HCLTech | Supercharging Progress™

Intelligence redefined for Aerospace & Defense

The Aerospace and Defense (A&D) industry, positioned at the forefront of technological advancements and global security, is currently witnessing a remarkable surge in innovation driven by emerging technologies such as AI, robotics, and advanced analytics. Despite its dynamic nature, this industry grapples with significant obstacles. The continuous struggle lies in maintaining stringent regulatory requirements while ensuring paramount safety, compliance, and efficiency. Moreover, the industry contends with the ever-changing landscape of geopolitics, evolving client demands, and heightened competition, necessitating a perpetual drive for innovation.

AI and Robotics in A&D Market are expected to reach

USD 34.60 Bn by 2029*

*Globenewswire

LISA (Language Intelligence Service AI) eliminating digitalization bottlenecks

Powered by Artificial Intelligence and Natural Language Processing (NLP), LISA holds the potential to bring about a revolution in digital transformation within the A&D industry. It helps in enhancing agility, efficiency, and data-driven decision-making processes. With its advanced capabilities, LISA empowers the industry to embark on a transformative journey toward unparalleled success.

Catalysing intelligence with LISA

At HCLTech, our focus lies in harnessing the advantages of AI and NLP in the A&D industry through LISA, our cloud-based offering. The LISA suite of services encompasses intelligent machine learning capabilities that comprehend intricate information residing within data silos. It seamlessly delivers this knowledge to enterprise users in the form of a conversational assistant, catering to a wide range of queries, workflows, and requests.

With LISA at the helm, we drive the digitalization of critical enterprise information such as technical manuals, MRB, design artifacts, and service/manufacturing data. Leveraging the power of AI-powered language understanding, we enable domain adaptation with personalization, ensuring that vital information scattered throughout the organization becomes accessible, relevant, and actionable.

With LISA, A&D organizations can experience a notable boost in operational efficiency, a surge in employee productivity, and substantial cost savings.

- API driven
- Integration
- Multi-lingual
- Channels
- Conversational

Features

Document processing
- Text and image extraction
- Building AI enriched knowledge base
- AI search solution
- LISA utilities [QnA engine, search engine, language translation, document processing]
- AI skills - forms, custom forms

End user features
- LISA cognitive search
- Digital voice assistant
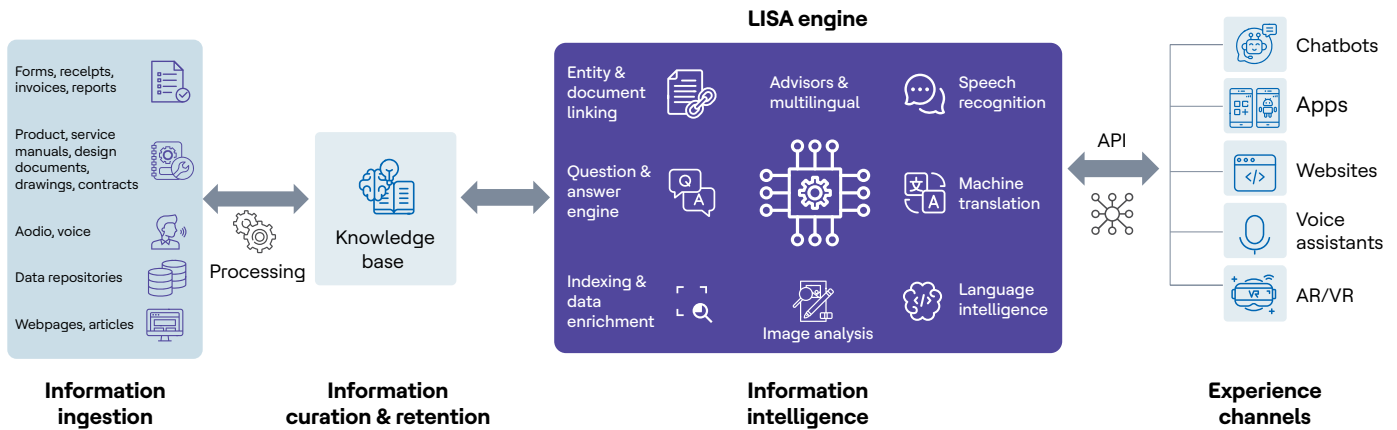- Multilingual chat services

Image AI features
- Image difference and comparison
- TIFF file processing

Benefits

- 50% reduced cycle time, maximizing business efficiency
- 25% productivity increase with minimal manual steps
- Elevation of enterprise information access channels
- Use and comprehension of service manuals and other information repositories

Aerospace and defense applications

Fast-track digital transformation with LISA

LISA engine

| Information ingestion | Information curation & retention | Information intelligence | Experience channels |

- Forms, receipts, invoices, reports
- Product, service manuals, design documents, drawings, contracts
- Aodio, voice
- Data repositories
- Webpages, articles

Processing

Knowledge base

Entity & document linking
Question & answer engine
Indexing & data enrichment
Advisors & multilingual
Image analysis
Speech recognition
Machine translation
Language intelligence

API

- Chatbots
- Apps
- Websites
- Voice assistants
- AR/VR

LISA offers an exceptional suite of services encompassing NLP and NLU capabilities. It constructs document intelligence and conversational language intelligence across diverse content types, making it an adaptable solution, and it also integrates with multiple channels, providing a versatile and holistic approach to enhancing your organization's capabilities.

Success stories cementing our expertise

Empowering aero maintenance with seamless documentation support

Scope/Problem statement

Extensive human intervention required and tedious process of manually updating, allocating and accessing maintenance documents and logs

Solution

- Contextual search, automatic extraction of questions and answers, knowledge entities and linking
- Interactive conversational assistant with summarization, report generation

Business impact

- 25-30% productivity improvements
- Enriched data - better inputs to analytics and troubleshooting

Digital maintenance assistance for efficiency and enhanced productivity

Scope/Problem statement

Reduced efficiency of technicians and maintenance staff in locating information about enterprise, accessing real-time data and historical data

Solution

- Multi-lingual digital voice assistance
- Maintenance troubleshooting
- Maintenance job reporting, inventory management

Business impact

- 25-30% productivity improvements
- Standardized quality of service and user experience

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