

CISTER
Research Centre in
Real-Time & Embedded
Computing Systems

Technical Report

**IPDeN: Real-Time deflection-based NoC with
in-order flits delivery (Appendix) (Technical
Report)**

Yilian Ribot*

Geoffrey Nelissen

Eduardo Tovar*

*CISTER Research Centre

CISTER-TR-220403

2022

IPDeN: Real-Time deflection-based NoC with in-order flits delivery (Appendix) (Technical Report)

Yilian Ribot*, Geoffrey Nelissen, Eduardo Tovar*

*CISTER Research Centre

Polytechnic Institute of Porto (ISEP P.Porto)

Rua Dr. António Bernardino de Almeida, 431

4200-072 Porto

Portugal

Tel.: +351.22.8340509, Fax: +351.22.8321159

E-mail: ribot@isep.ipp.pt, gnn@isep.ipp.pt, emt@isep.ipp.pt

<https://www.cister-labs.pt>

Abstract

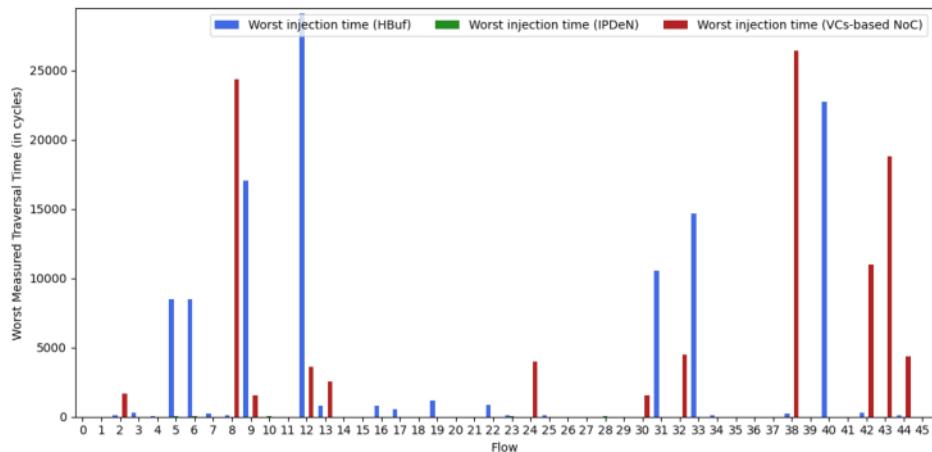


Fig. 1. Worst measured traversal time (Synthetic test case)

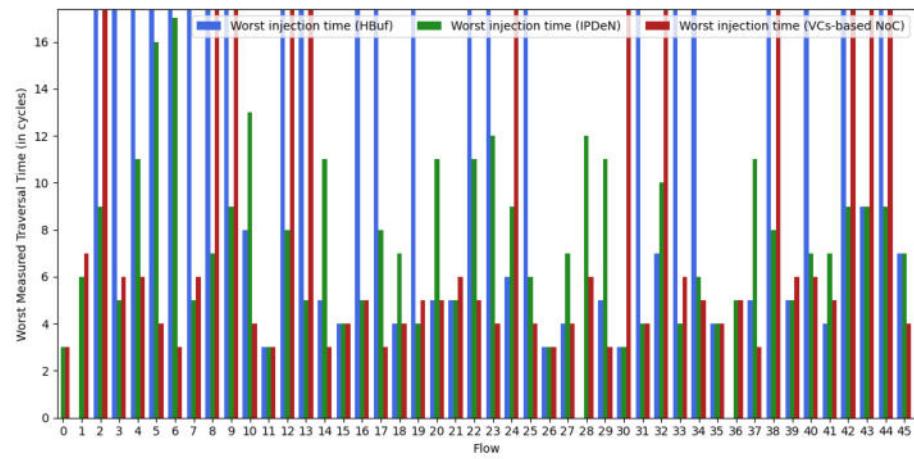


Fig. 2. Worst measured traversal time (Zoom) (Synthetic test case)

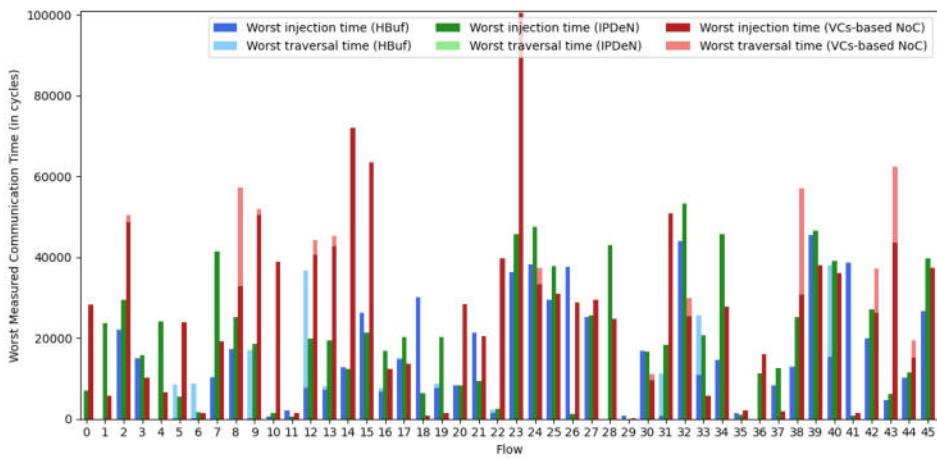


Fig. 3. Worst measured communication time (Synthetic test case)

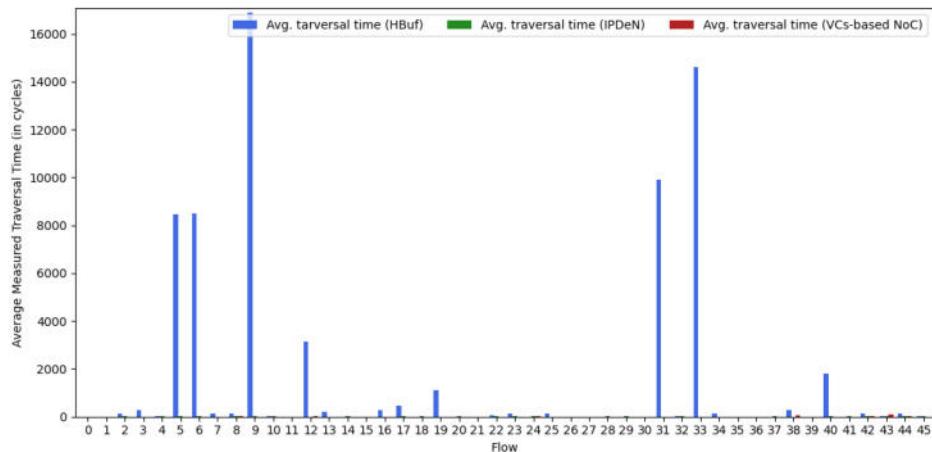


Fig. 4. Average measured traversal time (Synthetic test case)

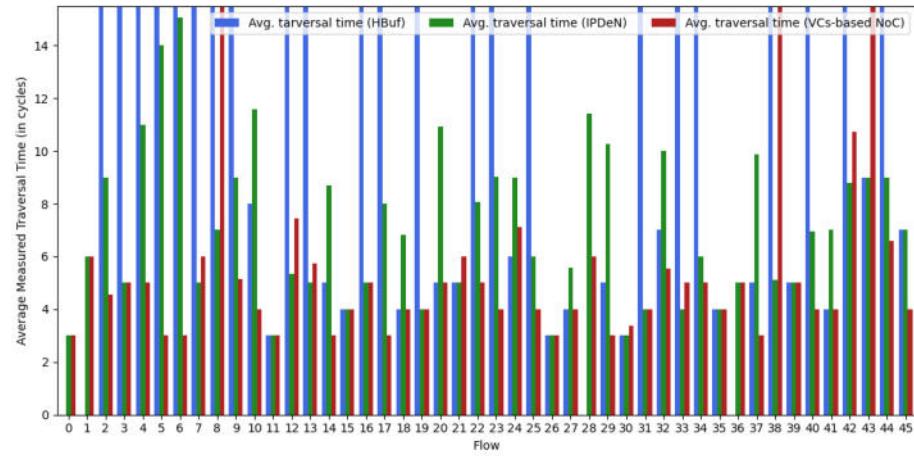


Fig. 5. Average measured traversal time (Zoom) (Synthetic test case)

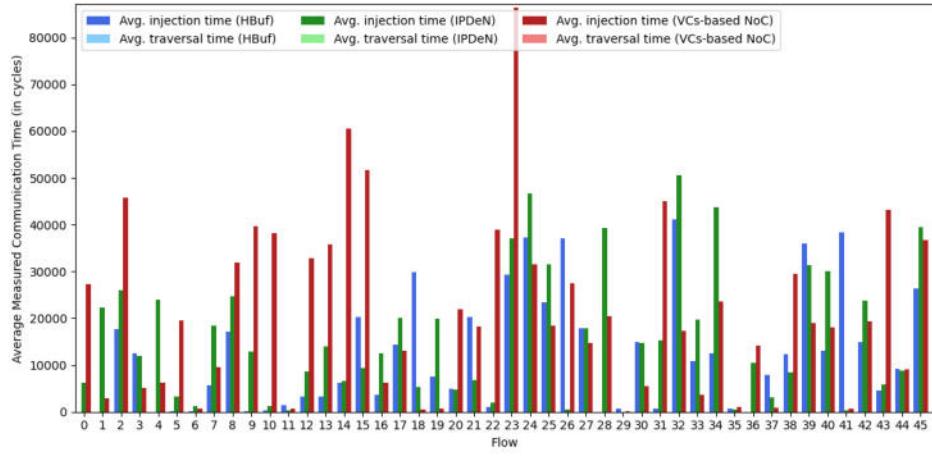


Fig. 6. Average measured communication time (Synthetic test case)

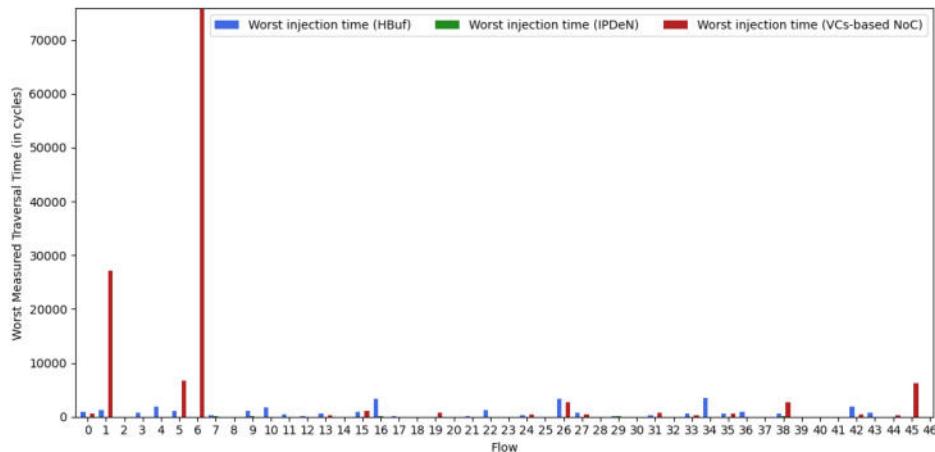


Fig. 7. Worst measured traversal time (Orion test case) 1-5

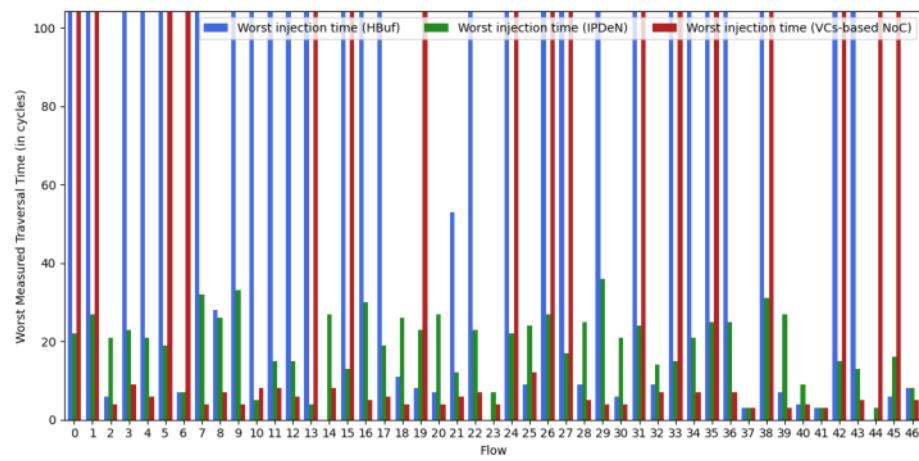


Fig. 8. Worst measured traversal time (Zoom) (Orion test case) 1-5

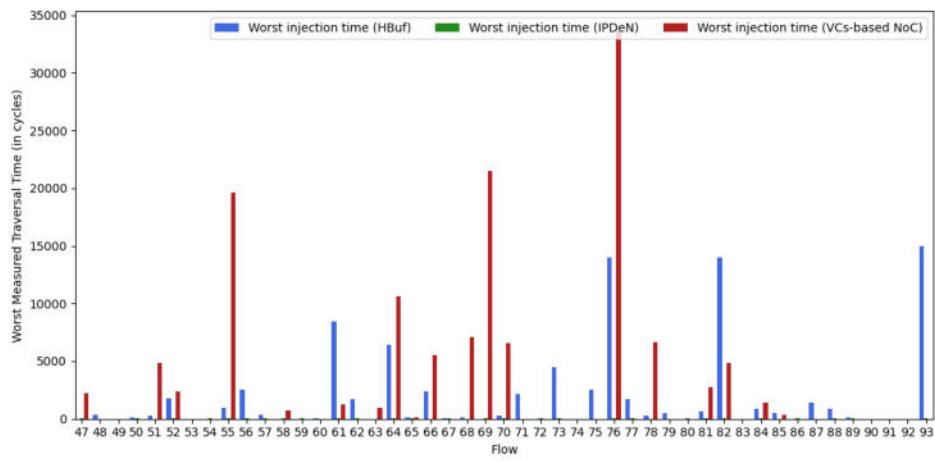


Fig. 9. Worst measured traversal time (Orion test case) 2-5

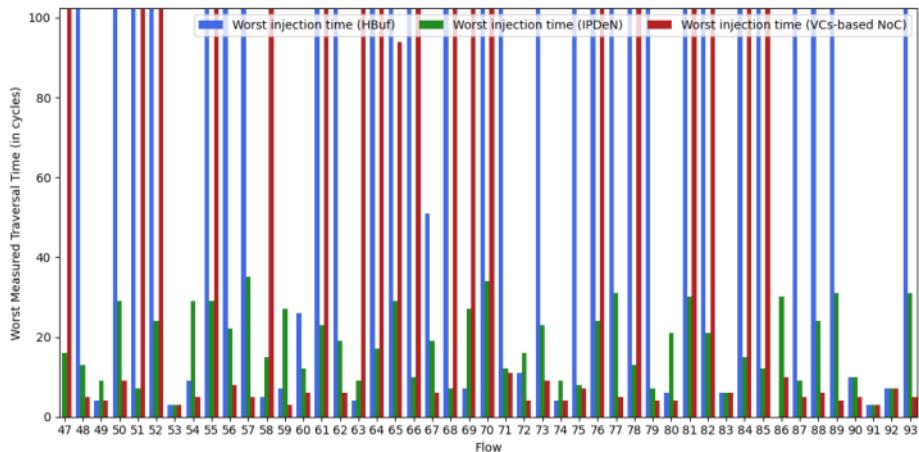


Fig. 10. Worst measured traversal time (Zoom) (Orion test case) 2-5

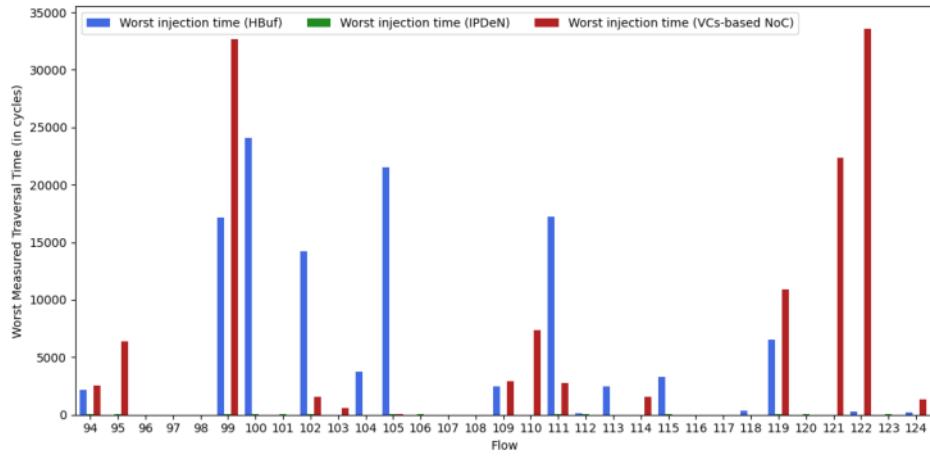


Fig. 11. Worst measured traversal time (Orion test case) 3-5

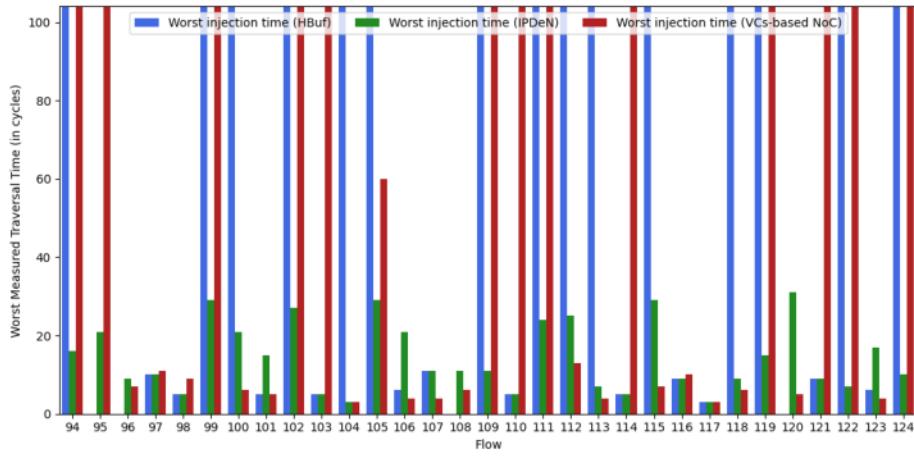


Fig. 12. Worst measured traversal time (Zoom) (Orion test case) 3-5

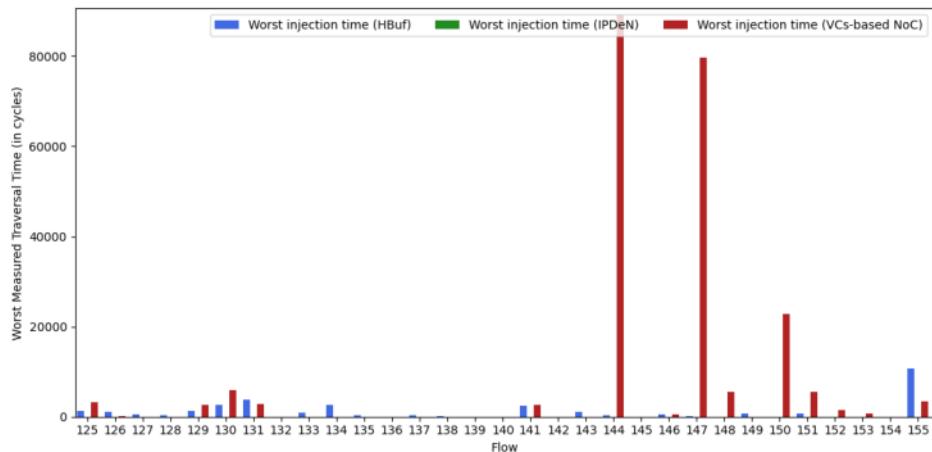


Fig. 13. Worst measured traversal time (Orion test case) 4-5

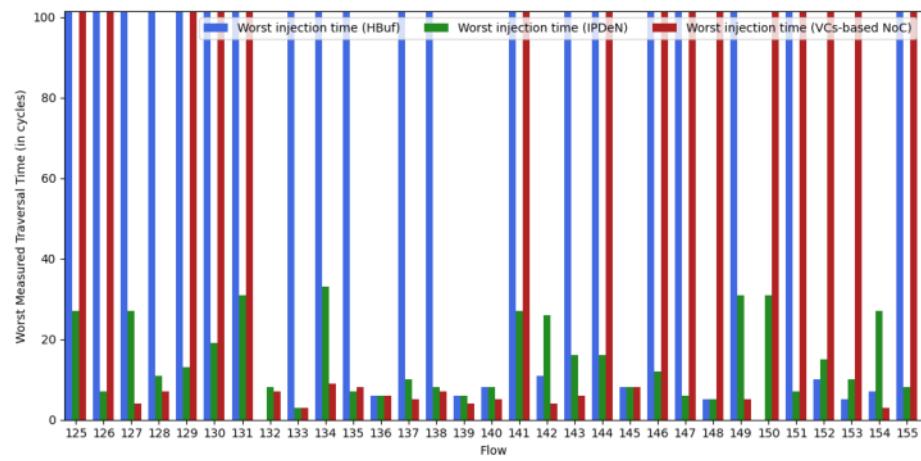


Fig. 14. Worst measured traversal time (Zoom) (Orion test case) 4-5

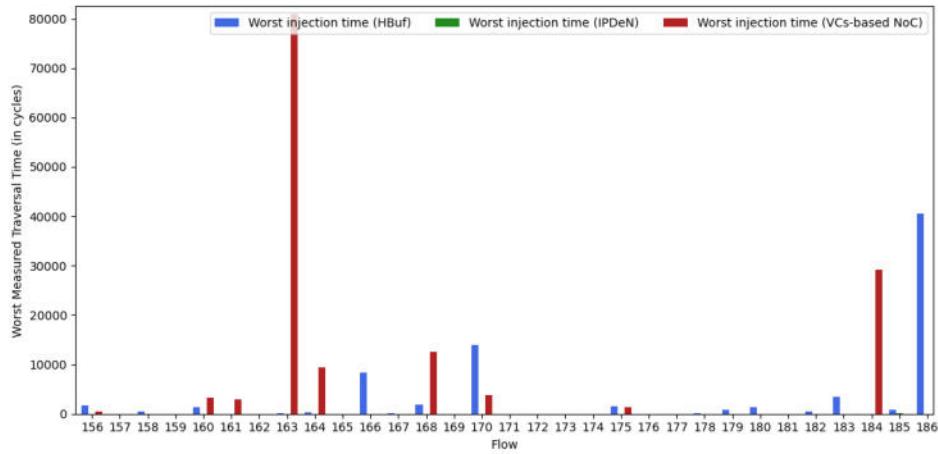


Fig. 15. Worst measured traversal time (Orion test case) 5-5

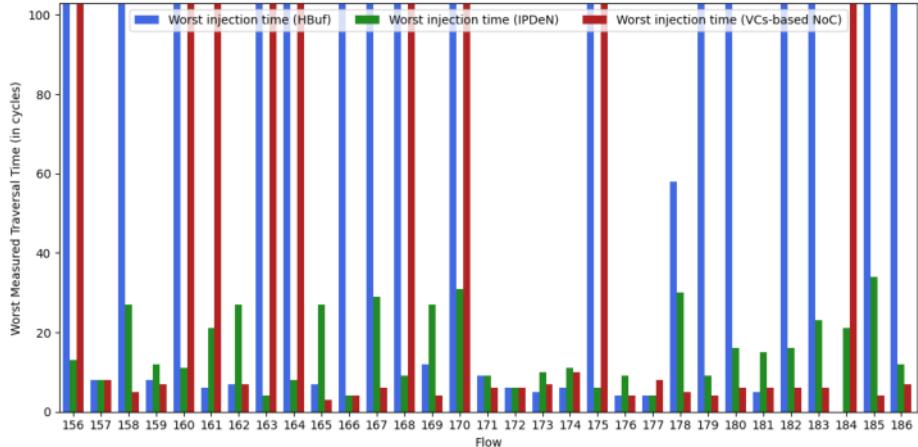


Fig. 16. Worst measured traversal time (Zoom) (Orion test case) 5-5

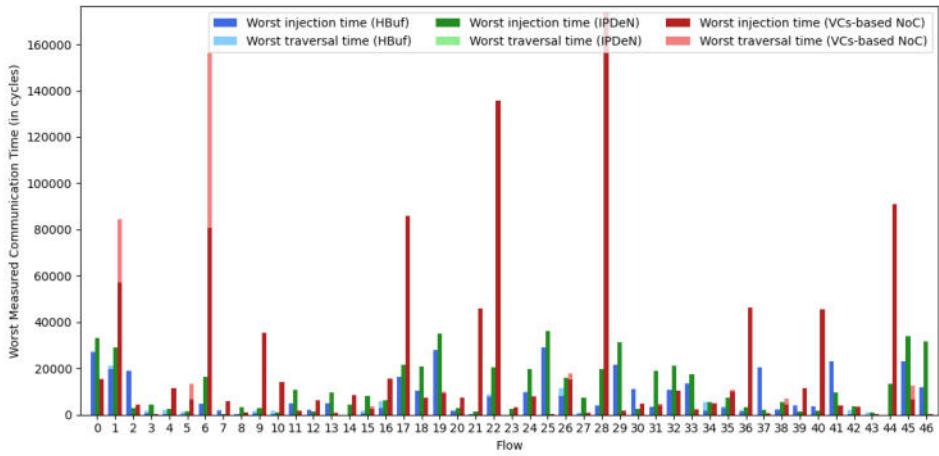


Fig. 17. Worst measured communication time (Orion test case) 1-5

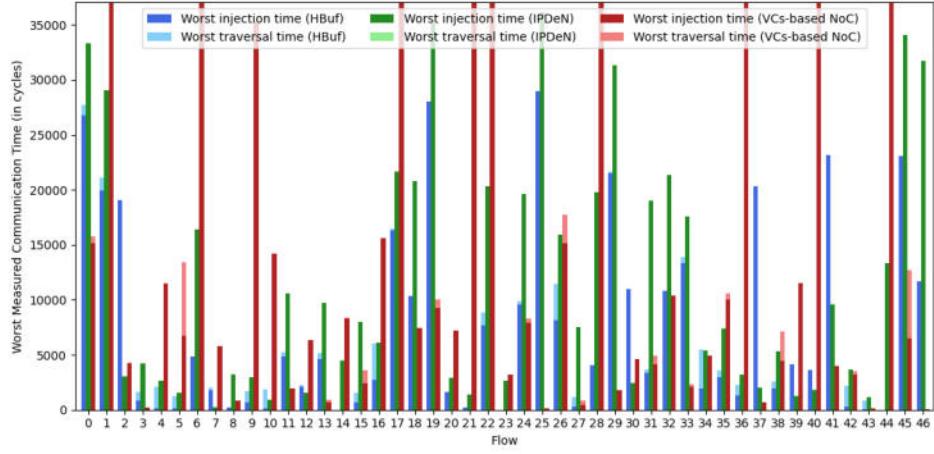


Fig. 18. Worst measured communication time (Zoom) (Orion test case) 1-5

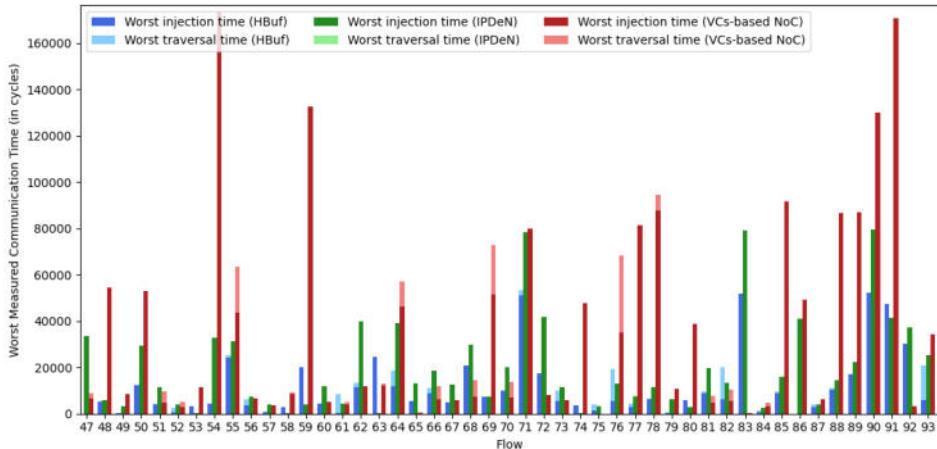


Fig. 19. Worst measured communication time (Orion test case) 2-5

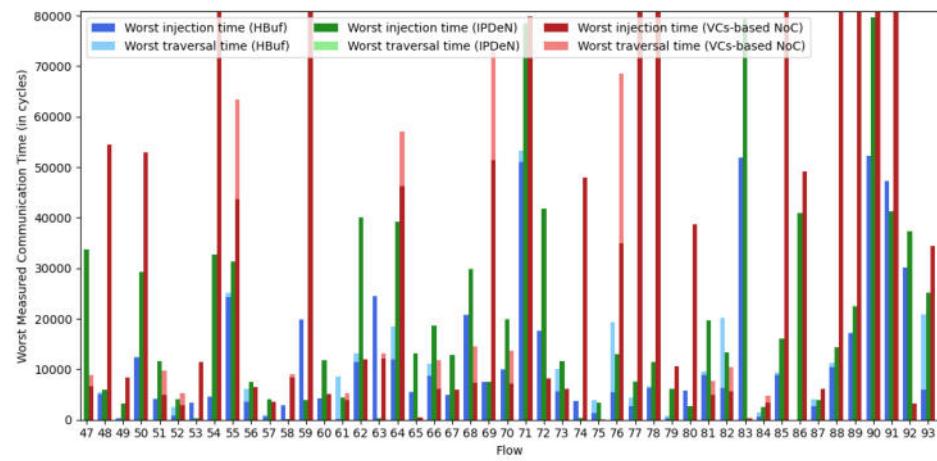


Fig. 20. Worst measured communication time (Zoom) (Orion test case) 2-5

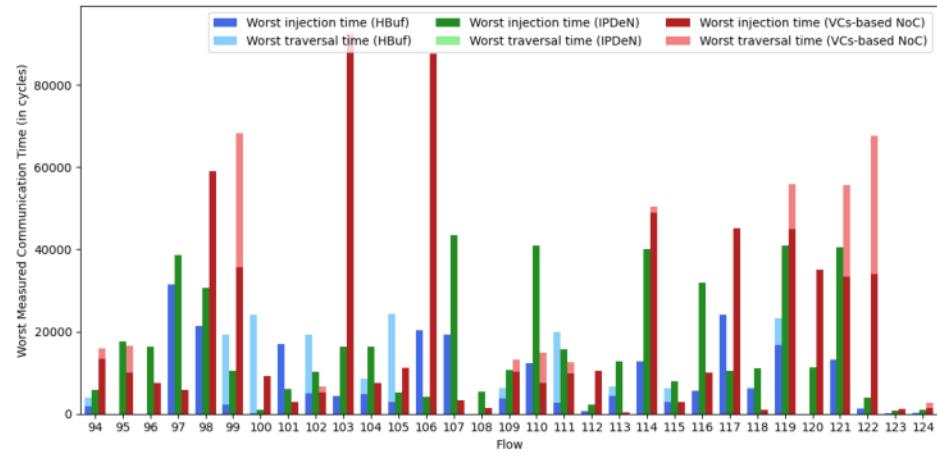


Fig. 21. Worst measured communication time (Orion test case) 3-5

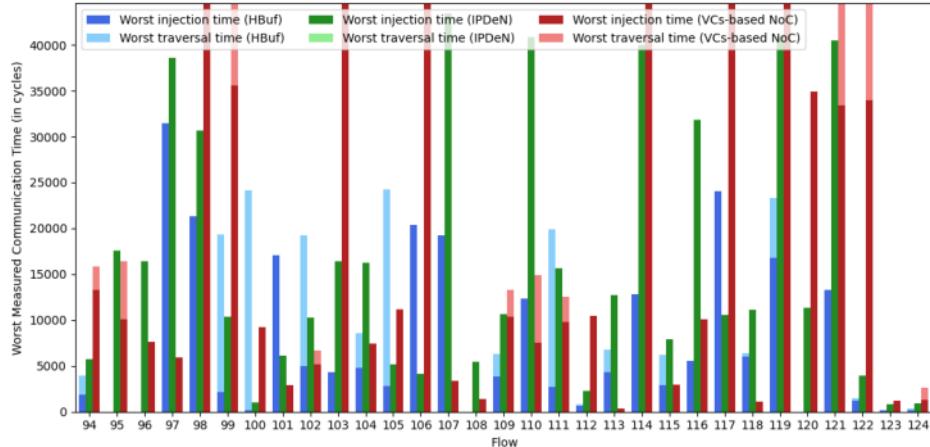


Fig. 22. Worst measured communication time (Zoom) (Orion test case) 3-5

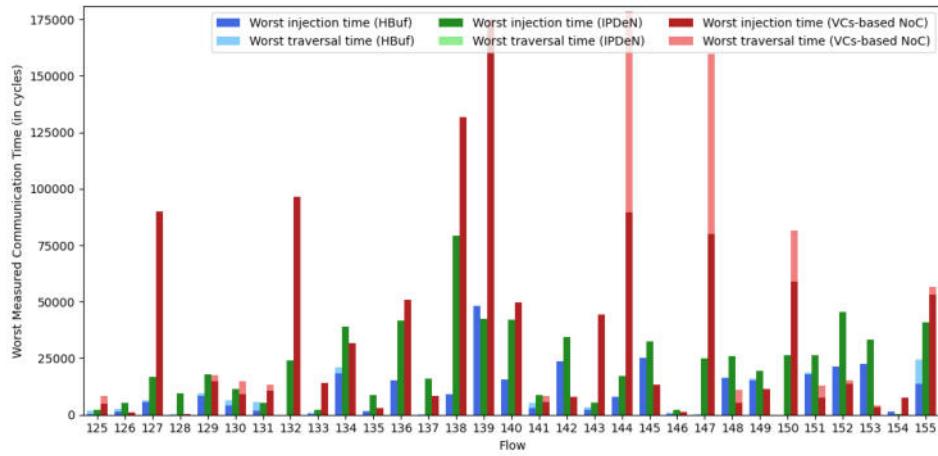


Fig. 23. Worst measured communication time (Orion test case) 4-5

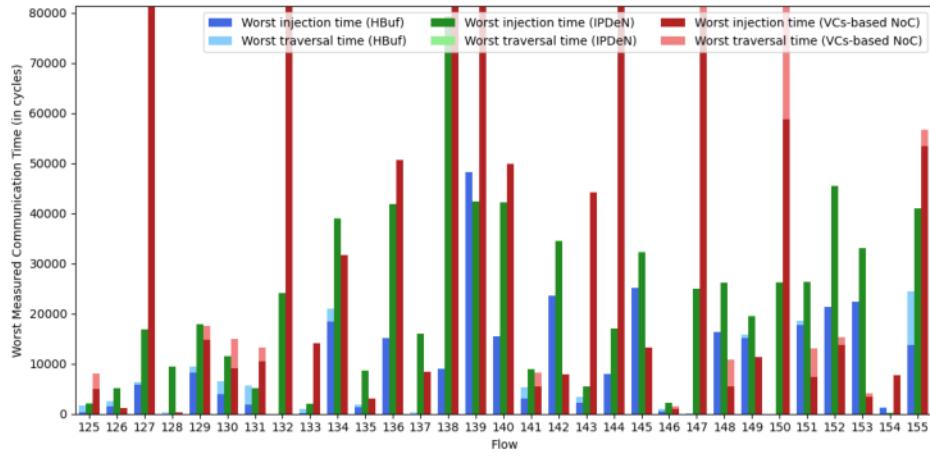


Fig. 24. Worst measured communication time (Zoom) (Orion test case) 4-5

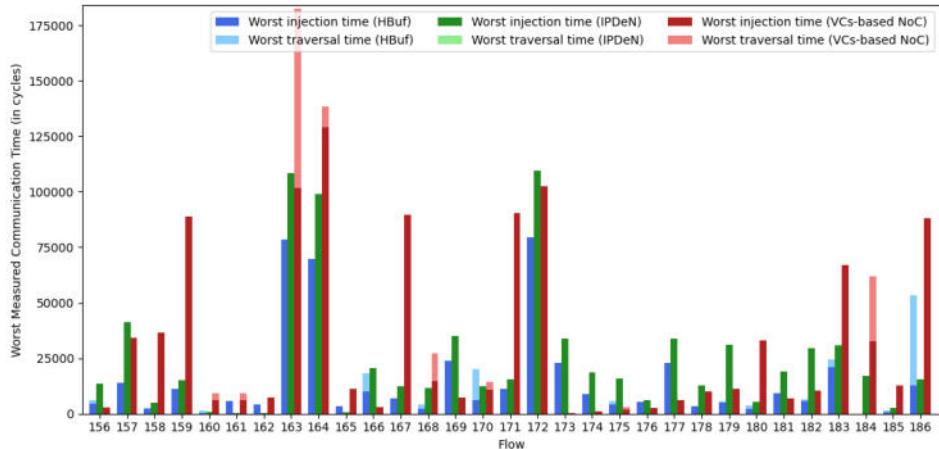


Fig. 25. Worst measured communication time (Orion test case) 5-5

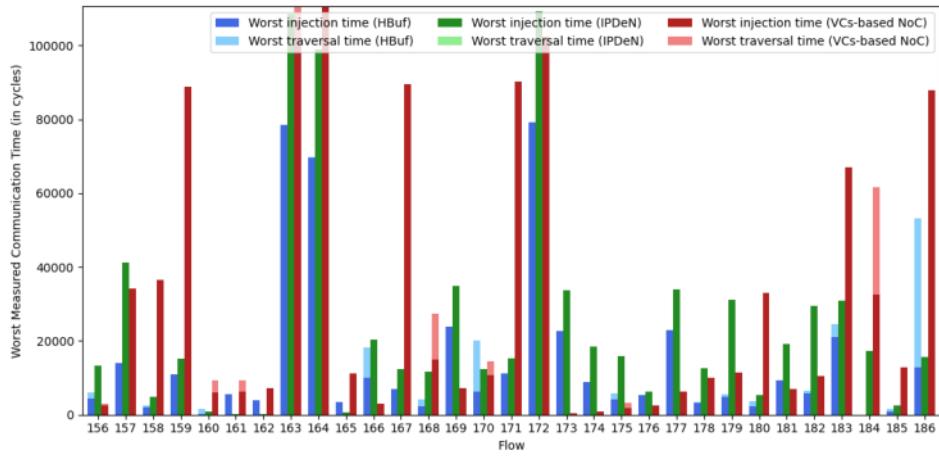


Fig. 26. Worst measured communication time (Zoom) (Orion test case) 5-5

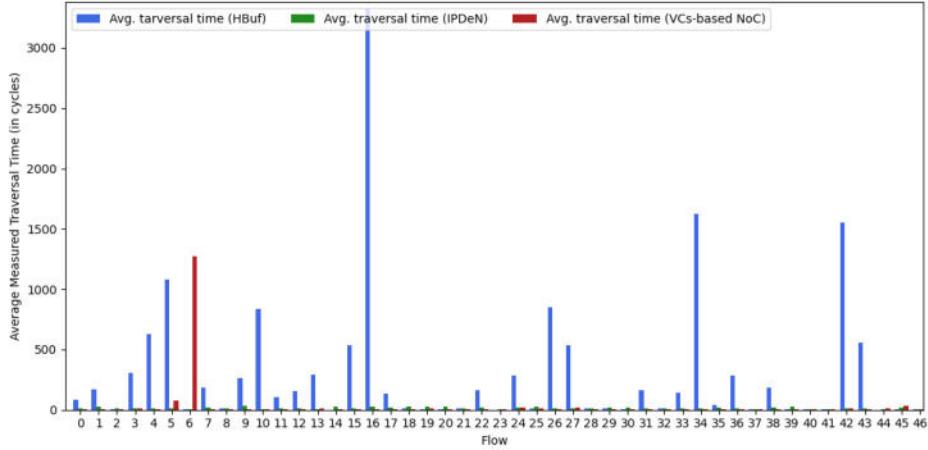


Fig. 27. Average measured traversal time (Orion test case) 1-5

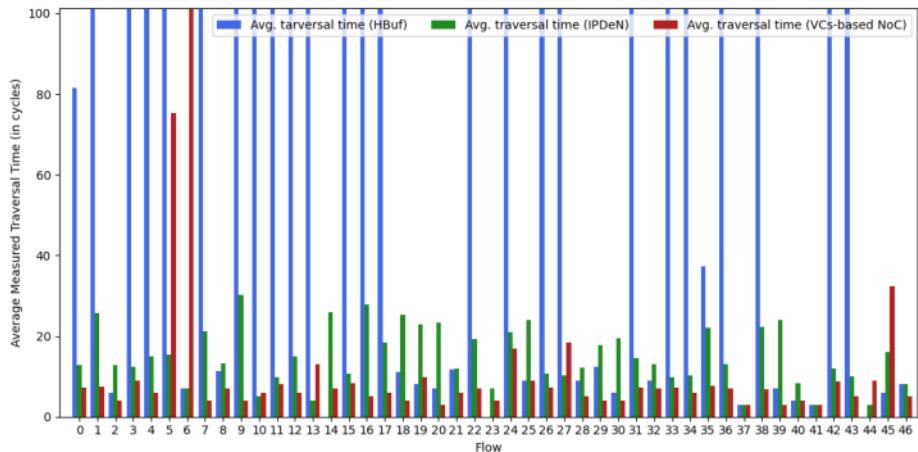


Fig. 28. Average measured traversal time (Zoom) (Orion test case) 1-5

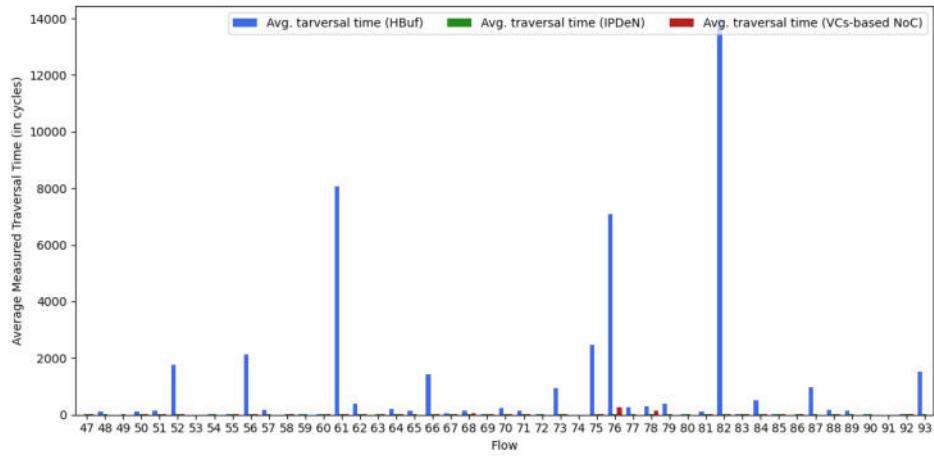


Fig. 29. Average measured traversal time (Orion test case) 2-5

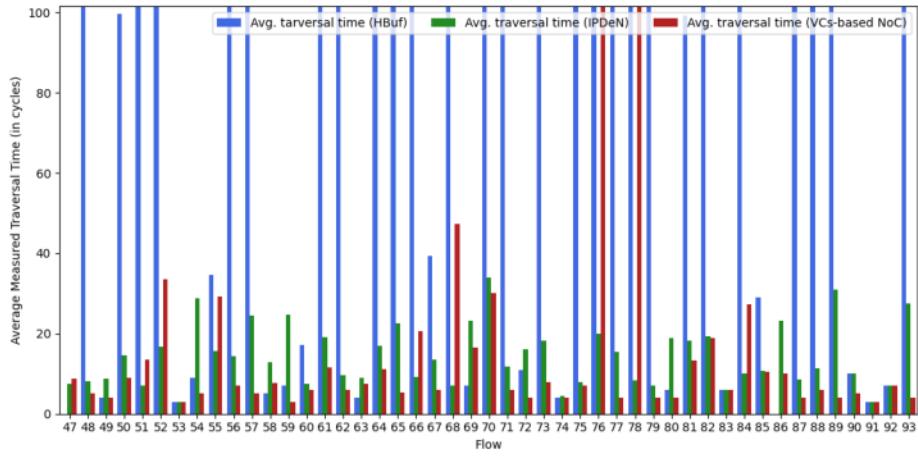


Fig. 30. Average measured traversal time (Zoom) (Orion test case) 2-5

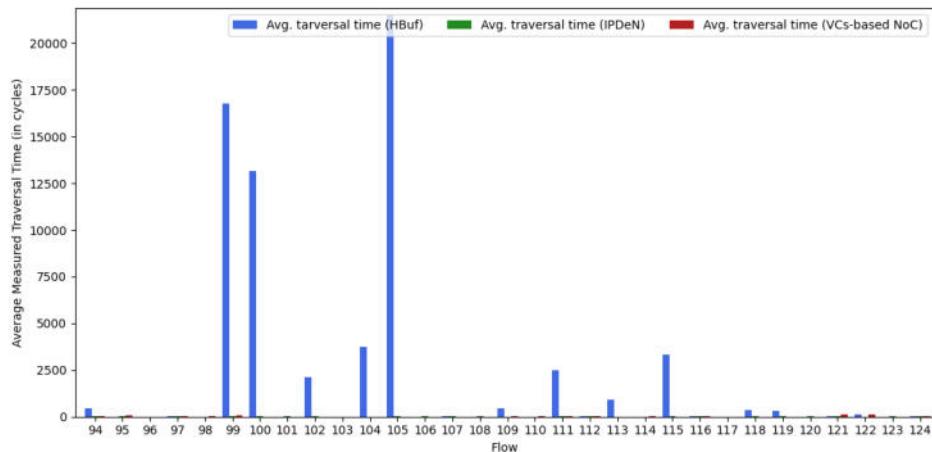


Fig. 31. Average measured traversal time (Orion test case) 3-5

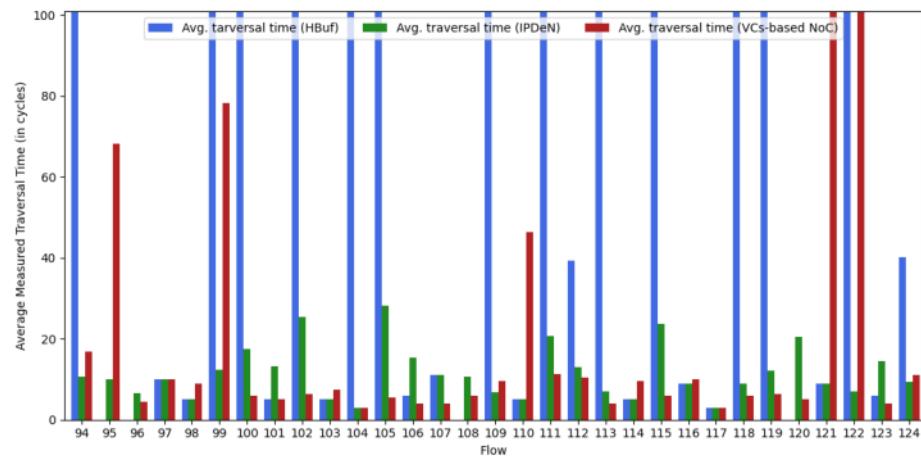


Fig. 32. Average measured traversal time (Zoom) (Orion test case) 3-5

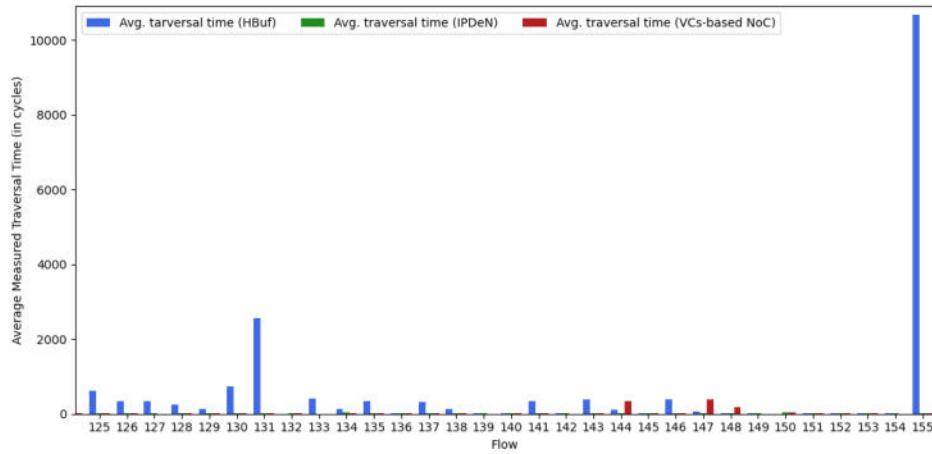


Fig. 33. Average measured traversal time (Orion test case) 4-5

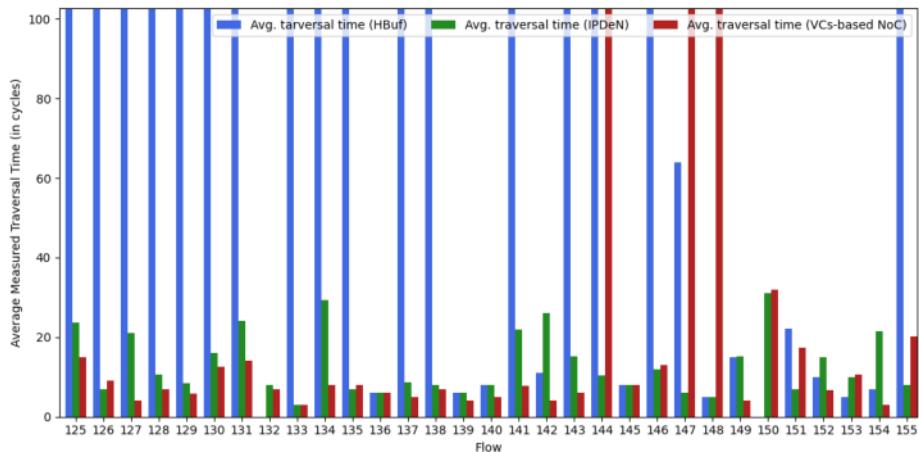


Fig. 34. Average measured traversal time (Zoom) (Orion test case) 4-5

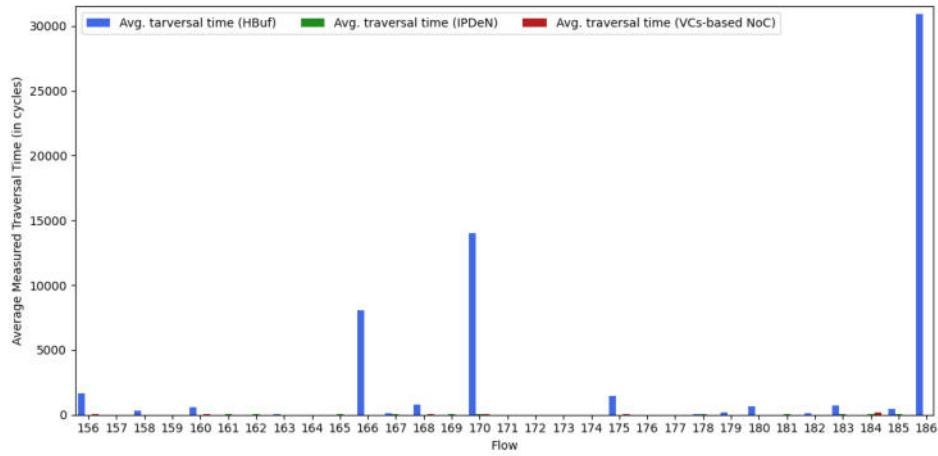


Fig. 35. Average measured traversal time (Orion test case) 5-5

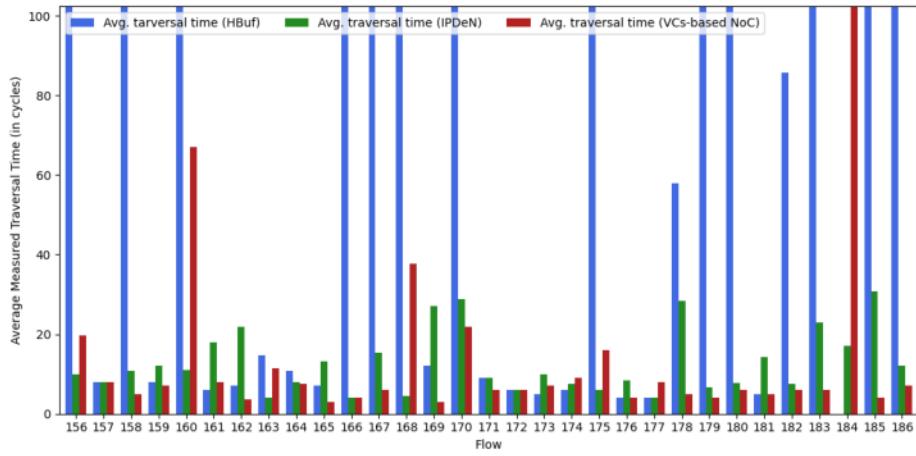


Fig. 36. Average measured traversal time (Zoom) (Orion test case) 5-5

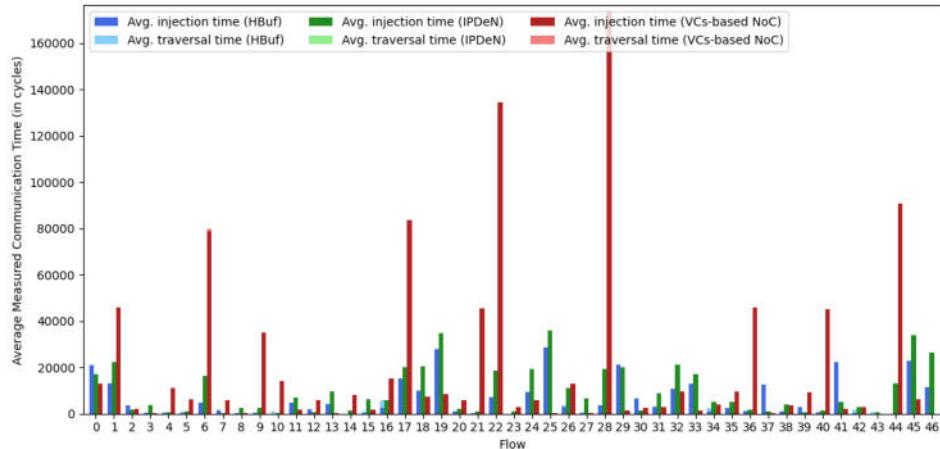


Fig. 37. Average measured communication time (Orion test case) 1-5

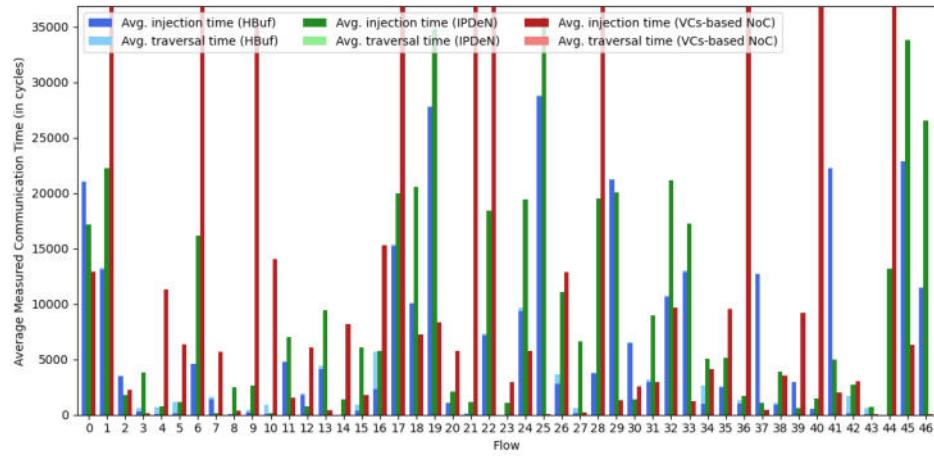


Fig. 38. Average measured communication time (Zoom) (Orion test case) 1-5

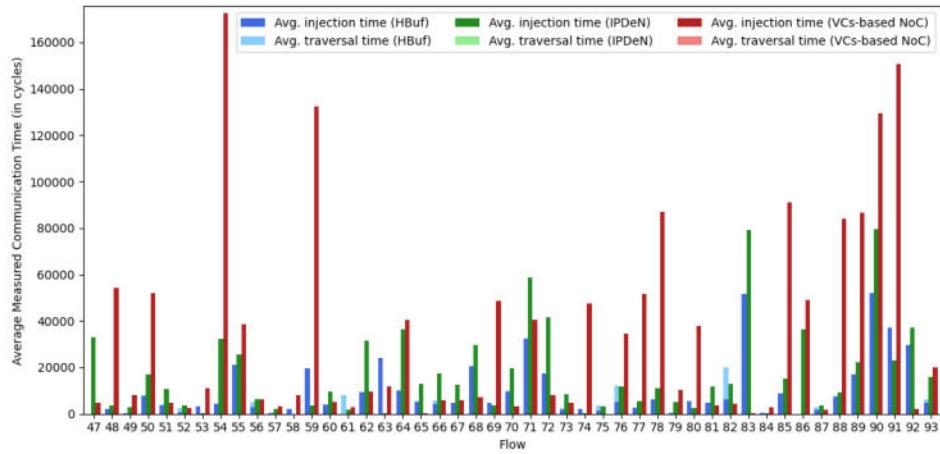


Fig. 39. Average measured communication time (Orion test case) 2-5

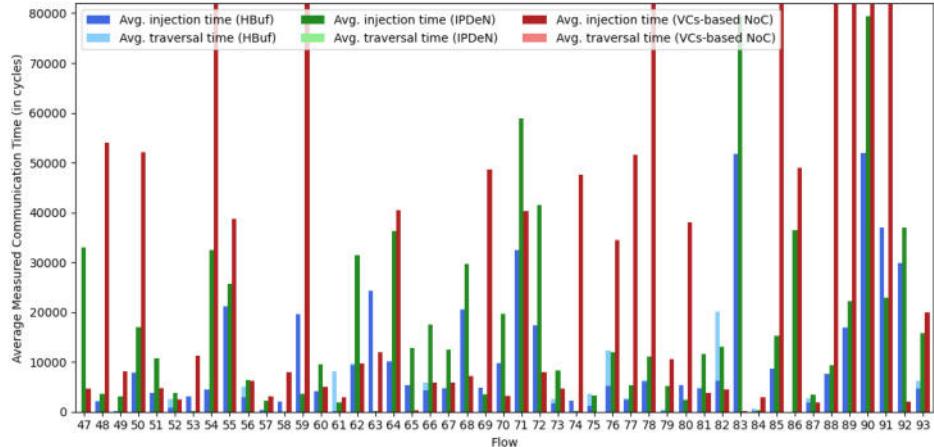


Fig. 40. Average measured communication time (Zoom) (Orion test case) 2-5

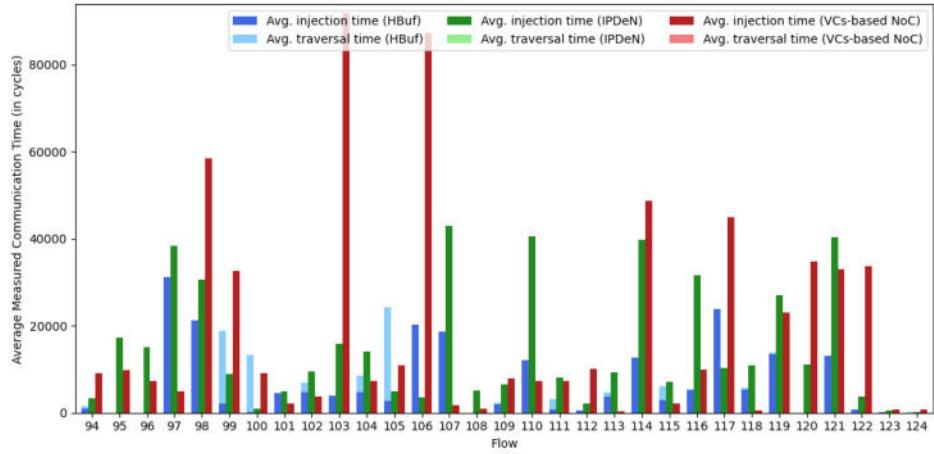


Fig. 41. Average measured communication time (Orion test case) 3-5

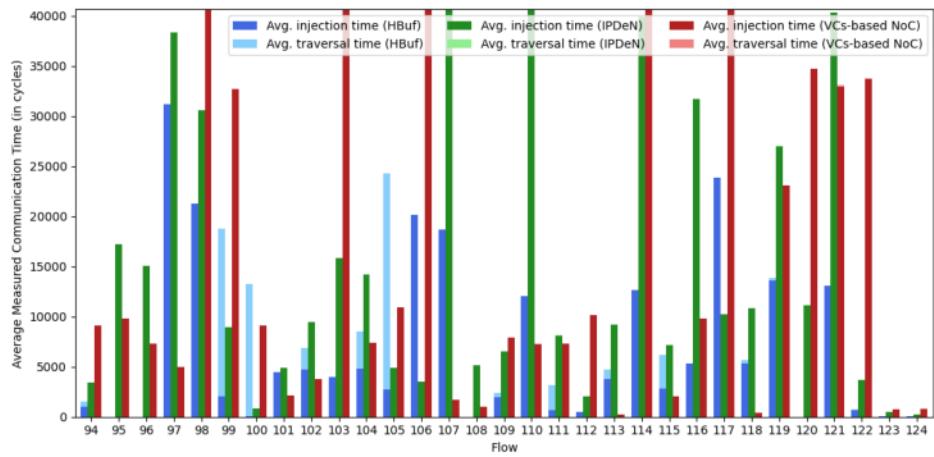


Fig. 42. Average measured communication time (Zoom) (Orion test case) 3-5

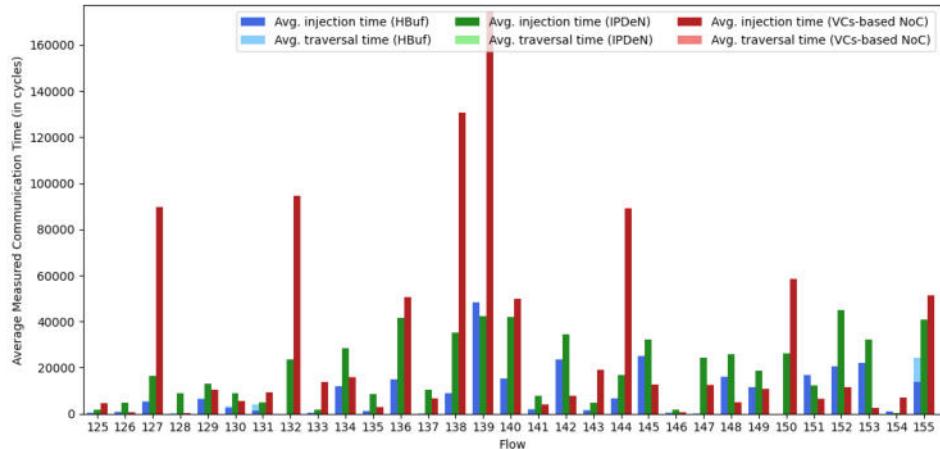


Fig. 43. Average measured communication time (Orion test case) 4-5

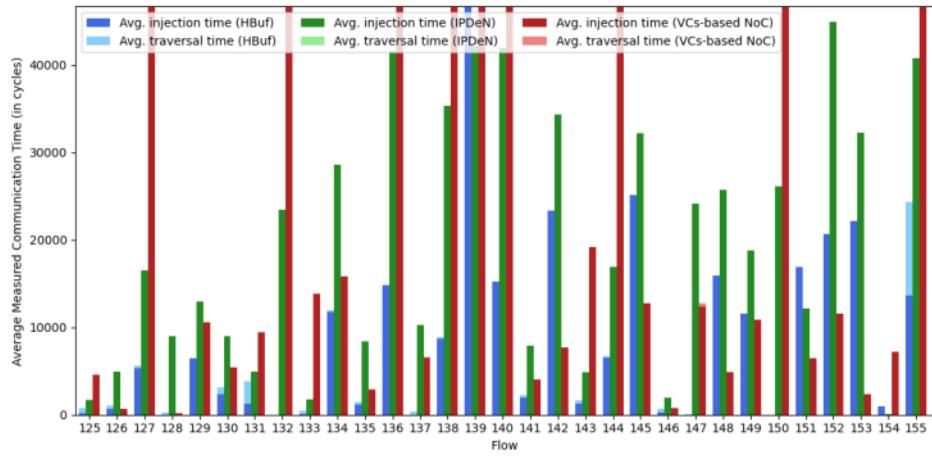


Fig. 44. Average measured communication time (Zoom) (Orion test case) 4-5

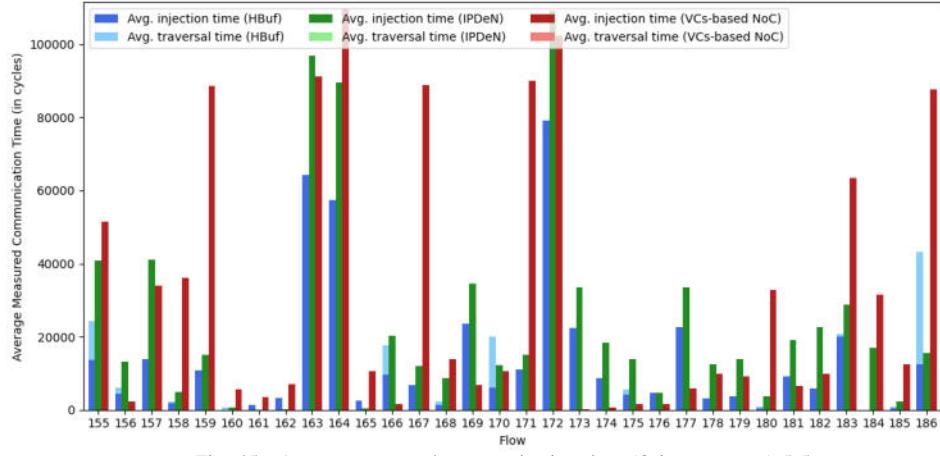


Fig. 45. Average measured communication time (Orion test case) 5-5