

## Advertising Agency Enhances Productivity and Collaboration

TBWA\Chiat\Day works with NetXperts to mobilize their Unified Communication applications over WLAN.

### EXECUTIVE SUMMARY

#### Customer Name: TBWA\Chiat\Day

- Industry: Advertising
- Location: Los Angeles, CA
- Number of Employees: More than 1000

#### Challenge

- Expand mobility of creative development teams
- Enhance productivity and real-time collaboration
- Improve QoS of communications in challenging RF environment

#### Solution

- Pervasive Voice-ready Cisco Unified Wireless Network for mobility and collaboration anywhere in the facilities
- Unified communications tools to support presence, voice and email integration, and meeting place applications
- Wireless IP phones to improve reachability and offer mobile unified communications to employees who are mobile on campus.

#### Results

- Enhanced productivity and collaboration for highly mobile creative development team.
- Faster access to data applications in central park area and media rooms.
- Improved reachability and enhanced collaboration for all employees when in the facilities

### Challenge

TBWA\Chiat\Day is part of TBWA Worldwide. TBWA Worldwide (<http://www.tbwa.com>) creates Disruptive ideas for global clients, including ABSOLUT, adidas, Apple, Beiersdorf, Henkel, Infiniti, Mars, McDonald's, Michelin, Nissan, Pernod Ricard, Pioneer, Samsonite, Standard Chartered Bank, Singapore Airlines and Sony PlayStation. TBWA is one of the fastest-growing networks in the Top-Ten, and was named by ADWEEK as Global Agency Network of the Year and the most-awarded Agency Network by Creativity magazine in 2007. TBWA has 258 offices in 75 countries, and approximately 11,000 employees worldwide.

The agency's Los Angeles offices are spread out over two warehouse buildings. Given the collaborative work process, creative development teams are constantly moving around and do a lot of their work in the facility's "central park" area or the media rooms within the facility. The agency warehouse setting creates a challenging RF environment. With high ceilings and RF interferences due to a multitude of wireless devices

and microwaves, voice communications often resulted in dropped calls, poor voice quality, and the inability to be reached, because phones would not ring. As a result, creative teams often had to return to their desk to make calls, thus interrupting the creative flow for the media teams.

The existing wireless infrastructure consisted of 40 standalone Cisco® Aironet® 350 Series Access Points across a 97,000 square-foot facility supporting Spectralink PTB410A Phones, which were centrally managed with a Cisco Wireless LAN Solution Engine (WLSE). The legacy WLSE did not support inter-subnet roaming and real-time radio frequency (RF) control of the access point for the deployment and management of advanced mobility services such as voice.

TBWA\Chiat\Day facility in Los Angeles offers challenging RF environment for mobilizing Unified Communications over WLAN.



In April 2007, TBWA\Chiat\Day decided to migrate their existing Cisco wireless network to a centrally managed controller-based architecture, for simplified management and enhanced security and to support fast secure roaming and the latest voice features such as 802.11e (quality of service [QoS] standard for multi-media traffic). The software version on the Cisco Unified Communications Manager was upgraded to deploy applications such as Cisco Unified Presence, Cisco Unified MeetingPlace, and Cisco Unity® to boost agency staff productivity and collaboration and enhance client responsiveness. Cisco Unified Presence collects information about a user's availability and communications capabilities to provide presence-enabled communications. Cisco Unity is a productivity tool that integrates e-mail, voice, and fax messages in single inbox, which can be accessed from any device and from everywhere. Cisco Unified Meeting Place is a multimedia conferencing solution that fully integrates voice, video, and Web conferencing capabilities.

TBWA\Chiat\Day wanted a reliable network and a dedicated partner with expertise in Unified Communications and Wireless Networking. They turned to NetXperts, Inc., a Cisco Silver Partner with advanced certification in all unified communications, wireless networking infrastructure, and security, and headquartered in San Ramon, CA. NetXperts had worked with TBWA\Chiat\Day on several major projects over the past years with successful implementations and on-time delivery of past projects.

## **Solution**

The NetXpert team embarked on the new project by conducting a thorough site survey using Airmagnet and Cisco Spectrum Analysis tools to identify potential interference problems and optimize the network infrastructure to support delay-sensitive applications such as voice. Cisco Spectrum Analyzer supports real-time spectrum intelligence to detect, classify, and locate non Wi-Fi sources of RF interference in the unlicensed 2.4-GHz and 5-GHz bands. Quickly detecting and mitigating RF interference improves coverage, capacity, quality of service, and security of the wireless network. "Our primary concerns were the amount of metal in the building and the shape of the facility as well as interferences from a multitude of wireless devices and microwaves," says

Randy Sullivan, NetXperts account manager. "Identifying and resolving RF problems before actual implementation can save valuable time and money and significantly improve network reliability, voice quality, and end user satisfaction."

NetXperts designed a wireless network deployment that would support both wireless voice and data access anywhere in the facility. "To help ensure reliable voice communications, we recommended a centrally managed architecture and doubled the density of the access points to support enhanced QoS for voice and fast secure roaming across the two warehouses," says Gary Nordine CEO of NetXperts. The existing IEEE 802.11b Cisco Aironet® 350 Series Access Points were replaced with 86 IEEE 802.11a, b, g Cisco Aironet 1242AG Series Access Points and centrally managed with Cisco 4400 Series Wireless LAN Controllers in high-availability architecture along with the Cisco Wireless Control System (WCS) management software. The Cisco WCS automatically associates each new access point with the controller, eliminating manual configuration and saving many hours in maintenance time. Location features within the WCS also let the IT staff detect any unauthorized access points on the network.

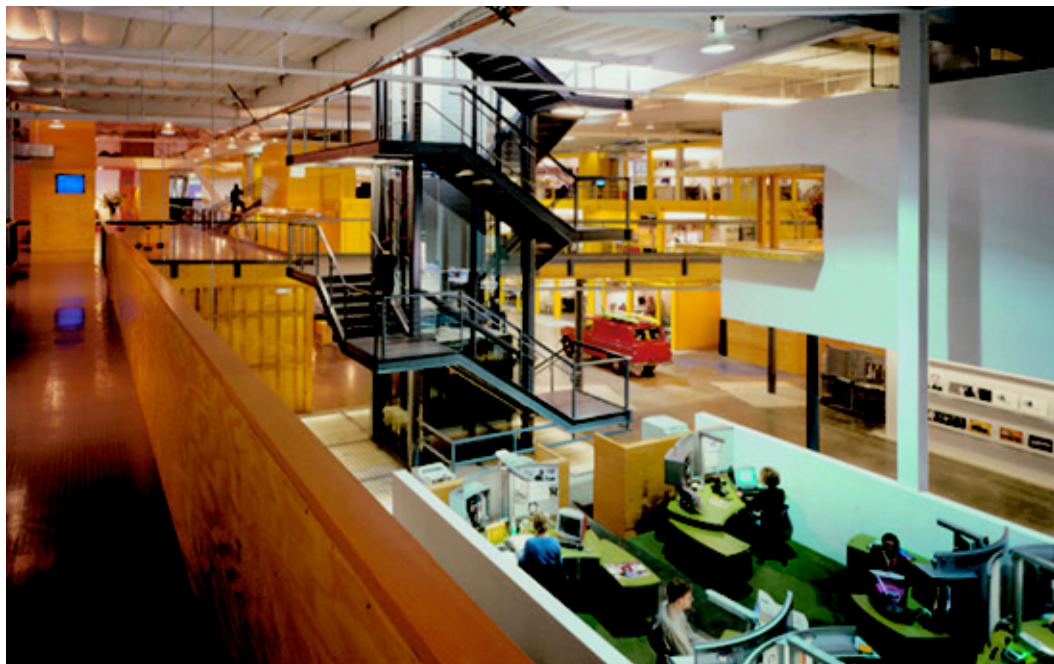
To support mobility for the creative development teams on campus, 200 Unified Wireless IP Phone 7921Gs were deployed to replace the existing Spectralink PTB410A Phones. TBWA\Chiat\Day chose the Cisco Unified Wireless IP Phone 7921G for enhanced voice quality, wideband audio, and presence and its ability to integrate with Cisco Unified Communications Manager to access unified communication applications. The wireless IP phone allowed TBWA\Chiat\Day to use the 802.11a band for voice traffic to help ensure a better end user experience and avoid congestion.

The Cisco Unified Communications Manager was upgraded from 4.2 to 6.0 to support Cisco Unified Presence, Cisco Unified MeetingPlace, and Cisco Unity for 1000 users. Cisco Unity allowed media teams and staff to access their messages from everywhere in the facility and respond more quickly to time-sensitive tasks. Presence and availability status has proven invaluable to reach marketing teams, which often have meetings and brainstorming sessions throughout the facility. With Cisco Unified MeetingPlace, sales can now collaborate with clients online or quickly schedule conference calls to provide client updates as needed.

TBWA/Chiat/Day facility houses basketball courts. Play keeps creative flow going.



Cisco Unified communication over WLAN helps TBWA improve reachability and collaboration among employees.



### Technical Implementation

TBWA\Chiat\Day used the self-configuring, self-healing, and self-optimizing capabilities of the Cisco Unified Wireless Network to help ensure optimal coverage and capacity. Radio resource management (RRM) allowed their wireless network to automatically adjust access point power and channel configurations to avoid signal coverage problems throughout the day as users roam throughout the facility. TBWA\Chiat\Day also relied on the dynamic power control and load balancing of users across access points to optimize call capacity of the network.

In addition to centralized management and rapid deployment of all of the access points, the Cisco Unified Wireless Network offered segmentation of user groups. This feature enabled IT staff to configure separate virtual LANs for voice and data, helping to ensure both data security and quality of service for voice traffic. Voice received top priority to support the ability to roam from access point to access point without dropping a call.

QoS and the reliability of the network were further enhanced through support for Wi-Fi Multi Media (WMM), which prioritizes delay-sensitive traffic to provide uninterrupted service, and voice optimization tools such as Spectrum Expert and the Voice Readiness tool. The Voice Readiness Tool provides a visual indication of the network's radio coverage and an assessment of the readiness of the deployment for voice.

The project was completed in less than four months, and the solution has been up and running since September of last year.

### Results

"The Cisco Unified Communications over WLAN solution has enhanced our workflow and helps us to be more responsive, make decisions faster, and collaborate more effectively with our clients, where in the past we spent a lot of unproductive time searching for agency staff or attempting to reach them," says Emiliano Garcia, TBWA\Chiat\Day network operations manager. "The wireless network enabled our media teams to roam within the facility without losing connectivity, which lets



them maximize the time that they spend collaborating with their colleagues on the development of new brand campaigns.”

“Switching voice from 802.11b to 802.11a radios and data from 802.11b to 802.11g allowed us to significantly improve the quality and reliability of our voice communications, and by separating the traffics we prevented congestions into the wireless network and thus helped ensure low latency for voice traffic. We also saw an increase in our data speeds, which allowed us to improve overall efficiency,” says Garcia.

Voice-over-WLAN (VoWLAN) features such as QoS, fast secure roaming, and the voice optimization tools such the Voice Readiness tool and Spectrum Expert have proven invaluable to enhance call coverage and the quality of the voice calls within the warehouse.

With a controller-based architecture and dynamic RF capabilities, managing wireless connectivity, call capacity, and network security is far easier and more cost effective as well. The IT team can immediately identify rogue access points and eliminate them before they create a security risk. In the event that an access point fails, fault management features quickly identify it so that it can be replaced, thereby maximizing wireless availability throughout the facility. Reporting features provide summarized views of wireless network usage, which is very useful for capacity planning. The Mobility Group feature allows seamless roaming capabilities between controllers, enabling wireless users to move about the campus and receive continuous wireless coverage with minimal disruption.

### PRODUCT LIST

- Cisco Unified Wireless Network
- Cisco 4400 Series Wireless LAN Controllers
- Cisco Aironet 1200 Series Access Points
- Cisco Wireless Control System
- Voice and Unified Communications
- Cisco Unified Wireless IP Phone 7921G
- Cisco Unified Communications Manager 6.0
- Cisco Unified Presence
- Cisco Unified MeetingPlace
- Cisco Unity

### Next Steps

The deployment has been very successful to date, and TBWA\Chiat\Day is currently considering the deployment 802.11 n for increased reliability, throughput, and high bandwidth business applications often used by our creative teams such as video and videoconferencing.

TBWA\Chiat\Day is also considering deploying the solution in their New York office.



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