Meetings in America III:
A study of the virtual workforce in 2001

A study of trends and attitudes toward virtual work and its impact on productivity

A WorldCom Conferencing White paper

Prepared By

www.modalis.com
Table of contents

I. Introduction ............................................................................................................... 4

II. Summary of Findings ............................................................................................... 5

III. Improving the Effectiveness and Productivity of Virtual Work ................................ 6

IV. Key Findings ............................................................................................................ 7

The Virtual Workforce .................................................................................................. 7

Virtual Work As A Way Of Life .................................................................................... 7
How People Engage in Virtual Work ........................................................................... 8
Employers Are Catching On To Virtual Work .......................................................... 9
Techies and Managers Are Working Virtually the Most .............................................. 10

Virtual Teams .............................................................................................................. 11

Virtual Project Teams Are Increasingly Popular ..................................................... 11
Virtual Teams Make Meeting a Habit ........................................................................ 12
Virtual Workers Enjoy Being Part of the Team ....................................................... 13
Virtual Teams Are in High Demand .......................................................................... 14
Virtual Teams Collaborate Most Often Via Email and Audioconferencing ................. 15

Attitudes Toward Virtual Work .................................................................................. 16

Virtual Work Saves Time and Money ..................................................................... 16
Working Virtually Takes The Drag Out of Meetings ................................................. 17
“It Can Be Easier to Share Ideas With Someone Who is Faceless” ......................... 18
Working Virtually Has Its Personal Benefits ............................................................. 19
Meeting Virtually Is Virtually Worry Free ............................................................... 20

Telecommuting ........................................................................................................... 21

Telecommuting is a Common Form of Virtual Work .............................................. 21
A Sizable Number of Virtual Workers are Full-Time Telecommuters ....................... 22
The Ability to Telecommute is Desired and Valued by Employees ......................... 23

V. Conclusions ............................................................................................................. 24

VI. Background/Methodology ..................................................................................... 25

Appendix A: Characteristics of the Survey Sample
Appendix B: Detailed Description of Meetings

© 2001 WorldCom Inc.
I. Introduction

The American workforce is redefining how and where they do their jobs. In today’s marketplace, dynamics such as global enterprises, new technologies and a competitive job market mean companies are increasingly turning to a virtual workforce to get the job done.

But, virtual work doesn’t just mean telecommuting. It means putting the right people together to make efficient and effective decisions—regardless of their geographic location. Commonly, virtual work means participating on project teams in which some of the members are not co-located. Or, it can mean managing or being managed by someone in another place. And it’s widespread, with over two-thirds of business professionals engaging in some form of virtual work.

America’s virtual workforce has not only proven their flexibility, but their productivity. The realization of cost and time-saving benefits for employers has made virtual work mainstream. By decreasing overhead for off-site employees; reducing travel time and expenses; and using new technologies to facilitate communication, virtual work is delivering real bottom-line benefits in the forms of increased productivity and profits. Companies have responded positively, with nearly half encouraging or allowing virtual work. For employees, this not only results in enhanced productivity, but the added flexibility of virtual work means that they feel encouraged to think more creatively and enhance business relationships.

The benefits of virtual work don’t just stop at the office. The increased efficiency of virtual workers also results in important personal benefits such as the flexibility to spend more time at home with family and friends and the elimination of travel-related stress.

WorldCom Conferencing believes American businesses must assess how to incorporate virtual work into their organizational structures. This white paper, based on a study commissioned by WorldCom Conferencing and conducted by Modalis Research Technologies, provides a snapshot of the virtual workforce by studying the trends and attitudes towards virtual work and its impact on productivity of American businesses.
II. Summary of Findings

WorldCom Conferencing commissioned the study to get a better understanding of the extent to which Americans are embracing virtual work and how it affects corporate productivity and improves employee satisfaction. Among the findings:

- More than two-thirds of workers surveyed have engaged in virtual work. Many are full-time virtual workers, with nearly half (46%) involved in virtual work at least once a week and 14% doing so every day. Virtual work is most common among workers in the technology industry, among management, and in larger companies.

- The majority of employees (60%) at America’s largest companies have participated in virtual project teams. The typical team includes six members and meets—either virtually or face-to-face—once each week, relying on tools like e-mail, audioconferencing and the Internet to accomplish its goals. A full 91% of workers who have participated on virtual teams found the experience to be productive and enjoyable.

- In addition to participating in virtual teams, 31% of those surveyed work in a virtual management structure, i.e., their immediate manager or staff is not located in the same office.

- Most companies encourage virtual work, with 27% of those surveyed reporting that they work for an organization that has adopted a formal policy; overall, 48% work for organizations that allow virtual work practices, even if no formal policy exists.

- Ninety-one percent agree that virtual work saves their companies time and money.

- Almost all (95%) of those surveyed who have worked on virtual teams said that they liked the experience. Overall, of those surveyed, 73% want to engage in virtual work more frequently. The majority (60%) who want to work on virtual teams anticipate that it will become part of their job in the next five years.
III. Improving the Effectiveness and Productivity of Virtual Work

Based on this research study and WorldCom's experience in providing the technologies to facilitate communication, the following recommendations are offered:

- **Consider putting together virtual project groups to stimulate new ideas and enhance teamwork.**
  
  Almost 3/4 of workers surveyed want to participate in virtual project teams more frequently. Not only do they believe virtual project teams make collaboration easy, but they also encourage creative thinking, 97% believe that business relationships either improve or remain the same through working on virtual project teams.

- **Arm your virtual workers with the tools they need to communicate effectively and flexibly.**
  
  Virtual workers are choosing communications based on what is best suited for their needs in the “virtual office.” Encourage your staff to use a wide variety of communications tools and services such as conferencing, pagers, cell phones, e-mail and even online scheduling—to transfer information quickly and efficiently as the situation demands it.

- **Take advantage of today's conferencing technologies to work more productively.**
  
  Seventy percent of teams take advantage of audioconferencing to communicate among members. To collaborate more effectively and work more efficiently, supplement the audio call with a Web conference to present, share and revise documents online with team members.

- **Meet virtually to reduce costs and improve productivity.**
  
  Not only do workers feel that meeting virtually via audioconferencing saves time, it also enhances productivity. For each meeting you schedule, consider if it's really necessary to meet in person, or if time is better spent meeting from your desktop.
IV. Key Findings

The Virtual Workforce

Virtual Work As A Way Of Life
Many are full-time virtual workers

There's a new work paradigm. Instead of people going to work, work is going to the people. In other words, virtual work is here to stay.

Commonly, virtual work means participating on project teams in which some of the members are not co-located. Or, it can mean telecommuting or managing or being managed by someone in another place.

In fact, over two-thirds of those surveyed have engaged in virtual work at some point in time, and nearly half do so at least once a week—strong evidence that virtual communication tools are well integrated into daily business.

67% of the American workers surveyed have worked virtually

Almost half (46%) of the employees surveyed work virtually at least once a week 14% work virtually everyday

A Sizable Group Engage in Virtual Work Each Week

A Few Times A Week 21%
Once A Week 11%

Don’t Work Virtually 33%
Less Than Once A Month 5%
Once A Month 3%
A Few Times A Month 13%
Work Virtually Weekly 46%

N=510
How People Engage in Virtual Work
*Off-site work and virtual project teams are widespread*

Forty-two percent of respondents have participated in more than one type of virtual work activity.

The most common forms of virtual work are working off-site and being part of a virtual project team—overall, 48% of the workforce surveyed have engaged in these activities.

A remarkable 31% of those surveyed work within a virtual management structure where their manager or the people they manage are not co-located.

42% have engaged in multiple forms of virtual work

31% of the workforce surveyed work within a virtual management structure

---

How People Engage in Virtual Work

- **I Work Off-Site**: 48%
- **I Have Been a Member of a Virtual Project Team**: 48%
- **Staff I Manage Are at Different Sites**: 20%
- **My Direct Manager is at a Different Site**: 17%

N=510
Employers Are Catching On To Virtual Work
Many organizations have virtual work policies

Over one-quarter (27%) of workers surveyed are in organizations where virtual work has been institutionalized through policies that encourage working virtually. An additional 21% are in companies whose work culture allows virtual work. This widespread adoption of practices and policies is strong evidence that virtual work is well entrenched in the American workforce.

Technology companies are nearly four times more likely than companies in other industries to have a policy that encourages virtual work. Many organizations (38%) in non-technology industries do not have virtual work policies.

Large companies are twice as likely as others to have policies that allow virtual work. Many of the small (42%) and medium-sized companies (38%) do not yet have virtual work policies.

Overall, 48% of respondents work for organizations that allow virtual work

27% work in a company that encourages virtual work

Corporate acceptance of virtual work is greatest among:
- the technology industry
- large companies

---

Virtual Work is Accepted in Many Workplaces

- Not Allowed or Encouraged: 9%
- I Don't Know the Policy: 8%
- Virtual Work Allowed: 48%
- Allowed But Not Encouraged: 21%
- No Policy: 35%

N=510

1 Large companies have at least 500 employees, medium-sized companies have 100 to 499 employees, and small companies have fewer than 100 employees.
Techies and Managers Are Working Virtually the Most
Virtual work is also common in large companies

Participation in virtual work is the highest among:
- Employees in the technology industry (87%);
- Management-level employees (78%); and
- Those in large companies—companies that have 500 or more employees (73%).

Participation in virtual work is the lowest among:
- Employees in the manufacturing industry (56%);
- Staff-level employees (56%); and
- Those in small companies—companies that have less than 100 employees (62%).

Exposure to Virtual Work Varies Across Industry Sectors, Staff Levels, and Company Size
Virtual Teams

Virtual Project Teams Are Increasingly Popular
Rarely does the entire team have to meet face-to-face

Forty-eight percent of employees surveyed indicated that they have participated in a virtual project team.

Participation in virtual teams is the greatest among:
- Employees at large companies—companies with at least 500 employees (60%);
- Employees in the technology industry (59%); and
- Management-level employees (57%).

A typical virtual team included six members, four of whom (or 67% of the virtual team) worked remotely.

Only 16% of respondents have met all of the members of their virtual team in a face-to-face setting. Virtual technology is not, however, a complete replacement for face-to-face contact. On average, respondents had met 78% of their project team face-to-face.

Overall, 48% have been on a virtual project team

Virtual teams are most common among:
- large companies
- the technology sector
- managers

Most of the members of virtual teams have met each other face-to-face

Exposure to Virtual Project Teams Varies Across Company Size, Industry Sectors, and Staff Levels
Over half of those surveyed (58%) indicated that their most recent virtual project team met at least weekly. A sizable number (9%) of them met daily.  

58% of teams meet at least once a week

![Pie chart showing meeting frequency]

Meet Weekly  58%
A Few Times A Month  24%
Once A Month  8%
Less Than Once A Month  10%
Daily  9%
A Few Times A Week  29%
Once A Week  20%

N=246
Virtual Workers Enjoy Being Part of the Team

A full 91% of workers with virtual team exposure stated that they liked their experience. Nearly two-thirds (55%) of those who had strongly agreed with the statement “I like working as part of a virtual project team.”

One aspect of virtual teamwork that was raised by several respondents was a perceived inherent challenge to work harder and smarter. One respondent stated that she puts “...more time and effort into a virtual project” and another noted that virtual projects encourage “...higher levels of achievement” than non-virtual teams.

91% have enjoyed their virtual team experience

Virtual teams inspire some to contribute greater effort and strive for higher levels of achievement than do non-virtual teams

Most Like Participating in Virtual Teams

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>2%</td>
<td>7%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Strongly Agree = top three box (8-10), Agree =5-7, Disagree=3-4, Strongly Disagree= bottom three box (0-2)

N=246

2 Strongly agree (a term used throughout this report) = top three box score on a 0-10 scale of agreement with 0 meaning completely disagree and 10 meaning completely agree.
Virtual Teams Are in High Demand

Seventy-three percent of respondents who have not participated in virtual teams reported that they would like to do so in the future.

The idea of virtual project teams is somewhat more appealing to those who have done it before; those with virtual team experience are almost twice (1.6 times) as likely as those without that experience to state that they would like to be part of virtual teams in the future.

Most (60%) of those who want to work on virtual teams report that they anticipate it will become a part of their job in the next five years.

Likely as a result of institutionalized virtual work in their sector, optimism about virtual teams is highest in the technology industry. Eighty-one percent of those in technology companies believe that virtual teams will become a part of their job in the next five years; while only between 52% and 61% of employees in other industries believe the same.

Managers are more confident than staff that virtual project teams will become a part of their job (73% of managers and 49% of staff who want to work on virtual teams with increased frequency believe that they will within the next five years).

Even though they want to participate in virtual teams at nearly equal rates, more men (67%) than women (52%) actually believe that they will be given the opportunity to do so.
Virtual Teams Collaborate Most Often Via Email and Audioconferencing

Nearly all virtual team members (94%) have used email, and 70% have used audioconferencing to communicate with others on their team. The rates at which various tools are being used suggest that team members are being selective about choosing the form of communication best suited for the information that is being exchanged.

One-third of virtual workers strongly agreed that their company encourages the use of conferencing technology. Indeed, second and third wave conferencing technologies have been used by a substantial number of virtual teams; 16% of virtual teams have used videoconferencing and 19% have used Web conferencing technology. Interestingly, we are witnessing a sharp rise in the use of Web conferencing, the newcomer to collaboration technology, which has now even overtaken videoconferencing. This rise is evidence that there is a great need in the marketplace for the unique capabilities provided by Web conferencing.

Most respondents indicated that a number of internal and external meetings could be enhanced through the use of conferencing technology.

3 Top three box score on a 0-10 scale of agreement with 0 meaning completely disagree and 10 meaning completely agree.
**Attitudes Toward Virtual Work**

**Virtual Work Saves Time and Money**  
Managers are particularly pleased with the time and cost savings

Given that the typical employee spends almost seven hours per week—nearly the equivalent of a full workday—in transit to and from work, the potential impact of virtual work on employees is considerable.

The likely impact of virtual work on the productivity, and hence profitability of organizations, is also great. More than half (56%) of those surveyed strongly agree that virtual meetings save time and money. In fact, when asked why they want to participate in virtual project teams more frequently, the number one reason was increased productivity (cited by 32% of respondents).

As decisionmakers, it is important that managers see the benefits of virtual work; and they do. In fact, more managers (63%) than staff (47%) strongly agree that virtual meetings save their organization time and money.

Sixty-one percent of respondents indicate that the timesaving gained by working virtually allows them to participate in other work-related activities.

The typical worker spends 7 hours per week traveling to and from work

56% strongly agree that virtual meetings save time and money

63% of managers strongly agree that virtual meetings save time and money

Time saved through virtual work is reinvested in work-related activities

---

**Virtual Meetings Save Time and Money**

- **Strongly Disagree**: 3%
- **Disagree**: 6%
- **Agree**: 35%
- **Strongly Agree**: 56%

*Measured on a scale of 0-10 with 0=completely disagree and 10=completely agree.  
Strongly Agree= top three box (8-10), Agree =5-7,  
Disagree=3-4, Strongly Disagree= bottom three box (0-2)  
N=342*
According to over half (55%) of those surveyed, virtual meetings are shorter than face-to-face meetings.

Meeting virtually, as opposed to gathering everyone together in one location for face-to-face meetings, helps meetings to run more efficiently. Components that make for faster meetings include quicker decision making, easier collaboration and transfer of information, and the encouragement of creativity.

Just under half (49%) strongly agreed that it is easy to transfer information between members of a virtual team.

Almost half (47%) strongly agreed that decisions could be made quickly in virtual meetings by virtue of bringing the right people together. Workers approach virtual meetings with a clear sense of purpose and sensitivity toward their time and that of other meeting participants. Also, there is often less office “chit-chat” at virtual meetings compared to face-to-face meetings.

Forty-two percent indicated strong agreement with the idea that collaboration is easy. This may be partially due to not “...getting bogged down in office politics.”

Over one-third (36%) feel that virtual meetings encourage creative thinking. One respondent describes virtual meetings as being a setting in which “...everyone thinks out of the box.”

A substantial number of virtual workers feel that:
- it is easy to transfer information between members of virtual teams
- decisions can be made quickly in virtual meetings
- collaboration in virtual meetings is easy
- virtual meetings encourage creativity

The Process Benefits of Virtual Meetings Are Many

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to Transfer Info</td>
<td>49%</td>
</tr>
<tr>
<td>Decisions Are Made More Quickly</td>
<td>47%</td>
</tr>
<tr>
<td>Collaboration is Easy</td>
<td>42%</td>
</tr>
<tr>
<td>Encourages Creative Thinking</td>
<td>36%</td>
</tr>
</tbody>
</table>

Top three box scores on a scale of 0-10 where 0=completely disagree and 10=completely agree. N=342

4 Attitudes of respondents represented as “strongly agree” refer to the top three box score on a 0-10 scale of agreement with 0 meaning completely disagree and 10 meaning completely agree.
“It Can Be Easier to Share Ideas With Someone Who is Faceless”

Over one-third of respondents (35%) reported that being a part of a virtual team has actually enhanced their relationships with other team members. When asked why they thought this improvement had occurred, several respondents made similar comments about the benefits of not knowing the physical appearance of team members.

As summed up by one respondent, a virtual team meeting allows participants to “. . . come into a project as equals. What we look like and how we dress has no affect on others. I find myself to be less judgmental about a person’s qualifications and abilities.”

Other respondents noted that the absence of “. . . preconceived ideas about each other based on looks . . .” has been a benefit of being on a virtual team and that it can be “easier to share ideas with someone who is faceless.”

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>32%</td>
<td>44%</td>
<td>11%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Measured on a scale of 0-10 with 0=completely disagree and 10=completely agree. Strongly Agree=top three box (8-10), Agree=5-7, Disagree=3-4, Strongly Disagree=bottom three box (0-2) N=342
Working Virtually Has Its Personal Benefits

People clearly enjoy the opportunity to work virtually. Nearly one in five (16%) would trade a larger salary for the ability to work virtually. This trade-off is in greatest demand among women. Nearly twice as many women (64%) as men (36%) would refuse a pay raise if they could work virtually.

Employers can take comfort in the no-nonsense attitude that virtual workers bring to their positions. Only 14% of virtual workers indicated that they like virtual meetings because they allow them to do non-work related activities (such as checking personal e-mail or playing computer games) while on the clock.

Engaging in virtual work also provides personal benefits. As stated by 44% of virtual workers, the nature of their work allows them to spend more time with family and friends when compared to a traditional work setting.

16% would trade a larger salary for the ability to work virtually

Women are more likely than men to trade salary for virtual work

Employees generally approach working virtually with a no-nonsense attitude

Working virtually does afford many people more personal time than does a traditional work setting

More Women Than Men Would Trade a Larger Salary For the Ability to Work Virtually

- Women: 64%
- Men: 36%

N=56
Meeting Virtually Is Virtually Worry Free

While losing the social connectivity of water cooler chats and lunch room buddies could be worrisome to virtual workers, surprisingly this is of little concern.

In fact, only about one in five virtual workers worry that their physical isolation from colleagues will negatively impact on business relationships (23% highly concerned), and peer relationships (20% highly concerned).5

Also, a lack of computer hardware/software and/or training does not appear to be significant barriers to working virtually.

Younger respondents, whose business relationships may not be solidified, tend to be more concerned than older workers about potential interpersonal effects that virtual meetings will have on their professional lives.

The reality, however, is that among those who have worked virtually, 97% report that their working relationships have either improved (35%) or remained the same (62%). Several respondents attributed positive working relationships among virtual team members to a casual and relaxed team environment and the lack of office politics. In fact, one respondent said, “because you are not in constant contact daily (face to face), you tend to make more of your time and have a better quality meeting and a more amicable relationship.” This was echoed by another respondent who said that virtual project team members are “less likely to develop work relationship fatigue.”

Concerns About Virtual Work Are Minimal

Very few respondents had strong concerns about virtual work

97% of respondents report that business relationships have improved or remained the same as a result of virtual work

Concerns About:

- Business Relationships: 23%
- Peer Relationships: 20%
- Relationships With Subordinates: 18%
- Relationships With My Manager: 18%
- My Ability to be Promoted: 16%
- Hardware/Software: 14%
- Training: 8%

Top three box scores on a scale of 0-10 where 0=no concern and 10=very concerned

N=510

5 High concern = top three box score on a 0-10 scale of agreement with 0 meaning no concern and 10 meaning very concerned.
Telecommuting is a Common Form of Virtual Work
The technology sector leads the way in telecommuting

Forty-eight percent of employees surveyed indicated that they have telecommuted or worked off-site from their company’s office location at some point in time.

Working off-site is most common among:

- Employees in the technology industry (72%); and
- Management-level employees (60%).

The number of telecommuters did not fluctuate as a function of company size.

Overall, 48% have telecommuted or worked off-site

Working off-site is most common among:

- the technology sector
- managers
A Sizable Number of Virtual Workers are Full-Time Telecommuters

Thirteen percent of those who telecommute do so on a full-time basis. Overall, more than half (54%) of those who work off-site do so at least weekly.

While more staff than managers work off-site on a daily basis (21% and 9%, respectively), it is likely a function of management’s need for face time with subordinates and peers in their organization.

54% of those who work off-site do so at least weekly

13% are full-time telecommuters

Most Telecommuters Work Off-Site Weekly

- Work Off-Site Weekly: 54%
- A Few Times A Week: 29%
- Once A Month: 6%
- A Few Times A Month: 27%
- Less Than Once A Month: 13%
- Daily: 13%

N=245
The Ability to Telecommute is Desired and Valued by Employees

Sixty-seven percent of respondents reported that they want to work off-site more frequently than they currently do.

The idea of working off-site is more attractive to those who have done it before; those who have worked off-site are twice as likely to state that they want to do so more in the future than are those who haven’t worked off-site in the past.

Employees in large companies (500 or more employees) are more open to working off-site than are their small company counterparts. While 72% of employees at large companies want to work off-site, just 60% of employees at small companies want the same.

Over half (52%) of those who want to work off-site more frequently expect that they will do so in the next five years. Managers are more optimistic about this than are staff level employees (66% of managers and 44% of staff who want to work off-site believe that they will within the next five years).

67% of respondents want to work off-site more than they currently do

Interest in working off-site is greatest among:
- employees with off-site work experience
- employees at large companies

52% who want to work off-site believe that they will within the next five years

There is Substantial Interest in Telecommuting

- Want to work off-site more frequently: 67%
- Do not want to work off-site more frequently: 33%
- Expect off-site work to become part of job: 52%
- Do not expect off-site work to become part of job: 48%

N=477
N=160
V. Conclusions

What are the major conclusions we can draw from this research? WorldCom Conferencing would point to the following critical findings to help readers integrate virtual work within their organizations in order to make them more efficient and productive.

- The trend towards virtual work is fueled by technological advancements such as wireless, conferencing services, Intranets, and online scheduling. The rapid growth of communication tools such as Web conferencing demonstrates that these tools are successful in meeting an essential business need for collaboration from the desktop. Equipping employees with these tools will result in increased productivity for your organization by helping them work quickly and efficiently.

- By encouraging virtual project teams, you will be strengthening relationships—even among team members who have never met face-to-face. Virtual team members report that working remotely on a project actually fosters creativity and collaboration, rather than diminishing it. Carefully map processes and design communication links to ensure that all members feel a part of the team and contribute regularly.

- As the size of the virtual workforce in America increases, so is the likely impact on productivity and profitability for organizations and overall employee satisfaction. To maximize these benefits, companies should encourage virtual work by developing clear policies and guidelines for employees.

- Protocol is established for in-person meetings, but virtual meetings require different considerations to maximize their effectiveness. Virtual team members can make their sessions as productive as face-to-face meetings by following a few simple guidelines for meeting management success:
  - Select the appropriate technology to fit the purpose of the meeting. Consider specific agenda items and facilitation goals, deciding on whether collaboration is important.
  - Leverage the agenda and use of technology to provide team members an opportunity to contribute to the discussion. Encourage interaction by using online capabilities such as chat, Q&A and polling features through Web-based conferencing.
  - Moderate the discussion to ensure that the meeting begins promptly and ends on time.
VI. Background/Methodology

About WorldCom

WorldCom (NASDAQ: WCOM) is a preeminent global communications company for the digital generation, operating in more than 65 countries with 2000 revenues of approximately $40 billion. WorldCom provides the innovative technologies and services that are the foundation for business in the 21st century. For more information, go to http://www.worldcom.com.

Setting the pace for the digital generation, WorldCom’s e-meeting services include audio, video, and Net conferencing, webcasting, pre- and post-meeting support tools, and equipment sales and support. Customers can make reservations and learn more at http://e-meetings.wcom.com or can call:

- U.S. 1-800-480-3600
- Europe +44 (0)20 7950 9700
- Asia +852 2802 5100
- Japan +813 5539 5100
- Australia 1 800 50 5500

Objectives

In an attempt to understand the challenges particular to virtual work, the attitudes workers have toward meeting and working virtually, and the effect of virtual work and virtual teams on productivity and profits, WorldCom commissioned Modalis Research Technologies, a market research firm specializing in Web-based research, to conduct this survey among management and staff-level employees.

Specific objectives for the research were to:

- assess the prevalence of virtual work in the current business environment;
- describe how virtual work affects productivity and profit; and
- gauge employee attitudes toward the virtual workplace.

Data Collection

Modalis Research Technologies, in close conjunction with WorldCom, developed the survey instrument used for this study.

Data collection was conducted from January 3, 2001 to January 15, 2001. During the 12-day research period in January of 2001, a total of 510 qualified people responded to and completed the survey. Potential respondents were contacted via email and invited to take part in an online survey.
APPENDIX A:

Characteristics of the Survey Sample
Sample Characteristics

The sample was drawn from Modalis Research Technologies’ Forum Modalis SM, a registered database of people who have volunteered to take part in online research projects. All respondents passed a screening procedure to ensure that they had attended at least four work-related meetings per month. Respondents were designated as Manager or Staff according to job function, and designated according to their company’s size. Quotas were set to ensure the following mix of respondents was achieved:

<table>
<thead>
<tr>
<th>Quota Group</th>
<th>Number of completed interviews</th>
<th>Percent of total completes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 100 employees</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>84</td>
<td>16.5%</td>
</tr>
<tr>
<td>Manager/Sr. Manager</td>
<td>85</td>
<td>17%</td>
</tr>
<tr>
<td>100–&lt;500 employees</td>
<td>168</td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>84</td>
<td>16.5%</td>
</tr>
<tr>
<td>Manager/Sr. Manager</td>
<td>84</td>
<td>16.5%</td>
</tr>
<tr>
<td>500 or more employees</td>
<td>173</td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>84</td>
<td>16.5%</td>
</tr>
<tr>
<td>Manager/Sr. Manager</td>
<td>89</td>
<td>17%</td>
</tr>
</tbody>
</table>

Respondents were distributed across other demographic categories in the following way:

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of completed interviews</th>
<th>Percent of total completes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>261</td>
<td>51%</td>
</tr>
<tr>
<td>Female</td>
<td>248</td>
<td>49%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of completed interviews</th>
<th>Percent of total completes</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 or younger</td>
<td>55</td>
<td>11%</td>
</tr>
<tr>
<td>26-34</td>
<td>150</td>
<td>30%</td>
</tr>
<tr>
<td>35-49</td>
<td>200</td>
<td>40%</td>
</tr>
<tr>
<td>50+</td>
<td>98</td>
<td>19%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of completed interviews</th>
<th>Percent of total completes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology</td>
<td>86</td>
<td>17%</td>
</tr>
<tr>
<td>Service</td>
<td>165</td>
<td>32%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>63</td>
<td>12%</td>
</tr>
<tr>
<td>Other</td>
<td>196</td>
<td>39%</td>
</tr>
</tbody>
</table>
APPENDIX B:

Detailed Description of Meetings
A Sizable Number of Workers Attend Meetings Outside of Their Office

In order to understand the extent to which meetings are a component of the workday for most Americans, respondents were asked several questions about the meetings that they attend in a typical month.

Some respondents report that they attend as many as 150 meetings each month. When disregarding those with extremely large and uncommon numbers of meetings, we find that the average respondent attends 20 meetings a month. As might be expected, management level employees attend more meetings per month than do staff (managers attend an average of 23 meetings while staff attend 18).

Overall, 59% of those surveyed attend at least one off-site meeting in a typical month. Fifty-seven percent attend at least one meeting per month outside of, but in the same city or general area as, their office. Thirty percent attend at least one meeting per month that is not in their area but is in the United States, and 5% attend at least one meeting at an international location each month.

Not only do more managers than staff attend meetings in each of these locations, they attend the meetings with greater frequency.

Respondents attend an average of 20 meetings each month

59% attend at least one off-site meeting each month

A Substantial Number of Workers Attend Off-Site Meetings

- Off-Site - But In My Area: 57%
- Off-Site - Outside of My Area But In The U.S.: 30%
- Off-Site - International: 4%

N=510
Workers Meet With a Wide Variety of People Each Month

Nearly all management-level employees (86%) and staff-level employees (90%) meet with their direct manager at least once a month. The average number of meetings with direct managers is 10 per month for both staff and management-level employees.

A large proportion of employees (82% of managers and 73% of staff) meet with the general management of their organization each month.

A substantial number of management-level employees meet with suppliers (81%), clients (80%), and strategic partners (55%) at least once a month. Fewer staff attend these sort of meetings.

Some managers reported attending up to 99 meetings per month with clients. The average number of meetings with clients is eight per month.

Over half of the managers surveyed attend at least one meeting a month with suppliers, clients, or strategic partners.

Managers attend an average of 8 meetings each month with clients.
Audioconferencing is Widely Used for Meetings

Respondents were asked how they and others join into their meetings. Nearly all respondents (96%) attended meetings where at least two people are face-to-face.

Fifty-eight percent are involved in meetings each month where audioconferencing is used. The high rate of audio conferencing is not surprising, as it constitutes the first wave of conferencing technology.

What is somewhat surprising is that Web conferencing—a third wave technology—has surpassed the use of video—a second wave conferencing technology. Not only have more people used Web conferencing as compared to videoconferencing, but Web conferencing is used in greater frequency than is video (an average of two meetings per month involve Web versus one meeting each month that involves video).

Audio is the most widely used conferencing technology

The use of Web conferencing has surpassed that of videoconferencing

Face-to-Face and Audioconferencing Are the Most Widely Used Meeting Tools

- Face-to-Face: 96%
- Audioconference: 58%
- Web conference: 20%
- Videoconference: 16%

N=510