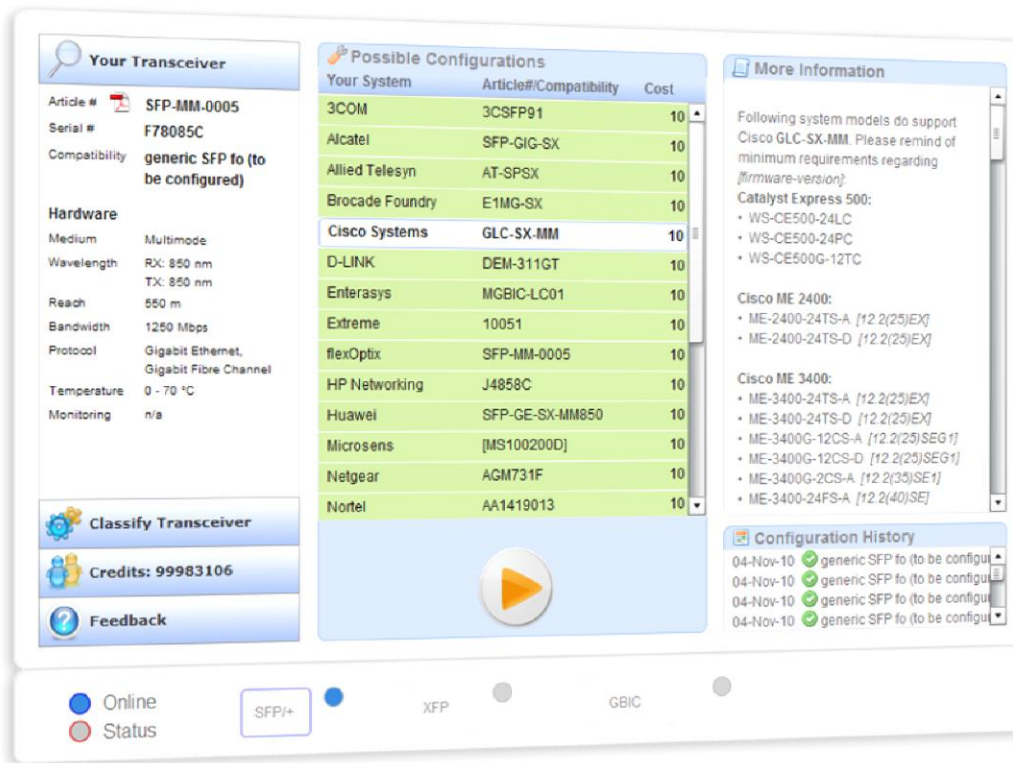


Problem space

Interoperability	Wondering why standard compliant optics (SFP/XFP) are blocked or functionally limited?
Limited options	No „special optics“ for your networking systems? (CWDM XFP, Tunable DWDM XFP or DWDM SFP+ ...)
High costs	You want to deploy more routing/switching gear, but not much budget left for optics?
No time for interop-tests	You waste time taking care of interoperability for various optics in your networking platforms?

Solution ... working code / live demo ;-)

Universal Config-Tool flexBox



The flexBox is a universal programmer for MSA-compliant **GBIC, SFP, SFP+ & XFP**.



Architecture...

how is all that *built*?

- | | |
|--------------|---|
| 50% specs | Tons of MSA specs, Kilos of MIC/EPROM specs, I ² C Master/Slave protocols, USB driver design, distributed web applications |
| 40% Software | C#, C, JavaScript, Adobe Flash, RubyOnRails, MySQL ... and few more ;-) |
| 10% Hardware | board design, transceiver „internals“, ... |

100% flexBox ;-)

How does this Voodoo work?



EEPROM/MIC

Offset(h)	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
00000000	03	04	07	20	00	00	00	00	00	00	01	67	00	0A	64	
00000010	00	00	00	00	46	4C	45	58	4F	50	54	49	58	20	20	20
00000020	20	20	20	20	00	00	00	00	53	46	50	20	70	6C	75	73
00000030	2D	43	57	44	4D	2D	31	30	20	20	20	20	05	FA	00	B7
00000040	00	1A	00	00	53	39	39	4E	33	34	30	30	30	32	20	20
00000050	20	20	20	20	30	39	31	31	30	35	20	20	68	B2	01	A3
00000060	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A
00000070	68	69	65	72	20	63	68	65	63	6B	73	75	6D	6D	65	20
00000080	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A	2A
00000090	69	63	68	20	62	69	6E	20	65	69	6E	20	53	46	50	20
000000A0	70	6C	75	73	20	6D	69	74	20	31	30	2C	33	20	47	62
000000B0	70	73	20	6D	69	74	20	65	69	6E	65	72	20	43	57	44
000000C0	4D	2D	57	65	6C	6C	65	6E	6C	E4	6E	67	65	20	76	6F
000000D0	6E	20	31	35	33	30	6E	6D	20	20	20	20	20	20	20	20
000000E0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
000000F0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
00000100	43	2C	BA	8B	E1	7F	D4	59	AA	E4	26	01	0A	E5	08	34

```

... ..g..d
....FLEXOPTIX
....SFP plus
-CWDM-10    .ú..
....S99N340002
091105    h².€
    
```

```

*****
here checksum
*****
I am a SFP plus
with 10,3 Gbps
and a CWDM
wavelength of
1530nm
    
```

```

C, °<a.4c.k|..e4f
    
```

So – now you can deploy

tunable
DWDM
10G XFP
(80km)

10G
C/DWDM
XFP & SFP+

SFP+ ER
(40km)

1GBE SFP
(200km
/41dB)

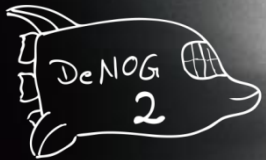
.... in pretty any platform!

Future



An Optic's Life

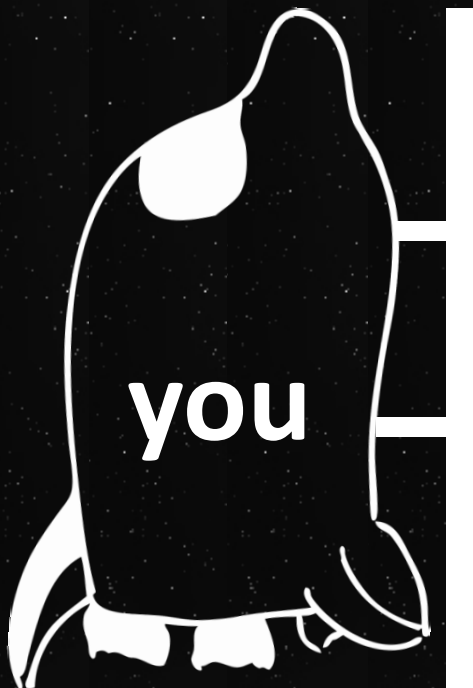
predict the D-day



flexOptix
project initiator

where to participate ?

anopticslife@flexoptix.net



Goodbye dark side



markus.arnold@flexoptix.net
mobil: +49 176 96266915

flexOptix

The Transceiver Specialists.

thomas.weible@flexoptix.net

mobil: +49 176 27053733



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