

# **OPTICAL NETWORK TESTBEDS WORKSHOP 3 (ONT3) – An Overview**

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**([www.icaair.org](http://www.icaair.org))**

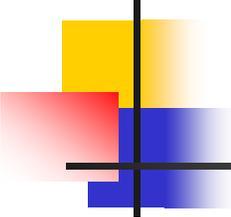
**Co-Chair ONT3**

**Tomonori Aoyama, University of Tokyo**

**Co-Chair ONT-3,**

**JET Meeting**

**August 15, 2006**



# Motivation

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- ONT3 provides a forum to discuss activities currently being conducted on optical network research testbeds and the migration of new methods to production networks
- Optical testbed research is being sponsored by major organizations world-wide.
- The importance of this research to next generation network services and architecture has been widely recognized
- These new concepts are beginning to transition from testbeds to pre-production prototypes and to production implementations



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## Workshop Organizational Background

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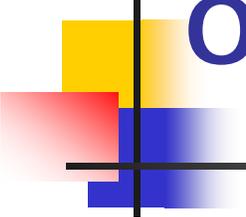
- Workshop Is Being Organized To Build On Prior Workshops: the September 2005 Workshop on Optical Network Testbeds (ONT-2) and the 2004 ONT-1
- ONT-1 Provided An Overview of Directions in Optical Communications and A Series of Recommendations
- Ref: <http://www.nren.nasa.gov/workshop7>



## Workshop Organizational Background

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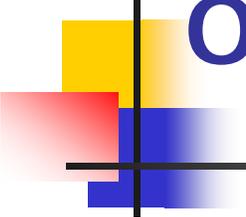
- ONT-2 Developed Specific Frameworks for Community Actions In the Context of 5 Year Roadmaps
- ONT-2 Presented These Roadmaps Within Categories of Development, From Basic Research Testbeds to Early Implementations to Initial Production
- ONT-2 Also Introduced the Theme of International Interconnection and Interoperability
- Ref: <http://www.nren.nasa.gov/workshop8>



# ONT-3 Workshop Objectives

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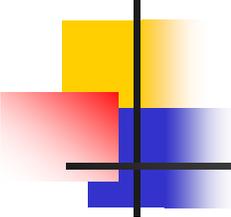
- ONT-3 Is Being Designed
  - To Continue the Efforts Initiated Through ONT-2
  - Emphasize the Theme of Next Generation International Optical Communications
  - Indicate the Contribution of These Concepts To the Wider Networking Context, e.g., Next Generation Designs and Experimental Testbeds (e.g., GENI, FIND, Other International NG Networking Initiatives)



# ONT-3 Workshop Objectives

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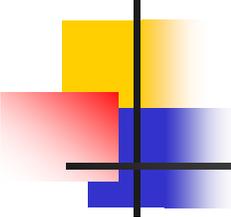
- The Forum Will Present – In an **International Context**
  - Progress Made This Year In Moving Toward
    - Long and Near Term Objectives
    - In Achieving Roadmap Milestones
  - Progress Made This Year In Establishing Processes
    - Activities That Can Achieve Goals Over Time
    - Mechanisms That Can Ensure Continuing Forward Process
  - International Exchange Points, Multilayer Services, Interoperability Across Domains



## Contributions In a Wider Context

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- Discussions Will Include Considerations of How These New Services, Architecture, and Technologies Will Contribute to Broader Contexts
- For Example, the Next Generation Internet (Ref: GENI)
- Networking in General
- Non-Traditional Networks (e.g., All Optical Networks)



# Sponsorship

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- Co-Sponsored by the US and Japan
- US: Department of Energy (DOE), National Science Foundation (NSF).
- Japan: National Institute of Information and Communications Technology (NICT)
- Organized in cooperation with the Federal Large Scale Networking Coordination Group (LSN).
- NASA Ames Research Center Is Hosting the Web Site
- Ref: <http://www.nren.nasa.gov/workshop9>

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## Optical Network Testbeds Workshop 3, September 7-8, 2006

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[Agenda](#)

[Logistics](#)

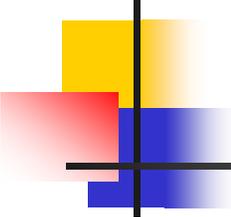
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Roadmaps](#)

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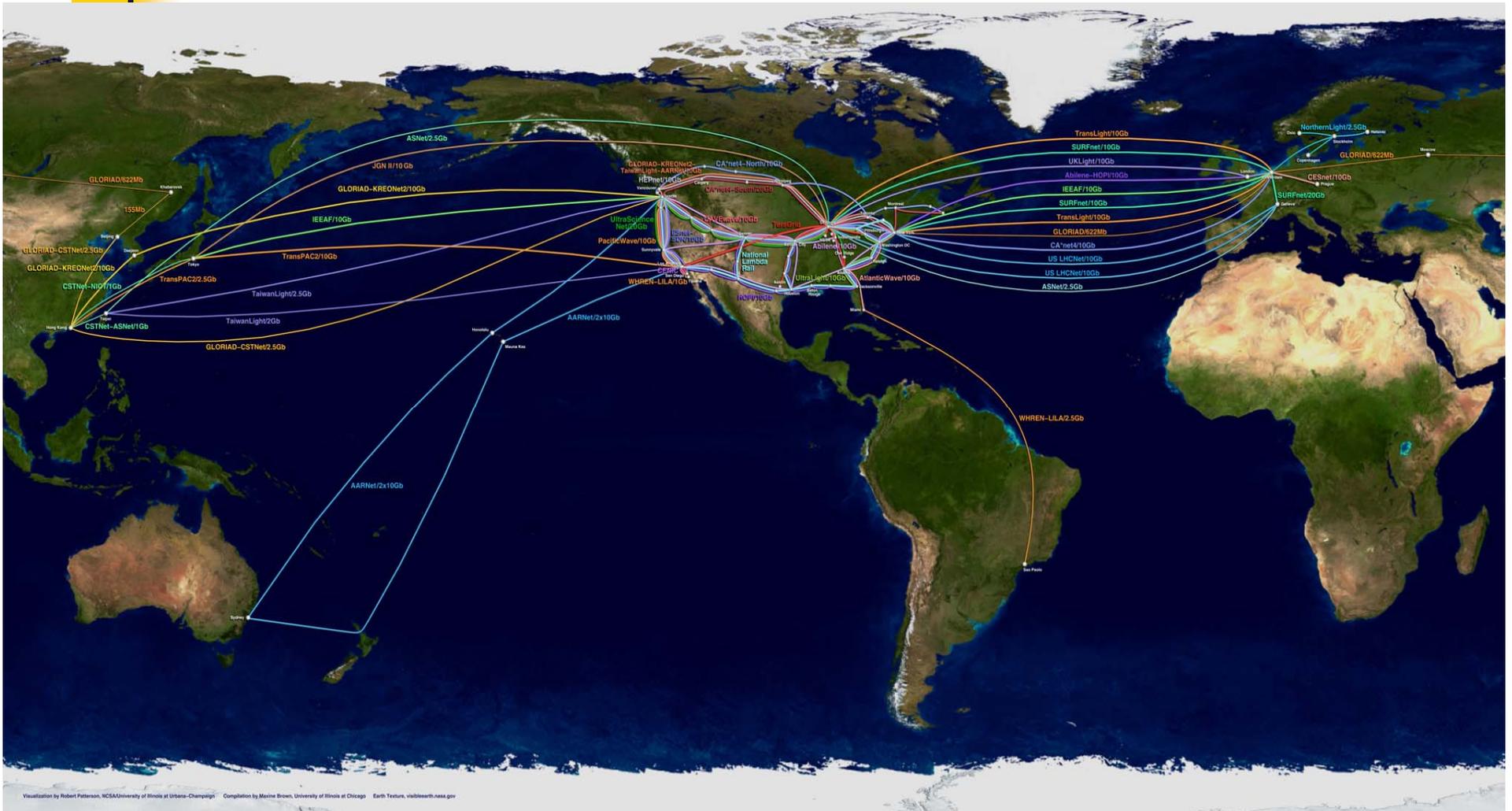


## Overview of ONT3-GLIF

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- ONT-3 Will be Held Conjunction/Partnership with the Global Lambda Integrated Facility (GLIF) Annual Meeting ([www.glif.is](http://www.glif.is))
- Schedule Spans 5 Days
- ONT-3 = Two Structured Days
- GLIF = Three Structured Days
- Venue = Akihabara in Tokyo
- Next Series of Slides Created By NICT

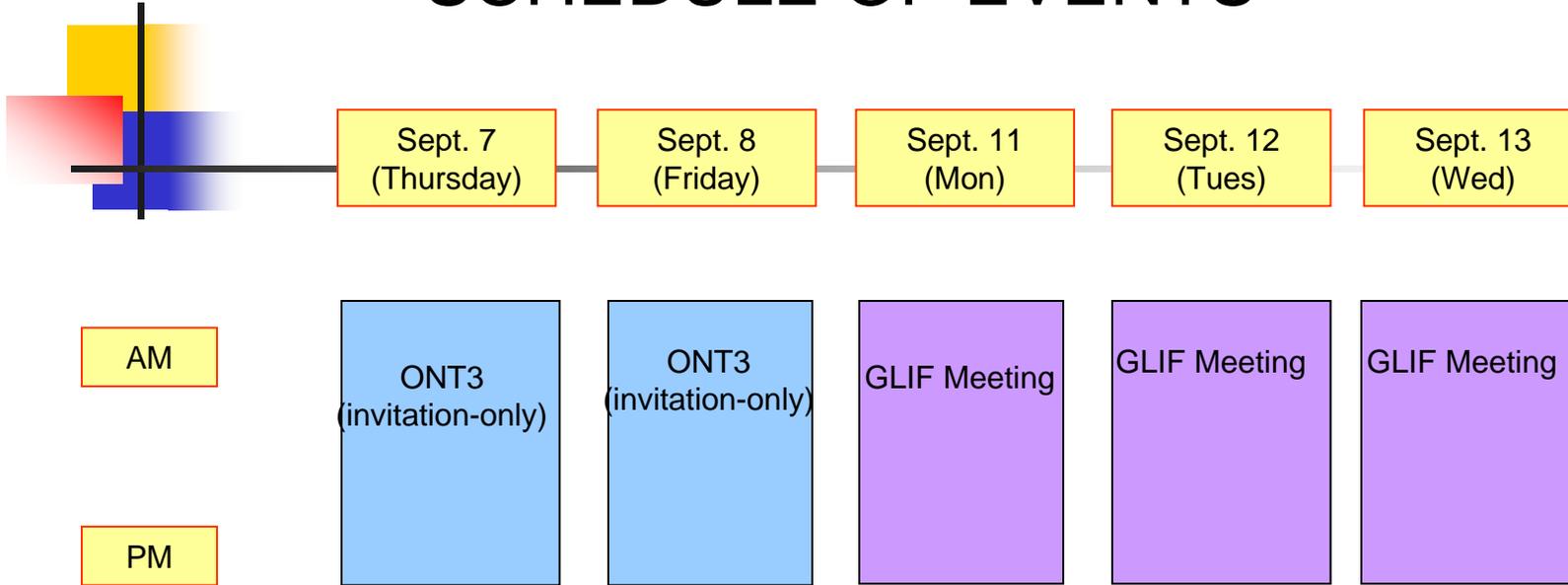
# Global Lambda Integrated Facility (GLIF)

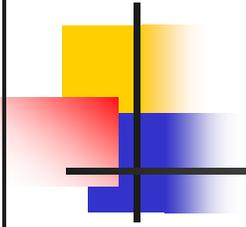


[www.glif.is](http://www.glif.is)

Visualization courtesy of  
Bob Patterson, NCSA.

# SCHEDULE OF EVENTS





6th Annual GLIF Workshop  
11-14 September 2006  
Tokyo, Japan

Local Hosts



# AKIHABARA – Tokyo's Electronics Town Near Univ of Tokyo



# AKIHABARA CONVENTION HALL

AKIHABARA  
Convention Hall



a new IT Center in the heart of Akihabara – opened spring 2005 housing 600 attendee capacity meeting facilities and the offices of AIST, Univ. of Tokyo, Univ. of Tsukuba, etc.

# Train Routes



GLIF

ONT3



Tokyo

**Shinagawa - 19,000-20,000 JPY (180 USD)**

**Narita Express link/Shinkansen link  
9 min. to Tokyo / 12 min. to Akihabara**

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**Shinjuku – 14,000-15,000 JPY (135USD)**

**Narita Express link  
9 min. to Tokyo / 12 min. to Akihabara**

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**Akihabara 11,000-12,000 JPY (110 USD)**

**3 min. from Tokyo,  
2 min. walk from Conv. Hall and Electric  
Town**