

# ns-3 maintainers meeting

**Jan 6, 2021**

# September meeting minutes

## 2020-09-25 ns-3 Developer Meeting

### Status Updates

#### SPI membership

- 14 maintainers approved applying
- TomH applied
- Will be considered at SPI Board 12 Oct 2020
- Goals
  - More flexible management of funds
  - Legal advice: GPL, trademarks
- Contributors to ns-3 will be eligible to join SPI as contributing member, participate in government

#### NSF Project

- Awarded to UW and GT
  - Returning members
    - Brian Swenson, GTRI
    - Jared Ivey, GTRI
  - Last award ns-3 can apply for in this program
- Scalable wireless simulation
  - Coordinate with S3, SNL
- Outreach
- mmWave backhaul
- Looking for staff
  - Must be conducted in the US
  - Exchange, UW, GT

#### Workshop Reports

- NSF Wireless
- SIGCOM
  - Courseware
  - ns-3 needs to develop better course materials
- Broader wireless interest than we've been aware of in the past
  - NetMap, DPDK
  - Augment Powder testbed

### Agenda

Time	Topic / Presenter
	<ul style="list-style-type: none"><li>• various status updates</li><li>• close out any ns-3.32 lingering items</li><li>• possible ns-3.33 release in November?</li><li>• IETF hackathon November 9-13</li><li>• lingering technical or admin issues (e.g. whitespace cleanup)</li></ul>

### Attendees

- Stefano Avallone
- Peter Barnes
- Biljana Bojovic
- Matteo Drago
- Tom Henderson
- Mattia Lecci
- Davide Magrin
- Natale Patriciello
- Rediet
- Tommaso Pecorella
- Mohit Tahlilani
- Tommaso Zugno

### Documents and Links

- [nsmam wiki page](#)

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# September meeting minutes (cont.)

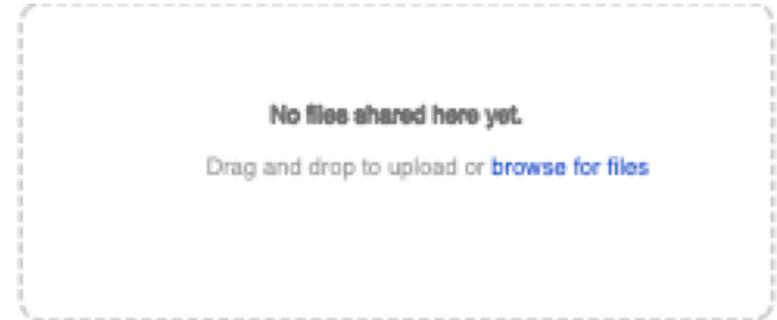
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## GCI

- Google not holding GCI this year
- Not clear why

## WNS3 2021

- Virtual again, June 2021
- TPC Co-Chairs: Michele Polese and Stefano Avallone



## Action Items



## ns-3 Consortium

- Met over summer
- Attempt to be more active, working groups
  - Develop (short) training videos, YouTube and Vimeo
  - Validation, data sheets on specific technologies
  - Education materials

## IETF hackathon

- Growing usage of ns-3 within IETF
- Virtual Hackathon, 2020-11-09 though -13
  - Needs a champion with an idea, gather participants

# Agenda

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- Introductions and 2021 plans
- Administrative updates
  - SPI and consortiums
  - Commercial use of ns-3
- 2021 events
  - GSoC 2021 (19 February application)
  - IETF virtual hackathon, March 1-4
  - ACMSE tutorial (April 15-17), possibly others and virtual training
  - WNS3 (June 21-25)
- ns-3.34 plans
- Making progress on software issues with large scope

# Introductions

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- Tom's 2021 activities
  - Funded work
    - NIST public safety models for 5G
    - NSF project (scalable wireless, testbed alignment, education and sustainment)
    - CableLabs consulting (DOCSIS models)
  - Open source work
    - Clean out trackers and make releases
    - Recruit more maintainers
    - Repair and refresh bake
    - Repair and refresh DCE
    - Animation, documentation, usability improvements

# SPI updates

- Officially a member project, with a member page and PayPal button



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## SPI associated projects

We are proud to be able to list the following 40 free and open source projects as being associated with SPI.

0 A.D.	<a href="#">ankur.org.in</a>	<a href="#">aptosid</a>	<a href="#">Arch Linux</a>	<a href="#">Arch Linux 32</a>	<a href="#">ArduPilot</a>	<a href="#">Chakra</a>
<a href="#">Debian</a>	<a href="#">FFmpeg</a>	<a href="#">Fluxbox</a>	<a href="#">Gallery</a>	<a href="#">Ganeti</a>	<a href="#">Glucosio</a>	<a href="#">GNUstep</a>
<a href="#">GNU TeXmacs</a>	<a href="#">haskell.org</a>	<a href="#">LibreOffice</a>	<a href="#">MinGW</a>	<a href="#">NTPsec</a>	<a href="#">ns-3</a>	<a href="#">OFTC</a>
<a href="#">Open Bioinformatics Foundation</a>	<a href="#">Open MPI</a>	<a href="#">Open Voting Foundation</a>	<a href="#">OpenEmbedded</a>	<a href="#">OpenSAF</a>	<a href="#">OpenVAS</a>	<a href="#">OpenWrt</a>
<a href="#">OpenZFS</a>	<a href="#">Performance Co-Pilot</a>	<a href="#">PostgreSQL</a>	<a href="#">Privoxy</a>	<a href="#">SproutCore</a>	<a href="#">Swathanthra Malayalam Computing</a>	<a href="#">systemd</a>
<a href="#">The Mana World</a>	<a href="#">translatewiki.net</a>	<a href="#">Tux4Kids</a>	<a href="#">X.Org</a>	<a href="#">YafaRay</a>		

# SPI and consortia

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- SPI roles
  - General funding account (donations and GSoC payments)
  - License, copyright, trademark help
  - Open source governance, problem resolution
- Univ. of Washington ns-3 Consortium roles
  - organize WNS3
  - funding for hardware and small development projects
  - working groups around **research, education, validation**
- Other industry consortia are forming around ns-3

# 2021 events

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- GSoC 2021 (19 February application)
  - Tommaso and Mohit will be Org Admins
- IETF virtual hackathon, March 1-4
- ACMSE tutorial (April 15-17), possibly others and virtual training
- WNS3 (June 21-25)
  - What can we do to improve the virtual WNS3?
- What other events can possibly attract new contributors?

# ns-3.34 release (date?)

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- Finish GSoC/NSoC merges
  - Traffic control (Bhaskar)
  - TCP Prague, AccECN, ECN++ (Deepak)
  - Flent (Harsha)
  - NetDeviceState (Ananth)
- **wifi:** 802.11ax and PHY refactoring, rate control
- **core:** MakeEvent from lambdas, std::function callbacks, Ptr reference saving, trickle timer, others
- **code reviews needed:** full duplex CSMA, phased array antenna, complex waveform generator, hexagonal position allocator, BBRv1, TCP FACK, DSACK, RACK
  - two week review cycles?

# Issues with larger scope

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- Making progress on software issues with large scope
  - Local node clocks
  - Whitespace or other code cleanup
  - Performance profiling
  - Changes to support more parallelization
  - Build system (CMake, Windows and IDE support)
  - Coding style/C++ language support