

**New IT service trend:
Knowledge processing and
software as a service**

**Kazuo Asakawa
FUJITSU LABORATORIES LTD.**

Contents

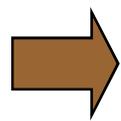


- Challenges for knowledge processing
- Goals
- Some cases
 - Monitoring competitors and technologies
 - In-house knowledge assets
 - Patent analysis
 - Web marketing
- BI on software as a service

BI: Business Intelligence

Challenges

- Management of in-house knowledge assets
 - Best possible allocation of human resources
 - Efficient utilization of employees' knowledge
- Tracking and analysis the business information
 - Highly networked competitive environment
 - Fast-moving business environment
- Business Intelligence (BI) management
 - Parallel information systems and overlapping information sources
 - Organization-wide common functions
 - Common models (information processes) for managing BI information



User-friendly service is able to manage knowledge assets and analysis business information

Goals



Enabling to manage and merge in-house knowledge assets and business information

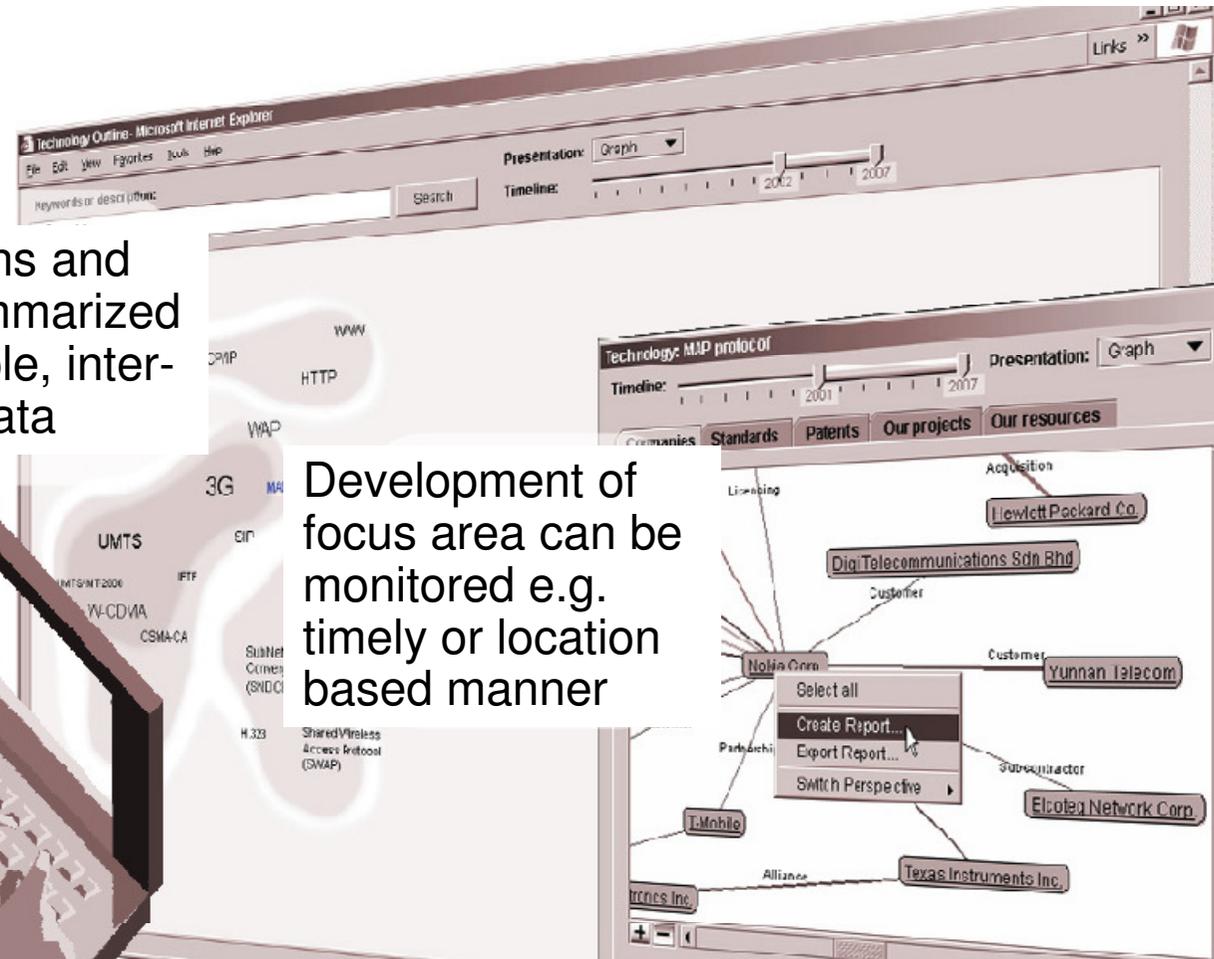
- Our goal is to
 - Start a new era in managing efficiently the knowledge assets of an organization
 - Intensify competitor and technology monitoring
 - Offer versatile and customizable knowledge base of business intelligence
 - Combine the information of knowledge assets with business intelligence in novel and seamless way
 - Accelerate the shift to web2.0-ready methodologies, techniques, and style of system building

Monitoring competitors and technologies

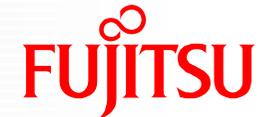
Company relations and technologies summarized by offering multiple, inter-linked views to data



Development of focus area can be monitored e.g. timely or location based manner



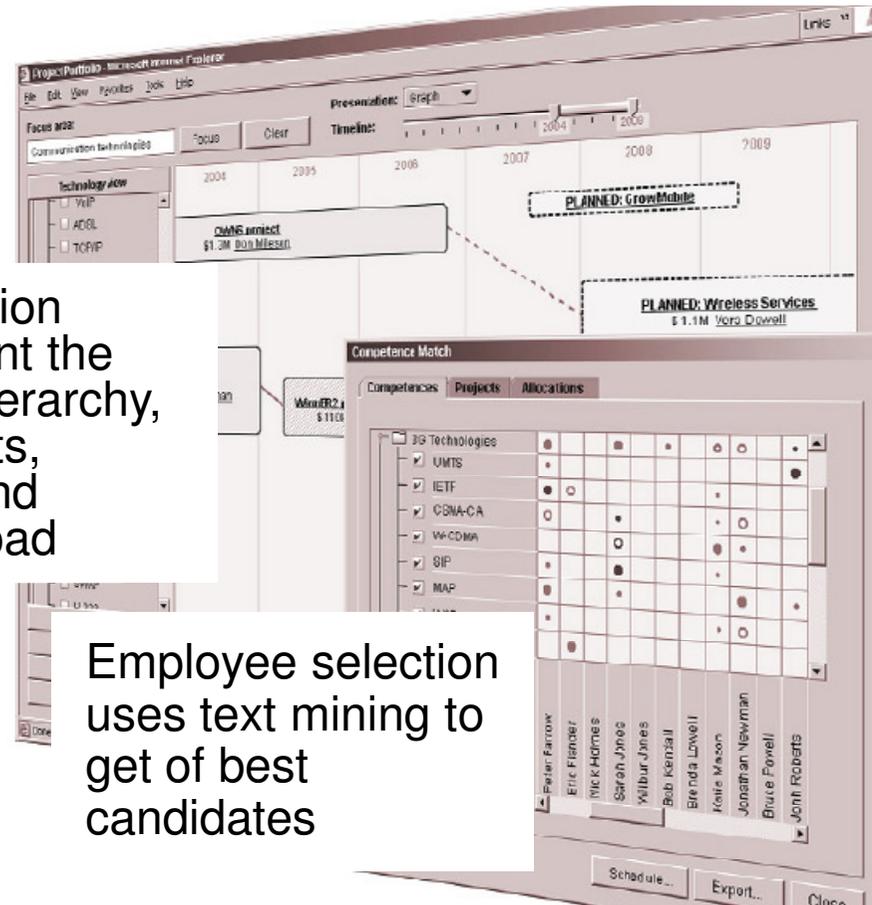
In-house knowledge assets



Integrating Project Base, Skill Base and Knowledge Base of key technologies

Which employees fit best to get acquainted with a giving technology?

Employee selection takes into account the position in the hierarchy, knowledge assets, project history and current project load



Patent analysis

Patent Base is analyzed and relevant dependencies stored to the Knowledge Base

What kind of patents our patents have related to the technologies of our competitors?

Patents on multiple levels of technology hierarchy can be found with one query



Again, which employees are the best to tell about the technologies behind the given patents?

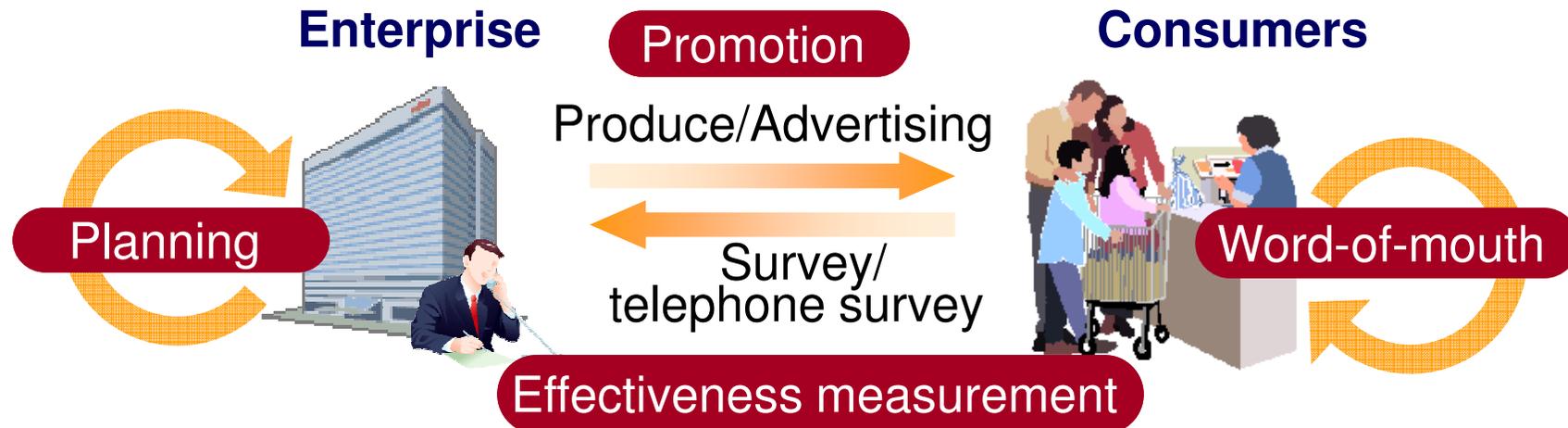
Result Display: Relevant Patents

Relevance	Patent name	Date
87%	Forward link inter-genera on soft handoff between 2	2005-10-12
84%	High speed turbo codes decoder for 3G using pipel...	2005-09-28
78%	EFFICIENT IMP...	2004-08-30
75%	Method of auth...	2005-10-06
72%	METHOD FOR E...	2006-10-06
70%	Method and ap...	2005-09-30
67%	Third generatio...	2004-09-23
64%	Radio signal re...	2003-09-24
62%	Mobile server fo...	2006-09-22
58%	Automatic frequ...	2006-03-21
52%	AMETHOD OF PROVIDING LOCATION SERVICE FO...	2005-07-29
50%	Bit rate agile third-generation wireless CDMA, GSM...	2005-06-29
48%	Call routing method for 3G IP networks	2004-06-15
47%	Receiver using different sampling rates for 2G and...	2005-06-16
46%	AN IP/MPLS-BASED TRANSPORT SCHEME IN 3G...	200 -05-19

Context menu options: Select All, Open Patent..., Print Patent, Applicant Details..., Applicant's Patents..., Refine Search...

Buttons: Ok..., Export..., Close

Web marketing based on CGM analysis



CGM: Consumer Generated Media

Blog

Massive

■ Blog pop. In 2006
 Japan : 6.2 million
 China : 60 million

SNS

Bulletin board

Highly reliable

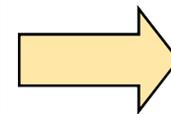
Credibility
 Blog 83.7%
 SNS 89.4%

Fresh

0.5 million opinions are generated/day (in Japan)

Free voices

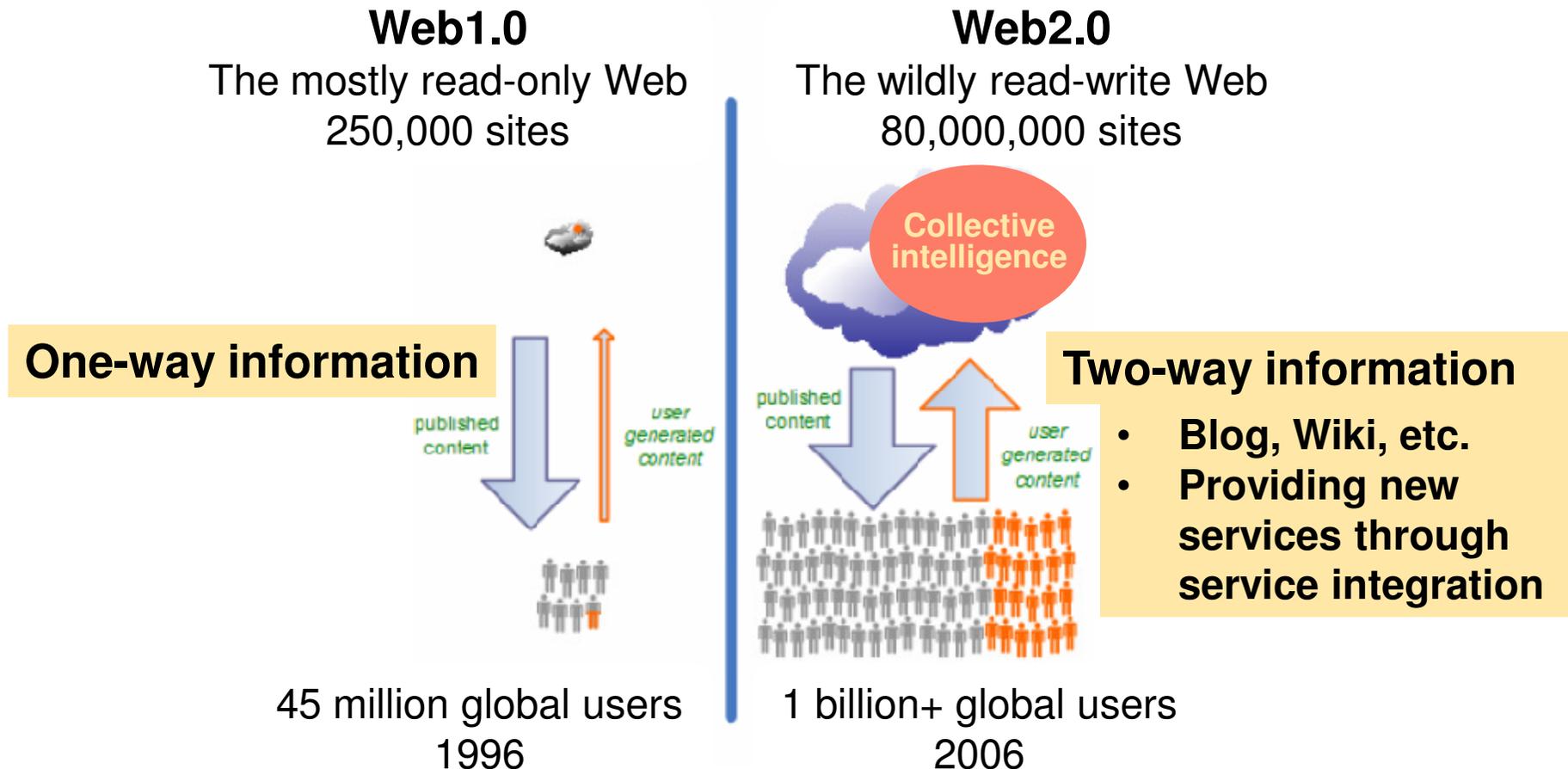
Experiences, interests, and concerns



Enables management of information for vocal customers, as well as purchasing customers

From web1.0 to web2.0

- Changes over the past decade -



Increasing Broadband penetration

Spread of high-speed/ultra-high speed Internet

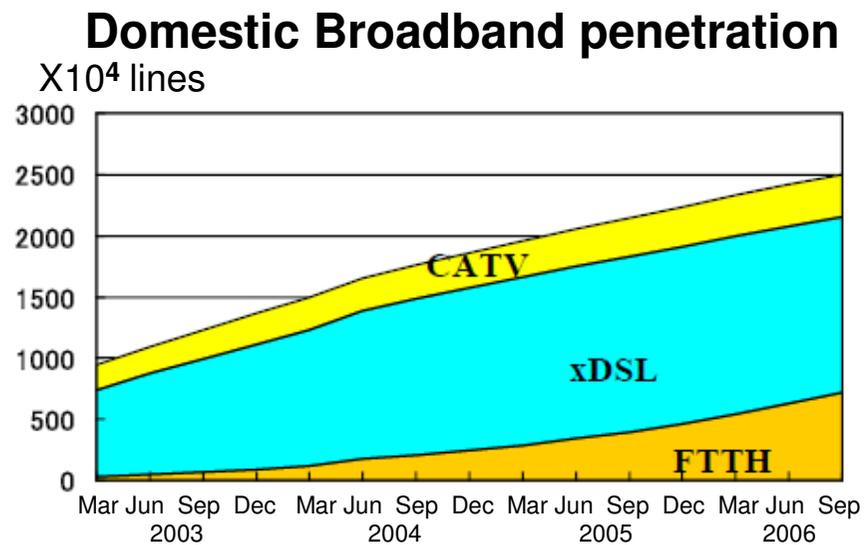


- FTTH is going strong while DSL has seen a downturn in urban areas (DSL total is also declining slightly)
- Increase of approx. 820,000 on last quarter

Domestic Broadband Users (excl. FWA)

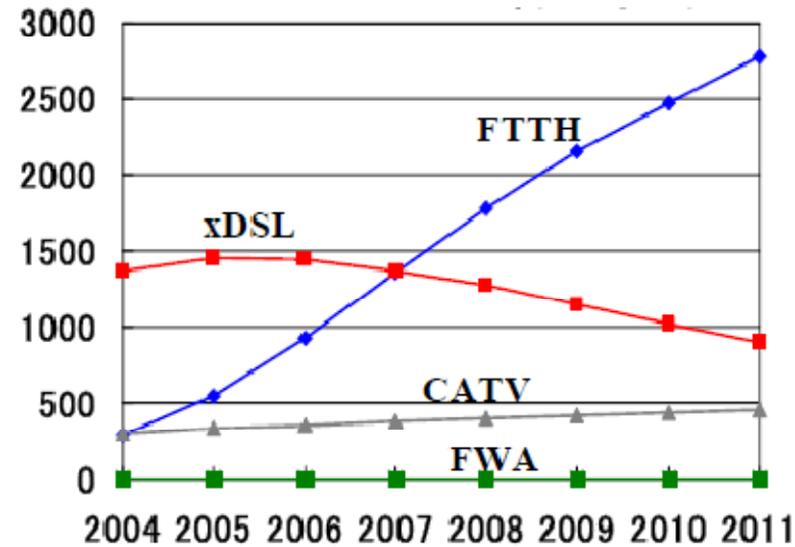
As of the end of Sep. 2006: 25.03 Million (MIC)

- xDSL: 14.4 million
- CATV: 3.48 million
- FTTH: 7.15 million



Source: MIC (Dec. 2006)

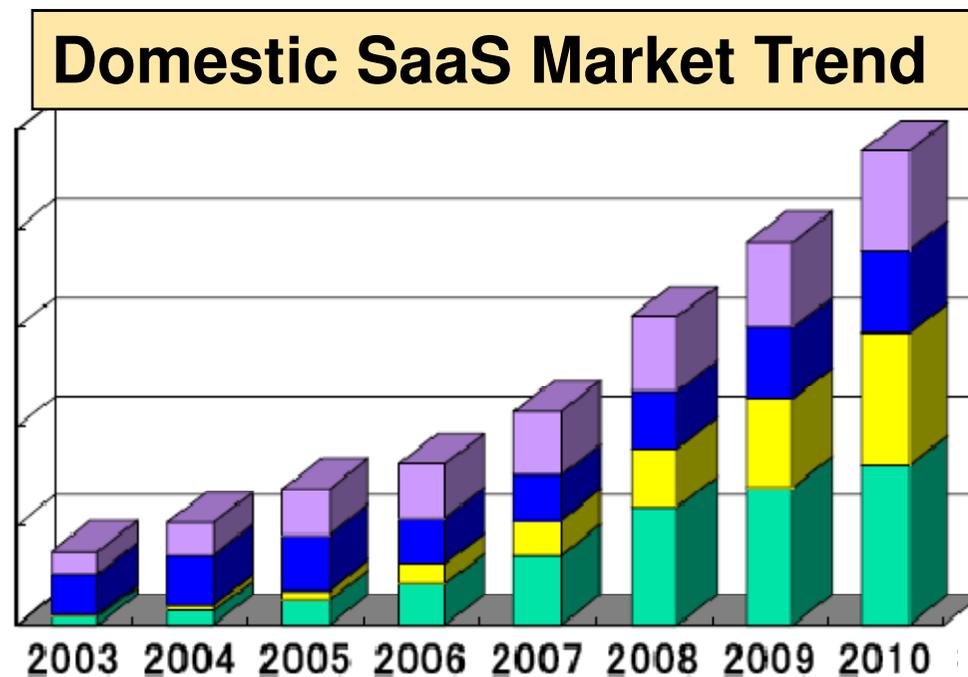
Broadband Penetration Forecast



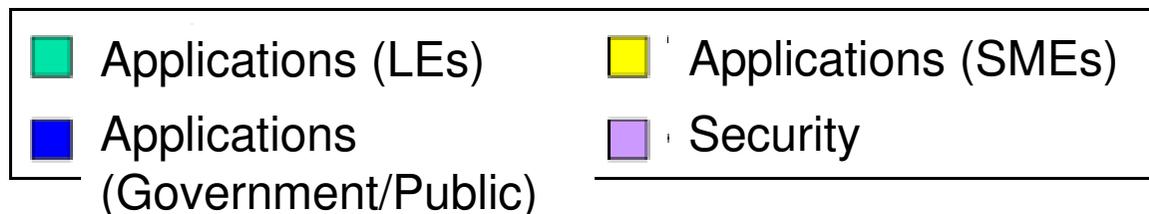
Source: Yano Research Institute Ltd. (July 2006)

SaaS market trends

- Initially, public applications drove the trend with the backdrop of the “e-Japan Strategy,” followed by expansion of the private market



Source: ASP White Paper 2005 (IDG, August 2005)



Web2.0 is changing system

- **Concept of building system**

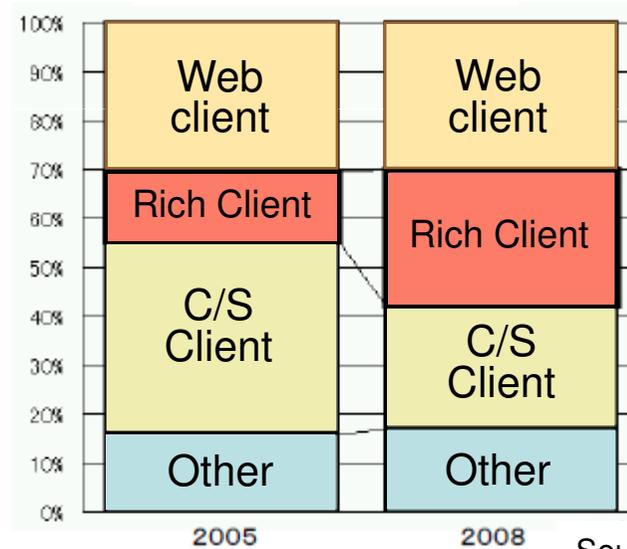
Client/Server-oriented client → Rich Client Era

- **Methodologies/Techniques for building system**

SI (customization) → Service integration (use of mash up)

Changes in client type

(A case of Chiba city's mapping service)



Source: NRI

- **Accelerating the shift to web2.0-ready methodologies, techniques, and style of system building**

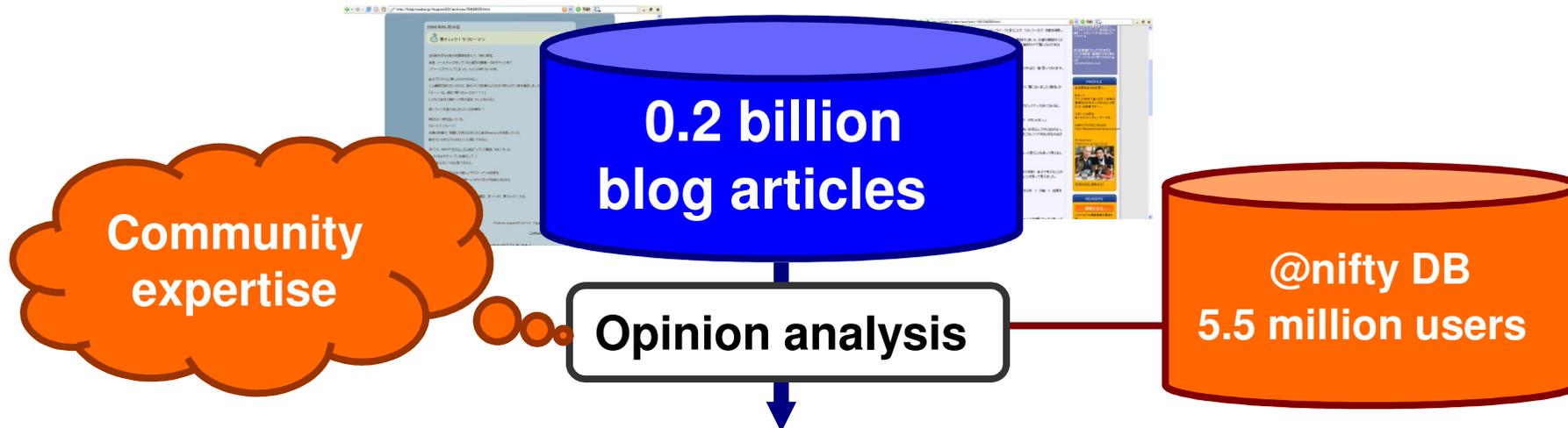
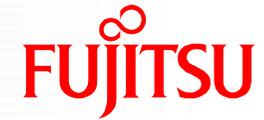
Effects of web marketing on web2.0



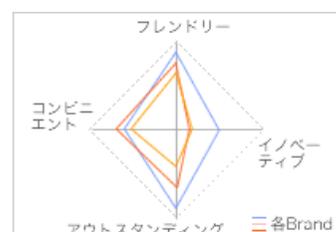
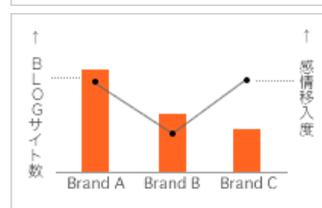
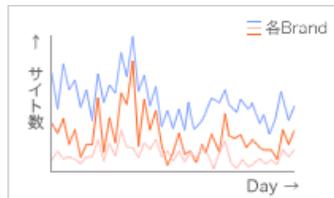
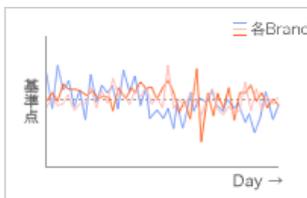
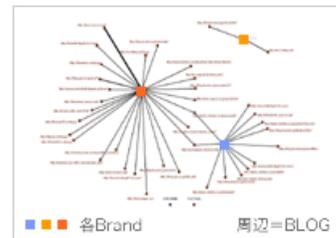
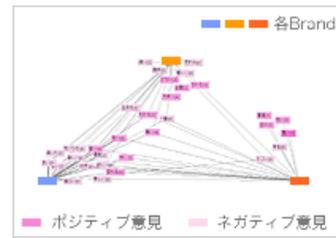
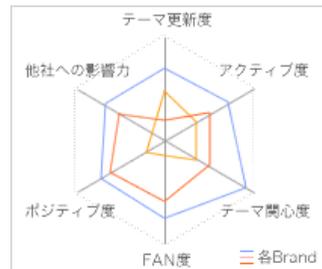
- Analyze what consumers really think
Huge amount of samples
- Grasp changes in consumer taste
Real-time analysis, historical analysis
Analysis from multiple perspectives
- Increase the influence on consumer behavior
Extract and utilize influencers
- Reduce survey/analysis cost and time
Introduce data/text mining

BuzzPulse@nifty

service to analyze word-of-mouth reputation



Quality of reputation Quantity of reputation Who? Brand power Influence



		ネガティブ	ネガティブ	内容
属性 観点	味	☆☆☆	☆☆☆	飲みやすさが非常に多いが、香りが結構好き。あまり味の濃い味も好む程度は見分けた。
	効果	☆☆	☆	効果については期待感が少ない。効果は期待通りかという意見は多い。
オアゲン	ダイエツ目的	☆☆☆	☆	体脂肪を減らす目的で飲んでいて、効果は期待通りかという意見は多い。
	運動時	☆☆☆	☆	運動時にいつも飲んでいて、効果は期待通りかという意見は多い。
	飲酒後	☆☆	-	飲酒後に飲んでおいて、効果は期待通りかという意見は多い。

What BuzzPulse reveals



BuzzPulse enable users to see the following in regard to word-of-mouth concerning a keyword (product/brand):

Quantity: The number of cases where a keyword is quoted, e.g. number of blogs, number of blog articles, and number of opinions [How much it is talked about]

Quality:

- The number of blogs, number of blog articles, and number of opinions classified into positive “opinions” and negative “opinions”
- Actual rating words and co-occurrence words (actually used words in both cases) in regard to the keyword; The number of rating words and co-occurrence words [How it is talked about]

- You can also see the URL, loyalty, and influence of each article



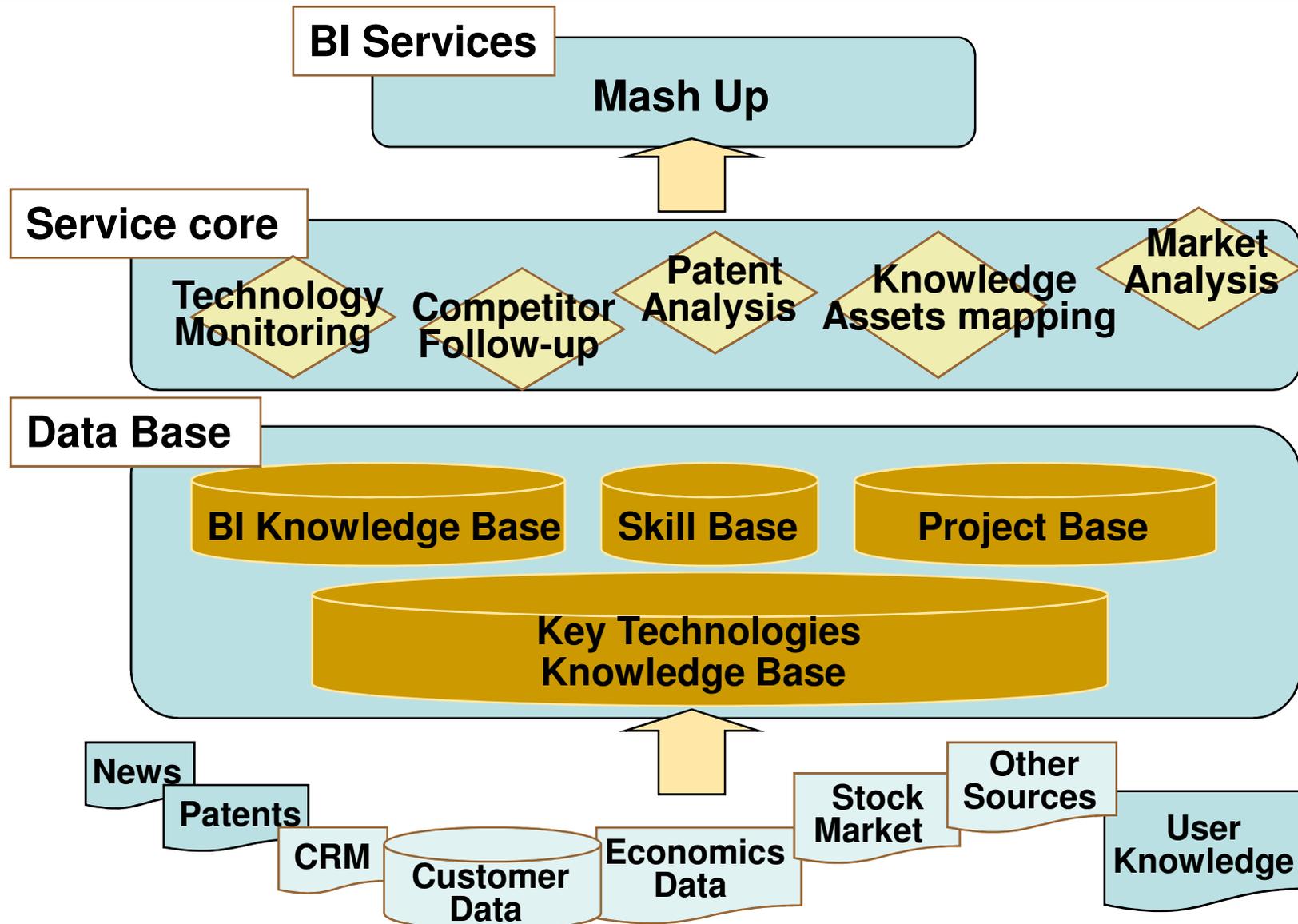
Furthermore, more detailed analysis, such as comparisons with others (products/brands) or historical comparisons, are also possible

Possible value chain



- Correspondence to the business needs of global expert organizations
- Monitoring the business environment
 - Market situation, competitive products, competitor's actions
 - Technology choices, business trends, trend anticipation
 - Efficient utilization of internal knowledge assets
 - Meeting the customer needs, utilizing market and business knowledge
- Offering advanced software and services to support end user business efforts
- Combining end user's BI solutions with service providers' solutions

BI on software as a service



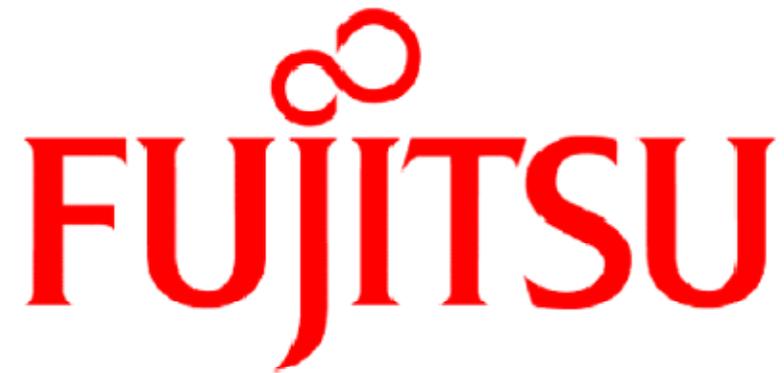
Why SaaS?

- SaaS is a service provision model where software is purchased as a service and used via a Web browser
 - SaaS not only hosts applications to provide them as ASP services but also integrates applications through Web services
 - Broadband penetration and Web 2.0 boost the penetration of SaaS
-
- Currently expanding in non-core business fields, such as CRM or SFA
 - Has the advantage of reducing introduction costs
 - Partial introduction as well as later enhancement depending on the result is simple

Summary

BI services using knowledge management and web2.0 techniques are able to realize following benefits;

- Boosted external business environment monitoring
- Boosted in-house knowledge assets utilization
- Boosted consumer market monitoring
- Added value for existing BI solutions
- More efficient information exploitation with more advanced BI processes



THE POSSIBILITIES ARE INFINITE