

UNIVERSITY OF TWENTE.

ITSA

INTERNET TRAFFIC STATISTICS ARCHIVE

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HAVE YOU EVER...

- Assumed HTTP accounts for most of our Internet traffic?
- Wondered if HTTPS is slowly taking over more and more HTTP traffic?
- Been interested in the differences in Internet traffic between countries or continents?
- Thought about how Internet traffic grows?

INTRODUCTION & MOTIVATION



Table 7. Detailed Application Types (Full Data Set)

Internet2 NetFlow: Weekly Reports

NetFlow data from all core routers of the Internet2 network are analyzed to produce weekly reports of use of the network. In essence, this is a weekly version of the "[Bulk TCP Use and Performance on Internet2](#)" by [Stanislav Shahunov](#) and [Benjamin Teitelbaum](#) (note, however, that the paper used one day of data while the reports use a week of data each and that the paper used data from the busiest router while the reports present a network-wide view).

The reports are produced automatically using programs written by [Andrew J. Lepp](#) and [Stanislav Shahunov](#). The CWEB program [nfstat.w](#) reads large daily files and produces intermediate results that are further digested by a collection of Perl programs.

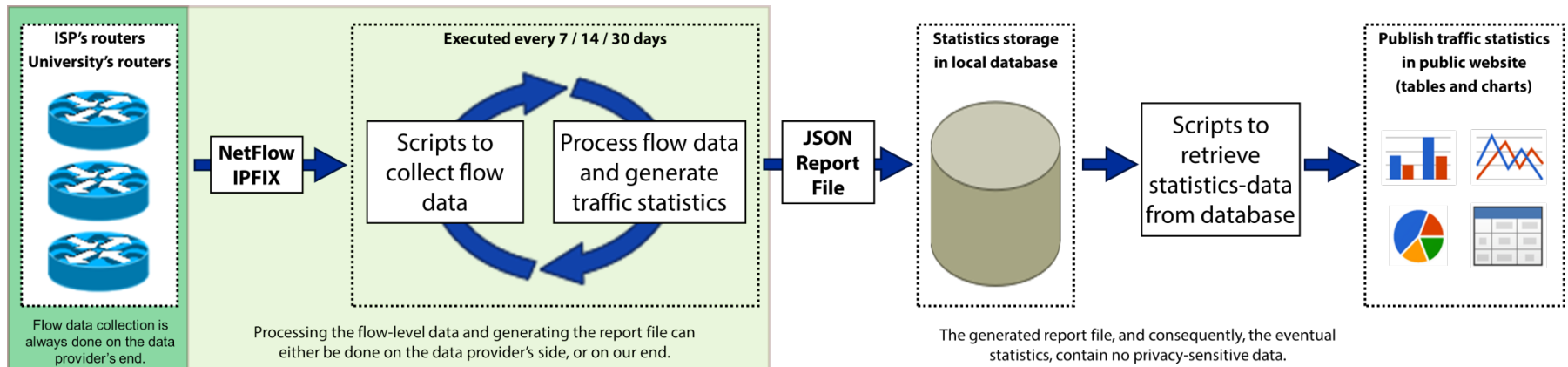
Weekly reports for weeks starting on the following dates are available:

- [20100426](#)
- [20100419](#)
- [20100412](#)
- [20100405](#)
- [20100330](#)
- [20100322](#)
- [20100315](#)
- [20100308](#)

Shoutcast	0.25%	4.556T	0.30%	7.292G
BitTorrent	0.10%	1.815T	0.09%	2.226G

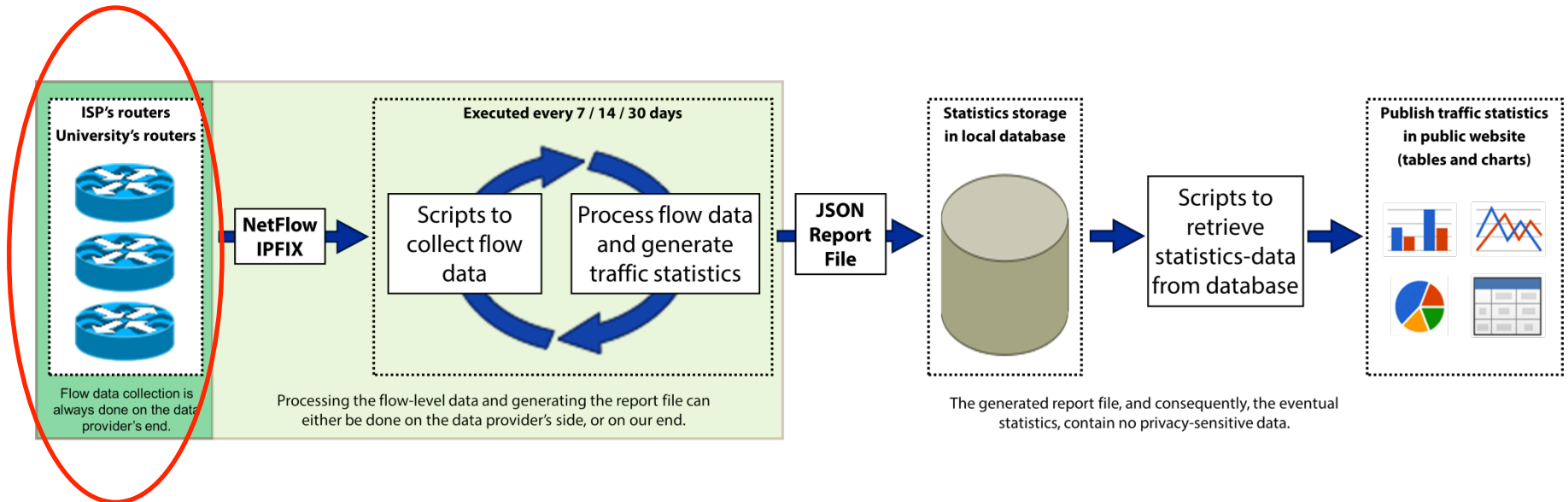
INTERNET TRAFFIC STATISTICS ARCHIVE (ITSA)

A NEW SYSTEM



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DATA PROVIDERS



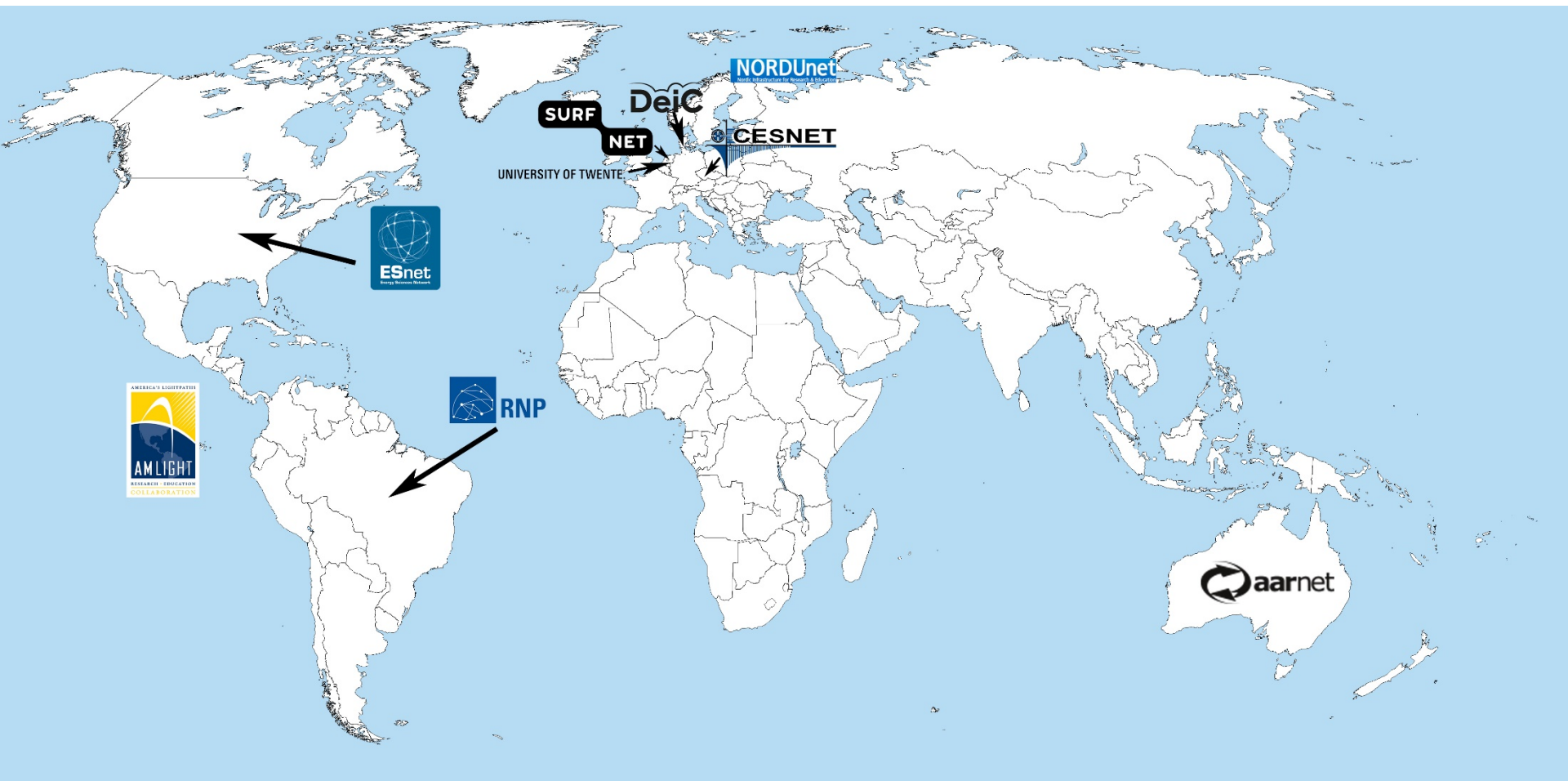
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DATA PROVIDERS



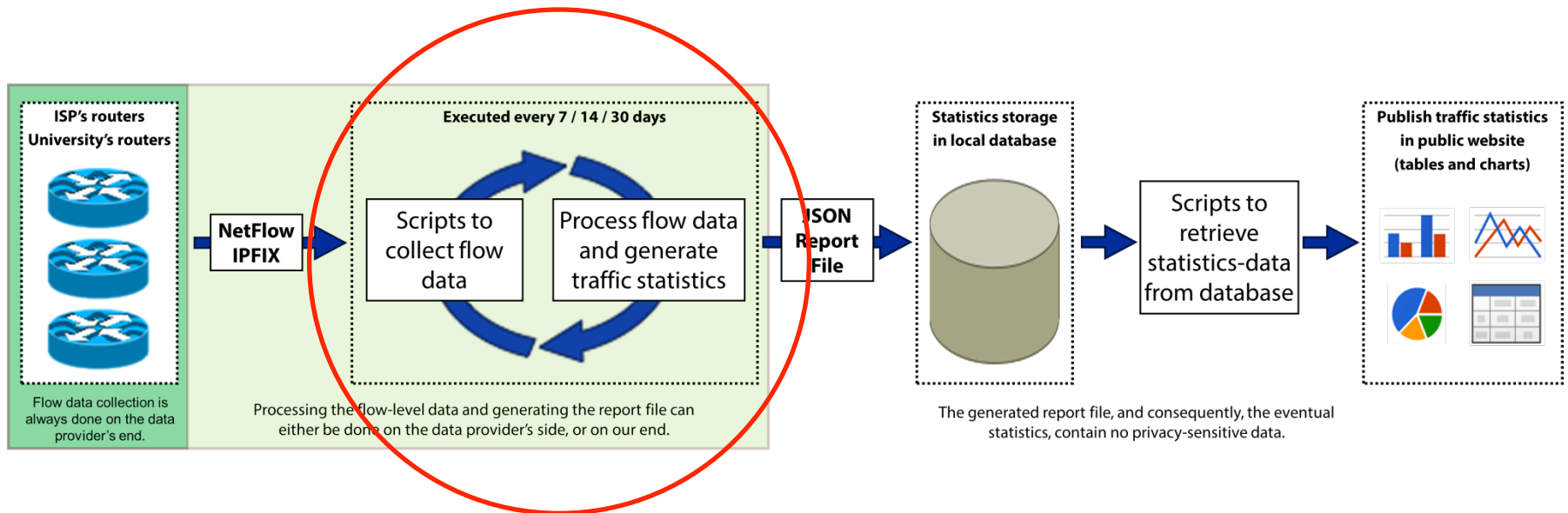
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FUTURE DATA



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REPORT GENERATION



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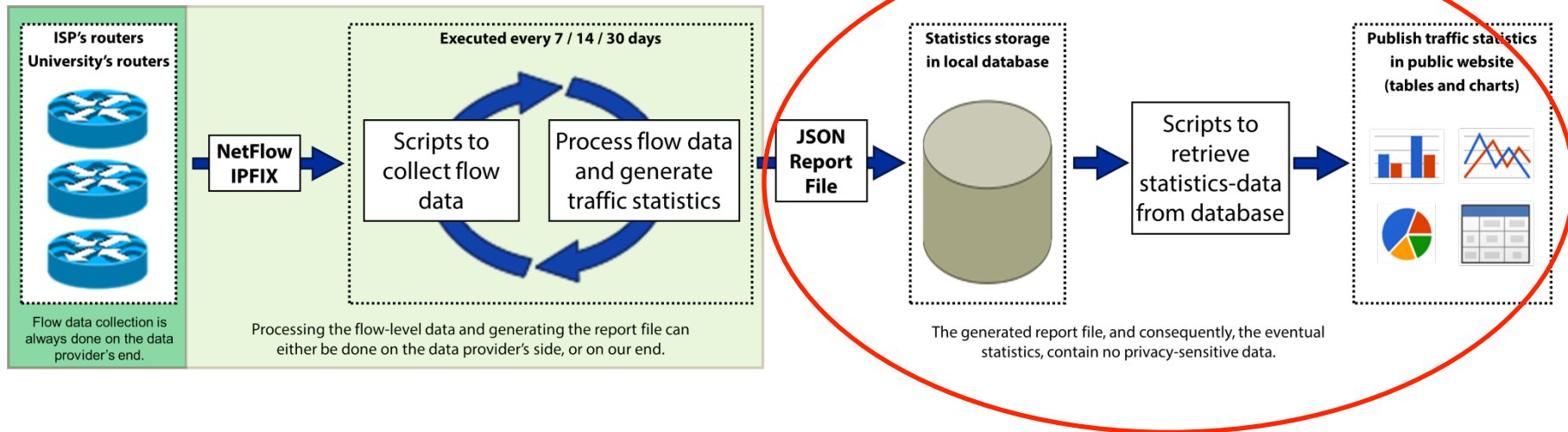
REPORT GENERATION

- Most used ports
- Most used IP-Protocols
- Flow duration
- Packet count
- Byte count
- Transfer rate
- Packets per second
- Bytes per packet

```
{  
  "location": "TEST",  
  "week": 4,  
  "statistics": [  
    {  
      "name": "Top Protocols",  
      "identifier": "AGG1",  
      "values": {  
        "HTTP": 5000,  
        "FTP": 4000,  
        "SSH": 350  
      }  
    },  
    {  
      "name": "Top IP-Protocols",  
      "identifier": "AGG2",  
      "values": {  
        "TCP": 50000,  
        "UDP": 20000,  
        "ICMP": 350  
      }  
    }  
  ]  
}
```

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TO THE CENTRAL SERVER



IT'S A WEBSITE

WEEKS


» Year 2015

- [Week 18 \(2015-04-27\)](#)
- [Week 17 \(2015-04-20\)](#)
- [Week 16 \(2015-04-13\)](#)
- [Week 14 \(2015-03-30\)](#)
- [Week 13 \(2015-03-23\)](#)
- [Week 11 \(2015-03-09\)](#)
- [Week 10 \(2015-03-02\)](#)
- [Week 8 \(2015-02-16\)](#)
- [Week 7 \(2015-02-09\)](#)
- [Week 6 \(2015-02-02\)](#)
- [Week 5 \(2015-01-26\)](#)
- [Week 4 \(2015-01-19\)](#)
- [Week 3 \(2015-01-12\)](#)
- [Week 2 \(2015-01-05\)](#)
- [Week 1 \(2014-12-29\)](#)

» Year 2014

» Year 2013

Report for Week 18

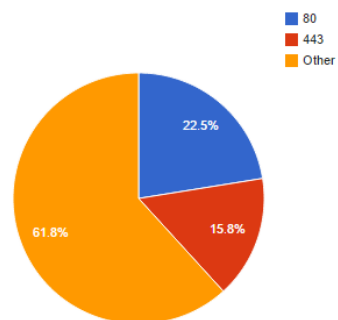
 [Download report JSON file](#)



Ports



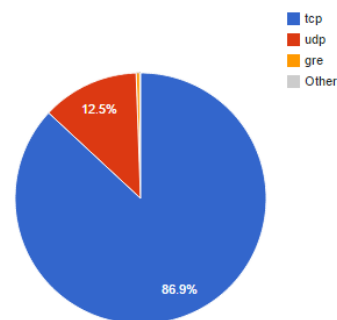
Ports distribution (ports with share < 0.5% aggregated in 'Other')



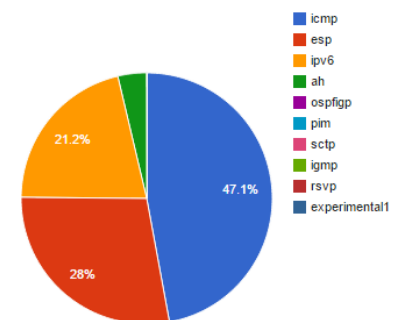
IP protocols



IP Protocols distribution high-end



IP Protocols distribution low-end



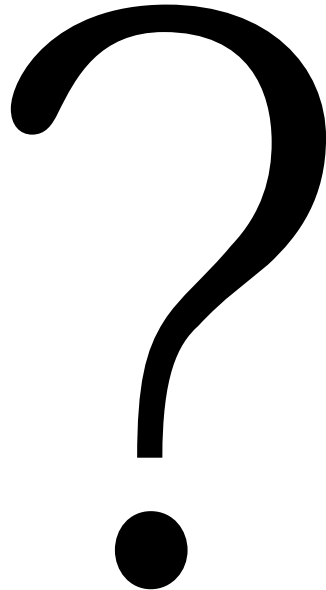
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FUTURE

- IPv6
- More data sources
- Historical views
- Comparative views
- Aggregated views



QUESTIONS? COMMENTS?



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