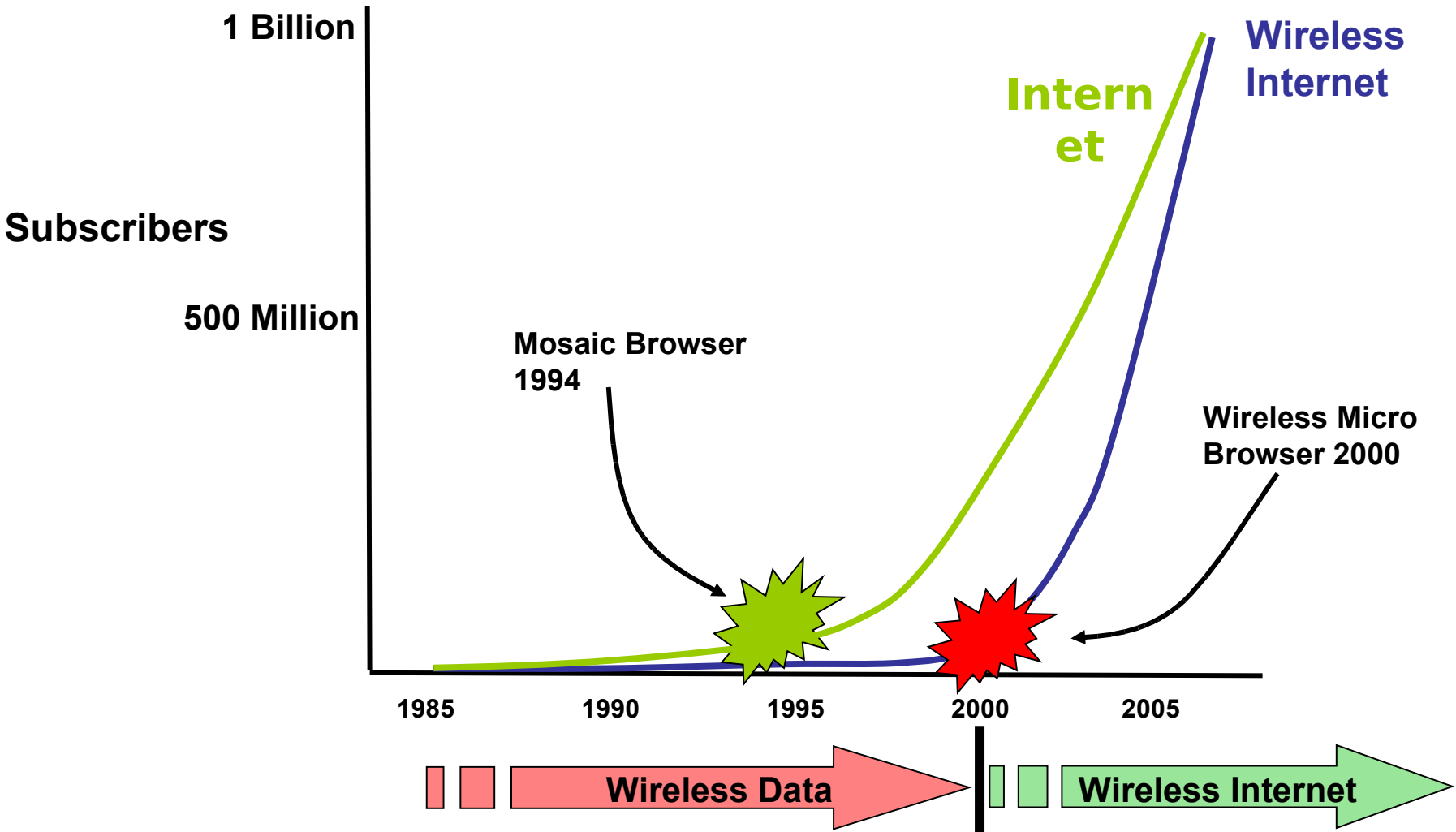
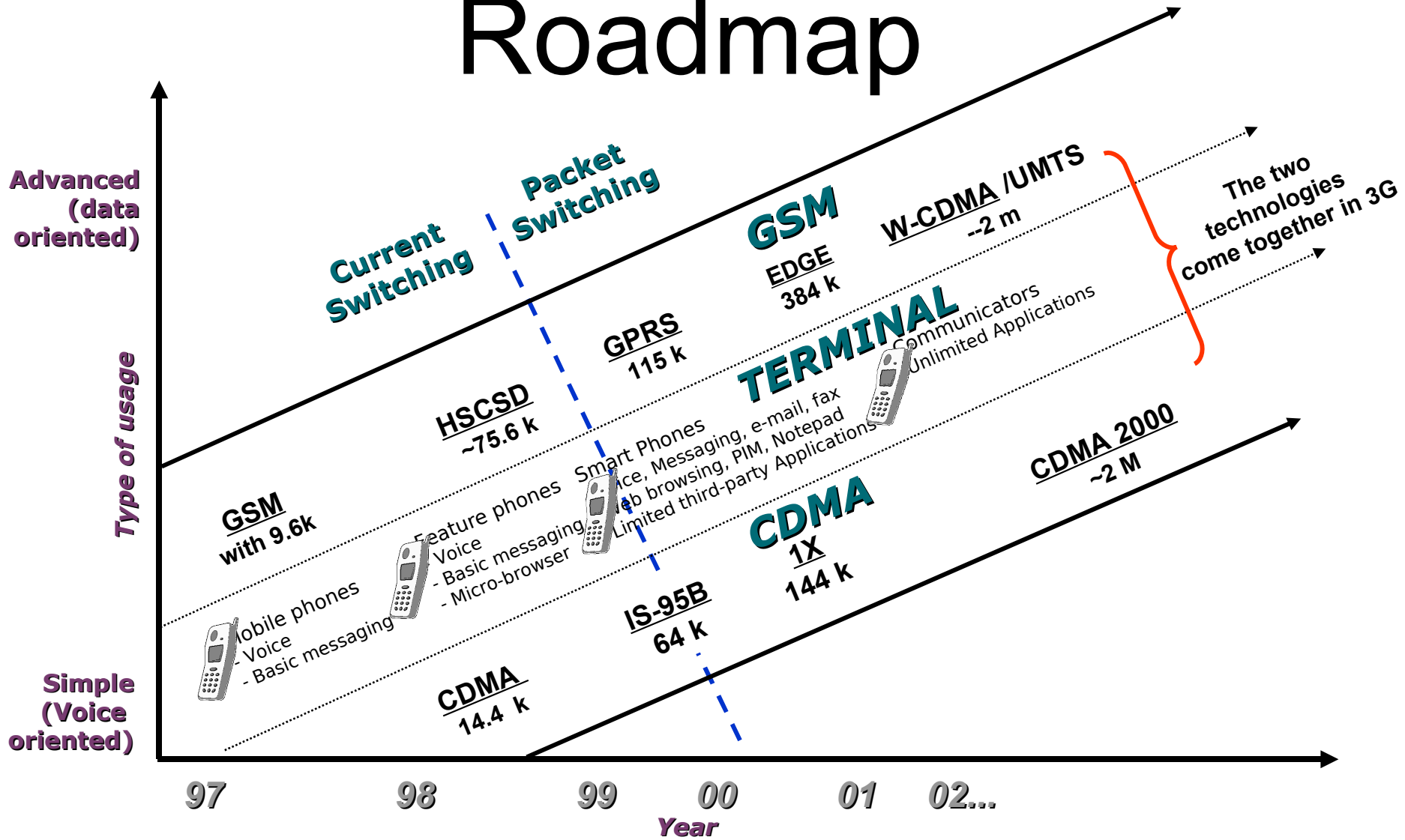


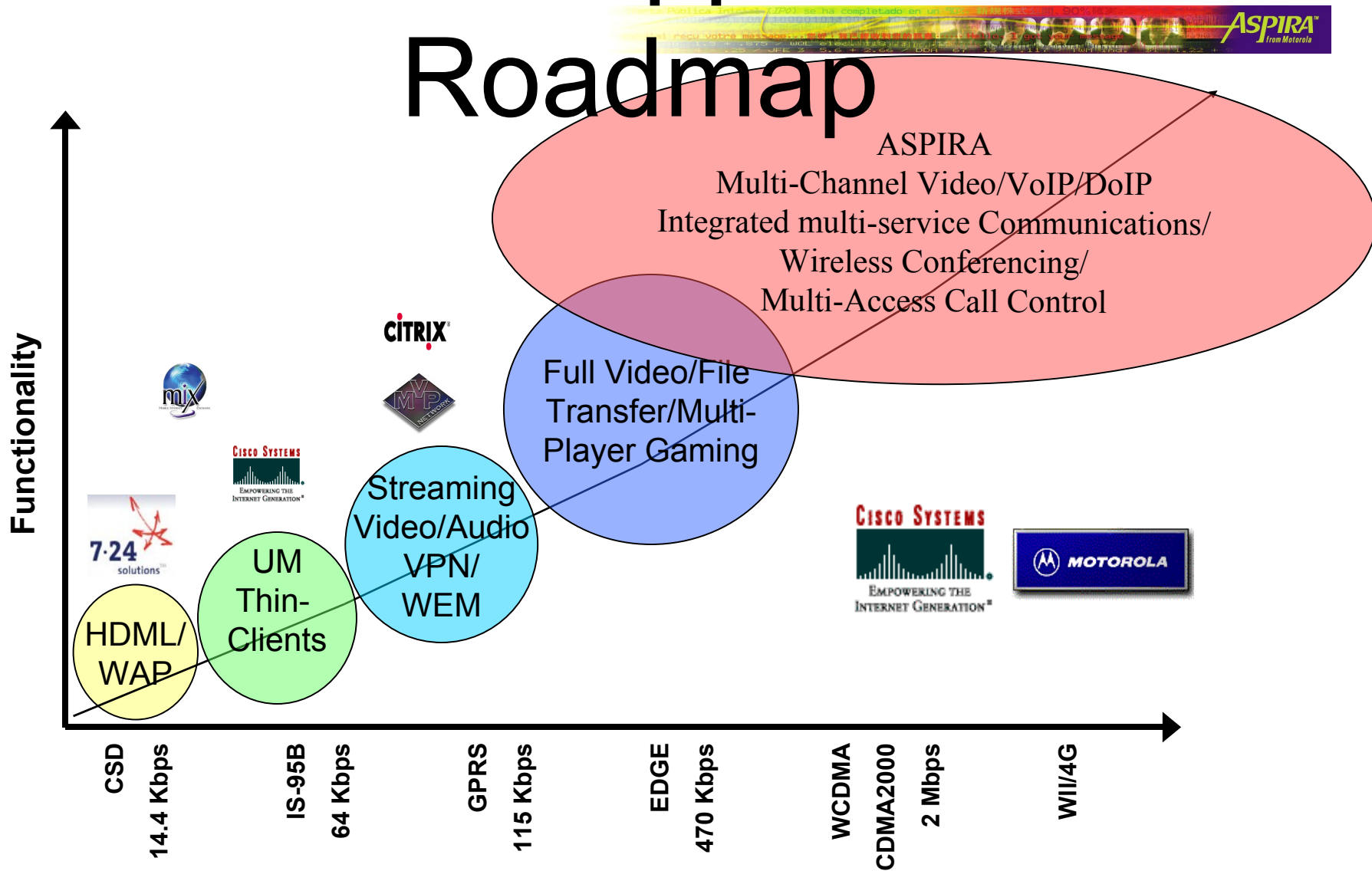
Internet and Wireless Data Take Off



Wireless Technology Roadmap



Wireless Applications Roadmap



IP Transport Benefits

- **Much lower cost infrastructure**
- **Faster provisioning of new features**
- **Easy integration of network elements**
- **Simplify harmonization of standards**
- **Stimulate creation of new services**

MARKET READY Applications

*Wireless Internet
Access*

Wireless Email

Wireless Intranet

PIM / Synchronization

*Market Ready
Applications*

Wireless Application Protocol

Content Access

Why Is HTTP/HTML Not Enough?

Big pipe - small pipe syndrome

Internet

```
<HTML>
<HEAD>
<TITLE>NNN Interactive</TITLE>
<META HTTP-EQUIV="Refresh" CONTENT="1800,
URL=/index.html">
</HEAD>
<BODY BGCOLOR="#FFFFFF"
BACKGROUND="/images/9607/bgbar5.gif" LINK="#0A3990"
ALINK="#FF0000" VLINK="#FF0000" TEXT="000000"
ONLOAD="if (parent.frames.length!
=0) top.location='http://nnn.com';">
<A NAME="#top"></A>
<TABLE WIDTH=599 BORDER="0">
<TR ALIGN=LEFT>
<TD WIDTH=117 VALIGN=TOP ALIGN=LEFT>
```

```
<HTML>
<HEAD>
<TITLE>
>NNN
Intera
ctive<
/TITLE
>
<META
HTTP-
EQUIV=
"Refre
sh"
CONTEN
T="180
0,
URL=/i
ndex.h
tml">
```

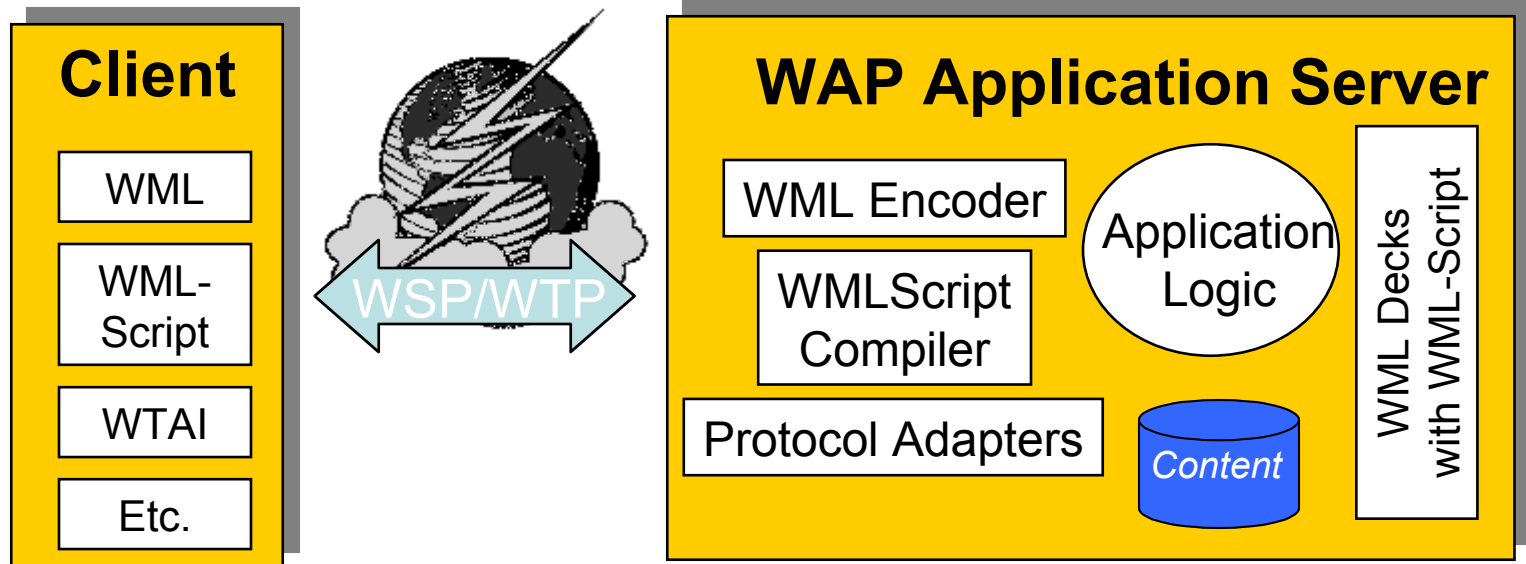
Wireless Network

```
<WML>
<CARD>
<DO TYPE="ACCEPT">
<GO URL="/submit?Name=$N"/>
</DO>
Enter name:
<INPUT TYPE="TEXT" KEY="N"/>
</CARD>
</WML>
```

Content encoding

```
010011
010011
110110
010011
011011
011101
010010
011010
```

WAP Gateway As Application Server



Portal Personalisation

- **Customers can personalise their phones**
- **Each application can be billed individually or bundled**
- **Some applications have both Web and Wap interface**

Wap User Interface

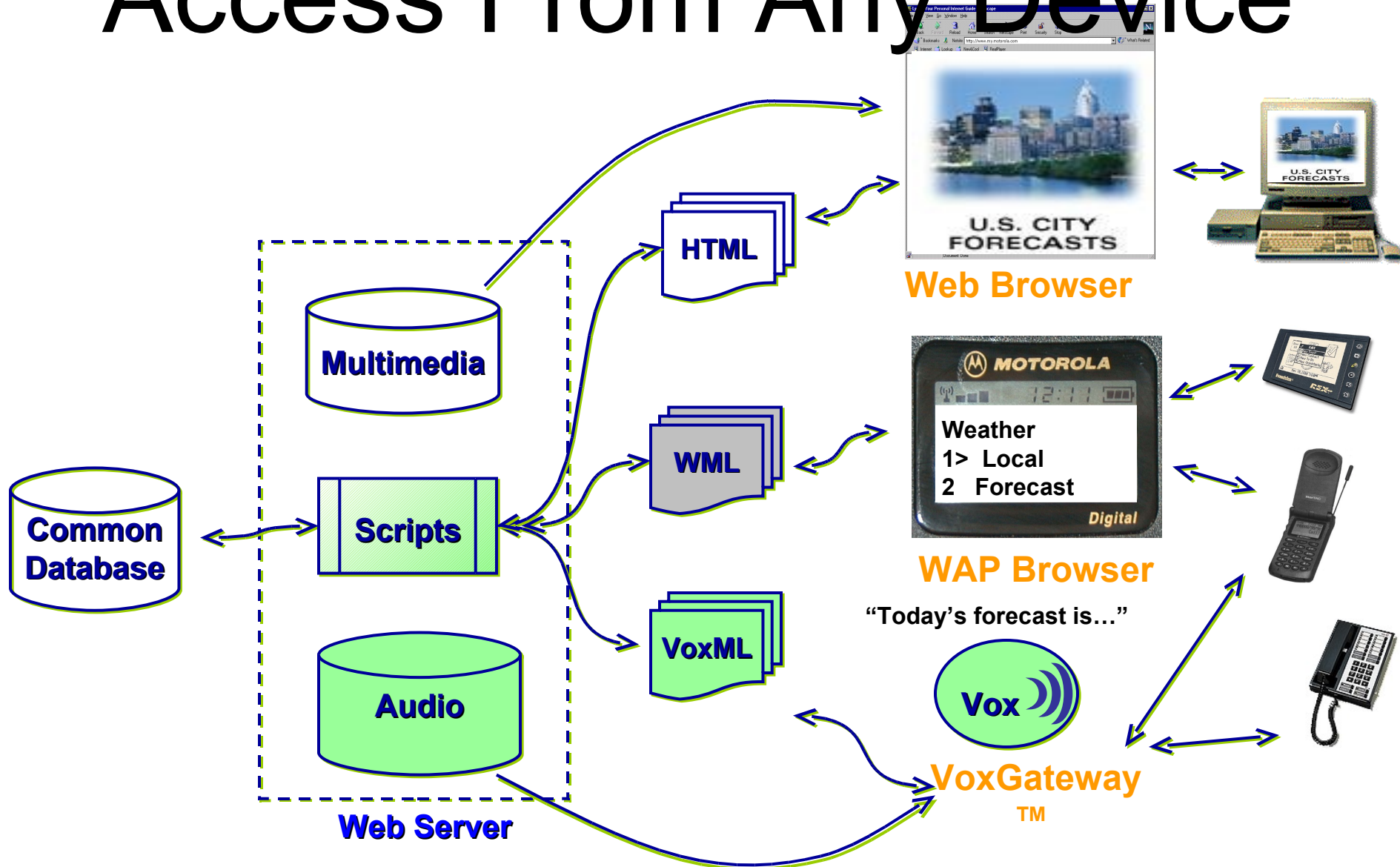


Include in my menu?	Name	Cost	Description	Wap or Web
<input checked="" type="checkbox"/>	BBC	\$0.05	The BBC Website	Both
<input checked="" type="checkbox"/>	Contacts	\$0.01	Contacts for Invisix	Wap
<input checked="" type="checkbox"/>	Fortune	\$0.05	Fortune telling	Both
<input type="checkbox"/>	Games	\$0.50	Fun & Games	Wap
<input type="checkbox"/>	Horoscope	\$0.00	Horoscope for the week	Both
<input checked="" type="checkbox"/>	Hot Contacts	\$0.00	Subscriber contact list with hot calling facility	Wap
<input checked="" type="checkbox"/>	Jokes	\$0.05	Some jokes for you to enjoy	Wap
<input type="checkbox"/>	PhoneTerry	\$0.00	PhoneTerry	Wap
<input checked="" type="checkbox"/>	Poems	\$0.10	Some poems for you to enjoy	Both
<input checked="" type="checkbox"/>	Portfolio	\$0.50	Portfolio Applications	Both
<input checked="" type="checkbox"/>	Sport	\$0.05	Sports	Wap
<input type="checkbox"/>	Tickets	\$0.05	Just The Ticket	Wap
<input checked="" type="checkbox"/>	Translation	\$0.05	Translation services	Wap
<input checked="" type="checkbox"/>	WAP surf	\$0.00	WAP surfing	Both
<input checked="" type="checkbox"/>	Yahoo	\$0.00	Yahoo	Web
				Update

PIM Integration

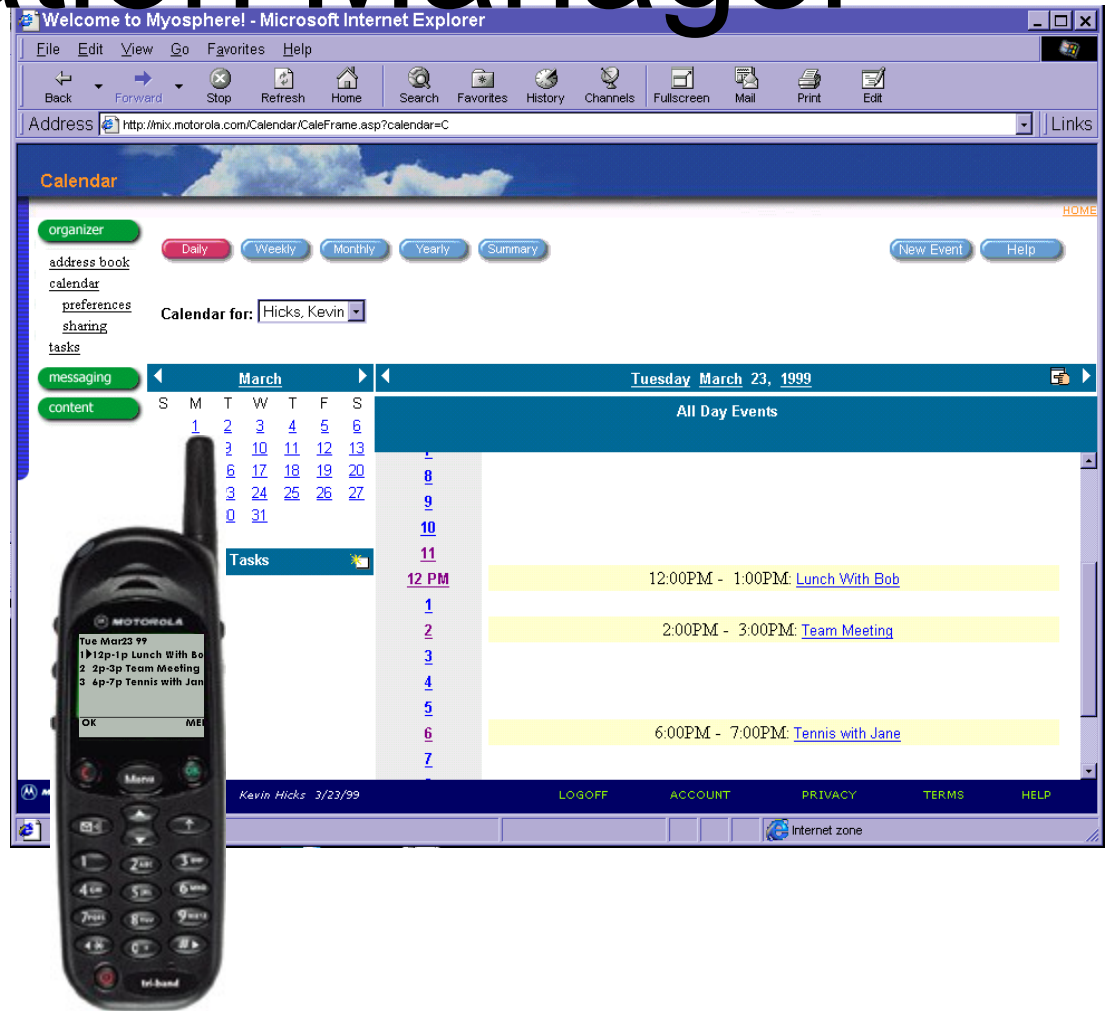
VOICE

Access From Any Device



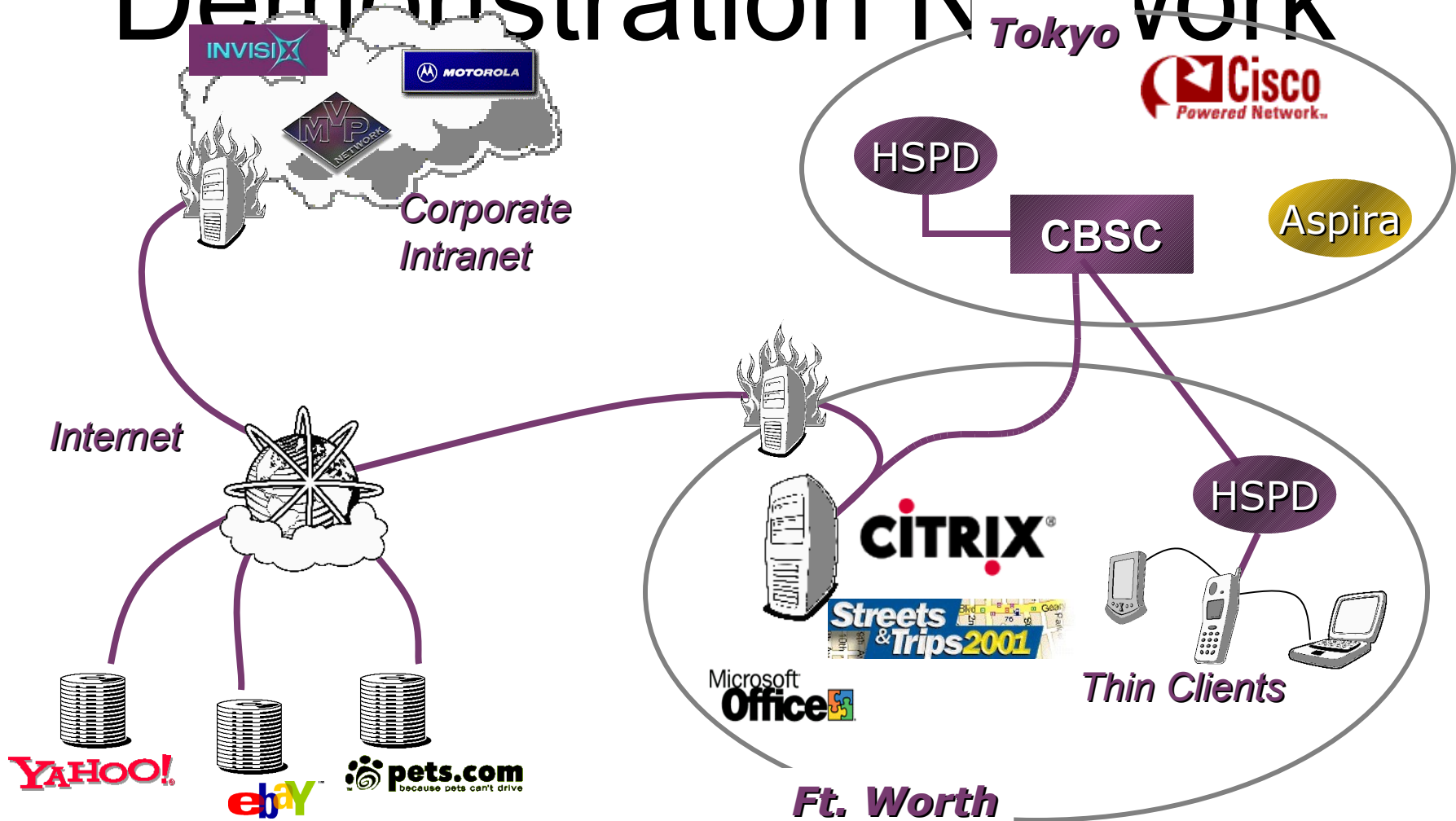
Internet Personal Information Manager

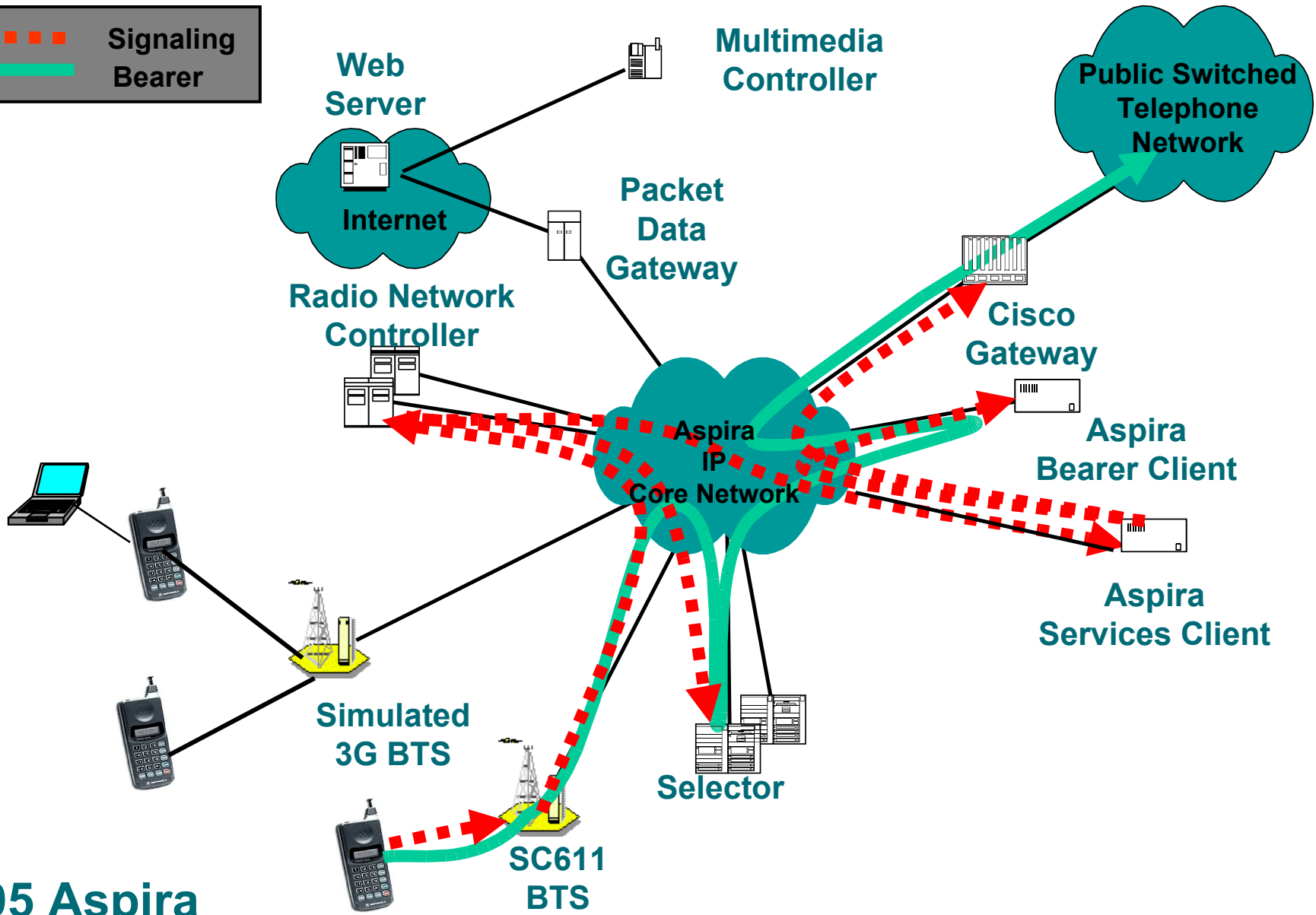
- Easy to Use Interfaces
 - Voice, Web, WAP, and PDA
- Entire PIM can be synchronized at once
 - Across Desktop, Web, and Phone.
- Access anytime, anywhere, from any device.



Mobile Office

Mobile Office Demonstration Network





IS-95 Aspira Voice over IP