DIBBS EI: Platform for Applied Network Data Analysis (PANDA)

CAIDA
PANDA

• Existing Data Building Blocks to Integrate
  • Archipelago Active Internet Measurement Platform and Supporting Components
  • ASRank: Comparison of routing and economic relationships among ISPs
  • BGPStream: efficient framework for routing (BGP) data analysis
  • Periscope: Extending measurement coverage by leveraging operational infrastructure
  • MANIC: Mapping and Analysis of Interdomain Congestion
  • Spoofer: Assessment of IP address validation best practices (Waikato)
ITDK: Internet Topology Data Kit Process

RIPE NCC Routeviews
MaxMind
GeoLite City

CAIDA
scamper
MIDAR
ifinder
speedtrap

Ark traces
IPv4
IPv4
IPv4
IPv6
IPv6
IPv6

IPv4
IPv4
IPv4
IPv6
IPv6
IPv6

BGP Collectors
GeoLite City
Dolphin
DNS Servers
IPv4 address geolocation

AS Paths
BGP dumps

AS Relationship process
Geolocation process
AS Graph process

Geolocation
IPv4 address geolocation

AS Assignment process

ITDK Datasets
AS relationships
AS paths
AS links
router geolocation
router AS assignment
hostnames
nodes
links
router graph

coming soon
3 Tasks

• Task 1: PANDA: Platform for Applied Network Data Analysis
  • Software development to scale performance and functionality for community use
  • Create software modules to link components to each other and external software
  • Increase community accessibility of unified platform and underlying components

• Task 2: Support for and collaboration with multiple disciplines

• Task 3: Extensibility and adaptation to new opportunities