# Talk

About NOC communication

Problem definition and solution(s)

Thomas Mangin – LINX 97 – 20th and 21st Febuary

# Peering session down !

Is it normal ? Did you expect it ?
When should you expect it back?
Outage ? Maintenance ? **De-peering ?**

# Maintenance notification "problem"

781 networks at LINX

Lots of maintenance notifications (or not !)

All per e-mail, with every IX having its own mailing list ..

**You are Lucky**

**You dig that "state of art" mail**
... from two days/weeks ago
... lost in the ticket system
... could you machine parse it?

**You are Unlucky**

**You use peeringdb.com**
... email your peer
... and wait
... none the wiser

---

Google Planned Network Maintenance Notification - Reference pcr/176694

**To:** noc@exa-networks.co.uk

Reply-To:

---

**Google** Network Maintenance Notification - Reference pcr/176694

This message was sent to: [noc@exa-networks.co.uk]
This address was selected from NOC or TECHNICAL contacts in the AS30740 PeeringDB entry.

**Details:**
**Start Time:** 2017-02-02 09:00:00 +0000 UTC
**End Time:** 2017-02-02 12:30:00 +0000 UTC
**Duration:** 3h30m0s

| | | | | |
|---|---|---|---|---|
| **Google ASN:** | 15169 | **Peer ASN:** | 30740 | |
| **Google Neighbor Address(es):** | 195.66.224. | **Peer Neighbor Address(es):** | 195.66.224. | |
| **Google Neighbor Address(es):** | 2001:7f8:4:: | **Peer Neighbor Address(es):** | 2001:7f8:4:: | |

Please take no action to remove or shift traffic, Google systems will automatically re-route traffic as needed.

Depending on the nature of the work, your BGP session with Google may stay up through the maintenance window. You may also observe traffic shifts to alternate sessions with Google and/or your upstream provider(s).

Questions about this event can be sent to noc@google.com.

Thank you for peering with Google!

---

**Can IXes**

... provide better way for us to e-mail maintenance (yes*)

... help define a structured format for maintenances

... integrate both within their portal

**Or should PeeringDB (or Euro-IX, or ...)**

... provide maintenance notification

... and all of the above (working with IXes)

**In the meanwhile ...**

\* only sending mails to your peers, finding peering relation by looking for port 179 traffic at the IX

in task force not that far far away …

BGP

# SHUTDOWN COMMUNICATION

DRAFT

https://tools.ietf.org/html/draft-ietf-idr-shutdown-05

To read with the voice over of **GOT TALENT** *(in your mind)*

J. Snijders
NTT
J. Heitz
Cisco
J. Scudder
Juniper
January 31, 2017

*AFTER*

**draft-ietf-idr-large-community-12**  (RFC 8092 since 16/02)

*Job Snijders*  **strikes** again

**WITH**

draft-ietf-idr-shutdown-05

# draft-ietf-idr-shutdown-05

An extension to the BGP shutdown NOTIFICATION message,

Providing a short 128 characters twitter like messages (to prevent forgeries in logs)

To provide information about the reason why a peer may have gone away,

or slightly less if you decide to use some UTF-8 encoding

**NOT twitter over BGP**

Unless you like to bounce sessions

# draft-ietf-idr-shutdown-05

## What changes?

```
0                   1                   2                   3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Error code      | Error subcode |   Data (variable)          |
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

## becomes

```
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
| Error code 6  |     Subcode     |     Length     |     ...     \
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+               /
\                                                                  \
/                ... Shutdown Communication ...                    /
\                                                                  \
+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+-+
```

**Network does**

> bgpctl neighbor 165.254.255.24 down \
"[TICKET-REF] we are upgrading the RE, be back in 30 minutes, do not CALL the NOC please 😜"

**Peer sees**

Jan 8 19:28:54 shutdown bgpd[50719]: neighbor 165.254.255.26: received notification: Cease, administratively down

Jan 8 19:28:54 shutdown bgpd[50719]: neighbor 165.254.255.26: received shutdown reason:"[TICKET-REF] we are upgrading the RE, be back in 30 minutes, do not CALL the NOC please 😜"

# WHAT NEXT ?

KEEP CALM AND SHOUT (in IETF Last Call)

KeepCalmAndPosters.com

**Tell your vendor if you want it**

**Implementation is T.R.I.V.I.A.L !**

# Implementations ..

EXABGP

Merci, *Job Snijders*!

GOBGP

Thank you *Iwase YUSUKE*, and NTT Labs!

OPENBGPD

Thank you, *Peter* van Dijk
& the PowerDNS team!

PMACCT

Thank you, *Paolo Lucente*

WIRESHARK

Thank you, *Arjen Zonneveld*

# Questions ?



Who said he was thinking about photoshopping a superman cape ?