



**We make information and
services accessible with
the human language**



Customer self-service

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In consumer industries the winners are often low-cost champions

Consumers tend to choose low cost providers

- Price leaders' growth and profits outpace "more exclusive" offerings
 - Ryanair outgrows flag carriers, Tele2 outgrows incumbent operators, etc.

Price pressure is intense in many consumer services industries (banking, utilities, telecom, airlines, etc.), differentiation is narrowing, and customers are increasingly shopping for bargains.

Today customers orders, queries, complaints etc. are often serviced manually

- Manual service have high flexibility, can handle complex issues and adds a personal touch

BUT

- In consumer services industries, customer service represent a large part of the personnel and cost structure. In e.g. telecoms customer service represents 20 – 50% of staff and 10 – 25% of costs

The solution so far to high service cost has been a mixture of outsourcing to low-cost locations, reduction of service levels, etc.

=> A player who can provide high service level at low cost would have a major competitive advantage

Low service cost is a cornerstone in a low cost strategy

Customer self-service has, rightly so, been identified as a key to reducing customer service costs. To date customer self-service solutions have focused on:

- Simple IVR solutions, with poor customer acceptance (check out <http://www.youtube.com/watch?v=bj73s4dqpUk>)
- Dial tone solutions
- Long FAQ lists on homepages
- Web assistants

.... however manual phone calls continue to be the biggest cost driver. Experience shows that:

- A. Customers contact their supplier via the channel they prefer. Most attempts to direct them have failed.
- B. There is no evidence that there is a web solution that will eliminate, or even reduce, the cost for manual phone calls

=> Reducing the cost of manual phone calls is key to accomplish competitive cost levels

Analysis of a major customer service operation shows that ..

A large part of the traffic concern simple repetitive questions where manual customer service adds no value, neither to the supplier nor to the consumer!

Actual data show that > 50% of all incoming calls are basic and repetitive

If we can automatically respond to 80% of those, we have cut traffic with 40%!

Focus manual service on value-add interactions!

Category	Variant.	Frek.	Acc.	Acc. freq.	Can?	Want?
Asking for itemized bill	Few	23	23	3%	Yes	Yes
Payment period	Few	58	81	11%	Yes	Yes
Payment method	Few	34	115	16%	Yes	Yes
Invoice paid?	Some	50	165	23%	Yes	Yes
Confirmation of payment	Few	16	181	25%	Yes	Yes
Other basic invoice questions	Many	153	334	47%	Yes	Yes
Request a respite with payments	Few	42	376	53%	Yes	Maybe
Doesn't understand invoice	Many	244	620	87%	Maybe	Maybe
Questions about total sum of invoice	Some	20	640	89%	Maybe	Maybe
Incorrect promise from sales person	Many!	22	662	92%	No	No
Understand but question	Many	54	716	100%	No	No

An Ergo self-service system can deliver many times current automated service levels!

Analysis of the material shows that customer queries fall into three categories:

- Simple repetitive queries where manual service offers little value-add – 50%
- Complex queries which are difficult to service automatically – 25%
- High value-add queries (retain defecting customers, up-sales, etc.) which are best serviced manually – 25%

Automation of basic repetitive incoming calls will have a major competitive impact and Dialogue Technologies are focusing on this !

Dialogue Technologies' philosophy

Use Ergo where the commercial impact is greatest

- Focus on frequent, low complexity and low potential value add queries
- Handle high-complexity queries and high-potential value-add queries manually

Simplify the interaction for the customer

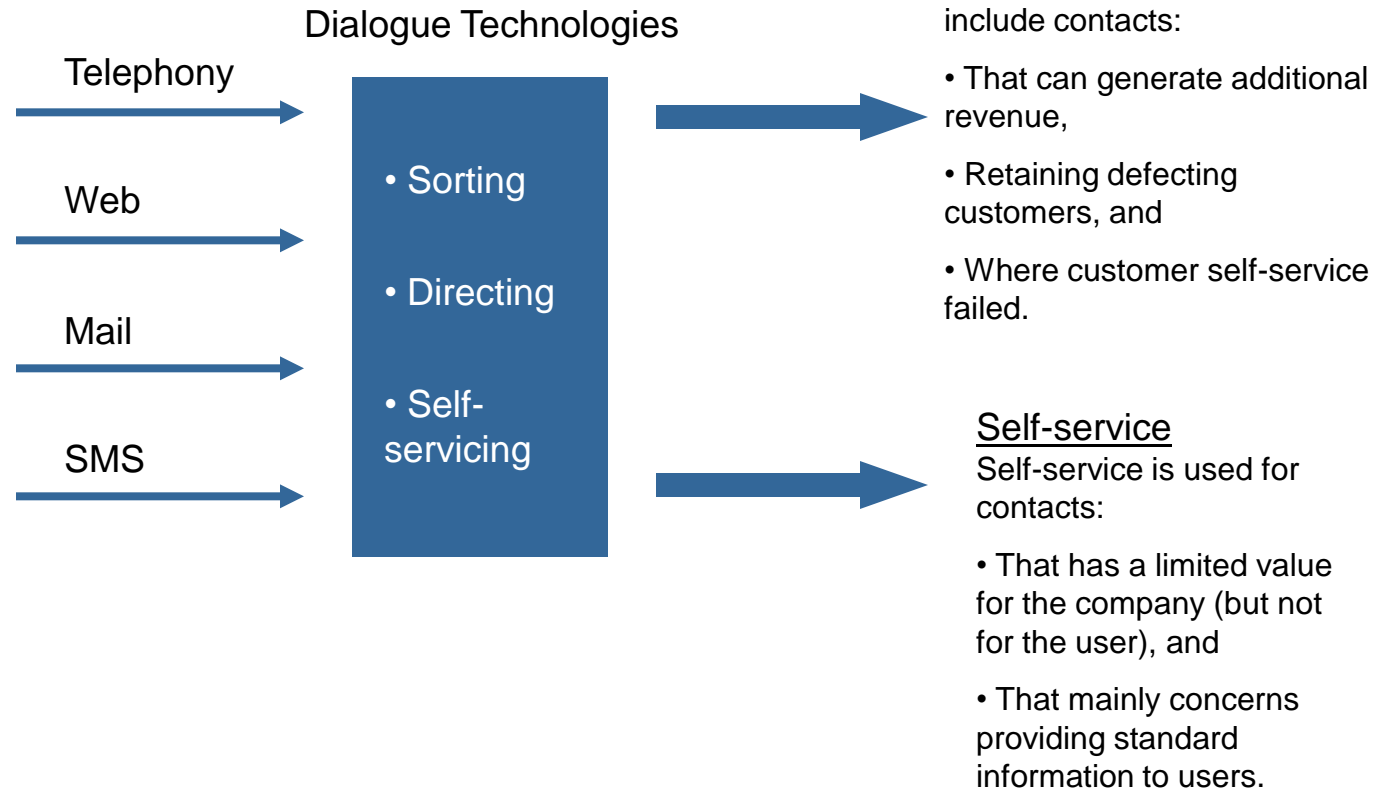
- Avoid lengthy dialogue trees and escalation procedures. Push the information to the customer in reply to simple queries!
- Perform all processing and information retrieval in the background, invisible to the customer.

Accumulate knowledge about customer demands – reuse in all channels

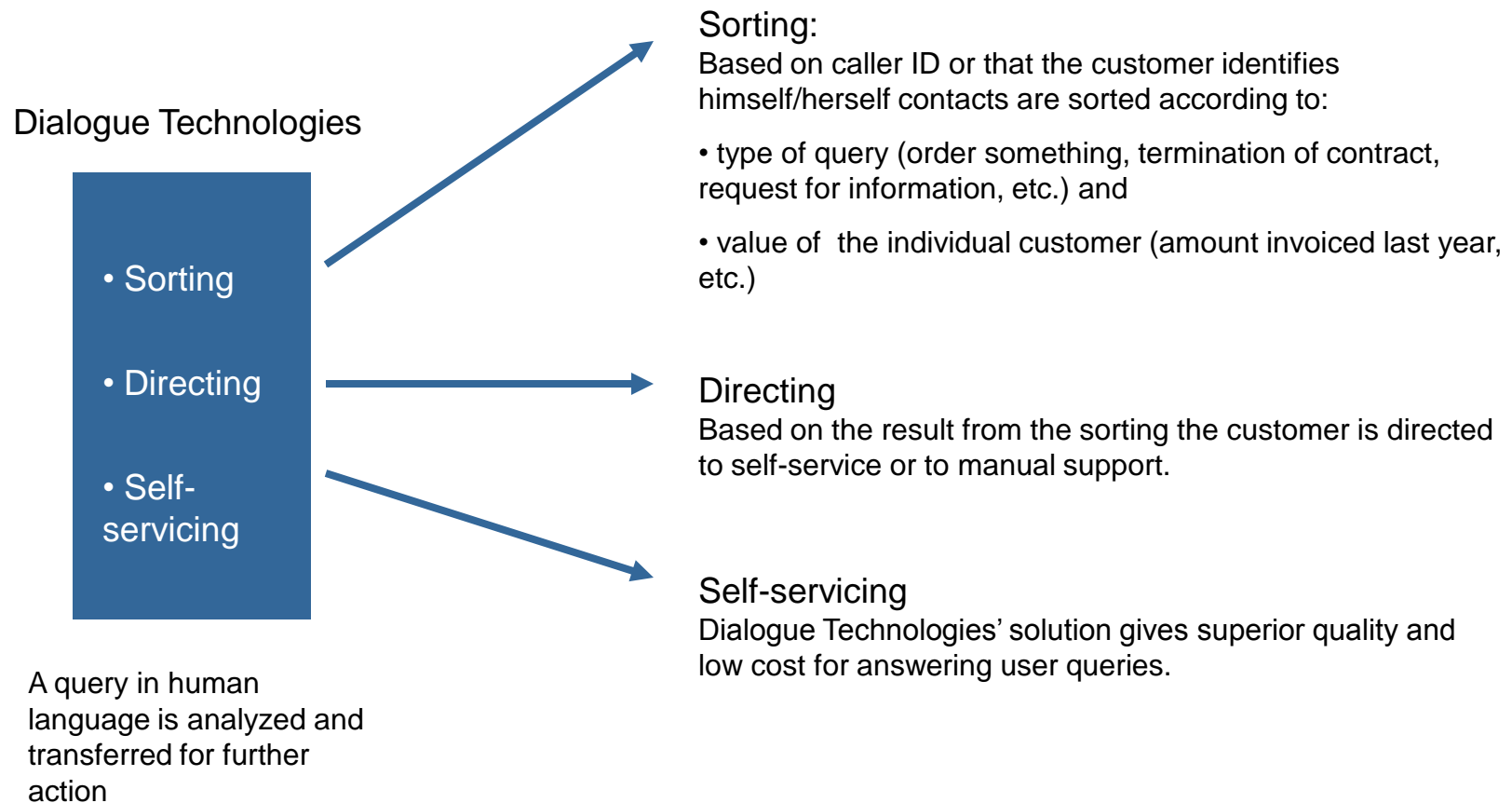
- Use all information provided by the customer. Use the same system for many (all) communication channels to enhance cross-channel learning

Intelligently sorting, directing, and self-servicing the incoming traffic allows you to increase the business impact and reduce cost in customer service.

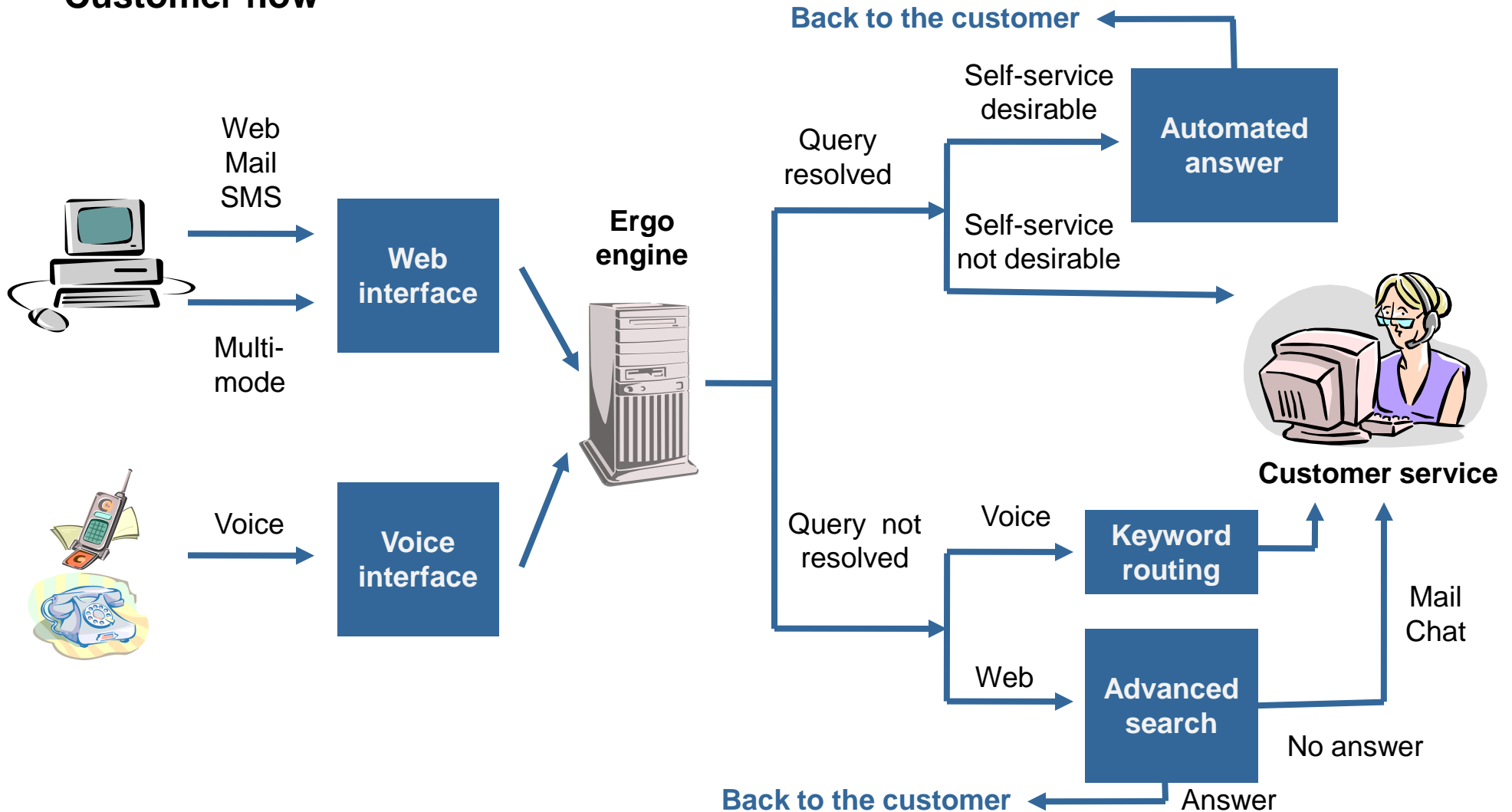
Customers/consumers contact their suppliers via the communication channel they prefer at the time they prefer!



The key to success is to have an automated system "understand" the user query.



Customer flow



A interface to a typical web self-service solution

An introductory piece of text.

A box for entering your question – in your own language and with your own words!

A news file

Dialogue Technologies - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <http://soic1.globalinn.se/Glocalnet/LogonErrorSubmit>

Dialogue Technologies

Välkommen!

Här ställer du frågor om Glocalnets erbjudanden på vanlig svenska.

En fråga på svenska

- inleds med något av frågeorden **när, var, hur, vad, vilken, vilket, vilka, vem, varför, vart, hur mycket, hur många, hur länge** eller **hur ofta**.

*Hur fungerar tjänsten All-tid?
Varför kan jag inte ringa ut?
Hur mycket kostar ADSL?*

- eller kan **besvaras med ja** eller **nej**.

*Kan jag ha 8,0 Mbits ADSL?
Får jag skjuta upp min räkning?
Har jag någon ångerrätt?*

Svara

[Läs nyheter](#)

[Gå direkt till FAQ](#)

Logga ut

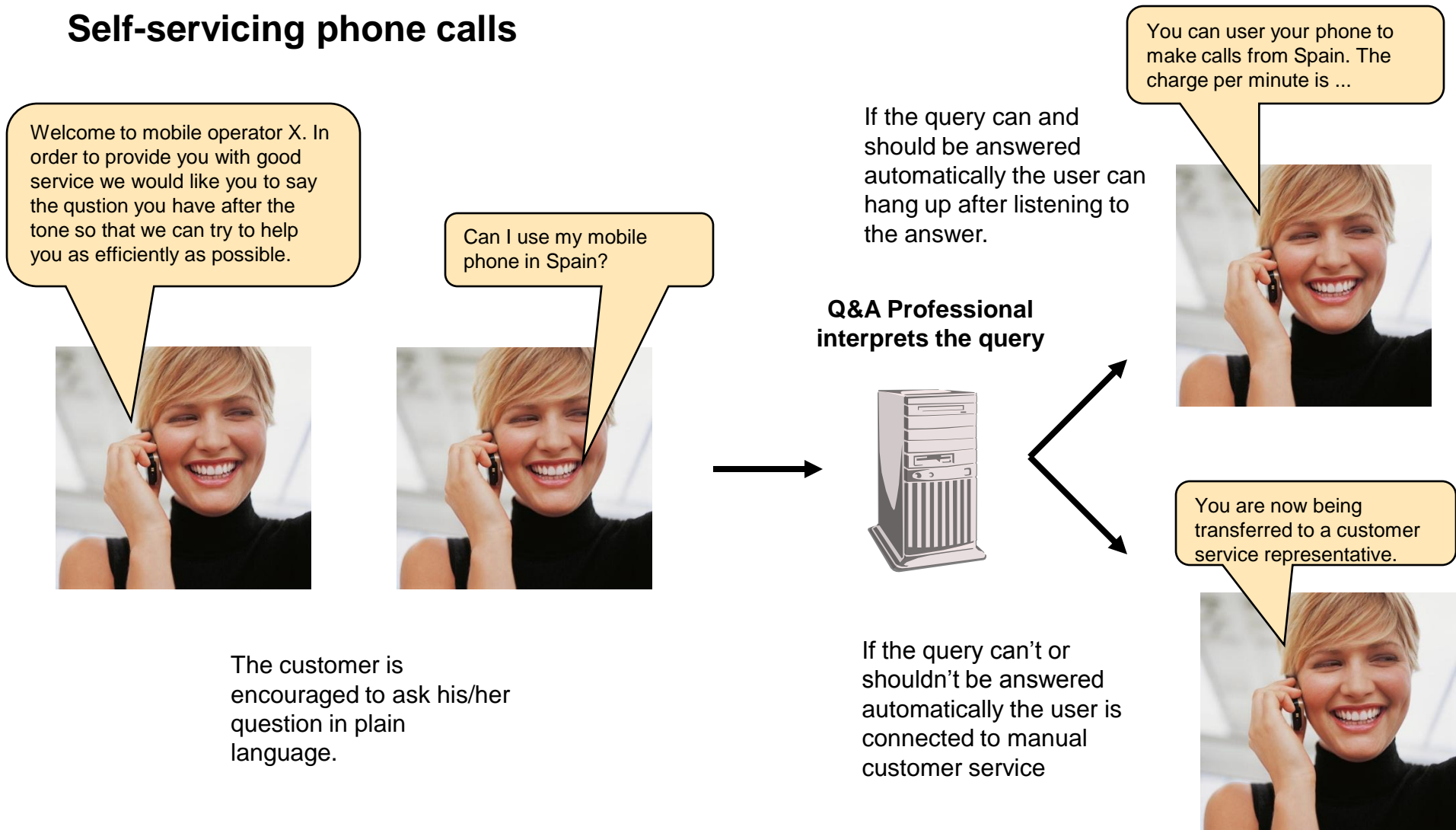
De 10 vanligaste frågorna

- [Hur säger jag upp mitt förval?](#)
- [Kan jag få 8,0 Mbits ADSL?](#)
- [Vad är Helg och Kväll?](#)
- [Vad är All-tid?](#)
- [Hur säger jag upp mitt internetabonnemang?](#)
- [Vad kostar ADSL?](#)
- [Varför kan jag inte ringa ut?](#)
- [Varför kommer jag inte ut på Internet?](#)
- [Får jag skjuta upp min räkning?](#)
- [Vilken är den aktuella prislistan?](#)

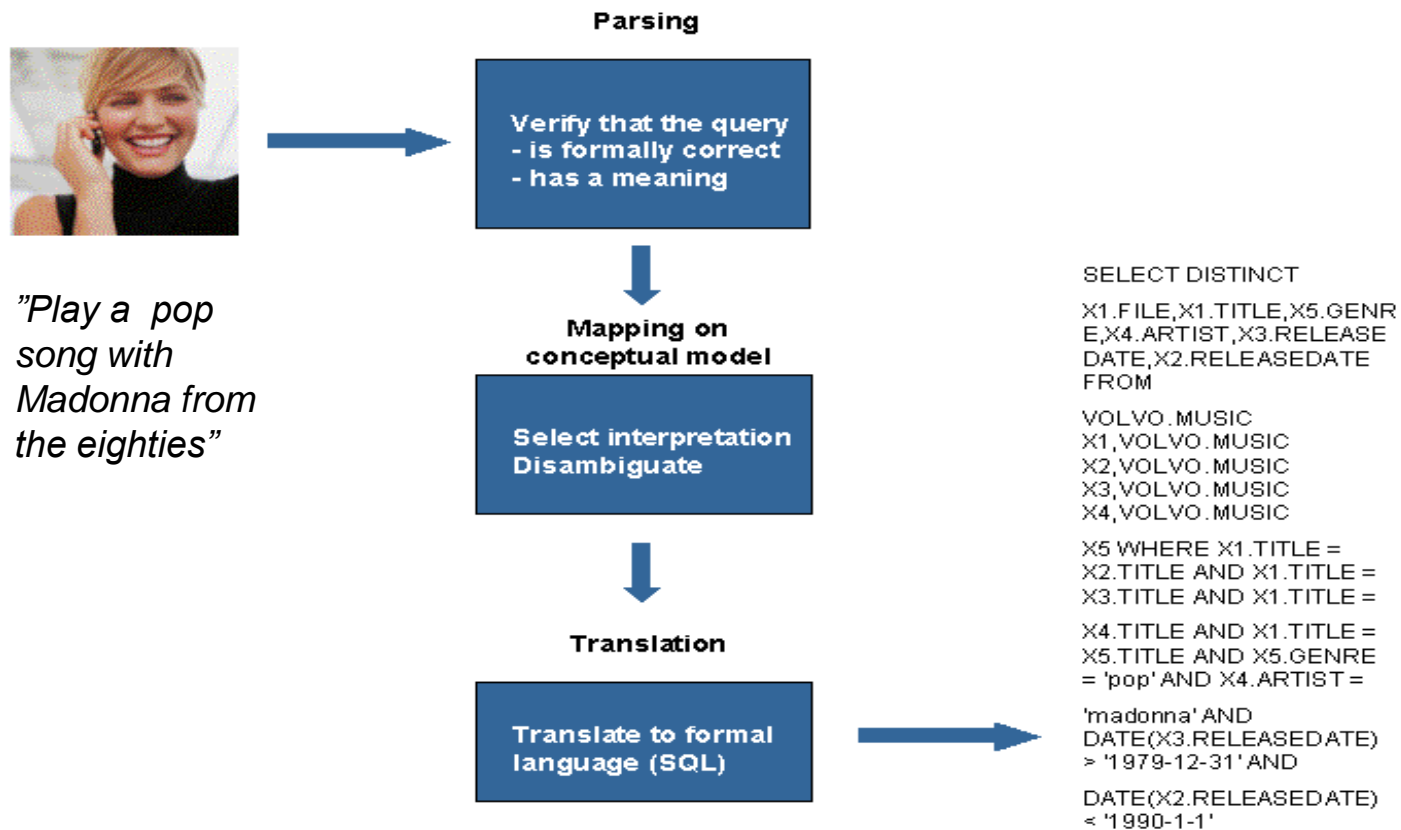
A continuously updated top-10 query list.

An FAQ tree with all queries that can be answered.

Self-servicing phone calls



The Ergo engine - a world-leading system for analyzing questions in human language and translating these to computer instructions

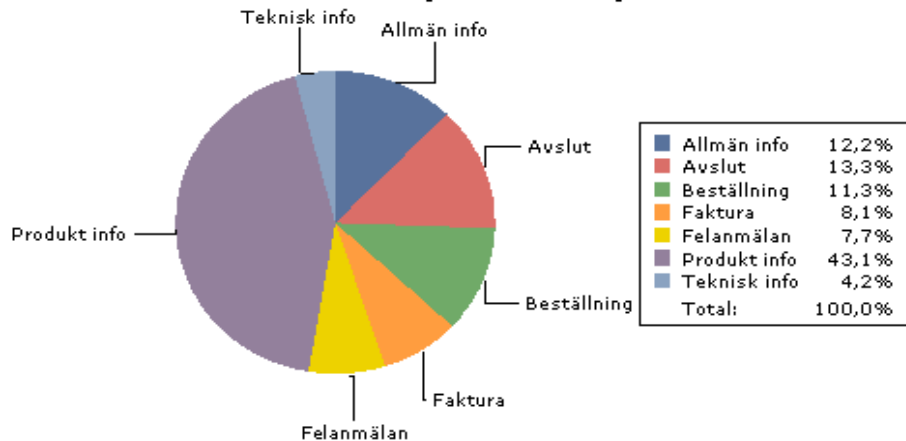


Features

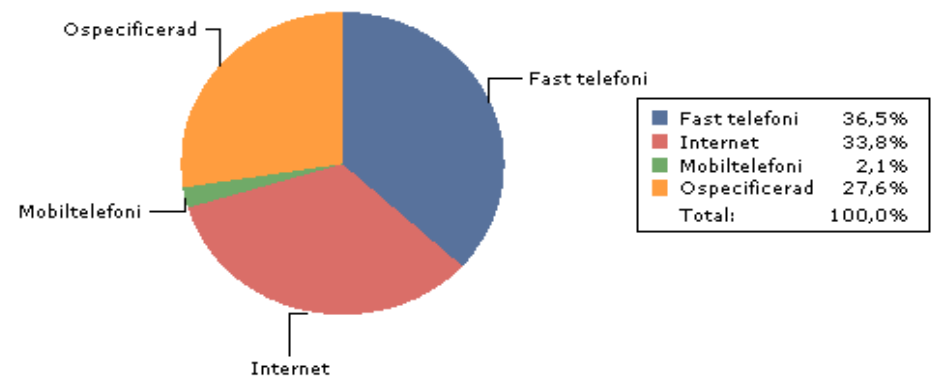
- The same system can be used for all communication channels
- Ergo runs on embedded platforms as well as on server configurations
- Minimizes the risk that users perceive a low quality of service
- Uses standard database technology, including SQL queries
- Retrieves answers directly from existing databases and electronic documents, no need for any duplication of existing data repositories
- Based on standard platforms and with extensive documentation and development tools gives a low cost of ownership
- Optimized for international deployment and reuse of earlier applications
- The system can analyze complete queries, *Direct me to the Eiffel tower*, as well as simple keyword-based queries, *Directions Eiffel tower*. It is context sensitive
- All queries can be logged. The logs give valuable information about what customers are asking about, and are used to gradually increase the system performance

LogView analyses the queries asked by the users

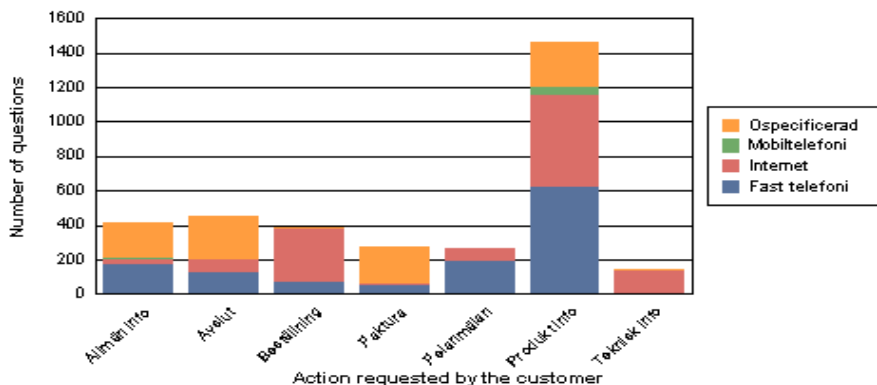
Distribution of questions per action



Distribution of questions per service



Distribution of questions per activity and service



Distribution of questions per service and action

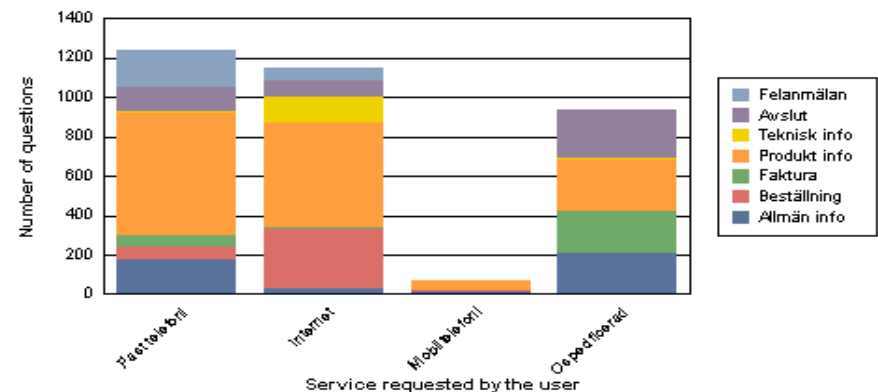


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Potential

Many businesses have huge flows of customer support traffic in several channels, of which telephony is usually significant. Most attempts to steer traffic from the voice channel have proven unsuccessful and complicated FAQ trees and superficial web robots have failed to produce significant savings on a large scale on the web. Consequently there is a significant potential in:

- 1. Attempting to generate self-service in the telephony channel. Most current attempts have self-service well below 5% of the incoming calls.**
- 2. Building a dedicated self-service solution based on an easy-to-use Q&A approach, without the traditional tree-like search trees that so many customers abandon.**
- 3. Using the same basic system to serve all incoming support channels to minimize the maintenance costs and promote knowledge transfer between the communication channels.**
- 4. Using a solution which is based on industry-standard platforms and interfaces. Ergo uses relational database technology to easily interface with most, if not all, CRM systems. Answers to customer queries should, to the extent possible, be retrieved from the data repositories where it is stored today!**

Benefits

1. Reduced cost

The savings consist of 3 parts

1. The cost for self-service is significantly lower than for manual service.
2. Accurate and easy-to-understand answers reduce the number of calls a user has to make to resolve an issue.
3. A good knowledge management system reduces the call duration in customer support.

2. Increased quality of service

Quality increases because

- Customers/users are given accurate and easy-to-understand answers.
- Manual support is focused on the issues that gives the highest value to both suppliers and users.
- 24/7 support can be offered at a low cost.

3. Improved knowledge about user behaviour

All data about customer/user queries and behaviour is stored and analyzed in a software tool (LogView).

Cost reduction – an example1(2)

The cost for manual customer service is driven by the following cost components

- Cost per minute for the customer service operator
- The number of calls it takes to resolve an issue – typically 1.5-4 in many businesses (this includes giving erroneous, misleading, or difficult-to-understand answers)
- The time it takes to answer a query
- Level of service

Assumptions for the analysis:

Cost per minute:	6.70 SEK	
Calls/resolved issue:	1.7	
Average call duration:	2.50 min	including wrap-up time
Number of calls per month:	100 000	
Reduction of call duration:	10%	
Reduction of calls/resolved issue:	1.7 ->1.5	

Cost reduction – an example 2(2)

Cost reduction per month as a function of self-service level

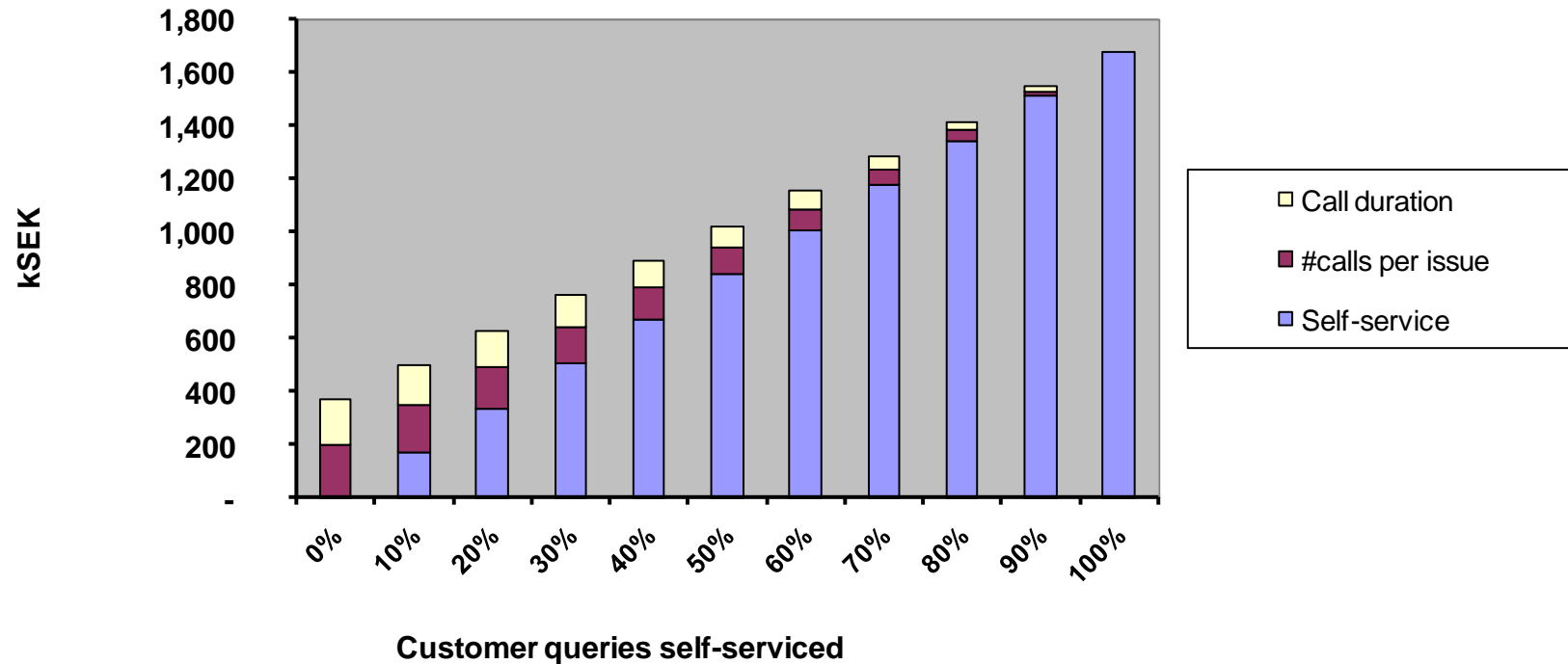
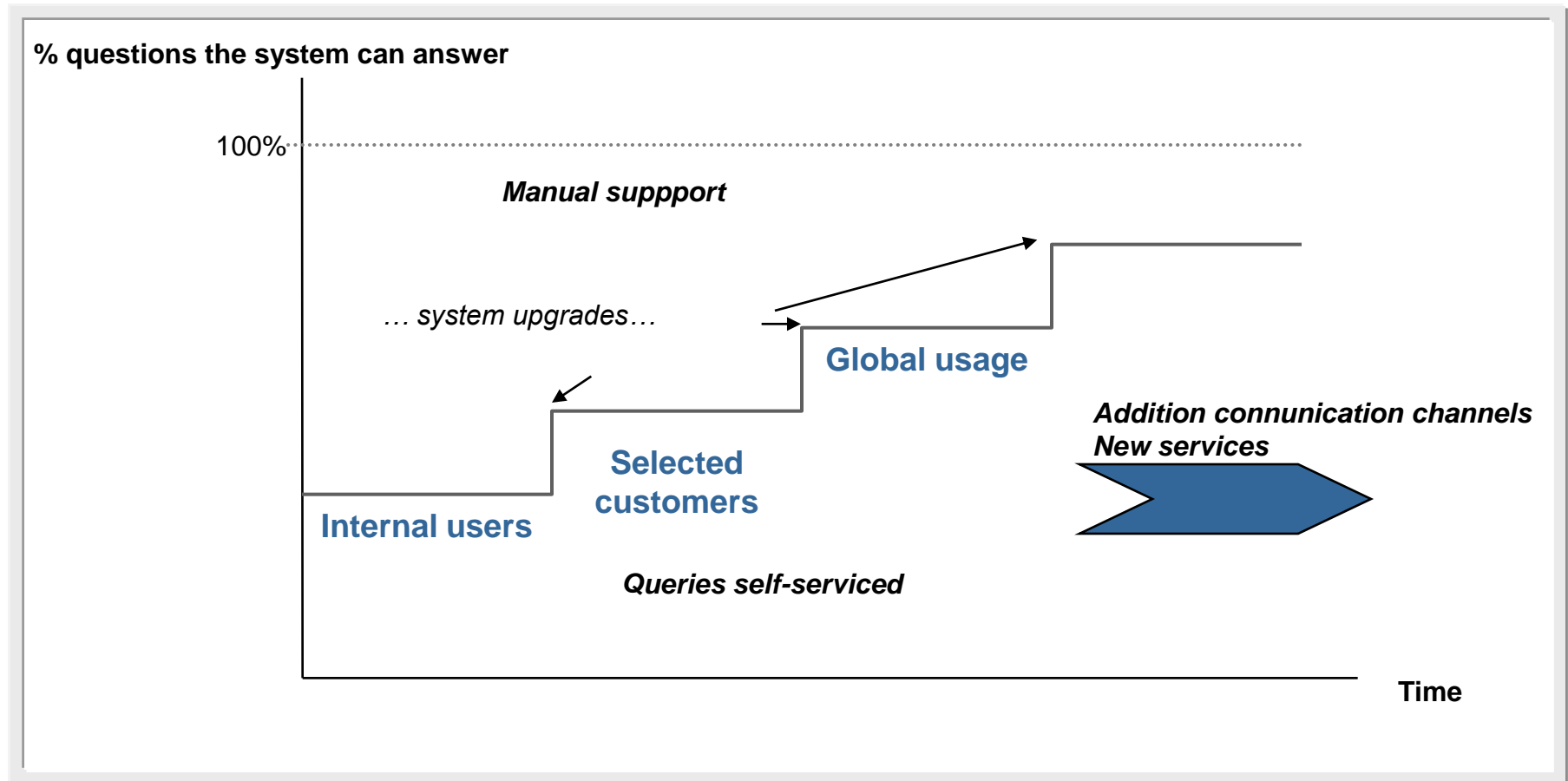


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A gradual roll-out reduces risk and secures the cost reductions



An implementation is carried out in a series of steps

