

Internet Society Deployment & Operationalization (DO) Team Here to help!

SANOG XXIII

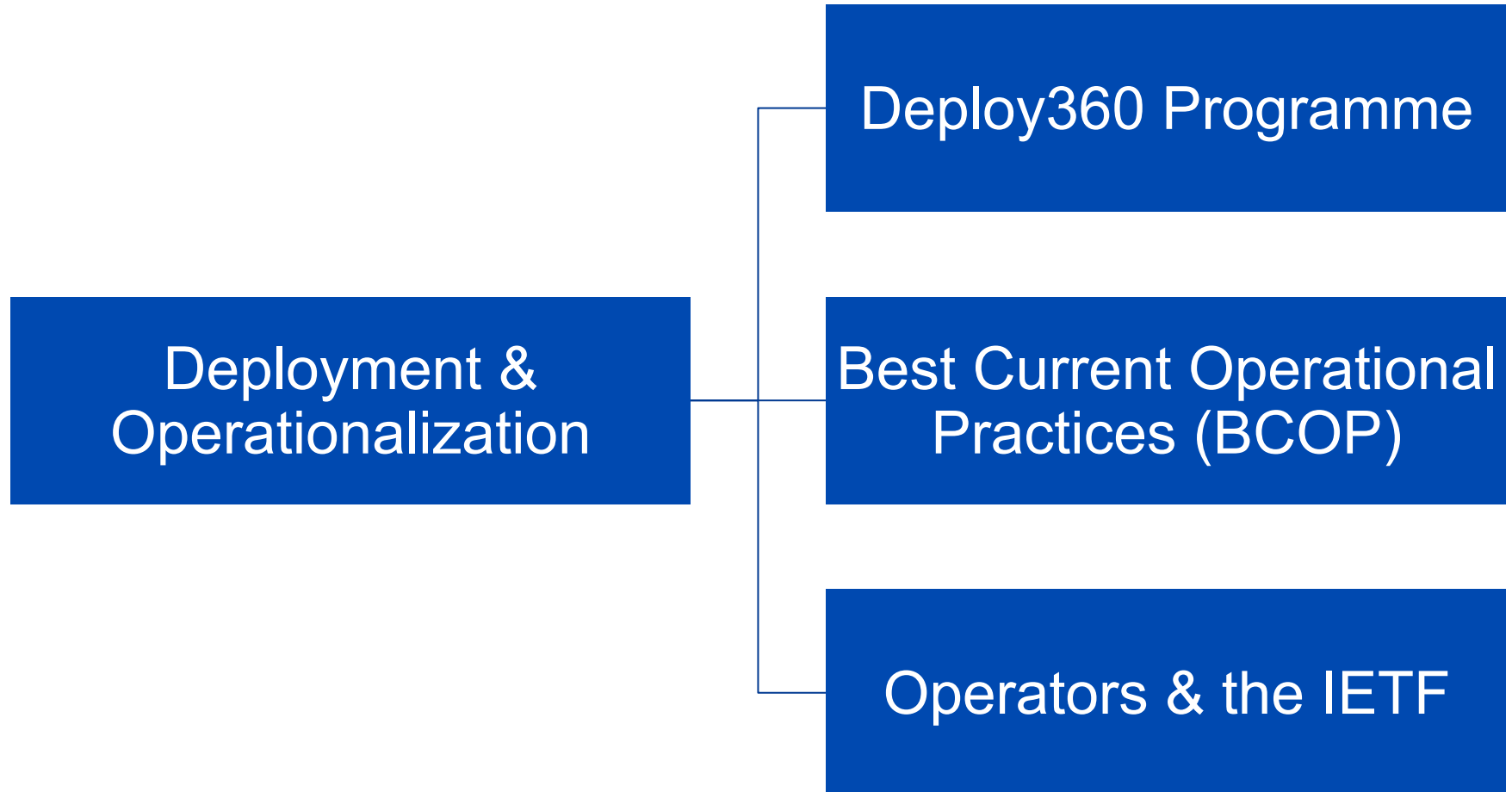
14 January 2014 - Thimphu, Bhutan

The Deployment & Operationalization Team

- **Chris Grundemann**, Director, Deployment & Operationalization
- **Dan York**, Senior Content Strategist
- **Megan Kruse**, Technical Outreach Manager
- **Jan Žorž**, Operational Engagement Manager



DO Team Projects



The Deploy360 Programme

Accelerating the deployment and operationalization of Internet standards and technologies that improve the functioning, security, and sustainability of the Internet.

About Deploy360

The Challenge:

- The IETF creates protocols based on open standards, but some are not widely known or deployed
- People seeking to implement these protocols are confused by a lack of clear, concise deployment information

The Deploy360 Solution:

- Provide practical, hands-on information on IPv6, DNSSEC and routing resiliency/security to advance real-world deployment
- Work with first adopters to collect and create technical resources and distribute these resources to fast following networks

Deploy360 Components

Web Portal

(Online Knowledge Repository)

- Technical documents
- Audience-specific information
- Blog & social media

Social Media

(Constant Audience Engagement)

- Twitter
- Facebook
- Google+
- YouTube
- RSS Feeds

Speaking Engagements

(Come Meet Us or Invite Us to Speak)

- Consumer Electronics Show
- IPv6 Summits
- Interop
- Network Operators' Groups

ION Conferences

(Hands-on Educational Events)

- Slovenia
- India
- USA
- Canada
- Argentina

Web Portal – www.internetsociety.org/deploy360

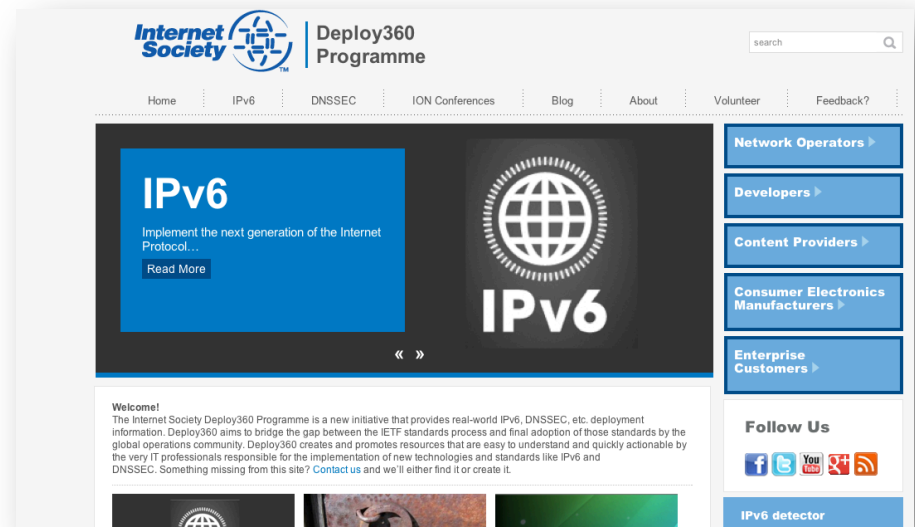
IPv6, DNSSEC and routing resiliency/security knowledge base including tutorials, case studies, training resources, etc.

Content specific to:

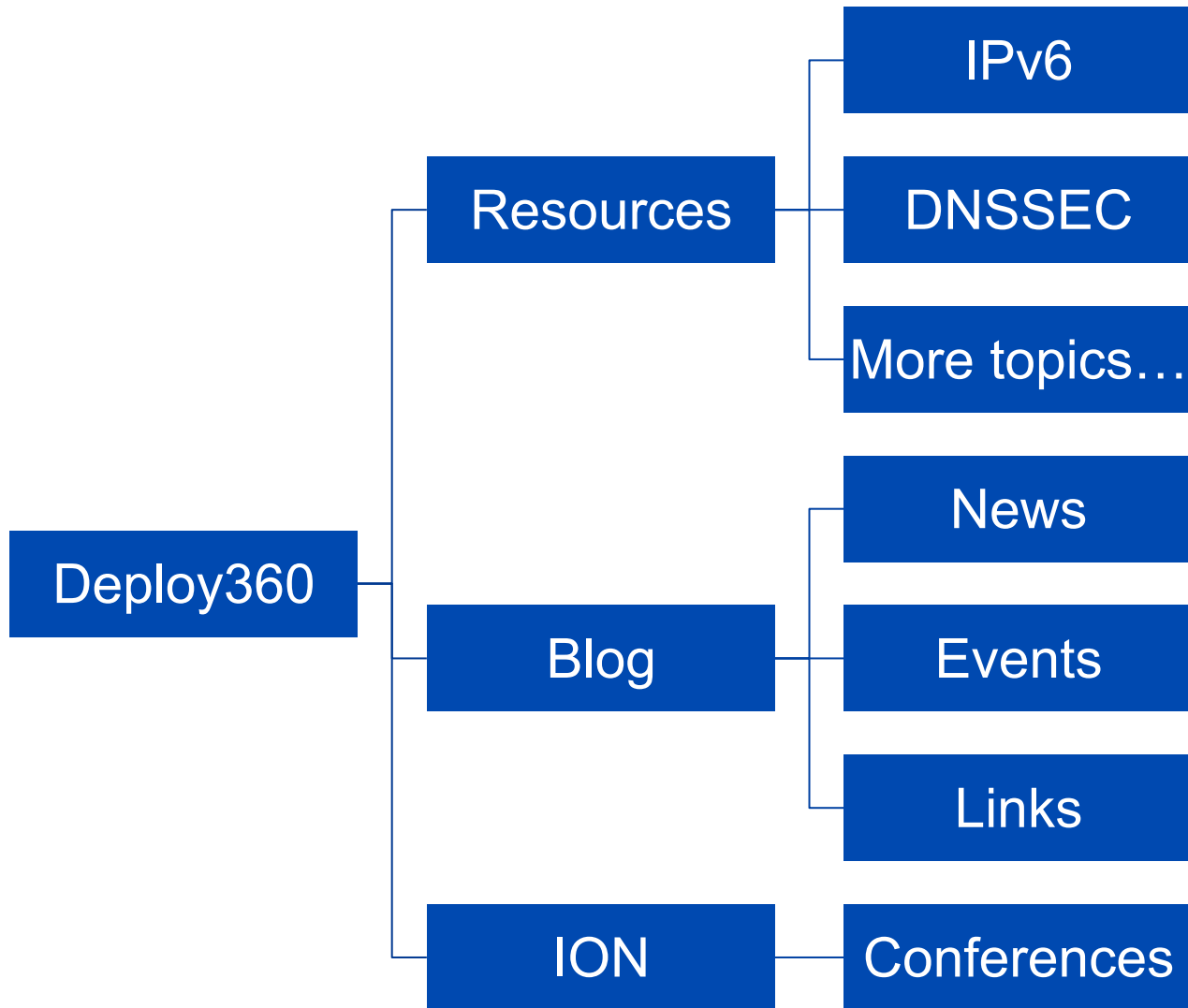
- Network Operators
- Developers
- Content Providers
- Consumer Electronics Manufacturers
- Enterprise Customers

Blog posts

Social media integration



Deploy360 Site Structure



Social Media



<https://twitter.com/deploy360>



<https://www.facebook.com/Deploy360>



<http://gplus.to/deploy360>



<http://www.youtube.com/user/Deploy360>



<http://www.internetsociety.org/deploy360/feed/>



<http://soundcloud.com/deploy360/>

Also on SlideShare, Flickr, Github...

ION Conferences

Three events per year

Co-located with a diverse set of events

Events in 2013:

- ION Singapore – March 28, 2013
- ION Krakow – September 30, 2013
- ION Toronto – November 11, 2013

Past events in Singapore, Brazil, India, Argentina, Canada, and the US

<http://www.internetsociety.org/deploy360/ion/>



Speaking Engagements

Consumer Electronics Show - Las Vegas, NV, USA

North American IPv6 Task Force - Denver, CO, USA

Eurasia Network Operators' Group - Ukraine

Digital Home World Summit – London, UK

Large Installation Systems Administration (LISA) Conference - San Diego, CA, USA

Interop - Mumbai, India

Broadband World Forum – Amsterdam, NL

IPv6 Webinars – AfriNIC, ISOC Africa Region



Your Participation

Visit and explore

<http://www.internetsociety.org/deploy360>

Create Content

- Help us develop materials based on your experiences
- We will credit your work

Define New Features

- Tell us what you need to get started on your own deployment
- We have the flexibility to make changes/additions

Contact us: deploy360@isoc.org

Best Current Operational Practices (BCOP)

Facilitating the development of a community-driven global framework for the identification, documentation, and publication of Internet Best Current Operational Practices.

BCOP Repositories – THE CHALLENGE

Current best current operational practices sharing:

- hallway conversations
- operator group presentations
- email lists
- web forum threads
- Personal relationships
- IRC/chats

BCOP Repositories – THE CHALLENGE

There is currently no quick and easy way for an operator to find and reference all of these best practices for immediate use in administering their local network

There is too much clutter in the IT landscape for network operators to easily find reliable, vetted, user-friendly documentation

There appears to be a need for a globally recognized document series that documents the best practices for operationalizing Internet technologies

BCOP Repositories – SOLUTION IDEA

We believe neutral and regionally organized repositories of documents that describes best current operational practices could help:

- speed up deployment of IPv6 and DNSSEC
- make the routing infrastructure more resilient
- simplify network deployments for less traveled operators

These documents should be written by experienced operators and be globally accessible to everyone in an open and neutral location without fees

We are committed to assisting in the creation and promotion of this repositories.

BCOP Repositories – already started?

Some years ago, the NANOG community started an IPBCOP effort (Aaron Hughes, Myself, and others)

That effort has now become a regional BCOP track/
WG at NANOG

They asked us to help with starting and promoting a
global BCOP repository

BCOP work and feedback from around the planet

- NANOG57 – Orlando
- PLNOG10 – Warsaw
- World IPv6 Congress – Paris
- North American IPv6 Summit – Denver
- LACNOG – Medellin
- RIPE Regional SEE2 meeting – Skopje
- CARIBNOG5 - Barbados
- RIPE66 – Dublin
- ENOG – St. Petersburg
- AfNOG/NIC – Lusaka
- UKnof – London
- MENOG – Kuwait
- PLNOG11 – Krakow
- RIPE67 – Athens
- LACNOG – Curacao
- **SANOG XXIII – Thimphu (here I am!)**
- JANOG33 – Beppu (next week)
- NZNOG 2014 - Nelson
- APRICOT 2014 - Bangkok

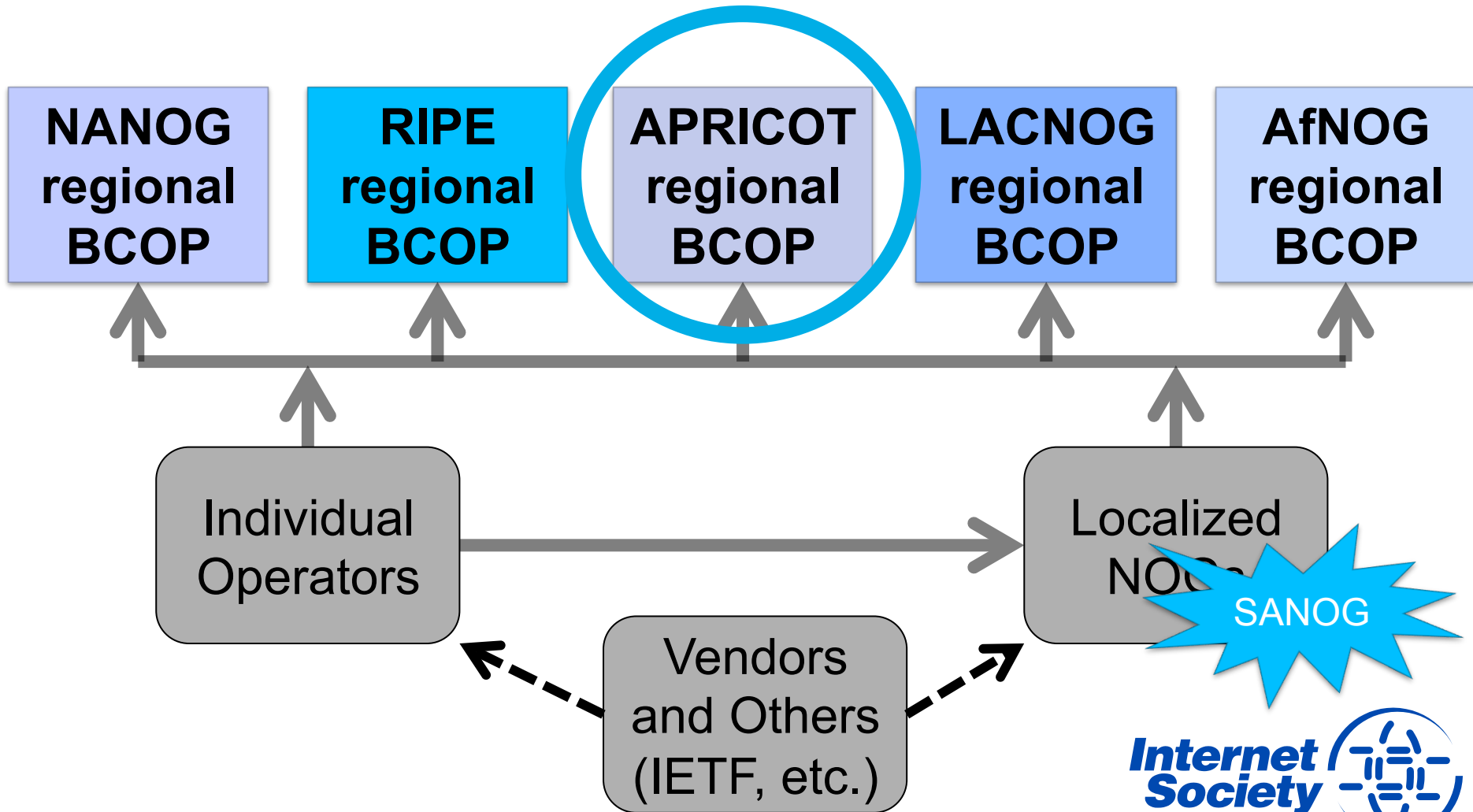
BCOP Repositories – already started?

Our original proposal involved a top-down global structure.

Strong feedback from the global operator community (particularly at RIPE in Dublin and NANOG in Orlando) led us to pivot:

- **Let's start the work regionally, produce something useful, and publish it.**
- Coordination and a global repository might naturally emerge out of real needs.

Regional BCOP Development



BCOP activity around the world:

- North America: NANOG BCOP
- Europe: RIPE Operations Task Force
- Latin America: BCOP BoF at Curacao LACNOG
- Africa: BCOP BoF during AFRINIC-19
- Asia & Pacific: Let's talk!

Some of the identified topics (mainly from NANOG and RIPE region so far)

- Inhibiting Address Spoofing
- IPv6 Subnetting / Address Planning
- Public Peering Exchange / Peering Policies
- BGP Policies
- DNS Policies
- Email Policies
- ICMP Filtering
- Pingable attribute in whois

Some of the identified topics (mainly from NANOG and RIPE region so far)

- How to test your network performance
- How to check your visibility from global Internet
- Ethernet OAM
- De-Aggregation: strict filtering /48s out of /32
- How are operators using IRR?
- IPv6 enterprise network renumbering scenarios, considerations, and methods
- ... (we need more suggestions)

More information:

BCOP topics:

<http://www.internetsociety.org/deploy360/about/bcop/topics/>

What's going on around the world:

<http://www.internetsociety.org/deploy360/about/bcop/>

Operators and the IETF

Standardizing the future, together

The Dream

In a perfect world...

- **The IETF creates standard protocols with operator input and they work great**
- **Deployment and operationalization concerns are consistently addressed**
- **The level of operator engagement makes sense when compared to vendor and academic involvement**
- **Operators always know when their input is needed**
- **Operators always provide their input when it's needed**

The Reality

Many operators are not engaged enough...

- The significant portion of operators (particularly mid/small size) don't join IETF mailing lists nor do they show up to IETF meetings**
- Academics and vendors rule many decision making processes within the IETF**
- The operators expected to deploy these technologies often don't even know that they are being developed**
- Critical new technologies are being developed with little to no direct operator input**
- Things may be and usually are broken...**

The Plan

Facilitate increased operator input into the IETF...

- **First, we're here, listening to you: talk to us!**
- **Next, we'll analyze everything we hear from operators around the world and show the results and message to the IETF**
- **Then, we'll come back with some proposed solutions for your review**
- **Finally, towards the end of this year, we hope to start implementing the solutions that work for you, the operators!**

The Opportunity

- **This is your opportunity to tell us... (we'll try to fix it!)**
- **Find Chris, Dan, Megan or Jan and tell us why you do or don't participate in the IETF, we'd all love to chat with you!**
- **Participate in our online survey:**
 - <https://internetsociety2.wufoo.com/forms/operators-and-the-ietf/>
 - The survey will close on 31 June 2014

Next Steps

Let's keep the Internet going and growing!

How You Can Help – And How We Can Help

- **Send us any feedback** – how can we help *you* and your department?
- **Can we assist you** with any info related to IPv6, DNSSEC or routing resiliency?
- **Follow us on social media** and spread our content
- **Let us know** if you have technical content we can help promote
- **Invite us to speak** at events in your region
- **Help connect us** to network operators, content creators, equipment vendors, etc.

A call to arms!

Use Deploy360!

Contribute to Deploy360!

Help start an Asian BCOP group!

Complete the *Operators and the IETF* survey!

Thank You!

<http://www.internetsociety.org/deploy360/>
deploy360@isoc.org