About SIG-PMV

The GÉANT PMV SIG (SIG-PMV) is focusing on performance monitoring and verification topics from both a research and operations perspective, and in identifying and establishing best practises for wired/wireless (campus) networks, and the networks that connect them. SIG-PMV activities are open to all interested parties within the GÉANT community (NRENs, universities, research organizations, etc) and international organisations it collaborates with e.g. ESnet, Internet2, user communities etc.

At present there is a wide range of PMV tools available, and their usage varies between communities, based on the requirements, levels of knowledge, and other factors. Examples include use of open source tools such as iperf, commercial tools integrated into vendor platforms, bespoke packages such as perISONAR, and ‘lightweight’ community initiatives such as the RIPE Atlas project. New work is also emerging in areas such as crowdsourced wireless performance monitoring.

It is thus desirable and timely to work on identifying PMV approaches for a range of scenarios, to make it simpler for end user communities or network operators to ‘drop in’ appropriate solutions on demand.

The activities of SIG-PMV are intended to be complementary to eduPERT (GN4-2-SA3T5), and are specifically open to participation from those outside the formal GÉANT project.

The full terms of reference as approved by the GÉANT Community Committee are [available](https://www.g-act.net/sites/default/files/documents/10-2015-PMV_STeering%20Committee%20TR.pdf).

The access to the eduPERT Knowledge Base find here [here](https://www.eduPERT.net).

The main topics covered by the new SIG would include, but would not be limited to:

1. To facilitate knowledge exchange and collaboration in the area of Performance Monitoring and Verification (PMV) between PMV tool developers, network researchers, and network operators involved in the integration and optimization of PMV software, hardware, tool kits and processes/procedures, with the goal of fostering the development and improvement of appropriate PMV best practices for a variety of scenarios;
2. To identify those scenarios by exploring and getting an understanding of the context in which research and education communities are currently using the networks provisioned by academic network operators, NOCs, etc, specifically where end-to-end performance is critical for those applications. This may include building a taxonomy and/or formal descriptions of network services, classifying groups of services and/or networks into a manageable set of scenarios for further analysis;
3. To determine and discuss how the performance of such services is currently being monitored, e.g. through a survey of appropriate communities;
4. To determine how to enhance and validate such monitoring, documenting, testing and disseminating the resulting best practises for future reference, e.g. through the evolution of appropriate scenario-based PMV solutions;
5. To offer a forum for exchanging and promoting ideas, experience and knowledge on PMV tools, functionality, work flows, procedures for performance verifications and best practises, thus making communication between all interested parties easier;
6. To enable dialogue with potential private sector and industry/vendor partners or collaborators in the context of PMV;
7. To collaborate with eduPERT (and other PERTs) such that when a use case is presented to SIG-PMV, we can offer potential solutions for given scenarios (which may be multi domain);
8. To identify other appropriate communities with which to liaise, e.g. including but not limited to GÉANT GTS, Operations, and other e-infrastructures such as EGI, EUDAT, and PRACE etc.;
9. To foster face-to-face (online) meetings, providing a breeding ground to discuss, elaborate and disseminate early thoughts, which may be brought in by GN4-2-tasks, by members of the (N)RENs or their university/research organizations, or by international collaborating organizations (such as ESnet or Internet2), that can evolve into projects or services.

Achievements and KPIs

<table>
<thead>
<tr>
<th><strong>1</strong></th>
<th>Conduct a Survey of Performance Monitoring (e2e) and Verification requirements within the GÉANT and eduPERT communities (and international collaborating organisations)</th>
<th>List of responses (#) - Qualitative/Quantitative Analysis, Documented requirements.</th>
<th>Complete</th>
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<tbody>
<tr>
<td><strong>2</strong></td>
<td>Document the scenarios requiring appropriate PMV solutions</td>
<td>Document a number of key scenarios upon which the SIG will study...</td>
<td>Complete</td>
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</tbody>
</table>

Steering Committee

- Tim Chown (Jisc)
- Ivana Golub (PSNC)
- Alan Buxey (MyUniDays)
- Richard Hughes-Jones (GÉANT)
- Susanne Naegele-Jackson (DFN/FAU)
- Pavle Vuleti (AMRES)
- Kurt Baumann (SWITCH)

Meetings

- 6th SIG-PMV Meeting @ Dublin (SIG-PMV)
- 5th SIG-PMV Meeting @ Manchester UK (SIG-PMV)
- 4th SIG-PMV Meeting @ TNC2018 (SIG-PMV)
- 3rd SIG-PMV Meeting @ Copenhagen 2017 (SIG-PMV)
- 2nd SIG-PMV Meeting @ Amsterdam 2017 (SIG-PMV)
- 1st SIG-PMV Meeting @ Zurich 2016 (SIG-PMV)

Space contributors

- Ivana Golub (441 days ago)
- Tim Chown (441 days ago)
- Kurt Baumann (444 days ago)
- Anna Wilson (463 days ago)
- Brook Schofield (492 days ago)
- ...
| 3 | Document initial recommendation(s) for PMV framework(s) /architecture(s) based on the requirements and scenario analysis. | Document initial high-level recommendations for scenario-based PMV solution(s) |