



2nd PRAGMA 参加報告



産業技術総合研究所 グリッド研究センター
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PRAGMAとは？

- **Pacific Rim and Grid Middleware Assembly**

- 環太平洋諸国の組織・研究者によるコミュニティ
- 多分野にわたり、地域性がある

- **戦略**

- アプリケーションにフォーカスを置く
- regional/international conferenceの開催
- VTC/AGを使ったトレーニング等
- リソース、データ等の共有のためのミドルウェアの配備
- GGF、ApGrid, APAN等の組織と協力する
- ある程度具体的な目標 (milestone)をたてて進める
- 年に2度～3度のペースでミーティングを開く
- ロゴ、Tシャツなどなど、名前を売る
- Nature, Science等の雑誌への論文投稿

- **大切なことは、知識、経験の共有**



ApGrid
Asia-Pacific Grid

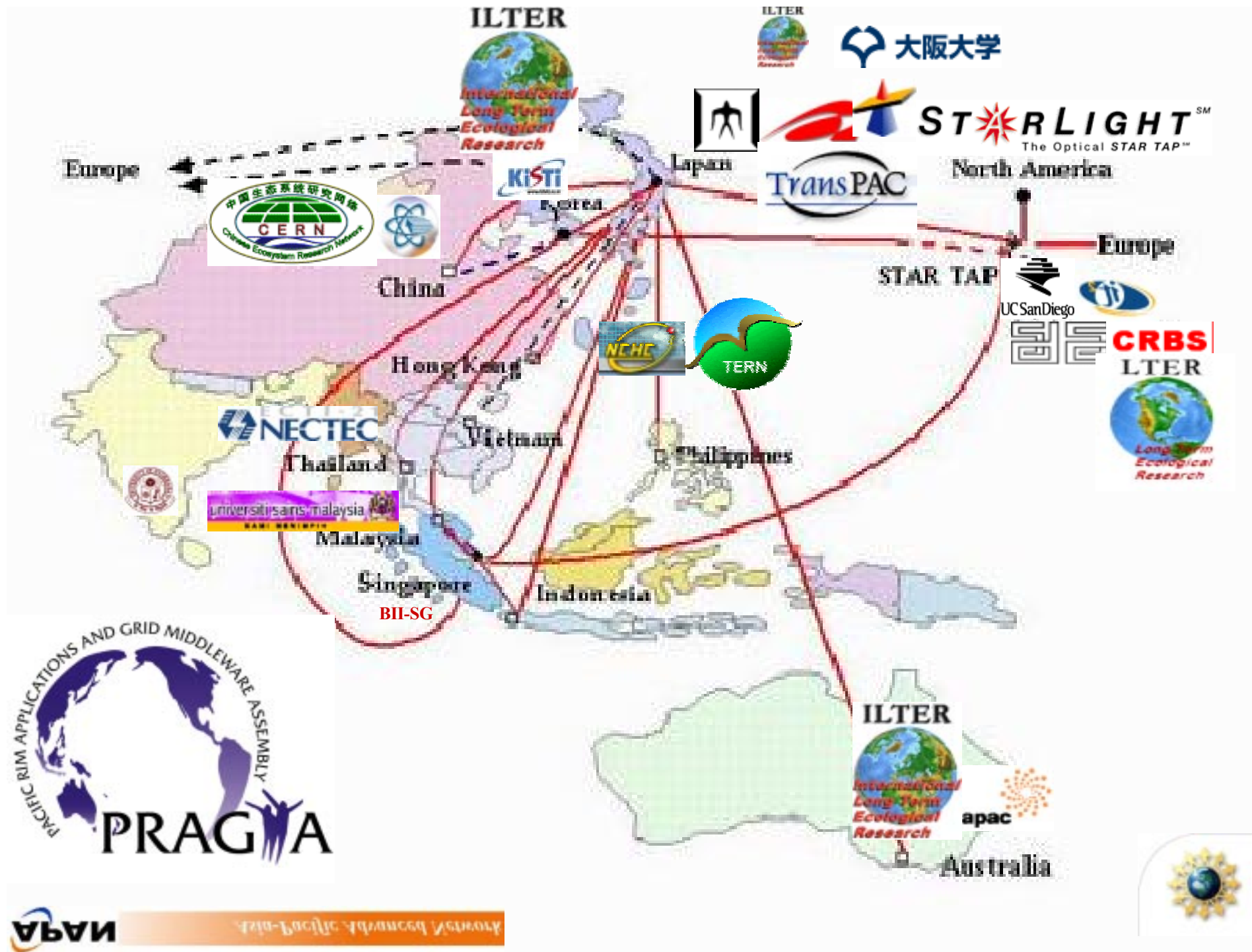




Proposed Mission

To establish *sustained* collaborations and advance the use of the *computational* grid among a community of investigators at the *leading institutions* around the Pacific Rim (Sangsan Lee, March 2002)







1st PRAGMA Workshop

- Date

- 2002年3月10～12日

- Place

- Radisson Hotel La Jolla, CA

- Participants

- 約30名 Inaugural PRAGMA Workshop
March 11-12, 2002

- 議題

- アプリケーションプロポーザル
- リソースの洗い出しと参加者の興味などなど

- VTCによる日本、韓国、豪州からの参加



IPGrid
Asia-Pacific Grid





2nd PRAGMA Workshop

- **Date**

- 2002年7月10～11日

- **Place**

- Westin Chosun Hotel, Participants

- **Participants**

- 100名超 (外国からの参加は63名)

- **議題**

- PRAGMAアプリケーションの進捗報告

- 新規アプリケーションプロポーザル

- その他





Workshop Program (1st day)

- **PRAGMA Opening, July 10, 09:00-09:30**
 - 1. Welcoming Address (Fran Berman, SDSC)
 - 2. Welcoming Address (Young-Hwa Cho, KISTI)
- **Relevant Updates, July 10, 10:00-11:00**
 - 1. Overview of APEC APGrid (Jysoo Lee, KISTI)
 - 2. Review/Status of AP-Grid (Satoshi Sekiguchi, AIST)
 - 3. Hyunhae/Genkai Project (Koji Okamura(Kyushu U), Yongjin Park (Hanyang U))
- **PRAGMA Catching Up, July 10, 11:00-12:00**
 - 1. Overview/Feedback/Plans for the Pragma Website (Elise Tan Yee Lee, BII)
 - 2. Update on resource testbeds (Chhabra Rajesh Kumar, BII)
 - 3. Overview/status of governance issues (Peter Arzberger, UCSD)
 - 4. Update on testbed at CNIC (Kai Nan, CNIC)
- **Presentations of proposals to host the fourth PRAGMA workshop (Bernard Pailthorpe, Univ. of Sydney / Fang-Pang Lin, NCHC)**





Workshop Program (1st day, cont'd)

- **PRAGMA Applications Progress Report, July 10, 13:50-15:25**
 - 1. Visualization and Grid computing for Telescience (Fang-Pang Lin, NCHC)
 - 2. Encyclopedia of Life (Wilfred Li, SDSC)
 - 3. NLANR Measurement activities (Ronn Ritke, NLANR)
 - 4. Information Intergration using Web-services. (Hong Suk Shin, UCSD)
 - 5. Updates on TransPAC and GTRN (Rick McMullen, Indiana University)

- **New Grid Applications Report I, July 10, 15:45-17:15**
 - 1. Drug Design and Discovery (Mitsuhisa Sato, Tsukuba)
 - 2. Brain Science on the Grid (Rajkumar Buyya, Melbourne)
 - 3. Grid Data Farm for HEP data analysis (Osamu Tatebe, AIST)
 - 4. Bio World Wide Workflow (Tan Tin Wee, NUS)
 - 5. Grid Research Projects in Malaysia (Huah Yong Chan, Universiti Sains Malaysia)

- Thailand Grid Applications (Royal Chitradon, NECTEC)





Workshop Program (2nd day)

- **New Grid Applications Report II, July 11, 09:30-11:30**
 - 1. Telescience (Mark Ellisman, UCSD)
 - 2. APST v.1.1 to Deploy Parameter Sweeps on the Grid (Henri Casanova, UCSD)
 - 3. National Instruments Grid (Inho Kim, KBSI)
 - 4. Grid Based CFD Research in Korea (Jang Hyuk Kwon, KAIST)
 - 5. HEP Data Grid in Korea (Dongchul Son, Kyungpook National U)
 - 6. In Silico Prediction of ADME and Virtual Screening (Kyoung Tay No, Soongsil U)

- **Breakout preparation and Breakout sessions, July 11, 14:45-17:30**
 - 1. PRAGMA Next Steps Governance (Peter Artzberger, UCSD)
 - 2. Resources (Philip Papadopoulos, UCSD)
 - 3. Telescience Group (Shinji Shimojo, Osaka Univ.)
 - 4. Bioscience Group (Larry Ang, BII)
 - 5. Data Grid (Osamu Tatebe, ATST)





Breakout sessions

- **Sessions**

- Biosciences
- Data Grid,
- Telescience
- Computational Infra

- **Requirements**

- Goal to achieve
- Target date: iGrid 2002, SC 2002, or some time in 2003 or later
- Time schedule to achieve the goal/schedule for regular VTC/Post progress reports on the web
- Who are the responsible/committed institutions/organizers/contacts



➤ Preparation of 5min ppt presentation in the

Governance Discussion

- Mission
 - SC02までに文書化
 - 現在ドラフトを回覧
- Two clear goals of PRAGMA
 - Develop applications to run on grid
 - Establish sustainable collaborations
- Membership
 - 規模とフォーカス、進捗のバランス
- Charter
 - ドラフト作成し、委員会で回覧
- Goals
 - 3rd PRAGMAで報告

Pro-temp Governing Committee

- Bernard Pailthorpe,
John O'Callahan,
David Abramson:
APAC
- Larry Ang: BII
- Yan Baoping:
CAS/CNIC
- Satoshi Masuoka:
TITech/GSICC
- Satoshi Sekiguchi:
AIST
- 06/99 Sangsan Lee, Jysoo
Lee: KISTI
- Sissades Tongsimma:
NECTEC
- Rick McMullen, *Jim*
Williams: Transpac
- Mitsuhsa Sato: U
Tsukuba
- Philip Papadopoulos,
Peter Arzberger:
UCSD/SDSC
- *Maxine Brown:*
StarTan

Bio Science Group

◆ プロジェクト

- Genomic Projects (BII, SDSC, BRIC, OSAKA University, KISTI)
- Virtual Screening Drug Discovery (CAMD RC, AIST, Tsukuba, KISTI)

◆ Contacts

<u>Organization</u>	<u>Name</u>	<u>Email</u>
BII	Arun	arun@bii.a-star.edu.sg
SDSC	Wilfred	wilfred@sdsc.edu
BRIC	Nam	
OSAKA	Date	date@ais.cmc.osaka-u.ac.jp
Tsukuba	Sato	msato@is.tsukuba.ac.jp
KISTI	Sik Lee	siklee@hpcnet.ne.kr
CAMD RC	No	ktno@camd.ssu.ac.kr
AIST	Nakada	hide-nakada@aist.go.jp

Milestones

◆ Genomic Project

- 以下のアプリケーションを3~4程度のサイトにあるヘテロな環境で動かす
 - ◆ Grid Enabled High Throughput Blast – BII (Aug 2002)
 - ◆ Protein Pipeline – SDSC (Oct 2002)

◆ Virtual Screening Drug Discovery

- リソースの共有 (Oct 2002)
- データベース (時期未定)

◆ iGrid 2003 あるいは SC2003 でのデ

2nd PRAGMA
July 11, 2002
Seoul, Korea

Data Grid Breakout

- ## Session
- 各参加者のプロジェクト紹介
 - Elic H. Yen (Academia Sinica, Taiwan)
 - Digital Archiver, Bio Informatics
 - Kuichi Kumar (iHPC, Singapore)
 - Collaboration with Grid Datafarm, Visualization
 - Royol Chitradon (NECTEC, Thailand)
 - Spatial Data Grid, Geographical Information System
 - Natural Research Data Grid
 - Rick McMullen (Indiana U, USA)
 - ATLAS Tier-2 site
 - Fang-Pang Lin (NCHC, Taiwan)
 - King (Knowledge Innovation Grid)
 - Atsuko Takefusa (Ochanomizu U, Japan)
 - Study of Scheduling and Replication policy
 - Grid Datafarm Simulator
 - Kaichao Wu, Yongzheng Ma, Hengho He (CAS, China)
 - Scientific Database funded by CAS

Discussion and What to do

- Build a list, catalog
- Divide subgroups, if necessary,
- Mailing List
- Requirement of Data Grid software and Testbed
- Possibility of collaboration
- Near future timeline
 - SC 2002
 - Grid Datafarm for HEP applications (AIST, Indiana Univ)
 - MET Broker, Prof. Ninomiya (NECTEC)
 - Digital Archive in Taiwan (Academia Sinica)
 - ApGrid booth, NCHC booth, Asian region booth?,
 - PRAGMA booth???



Telescience Group

Shinji Shimojo, Toyokazu Akiyama,
Seiichi Kato (Osaka University)

San-Liang Chu (NCHC)

Bernard Pailthorpe, Nicole Bordes
(Sydney VisLab)

Mark Ellisman++ (SDSC)

Goals

- Remote Instrumentation
 - Realtime acquisition, analysis, and visualization in a collaborative or shared environment
 - Generalize to other instruments / Build the foundation
- What we need ?
 - Coordinated High speed network/ advanced network (IPv6)
 - High Quality video transfer - DVTS
 - Database (SRB?) and metadata description (XML)
 - Coordination Language? Instrument specific
 - Visualization

Todo

- iGrid 2002 (Osaka U, SDSC, NCHC)
 - SRB based shared environment ?
 - Stable highspeed IPv6 Link Osaka, Taiwan, US, and Europe
- SC2002 – continue discussion
- Jan. 2003 CCD camera will be installed in Osaka University

Resources

Issues

- Testbed application resources
 - Rajesh Chhabra to catalog (and recruit)
- Heterogeneity?
 - Default middleware
 - Schedulers (meta and local)
 - Local scheduler may be site-dependent
 - Start with APGrid Engineering Team Recommendations
- APGrid interaction
- Dedicated PRAGMA resources?
 - No, shared
 - But, PRAGMA is a single virtual organization

More Issues

- Security
 - Regional CA's
 - Ring of trust or hierarchy
- PRAGMA GIIS?
- What are the applications?
- Purpose of PRAGMA
 - Share experiences in applications
 - Enable collaborations
 - See Peter

- Contact List
 - Availability
 - Who to contact
 - What is the resource (size, cpu, disk, bandwidth, ...)
 - Compute
 - Data
 - Yoshio Tanaka (AIST) to drive this
 - Who keeps list current in the long term (ask PRAGMA webmasters)
 - Mason Katz (SDSC)
 - Wei-Cheng Huang (NCHC)

- Generating accounts
 - Bi-lateral
 - PRAGMA resources open other PRAGMA members
 - Multiple users can map to a single account
 - Kishore Sakharar (BII) to drive this
 - Rajkumar Buyya
 - Kevin Dong
 - Hirotaka Ogawa
 - Tein Yuan
 - Sissades Tongsimma
 - Dates
 - Sep 1 for draft
 - Oct 1 for consensus

- VTC
 - Who can host multi-site
 - SDSC
 - AIST (policy issues to be resolved)
 - Australia, Melbourne
 - Once a month
 - Phil (SDSC) to drive this (Sep 1)

- Relationship of PRAGMA to APGrid, GGF,
...
- GGF
 - Applications working group



January 23 (Thu) – 24 (Fri), 2003

Collocated with APAN winter meeting January 22(Wed)-24(Fri)

PRAGMA 3rd Meeting in Fukuoka (draft)

- Date: January 23 (Thu) – 24 (Fri), 2003
- Place: Software Research Park Center Bldg.
Momochihama, Fukuoka City
near Fukuoka Dome and Fukuoka Tower
with high-speed Research Internet access
- Co-Hosts: GTRC/AIST, OSAKA U,
KYUSHU U, Tokyo Inst. Tech.
- Sponsors: MEXT, etc/
- Access: Fukuoka Int'l Airport
20 min by taxi, 30-45 min by pub. transport.
- Accommodations: Hyatt Residential Suite
^{06/99}(8000 JPY/single, 3800 JPY/quad), Twins ²⁸



For more info.

- <http://www.pragma-grid.org/>
- <http://pragma.hpcnet.ne.kr/>
- <http://www.apgrid.org/>