



# IETF-95 (Buenos aires) ANIMA WG Meetings (Autonomic Networking Integrated Model and Approach)

Monday, 17:40-19:40, Afternoon Session III, Buen Ayre B

Thursday, 16:20-17:20, Afternoon Session II, Atlantico C

Last update: April. 4<sup>th</sup>, 2016

# Note Well



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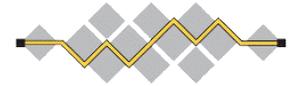
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- Any IETF mailing list, including the IETF list itself, any working group or design team list, or any other list functioning under IETF auspices
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- The RFC Editor or the Internet-Drafts function

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# Before begin the meeting<sup>I E T F</sup>

- Hope you noted the Note Well
- Blue sheets
- Need Jabber scribe(s)
- Need minutes takers
- Remote participation

<https://www.ietf.org/meeting/95/remote-participation.html>

- Slides

<https://datatracker.ietf.org/meeting/95/materials.html#anima>



# Before begin the meeting

- Mailing List:

[anima@irtf.org](mailto:anima@irtf.org)

<https://www.irtf.org/mailman/listinfo/aniam>

- WG co-chairs:

- Sheng Jiang

- Toerless Eckert

- WG web page:

<https://datatracker.ietf.org/wg/anima>

# Meeting Agenda



- Monday (April 4<sup>th</sup>, 2016) 2-hour session:  
17:40-19:40 Afternoon Session III, Buen Ayre B
  1. WG Dash - 5 min  
17:40 - 17:45, by co-chairs
  2. ANIMA Generic Signaling (Design team) - 20 min  
17:45 - 18:05, by Bing Liu, [draft-ietf-anima-grasp](#)
  3. ANIMA Auto Bootstrapping (Design team) - 15 min  
18:05 - 18:20, by Max Pritikin, [draft-ietf-anima-bootstrapping-keyinfra](#)
  4. Autonomic Control Plane - 20 min  
18:20 - 18:40, by Michael Behringer, [draft-ietf-anima-autonomic-control-plane](#)
  5. Reference model - 40 min  
18:40 - 19:20, by Michael Behringer, [draft-ietf-anima-reference-model](#)
  6. Autonomic Prefix Management in Large-scale Networks - 10 min  
19:20 - 19:30, by Sheng Jiang, [draft-ietf-anima-prefix-management](#)
  7. An open source implementation of SNBI & ACP - 5 min  
19:30 - 19:35, by Toerless Eckert
  8. Using Autonomic Control Plane for Stable Connectivity of Network OAM - 5 min  
19:30 - 19:40, by Toerless Eckert, [draft-ietf-anima-stable-connectivity](#)

# Meeting Agenda (Cont.)



- Thursday (April 7<sup>th</sup>, 2016) 1-hour session:  
16:20-17:20 Afternoon Session II, Atlantico C
  1. On-site progress update for WG documents - 5 min  
16:20 - 16:25
  2. \* Autonomic Function Lifecycle Management - 10 min  
16:25 - 16:35, by Pierre Peloso, [draft-peloso-anima-autonomic-function](#)
  3. \* Autonomic Functions Coordination - 10 min  
16:35 - 16:45, by Laurent Ciavaglia, [draft-ciavaglia-anima-coordination](#)
  4. \* Information and Knowledge exchange in Autonomic Networks - 10 min  
16:45 - 16:55, by Laurent Ciavaglia, [draft-ciavaglia-anima-knowledge](#)
  5. \* Autonomic Network Intent Concept and Format - 10 min  
16:55 - 17:05, by Jeferson C Nobre, [draft-du-anima-an-intent](#)
  6. \* Information Distribution over GRASP- 10 min  
17:05 - 17:25, by Bing Liu, [draft-liu-anima-grasp-distribution](#)
  7. Summary & ANIMA future activities - 5 min  
17:25 - 17:20, by co-chairs

\* mean the non-chartered work items.

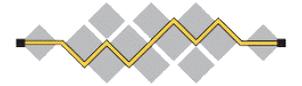
# WG Milestone Status



- WG Documents

- [draft-ietf-anima-gdn-protocol\\_04](#) (Adopted Aug 2015)  
Next Milestone: Apr 2016, Submit discovery and negotiation protocol(s) to IESG
- [draft-ietf-bootstrapping-keyinfrastructures\\_02](#) (Adopted Aug 2015)  
Next Milestone: Apr 2016, Submit bootstrap a trust infrastructure solution to IESG
- [draft-ietf-anima-autonomic-control-plane\\_02](#) (Adopted Aug 2015)  
Next Milestone: Sep 2016, Submit autonomic control plane solution to IESG

# WG Milestone Status (2)



- Documents adopted since last meeting
  - [draft-ietf-anima-stable-connectivity](#) (Adopted Dec 2015)  
Next milestone: Sep 2016, Submit the two validation drafts to IESG (Informational)
  - [draft-ietf-anima-prefix-management](#) (Adopted Dec 2015)  
Next milestone: Sep 2016, Submit the two validation drafts to IESG (Informational)
  - [draft-ietf-anima-reference-model](#) (Adopted Dec 2015)  
Next milestone: Dec 2016, Submit reference model to IESG (Informational)

# ANIMA WG Info

- More discussion will be taken into ANIMA mail list ([anima@ietf.org](mailto:anima@ietf.org))
- Chairs can be reached by [anima-chairs@tools.ietf.org](mailto:anima-chairs@tools.ietf.org)
- Next meeting
  - 96<sup>th</sup> IETF, July 17-22, 2016, in Berlin, Germany
  - Interim meeting may be arranged
- Next Chartered Milestone:
  - Apr 2016 Submit discovery and negotiation protocol(s) to IESG (Standards Track)
  - Apr 2016 Submit bootstrap a trust infrastructure solution to IESG (Standards Track)
- Proposals without IPRs may be favored over proposals with IPRs by the WG

# Reading List



- Background
  - RFC7575, Autonomic Networking: Definitions and Design Goals
  - RFC7576, General Gap Analysis for Autonomic Networking
- WG Documents
  - [draft-ietf-anima-gdn-protocol](#)
  - [draft-ietf-bootstrapping-keyinfrastructures](#)
  - [draft-ietf-anima-autonomic-control-plane](#)
  - [draft-ietf-anima-stable-connectivity](#)
  - [draft-ietf-anima-prefix-management](#)
  - [draft-ietf-anima-reference-model](#)

# Reading List (2)



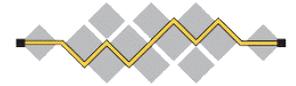
- Individual Documents
  - [draft-ciavaglia-anima-coordination](#)
  - [draft-ciavaglia-anima-knowledge](#)
  - [draft-du-anima-an-intent](#)
  - [draft-liu-anima-grasp-distribution](#)
  - [draft-liu-anima-grasp-api](#)
  - [draft-peloso-anima-autonomic-function](#)
  - [draft-richardson-anima-state-for-joinrouter](#)
  - [draft-strassner-anima-control-loops](#)

# Recharter

- In current charter, as milestone:
  - Dec 2016, recharter to refocus scope, or close
- We have been running second sessions as a forum for potential future work items
  - AN Intent, distribution, coordination, exchanging, ...
  - Autonomic Service Agents
- Calling for more potential work items

# AN Workshop

- “Research and Standards for Self-Managing 5G Networks” workshop
- European Conference on Networks & Communications (EuCNC 2016), Athens, Greece, June 27-30, 2016
  - <http://www.eucnc.eu/>
  - as part of the stream “Standardisation”, merged in a half-day workshop with “Network Machine Learning”
- To collect and build
  - A comprehensive roadmap for autonomic networking industry, articulating the research, development and standardization efforts,
  - New research items for study in the IRTF (NMRG and other RGs),
  - Propositions for evolution of the ANIMA WG recharter,
  - Coordinated research efforts, collaborations, and initiatives for research and standards, validation in the frame of the EU 5GPPP, IRTF, IETF and other relevant SDOs and open source projects/communities.



# Self-organizing in ETSI NGP I E T F®

- ETSI NGP ISG
  - Next Generation Protocol Industry Specification Group
- Self-organizing Control & Management Planes (work item)
  - Calling individual contribution on autonomic
  - Introducing machine learning as mechanism for autonomic decision
  - <https://portal.etsi.org/tb.aspx?tbid=844&SubTB=844>