

X S T A C K

IP Telephony

SIP IP-PBX with
Conferencing Server
DVX-1000



Customer Profile:

The Turtle Nest Inn, a brand new, quaint, Spanish-style beachfront property on Grand Cayman in the Cayman Islands, has the highest occupancy rate of any property on the island. This "off the beaten track" getaway features superb snorkeling, a fresh water pool, a long sandy beach, and eight fully furnished luxury apartments.

The inn is far enough away from North America and Mexico to be a relaxing retreat, yet within low-cost phone calling reach, because the proprietor installed D-Link Voice over Internet Protocol (VoIP)-Private Branch eXchange (PBX) equipment to enable Internet calling and avoid high local and long distance phone rates.

"My background is in networks rather than phone systems, but it was easy to understand and set up the D-Link equipment myself. This way I understand the equipment for future reference, and we have full control."

-Alain Beiner
Owner, manager, and networking expert, Turtle Nest Inn, Grand Cayman

Grand Cayman's Turtle Nest Inn Slashes Local and Long Distance Phone Costs with D-Link VoIP/PBX System

Resort Eliminates PBX Rental Equipment, Maintains and Configures System On Their Own, Saves On Long Distance Bills and Passes Savings Along to Customers

The Challenge

Turtle Nest Inn needed to replace their current Nortel PBX system in order to bring costs down and allow on-site staff to configure the PBX themselves. They knew the cost savings would be significant, but they were also attracted by the flexibility of an IP system. They needed local and long distance capabilities (mostly outgoing long distance) for eight guest apartments, a laundry facility, the lobby, and the owner's apartment.

"On the island, where you're a little more restricted than in the States, you have to go with one phone service provider and rent their equipment every year," said Alain Beiner, the owner, manager and networking expert for Turtle Nest Inn. "So you're stuck with a monopoly provider that doesn't offer anything other than their equipment."

The inn was using four different local service providers - two for local calls and two for long distance. The digital PBX system they rented from the local phone company was too big a system for

their needs, and it cost them \$25,000 to \$30,000 over several years to rent it.

"We had no control over the rented PBX system," said Beiner. "Every time we needed any change made, we had to call them and pay an exorbitant hourly rate."

With an IP-based solution that routes calls over the Internet (VoIP), Turtle Nest Inn could cease renting gear from the local phone company, purchase routing and telephone equipment and own it outright, flexibly add VoIP phones and lines as needs change, maintain tight control of the system via Web interface, and reduce costs significantly.

The Solution

Turtle Nest Inn replaced their Nortel Digital PBX with a D-Link DVX-1000 IP PBX system. They estimate that the switchover will save them \$10,000 per year. Plus, D-Link equipment allowed them to set up the system and change configurations without having to call for any support. In fact, Beiner, who has



"The Turtle Nest Inn on Grand Cayman offers a secluded getaway while still providing low-cost phone service by using D-Link VoIP PBX equipment."

IP Telephony Case Study

DVX-1000 SIP IP-PBX with Conferencing Server:

- Supports 25 Simultaneous Inbound/Outbound Calls
- Integrated Conference Bridge
- Supports Multiple Users Across Multiple Sites

DVG-3004S SIP Analog Trunk Gateway:

- Route Phone lines to your IP Network for VoIP and IP PBX Usage
- Interconnect Existing Phone systems in Remote Locations Across the Internet
- Expand Existing Phone Systems with IP-Based Phones and Hardware

DPH-140 Business IP Phone:

- Make VoIP Phone Calls over the Internet and Save on Long Distance Charges
- Speakerphone for Hands-free Conferencing
- Large 2.5" LCD Screen

DVG-G1402S Wireless Broadband VoIP Router:

- 802.11g Wireless Connectivity
- Connect Up To 2 VoIP Lines
- Integrated QoS To Prevent Dropped Calls And Deliver Superior Voice Quality

DVG-2001S VoIP Phone Adapter:

- Enable VoIP Instantly
- Secured Remote Web-Based Access For Configuration
- Integrated QoS To Prevent Dropped Calls

experience with networking equipment, set up the system by himself.

"It was pretty easy actually," said Beiner. "My background is in networks rather than phone systems, but it was easy to understand."

The user-friendly switch helped Turtle Nest Inn avoid the costly on-site visits that are incurred with most PBX systems. This is a significant ongoing savings, especially since the hotel is located on an island where it can be very difficult to get help in a timely and cost effective manner. The D-Link IP PBX components cost the inn the same amount it would to lease the old Nortel PBX system for 14 months - and they own the equipment.

The new system has a total of six PSTN lines that connect to the D-Link DVX-1000 IP PBX (for local calls) and two SunRocket VoIP terminal adapters (TAs) that connect to two D-Link DVG-3004S units, which are analog trunk gateways that connect standard phone lines with IP networks (for long distance calls). The installation ties every Turtle Nest room into the D-Link IP PBX system, with 20 extensions throughout the inn.

"We think it's ideal for a hotel," remarked Beiner. "And, the system turns out to be more flexible than we thought." Turtle Nest Inn is even doing some things that D-Link said they couldn't do. They led their SunRocket VoIP line back through the D-Link gateway and re-converted it to IP, for example. The SunRocket line comes in from the Internet and is converted to analog with SunRocket's adapter. Beiner then led it back through the D-Link DVG-3004S gateway and converted it from analog to IP. It's working fine.

"I've got three SunRocket accounts, for which we pay \$199US per year each. This gives us unlimited phone calls to the States and Canada," said Beiner. "It works fine on the IP PBX system." The set-up might pose a problem for incoming calls, because of all the hoops that are being jumped through. However, the inn has them configured for outgoing calls only. "We just use



*Alain Beiner, Owner and Manager of the Turtle Nest Inn.
"With the D-Link system, I can control and configure the system myself which saves both time and money."*

them for outgoing long distance calls to the U.S. and Canada. They're working perfectly," explained Beiner. Turtle Nest Inn is using six D-Link SIP phones (DPH-140) and 14 analog phones throughout the premises. The 14 analog phones use D-Link adapters (DVG-2001S) to convert from analog to IP.

A networking service company on the island proposed installing competitive equipment. Beiner said they proposed more expensive hardware and wanted \$3000 to set up and configure it. "I saw it as a challenge," said Beiner. "So I set up the D-Link equipment myself. This way I understand the equipment for future reference, and we have full control."

Beiner especially likes the auto attendant, voicemail and Web configuration features of the system. He said they're taking advantage of Wi-Fi capabilities, as well. They have a couple of SIP phones in locations difficult reach by CAT5 networking cable, so they set up a D-Link wireless bridge (DVG-G1402S) and connected wireless adapters (DWL-G820) to the phones. Now that's bleeding edge VoIP/Wireless.

All in all, the VoIP system is a huge cost saver for Turtle Nest Inn. They save \$10,000 by avoiding PBX rental equipment. They avoid costly service calls. They save on long distance bills. And, guests save money on long distance calls. Everybody wins.

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* Maximum wireless signal rate derived from IEEE Standard 802.11a and 802.11g specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental factors will adversely affect wireless signal range. D-Link and the D-Link logo are trademarks or registered trademarks of D-Link Corporation or its subsidiaries in the United States and other countries. Copyright © 2003 - 2006. All Rights Reserved. All other company or product names mentioned herein are trademarks or registered trademarks of their respective companies. Copyright © 2006 D-Link Corporation/D-Link Systems, Inc. All Rights Reserved. 17595 Mt. Herrmann Street, Fountain Valley, CA 92708 • www.dlink.com

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