



Executive Workshop on Natural Language

A global vision of the technology, its foundations, methodology and applications

ANNOUNCEMENT

- Natural Language, **VOCALCOM**'s automated customer service, is providing to the market the most advanced technology in written and spoken dialogue systems: a new generation of technology based on artificial intelligence, computational linguistics, psycho-linguistics and neuro-sciences.
- The business model of Natural Language is oriented towards the collaboration with third companies (resellers and integrators) in order to provide the best service to our final clients.
- The goal of this Executive Workshop on Natural Language is to offer to these companies a global vision of our technology. The Workshop is intended towards the understanding of the key points of our technology, covering the functional capabilities, the linguistic power and the current methodological approach.

GOALS AND ATTENDANTS

- The Executive Workshop on Natural Language should be attended by your commercial and pre-sales teams.
- The main goals of the Workshop are:
 - Provide the key points to understand the technology and the approach of Natural Language at a commercial level.
 - Explain the technical basis and foundations, along with the computational, linguistic and methodological main ideas at a pre-sales level.
 - Comparison with other players: what makes us unique?

ORGANIZATION

- The Executive Workshop on Natural Language is organized in 8 working sessions distributed across 2 working days. We follow a top-down approach starting from a global vision and covering in successive sessions all the details including several case studies.
- During the workshop the attendants will receive all the relevant documentation and access to some demos so they will be able to use them for their commercial and pre-sales activities in the future.
- It will be necessary to sign an NDA before the beginning the Workshop.

PROGRAM

Day 1: 9:30 - 10:00

→ **Reception**

Day 1: 10:00 – 11:00

Session 1:→ **Introduction to Natural Language**

- Presentation
- Agenda / Approach
- Natural Language Engineering: History, Challenges, Technical Vocabulary, Trends, ...
- A global vision about Natural Language: key ideas
- Documentation and Support

Day 1: 11:30 - 12:30

Session 2:→ **Natural Language Understanding (Linguistic Coverage)**

- Lexicons and Grammars
- The tokenization level, spelling reform, ...
- Semantic models
- Linguistic phenomena
- Multilinguality: The Language Discovery tool

Day 1: 12:30 - 13:30

Session 3:→ **The Topic and Knowledge Levels**

- The notion of Information Domain: Documents, Web-Portals, ...
- The WebMapSpider tool
- The TopicMap model
- The KnowledgeMap model
- Case Study I: Help Desk and Topic Maps
- Case Study II: Knowledge Patterns

Day 1: 15:30 - 17:00

Session 4:→ **Intelligence and Dialogue Management**

- The mental model of dialogue management: Merging, Raising, Thought, Delivering and Phrasing
- Integration with external resources: the Data Provider Agent
- Dialogue phenomena
- Emotions
- The information flow in the memory model
- Case Study III: Written Safari Multilingual

Day 1: 17:30 - 19:00

Session 5:→ **Architecture, Development and Programming**

- The computational architecture of Natural Language
- Efficiency, Robustness, Scalability, Connectivity (Web Services)
- Integration: the "interface" level: Emotions, Avatars, ...
- Integration: the "back-office" level: XML and Web Services
- Natural Language as a Programming Language
- The Natural Language platform for developers
- Case Study IV: The programming language

Day 2: 9:30 - 11:00

Session 6:→ **Spoken Dialogue Systems**

- Speech Recognition
- Integrating Speech Recognition and Dialogue Systems: the Fusion approach
- Expectations
- Speech Synthesis
- Evaluation: Recognition, Understanding, Merging, Fusion and Reply
- Multimodality
- Case Study V: Spoken Safari Multilingual

Day 2: 11:30 - 12:30

Session 7:→ **Reports, Post-Analytics, Dialogue Strategies and Business Rules**

- Statistics: Recording the dialogues
- Transactional and Operative Ending
- Dialogue Strategies
- Towards Business Rules
- Global and Domain-Dependent Reports

Day 2: 12:30 - 13:30

Session 8:→ **Methodology, Documentation and Support**

- Methodology: working plan, profiles, ...
- Evaluation
- Documentation: Technical documentation, white papers, ...
- Support

→ **Conclusions**

VOCALCOM
Call Center Technology

VOCALCOM is a leading international developer and integrator of contact centre solutions. We bring to market a broad range of products and associated services that enable organizations to interact with their customers using all available communication interfaces: telephone, fax, e-mail, Web, VoIP... VOCALCOM has over 300 employees, over 3.500 clients and more than 400.000 implemented solutions. With a global presence in 40 countries, ending last accountant period with a consolidated group turnover exceeding 100 M €, making them the top European group and one of the leading providers of contact centre technology in the world.

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