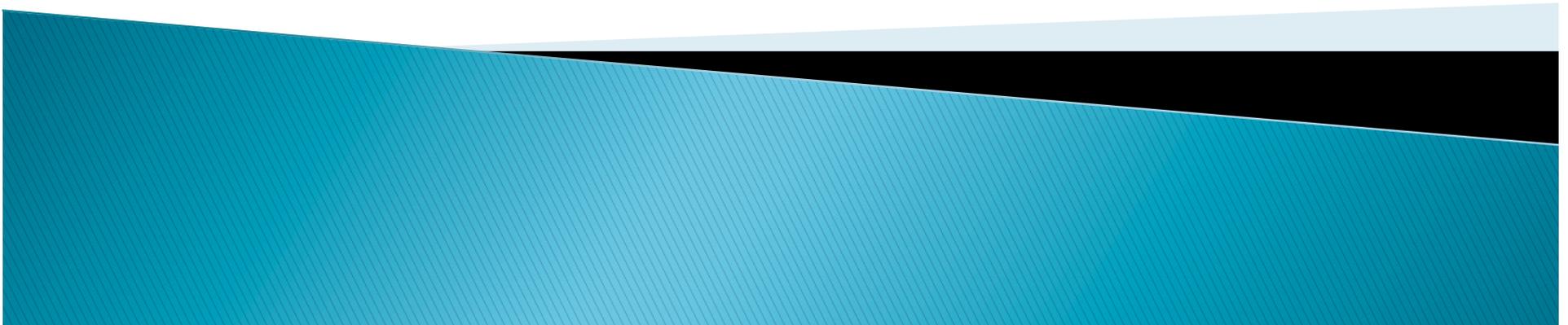


Code Match

Connecting Academia and Open Source to the IETF

Brian Haberman
Johns Hopkins University



Agenda

- ▶ Brief overview of the IETF
- ▶ CodeMatch overview
- ▶ Benefits
- ▶ Current status
- ▶ Contributors
- ▶ Questions & Answers



The IETF in one slide

- ▶ Internet Engineering Task Force
 - Formed in 1986
- ▶ Organized activity of the Internet Society
- ▶ Developer/Maintainer of “Internet” standards
 - Request For Comments (“RFCs”)
- ▶ Focus:
 - Above the wire
 - Below the application
- ▶ Voluntary, open standards
 - Nothing mandated



CodeMatch Goals

- ▶ Make useful connections between the IETF and outside code development efforts
- ▶ Improve collaboration and coordination between these communities
- ▶ Identify new opportunities between these communities



CodeMatch Approach

- ▶ CodeMatch website that acts as a marketplace to make connections
- ▶ Primary focus on connections between
 - IETF standards efforts
 - Open-source development community
 - Academic professors, students, researchers, etc.
 - Industry development teams
- ▶ Provide a mechanism to demonstrate linkages between communities



CodeMatch Approach

- ▶ Extend the IETF's datatracker tool
 - Track implementations of drafts/RFCs
 - Allow work group to advertise drafts that need implementation
- ▶ Provide linkages between the datatracker and existing tools (e.g., GitHub)
 - Utilize existing tools
 - Create linkages rather than replacement tools



Benefits to academic community

- ▶ Gain experience creating open source code
 - Code that lives on beyond a class project
- ▶ Potential to make significant technical contribution to standards
- ▶ Interact with industry and other researchers
- ▶ Help make the Internet better
- ▶ Network within the networking industry
 - Potential job opportunities



Benefits to open-source community

- ▶ Leverage for new projects that need multiple, interoperable implementations
- ▶ Feedback on use cases, requirements, architecture, etc. that may impact a project
- ▶ Interaction with other developers
 - Broader community interaction
 - Interoperability events
- ▶ Wider review that identifies design flaws, bugs, etc. in the project



Benefits to the IETF

- ▶ We believe in rough consensus and running code
 - Running code demonstrates feasibility
- ▶ A broader community leads to wider reviews from different perspectives
- ▶ Demonstration of synergy between standards efforts and outside development efforts
- ▶ Promotes IETF work in new areas/
communities

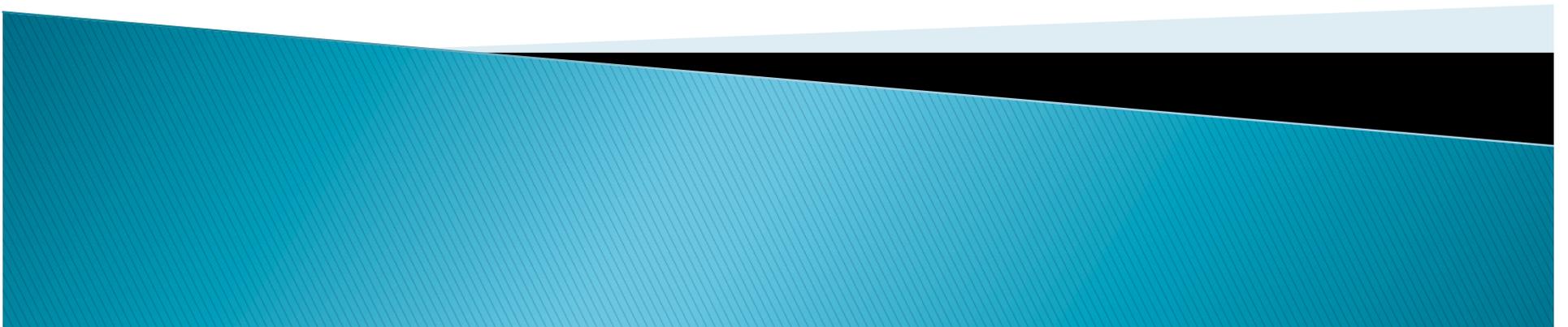


Current status

- ▶ Currently developing requirements for datatracker enhancements
- ▶ Developing mockups of datatracker extensions
- ▶ Targeting availability of the CodeMatch website prior to IETF 95
 - Being held in Buenos Aires!
- ▶ Tools enhancements being done by members of the target communities!



Visitors' view





IETF CodeMatch

Here comes the short description of IETF CodeMatch, informing its goals, results so far, etc. Here comes the short description of IETF CodeMatch, informing its goals, results so far, etc. Here comes the short description of IETF CodeMatch, informing its goals, results so far, etc.



[CodeMatches](#)

Who's implementing what?



[Code Offers](#)

Which coding opportunities are offered by the IETF?



[Coders Hall-of-Fame](#)

The stars of IETF CodeMatch!



CodeMatches

Order by: Codename | [Coder](#) | [Protocol](#) | [Area](#) | [Working Group](#)



Codename by [Coder](#)

A paragraph describing the implementation that's being carried out. A paragraph describing the implementation that's being carried out. A paragraph describing the implementation that's being carried out. A paragraph describing the implementation that's being carried out. A paragraph describing the implementation that's being carried out.

Code Offer: [Code Offer](#) Protocol: [Protocol](#) Area: [Area](#) Working Group: [Working Group](#)



SmartProbes by [Peter Jedi](#)

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Code Offer: [Distributed dection of SLA violations](#) Protocol: [NETCONF](#) Area: [IRTF](#) Working Group: [NMRG](#)



MyOrchestrator by [OpenNFV Team](#)

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Code Offer: [Orchestrator Initiative](#) Protocol: [OpenFlow](#) Area: [OPS](#) Working Group: [FORCes](#)



SmartProbes by [Peter Jedi](#)

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Code Offers

Order by: Protocol | [Area](#) | [Release date](#) | [Popularity](#) | [Working Group](#)

> NETCONF - NETwork CONFiguration

— [Distributed detection of SLA violations](#) - July 26, 2014

A paragraph describing the offered implementation. A paragraph describing the offered implementation.

CodeMatches: [SmartProbes](#) | [ManP2P](#)

 Request this offer

— [Distributed detection of SLA violations](#) - July 26, 2014

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 Request this offer

> SNMP - Simple Network Management Protocol

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CodeMatches: [SmartProbes](#) | [ManP2P](#)

 Request this offer



[Code Offers](#) > Distributed detection of SLA violations

> Distributed detections of SLA violations

✓ Request this offer

Protocol: [NETCONF](#)

Area: [IRTF](#)

Working Group: [NMRG - Network Management Research Group](#)



Description

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Rersources

Mailing list: dist_sla_detection@ietf.org - https://www.ietf.org/mailman/listinfo/dist_sla_detection

Twitter: [#dist_sla_detection](#)

Facebook: http://www.facebook.com/dest_sla_detection

CodeMatches

- [SmartProbes](#)
- [ManP2P](#)

Social (Facebook, Twitter, etc.) container



Code Offers

Order by: Protocol | [Area](#) | [Release date](#) | [Popularity](#) | [Working Group](#)

> NETCONF - NETwork CONFIguration

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To request an offer, you must first log in to IETF CodeMatch.

User:

Password:

Log in

Cancel

[Forgot password](#) | [Sign up](#)

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> SNMP - Simple Network Management Protocol

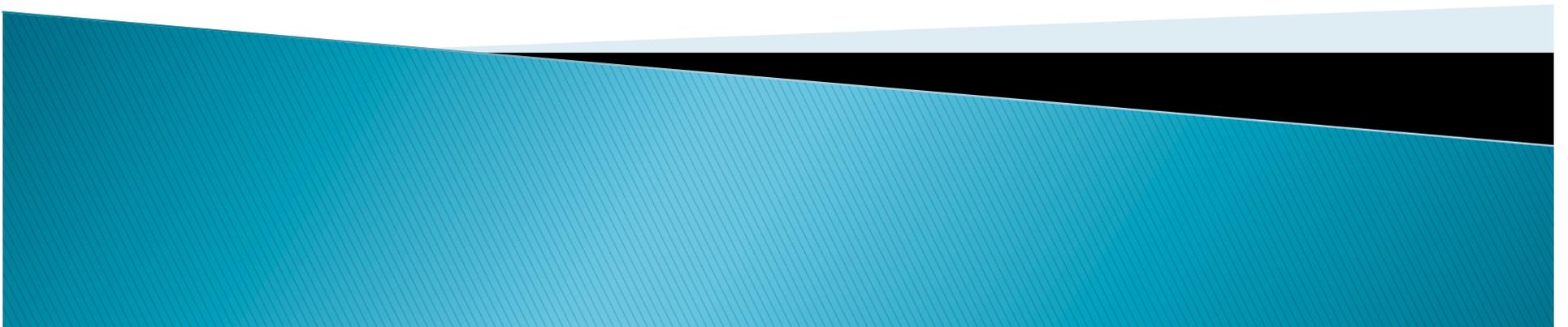
— Distributed detection of SLA violations - July 26, 2014

A paragraph describing the offered implementation. A paragraph describing the offered implementation.

Implementations: [SmartProbes](#) | [ManP2P](#)

Request this offer

Coders' view





Profile

Messages

Log out



Code Offers

Order by: Protocol | [Area](#) | [Release date](#) | [Popularity](#) | [Working Group](#)

> NETCONF - NETwork CONFiguration

— [Distributed detection of SLA violations](#) - July 26, 2014

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MyCodeMatches

Order by: Codename | [Protocol](#) | [Area](#) | [Working Group](#)



Codename by [Coder](#)

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SmartProbes by [Peter Jedi](#)

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Code Offer: [Distributed dection of SLA violations](#) Protocol: [NETCONF](#) Area: [IRTF](#) Working Group: [NMRG](#)



SmartProbes

By: [Peter Jedi](#)

Shepher: [John Paul](#)

Code Offer: [Distributed detection of SLA violations](#)

Protocol: [NETCONF](#)

Area: [IRTF](#)



Description

A paragraph describing the implementation that's being carried out. A paragraph describing the implementation that's being carried out. A paragraph describing the implementation that's being carried out. A paragraph describing the implementation that's being carried out. A paragraph describing the implementation that's being carried out.

Rersources

GitHub: <https://github.com/ufrgs-hyman/meican>

Wiki: <http://wiki-redes.inf.ufrgs.br/SmartProbes>

Google Drive: <http://drive.google.com/SmartProbes>

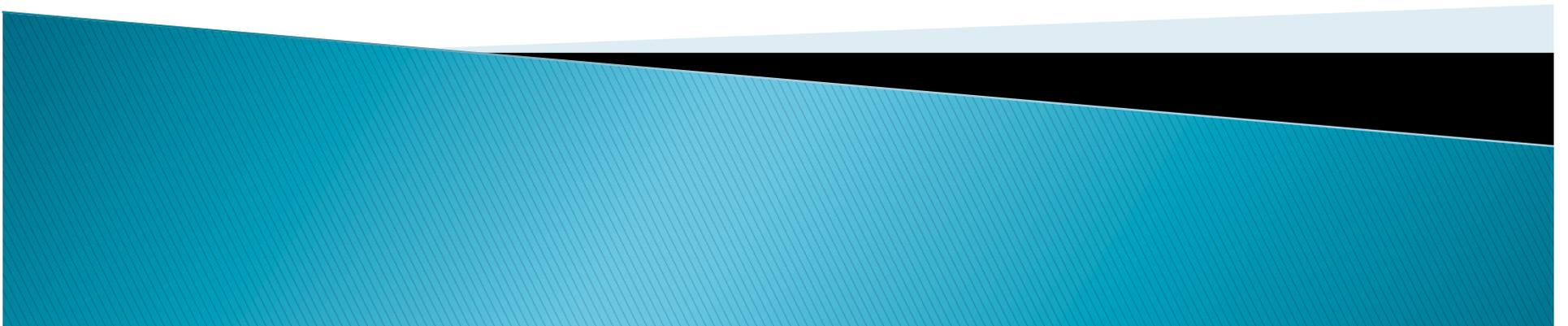
Mailing list: smartprobes@ietf.org - <https://www.ietf.org/mailman/listinfo/smartprobes>

Twitter: [@smartprobes](#), [#smartprobes](#)

Facebook: <http://www.facebook.com/smartprobes>

Social (Facebook, Twitter, etc.) container

Shepherds' view





CodeMatches I'm shepherding

Order by: Codename | [Protocol](#) | [Area](#) | [Working Group](#)



Codename by [Coder](#)

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Code Offer: [Code Offer](#) Protocol: [Protocol](#) Area: [Area](#) Working Group: [Working Group](#)

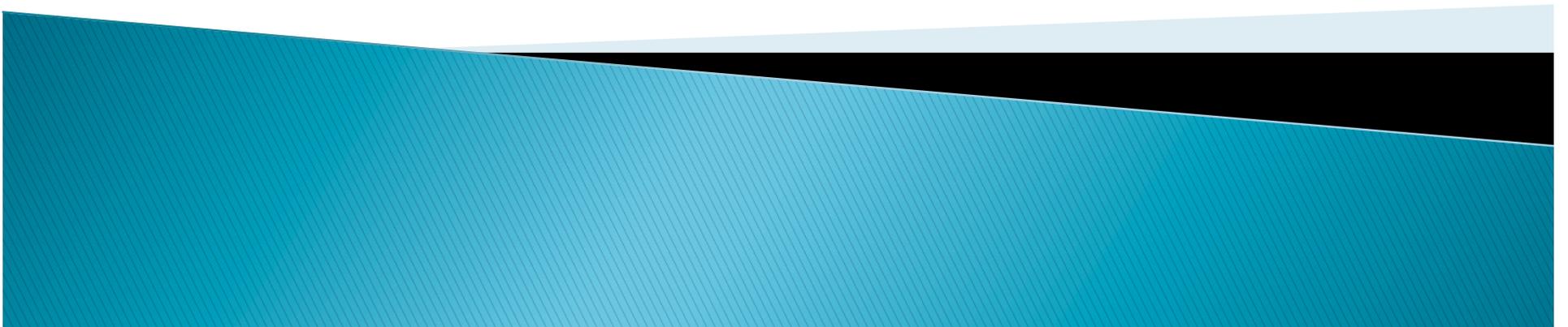


SmartProbes by [Peter Jedi](#)

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Code Offer: [Distributed dection of SLA violations](#) Protocol: [NETCONF](#) Area: [IRTF](#) Working Group: [NMRG](#)

Working groups' view





MyCodeMatches



CodeMatches I'm shepherding



My Code Offers



My Code Offers

Order by: Code Offer name | [Protocol](#) | [Area](#) | [Working Group](#)

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A paragraph describing the offered implementation. A paragraph describing the offered implementation.

CodeMatches: [SmartProbes](#) | [ManP2P](#)



Edit



Remove

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A paragraph describing the offered implementation. A paragraph describing the offered implementation.

CodeMatches: [SmartProbes](#) | [ManP2P](#)



Edit



Remove

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A paragraph describing the offered implementation. A paragraph describing the offered implementation.

CodeMatches: [SmartProbes](#) | [ManP2P](#)



Edit



Remove



Add Code Offer

Contributors

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- ▶ Matthias Waehlich
- ▶ Internet Society



Questions?

