Strategic Response by Public Networks
to Private Networks in Japan

Koichiro Hayashi
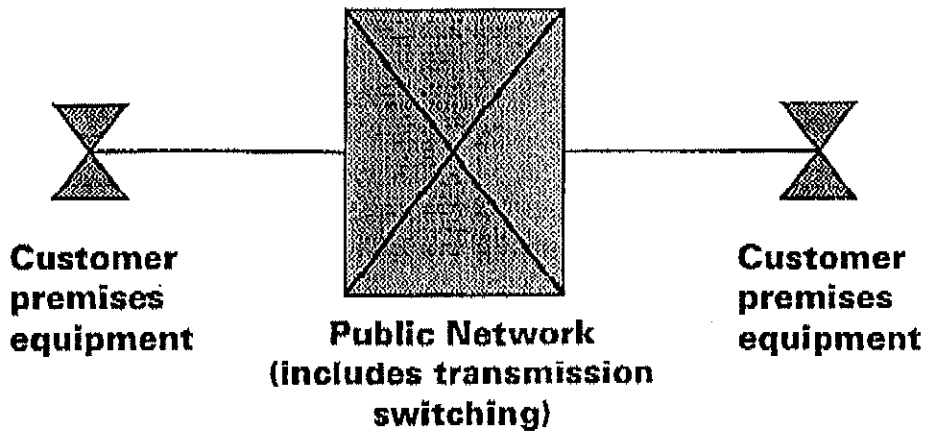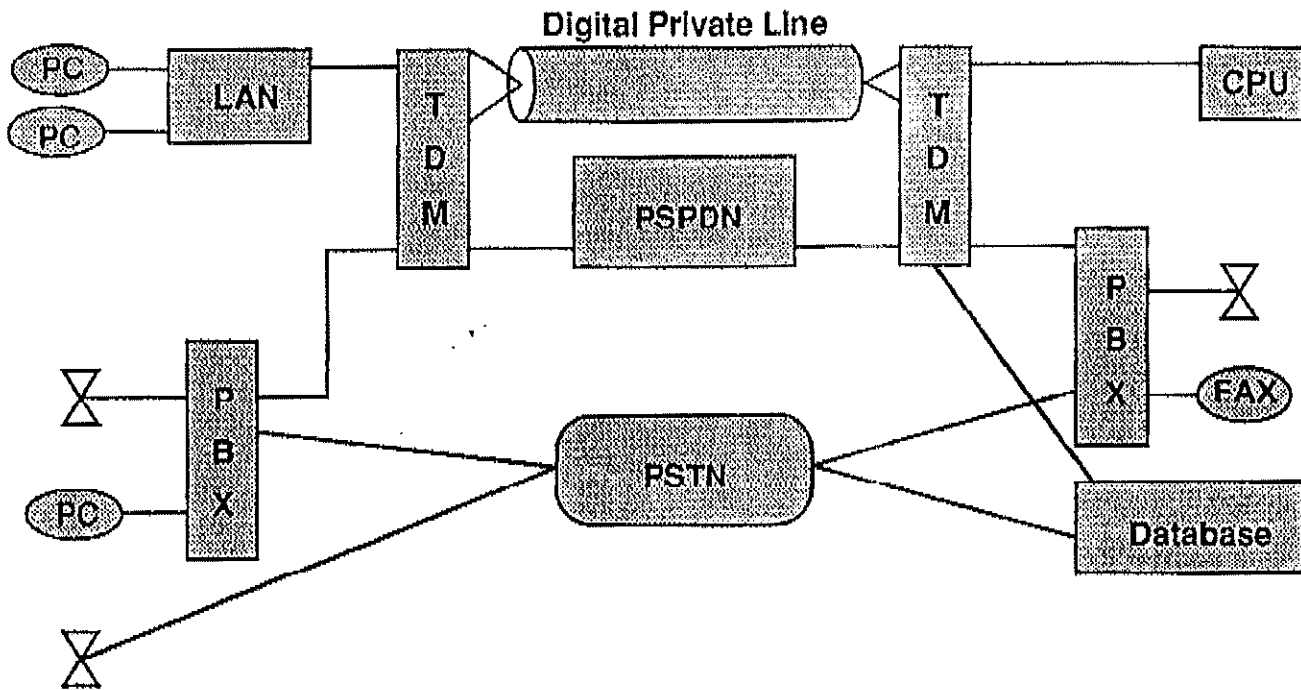
Strategic Response
By
Public Networks
To
Private Networking In Japan

By

Koichiro Hayashi, PhD
President and CEO
NTT America, Inc.

Customer
premises
equipment

Public Network
(includes transmission
switching)

Customer
premises
equipment

The Old Regime (POTS)

Digital Private Line

The New Environment

CPU: Host computer (central processing unit)
LAN: Local area network
PBX: Private branch exchange
PC: Personal compter or workstation
PSTN: Public Switched telephone network
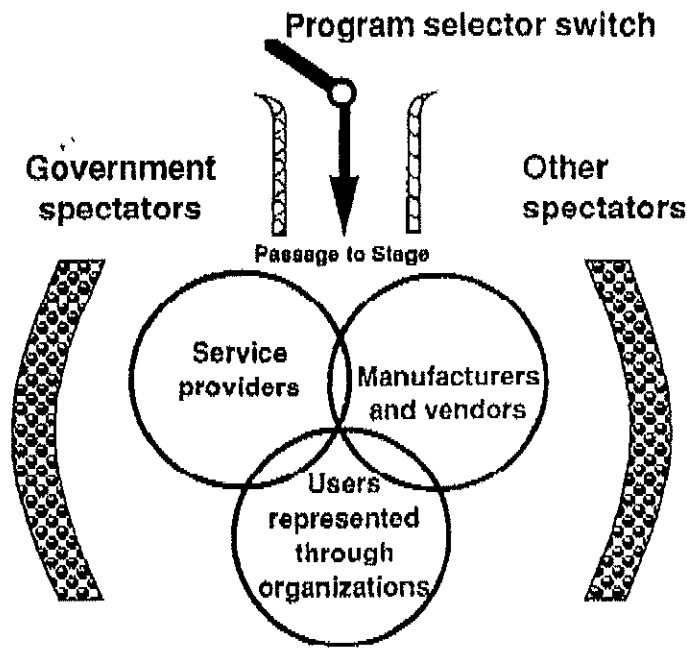PSPDN: Packet-switched public data network
TPM: Time-division multiplexer

Triple-Multi Environment

Multi -vendor

Multi-provider

Multi-carrier

5

The Staging Enterprises

ETSI   CCITT & JTC1   T1

Program selector switch

Government spectators

Other spectators

Passage to Stage

Service providers   Manufacturers and vendors

Users represented through organizations
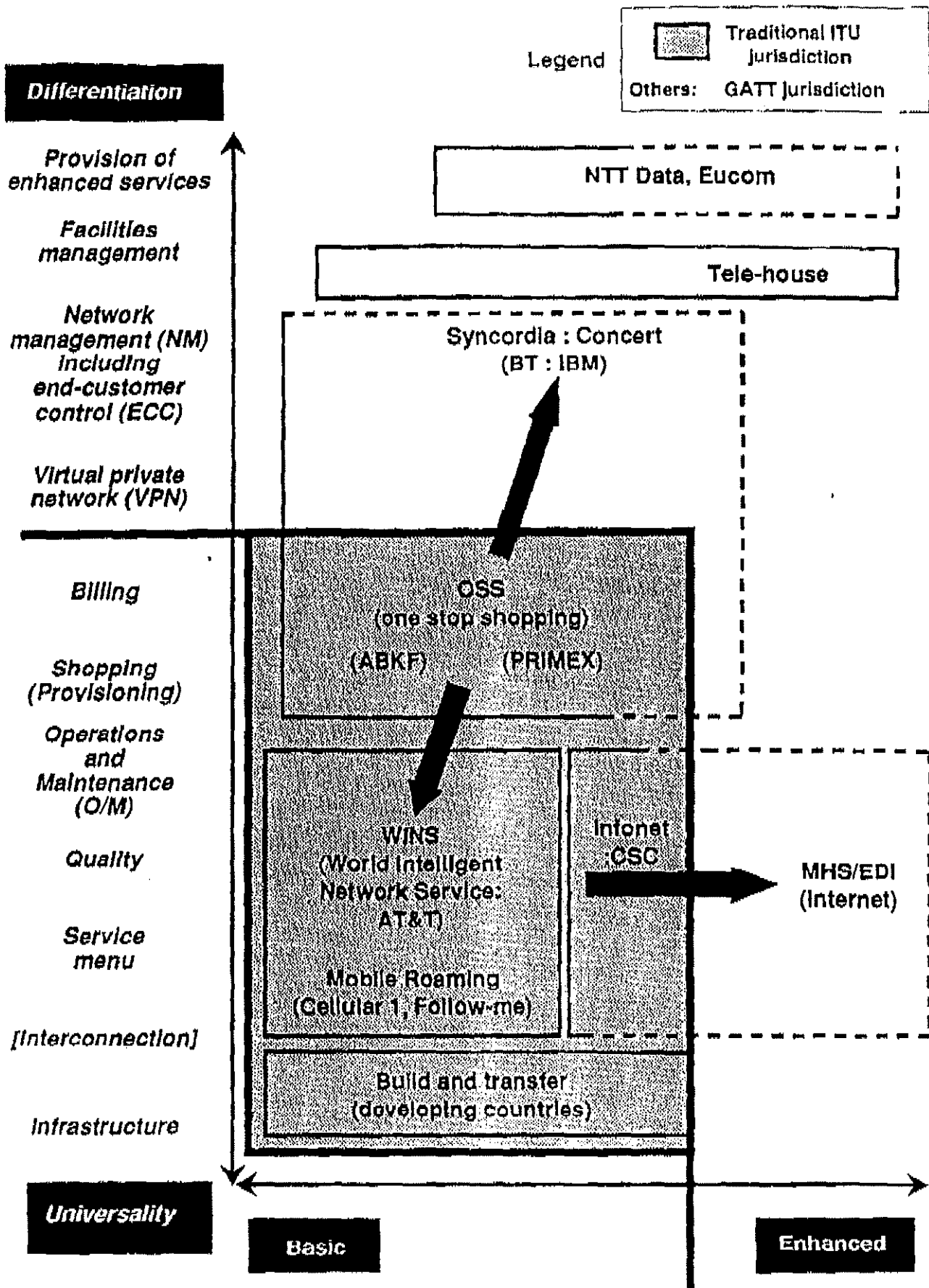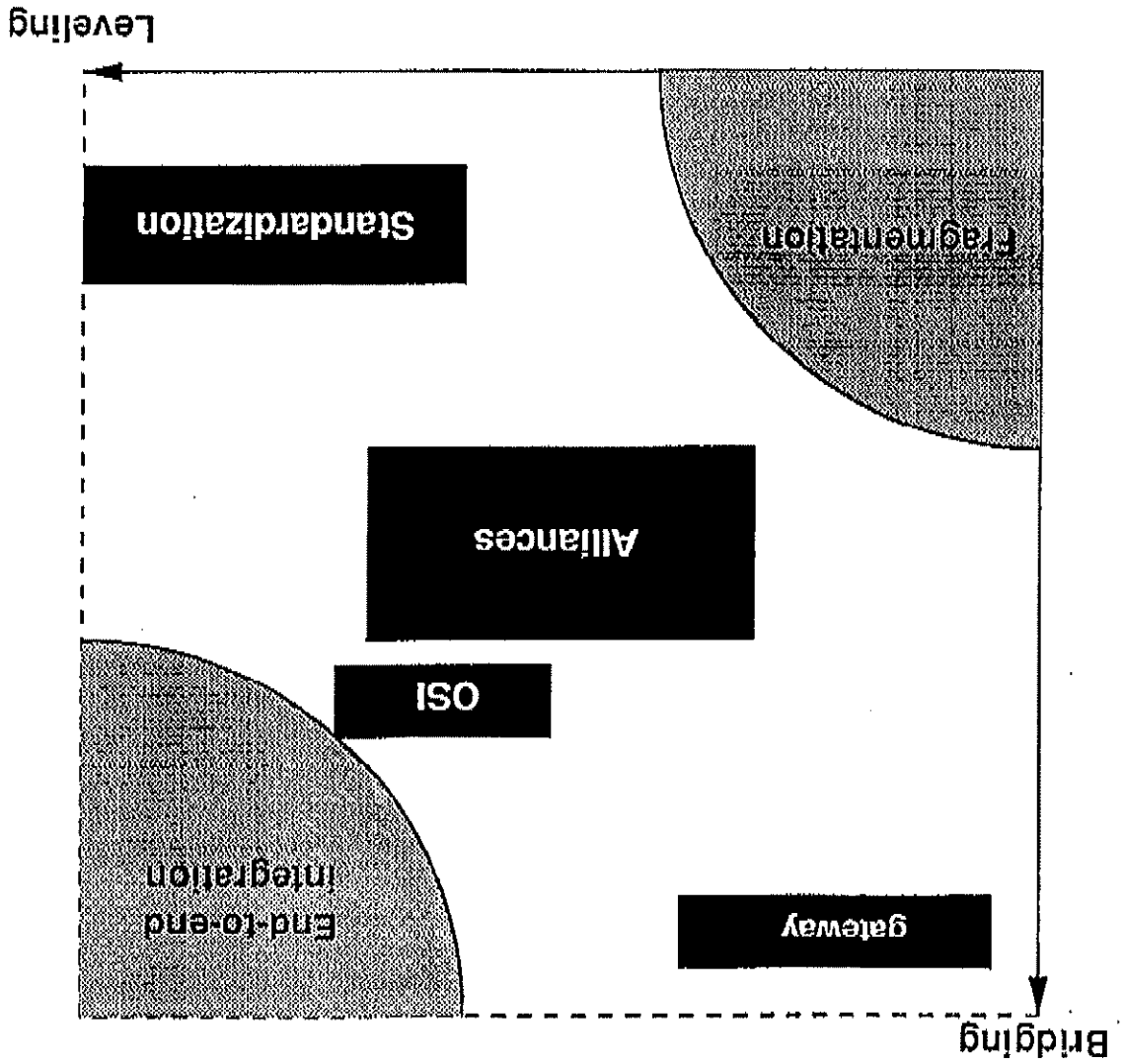
Scenario for Standards-centered competition — a three ring circus

Source: Gerd Wallenstein; 'Setting Global Telecommunication Standards—
the stakes, the players and the process', Artech House, MA, USA 1990

6

Legend

Traditional ITU Jurisdiction
Others: GATT Jurisdiction

Differentiation

Provision of enhanced services

Facilities management

Network management (NM) including end-customer control (ECC)

Virtual private network (VPN)

Billing

Shopping (Provisioning)

Operations and Maintenance (O/M)

Quality

Service menu

[Interconnection]

Infrastructure

Universality

NTT Data, Eucom

Tele-house

Syncordia : Concert (BT : IBM)

OSS (one stop shopping)
(ABKF)   (PRIMEX)

WINS (World Intelligent Network Service: AT&T)

Infonet :CSC

MHS/EDI (Internet)

Mobile Roaming (Cellular 1, Follow-me)

Build and transfer (developing countries)

Basic

Enhanced

Expansion of common carriers' activities

Leveling/ Bridging Map

Leveling

Standardization

Fragmentation

Alliances

ISO

End-to-end Integration

gateway

Bridging

Implications---

(1.) No Single Dominant Carrier

(2.) No Single Measure

(3.) User's Voice Becomes Stronger

(4.) Common Carriage Vs. Contract Carriage

(5.) ITU vs. GATT

**(6.) Combining Multiple Private Networks
Does Not Produce The Equivalent Of
A Public Network**