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# Developments in Internet Uses

Public web terminals (email, IP phone)

Internet Appliances

Merger of web, network TV

Growth of Outsourcing and ASPs

# ASP Market Growth



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# Internet Appliances

Wireless links

Remote monitoring and control

Devices on the web (refrigerator, toaster, car, etc.)

Ubiquitous Computing:

- integration of voice mail, e-mail

- WAP (challenge of form factor – foldable displays, keyboards)

- Voice, gesture input

- Voice synthesis

Digital video

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# Merger of web, network TV

Set-top boxes

Programs on demand

(Now have music on demand – download CD)

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# Outsourcing – ASPs

## Pay-for-use applications

- Latest version

- No need to purchase, install

## Outsourcing of Internet Services

- Web hosting

- email

(United Airlines outsourced email to USA.net)

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## Corporate Glimpses:

CISCO: Voice over IP

COMPAQ: ZLE for ISPs, ASPs

Hewlett-Packard: e-Speak – enable creation  
of web services (ISP, ASP)  
(now 2yrs, \$5M)

IBM: Devices, assistants

Lotus: unified messaging  
voice, email, fax

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# Corporate Glimpses:

## IBM Research

BlueEyes – Computerized devices respond to voice, touch, feelings

<http://www.almaden.ibm.com/cs/blueeyes/>

Tspaces – web-based “assistant”

<http://www.almaden.ibm.com/cs/Tspaces/index.html>

## XEROX

<http://www.zdnet.com/pcweek/webcast/comdex/cxfall99.html>

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# Other Potpourri

Data Mining / Cookies

Personalized advertising Profile  
(CBS 60Minutes, 11/28/99)

Web helpers

Bots

Digital wallets

Cybersmear (SJMN 11/29/99)

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# Other Potpourri

## Wireless:

Hot topic in communications industry  
Acquisitions, mergers

Wireless Ethernet – cheaper, more flexible in old  
buildings

## Satellite links

Iridium files for bankruptcy

Globalstar deeply in debt

FCC asked to allocate 70MHz at 2GHz

Move to broadband data service

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## Other Potpourri (continued...)

Teledesic (<http://www.teledesic.com/>)  
(McCaw, Boeing, Bill Gates, Motorola)  
Focused on data links

Television Satellite providers to deliver local channels  
Direct TV – Direct PC  
(very) ADSL