

# Strata DK Sales Bulletin

SBDK-0041 4031054 July, 1999

# **Announcing the Oki Internet Voice Gateway for Strata DK**

We are very pleased to announce more exciting new Voice over IP (VoIP) capabilities for the Strata® DK424 Business Telephone System. The Oki Internet Voice Gateway provides service enhancing and cost-effective voice over Internet Protocol (IP) applications targeted to small- and medium-sized customers with multiple offices. These products are easy to install and provide award winning voice quality.

Using Oki's Internet Voice Gateway, customers can now route both voice and fax traffic through any new or existing Wide Area Network (WAN) infrastructure, such as point-to-point, Frame Relay, Virtual Private Network (VPN), or even the public Internet. Customers receive the benefits of sharing bandwidth while combining voice and fax into one long distance carrier network. This eliminates the need to maintain separate networks, improves overall business operation, and produces substantial cost savings.

The Oki Internet Voice Gateway provides an excellent opportunity for Authorized Toshiba Dealers. In recent industry surveys, it has been estimated that the VoIP equipment and service market will become a huge market with continuing growth in the coming years. These surveys also indicate that telephone system providers are the main source buyers look to for VoIP equipment purchases. Oki Network Technologies provides many valuable product training and promotional programs to get Authorized Toshiba Dealers off to a great start in this dynamic new growth industry.

# The Technology

The VoIP telephony gateway improves the flexibility and performance of modern communications systems while reducing long distance telephone toll charges. The gateway provides communication of voice and fax between circuit-switched public telephone networks and IP networks. This enables unlimited, toll-free, long distance calling from telephone-to-telephone and fax-to-fax applications through an IP network.

Calling via the Internet Voice Gateway is simple. For voice calls, dial the gateway from any telephone within your telephone system and enter the destination number. The gateway then digitizes, compresses, and converts your call into data packets that travel over a private intranet or the public Internet to a second gateway at the other end where these packets are decompressed and reconstructed into voice for the destination telephone. Through Least Cost Routing (LCR) from the telephone system, the call can then be routed either locally to the internal extension or over the Public Switched Telephone Network (PSTN). The process is completely transparent to the user; there are no changes to the way voice telephone or fax calls are placed.

For the portion of the trip a voice call or fax data travels over the data network or wide area network, there are minimal costs incurred beyond that of the network connection. There are no toll charges. Telephone charges apply only for the portion of the trip the call travels over the public switched telephone network.

SBDK-0041 Applications

All this takes place quickly and efficiently with voice quality and performance almost as good as communication exclusively over the public switched telephone network. Calls made through the voice IP gateway are completely full duplex.

## **Applications**

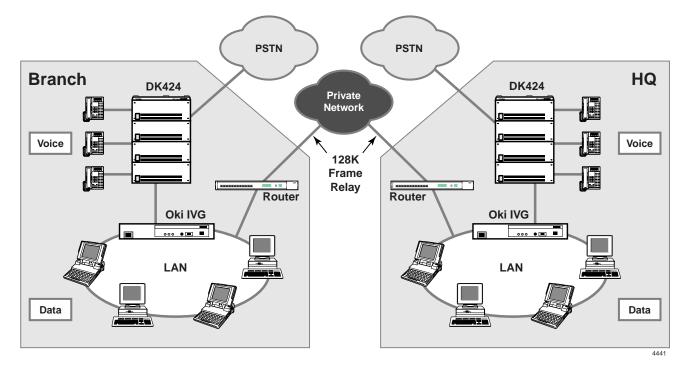
#### **Intra-company Calling - Toll Bypass**

Voice and fax traffic between a home office and branch office, normally routed through the PSTN and subject to toll charges, is instead carried via the Internet network or a private intranet network in the form of IP packets. The benefit is cost savings by eliminating long distance toll charges between these locations, especially for international calls.

Here is an example of a company that has two offices, one in New York and the other in Los Angeles. The headquarters office in N.Y. has eight CO lines while the branch office in L.A. has four CO lines. Voice and fax calling traffic between the headquarters office and branch office, if routed through the public switched telephone toll network, would cost the company a toll charge of 10 cents per minute between those two offices. An average of 6 hours of calling traffic per day would cost approximately \$720 per month in toll charges. The company also currently has a data connection to a 128 kbps Frame Relay wide area data network that they are paying for. For purposes of this example, it is assumed that there is 30 kbps or so of unused capacity.

By implementing the Oki Internet Voice Gateway solution, this company can route some of their voice/fax traffic through their existing data network and avoid the toll charge between the two offices. Additionally, the customer may also be able to reduce their number of CO lines (perhaps from four to three at the L.A. office and from eight to seven in N.Y.) since interoffice calls will now be routed through the IP network. In this example, the company would show a return on investment (ROI) payback in approximately 12 months just by eliminating long distance interoffice toll charges between their two locations. The cost savings and ROI payback are even more dramatic in international calling applications.

The following diagram shows this interoffice toll bypass example configuration:

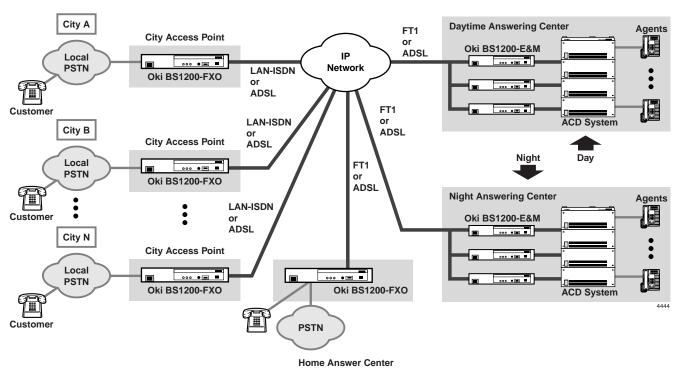


SBDK-0041 **Applications** 

#### **IP Call Center**

One of the major expenses of a call center is the cost of incoming "800" lines. A call center can use the Oki Internet Voice Gateway solution to produce substantial savings by increasing incoming local calls and reducing incoming calls on "800" lines. This is done by setting up local point of presence (POP) locations so that geographically dispersed customers can dial a local access number, access the gateway, and route these calls via a private IP network and/or the public Internet to the call center instead of dialing a central "800" number. This makes these incoming calls local calls for customers and avoids "800" number toll charges for these calls to the call center.

The following diagram shows an IP call center example configuration and the potential cost savings produced with the Oki Internet Voice Gateway products:



#### **PSTN 800 Service**

Sample Network 12 lines

Average call load 4 hours x 12 lines = 2,880 minutes 2,880 x 30 = 86400 minutes Monthly minutes Approximate expense 86,400 x 10 cents = \$8,640 per month

#### Oki 800 Service Solution

3 POP, 1 Call Center Sample Network

Each POP 4 PSTN lines x \$12 = \$48 (incoming calls only) **IP Access** \$150 per month - \$594 for 3 sites LAN-ADSL: \$295 per month- \$1,029 for 3 sites ...or

\$1,500 for F/T1 IP Access Call Center costs

\$8,640 per month Compare \$2,142 per month

## **Alternative Telephone Service**

Entrepreneurial organizations both in the U.S. and other countries are looking at VoIP as a new way to offer telephone service targeting specific markets. A common example is international call back services who to set up a telephone service between the U.S. and another country. Another example is a multinational company or one that does business with customers in other countries.

SBDK-0041 Selling Advantages

An excellent target market for this type of application are businesses that already have a base of users or remote and foreign offices in place. They can set up points of presence in various locations around the country or around the world allowing them to offer a new and inexpensive telephone service to their users.

## **Selling Advantages**

The Oki Internet Voice Gateway improves productivity and profitability by providing a seamless connection between the PSTN and any IP based data network. It can produce an immediate cost reduction and an excellent return on investment making it an attractive product for both new and existing customers.

- ◆ Award Winning Voice Clarity One of Japan's largest telecom equipment manufacturers, with over 100 years experience in the telecommunications business, Oki understands the importance of high quality voice. The Oki Internet Voice Gateway delivers near toll quality voice, with low bandwidth requirements by using state-of-the-art ITU standard G.729 voice compression, automatic integrated echo cancellation, and dynamic jitter control technology. The Oki Internet Voice Gateway has won numerous awards both domestically and internationally, including Network World's Blue Ribbon, CTI Expo's Best of Show, Product of the Year Internet Telephony Magazine, and Product of the Year CTI Magazine.
- Reliability The Oki Internet Voice Gateway is a fully solid-state solution with a real-time UNIX operating system in place. Solid-state systems are generally more reliable than PC-based systems running a Microsoft® Windows® operating system because the most vulnerable part of any PC is the hard disk drive. By using a solid-state architecture with no moving parts, Oki is able to achieve the same reliability customers expect from their telephone system.
- ★ Easy Installation & Support The Oki Internet Voice Gateway is a complete one-box solution that is compact, 19" rack mountable, and easy to install and maintain. Implementation requirements are much simpler than other competitive VoIP systems and MCSE certification is not required. Once installed, maintenance can be conducted both locally via a standard serial interface or remotely using FTP, Telnet or SNMP protocols.
  - The Oki Internet Voice Gateway does no routing since it typically targets customers who already have the existing data infrastructure, including the router, in place. This makes the Oki solution easier to install, easier to support, and less expensive.
- Flexibility The Oki Internet Voice Gateway takes advantage of the installed infrastructure including current telephones, host telephone systems, fax machines, routers, wiring, LANs and WANs, so no additional infrastructure equipment is required. The Oki Internet Voice Gateway connects to the existing telephone system via regular analog loop start (FXS) lines, type 1- or 2-, 2- or 4-wire E&M Tie lines, or via a subscriber line interface card (FXO). On the data side, the unit uses a standard UTP 10baseT interface to the local area network and then out to the WAN.
- ◆ Dialing Transparency Configuring the gateway dialing plan is simple. The Oki system is flexible enough to allow matching of the existing telephone system's numbering plan which remains intact. Completely transparent to the user, there are no changes in the way they place voice telephone or fax calls.
- Robust features The Oki Internet Voice Gateway supports up to four voice channels at a time or optionally supports three voice channels and one fax channel. The optional DTMF regeneration feature ensures that dialed digits to the auto-attendant arrive uncorrupted and correct. The Oki Internet Voice Gateway also offers an elegant interface to the telephone system that provides features such as hunt groups, DISA, toll restriction, digit deletion, day and night service, fax auto-detect, call forwarding, and more. The Oki Internet Voice Gateway supports an optional real time fax capability (G3 standard).

SBDK-0041 Promotional Programs

Low bandwidth requirement – Oki uses the G.729 voice codec that can compress a single voice channel from 64 to 8 kbps. This is important with customers who have 56 or 64 kbps narrow band data services. Voice compression enables the Oki Internet Voice Gateway to process four simultaneous calls through a 56 kbps link, enabling a user to get four lines out of one 56 kbps channel.

- ♦ Standards Support All Oki equipment supports the H.323v2 standard. This positions the Oki Internet Voice Gateway for eventual interoperability with any other VoIP equipment that supports H.323v2, as this interoperability standard continues to evolve.
- Growth and Expandability The Oki Internet Voice Gateway configuration can be easily expanded by stacking multiple units and assigning them as single hunt group. Up to 30 4-port gateways can be used this way to provide up to a 120-port system. This meets the needs for both small and medium sized companies.
- Upgradeable The Oki Internet Voice Gateway is upgradeable to take advantage of technological advancements. The base unit can be upgraded through software to add new and enhanced features in the future. This is done by uploading a newer software version into the base unit, locally or remotely.
- ★ Low cost Oki products are cost effective and competitively priced. Based upon interoffice toll bypass savings, the customer can often show a return on investment payback on the Oki Internet Voice Gateway equipment in a very short timeframe.

## **Promotional Programs**

Oki Network Technologies provides many valuable promotional programs to get Authorized Toshiba Dealers off to a great start with the Oki Internet Voice Gateway products. The information below outlines the basics. Authorized Toshiba Dealers should contact Oki directly to obtain more details of these exciting and valuable promotional programs (see "Support" section).

#### **Dealer Demo Consignment Program**

Authorized Toshiba Dealers can receive demonstration equipment for a 90-day "try or buy" period. The program provides one demo Internet Voice Gateway unit to each qualified dealer, per the requirements outlined below, with planned access into the Oki VoIP network to make calls and demonstrate the product via the Internet.

Authorized Toshiba Dealer requirements for demo equipment consignment are the following:

- Must attend the Sales and Technical training that is provided at no cost.
- Must complete the Reseller Authorization, Equipment Loan form, issue a purchase order for net 90 day purchase or return, and enclose a copy of a credit card.
- Must have digital access to the Internet through ISDN, DSL, F/T1, etc.
- Dealers already selling other types of data products will be highly considered (i.e., routers, hubs, etc.).

The program goal is to have each Authorized Toshiba Dealer eventually purchase the equipment from Oki for continued demonstrations. Each dealer will be provided only one unit at a special demonstration price. All dealer demonstration equipment can be returned without charge within the stated evaluation period. The dealer must obtain a written Return Authorization prior to the return shipment of demo consignment equipment back to Oki Network Technologies.

### **End-user Evaluation Equipment Program**

Upon request, Authorized Toshiba Dealers can receive equipment to be installed and evaluated by potential customers. The recommended evaluation period is 30 days. The program is limited to two units per end user customer.

SBDK-0041 Product Description

All end user evaluation equipment can be returned without charge within the stated consignment period. The dealer must obtain a written Return Authorization prior to the return shipment of evaluation equipment back to Oki Network Technologies.

Please note the following:

- Oki retains title to all consignment or evaluation equipment until they are paid for or returned to Oki Network Technologies in good condition.
- Consignment equipment that is damaged in any way or not returned promptly within the specified time of the agreement shall be paid for within seven days of the invoice date.

#### **Reference Site Program**

The Reference Site Program will get you off to a great start with a reference customer you can use to make many other sales with. Oki offers Authorized Toshiba Dealers an additional 10% discount for Oki Internet Voice Gateway equipment sold to an end user between now and September 30, 1999. The program will be limited to two units per dealer.

## **Product Description**

The Oki Internet Voice Gateway provides a seamless bridge between the public switched telephone network and a TCP/IP network. The gateway eliminates the costs and inconvenience of maintaining separate networks by creating one voice and fax long distance carrier. The gateway is transparent to users, so there are no changes in the way they place voice or fax calls.

The gateway uses existing telephones, host telephone system, fax machines, routers, wiring, LANs, and WANs, so no additional infrastructure equipment is necessarily required. The Oki Internet Voice Gateway is upgradeable to take advantage of future technologies and expandable to fit the changing size and scope of the customer's operation.

With its seamless system configuration and all inclusive, one-box design, Oki's Internet Voice Gateway provides excellent system reliability and voice quality while eliminating the need for additional software, computer boards, and wiring. The gateway is compact, fits on a 19-inch rack mount, is self-contained, UNIX-based unit that is pre-configured and easy to install. It is not a server PC with complex configuration requirements and does not require MCSE certification. This allows organizations to take advantage of IP telephony with simpler implementation requirements.

The Oki Internet Voice Gateway connects the existing telephone system's type 1 or 2, 2 or 4 wire E&M tie lines or regular analog loop start telephone lines to digital data networks without the need to add a separate server.

The Oki Internet Voice Gateway provides four ports configurable for four voice channels, or there is an option for three voice channels and one fax channel. Multiple (up to 30) 4-port gateways can be connected together for additional capacity requirements up to 120 ports. This meets the needs for both small and medium sized customers.

**The Oki Internet Voice Gateway configures as follows** – A basic system must include the BS1200 base unit, a voice interface kit (choice of three), and the BS1200 Accessories kit. All other items are optional.

- BS1200 Base Unit The 4-port Oki Internet Voice Gateway BS1200 Base Unit consists of a chassis, main circuit board, and power supply. Requires BS1200 Accessories, and addition of either BS1200 Analog (FXS) Interface Kit, BS1200 Analog (FXO) Interface Kit, or BS1200 E&M Interface Kit.
- ♦ **BS1200 Accessories** Includes power cord, fuses, screws, crimp connectors, cable support bracket, snap band, labeling materials, and user guide for the BS1200 Base Unit.

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◆ BS1200 E&M Interface Kit – Includes E&M interface board, interface cable connectors, screws, and labeling materials. Connects the BS1200 to the analog E&M type 1- or 2-, 2- or 4-wire trunks of the host telephone system.

- ♦ BS1200 Analog Port (FXS) Interface Kit Includes analog interface board, interface cable connectors, screws, and labeling materials. Connects the BS1200 to the analog loop start trunks of the host telephone system.
- ♦ BS1200 Analog Port (FXO) Interface Kit Includes FXO interface board, interface cable connectors, screws, and labeling materials. Connects the BS1200 to the subscriber line interface card (SLIC) interface of the host telephone system or to the PSTN directly for remote location support.
- ♦ BS1200 Fax Modem Kit with DTMF Regeneration Includes fax board, screws, and labeling materials. Enables one BS1200 port to be used for facsimile transmission.
- ♦ Rack Mount Kit Includes mounting brackets, cable support bracket, screws, and spacer panel. Required for mounting in standard 19" rack assembly.
- ★ Maintenance Console Software (MCS) Windows 95 compatible software program that installs on a customer-supplied PC. The MCS is used for setting configurable options in the Oki Internet Voice Gateway. Requires PC Serial Cable for connection of the MCS PC to the BS1200. The PC does not need to be dedicated to the MCS application.
- ♦ PC Serial Cable for MCS Required for connection of the Maintenance Console Software PC to the BS1200.
- ◆ Installation and Maintenance Guide Contains instructions for the installation, configuration, and maintenance of the Oki Internet Voice Gateway.
- **♦ Warranty** − 12 months.
- See the applications section earlier in this bulletin for sample diagrams of how the Oki Internet Voice Gateway, Strata DK host telephone system, and other network components fit together into the overall communication system.

# **Product Line Strategy**

Toshiba has formed an agreement with Oki Network Technologies to market the Internet Voice Gateway products with Strata DK424 business telephone systems through authorized Toshiba dealers. Toshiba does not stock Oki products. Authorized Toshiba dealers buy the Oki Internet Voice Gateway products directly from Oki Network Technologies. See the *Oki Internet Voice Gateway Price List* for details.

Toshiba dealers can now provide both Oki and Alliance/VocalTec VoIP solutions depending upon the application requirements and price sensitivity. The two product lines compliment each other, providing a robust product offering to the customer.

The Oki VoIP products are intended for use by smaller- and medium-sized organizations with multiple geographically dispersed locations. This enables them to take advantage of the toll bypass long distance cost savings and the lower price of the Oki products.

The Alliance/VocalTec VoIP products are intended for less-price sensitive, medium-sized organizations with the same requirements plus call center applications that can take advantage of the Surf & Call and Surf & Call with screen pop capabilities.

## **Training**

Oki provides Authorized Toshiba Dealers both sales and technical support training. Two-day technical training is conducted at Oki's facilities in Milpitas, California. One-day sales training will be conducted both at Oki's facilities in Milpitas, California and in certain regional locations (schedule to be announced).

SBDK-0041 Compatibility

Oki provides the sales and support training free of charge. The sales and technical training classes will prepare the Authorized Toshiba Dealers to sell, install, and support the Oki Internet Voice Gateway products.

## Compatibility

These VoIP telephony gateway systems are compatible with Strata DK424 Release 3.2 or higher systems.

## **Pricing**

The Oki Internet Voice Gateway products can be very cost effective and show a quick return on investment for organizations with geographically dispersed locations based upon long distance and international toll charge savings. See the *Oki Internet Voice Gateway Price List* for all the details.

## **Support**

Authorized Toshiba Dealers obtain sales and technical support directly from Oki Network Technologies. Oki sales support personnel are available by telephone (408) 935-3331 (#1 for sales and #2 for technical support), fax (408) 935-3337, or e-mail.

- ♦ Robert Pearlstein, Director Sales & Marketing, (408) 935-3319, <a href="mailto:rpearl@okint.com">rpearl@okint.com</a>
- ♦ Karen Hong, Channel Sales Specialist, (408) 935-3304, <u>karen@okint.com</u>
- Kaushik Patel, Product Applications Engineer, (408) 935-3303, <a href="kpatel@okint.com">kpatel@okint.com</a>

### **Documentation**

Authorized Toshiba Dealers obtain documentation and sales literature directly from Oki. This material is currently available. On-line information is available at the Oki Network Technologies web site at www.okint.com.

The Oki web site also contains useful sales tools for the Internet Voice Gateway that Authorized Toshiba Dealers can download (call Oki for password). This includes a PowerPoint Sales presentation, PowerPoint Sales Training presentation, Prospect Configuration Questionnaire, IP Telephony Glossary, and ROI payback calculator. You can obtain these items via the web site or on CD-ROM by contacting Robert Pearlstein at Oki, (408) 935-3319.

## **Availability**

The Oki Internet Voice Gateway is currently available from Oki Network Technologies. You can place your orders now.

## **TAIS Disclaimer**

This information is being made available as a service to our customers. While the VoIP products mentioned have been tested for compatibility with the Toshiba Strata DK424 business telephone systems, this in no way constitutes endorsement of such products. We assume no liability for damages incurred in connection with the purchase, use, or performance of such VoIP products alone or in combination with Toshiba products. Any and all responsibility and liability is exclusively limited to that set forth in the standard limited warranty applicable to the respective products.