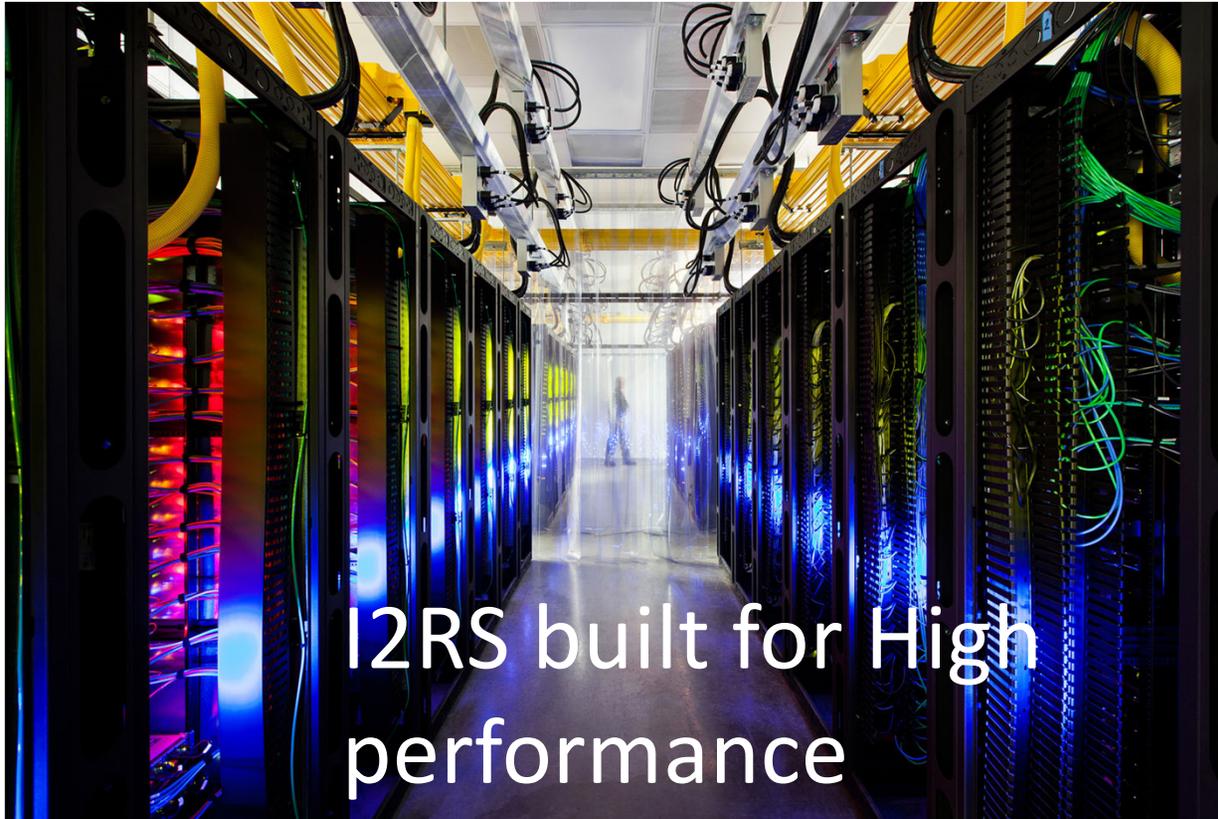


# I2RS Chairs Slide

## Building the NG routing interface



**Not the Pizza  
box CLI**

**Sue Hares and Jeff Haas**

# I2RS



Focused on

## I2RS Concepts

- Programmatic
- Ephemeral state
- High Speed Publication/subscription stream
- Traceability
- Some configuration
- Lots of Analytics in Data Models

80% Analytics  
20% Config



Multiple streams



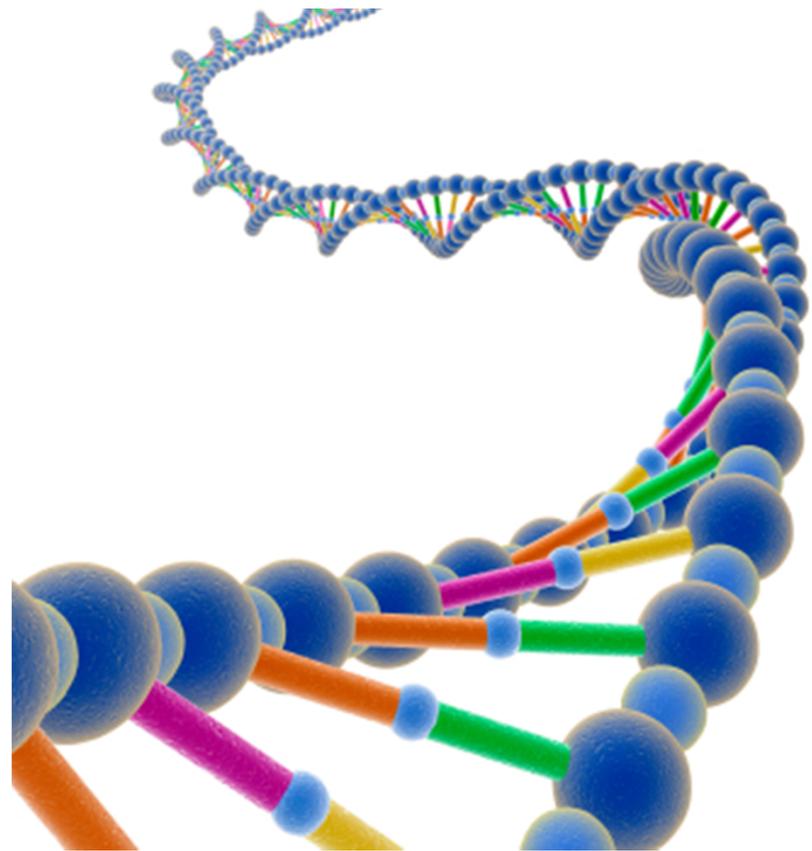
Operator's needs

# Thank for 1 year of hard work!



# Building a new I2RS DNA

- **Data-model driven** protocol and analytics will take spiral upward
  - Start with initial models with 20% config + 20% of analytics
- Get initial “killer-app”
- Extend implementation to from 20% analytics to 80% analytics desire



# Feedback from Operators

- “I do not need another config mechanism”
- Proposal of configs + analytics in early I2RS modules
- Let’s just do it in BGP - Proposal of “Flowspec+++” in IDR

**Bottom line:** We need to get analytics in the first draft

# So .. Where do we need to go?

- **Finish the 20% of Configuration Add 20% analytics**
  - Ephemeral additions for netconf/restconf
  - Add pub/sub + traceability + configure other streams
  - Augment current I2RS (P.I.) Data Models with analytics
  - Augment Basic Protocols (BGP, OSPF, ISIS, MPLS TE, MPLS LDP) with ephemeral state
  - Deploy with applications (Open source + look for killer App).
- **Start on Analytics (80%)**
  - Start with operational needs + use cases
  - Define analytics + multiple streams
  - Create + Bring model to I2RS
  - Iterate with operators and open source community

P.I. = Protocol independent



# Status of Documents

- **Architecture and Initial Requirements Send at group to IESG (11/6)**
  - WG LC passed for traceability, pub/sub, protocol security
  - Ephemeral's only comment "What is minimal changes to NETCONF"? This will be resolved this week.
  - Will be passed to IESG with architecture + problem statement this week
- **Initial Information Models for Ephemeral Configuration**
  - RIB IM passed WG LC – will be sent as information model (11/6)
  - FIB IM will be circulated
- **Protocol Independent Data models – Add 20% Analytics**
  - RIB DM – adding RPC (add/delete), needs more analytics
  - FB-RIB – change structures, needs more analytics
  - Topology – Generic, L2 Data model needs revisions
- **Protocol Strawman**
  - RESTCONF/NETCONF ephemeral state additions
  - Push: draft-ietf-netconf-yang-push

# Looking for New Model Drafts

- Models for Analytics from existing use case or new use cases
- Protocol Drafts for ephemeral Configuration + Analytics + notification
  - OSPF, ISIS, BGP, BESS, MPLS TE, MPLS, SFC
  - I2RS will kick start and send to WG for review