



# NLANR International AMP Mesh *Overview*

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## Active Measurement Project (AMP)

- Led by Tony McGregor
- AMP performs site-to-site active measurements (RTT, topology, loss, and on-demand throughput) and analysis which give network researchers and engineers a full mesh of real-time and historical performance data between well understood end hosts.



## **Why hosting an AMP is simple: design decisions**

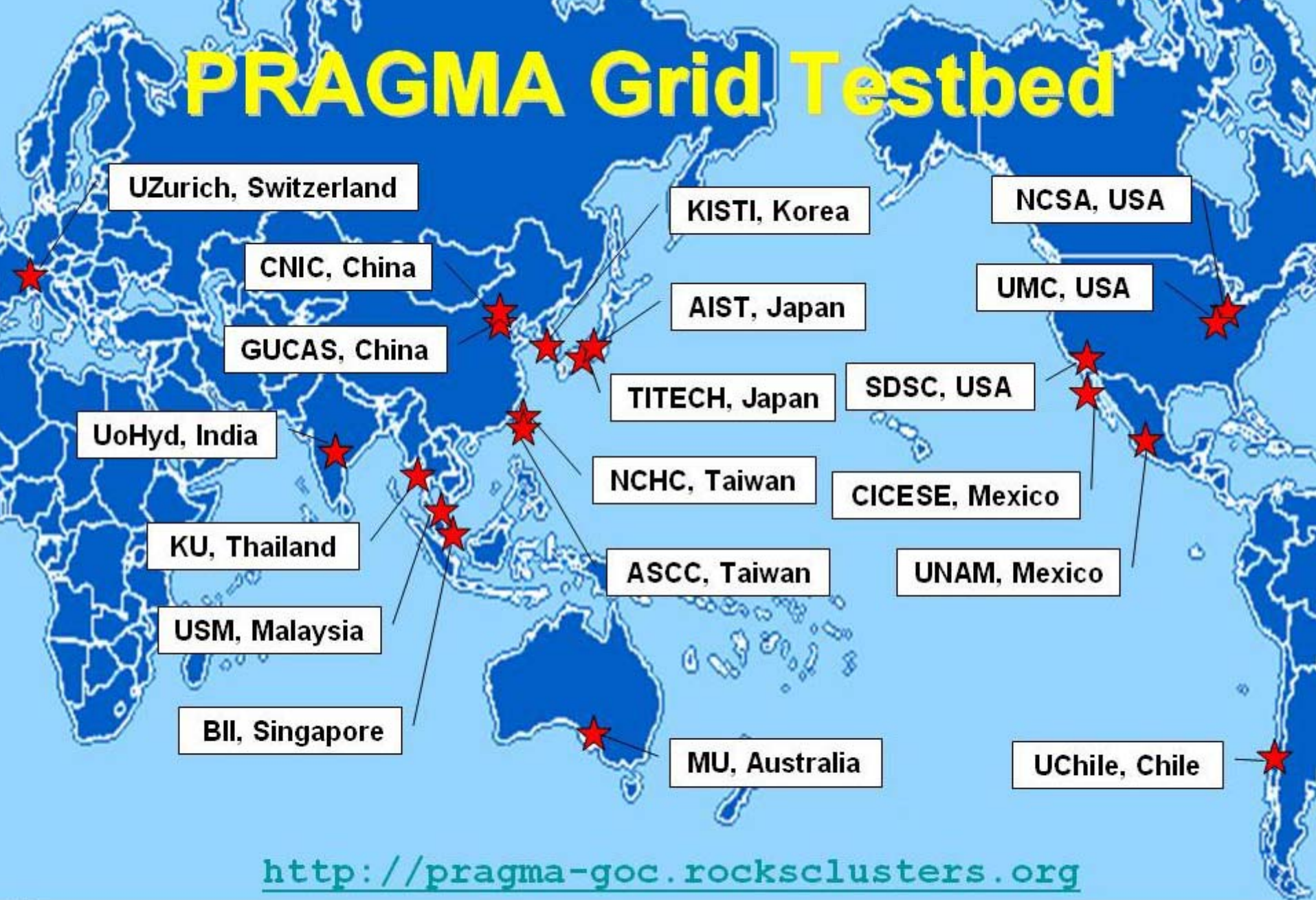
- Based on off-the-shelf, inexpensive, PC technology
- 1 RU profile saves rack space
- AMPs can be set-up to use many different power supplies
- Simple installation (network connection and power)

# *International Collaborations*



- The NLANR/MNA group now has AMP monitors deployed in Australia, Brazil, Canada, Chile, China, Finland, Germany, Hungary, India, Ireland, Japan, Korea, Mexico, the Netherlands, New Zealand, Norway, Pakistan, Singapore, South Africa, Spain, Switzerland, Taiwan, Thailand, and the United Kingdom.
- Almost 70 local AMPs deployed in 4 different countries.
- The majority of the PRAGMA Grid Test-bed countries now also have AMP monitors deployed. We are working to complete the installation of an AMP at the Grid Test-bed site in Malaysia.

# PRAGMA Grid Testbed



<http://pragma-goc.rockclusters.org>



# *International Collaborations*



New AMP software goals.

- Easier to hand off to others for their own use.
- Portability - run on many Unix operating systems.
- Flexibility to add new tests to the AMP software.
- Share the software with others by making it available on our Website.

# *International Collaborations*



## Availability of the data

- All NLANR/MNA data is made publicly available on our website. AMP data is available as Web-based performance graphs and visualizations, raw data, and
- Thanks to Warren Matthews we have a webservices interface that provides the AMP data in GGF standard format.
- AMP data is located at: <http://watt.nlanr.net/active/>

# *International Collaborations*



- As a trusted, neutral party, NLANR/MNA has facilitated cooperation across many different organizational and national boundaries.
- The result is that NLANR/MNA is establishing a *world-wide measurement infrastructure* for gathering performance data from research networks around the globe and, as is our norm, making this information publicly available to systems administrators, engineers, and the research community.



## RTT And Loss Measurements

### *amp-apantyo from amp-cnrc*

[\[NLANR\]](#) [\[AMP\]](#) [\[monitors\]](#) [\[amp-cnrc\]](#) [\[reverse\]](#) [\[src info\]](#)[\[dst info\]](#)

[Fill in all graphs](#)

Long Term average per day

