



**agentscape**

**X<sup>treme</sup>**  
**P**ersonalisation

# **eGovernment Solutions**

*Innovative eGovernment of  
the next generation*

*Socially -Intelligent services*

*Effective solutions for  
Communes, Cities and  
Districts*



## **CASSY — Citizen Assistance and Support System**

- ▶ **Increased customer satisfaction via user-centeredness and personalised self-service.**
- ▶ **Better, faster and more efficient service offers and service delivery.**



▶ *CASSY is eGovernment of the next generation*

# CASSY

## CASSY – Citizen Assistance and Support System

- ▶ *Comfortable, anytime, from anywhere*
- ▶ *Human touch and personalised*
- ▶ *Fast, Effective and self-learning*
- ▶ *Knowledge building*
- ▶ *Cost reduction*

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CASSY is a true eCare product that lets users of a web site achieve their goals quickly and by themselves. Interacting with CASSY is both enjoyable and efficient. This induces the user to stay longer on the site and to explore its features as well as to return more often.

To the public authority CASSY means saving resources, enhancing productivity, cutting costs, an improved knowledge about the users and therefore a better service proposition. CASSY is self-learning and dynamically adapts itself to the changing user demands and behaviour. Via its socially-intelligent and intuitive interfaces CASSY allows you to offer your users a better experience on your site. Even more, CASSY turns out to be a true representative of your agency, that delivers qualified consulting services around the clock.

CASSY is a web self-service tool for public authorities to deliver all the services they offer to citizens and external organisations, anytime, anywhere, in an intuitive and effective manner.

CASSY allows the authorities to conduct a personal, humanized conversation with the user. Instead of requiring bureaucratic jargon and a knowledge of the opaque internal structure of public authorities, CASSY enables citizens and companies to conduct their business in a simple natural language related to the task at hand.

The services offered by CASSY are organised around life-circumstance themes like marriage, children, relocation, job (covering topics like employment, education, taxes etc.), formation of a company (covering topics like incorporation, funding, patents etc.), market entry and internationalisation (covering topics like legal position, location factors, taxes etc.).

Based on the latest open technology standards, CASSY can be easily integrated with legacy systems and secures your investment when new systems or applications are added. For example CASSY can be seamlessly integrated with your Content or Document Management System or with your existing Customer Relations Management solution.

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European Commission

# Service

## Improved Service

First of all CASSY is a reliable consultant that offers users relevant information and solutions according to their individual circumstances. That is not all. On behalf of the user and taking into account security standards such as those associated with electronic signatures, CASSY even manages to perform complex transactions that include regional and national public services, as well as those from the private sector. CASSY is the key for the delegated Supply Chain Management of networked agency services.

For example in case of a relocation CASSY will inform the citizens about all the necessary steps via a natural language dialog, tailored to their specific circumstances. Like a professional consultant, CASSY will provide the solution in the shortest time. With the authorisation of the citizen (e.g. via a chip-card and an electronic signature) CASSY can perform the relocation registration not just with public authorities but it can also take over the registration with the telecommunication company, the electricity and water suppliers, the garbage collection service, and the newspaper boy. This represents a convenient, time-saving service for the citizen.

**„ Data should move, not the citizens “, so Otto Schily, Federal Minister of the Interior, at the opening ceremony of the CeBIT 2002 in Hannover.**

CASSY<sup>(1)</sup> is not just an eGovernment virtual - employee that reacts quickly and competently to questions and requests for service but it can, if requested, also pro-actively deliver relevant information to the user, in a timely fashion and over a variety of communication channels. CASSY can even perform tasks autonomously on behalf of the user, always choosing the solution that best suits his user.

*(1) Parts of CASSY were integrated and evaluated in a real on-line eGovernment project supported in the Fifth Framework programme by the European Commission in the IST initiative and included in the cluster of projects EUTIST-AMI ([www.eutist-ami.org](http://www.eutist-ami.org)) regarding Agents and Middleware Technologies applied in real industrial environments.*



► **Our strategy** - via a user-centered approach and personalised self-service, CASSY delivers increased customer satisfaction, a higher degree of automation and better decision support for governmental agents through access to consistent user records. Thus better, faster and more efficient service offers and service delivery.



# Service

## Focussing on the citizen

„The needs of the citizens are unknown to most city halls“, so *Wilhelm Alms, CEO of the consulting company Mummert und Partner.*

The key to an efficient and effective eGovernment solution is a citizen-focused service model that treats each citizen individually, tailoring the communication and service offer according to their individual needs and expectations.

With each interaction CASSY learns more details about a citizen or a company. Using anonymous or personalised communication sessions, CASSY is in the position to continuously and consistently record and evaluate problems, needs, requirements, opinions, preferences and patterns of behaviour of its users. This is used to develop a more precise understanding of the user and to identify content gaps in order to improve the interaction dialog and to optimise the service offers dynamically. This approach guarantees that users will reach their goals faster and have a better experience, and that agencies will reach their economic and political goals more efficiently.

The screenshot shows the 'Virtuelles Rathaus der Stadt Melle' website. The main content area is titled 'Lebenslage: Umzug' and contains information about moving, including a checklist for necessary documents and a section for 'Umzugskostenbeihilfe' (moving cost assistance). The sidebar on the left lists various services like 'Ich möchte ein Gewerbe anmelden', 'Ich bin arbeitslos geworden', etc. A cartoon woman in a blue suit is pointing at the screen.

## Personalised Self-Service

CASSY puts the users in a position to solve their problems on their own, fast and easily. Interactions with CASSY span from an initial search for relevant factual information using natural language queries, over interactive Question & Answer support according to a selected theme or topic, to the complete tailored solution (procedural information) to a particular problem.

The deep knowledge of the users enables the authority to build a personalised service offer that satisfies the individual users and invites them to use the medium more often. The user is motivated to intensify communication with the public authority which, in turn, allows the authority to permanently improve the information and satisfaction of its customers and also educate them concerning policy and regulatory changes.

CASSY observes how the users deal with the offered information, forms, and processes and also collects explicit feedback information. It processes these data to locate bottlenecks. This approach allows the administration to improve their service offers.

CASSY can give your users more control over the transactions of administrative acts and thus improve the transparency of your authority. As a matter of course CASSY automatically informs the user when a problem or request is solved. Using CASSY, customers can get timely information via personalised emails or newsletters according to their needs and interests.

„Online-services in government agencies will soon be the rule and not the exception,“ *promises Otto Schily, Federal Minister of the Interior during the presentation of the eGovernment initiative ‚BundOnline 2005‘ in December 2001 in Berlin.*

# Technology

**The technology** uses a flexible, scalable and highly available infrastructure that allows for easy integration of existing and future systems, applications and data sources. Openness and protection of investment is guaranteed by standard conformance (J2EE, SOAP, XML, ...). This includes support for various interfaces like, Web, Wap, and SMS to the user and Web-Services, JDBC, and Java Connectors for the integration with other services, applications and legacy systems. CASSY is compliant with SAGA (Standards and Architectures for eGovernment Applications) – the standards conformance recommendation of the German eGovernment initiative “BundOnline 2005” ([www.bund.de/BundOnline-2005/SAGA](http://www.bund.de/BundOnline-2005/SAGA)). CASSY is based on Agentscape’s basic platform CyMON (Create your Match and Organising Network), a development- and runtime-environment for socially-intelligent agent applications.

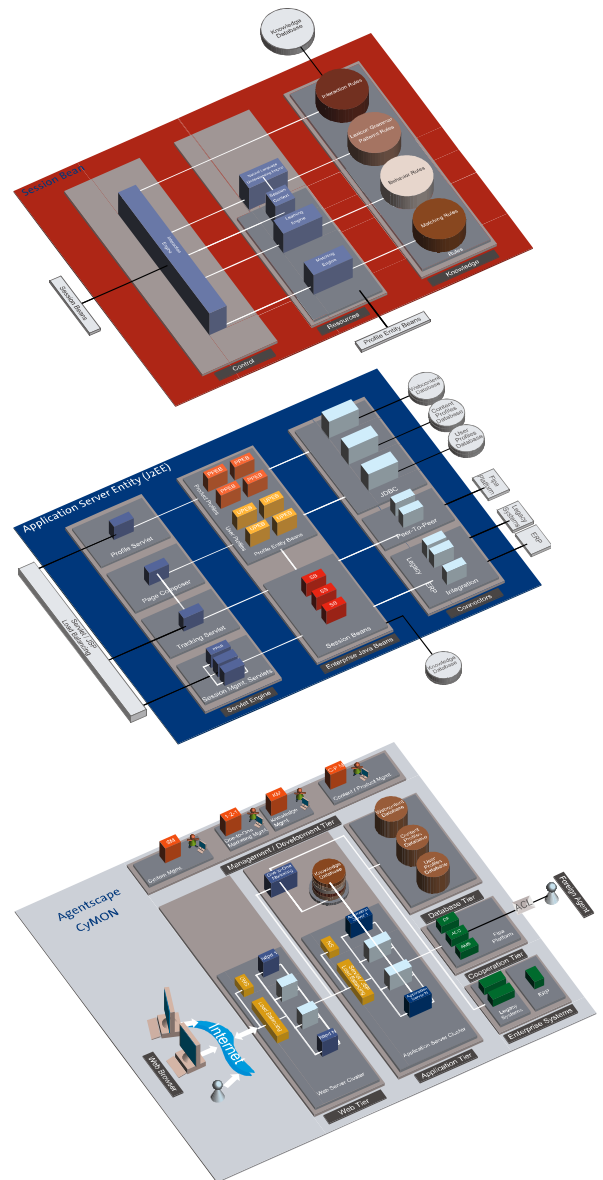
**The architecture** comprises three tiers with the following components: Web-, WebServices-Interfaces, Natural Language Understanding (NLU) Engine, Personalisation Engine, Interaction Engine, Learning Engine, Knowledge Base, External Services, Persistency Service, Connectors for the integration with legacy systems – see figure.

**The administration** is supported by graphical tools. These include life-cycle management (simple installation with an assistant, automatic upgrades), management tools for the configuration and monitoring, and authoring tools for the creation and maintenance of content and interaction scenarios.

**Multiplatform:** AIX, HP-UX, Linux, Solaris, UnixWare, Windows, etc.

**System requirements:** Java compatible platform; installable on a single server, linearly scalable to higher load, fault tolerance via redundancy; also integration in already installed J2EE conformant servers like BEA Weblogic, IBM Websphere or Oracle.

**Professional services** – Agentscape AG supports you in the introduction of the eGovernment solution in your environment covering consultancy and strategic planning, the design, the implementation and testing, as well as the rollout and training of your staff. Projects are carried out according to the “state of the art” methodology Rational Unified Process (RUP) using the Unified Modelling Language (UML) and tools of the Rational Suite to assure the timely delivery and quality of the product within budget and the overall success of the project.



**Partner: CASSY** is compatible with the content management systems of leading manufacturers, like active-City and RE-GIOCity by Net-Com AG in order to offer the authorities the best eGovernment system. The integration of CASSY with one of these content management systems results in the optimal technical infrastructure for offering an improved citizen portal integrating the leading customer management solution and the eGovernment expertise of cities and regions.

# Software

## The Application

As an extension to your content management system, CASSY offers an Interaction Scenario Management Tool. You can use it to create and apply changes to the existing dialogs and interaction sequences of your CASSY-agent.

The tool provides the following features:

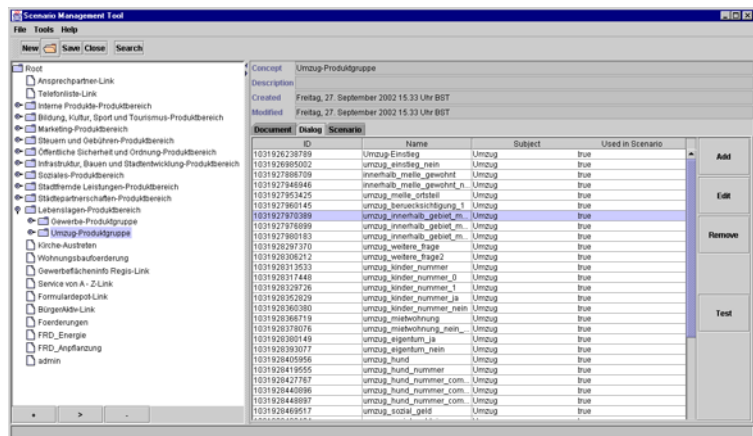
- Extensibility of the scenarios
- Import of content from the content management system, so that the consulting functionality is automatically adjusted to the content of your website
- Predefined library of dialogs, so that you can start your interactive website right out-of-the-box.
- Integrated testing tool, so that the changes and extensions can be checked immediately
- Intuitive, easy to use graphical user interface, even for inexperienced users

## The Administration

The administration is as comfortable as in your Windows environment.

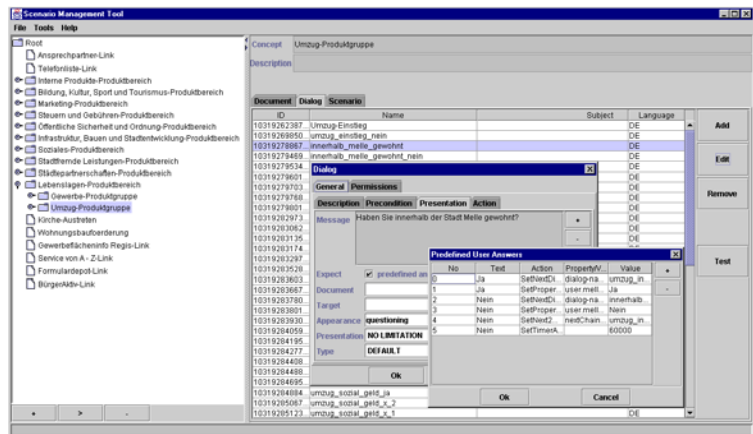
- Automatic installation with the installation assistant
- Configuration and monitoring of the servers via an integrated web interface

## Step 1: Scenario Structure (Taxonomy)



Each interaction scenario is part of the hierarchical structured scenario tree (the taxonomy). It can be selected and changed. After the import from the content management system the content of your website can immediately be embedded in the interaction-scenarios.

## Step 2: Scenario Editing



The agent can give answer to the users questions but also raise questions and collect data in order to direct the user to the right place on your website.

# Scenario

Hello! My name is Cassy. I am glad to meet you on behalf of the City of Melle.

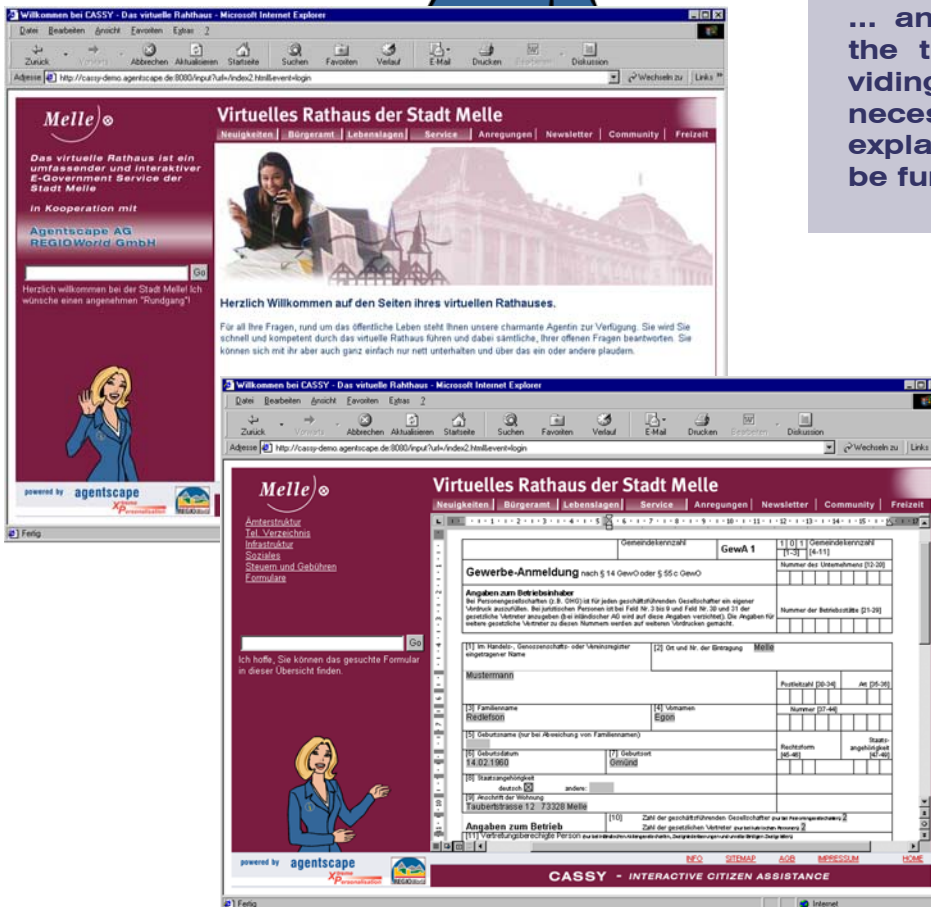


Due to Cassy the citizen can use free text to submit a request and ...

... the agent will direct the user to the relevant information, by ...

... raising questions to collect additional data from the user ...


... and finally executing the transaction or providing and filling the necessary forms and explaining the steps to be further taken.



The forms pool contains all important forms required for the changing life-circumstances.

"The City of Melle has selected CASSY as one of the first cities in Germany not just because of the good usability and the short project duration. CASSY convinces mainly by the facility to interact with the agent and the resulting excellent service. The usage of the system is simple, saves time and money and is fun for the user. Using CASSY it is possible to give the citizen the same individual consulting and service over the Internet as at the counter in the public authority premises. Thus CASSY provides a new dimension in the development of services and service tools."

**Uwe Strakeljahn**  
Director IT and Internet Services  
City of Melle  
Germany



Agentscape AG is a provider of basic technology for dynamic personalisation and social-oriented intelligent business Agents and systems, applications and services based on this technology.

The company's vision is a Multi-Agent system where personal agents (Cybs) and provider agents (CyMON) communicate, negotiate and execute transactions in an autonomous manner, on behalf of and in the interests of their owners.

Agentscape sees its core competence in the

- proprietary real-time natural language technology - morpho-syntactic and semantic disambiguation as well as in the semantic annotation of unstructured information by means of proprietary categorization/indexing technology, and
- domain of Knowledge Management Agents based on neural and semantic network technology and advanced AI matching algorithms, as well as in ontology-based SemanticWeb



**Get in Contact**

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# eGovernment Solutions

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