

IRNC-SP: Sustainable data-handling and analysis methodologies for the IRNC networks: Updates



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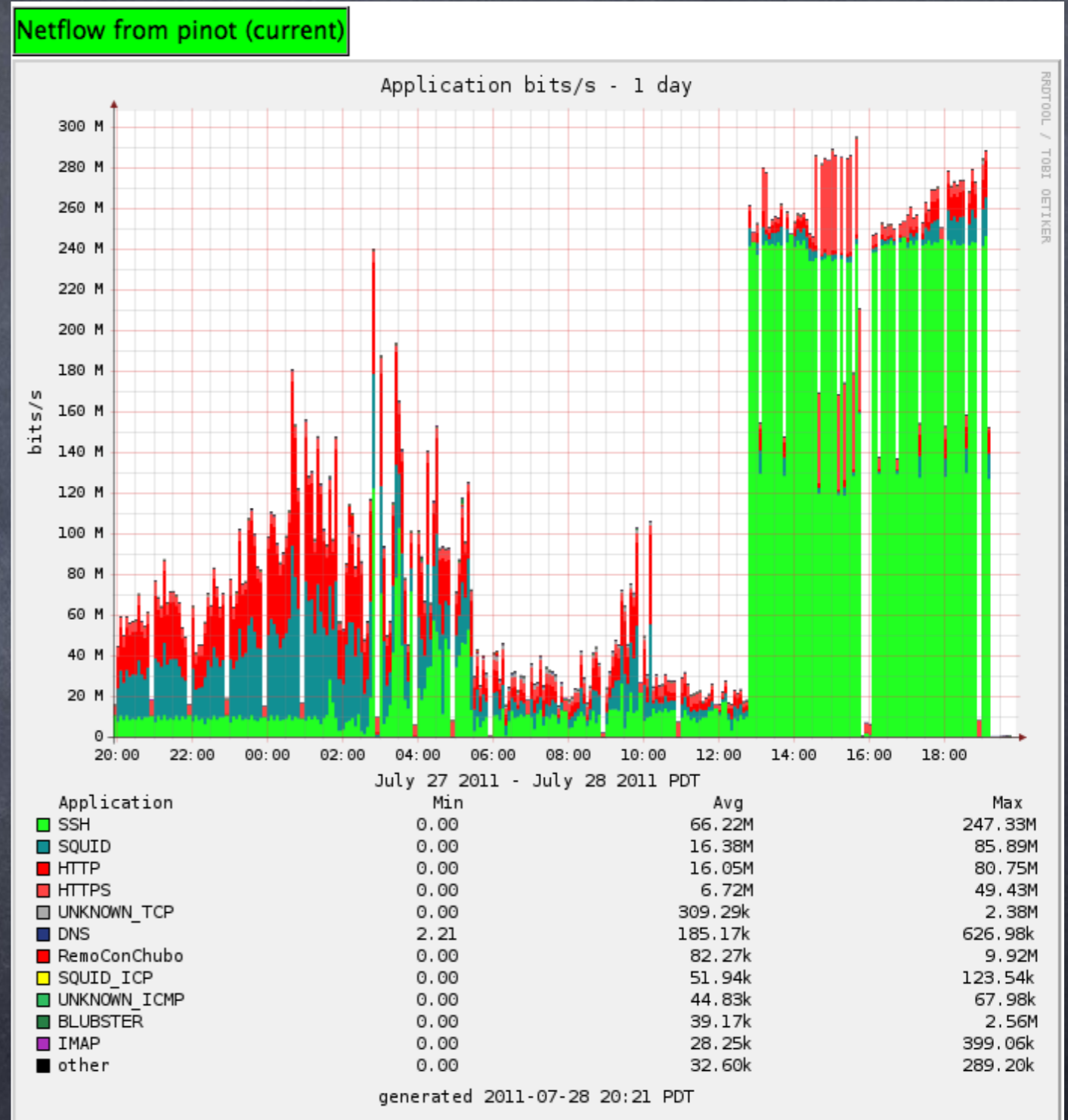
CAIDA/UCSD
NSF – IRNC Workshop
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Coralreef Upgrades



- Upgraded Coralreef
 - IPv6 (+anonymization)
 - netflow input format
- Future extensions
 - IPFIX
 - what do you need?



Archipelago (Ark)



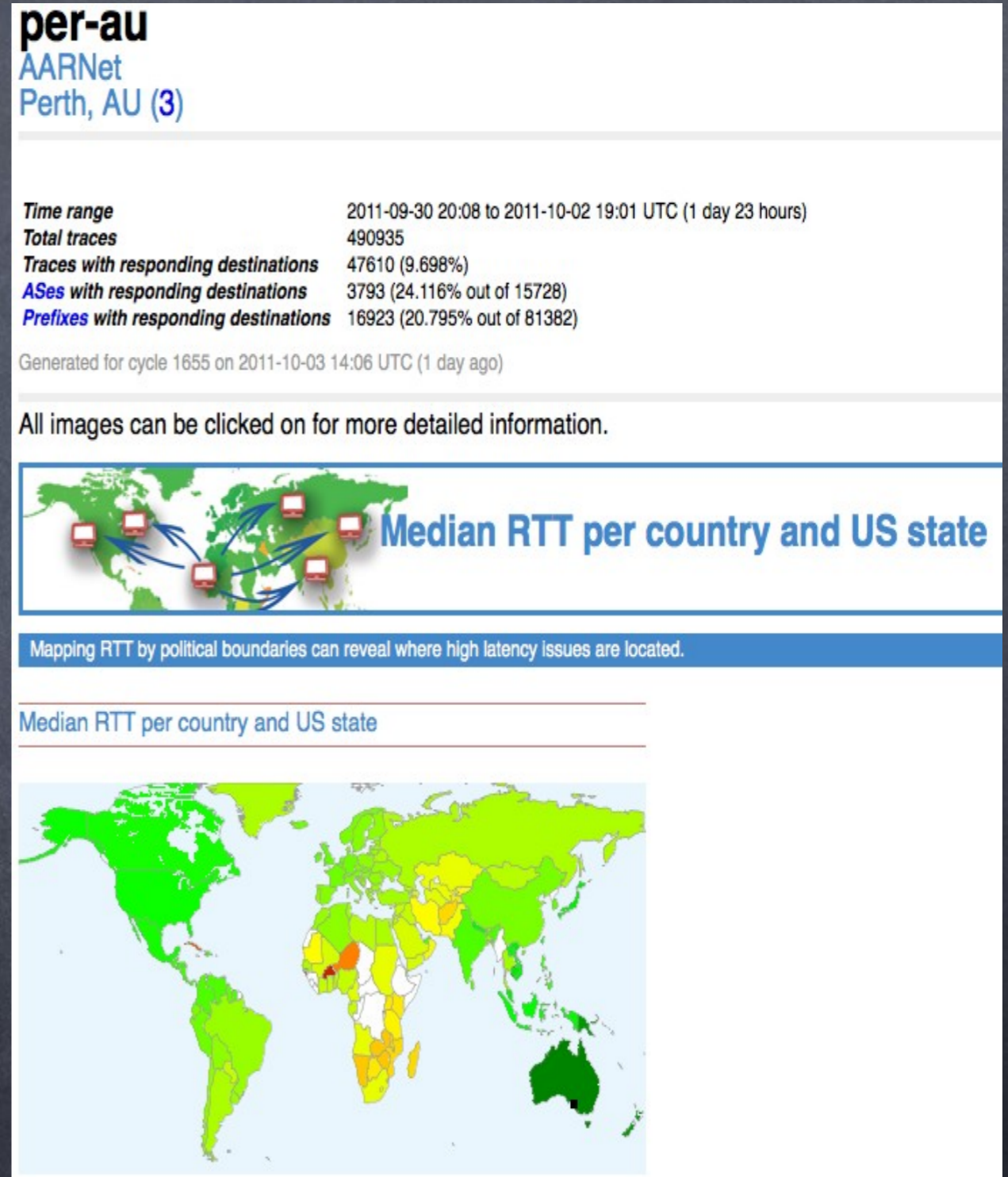
- CAIDA's measurement infrastructure
- Built on decade of achievements, from SIGCOMM to MOMA
- Launch 12 Sept 2007
- 56 active IPv4 probers
 - 15 in US
- 28 active IPv6 probers
- collaborators can run vetted measurements on security-hardened platform
- publish analyses of views from individual monitors
- support for meta-data mgt, analysis, and infoviz



Expanding Ark



- Install IPv4/v6 capable Ark monitors at IRNC locations or downstream customers.
- Perth, AU – AARNET
(in progress:)
- Sao Paulo - ANSP
- Sri Lanka (LEARN)



Data and Statistics



- PS2 framework could help IRNC networks
- a recently proposed framework for privacy-sensitive data sharing, to apply to data not appropriate for public posting, but explicitly requested through designated channels to use in clearly defined research

PS2/Privacy Risk	Public Disclosure	Compelled Disclosure	Malicious Disclosure	Government Disclosure	Misuse	Inference Risk	Re-ID Risk
Authorization	✓			✓			
Transparency						✓	✓
Law Compliance	✓	✓	✓	✓	✓		
Access Limitation	✓		✓	✓			
Use Specification	✓			✓	✓		
Minimization	✓	✓	✓	✓	✓	✓	
Audit Tools							
Redress						✓	
Oversight	✓				✓		
Data Quality						✓	
Security	✓		✓		✓		
Training/Education	✓			✓	✓		
Impact Assessment						✓	✓

Minimiz. Tech./Utility Need	Is Purpose Worthwhile?	Is there a need?	Is it already being done?	Are there alternatives?	Is there a scientific basis?	Can results be acted upon?
Not Sharing	X	X	X	X	X	X
Filter All	X	X	X	X	X	X
Filter Part	X	X		X	X	
Anonymize	X	X	X	X	X	
Aggregate	X	X	X	X	X	
Mediate (SC2D)	X					
Age Data	X	X	X	X	X	
Limit Quantity	X	X	X	X	X	
Layer Anonymization	X	X	X		X	

Bureau of Internet Statistics



- We propose to illustrate our community building effort with a landmark reporting deliverable: a prototype of a "Bureau of Internet Statistics" report, hopefully inspiring other network infrastructure communities to join in this effort

Other Links



- IRNC-SP: Sustainable data-handling and analysis methodologies for the IRNC networks

<http://www.caida.org/funding/irnc/>

- Archipelago (Ark) network measurement platform

<http://www.caida.org/projects/ark/>

- Archipelago Monitor Statistics

<http://www.caida.org/projects/ark/statistics/>

- Coralreef

<http://www.caida.org/tools/measurement/coralreef/>