



Connected Workplace

How Cisco Designed the Collaborative Connected Workplace Environment



A Cisco on Cisco Case Study: Inside Cisco IT

Cisco Connected Workplace



Overview

- Challenge

Inefficient use of office space: cubicles and offices often vacant while meeting rooms in short supply

- Solution

Design “Connected Workplace” where employees can choose where to work throughout the day, enabled by mobility and IP Communications solutions

Overview (Contd.)

■ Results

140 employees work comfortably where 88 would work in a traditional workplace design

Increased employee satisfaction

Enhanced collaboration

Reduced real estate costs

Reduced infrastructure costs

■ Next Steps

Continue refining technologies and workspace design based on proof of concept

Extend Connected Workplace to other Cisco® offices worldwide

Challenge - Inefficient Use of Office Space

- Cisco® offices and cubicles vacant 35 PERCENT OF THE TIME

Global workforce and customers compel employees to work non-traditional hours

More complex business and technology issues increase need for collaboration

On-site employees likely to be mobile within and among buildings

- Office space designed under assumption that employees need dedicated desk, PC, and phone
- Only managers with eight or more employees had private offices; meeting rooms in short supply

Challenge - Goals for Connected Workplace

- Increase number of employees in building without increasing real estate costs
- Create a more productive environment by harnessing mobility technologies
- Replace the drab, enclosed cubicle environment with something more pleasant
- Empower employees to choose work environment based on their business needs—not their titles

Change every day if appropriate

Change throughout the day if appropriate

Solution - Proof of Concept Requirements

- Encourage collaboration

 - Provide space for planned and spontaneous meetings, for small and large groups

- Reduce real estate costs

 - Accommodate 140 employees compared to 88 that would ordinarily occupy the space

 - Cut real estate costs by 37 percent

- Reduce infrastructure costs

 - Install less cabling because of wireless infrastructure, and fewer \$200 wall jacks in each office

Solution - Proof of Concept Requirements (Contd.)

- Accommodate different work requirements and styles
 - Enable employees to meet in a group, participate in conference calls, work individually

Solution - Proof of Concept Preplanning

- Hypothesis: Cisco® Workplace Resources (WPR) can create a flexible, collaborative workspace that:
 - Improves productivity
 - Increases employee satisfaction
 - Increases user density in the building
 - Saves real estate costs
- WPR team: IT, HR, Workplace Resources, cultural anthropologists, architects, designers, psychologists, sociologists
- Metrics for success: cost savings, improved productivity, increased employee satisfaction

Solution - Proof of Concept Preplanning (Contd.)

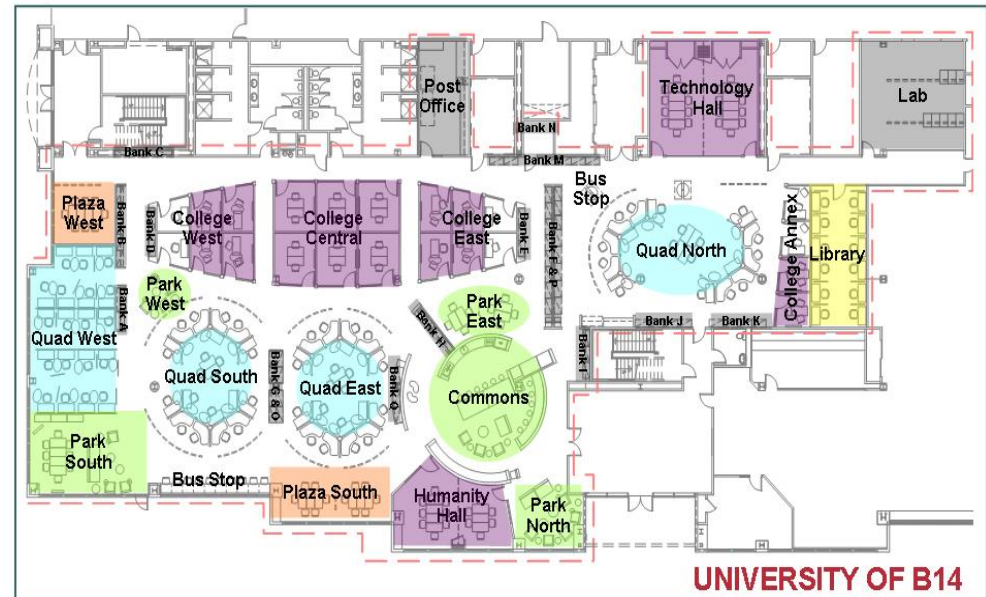
- Volunteer workgroups

WPR group, Cisco on Cisco IT infrastructure team, Cisco Internet Business Services Group, HR Creative Learning Studio
Individual contributors, managers, directors, and vice presidents

Solution - Design

- Completely wireless environment, to enable mobility
- University theme, with quads, plazas, commons area, enclosed offices called colleges
- No cubicle walls = more sunlight

CISCO CONNECTED WORKPLACE



- COLLABORATIVE - OPEN
- COLLABORATIVE - SEMI ENCLOSED
- COLLABORATIVE - ENCLOSED
- MULTI-PURPOSE
- QUIET AREA
- IT & SERVICES

Solution - Diverse Workspace Options

- Individual workstations

 - Docking station

 - Cisco® IP 7960 Phone or Cisco IP Communicator

 - Large monitors in some workstations

- Collaboration spaces

 - With and without doors

 - Movable chairs, tables, and privacy screens in soft-seating areas



Solution - Diverse Workspace Options (Contd.)

- Audio silence space
- Lab area for IP Communications and data networking

Solution - Technology

IT goals: Enhance mobility, improve user experience, reduce operational expense

- Cisco® IP Communicator for wired or wireless IP telephony from a laptop
- Extension Mobility, to log into an IP phone as one's own
- Cisco VT Advantage for video telephony
- Cisco MeetingPlace for audio and Web conferencing
- Third-party tools for locating employees throughout the building
- Videoconferencing units on wheels



Solution - WLAN for Dense Populations

- Need for denser-than-usual user population
 - Twice as many employees in same space
 - Employees encouraged to collaborate in small areas
 - Cisco® IP Communicator uses wireless connection for voice
- Solution: 10 wireless access points instead of 2–3
- Limit number of devices associated with each access point to 6–8

Solution - WLAN for Dense Populations (Contd.)

- Special considerations for voice over wireless LAN

Cisco Wireless IP Phone 7920 uses call admission control to identify access point with best signal strength and available voice channels

If strongest access point already supports maximum number of voice calls, IP phone roams to next strongest

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Results - Increased Effectiveness and Efficiency

- Greater employee satisfaction
- Employees like choice of work environments, technology, light, openness, and inter-organizational collaboration
- Transition more difficult for employees who mostly work at their desks and rely on paper documents

Results - Cost Savings

Cost Category	Savings
Real estate rent Accommodating more people in the same amount of space	37%
Construction Building a smaller space than typically required for 140 employees	42%
Workplace services Reducing utilities and maintenance costs, and nearly eliminating the costs of moves, adds, and changes for workspaces through the use of flexible furniture settings	37%
Furniture Purchasing less (and less expensive) furniture than typically used in cubicles	50%
IT capital spend Spending less on switches and switch ports	40%
Cabling Reducing the number of wired IP cables required per workspace	60%
Equipment room space Racking fewer switches because of wireless infrastructure	50%

Next Steps - Summary

- Increase understanding of movement of people, to further improve workplace design
 - Monitor movement using RFID, WiFi, and ultra-wideband tracking
- Enhance safety and security
 - Monitor the number of people who enter and leave the building
- Deploy Connected Workplace in other Cisco® offices throughout the world
 - Modify design and technology based on results of proof of concept

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