

Just Another Measurement of Extension header Survivability (JAMES)

[draft-vyncke-v6ops-james](#)

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Why JAMES?

- [RFC7872](#): “Observations on the Dropping of Packets with IPv6 Extension Headers in the Real World”.
- JAMES, a different methodology with more recent results.
- Hop-by-Hop Options not usable over the Internet?
- Hot topic in 6man WG:
 - [draft-ietf-6man-hbh-processing-00](#) (IPv6 Hop-by-Hop Options Processing Procedures)
 - [draft-ietf-6man-eh-limits-00](#) (Limits on Sending and Processing IPv6 Extension Headers)
- What about other EHs and some IP protocols ?

ASs revealed

174	4637	8447	34779
267	4755	9498	37100
1299	4788	12129	37271
2497	5511	12414	37684
2828	5603	14061	37708
2914	6453	14103	44684
3257	6461	16276	58461
3320	6762	20473	60011
3356	6895	21283	198644
3491	6939	23889	211722
4134	7195	33764	328578

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Results

- Hop-by-Hop Options... **unreliable** (size 8: 9%, size 256: 2%, size 512: 1%)
- Destination Options:
 - size = 8 or 16 or 24... **pass**
 - size >= 32... **unreliable** (sizes 32...56: 94%, size 64: 46%, size 128: 11%, size 256: 4%)
- Routing Headers:
 - types 0, 1, 4... **unreliable** (resp. 74%, 88% and 79% going through)
 - types 2, 3, 5, 6... **pass**
- Fragment Headers:
 - atomic... **unreliable** (56% going through)
 - non-atomic... **unreliable** (89% going through)
- AH and ESP... **pass**
- No Next Header / Ethernet... **pass**

Operator survey

- 5 minutes of your time:

https://docs.google.com/forms/d/1wzPdS_McuwIhI0c963ZZHO4sd_Cd2IIs0oNBuvGxM_Y/

- Would be really helpful

Thank you !

<https://gitlab.uliege.be/Benoit.Donnet/james>