

# Embedded Intelligence



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**TCS BaNCS envisions Zero-Touch Operations with pioneering approach to AI**

Artificial Intelligence (AI) will have transformative effects upon the financial services industry.

- Financial services firms with the best recommendation engines will sell more products to the most profitable customers.
- Insurers with the best underwriting practices will have stronger business results.
- Firms with the most effective anti-fraud measures will better protect their customers.
- Lenders that can predict loan sanction decisions and payment defaults will reduce risk from better customer knowledge.

TCS BaNCS' approach to AI is reflected in the Embedded Intelligence inherent in our products, offering the following core characteristics:

● **VISIONARY.** We are working towards an overall goal of zero-touch operations combined with best-in-class digital experiences for customers, enabling financial institutions to have the lowest operational costs and the highest revenue potential in the industry.

● **ITERATIVE.** Competitive differentiation using AI requires a persistent, ongoing effort. Through rapid iteration in our AI engagements, we strive to ensure that organizations can continually improve business results while cultivating increased competency in the management of AI models.

● **EXPLANATORY.** Once you understand how something works, it's no longer a black box. We embrace continual learning across quantitative and qualitative fields, including the communications skills to convey technical information in a highly readable format.

● **EXPLORATORY.** The promise of AI is best realized when insights generated in one domain are translated into other domains. We actively look for opportunities to generate additional business value from our deployments.

● **EXPANSIVE.** The usefulness of an AI deployment expands exponentially given the ability to incorporate new and diverse sources of data. Our partnership approach with clients opens the way for the most effective deployments possible within the industry.

The components of **Embedded Intelligence**:

1. **Enterprise Service Catalog** gives enterprises access to a comprehensive library of tested AI-driven point solutions designed for specific use cases in transaction processing (DDA, Loans, Payments, Securities, and Wealth), reference data, and core architecture.

2. **Co-bots** are companion AI tools that work alongside people in specific roles in financial services, such as corporate actions or reconciliation. These co-bots try to understand repetitive behavior of their owners and offer to execute specific tasks. Using AI-driven insights, co-bots also offer real-time guidance on how to deal with unusual or complex situations that would otherwise require additional research or escalation.

3. **The AI Workbench** empowers product teams and clients to build AI strategies within TCS BaNCS with minimal coding through the selection and use of built-in models for defined business scenario. Key capabilities include model performance evaluation; direct access to multiple datasets; deployment on GPU- and/or CPU-based infrastructure; and seamless connectivity with AI frameworks from multiple providers. With the AI Workbench, financial institutions can develop skills in rapid development of AI, and the generative capacity of being able to proactively identify other areas for problem solving with AI.

4. **Production Support/Management.** We provide AI-based tools for automated data migration and support for new and existing users of TCS BaNCS.



It's only with human involvement and partnership that we can reach an advanced stage, through an iterative process using **Embedded Intelligence**.

Our overall vision for TCS BaNCS is to provide zero-touch operations to our customers, such that there's no need for any manual intervention during normal bank operations.

In many domains, such as corporate actions processing, given a certain set of facts, it's relatively easy to get to 80 percent confidence in AI recommendations for, say, how a given customer should respond to a given voluntary corporate action. Given sufficient data quality and volume, you may be able to increase the confidence interval to 90 percent or above. But if you want sufficiently close to 100 percent confidence, it takes more than just data. You need human intelligence to figure out how to eliminate all vestiges of doubt.

Every failed recommendation represents an opportunity for the AI to improve. But it can only improve using the data made available to it. If recommendations fail due to insufficient or bad data, that's something that only a human can trace and fix.

In many cases, the required solution will

involve plugging into yet another source of data for the AI to consider. That's the basis for the partnership component of Embedded Intelligence. Much of what's needed to achieve higher levels of capability will require data that sits outside of the direct purview of TCS BaNCS. Only with close participation with financial institutions will we be able to navigate those data access challenges.

It's only with human involvement and partnership that we can reach that advanced stage, through an iterative process using Embedded Intelligence. Through this approach, we can deploy AI-based solutions to automate existing processes, methodically eliminate situations that create process breakdowns, and identify data sources that would be required to fill in any information gaps.

By working towards zero-touch operations, we will deliver the implicit benefits of improved client servicing, enhanced capabilities through digital channels, and competitive excellence.