



PREPARED FOR:

## Year Two: Security Perceptions & Online Behavior of Remote Workers



AUGUST 2007



### Background

- Cisco commissioned this research to understand how remote workers around the world use work computing and communications devices away from the office and how their security perceptions and online behavior heighten risks for companies, IT organizations, and themselves personally. The research assesses the extent to which IT managers' perceptions of remote workers attitudes and behaviors mirror or contrast remote workers' actual attitudes and behaviors.
- Cisco hopes to use this research to heighten awareness in the industry and offer a call-to-action for IT organizations to reshape their image in the eyes of their users as a strategic, proactive, and consultative communications/education-based asset.

### Sample & Timeframe

- An online survey was fielded to 2,000+ remote workers (End Users) and IT Decision Makers in 10 countries. The sample consisted of approximately 100 remote workers and 100 IT decision makers from each of the following countries:
- U.S., U.K., France, Germany, Italy, India, Japan, China, Australia, Brazil
- 2007 Survey Fielding was conducted from July 4 to July 20, 2007.
- 2006 Survey Fielding was conducted from July 28 to August 13, 2006.

### Screening Criteria

- IT respondents had to have some influence in establishing corporate security policies and/or making purchase decisions for IT security technology.
- Remote worker respondents had to:
  - Be 22 years of age and employed either full or part-time
  - Work with a desktop, notebook, PDA and/or Smartphone provided by their company
  - Be enabled to connect to their company's network from a remote location

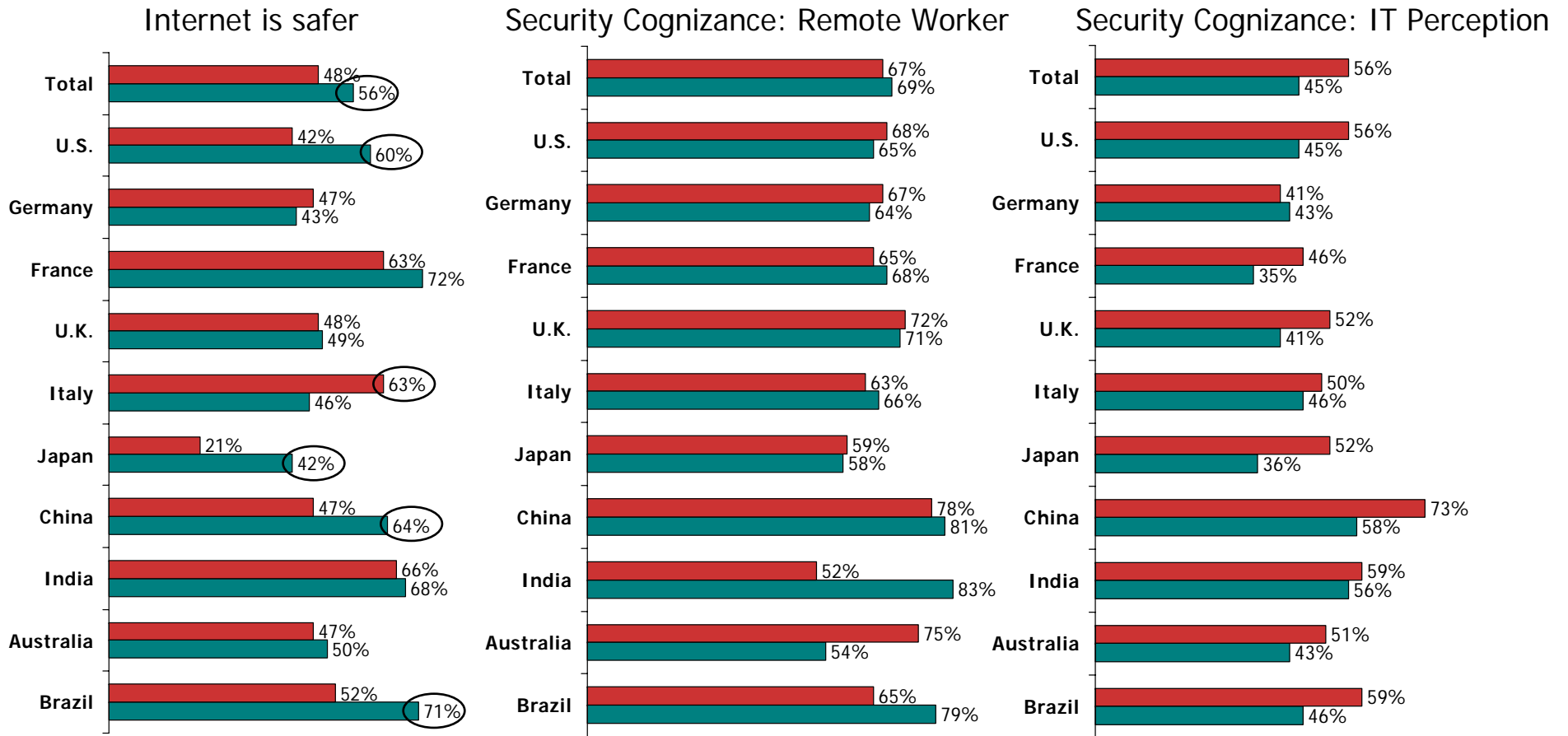
# Security Perceptions & Risky Behavior



# Belief that the Internet is Safer & Security Cognizance

- Compared to 2006, remote workers are significantly more likely to agree that it is safer to connect to the Internet today than it was a year ago. This is largely driven by changes in opinions in the U.S., Italy, Japan, China & Brazil. Two-thirds of the employee respondents claimed they maintain security awareness when working online from remote locations.

2006 2007



2007 Base (EU/IT): Total (1004/1026), US (100/100), GM (100/102), FR (100/100), UK (100/102), IT (101/105), JA (101/101), CH (100/106), IN (100/103), AU (101/106), BR (101/102)

2006 Base (EU/IT): Total (927/968), US (100/105), GM (102/106), FR (102/102), UK (101/104), IT (104/103), JA (103/111), CH (115/105), IN (103/116), AU (101/108), BR (100/111)

○ = Stat Diff at 95% between 2006 and 2007

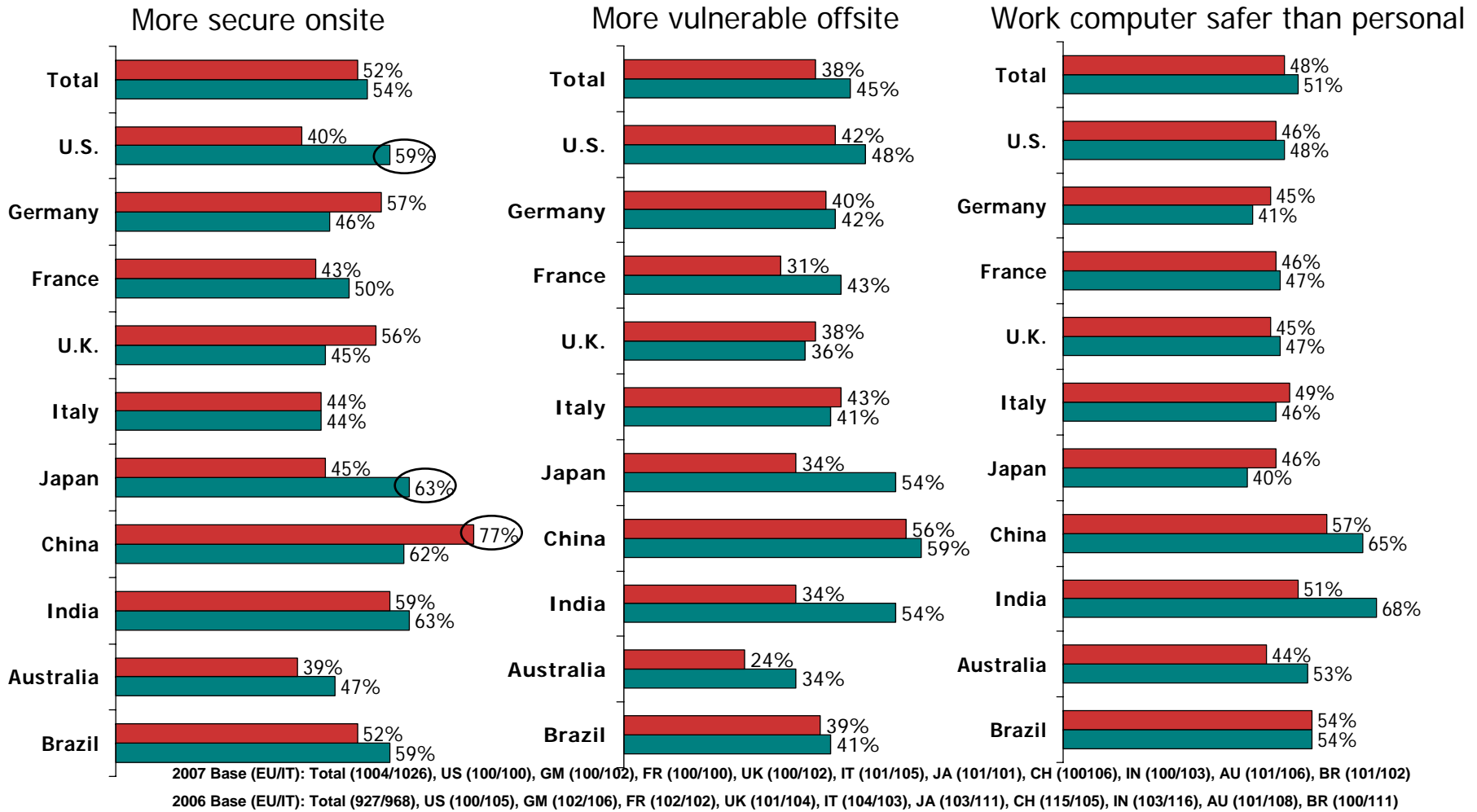
Total=Aggregate of all Countries

End User – Q: It is safer to connect to the internet today then it was a year ago.

IT - Q: I believe it is safer to connect to the Internet today than it was a year ago.

- Remote workers in the U.S. & Japan are significantly more likely than to agree that their work is more secure when working onsite than a year ago.

■ 2006 ■ 2007



○ = Stat Diff at 95% between 2006 and 2007

Q: Please indicate your level of agreement with the following statements using the scale below

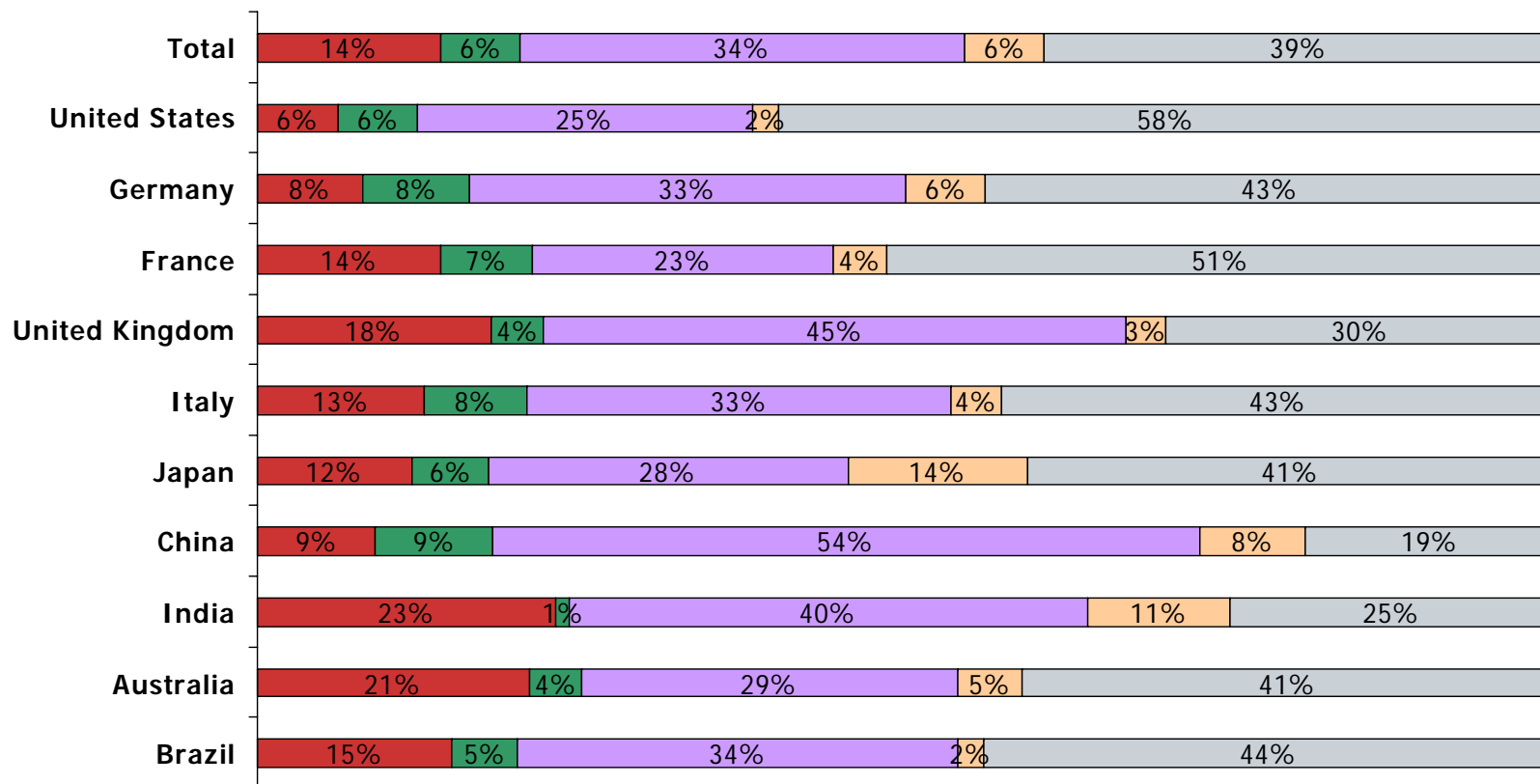
%= Top two box Agree & Strongly Agree  
 Total= Aggregate of all Countries



## Action Taken When Receive Email from Unknown Party (End User only)

- Across the countries, a large number of remote workers still open suspicious or unknown emails and attachments. This is particularly disturbing in countries that have a large number of longtime Internet adopters, such as Germany, the U.K., and Japan.

- Leave the email unopened and notify IT
- Leave the email unopened but not notify IT
- Open the email to see who it's from but not open any attachments or links
- Open the email to see who it's from and open any attachments or links
- Delete it immediately, without opening it



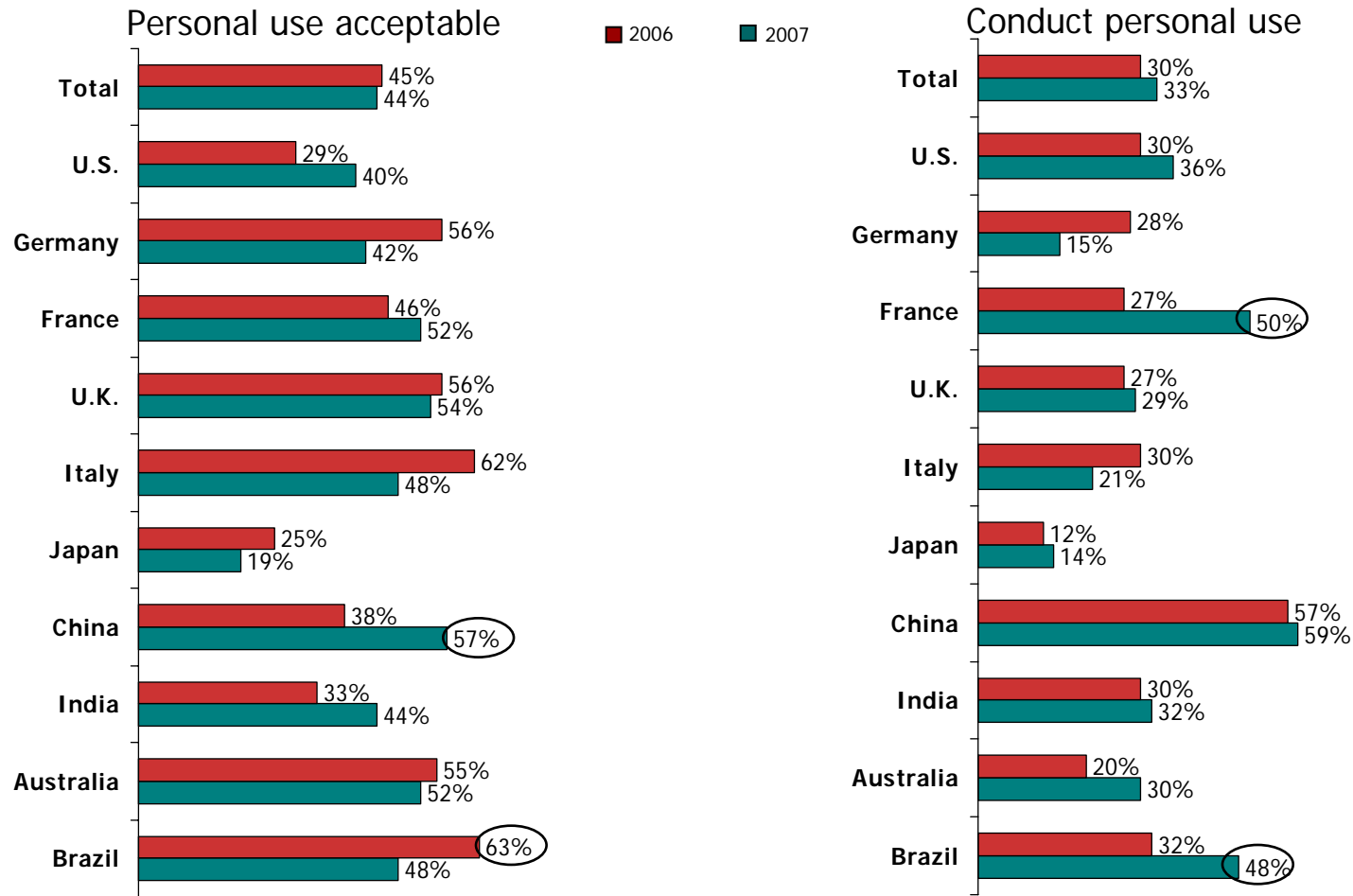
Q: Which of the following best describes what you would most likely do if you were to get an email from someone you don't know while working remotely with a company device?

Total=Aggregate of all Countries



# Using Work Computers and Devices for Personal Use

- Using one's work computer for personal reasons is becoming a more widely accepted practice in the eyes of End Users in China, while in Brazil fewer agree with this practice in 2007 than in 2006. Remote workers in France & Brazil are significantly more likely to report using their work CPU for personal use than they were a year ago



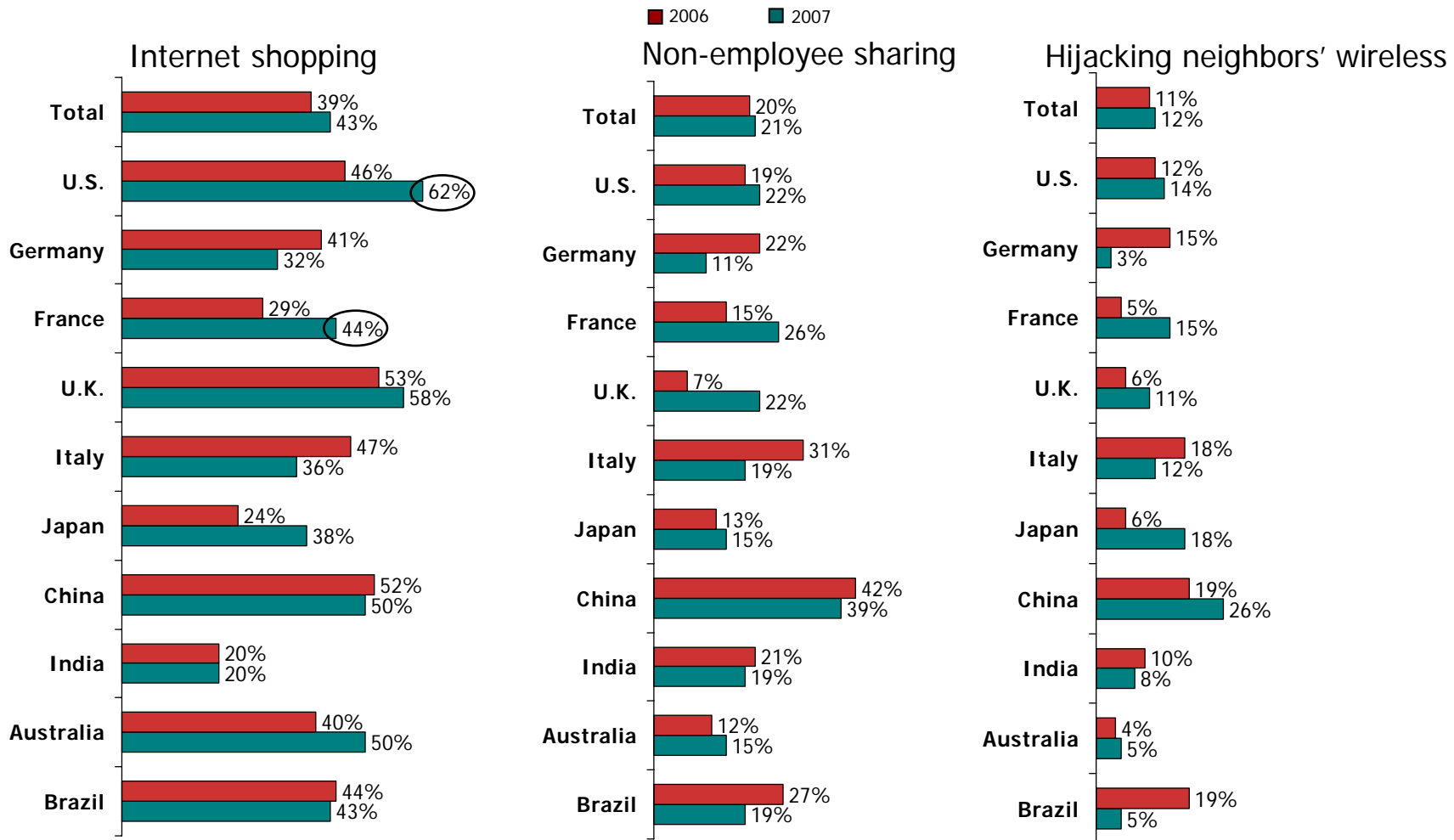
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Q: Please indicate your level of agreement with the following statements using the scale below

%= Top two box Agree & Strongly Agree  
 Total= Aggregate of all Countries

- Remote workers are more likely this year than in 2006 to report using their work CPU to purchase personal items, share work devices with non-employees and connecting to neighbors' wireless connections.



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○ = Stat Diff at 95% between 2006 and 2007

Q: Please think about the times when you work remotely, either from home, a hotel, a café, or another location that is not part of your company. Which of the following statements apply to you?

%= Applies to me  
 Total= Aggregate of all Countries



## Reasons for Use of Work Computer for Personal online purchases

- Most remote workers make personal online purchases because their “company does not mind them doing do” and they “would never get personal things done if they did not do them at work”.

	Would never get personal things done if I didn't do them while at work	Shopping online can't result in security problems	I think my work computer is more secure than my home computer	It's OK as long as my boss doesn't see me	Other co-workers do it	My company doesn't mind me doing so	I doubt my company would care	I doubt my company would find out	IT department will support me if there's a problem
	%	%	%	%	%	%	%	%	%
Total	20	6	12	2	4	33	7	3	4
U.S.	24	2	10	2	5	35	11	3	3
Germany	25	13	3	3	0	31	13	3	6
France	14	5	9	7	0	52	5	0	2
U.K.	14	2	9	0	7	43	7	9	3
Italy	8	14	11	0	3	33	14	3	8
Japan	34	8	5	5	0	18	8	3	6
China	10	12	28	2	12	20	2	2	6
India	30	15	15	0	0	15	5	0	10
Australia	22	0	12	2	6	42	8	0	2
Brazil	30	7	14	2	2	26	0	0	7

Total=Aggregate of all Countries

Q: You indicated that you have used your work computer to purchase personal items on the Internet. Which of the following best describes why?

## Reasons Give Friends/Family Online Access with Work Computer

- Many remote workers who allow friends and family to access their work computer do so because “they don’t see anything wrong with it”, or “their company doesn’t mind”.

	I don't see anything wrong with it	I'm too busy to think about security issues	My company doesn't mind me doing so	My boss does it	Co-workers do it	People outside of work do it	Don't think it increases security risks	Doubt my company would care	Doubt my company would find out	IT dept. to support me if something goes wrong
	%	%	%	%	%	%	%	%	%	%
Total	32	7	32	12	18	12	29	14	7	17
U.S.	32	14	55	18	32	27	32	23	9	18
Germany	45	9	45	9	18	9	27	9	9	27
France	62	12	23	4	12	4	38	4	0	8
U.K.	18	5	36	9	18	14	9	18	9	18
Italy	26	5	32	0	11	5	26	37	0	11
Japan	7	0	33	7	7	7	20	7	7	13
China	33	13	23	13	36	21	36	21	18	15
India	26	5	16	16	16	11	37	0	0	32
Australia	20	0	53	13	0	13	13	0	7	13
Brazil	37	0	26	26	11	0	37	5	0	26

Total=Aggregate of all Countries

Q: You indicated that you have let friends and/or family members use your work computer to go online. Which of the following best describes why that is?



## Reasons Access Neighbor's Wireless with Work Computer

- Most remote workers who have hijacked their neighbors' wireless connections have done so because "they were in a bind".

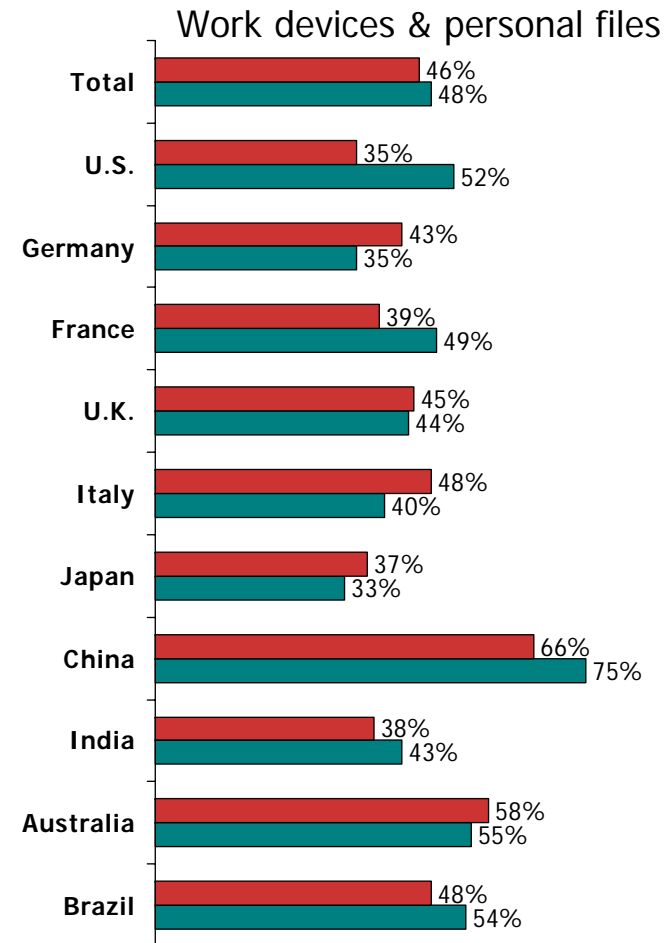
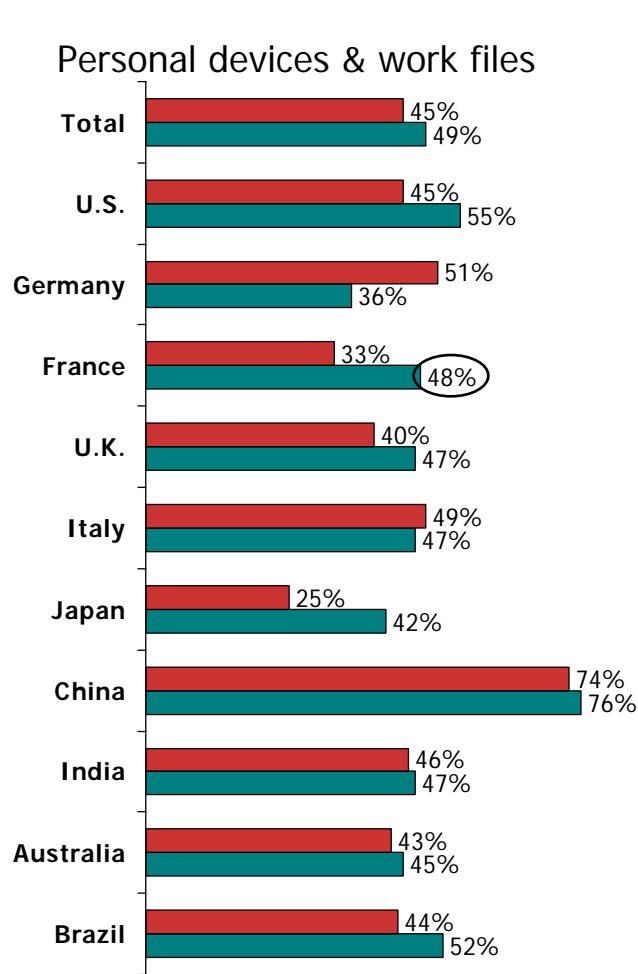
	My neighbor doesn't know, so it's OK	I don't have my own Internet connection	It's more convenient than using my wired connection	I needed it because I was in a bind	Setting up my own wireless network is difficult and confusing	I can't tell if I'm using my own or someone else's wireless Internet connection.
	%	%	%	%	%	%
Total	11	15	23	33	17	22
U.S.	14	7	29	50	29	29
Germany	33	0	33	67	0	67
Japan	0	11	6	44	11	17
China	23	23	42	15	19	12
France	7	7	13	33	13	13
India	13	38	25	50	25	13
Brazil	0	0	0	40	0	40
U.K.	0	9	18	27	18	55
Australia	0	20	0	0	40	20
Italy	17	17	33	25	8	17

Total=Aggregate of all Countries

Q: You indicated earlier that you have accessed a neighbor's wireless network with your work computer when working from home. Why is that?

# Actions Taken When Working Remotely – Used personal devices

- In 2007, a greater proportion of remote workers report using personal devices to access work files as well as work devices to access personal files than did in 2006. France and China are two examples.



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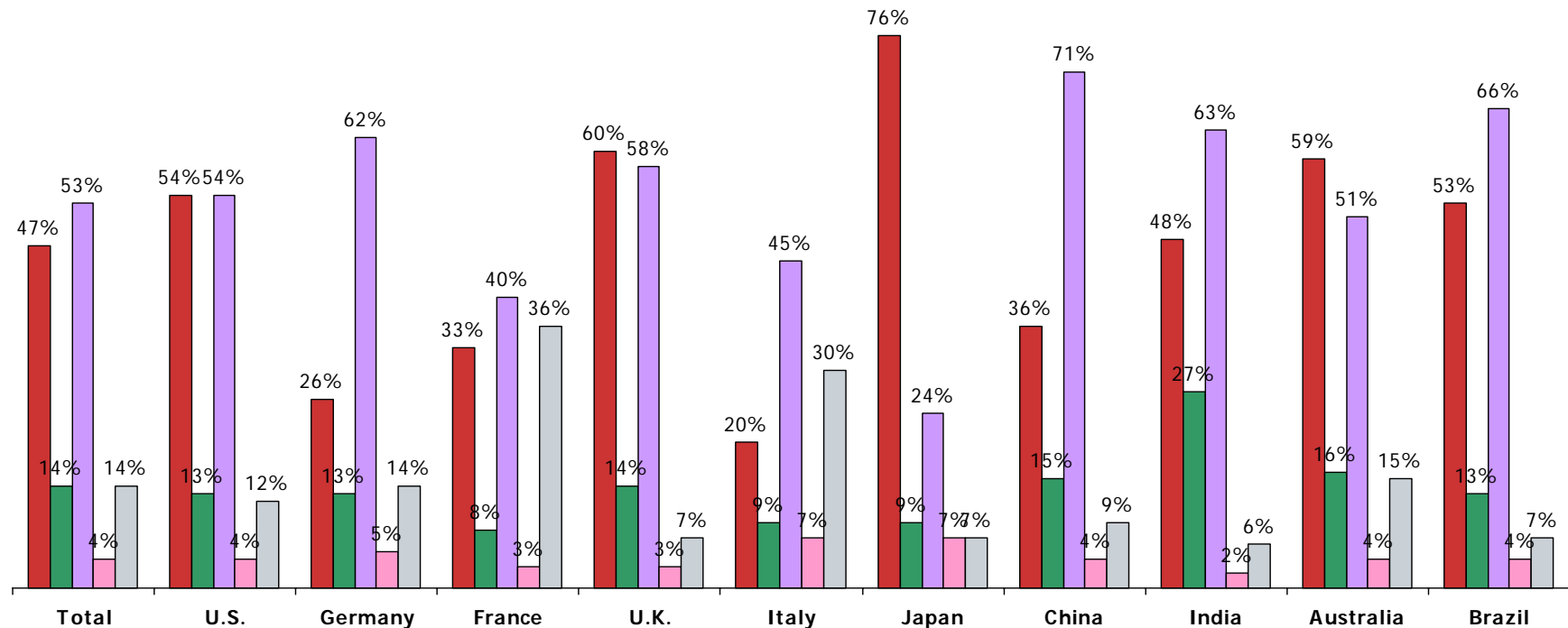
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- Remote workers across all of the countries agree that IT *and* managers should be responsible for keeping tabs on personal use of work computers. In four of the countries, more remote workers believed managers had as much or more right/responsibility than IT, raising the question about how IT's authority and support are perceived in the eyes of their end users.

■ Managers ■ Fellow co-workers ■ IT ■ Other ■ No one



Q: Keeping tabs on who is using company computers for personal reasons should be the responsibility of:

Total=Aggregate of all Countries