Dr. Anthony C. Picardi Senior Vice President, Global Software **Tuesday 28, January** 

### Web Services Reality Check

COMNET Conference and Expo Washington Convention Center January 28 and 29, 2003





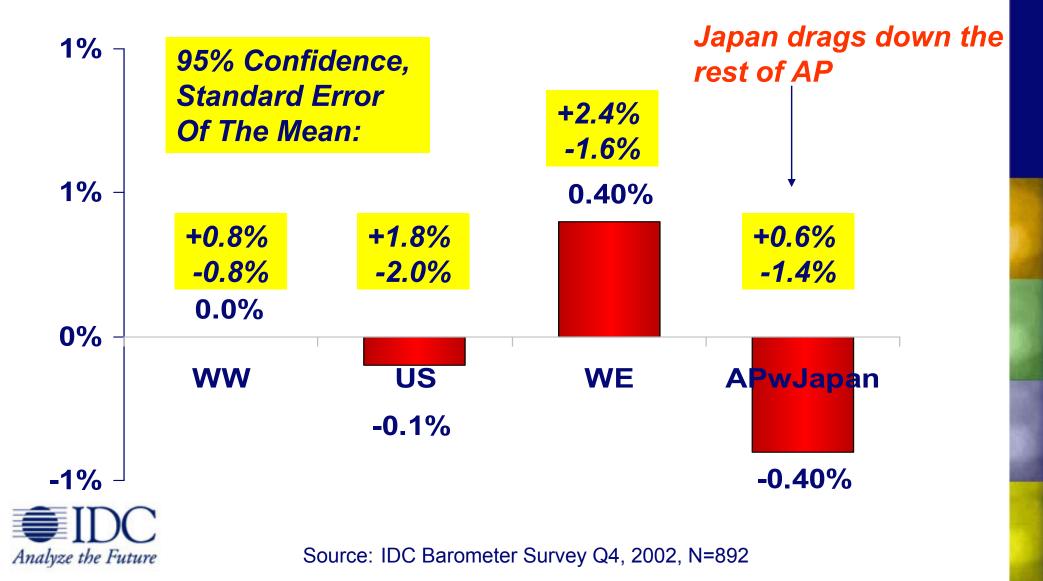


The context: IT spending and the complexity crisis The enthusiasm for Web Services Web Service projects: what is going on? Who is really doing Web Services projects? What does IDC recommend we do to reduce risk and maximize our participation?

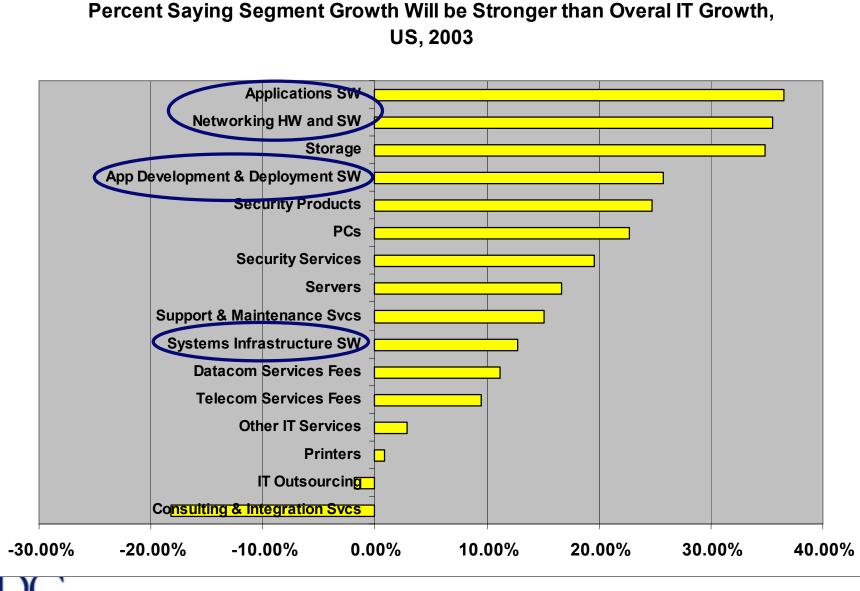


# WW IT Spending in 2003 is Expected to be Zero with US "Flat"

#### Weighted by Budget Size and Size Class



## Spending directions indicate software may gain share in IT budgets

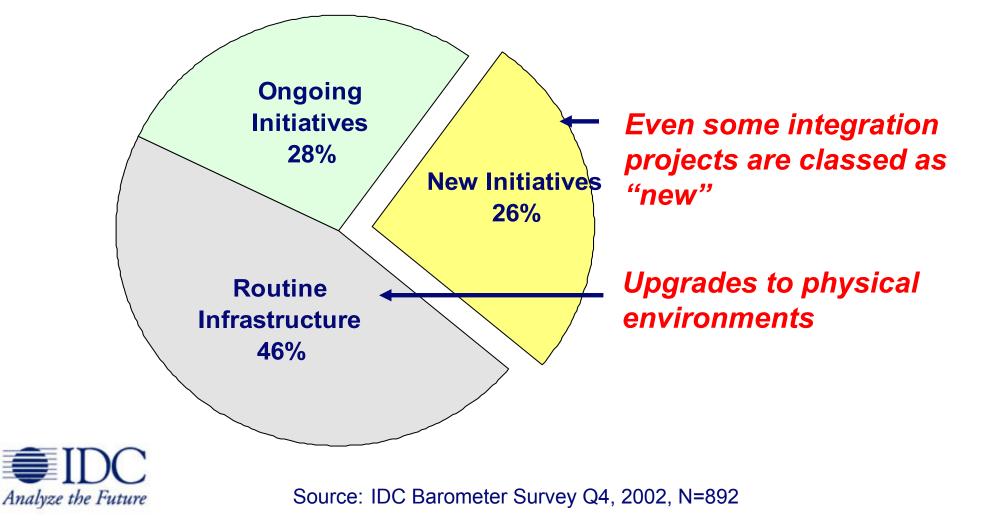


Source: Project Barometer, US, IDC, November 2002, n=53

Analyze the Future

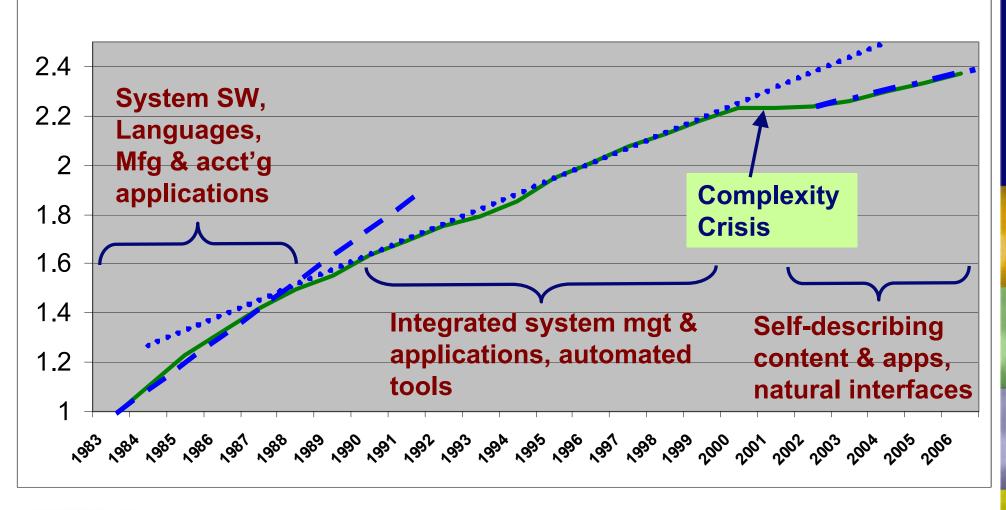
## There are few resources for new projects because of the *Complexity Crisis*

Complexity Crisis: Totally new projects are a shrinking part of the IT budget because of the need to maintain assets and save costs by integrating them.



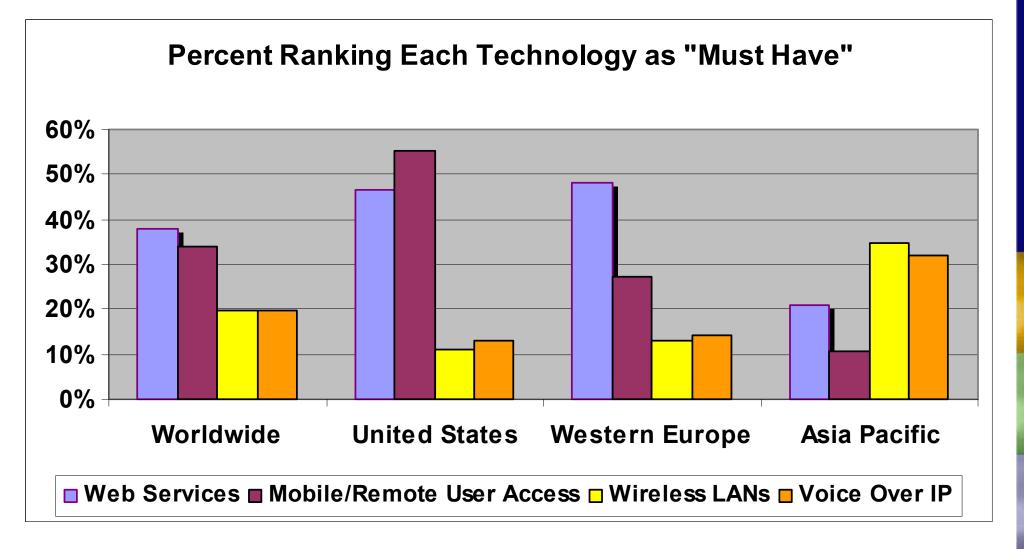
# Post crisis: everything is more complex, necessitating a more efficient architecture

Log Global SW Revenues vs Year





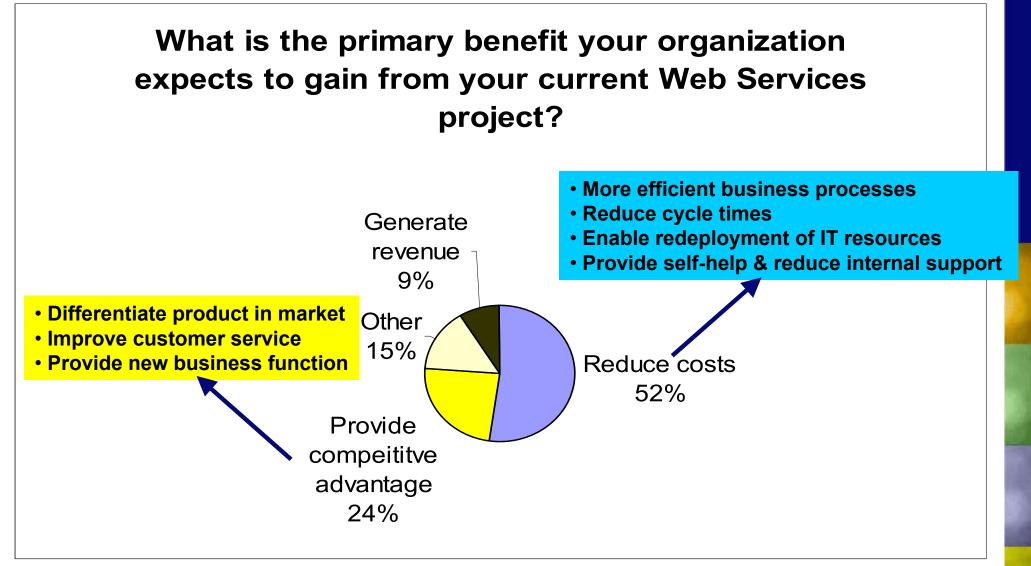
### Web Services is a Global "Must Have" for post-crisis recovery





Source: Project Barometer, IDC, November 2002, n=461

## With so few resources for new projects, why Web Services?





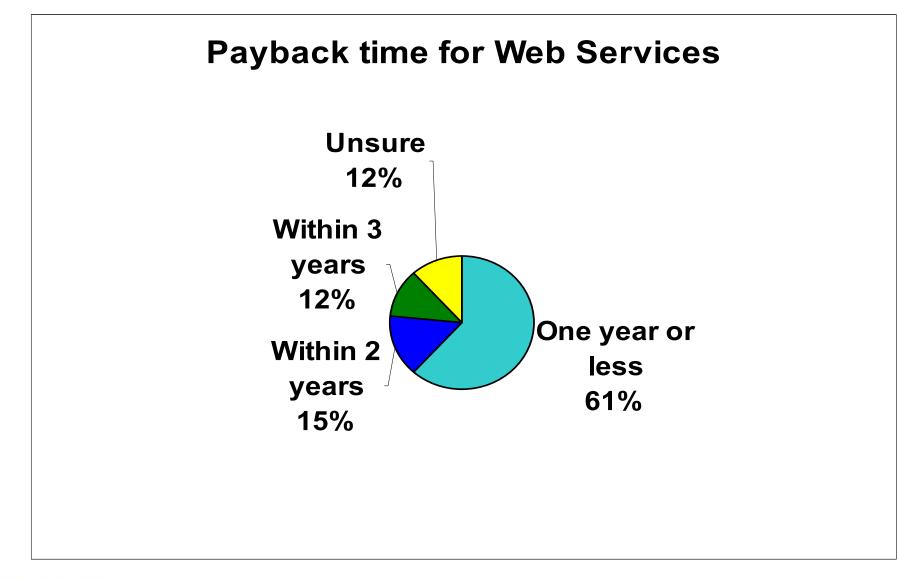
# Perceived benefits are diverse among adopter segments

What is the most important reason that your organization is opting to utilize Web services?

Reason, aggregate %	<u>Leading industry, %</u>
28%, Address a specific business need or	Services, 39%, Transportation & utilities,
technical function	35%
17%, Solve integration issues with	Wholesale/retail, 27%
external organizations (partner or	
customer)	
13%, Solve internal application integration	Resource industries, 25%,
issues	Communications, 24%
9%, Gain access to technology not	Resource industries, 38%
available by using own resources	
9%, Deploy applications faster	Finance, 17%
	Education, 13%, Health care services,
8%, Deploy applications at less cost	13%
7%, Free up IT resources	Technology services, 17%
4%, Comply to an industry or regulatory	Health care services, 15%
requirement	



## Web Service projects are believed to have quick payback

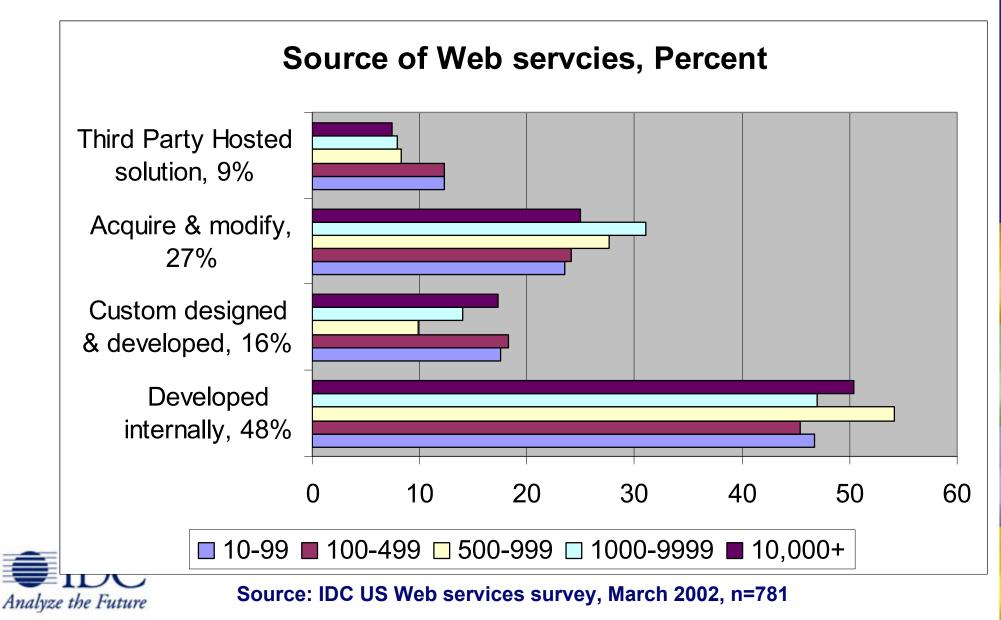




Source: IDC's US Web Services Investment Survey, January, 2003, preliminary results, n=86

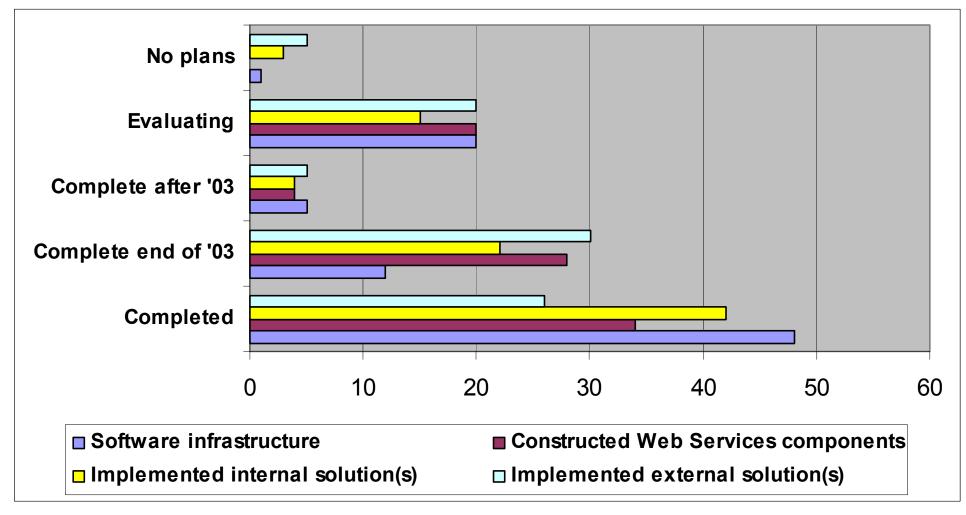
## Most projects are now being done with internal resources

What percent of your organization's Web services will be acquired by: n=503



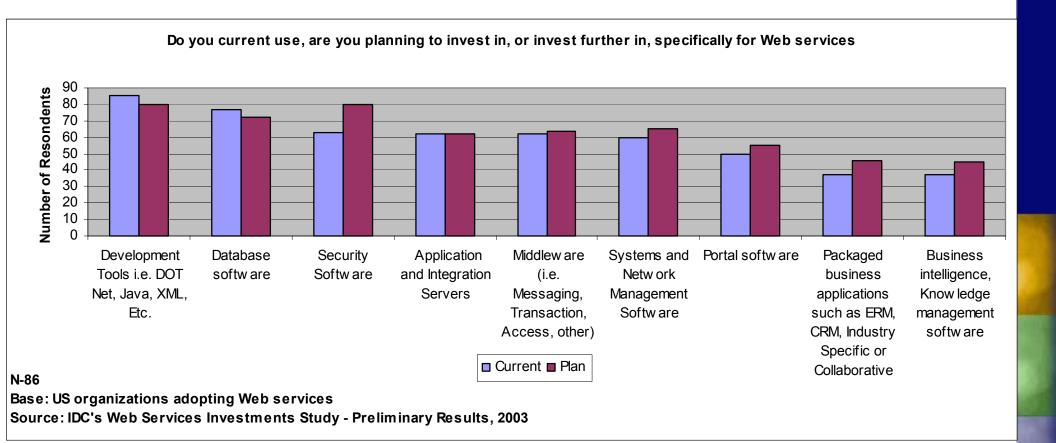
# Enterprises doing Web Services projects have already finished major stages

Please indicate your organization's current status on the adoption of each of the following for your Web Services projects





### Software platforms will shift from infrastructure to applications, access, and security





# But industry segments differ widely in their software needs

#### What software do you plan to further purchase to implement Web services? N=524

Aggregate %, Software	% of Leading industry		
47%, Development frameworks or tools	56%, Technology services		
45%, Web server software	59%, Government		
44%, Packaged applications	63%, Resource industries		
42%, Security software	56%, Education, 55%, Communications		
41%, Application components	50%, Resource industries, Education		
41%, Application server software	56%, Technology services		
26%, Integration server software	35%, Transportation & utilities		
26%, Messaging middleware	33%, Technology services, 32%, Finance		
23%, Business process automation tools	29%, Manufacturing		
7%, No software	13%, Resource industries		
3%, Other software	11%, Technology services		



# Customers want standards commitment, stability, and references

#### Please rate the following criteria in selecting a Web services provider



N-86; Chart shows rating of 9 & 10, on a scale of 1 to 10, with 1 being not important and 10 being extremely important Base: US organizations adopting Web services Source: IDC's Web Services Investments Study - Proliminary Posults, 2003

Source: IDC's Web Services Investments Study - Preliminary Results, 2003



# How do people understand Web services?

• "The array of devices including routers, hubs, database servers, application servers, and internet service servers which provide Web services to the end user/consumer"

•"Web page content"

•Multi-tiered XML based system that receives data at back-end by consumers"

•"Using a whole systems approach I would call it an allencompassing virtual enterprise that provides real-time/near realtime information upon request"

- •"The way the WWW system is layed out and built"
- •"Similar to a VPN"
- •"How your Web servers are set up"
- •"A hyped up name to sell more services"
- •"Hmmmmmmmm, is this a trick question?"



## IS managers agree with the IDC definition of Web services

Web Services is an architecture (WSA) which is a standardized approach to dynamic **component connectivity and interoperability** that relies on **self-describing** components and open connectivity standards including:

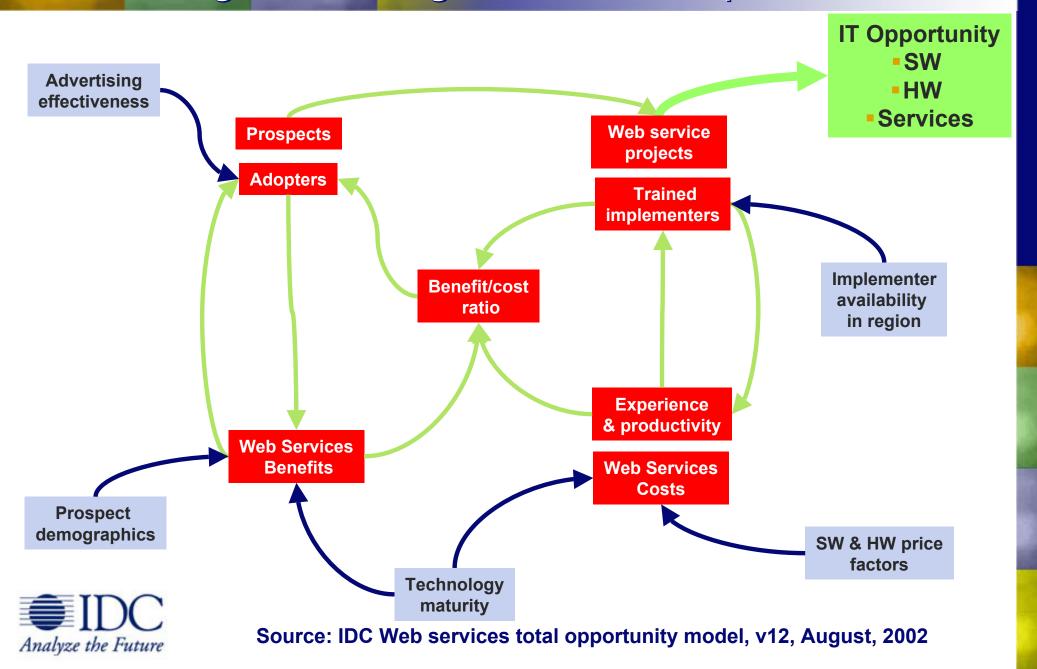
**IP** (Internet Protocol), **SOAP** (Simple Object Access Protocol) and **WSDL** (Web Services Description Language).

Other standards are evolving to meet operational and business requirements and as they mature will become part of the WSA.

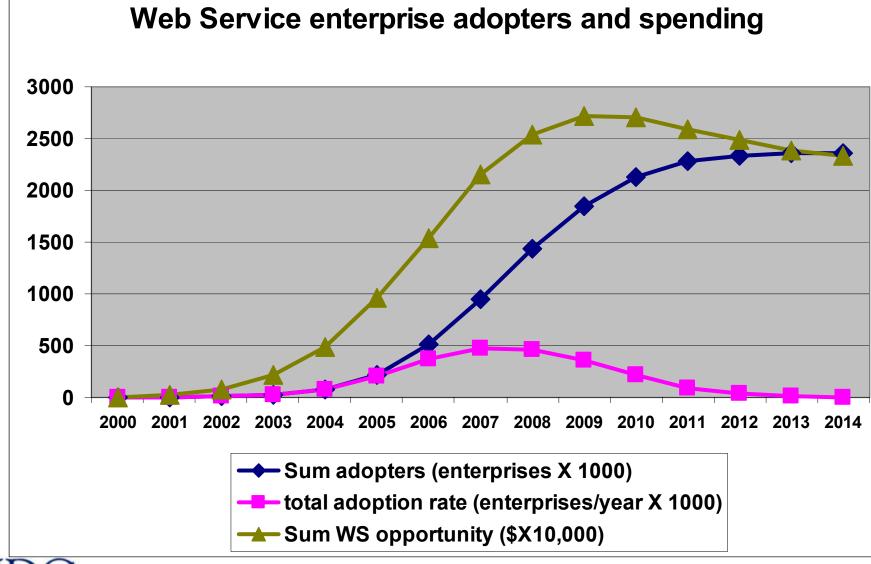
69% of surveyed IS managers in the US agree with the IDC definition, once presented to them.



# Opportunity depends on feedbacks among technologies, costs, experience...



# Total opportunity will accelerate and grow for 15 years...



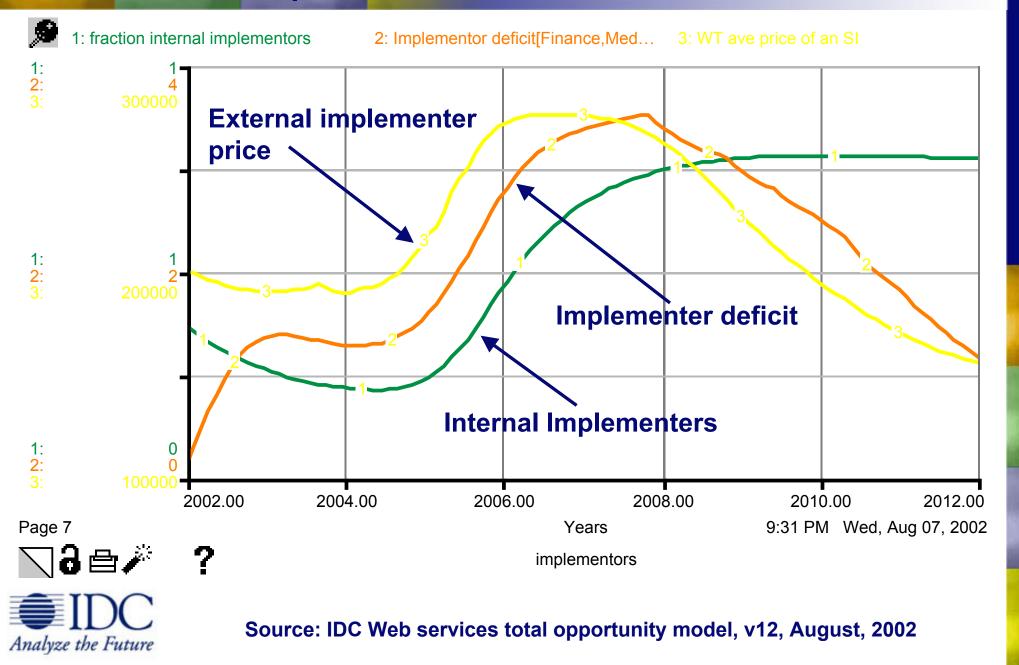


## Software opportunity leads while services dominates longer term

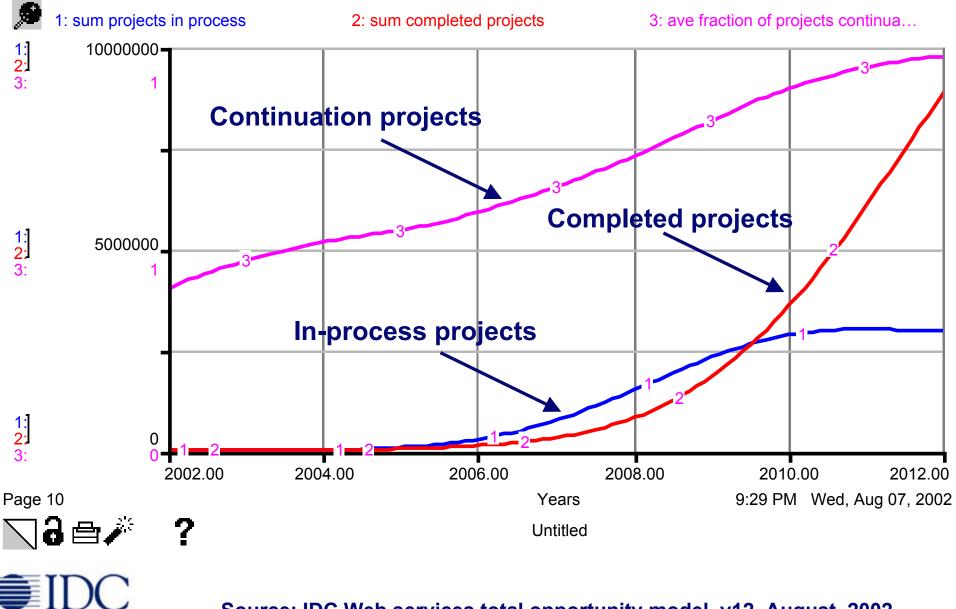
#### Web services Total Opportunity, \$US Millions 30,000 25,000 20,000 15,000 10,000 5,000 0 2000 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2001 WS Total opportunity — WS SW spending — WS HW spending — WS SI spending



# Later growth will require large numbers of trained implementers



## Build out of Web services shifts to more cost-effective follow-on projects



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### Small enterprises eventually dominate, even though per project spending is small

2006 Total Spending on Web Services by Industry and Enterprise Size Class, \$US Millions.

	Large	Medium	Small	
Finance	81	144	1,297	
Manufacturing	1,009	195	2,735	
Comm&trans&utils	51	181	2,831	
Retail&Wholesale	91	42	685	
Services	178	177	2,557	
Government	84	183	196	
Other	514	646	1,509	

Total = \$15,386



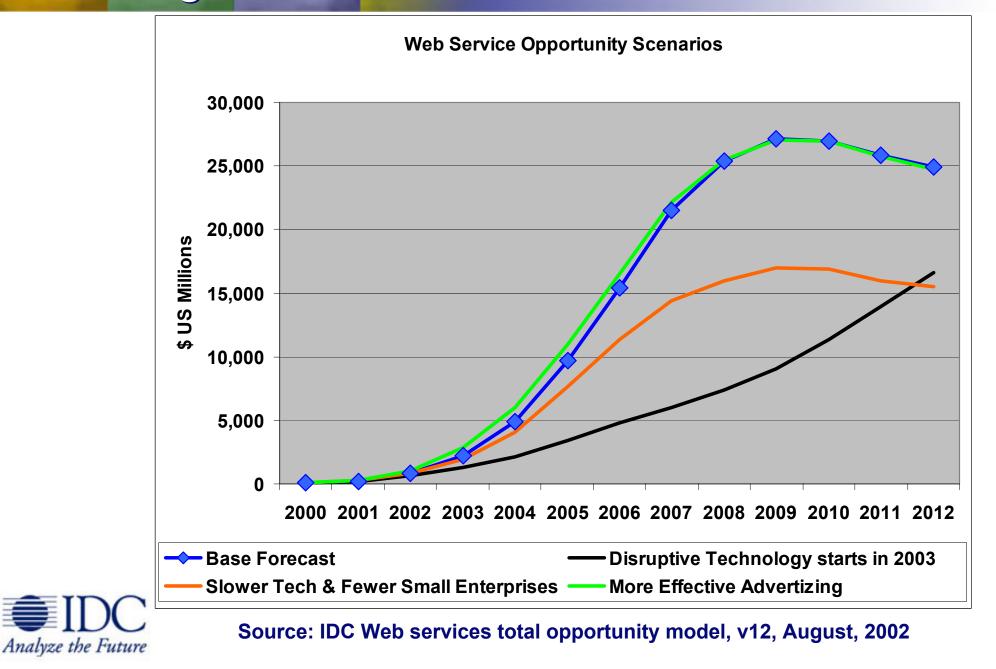
# Technology uptake by industry reflects project type and experience

2006 Total Spending on Web Services Hardware, Software and External Services by Industry, \$US Millions.

	Hardware	Services	Software
Finance	572	436	514
Manufacturing	1,186	1,701	1,053
Comm&trans&utils	1,199	877	987
Retail&Wholesale	295	247	276
Services	1,066	912	933
Government	114	250	99
Other	771	1,193	704
Totals	5,203	5,616	4,566

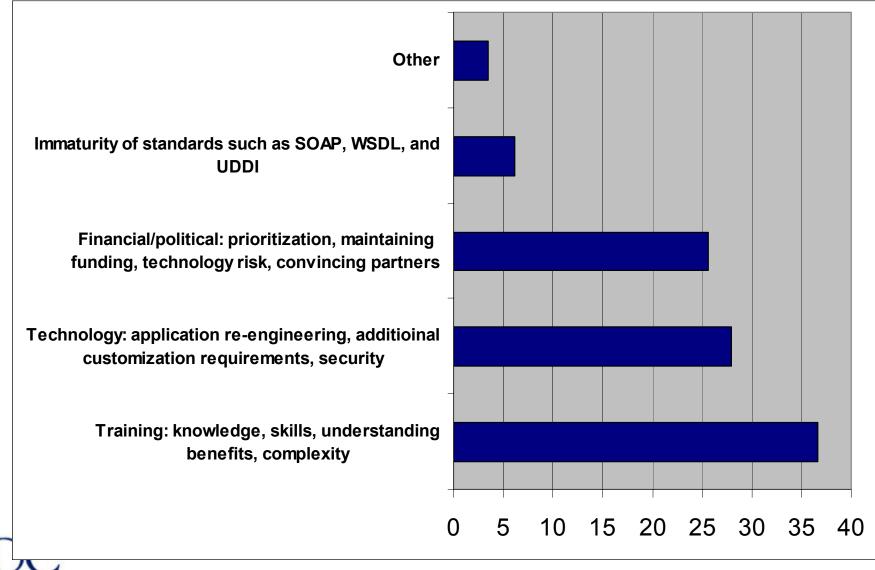


## Differing future scenarios significantly change the forecast



# New technology poses challenges in training and knowledge

#### What is currently your organization's biggest challenge related to web services? N=522



Source: IDC US Web services survey, March 2002, n=781

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### **Conclusions/Recommendations**

•We are climbing out of a complexity crisis, and web services will be key

- •Adoption of Web Services will be long term and evolutionary
- •There are many notions of web services -> but the IDC rigorous standards-based notion is widely accepted.
- •Diversity abounds among industries and size classes, so find your "XML community"
- •Initially, Web Services will not be "consultant led"...get trained
- •Don't drink single-vendor cool aid
- •Opportunity growth will be swift, evolving and risky, so get frequent reality checks
- •This is the foundation for the next era in computing, so have fun!







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