

## Global University System (GUS) - #1

The Global University System (GUS) is a worldwide initiative to establish broadband Internet infrastructure for enhancing e-learning and e-healthcare across national and cultural boundaries for **global peace**.

The philosophy of GUS is based on the belief that global peace and prosperity would only be sustainable through education. The prime objective is to achieve “**education and healthcare FOR ALL**,” anywhere, anytime and at any pace.

## Global University System (GUS) - #2

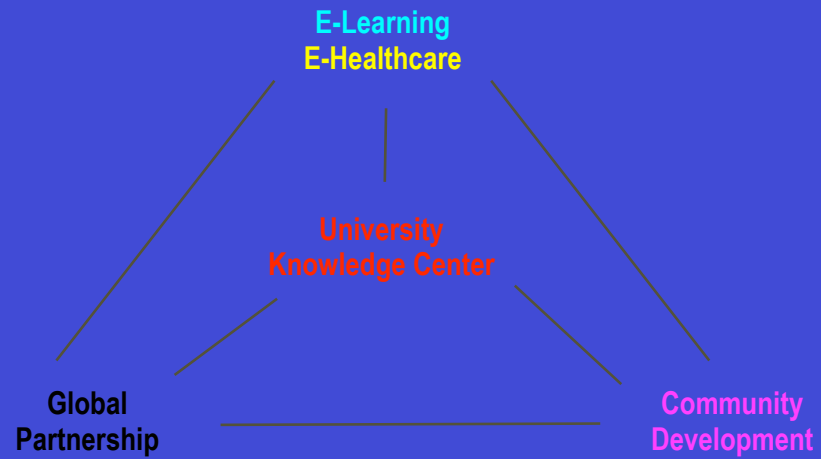
GUS aims to create a **worldwide consortium** of educational and healthcare institutions and NGOs, particularly benefiting those in remote/rural areas of developing countries for the **eradication of poverty and isolation**.

Learners in those countries will be able to take their courses, via **advanced broadband Internet**, from member institutions around the world to receive a **GUS degree**.



Both the learning (students or lifelong learners) and teaching (professors) societies of partner institutions will also form a **global forum** for exchange of ideas and information and for conducting collaborative research and development with the emerging **global GRID computer network technology**.

Thus, the higher education institutions will close the digital divide, act as the **knowledge center** of their community and lead their development.

**University:** Leader of Community  
in the Knowledge Society in the  
21st Century



## Background and Rationale #1

-  The **Internet**, with its rapidly expanding and improving infrastructure, will be the **main telecommunication media of tomorrow**.
-  The full potential for achieving revolutionary advances in education and healthcare in developing countries **cannot** be realized with the currently available information delivery infrastructure and at currently prevailing market prices.



## Background and Rationale #2

- 🌐 Improved e-learning requires much better ways of presenting information and of enabling learners to **interact** with **facilitators** to enable the learners to process that information into personal knowledge.
- 🌐 What is needed is both high quality **audio/video** delivery and high quality **interactivity**.
- 🌐 Developing countries need **broadband Internet** via international satellite and fiber-optic cable.

## Expected Benefits

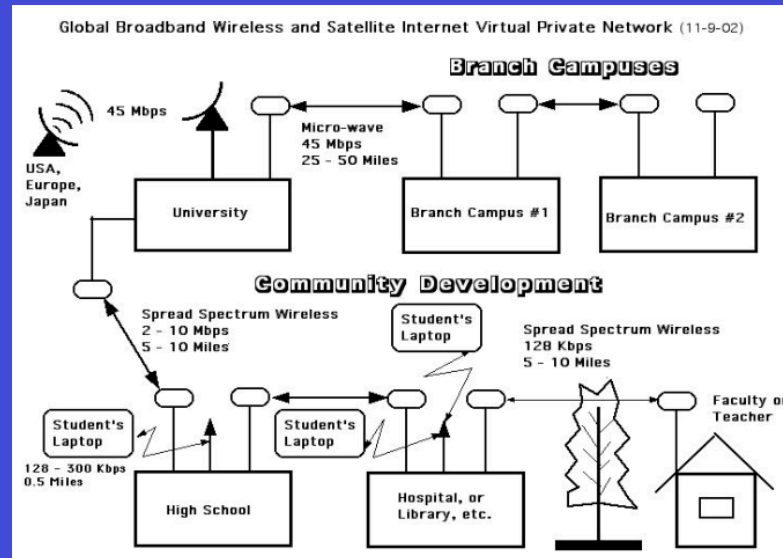
- Consortium member universities will be able to build the network of facilitators for **support of e-learners**,
- Learners may take one course from a university of different country to get his/her degree from the GUS, thus **freeing** them from being confined with one philosophy of a university and a country,
- The broadband Internet will enable web-based teaching with more interaction among/between learners and instructors compared with less interaction in replicating class-room teaching via analog broadcasting satellite, -- thus stimulating **global dialogues** among them to attain **global peace**,  
(continue)

## Expected Benefits (continued)

-  Learners and faculties at the member universities can promote **exchange** of ideas, information, knowledge and joint research and development of web-based teaching materials, **community development**, and many others locally, regionally and even in global scale,
-  Researchers in even developing countries can perform **joint collaborative Hi-Tech research and development** on various subjects with colleagues in developed countries, e.g., Globally Collaborative Environmental Peace Gaming, micro-biology, meteorology, chemical molecular study, DNA analysis, 3D human anatomy, etc.

# Global Broadband Internet (GBI)

## Virtual Private Network with QoS



8

### 1. Satellite linkage:

GUS will be based on regional satellite hubs, typically located at a major university, that connect via high-speed satellite (~ 45 Mbps) to educational resource cities in the E.U., U.S., and Japan. In a sense, the regional satellite hub is to be the major Internet Service Provider (ISP) for not-for-profit organizations in the region, and the gateway to the outside world.

### 2. Microwave linkage:

Regional hubs link to branch campuses or other regional educational institutions via micro-wave (~ 45 Mbps) over relatively short distances (25-50 miles), if optical fiber network is not readily available.

### 3. Community Development Network:

Communication from the hub and branch campuses to local sites, over distances up to 10 miles, is to be achieved by spread-spectrum wireless (~ 2-10 Mbps) Internet networks, which do not require licenses in most countries.

### 4. Wi-Fi connection:

The buildings with a broadband Internet connection will then also become relay points for the low-cost "Wi-Fi (wireless fidelity)" networks at 10 Mbps that are now rapidly appearing in Japan, USA and Europe.

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This advanced wireless communication with laptop computer will make e-learning possible for anyone, anywhere, and anytime with capabilities of Internet telephony, fax, voice mail, e-mail, Web access, videoconferencing, etc. This is not only to help local community development, but also to assure close cooperation among higher, middle and lower levels of education.



# Financing

- During the Okinawa Summit in July of 2000, Japanese government pledged **US\$15 billion** to close the digital divide in developing countries and for the eradication of poverty and isolation.
- During the G8 Summit in Canada in June of 2002, and at the Environment Summit in South Africa in September of 2002, they also pledged another **US\$2 billion** to aid education and healthcare in developing countries, respectively.

## Financing (continued)

- GUS projects will combine (1) the **Japanese** government's Official Development Assistance (ODA) funds and (2) Japanese electronic equipment with
- (a) the Internet technology and (b) content development of **North America and Europe**,
- to help underserved people in rural and remote areas of developing countries by closing the digital divide.

## GLOSAS Projects

(GLObal Systems Analysis and Simulation  
Association in the U.S.A.)

<http://www.friends-partners.org/GLOSAS/>

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