



IIJ Group



## IIJ America Solution/Service

*IIJ Group as global ISP*

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1-888-GO-IIJ-US (1-888-464-4587)

- 1992 IIJ was founded as Japan's first commercial Internet service provider
- 1996 March, IIJ America established in San Jose, CA
- 1996 May, Started Internet connectivity services in the USA
- 1997 Nov, IIJ America established HQ in NY, NY
- 1999 August, IIJ listed on US NASDAQ
- 2005 March, IIJ America established 3<sup>rd</sup> office in Los Angeles, CA
- 2006 Dec, IIJ listed on First Section of Tokyo Stock Exchange



# Leading Provider of IP Services over Own Backbone

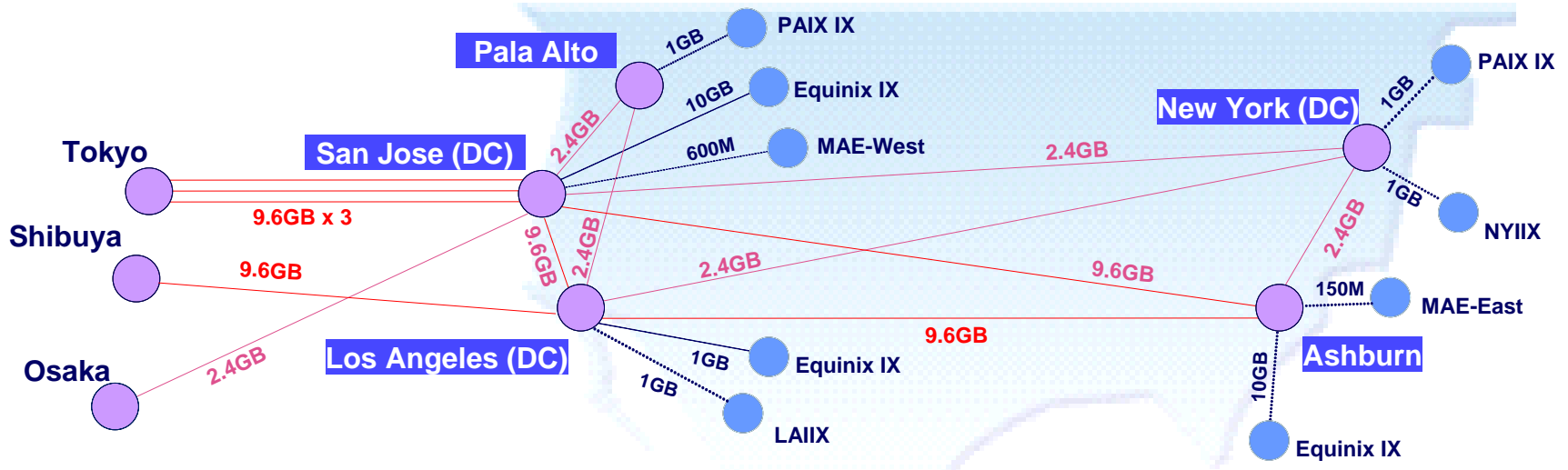
- **Specialized IP network service provider with long operational experience**
  - First-tier international ISP managing Giga-class traffic
  - Redundant, scalable network design to maintain traffic flows without outage
  - A “neutral” provider maintaining its own complete backbone network
- **Peering with 96 ISPs in US**
- **Operations managed in close partnership with Japan HQ**
  - 24X7 monitoring and technical support managed by network experts in US and Japan
- **New, leading-edge services for both network and application**

## Large Public IP Backbone To Japan and Asia

## IIJ Group Backbone Network



# Leading provider of IP Services over Own Backbone



NOC & Data Center	Connect to	Band width
New York Data Center	IIJ San Jose Data Center	2.4Gbps
	Los Angeles Data Center	2.4Gbps
	Ashburn	2.4Gbps
	NYIIX	1Gbps
	PAIX	1Gbps
Palo Alto	San Jose Data Center	2.4Gbps
	Los Angeles Data Center	2.4Gbps
	PAIX	1Gbps
Ashburn	New York Data Center	2.4Gbps
	San Jose Data Center	9.6Gbps
	Los Angeles Data Center	9.6Gbps
	Equinix Exchange	10Gbps
	MAE-East	150Mbps

NOC & Data Center	Connect to	Band width
San Jose Data Center	New York Data Center	2.4Gbps
	Palo Alto	2.4Gbps
	Los Angeles Data Center	9.6Gbps
	Ashburn	9.6Gbps
	Tokyo	9.6Gbps x 3
	Osaka	2.4Gbps
	Equinix Exchange	10Gbps
LA Data Center	New York Data Center	2.4Gbps
	Palo Alto	2.4Gbps
	San Jose Data Center	9.6Gbps
	Ashburn	9.6Gbps
	Shibuya Data Center	9.6Gbps
	Equinix Exchange	1Gbps
	LAIIX	1Gbps

IIJ America Backbone Network

## Worldwide Activities on Internet Technology

- International Standardization
  - ISOC (Internet Society) - International standardization organization for Internet protocols and technologies  
Founding member. IIJ is the only Japanese Gold Member.
  - IAB, IESG - Main organs of Internet Engineering Task Force (IETF), working groups to establish international standards of Internet technologies
    - IAB: Organization to manage IETF's overall activities. Discuss and standardize on Internet architecture.  
Junichiro Ogino of IIJ Research Laboratory served as an till 2005.  
(Second Japanese citizen to serve after Mr. Jun Murai)
    - IESG: Organization that keeps track of project progress and status for all of IETF's working groups.  
Randy Bush of IIJ America served as one of the twelve area directors till 2004.
  
- International Groups
  - NANOG (North American Network Operator's Group)  
Randy Bush of IIJ America served as a member of steering committee
  - ARIN (American Registry for Internet Numbers) & AfriNIC (African Internet Numbers Registry IP Address)  
Randy Bush of IIJ America is a founding member
  - APNIC (Asia Pacific Network Information Center)  
IIJ participated as a chair of IPv6 Technical SIG
  
- Initiative in IPv6 Research and Implementation
  - Early adaptor of IPv6 backbone network in Japan
  - WIDE project – Research organization for large scale wide area distributed computing  
Participated in KAME, USAGI, Nautilus-6 projects to research implementations of next generation Internet protocol IPv6  
(KAME=IPv6 for BSD, USAGI=IPv6 for Linux, Naurilus-6=Mobile IPv6 Project)
  - Various IPv6 organizations – Contributed in adaptation of IPv6 technologies
    - IPv6 Promotion Council / Kazumasa Utashiro, board member <<http://www.v6nic.net/>>
    - Internet Association Japan / Takamichi Miyoshi, IPv6 deployment council member <<http://www.iajapan.org/>>
  - Operate IPv6 IX “JPNAP6” (mfeed)

## Compliance with Security Incident

### ■ Partnerships with Security Organizations

- Forum of Incident Response (FIRST): International organization for security incident  
Formed by world's top-level Incident Response Team (IRT), security vendors and ISPs. Improves security products and services through collaboration and information sharing. <<http://www.first.org>>
- Telecom Information Sharing and Analysis Center Japan / Kazumasa Utashiro, committee member  
<<http://www.telecom-isac.jp/>>
- JPCERT/CC: IPv6 backbone operation in Japan / Kazumasa Utashiro, board director
- IPA Information Security Industry / Kazumasa Utashiro, committee member
- NICT Information Security / Kazumasa Utashiro, support member
- Information Security Early Warning Partnership sponsored by Ministry of Economy, Trade and Industry

## Activities on Mail Abuse (SPAM)

### ■ International Activities

- Messaging Anti-Abuse Working Group (MAAWG): Organized by international ISPs and communication carriers to curb Internet mail abuse. Discusses technical standards among ISPs, tests new technology such as Sender Policy Framework and authors international policies with governmental agencies. <<http://www.maawg.org/>>  
Only founding member from Japan. Collaborates with other members and employs the latest technologies in the Japanese market.
- Japan Email Anti-Abuse Group (JEAG): Organized by Japan's major ISP and cellular carriers. Leading an effort in combating mail abuse while complying with the special requirements in Japan. <<http://jeag.jp/>>  
Founding member.
- Participating member in "Phishing Prevention Committee", organized by the Ministry of Internal Affairs and Communications
- Member of mail abuse committee in Internet Association Japan (IAJapan)

## Participation to Governmental Committees and Groups

### ■ Activities for Next Generation Technologies

- Advanced Information Network Society Strategy Committee, Cabinet Office, Government of Japan / Koichi Suzuki
- Next Generation IP Infrastructure Research Group, Ministry of Internal Affairs and Communications / Koichi Suzuki, founding member
- Photonic Internet Forum, SCAT, research effort in high-speed high-volume network using photonic technology
- Advanced Network Authentication Foundation Research & Development, Ministry of Internal Affairs and Communications
- Safe & Secure Internet Committee, SCAT / Toshiya Asaba, board director
- Time Business Committee, SCAT, operation of NTP server, R&D collaboration
- Ubiquitous Network Society Research Committee, Ministry of Internal Affairs and Communications
- High Technology Crime Prevention Committee, Japan Metropolitan Police Department
- Next Generation IP Network Forum / chair member
  - SCAT: Support Center for Advanced Telecommunications. Affiliate organization of Ministry of Internal Affairs and Communications. <<http://www.scat.or.jp/>>
  - NICT: National Institute of Information and Communications Technology, independent administrative agency promoting business development in information communications industry. <<http://www.nict.go.jp/>>

## IC Tag

- EPCglobal: International barcode standardization organization for Electronic Produce Code (EPC) system. <<http://www.epcglobalinc.org/>>
- Provided “IIJ EPC Network Service” to Hewlett-Packard RFID Noisy Laboratory Japan. Collaborative research effort with HP Japan to implement EPCglobal Network compliant system.
- Participated in RFID testing (2005, 2006), sponsored by Ministry of Economy, Trade and Industry
- Member of The Distribution Systems Research Institute. Assisted in standardization effort of ecommerce using IC tag.

## ■ IIJ America Customers (with permission)

- Toyota Motor North America, Inc
- Docomo Communication Laboratories USA, Inc
- Yamato Transport
- Yusen Air & Sea Service (USA) Inc
- Takeda America Holdings, Inc
- DNP America, LLC
- Nagase America Corporation
- Tomen Electric America Inc
- Hitachi Chemical Co America Ltd
- JTB USA
- Sumitomo Chemical America, Inc
- COSEL USA Inc
- TAK Development, Inc
- Shinkin Central Bank
- NIDEK Inc
- NTK Technologies, Inc
- Hanwa America Corporation
- Daitron, Inc
- Fuji Industries Corp
- Toshiba Ceramics America Inc
- OKAYA (USA) Inc.
- Development Bank of Japan
- NJR Corporation
- NSD America, Inc
- NTK Technologies
- Nippon Genetics Co., Ltd Santa Clara
- Kyodo News International Inc
- K-I Chemical USA Inc
- The Gunma Bank, Ltd
- Pasona NA Inc
- M.O. Air International, Inc
- Diamond Lease (U.S.A.), Inc
- Obayashi Corporation
- Japan Chamber of Commerce Industry
- Nihon Ceratec Co, Ltd
- Marcom Visual Creation, Inc
- Ribbon Connections, Inc
- B-Bridge International Inc

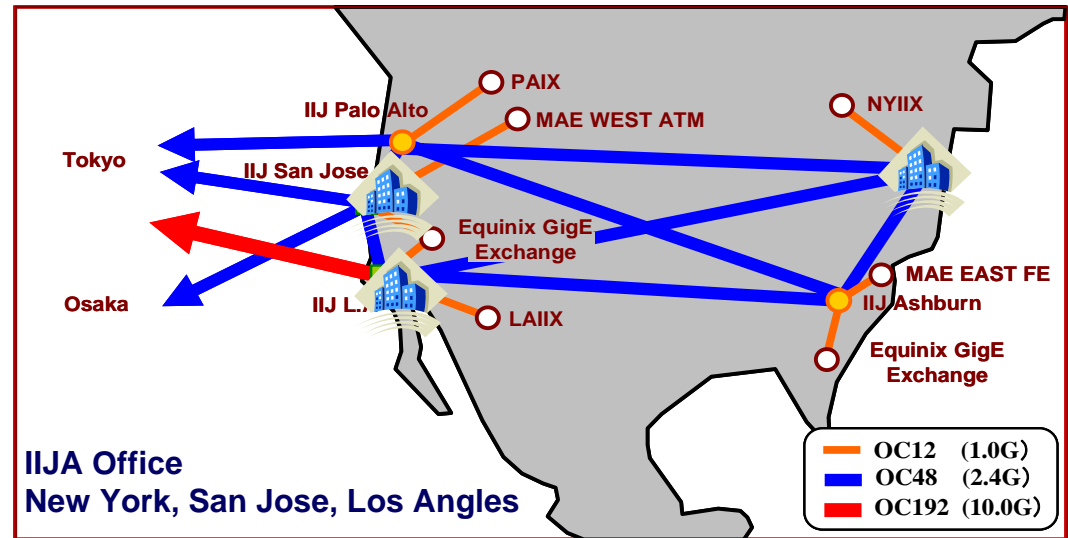
IIJ group can leverage its operational expertise and backbone network to provide managed network and outsourced services to answer your Network Needs.

Check Point	IIJA	Check Point	IIJA
<b>Backbone Network Robustness</b>		<b>Support</b>	
* Carrier Neutral Backbone Network Circuits	<input type="radio"/>	* Direct Support from Backbone Engineers	<input type="radio"/>
* POPs built in Carrier Neutral Data Center Facility	<input type="radio"/>	* Single Point of Contact for technical support and trouble shooting	<input type="radio"/>
* Multiple physical fiber routes to POP Building	<input type="radio"/>	* Bilingual Engineers with English /Japanese	<input type="radio"/>
* All backbone circuits with SONET RING protection	<input type="radio"/>	* 24x7 Proactive Monitoring of Backbone and Customer Network	<input type="radio"/>
* IP Route Redundancy by IGP operation	<input type="radio"/>	* 24x7 Proactive Trouble Notification to Customers	<input type="radio"/>
* Traffic Management and Analysis on backbone and access circuits	<input type="radio"/>	* 24x7 Trouble Call Accept	<input type="radio"/>
* Backbone Routing Device Redundancy	<input type="radio"/>	* <b>Customized Monitoring for Various Network Devices and Servers</b>	<input type="radio"/>
* Global Single AS operation	<input type="radio"/>	* <b>Tailored Network Operation Flow per Customer Request</b>	<input type="radio"/>
<b>Backbone Network Availability</b>		<b>Service</b>	
* Multiple connections to Major National ISP around the world	<input type="radio"/>	* US Nation Wide Access Line at Major Market Area	<input type="radio"/>
* Targeted Packet Delivery within IIJA Backbone Network	99.998%	* Application	<input type="radio"/>
* Guaranteed Network Availability within IIJA Backbone Network	99.998%	* Managed	<input type="radio"/>
* Latency with IIJA Backbone Network	60ms or less	* Security	<input type="radio"/>
		* Hosting / Collocation	<input type="radio"/>
		* Native and Tunnel IPv6 connectivity	<input type="radio"/>
		* <b>Network and System Integration and Consultation</b>	<input type="radio"/>

## 24x7 Operation, Monitoring and Troubleshooting by IIJA Engineers

### IIJA Support Covers All Continental Time Zones in the US

- IIJA engineers are staffed at the following locations: New York City, Los Angeles, San Jose
- Support requests available with toll-free phone number and email
- Bilingual Support in English and Japanese
- 24x7 monitoring of network and network devices
- Trouble notification and support request on 24x7 basis
- IIJA assists in troubleshooting and replacing of managed hardware



IIJA designs, manages and supports the following services & solutions per customers' requirements

## 1 Network Solution

- Internet Access
  - T1, T3, Fast Ethernet, DSL, Dial-up
- WAN Solution
  - Wide Area Ethernet (L2)
  - Internet-LAN (L2TPv3)
  - IPsec VPN (US Domestic/International)
- Data Center Colocation
- WAN Optimization

## 2 Security Solution

- Managed Firewall
- Secure Remote Access
- Security Assessment

## 3 Application Solution

- E-Mail Outsourcing
  - IIJA Enterprise E-Mail
  - IIJA Exchange E-Mail
  - Dedicated E-Mail Server
- E-Mail Security Gateway
  - Spam Filter
  - E-Mail Archive
- File Sharing / Storage
- Web Hosting
- Web Conference

## 4 Custom Solution

- IIJA Service/Solution Integration
- Custom Solution

IIJA Internet Access offers a reliable dedicated connection that connects to the IIJ group's Internet backbone network.

## T-CLASS Internet Access

### Features

- Network Monitoring: 24/365
- Tech Support: 24/365
- Tech support offered in English and Japanese

Internet access lineup: T1/T3, Fast Ethernet, DSL, Dialup

T-CLASS service is available with T1 and T3 services. In addition to the traditional IPv4, next generation IPv6 service is also available.

### T1

- Bandwidth: as shown in the table at right
- Fees: Contact IIJA for a quotation
- Service offered anywhere in the US (inquire for details)
- IP address allocation (6)
- Other fees: Location changes, NOC changes etc. quoted when needed
- Lead time: New services can be started in six weeks or less.
- Minimum contract term: 1 year
- Option: Managed Router (IIJ SEIL)
- 24/365 network monitoring and technical support
- Bilingual tech support in English and Japanese

Speed
1.5Mbps
1Mbps
768Kbps
512Kbps
384Kbps

## FIXED T-3

- Bandwidth: 3-45 Mbps
- Fees: Contact IIJA for a quotation.
- Service Areas: New York, Palo Alto, San Jose, Los Angeles
- 24/365 network monitoring and technical support
- Bilingual tech support in English and Japanese

## BURSTABLE T-3

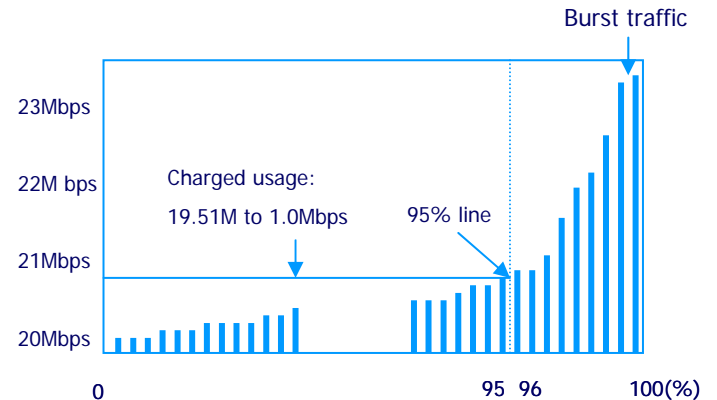
Dedicated T3 (45Mbps) Internet connection priced on traffic usage

\* Economical pricing based on the traffic the customer uses

- Bandwidth: Up to 45Mbps
- Fees: Pricing based on traffic usage (contact IIJA for details)
- Service Areas: New York, Palo Alto, San Jose, Los Angeles
- 24/365 network monitoring and technical support
- Bilingual tech support in English and Japanese

### Fee Calculator

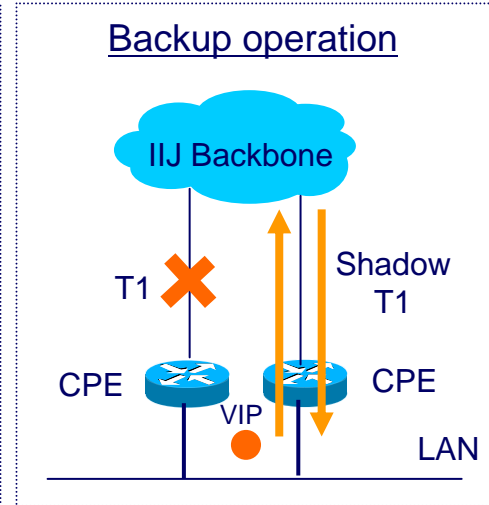
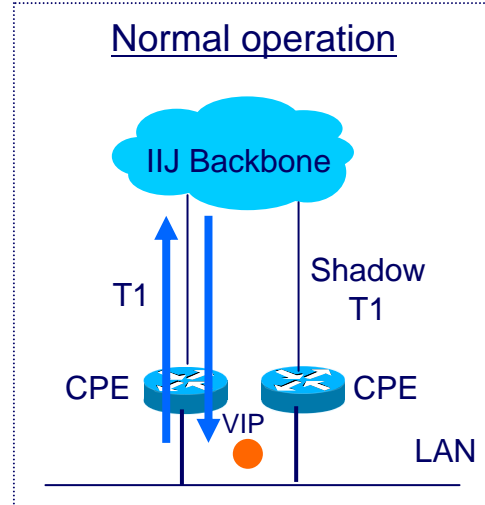
- In-bound and out-bound traffic are each measured every 5 minutes to determine average traffic in each direction.
- The higher average of the two (In-Bound and Out-Bound traffic) is used as the measure of average traffic for the billing period.
- The individual, 5-minute traffic measurements are then lined up from smallest to largest over the entire month. The top 5% of these periods is removed, and the value left at the top (at the 95% position) is used to calculate charged bandwidth.
- The top 5% of all measures (equal to 1.2 hours of service per day) are omitted to determine the 95% traffic level for the month. Service fees are then calculated based on this 95% level.



IIJA offers redundancy configurations to automatically protect customers with critical connectivity requirements from local line problems or hardware failures.

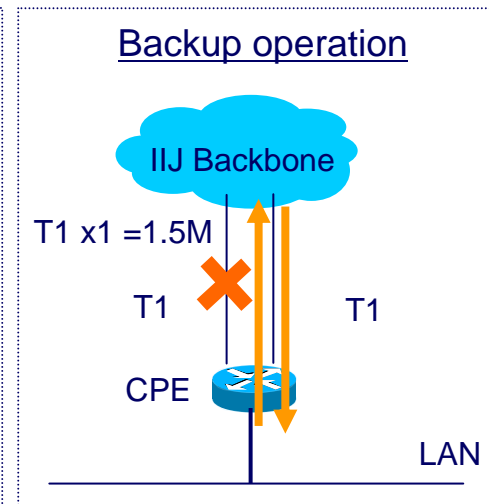
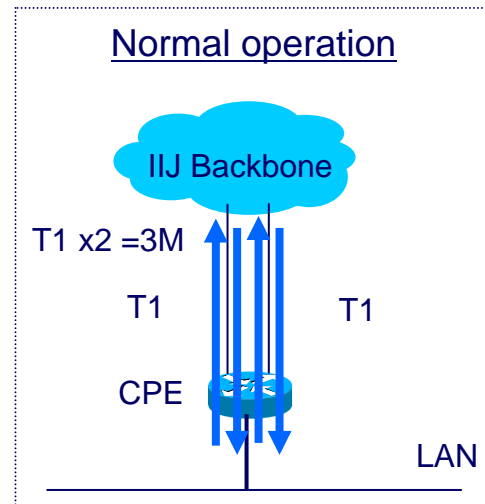
## Shadow T1 Configuration

- Main T1 line plus backup T1 line by a different carrier
- Redundant CPE router configuration is seen as a single router from the LAN side
- The router automatically redirects the traffic to the shadow T1 when the main T1 line fails.
- 2 T1 lines are not used simultaneously.



## Double T1 Configuration

- Main T1 line and backup T1 line by a different carrier terminate at T1 WANx2 router.
- T1x2 3Mbps bandwidth is available for use during normal operation (load balancing on a per packet basis)
- The backup T1 line is available for use when the main T1 fails.
- Bandwidth expandable up to T1x4 (6Mbps) with the same carrier



IIJA offers redundancy configurations to automatically protect customers with critical connectivity requirements from local line problems or hardware failures.

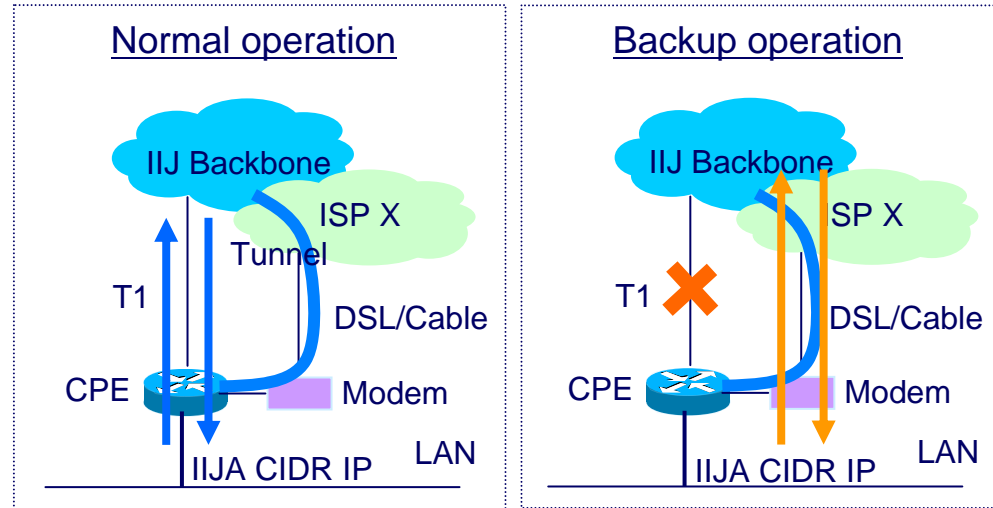
## Service Outline

### ■ DSL Backup Configuration

- Main T1 line plus a backup DSL/Cable line from a different ISP
- IIJA creates a GRE tunnel between the IIJA Backbone and CPE over the ISP's connection.
- The router automatically redirects traffic to the backup DSL/Cable link if the main T1 line is down.
- The same LAN IIJA CIDR IP address is available for customer use while the backup solution is active.
- Failover to the backup solution requires no customer-side firewall, remote VPN or server changes.

### ■ Other Configurations

IIJA has extensive expertise in multi-homed BGP connections such as T3+T1 and T1+DSL. IIJA engineers will consult with you to find the solution that best fits your requirements.



IIJA ETHERNET Internet Access offers IIJA's data center customers a direct connection to the IIJ backbone network. Coupled with IIJA data center colocation, the service benefits the customer with reliable access to the Internet.

## FIXED 10M/100M FAST ETHERNET

- Bandwidth: 1Mbps to 100Mbps
- Fees: Contact IIJA for a quotation
- Service Areas: IIJA POP data centers (New York, Palo Alto, San Jose, Los Angeles)
- 24/365 network monitoring and technical support
- Bilingual technical support in English and Japanese

## BURSTABLE 10/100 FAST ETHERNET

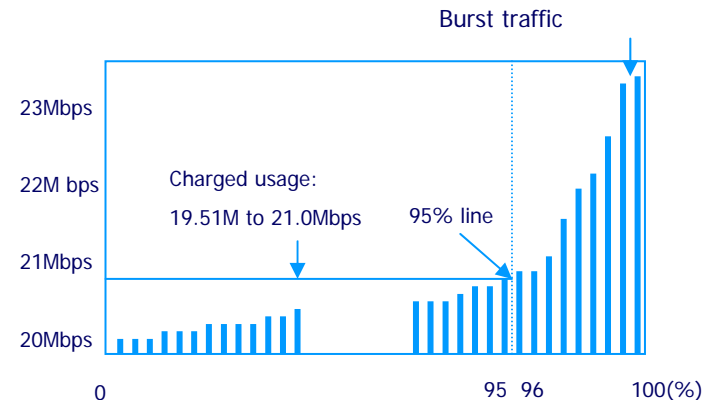
Dedicated T3 (45Mbps) Internet connection priced on traffic usage

\* Economical pricing based on the traffic the customer uses

- Bandwidth: 10Mbps, or up to 100Mbps
- Fees: Pricing based on traffic usage (contact IIJA for details)
- Service Areas: IIJA POP data centers (New York, Palo Alto, San Jose, Los Angeles)
- 24/365 network monitoring and technical support
- Bilingual technical support in English and Japanese

### Fee Calculator

- In-bound and out-bound traffic are each measured every 5 minutes to determine average traffic in each direction.
- The higher average of the two (In-Bound and Out-Bound traffic) is used as the measure of average traffic for the billing period.
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- The top 5% of all measures (equal to 1.2 hours of service per day) are omitted to determine the 95% traffic level for the month. Service fees are then calculated based on this 95% level.



IIJA DSL Internet Access is best suited for price conscious customer who seeks economically priced Internet service. IIJA offers business class SDSL (Symmetric Digital Subscriber Line).

- Bandwidth: as shown in the table at right
- Fee: Contact IIJA for a quotation
- Service Areas: Contact IIJA for details
- Network monitoring: 24/365
- Technical support: 24/365
- Bilingual tech support in English and Japanese
- IP address allocation (6; additional fee for 14 or more)
- Lead time: New services can be started in six weeks or less
- Minimum contract term: 1 year

Speed
128K/144K IDSL
160K/160K SDSL
384K/384K SDSL
768K/768K SDSL
1M/1M SDSL

IIJA Dialup Internet Access is a business class dialup IP connection service. The service is convenient for the users who are out of the office or as a backup connectivity at the customer's office. Roaming option allows the use from overseas locations as well as within the U.S.

## ■ Fees

Setup fee: \$50

Monthly fee: \$85

- \* Includes 10 dialup accounts per service agreement
- \* Includes 2 hours user per dialup account per month
- \* Additional time charged at \$0.05/minute

## ■ Option: Toll Free Roaming Service

US: \$0.35/minute

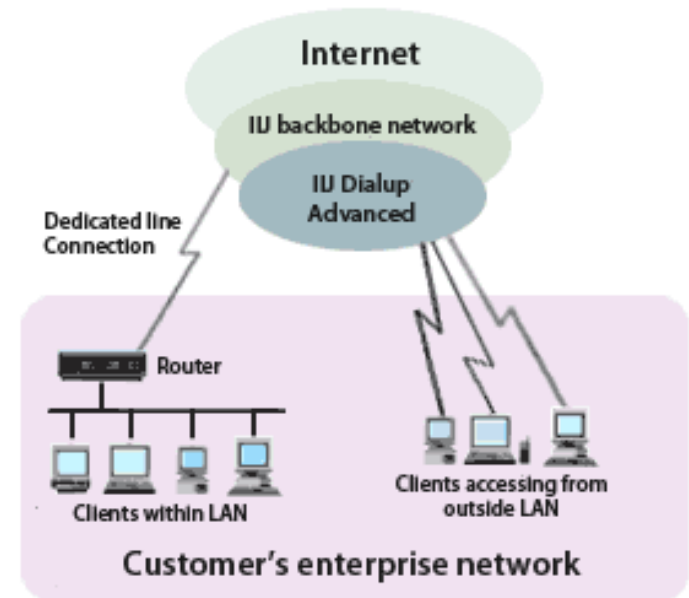
- \* Contact IIJA for information on international roaming

## ■ Access Points

DIALUP ADVANCED features a large number of dialup access points in all regions of Japan, as well as in the NYC Metro (including many New Jersey locations) and the San Francisco Bay Area.

The roaming option gives additional toll-free access from all 50 of the United States.

For users who seek a global roaming package, we are able to offer additional packages featuring additional add-on options through international providers such as EQUANT and GRIC.



Wide Area Ethernet (L2) uses T1 access line at each location to build a closed private network in the U.S.

## ■ Private Network

The network is closed and private as each site connects to customer's VLAN hosted at the IIJA facility. Ethernet LAN at each site is bridged over a T1 connection.

(VLAN = Virtual LAN, virtual LAN technology used with network switches)

## ■ Flexibility

The service can accommodate varieties of your networking requirements. Both single or multiple segments are available based on the sites and departmental configurations.

## ■ Expandability

Add a new site to your private network by simply plugging in IIJA's bridge device. Your business can easily change site configuration based on business strategy.

## ■ Protocol Free

Ethernet frames are encapsulated so that the non-IP protocols can be used.

## ■ VLAN Frame Tagging

Passes customer's own VLAN-tagged frames with IEEE 802.1Q devices.

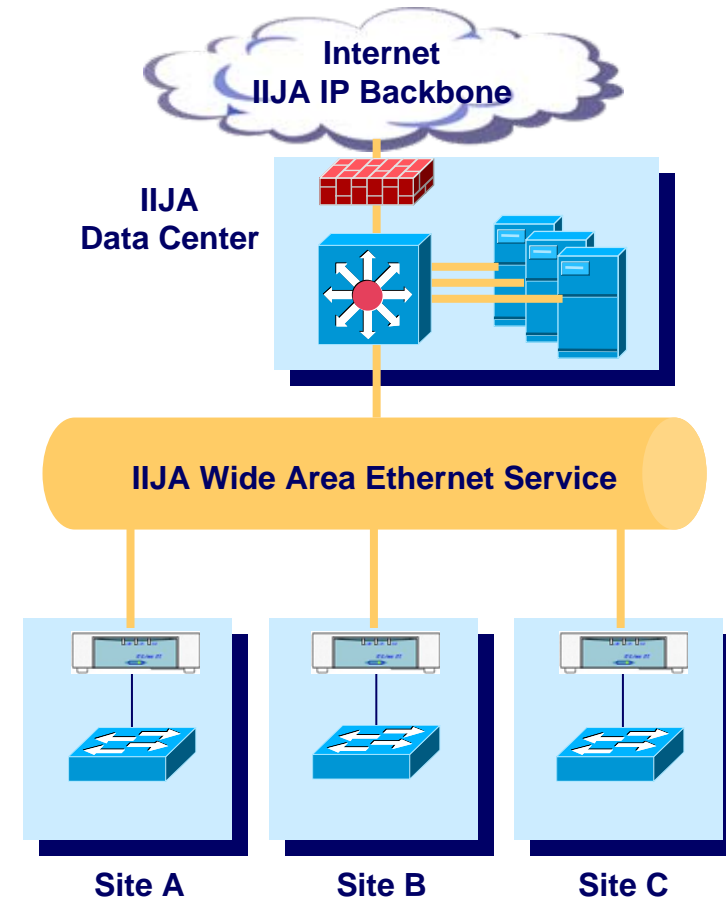
## ■ 24/7 Network Monitoring

**Network monitoring on 24/7, 365 days basis. Monitors various resources of the servers hosted at the IIJA data centers. Proactive approach to minimize downtime.**

## ■ Affordability

Affordable price compared to the competing services

## Network Configuration



IIJA Internet-LAN service uses IIJ's SEIL 2FE plus router to build a secure WAN network at a Layer-2 level. Using L2TPv3 tunneling protocol encrypted with IPsec, small/large sites can belong to the same network segment for easy sharing of files and corporate resources.

## ■ Logical Ethernet Space

Create a logical Ethernet space on the Internet and IIJA IP backbone environment. Suitable for small remote sites with no IT staff but need to maintain the same security level with the HQ site.

## ■ Safety

IIJA Internet-LAN is encrypted with IPsec (3DES) to ensure security equivalent to IPsec VPN.

## ■ Protocol Free

Ethernet frames are encapsulated so that the non-IP protocols can be used.

## ■ VLAN Frame Tagging

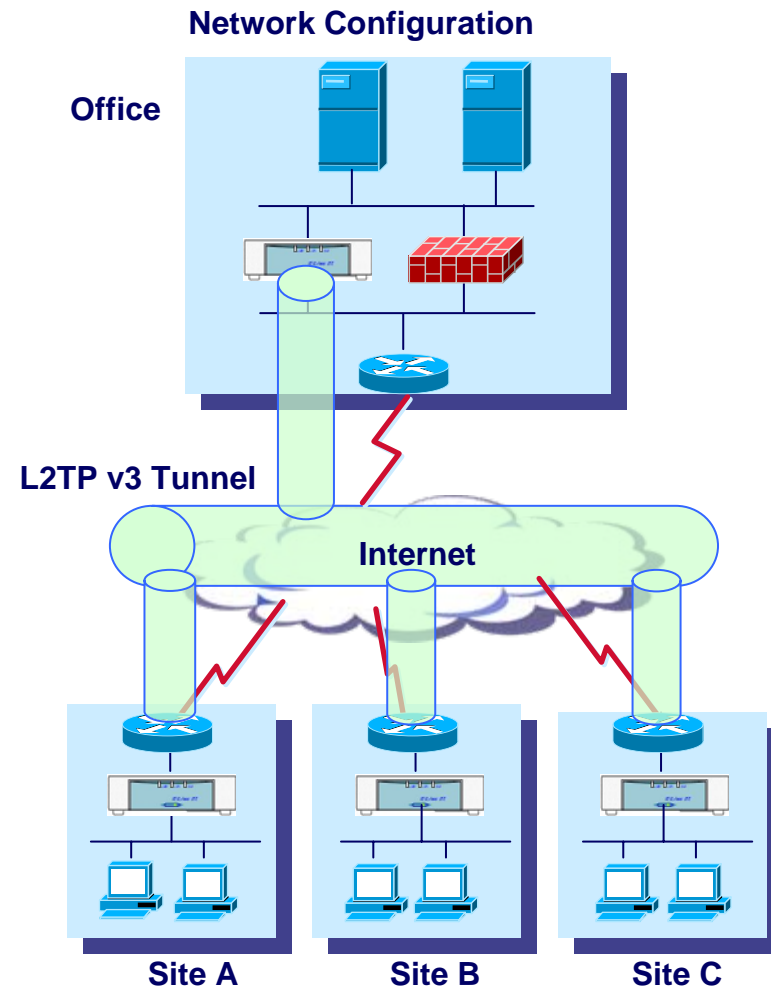
Passes customer's own VLAN-tagged frames with IEEE 802.1Q devices.

## ■ Flexible Choices in Access Lines

The service is available to customers using IP services not from IIJA. IIJA IP connection service, however, offers high quality communication within IIJA backbone network.

## ■ 24/7 Network Monitoring

Your network will be monitored 24 hours a day, 365 days a year.



IPsec VPN uses IPsec encryption protocol and creates a secure corporate network on the Internet. IIJA monitors and troubleshoots the network on 24/365 basis.

## ■ VPN Topology

- VPN tunnel topology is a star type (HUB-Spoke).
- Internet access from each site can use two patterns. (see Pattern A & B below)

## ■ Initial Setup

- IIJA implements the initial configuration based on the configuration sheet filled out by the customer.
- IIJA offers consultation on network design and any other special requirements that the customer may have.

## ■ Monitoring & Operation

- Monitors the VPN tunnel on 24/365 basis.
- Addition and removal of the customer sites are done remotely by IIJA staff.

## ■ Technical Support

- 24x7x365 technical support for troubleshooting and customer notification
- IIJA handles all issues related to the VPN device, such as troubleshooting and hardware replacement with the vendor.

## ■ Hot Standby Option

- Hot standby option is available in case of a device failure. NSRP feature automatically redirects the traffic when one of the devices fail.
- WAN redundancy is available using HSRP, VRRP protocols at the router level. (Please refer to the diagrams below for Hot Standby Option and WAN Redundancy Option)

## ■ Cold Standby Option

- Cold standby option is available for all models in case of a device failure.

WAN Optimization Option is a service to optimize customer WAN based applications without modifying the WAN topology. IIJA performs 24/7 network monitoring and troubleshooting.

## Service Outline

### Application Acceleration

The following technologies are used to optimize for WAN-based application limitations such as high latency, packet loss, and inefficient data transfers due to protocol characteristics:

- Byte Pattern Caching
- TCP/CIFS acceleration
- Adaptive Forward Error Correction
- TCP payload/header compression

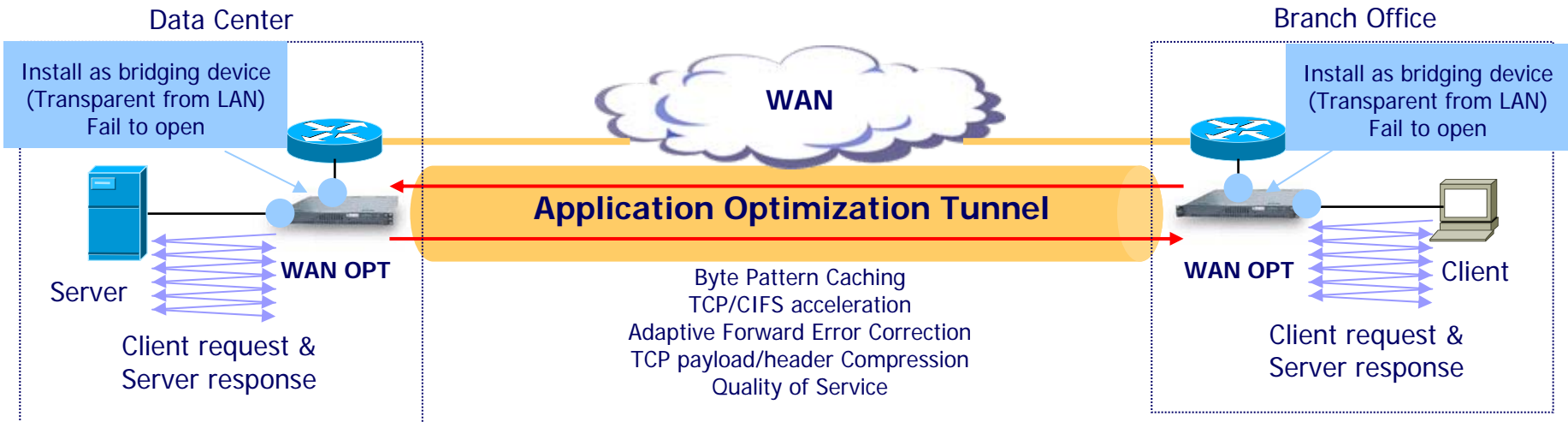
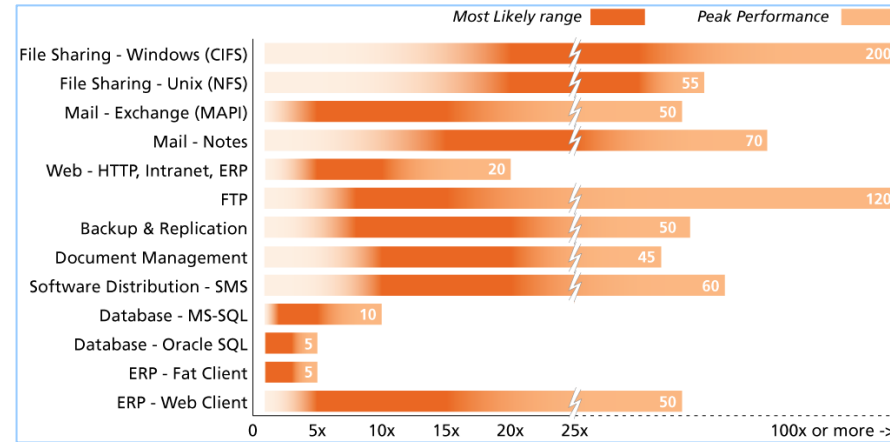
### Fail to Open

In case of a failure, WAN OPT devices are configured to automatically revert to bridge mode between the network interfaces to enable the continued flow of customer traffic minus acceleration features.

### 24/7 Monitoring and Fully Management

WAN OPT Devices are remotely monitored 24x7.

IIJA provides WAN OPT device management for customers such as device installation, configuration, and tuning.



IIJA's Data Center Colocation service offers the ideal environment for customers to maintain their network systems. IIJA engineers will assist in designing the infrastructure, monitoring the equipment and managing the entire system to offer a complete outsourcing solution.

■ Service Available In: New York, San Jose, Los Angeles

■ Rack Specifications:

- 19-inch standard rack - half cabinet, full cabinet
- 20A/120V power supply x1
- 24-hour 1st tier troubleshooting by onsite engineers
- 24-hour site access

■ Options:

- Internet access with onsite Ethernet connection (1-10Mbps)
- IIJA WAN solution (Wide Area Ethernet, IIJA Internet-LAN, IPsec VPN) hub site connection
- 24x7 server monitoring [PING, system load (CPU/MEMORY/HDD), processes, application ports]
- 24x7 network device monitoring [router, switch, firewall]
- 24x7 server and network device administration/operation
- Routine onsite work such as tape replacement

■ Fee: Contact for details

■ Delivery: 1 Month

■ Minimum Contract: 1 Year

The service covers installation, 24x7 surveillance and operation of the firewall, but omits usage reports to provide the customer with a more affordable firewall outsourcing solution.

## Service Outline

### ■ Customer Operations

- Decide firewall policy
- Decide implementation date for the setting change
- Physical tasks related to the firewall device (wiring, etc.)

### ■ IIJA Operations

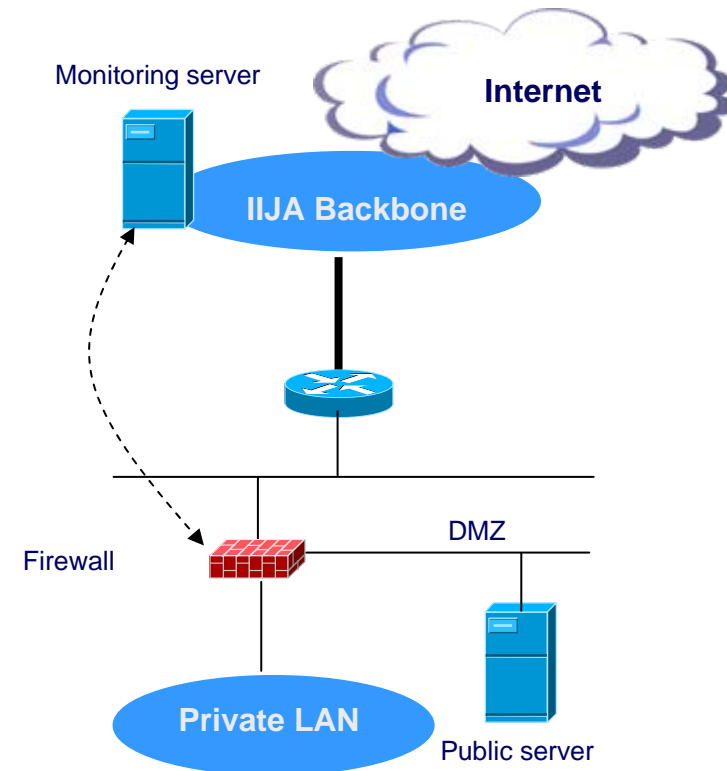
- 24x7x365 monitoring
- Change policy settings
- Update system software
- Log operating history of firewall device

### ■ Option

- Cold standby

### ■ Device

Firewall Device	DMZ Support	Network I/F	FW Throughput	Simultaneous Sessions
NS5GT10	No	100Mbps	75Mbps	2,000
NS5GT Plus	No	100Mbps	75Mbps	2,000
NS5GT Extended	Yes	100Mbps	75Mbps	2,000



Secure Remote Access secures the end user connection that accesses corporate servers (E-mail, groupware, database server, etc.) via the Internet

## Outline

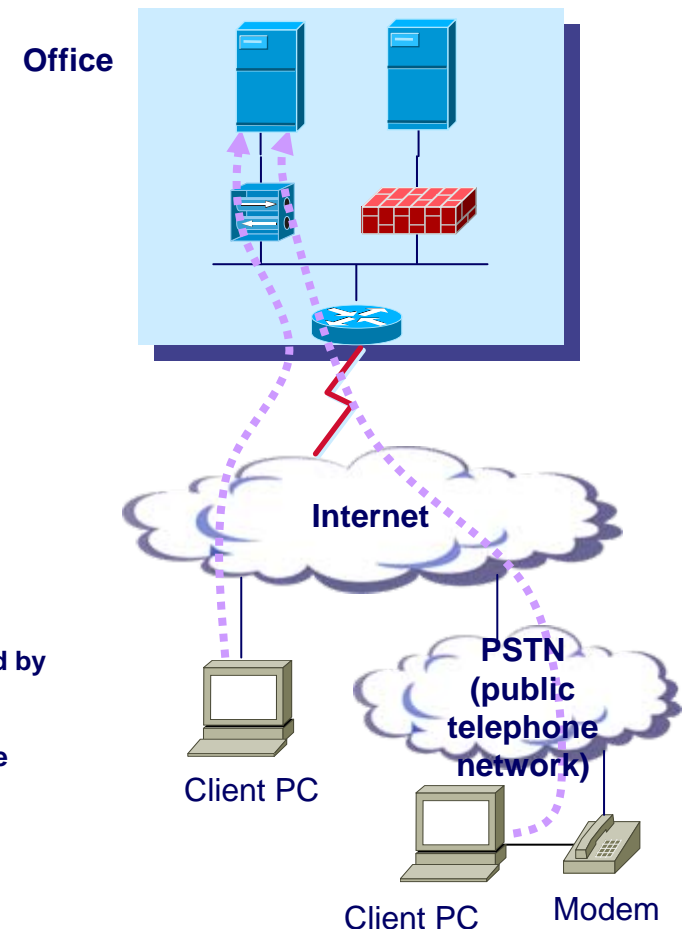
Dialup Internet Access	IIJA Dialup Service provides dialup access to the Internet
Remote Access Gateway	CISCO PIX series do not require a separate authentication server and accepts connections from Windows OS's built-in VPN connection
Maintenance & Monitoring	24x7 device monitoring, troubleshooting and replacement of a failed device (by next business day)
Setup Change	Setting change for client (during business hours)
Device Redundancy	Cold standby device support (optional)

※The customer is responsible for client VPN setup based on the documentation provided by IIJA.

※IIJA dialup service is compatible with the Secure Remote Access for users requiring the connection via dialup environment.

※IIJA uses Cisco ASA, Juniper SA series devices for SSL VPN service.

## Network Configuration



IIJA Security Assessment service proactively detects security holes and configuration mistakes in order to prevent unauthorized access and DoS (Denial of Service) attack. The service includes vulnerability scan, detailed report and technical advisory by IIJA staff.

**Internet Scan:** Devices with Global IP Addresses  
**Intranet Scan:** Devices with Private IP Addresses  
 (uses appliance server)

**Appliance Server**  
 Intranet Scanner



- Vulnerability check on network device and software application
- Scan engine provided by an industry leader Qualys
- Matching with the latest vulnerability database
- Automatic delivery of a scan result report
- Rankings of security holes by their severity
- URL links to information on a security hole
- URL links to software patch of a security hole
- Account protection by password authentication
- SSL encrypted communication
- PC Management service facilitates the remediation actions (patches, registry changes, etc.) by automating the repair process.

## Devices and Applications Covered

**Operating Systems:** Windows NT, and 2000, Linux, BSD, MacOS X, Solaris, HP-UX, Irix, AIX, SCO, Novel, etc..

**Routers, Administrable Switches, and Hubs:** Cisco, 3Com, Nortel Networks, Cabletron, Lucent, Alcatel, etc..

**LDAP Servers:** Netscape, IIS, Domino, Open, LDAP, etc..

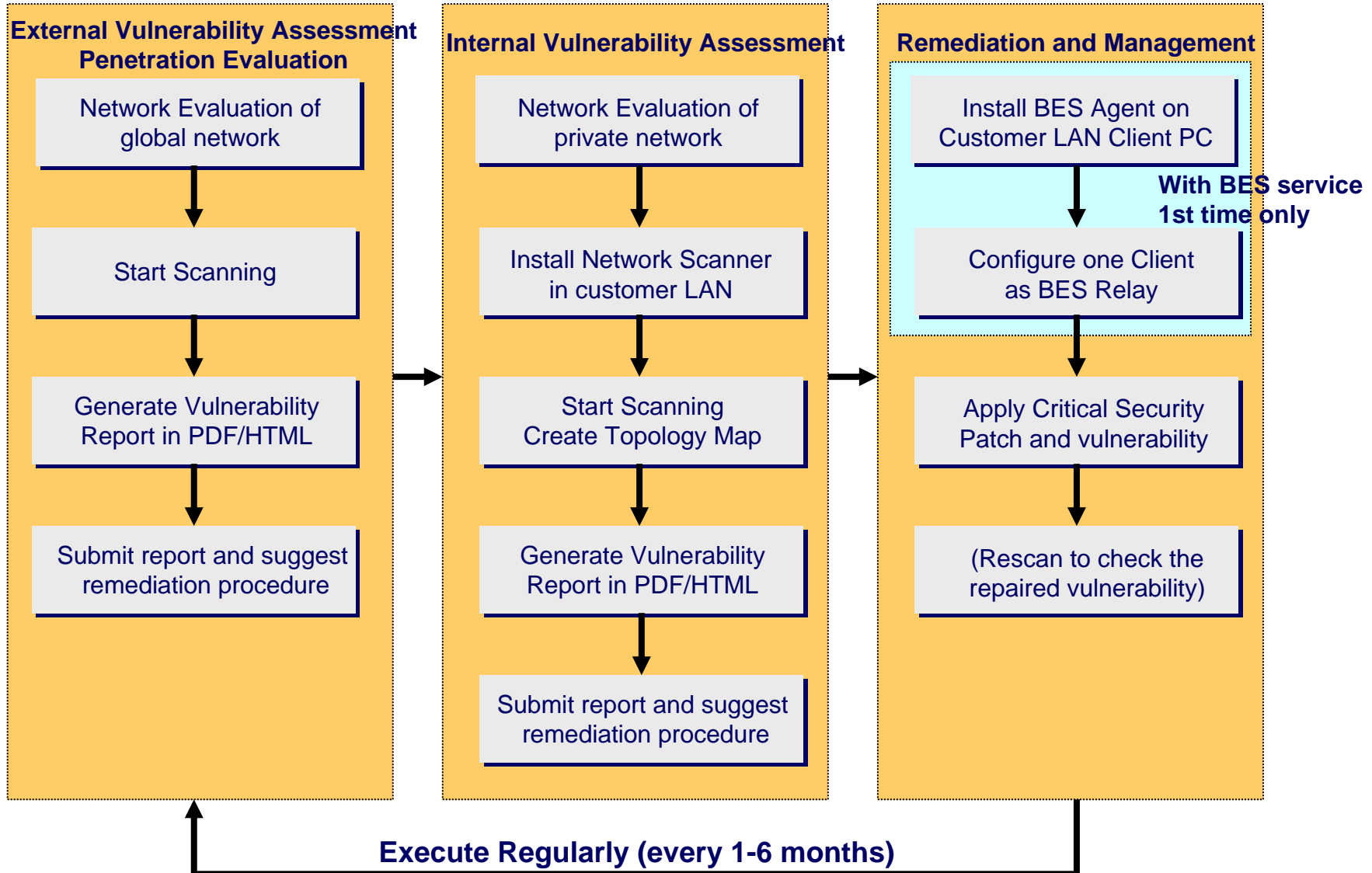
**SMTP/POP Servers:** Sendmail, Microsoft Exchange, Lotus Doimino, Netscape, Messaging Server, etc..

**Firewalls:** Check Point VPN-1/Firewall-1, WatchGard, Cisco PIX, NetScreen, Gauntlet, CyberGuard, Raptor, etc..

**Web Servers:** Apache, Microsoft IIS, iPlanet, Lotus Domino, IpSwitch, Zeu, Full Support for Virtual Hosting, etc..

**Databases:** Oracle, Sybase, MS SQL, PostgreSQL, MySQL, etc..

## Evaluation Cycle



IIJA E-Mail outsourcing offers standard E-Mail Hosting Service of Enterprise E-Mail and Exchange E-Mail, and Dedicated E-Mail Server services to respond to the corporate customer's email requirements.

## Service Outline

### ■ IIJA Enterprise E-Mail

E-Mail Hosting service is IIJA's standard service to serve corporate e-mail system outsourcing with the customer's own domain name.

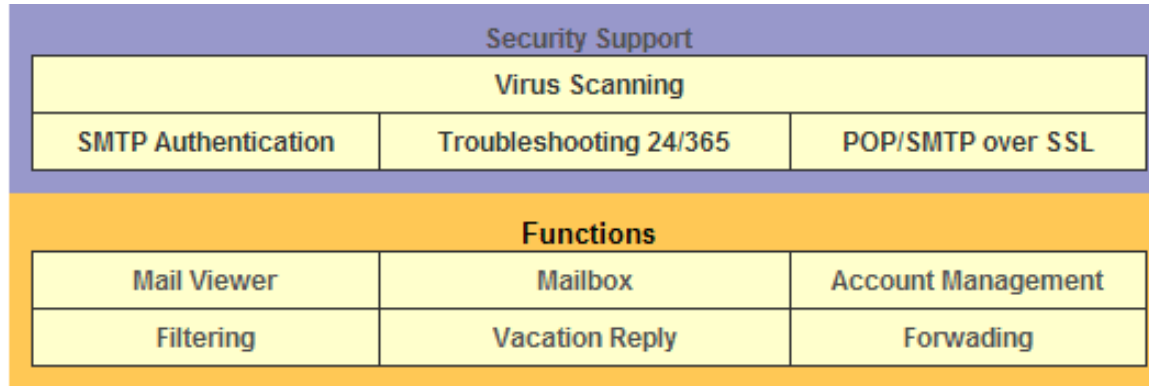
### ■ IIJA Exchange E-Mail

IIJA introduces its Exchange E-Mail Service, providing the customer with regular Microsoft Exchange functions at a low-cost!

### ■ Dedicated E-Mail Server

IIJA corresponds to individual server development and maintenance operations that fit the specific needs of a customer. This is the ultimate outsourcing solution for the customer that demands continuous e-mail, designed by solid composition and system operation.

IIJA's ENTERPRISE E-MAIL lets corporate customers to outsource their e-mail operation. The service is available with customer's own domain name and account management console. The e-mail servers are hosted and monitored 24/7 at IIJA's data center in stable operational environment.



## Service Outline

### ■ Adding & Removing Accounts

Adding & removing user accounts and group accounts are easy.

### ■ Filtering

Filters unwanted messages to trash box, based on the rules that each user sets.

### ■ Vacation Reply

Send an auto-reply message to all received messages while the user is away.

### ■ Forwarding

Forwards all incoming messages to up to 2 e-mail addresses. The option is available to retain the messages on the server.

### ■ MailViewer

Lets the user check messages from anywhere using a web browser (English/Japanese, SSL ready)

### ■ Service Domain Name

xxx @ domainname.com

Use your own domain name for an e-mail address (top-level domains, subdomains)

### ■ Mailboxes

Mailbox Capacity: Unlimited (10MB maximum per message)  
Inbound e-mail saved for: 30 days

## Security and Support

### ■Virus Scanning

Virus infected mail is detected and cleaned at the server side. The TrendMicro based scan engine and virus definitions are updated on 24x7 basis \* The customers do not need to update the virus definitions. (see diagram below)

### ■SMTP Authentication

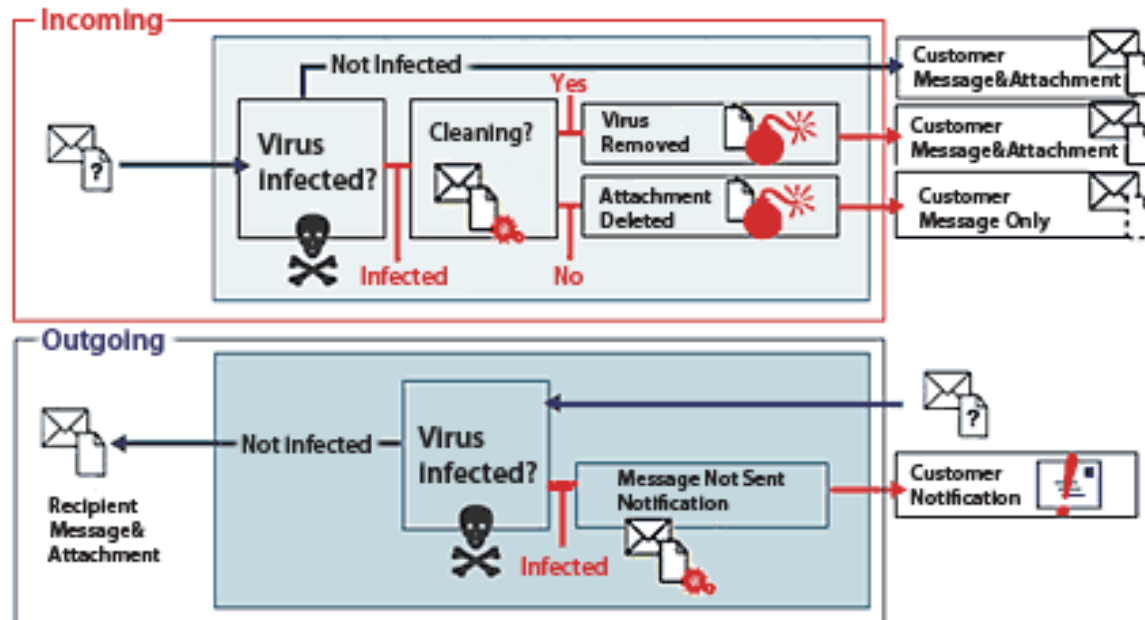
SMTP server authenticates the user each time the user sends the message. SMTP authentication prevents unauthorized users to use the SMTP service for open SPAM relay.

### ■Encrypted (SSL/HTTPS) Transmission

E-mail transmission between the server and client is encrypted using SSL (Secure Sockets Layer) method. User credentials are hidden to protect the privacy of the user. MailViewer also uses HTTPS for encryption.

### ■24x7x365 Technical Support

E-Mail servers are continuously monitored for quick response in case of a trouble.



IIJA's EXCHANGE E-MAIL lets corporate customers to outsource their e-mail operation. The service is available with MS Exchange feature for low cost.

## Meeting the Customer's Needs with IIJA's Exchange Email Service

### ■ Limited Budget? Get More, Spend Less!

→ Affordable Price

- > Avoids the cost of buying a server and having to purchase license fees for the Outlook client
- > Not having the knowledgeable resources doesn't mean that the Exchange Email Service isn't for you!

### ■ Exchange Server is too complicated to handle internally? No Problem!

- Outsource 24x7x365 Operation Management
  - > Operations are managed under stable system environment
  - > available advanced feature without any complicated setting or operation
- Bilingual Support
  - > IIJA will correspond its support to the customers' preferred language between English and Japanese

### ■ Need to Share Information Internally?

- Various features from Outlook are available in order to improve communication within your company!
  - > Shared Contact
  - > Calendar
  - > Public Folder

### ■ Working from Home? On the Road? Access Email from Anywhere!

- Internet Access = Email Access!
  - > Access your email through Outlook Web Access (OWA) via Internet

### ■ Security Management

- Our Service comes with the Ultimate Security!
  - > Anti-Virus
  - > Anti-Spam from MX Logic (w/ quarantine report features)
  - > SSL Encryption

### ■ User Management

- Easily Manage User Accounts with the Web Portal Page
  - > Management and/or users will be able to adjust user settings
  - > Various service levels can be combined (consultation will be necessary)

## Service Plan

### Basic

#### POP with Basic Outlook Web Access

- 25/50/75/100MB per mailbox
- POP
- Outlook Web Access
- Advanced-Anti-Spam
- Anti-Virus
- Free Outlook 2003 for each Exchange Hosting user

### Enhanced

#### POP/IMAP with Full Outlook Web Access

- 75MB per mailbox
- POP, IMAP4
- Outlook Web Access
- Calendar
- Advanced-Anti-Spam
- Anti-Virus
- Free Outlook 2003 for each Exchange Hosting user

### Premium

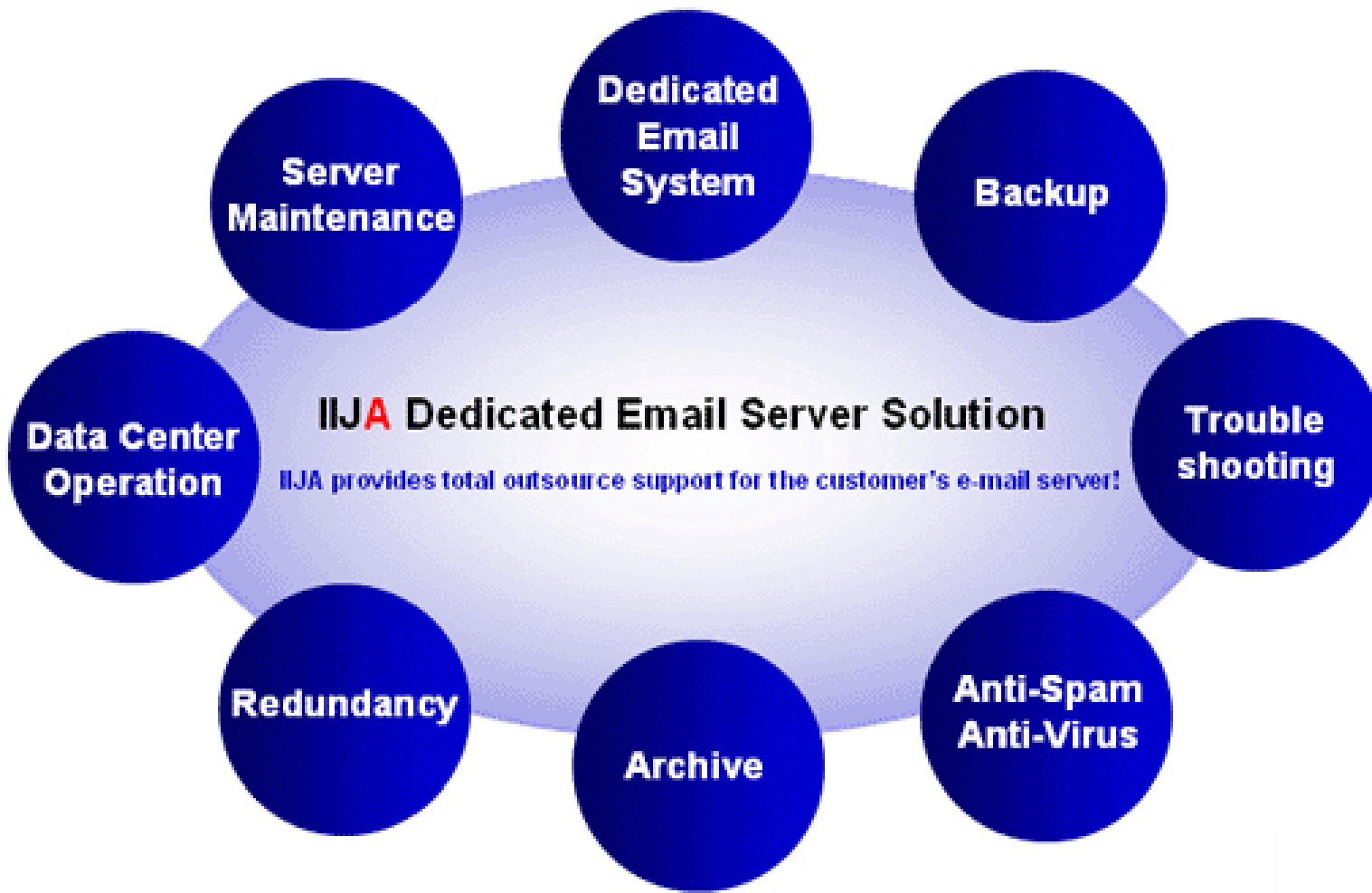
#### POP/IMAP/MAPI with Full Outlook Web Access

- 100/200/300/400/500MB per mailbox
- POP, MAPI, IMAP4
- Outlook Web Access
- Public Folders
- Calendar
- Shared Calendaring
- Advanced-Anti-Spam
- Anti-Virus
- Free Outlook 2003 for each Exchange Hosting user

## Service Plan

Plan / Features	Basic	Enhanced	Premium
Storage per mailbox	25, 50MB	75MB	100,200,300 400,500MB
Microsoft License Includes	POP	POP, IMAP4	POP, MAPI, IMAP4
Outlook Web Access	✓	✓	✓
Calendar	N/A	✓	✓
Shared Calendaring	N/A	N/A	✓
Advanced Anti-Spam (Quarantine Report)	✓	✓	✓
Anti-Virus	✓	✓	✓
Public Folders	N/A	N/A	Optional
Active Sync	Optional	Optional	Optional

Have specific needs? IIJA will construct an e-mail system just for you!



## Service Outline

### ■ Dedicated Email System

IIJA will design, implement and maintain a dedicated email system based on the customer's specific requirements

### ■ Managed Server and Network Devices

All servers and network devices (such as switches, firewall, etc) will be provided as a managed service by IIJA. If any problem arises, IIJA will narrow down the source of the problem, and will handle equipment replacement processes with manufacturers if necessary. Simply put, the customer will only have to report the problem, and IIJA will handle the rest!

### ■ IIJA Data Center Operation

Servers are placed at the data center, assuring power, air ventilation and security.

### ■ 24x7 Server Monitoring/Operation

E-mail servers are maintained at the IIJA data center for 24x7 monitoring. OS and server-related security patches are applied as they are discovered. Email data ranging up to the day before is backed up and available for recovery.

### ■ Spam filtering/Anti Virus

In order to protect the customer's e-mail server, IIJA will provide its' Email Defense service (powered by MX Logic) in order to filter any spam, virus, and worm-related e-mails from reaching the server.

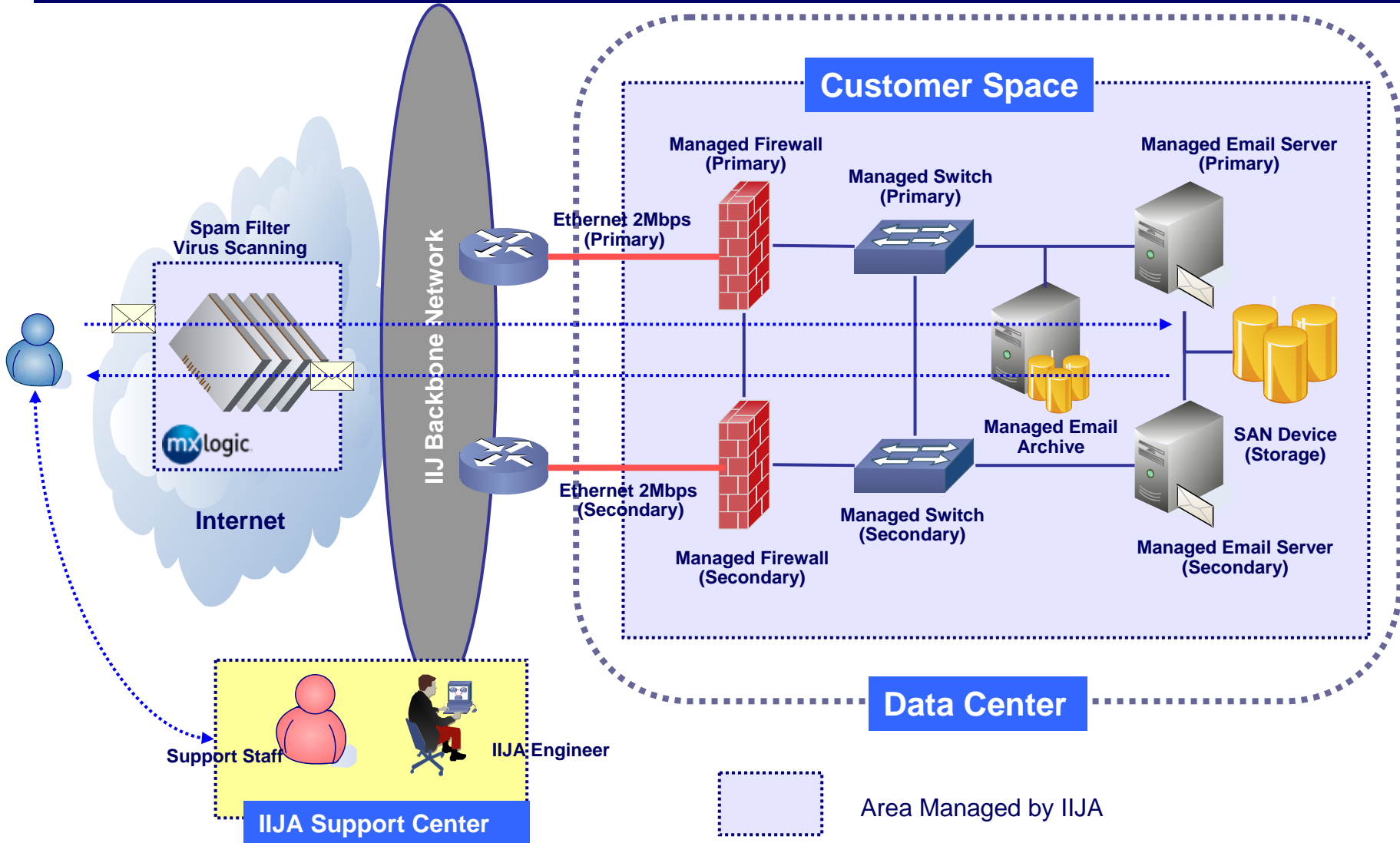
### ■ Email Archive

IIJA will provide its Email Archive solution for the customer's e-mail server, which stores all inbound and outbound mail. The administrative user will be able to search and retrieve any email that is stored in the archive through WebUI.

### ■ Troubleshooting

IJA provides bilingual support through its IIJA Customer Support Center. IIJA's support and engineering staff will be available in the customer's preferred language of either English or Japanese.

## Solution Diagram- Image



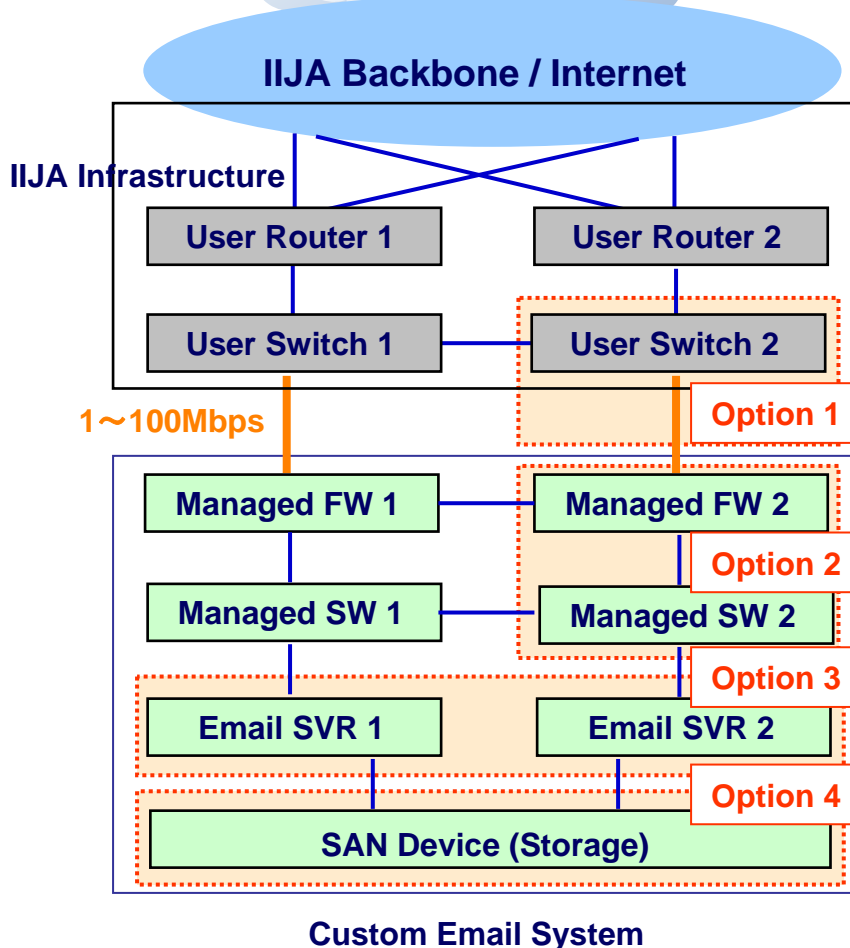
## Option 5

### Email Defense / MX Logic

## Option 5: Fail Safe Function of IIJA's Email Defense

In a case where the Customer MTA server becomes unavailable to receive emails, the Fail Safe Disaster Recovery feature (from IIJA's Email Defense) can store your emails in the spam filter gateway until the inbound server becomes available.

\*The Fail Safe function can hold emails up to 5 days with unlimited storage space.



No	Option	Estimated Recovery Time with option Plan	Estimated Recovery Time w/o Option Plan
1	Redundant Internet Access	Under 1 min	1 min ~ 4 hrs
2	Managed Firewall / Redundant Switch	Under 1 min	4 hrs~8 hrs ( due to replacement of equipment)
3	Clustering	Under 1 min	4 hrs~8 hrs ( requires manual failover process)
4	SAN Storage	Under 1 min	Several hrs (Involves the manual transport process of data)

※The recovery time for Email Defense vary depending on the situation.

※ The recovery times are for estimated purposes only. IIJA does not guarantee any of the data mentioned above.

IIJA's E-Mail Security Gateway between the internet and your E-Mail Hosting Service or E-Mail Server provides various functions including spam filtering, viruses removal, and e-mail archiving.

## Service Outline

### ■ E-Mail Defense Spam Filter

Filters e-mail messages on different policy criteria (spam, virus, file attachment, message size, allow/deny list).

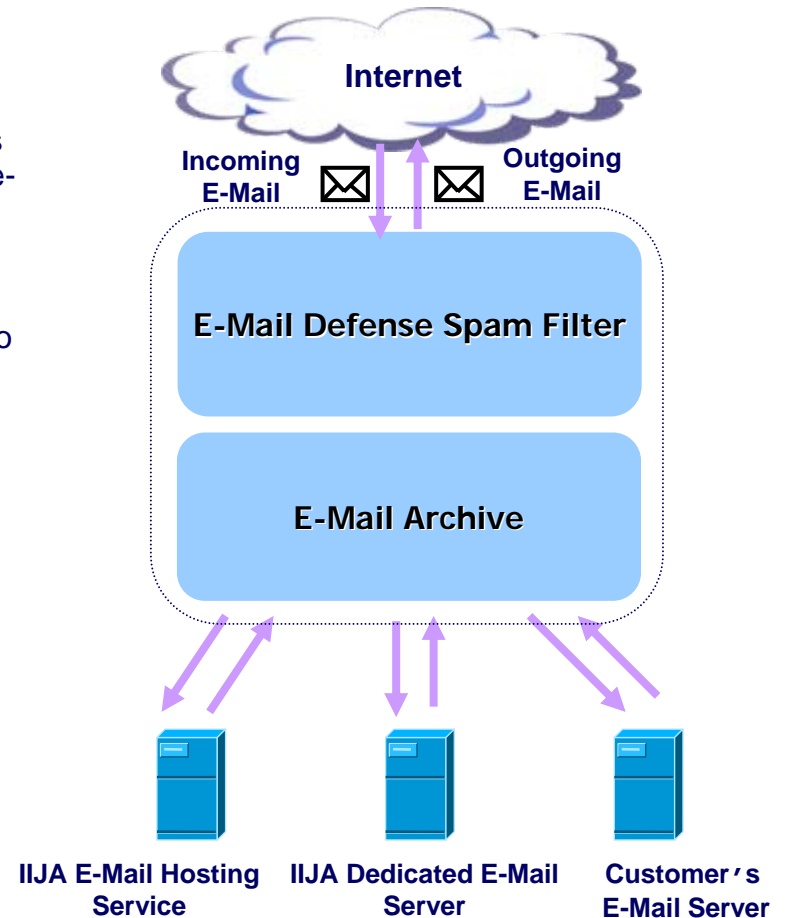
Allows better use of network bandwidth and server load as the filter gateway is located between the Internet and the e-mail server.

### ■ E-Mail Archive

Transparently deliver a copy (BCC) of all messages sent to or from your domain to a specified address. Retained messages may serve as evidences for auditing purposes.

### ■ 24x7 monitoring & operation

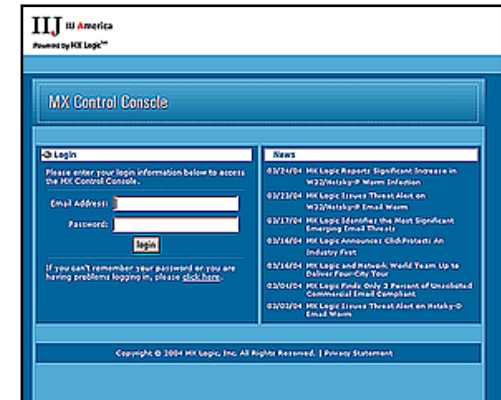
Each gateway server is monitored and operated on 24x7x365 basis.



IIJA's E-Mail Defense Spam Filter service filters out spam, viruses and worms before they reach your mailbox. E-mail Defense creates a more enjoyable e-mail experience that raises business productivity. And filtered message can always be screened later on the Portal Site.

## Service Outline

- ❑ Partnership with MX Logic Inc.
- ❑ Blocks up to 98.5% of spam
- ❑ Protects e-mail servers from external attack
- ❑ No hardware or software updates necessary
- ❑ Latest virus pattern used
- ❑ Virus engines powered by McAfee, Sophos and Authentium
- ❑ Web interface for administrators and users
- ❑ Message quarantine function (automatically deleted after 7 days)
- ❑ Service offered anywhere in the U.S.
- ❑ Multi-Language Support
- ❑ FailSafe Disaster Recovery



Web Console: <http://emaildefense.ij.us/>

## IIJA E-MAIL DEFENSE

Service	Description	Price/per user month
<b>Defense I</b>	Anti-Spam	\$0.90
<b>Defense II</b>	Anti-Spam + Double Virus Scan	\$1.35
<b>Defense III</b>	Anti-Spam + Triple Virus Scan	\$1.50

**Option:** Price for Fail Safe Disaster Recovery : Add \$0.20 per user

E-Mail Archive service will send a copy (BCC) of all messages to/from the customer to a specified address using a relay server located between the client and the customer's e-mail server. Retained messages may serve as evidences for auditing purposes.

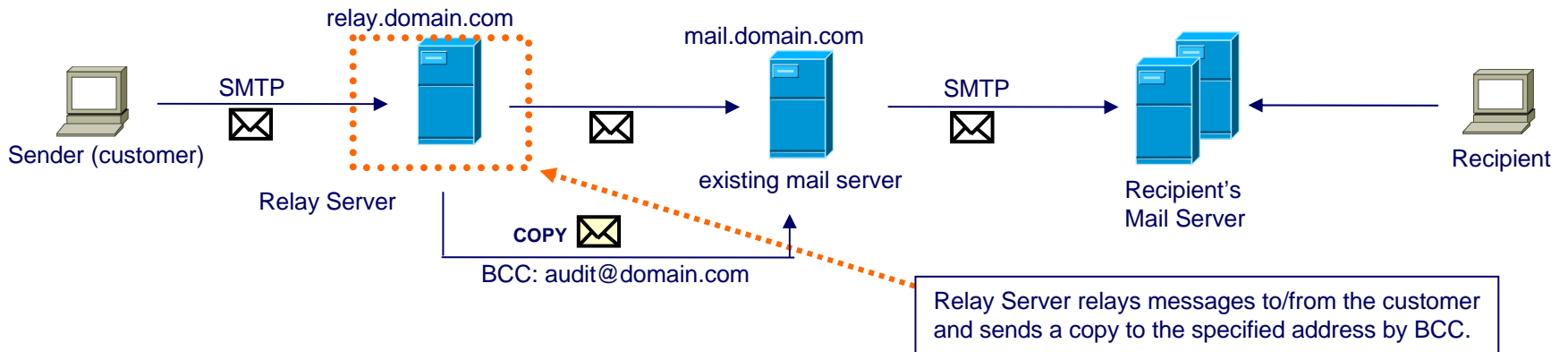
## Service Outline

### Main Features:

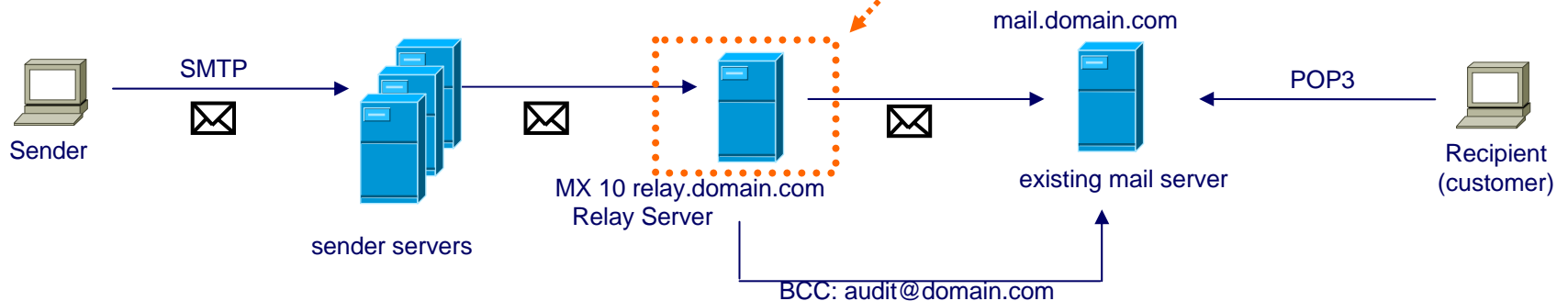
- IJJA provides a relay e-mail server.
- Relay server will copy (BCC) all messages when forwarding them to the customer's SMTP server.
- Relay server becomes the customer's MX and copies (BCC) all messages when forwarding them to the customer's receiving server.

\* The customer is responsible for retrieving the messages stored in the archive account.

### E-mail sent by the customer (domain.com)



### E-mail received by the customer (domain.com)



IIJ Document Exchange Service (DOX) is enterprise-class application to exchange computer files among business partners. DOX is available as service and does not require a dedicated file and FTP server nor their daily maintenance. DOX serves your versatile file exchange requirements with any Internet connection.

## Service Outline

### Case 1 To Provide Short-Term Access to Files

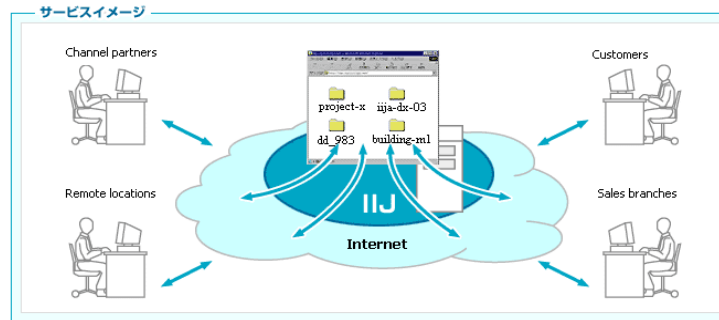
The "One-Time URL Feature" allows users to make files available to non-members for a short period of time.

- \* To provide new product information to channel partners
- \* To distribute product catalogs to the media with a press release

### Case 3 For Remote File Access

With your files on Document Exchange, you can access them "anywhere, anytime"

- \* To revise a presentation from your hotel room for a meeting
- \* To complete an assignment from home



### Case 2 To Exchange Large Files

By creating Document Exchange accounts in advance, it is exceedingly easy to provide access to large files.

- \* Creating an account for your catalog production vendor to exchange image files.

### Case 4 Sharing Confidential File Information

Access proprietary corporate information safely and securely with authenticated ID/password and SSL encryption.

- \* Use Document Exchange as a repository to aggregate branch sales data
- \* Distribute design specifications on a new product to partners

## ■ Access to your file: anytime, anywhere

- You have access to your files with any Internet connection. Uploaded files are available on the servers on IIJ's backbone network. DOX does not require particular software programs or modules and operate in a wide variety of environments with web browsers and Web folders (through WebDAV).

## ■ Secure File Transfer with SSL Encryption

- ID and password are required when accessing the file on DOX. SSL encrypts all data traffic in transit. DOX is thus resistant to network sniffing and tampering.
- \* You may also purchase SSL certificate from certificate authority such as VeriSign for more robust implementation.

## ■ Access Control

- Manage file access by setting access rights on a group, folder basis.

## ■ Onetime URL

- Onetime URL feature facilitates the file exchange by providing temporary file access with your business partners.

Standard Server service is a cost effective shared web hosting service to host the customer's web contents.

## Service Outline

### ■ Features

**Reliable Architecture:** The server is housed at IIJA POP connected directly to IIJA's backbone network.

**Cost Effective:** Customer's own domain name, 200MB disk space are provided with \$25 per month

**Outsourced Solution:** No need to maintain the web server at the customer's site.

### ■ Features Summary

Disk Capacity: 200MB

CGI: Counter, Web Form

\* Custom CGI is not allowed

Access Method: SFTP access

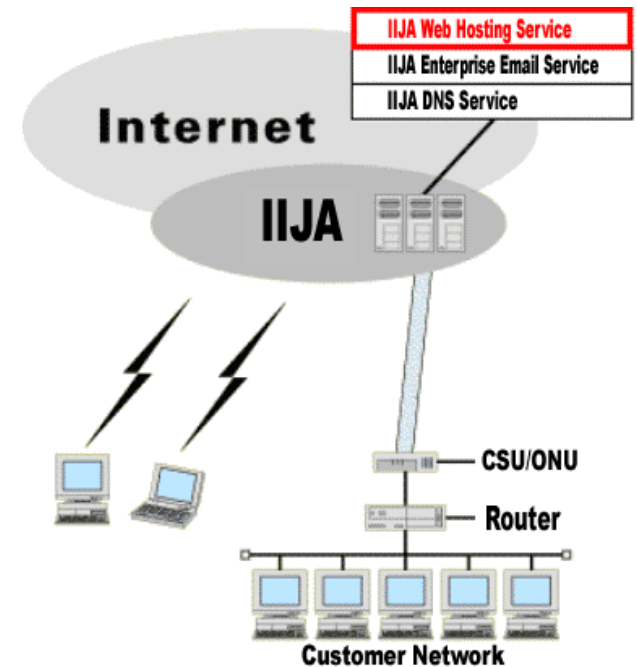
### ■ DNS Settings

Customers not using IIJA DNS Outsource Service

Add a CNAME record of a web server host to the customer's DNS server.

Customers using IIJA DNS Outsource Service

IIJA handles the necessary configuration change.



With the Dedicated Server service, IIJA handles the tasks (network & OS administration, security compliance) on 24/7 basis.

## Service Outline

### ■ Features

Reliable Architecture: The server is housed at IIJA POP connected directly to IIJA's backbone network.

Most of the features needed for the web server are available for use.

### ■ Features Summary

Please refer to the comparison table.

### ■ Requirements

Additional disk space and the Internet bandwidth are available with extra fees.

Please contact IIJA if you need a dedicated server other than the web server.

IIJA will take precautions in halting the service when the customer's contents or the CGI scripts may compromise the server security.

	Standard Server	Dedicated Server
OS/HTTP Server	FreeBSD/Apache Virtual Domain	FreeBSD / Apache
Shell Access	X	O
Root Access	X	X
Access Control	O (.htaccess)	O (.htaccess)
File Upload	SFTP	SFTP
Access Log Analysis	O	O
Custom CGI	X	O
Java Script	O	O
Flash Contents	O	O
SSL	X	O
PHP	X	O
Database	X	O (MySQL/PostgreSQL)
DB Manager WebUI	X	O (phpmyadmin/phppgadmin)
ASP	X	O (by customer)
Java SerMet	X	O
FrontPage	X	O
Site Manager WebUI	X	X
Package Configuration	apache13 mysql41-server php5 perl5.8 webalizer2 (or analog) ssh2 (chroot sftp)	apache13 mysql41-server php5 perl5.8 webalizer2 (or analog) ssh2 (chroot sftp)
Disk Space	200MB	10GB
Internet Bandwidth	1Mbps	1Mbps
Setup Fee	\$50	\$500
Monthly Fee	\$25	\$250

This service is to hold meetings anywhere by accessing to a specified website and drastically reduce business travel cost.

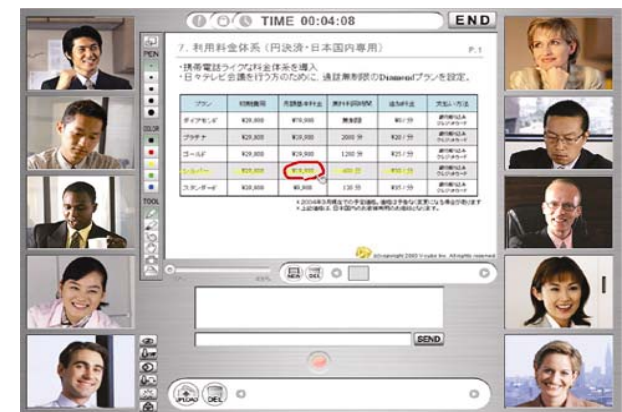
## Service Outline

- **Simultaneously connect from 10 location up to 50 locations**
  - Connect from a PC or other video conference device in the meeting room
- **Automatically detect Network**
  - Set up LAN setting automatically
- **Shared whiteboard for effective meeting**
  - Upload any Word, Excel, Power Point or picture file
  - All participants can write and draw freely in the shared white board
- **No annual contract necessary**
- **Features**
  - Text chat
  - Adjustable microphone and camera setting
  - Recording can be played back anytime after the conference
  - Anyone can be invited to the conference
- **Optional Features**
  - Connect with Polycom or other video conference device
  - Messenger
  - Secure communication with SSL
  - High quality picture
  - Share a computer screen with all participants
  - Connect simultaneously up to 50 locations

*5 way conference screen*



*10 way conference screen*



**Offering Other feathers and options**

This service is a tool that enable sales team to reduce traveling times and expense costs and increase the rate of appointment bookings.

## Service Outline

### ■ Main Features

- Do not need to install or download any software
- Automatically detect Network
- Shared whiteboard

### ■ Basic Features

- Create a customized page for each sales using the " My Page" Tool
- Recording can be played back anytime after the sales presentation
- Presentation documents can be upload ahead of time

### ■ Option Features

- Survey Tool
- Desktop Sharing

#### ● Interface for customer



- 1 Sales Rep Image
- 2 File Cabinet
- 3 Advertising Banner
- 4 Customer Image
- 5 Exit
- 6 Whiteboard
- 7 Text Chat

Company logo can be displayed as an advertising banner

#### ● Interface for Sales Representative



- 1 Customer Image
- 2 File Cabinet
- 3 Allow Customer Operation
- 4 Sales Rep Image
- 5 Record
- 6 Exit
- 7 Whiteboard
- 8 Text Chat

Allow the customer to operate the whiteboard and chat via text.

This service is to reduce conference room and business travel costs by sending seminar contents real-time through web.

## Service Outline

- **Simultaneously connect up to 1000 locations**
- **Tool for internal sales and marketing training**
- **Anyone can participate anytime**
  - Only need PC and broadband connection
  - Recording can be played back anytime
- **Automatically detect Network**
  - Set up LAN setting automatically
- **Shared whiteboard for effective seminar**
  - Upload Word, Excel, Power Point or picture file
  - Write and draw freely in the shared white board during seminar
- **Basic Feature**
  - Text Chat
  - Participants can discuss freely
  - Participants administration and tabulation tool
- **Optional Feature**
  - On-demand tool can be used to browse past seminar
  - High Quality Picture
  - Share instructor's Desktop with participants



**Offering Other feathers and options**

IIJA engineers assist customers in integrating standard services / services, as well as designing the custom solution that best suits the customers' requirements. We will conduct a number of hearings to identify the customers' key requirements.

## Service Outline

### ■ IIJA Service/Solution Integration

- Total outsourcing services such as WAN design, application server setup and security compliance.
- Managing network servers and devices that are not covered under the standard managed service.

### ■ Custom Solution

- Vendor sourcing, designing and implementation of the solution that is not a part of the IIJA standard solutions.
- Outsourcing LAN design, implementation and management.

## Custom Solution Examples

### ■ Outsourcing Network Administration

- IIJA's custom solution reduces routine day-to-day tasks while providing the statistical data for easier management decision making.

[Internet Access](#) + [Managed Firewall](#) + [Dedicated E-Mail Server](#) + [Secure Remote Access](#) + [Monitoring](#)

### ■ Total Security Assessment Solution

- IIJA's Security Assessment service will scan your network for security holes and provide a comprehensive written report. IIJA engineers provide technical advisory for remediation.

[Security Assessment](#) + [IIJA Consulting](#)