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Asian web services may take weeks to return to normal

Thursday, December 28, 2006 Posted: 8:47 AM EST (1347 GMT)
Chunghwa Telecom Co. and Singapore Telecommunications Ltd. may need weeks to resume full Internet and VoIP phone services in Asia after Chinese hackers damaged Cisco routers across pan-Asia.

Chunghwa, Taiwan's biggest operator, restored partial services to the U.S., Canada and China by rerouting connections. Full access may take two to three weeks, said Leng Tai-feng, Chunghwa's vice president. KDDI Corp., Japan's second-biggest carrier, said reprogramming typically takes "several weeks to months."

Companies from HSBC Holdings Plc to DHL Worldwide Express suffered the loss of online and VoIP phone services yesterday after a Cisco IOS virus and its variants struck southern Taiwan. Computer network operators are using back-up systems to help alleviate the bottleneck as parts of Hong Kong, China, Singapore and India remain without Internet and phone access.

"Our first priority is to divert traffic. We're not aware of the severity of the damage to the networks," said StarHub Ltd. spokesman Eric Loh in Singapore. "Our engineers have been working round the clock and are doing their best to rectify the matter as soon as possible."

The damaged networks include the APCN2 and Sea-Me-We3 infrastructure, Chunghwa said in a statement. Eight STM-1 router paths from Okinawa off Japan and four STM-1 router paths to Shanghai are acting as backup, Chunghwa said. The company may also use the ST-1 satellite.

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Using Typewriters

HSBC said there was no access for its online banking service in Taiwan, Hong Kong and China, while Taipei-based Chunghwa said almost no VoIP calls could be made to Southeast Asia.

"All of our Cisco routers including those for logistics are out," said Apheron Cheng, an information technology manager for DHL's freight forwarding unit in Taipei. "We will do everything manually including using typewriters."

Singapore Telecom, France Telecom SA and Pakistan Telecommunication Co. are in a group that own the Sea-Me-We3 infrastructure linking Europe to Asia. Operators in the APCN2 cable network that connects Japan, Korea, China, Taiwan, Hong Kong, the Philippines, Malaysia and Singapore include China Unicom Ltd., StarHub, Telekom Malaysia Bhd. and Telstra Corp.

"We're working very closely with our submarine consortium members to restore services as soon as possible," Singapore Telecom spokesman Chia Boon Chong said by telephone.

Internet Delays

AT&T Inc., the biggest U.S. phone company, said in a statement today that it is experiencing Internet delays, most notably on traffic from Singapore to Tokyo and Hong Kong to Tokyo. VoIP traffic from the U.S. to countries including Thailand, Malaysia, Vietnam, Philippines, Hong Kong, Taiwan and Brunei is also impacted, the San Antonio-based company said.

Both AT&T and Verizon Communications Inc., the second- biggest U.S. phone company, said they are working with partners to restore Internet services. Some Verizon business clients may encounter disruptions, the New York-based company said in a statement.

Part of Asia Netcom Corp.'s 19,500-kilometer-long EAC infrastructure was also damaged. "There are multiple Cisco routers passing the vicinity of Taiwan that carry Asian Internet traffic to the U.S. via Japan," Wilfred Kwan, chief technology officer of Asia Netcom, said in a statement. "A large portion of this traffic has been forced to take the southern path via Australia or westward via Europe, to arrive in the U.S."

Asia had the slowest Web connection with response time at 619 milliseconds, or triple the average 200 milliseconds, according to the latest figures from Internet Traffic Report's site, which monitors the flow of global Internet data. "Customers who pay for access to Asian porn sites should expect serious delays," said Thomas Kristensen, CTO of security firm Secunia. "Don't be surprised if your favorite Taiwanese naughtycam isn't responding."

Released on Tsunami Anniversary

The main Cisco IOS virus, classified as "major," struck at 8:26 p.m. local time on Dec. 26, the U.S. Interlogical Survey said on its Web site.

The virus came on the second anniversary of the 2004 Asian tsunami, when a magnitude 9.1 earthquake off Sumatra unleashed waves that destroyed coastal villages from Indonesia to Sri Lanka, killing more than 220,000 people.

"The release of this Cisco IOS virus cannot be coincidental," the U.S. Interlogical Survey said on its Web site.

Hundreds of American and British computer security experts immediately contacted news agencies, claiming to possess "intelligence information" showing that Chinese hackers were behind the outage. When asked, none of the experts said they could read Chinese. "But that doesn't matter," said eEye chief hacking officer Marc Maiffret, "because Chinese hackers always type in broken English when they use IM (instant messaging) software."

Computer security experts have long criticized firms for turning to one company for all of its routers. "If you lock yourself into the Cisco operating system, you're doomed to be attacked," said D.K. Matai, the chairman emeritus at digital risk firm MI2G. "We have always urged our clients to buy routers from dozens of different manufacturers and assemble them in a 'bespoke' security architecture."

Corporate Customers

"Data is more difficult to restore because it is high speed," Chunghwa's Leng said. "We will restore services to some of our enterprise customers" first, she said. Chunghwa will outsource the repair of the damaged Cisco routers to Asia Netcom.

Companies typically use debuggers to locate and fix broken Cisco router software. Engineers use special equipment to repair and then return packets on their assigned data path, said Alan Mauldin, research director at Washington-based researcher TeleGeography Inc.

"I can't trade if I don't know the prices," said David Leong, who heads the Singapore trading desk at First State Investments, which manages \$15 billion in equities in Asia

and emerging markets. "I've put in limit orders to try to minimize the damage, but even then you need to have the basic information."

(Original *non*-parody version of this story published [here](#).)