# Turn your operations knowledge into service automation

Over **70% of the total cost of ownership** (TCO) of an enterprise application is spent on operations and maintenance. Also the services and support processes bear **many inefficiencies** like missing information, re-investigation of recurring incidents, repeated manual implementation of solutions, and in general a lack of documented and well structured knowledge. Based on our Smart Ops implementations at leading European Auto OEMs, IT organisations can **reduce service cost** and **improve service quality** by addressing these areas.
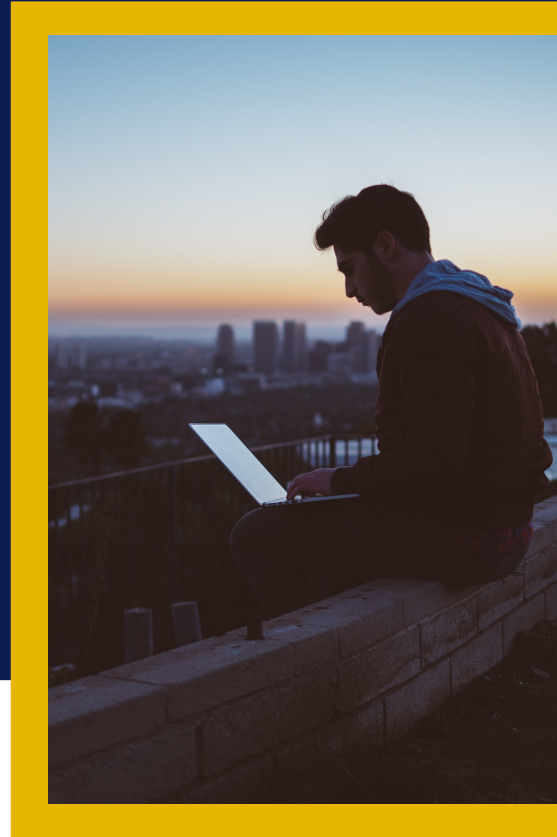
What is Smart Ops?

Most of the data collected during service operations is of **unstructured form**: tickets raised by end users, error messages generated by monitoring systems, or solutions documented by ops agents. Smart Ops leverages **the power of natural language processing** (NLP) in combination with **automated knowledge management** to provide self-service capabilities through real-time interfaces like **chat-bots or web portals**. Smart Ops can also interact with users using the **existing ticketing tool**, so that Smart Ops can also be introduced without affecting the existing service processes.

Benefits

78%

of tickets could be reduced by applying Smart Ops tools at an automotive OEMs global service desk for car diagnosis devices.

- Fast start into the Smart Ops journey with the first tangible results delivered after 2-3 days.

- Step-by-step implementation with strong focus on cost-benefit ratio.

- Operational insights are harvested in knowledge trees and drive KPIs like first-call-fixed, call-prevention and automation rate over time.

- Pre-tuned machine learning (ML) models reduces data science efforts.

- User interaction supports traditional ticket-based workflow and modern real-time channels like portals and chat-bots.

- Cloud native architecture of Smart Ops with state-of-the-art serverless components reduces runtime cost.

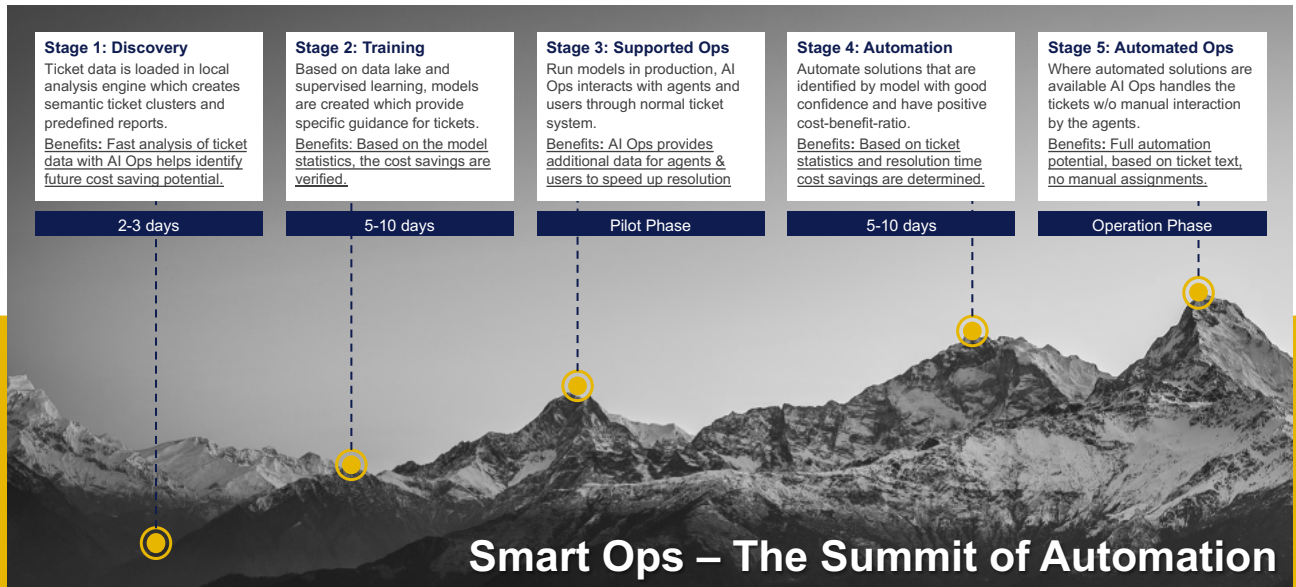- No vendor lock-in with support for all leading hyper scalers.

Delivered Value

The service operation knowledge is often buried in the heads of the ops agents as daily business does not allow the maintenance of a knowledge based with capabilities beyond simple run-books. With Smart Ops, the **operations insights are drawn out of the existing ticket data** and new insights are harvested in a knowledge base. The **knowledge base is at the core** of Smart Ops and determines the capabilities of various Smart Ops components like **self-learning chat-bots** which no longer are hardwired to isolated use cases.

Stage 1: Discovery
Ticket data is loaded in local analysis engine which creates semantic ticket clusters and predefined reports.
Benefits: Fast analysis of ticket data with AI Ops helps identify future cost saving potential.

Stage 2: Training
Based on data lake and supervised learning, models are created which provide specific guidance for tickets.
Benefits: Based on the model statistics, the cost savings are verified.

Stage 3: Supported Ops
Run models in production, AI Ops interacts with agents and users through normal ticket system.
Benefits: AI Ops provides additional data for agents & users to speed up resolution

Stage 4: Automation
Automate solutions that are identified by model with good confidence and have positive cost-benefit-ratio.
Benefits: Based on ticket statistics and resolution time cost savings are determined.

Stage 5: Automated Ops
Where automated solutions are available AI Ops handles the tickets w/o manual interaction by the agents.
Benefits: Full automation potential, based on ticket text, no manual assignments.

| 2-3 days | 5-10 days | Pilot Phase | 5-10 days | Operation Phase |

Smart Ops – The Summit of Automation

Smart Ops Components

The Smart Ops framework is based on a set of loosely coupled services that can be implemented in a step-by-step approach.

- **Smart Analyser:** Clusters tickets based on ticket text and other ticket data. Guide the Smart Ops journey to good cost-benefit ratios.
- **Smart Dispatcher:** Automatically categorises and routes tickets to support groups based on ticket text, also recommends solutions to users or agents.
- **Smart Knowledge Tree:** Automatically arranges knowledge articles in decision trees which can be used other Smart Ops components and ops agents.
- **Smart Agent:** Provides solutions or requests missing information in chat conversations or tickets
- **Smart Automation:** Based on NTT DATA's own RPA technology WinActor™ and allows the automation of operational tasks where no APIs for programmatic access are available.

The Power of Knowledge

Smart Ops does not solely rely on ML models and transfers the data-driven insights automatically in an ever growing knowledge tree.

The knowledge tree can then be used by the Smart Ops components to lead chat conversations, match solutions to incidents or identify missing information in ticket data.

Start Your Journey Now!

Book a **free discovery workshop** with our SmartOps team today and gain new data driven insights at:

smartops@nttdata.com