

# Process9 MoxNMT

Process9 MoxNMT for Smart Translations

## Definitions

MT: Machine Translation

MTPE/ PEMT: Post Edit Machine Translation

Smart Plus: Process9 Smart translation with selective post editing

Smart: Process9 Smart Real Time translation (without post editing)

Terminology: A set of preferred words, phrases, writing styles

CAT: Computer Aided Translation

TMS: Translation Management System

TM: Translation Memory

## Background

With the significant advancement in AI/ML techniques in recent years, Machine translation has now become highly advanced, and a lot more accurate across many international languages. Many MT vendors across the world offer reasonably well-trained machine translation models.

Process9 has been developing and providing well-trained MT models in many Indian and international languages for a few years. We now offer the highest quality Machine translation services across many Indian and international languages that can be used by businesses for all their real time translation requirements.

## Highest Quality Indic MT, anywhere

Process9 MoxNMT offers a machine translation API of quality that is unparalleled anywhere in the world for Indian languages. The translations are high quality, quick, contextually relevant, custom trainable, editable, and cost effective. The MoxNMT can be customized for domain-specific terminology required for specific applications. The translation quality continues to improve with higher usage and training. Process9 offers services to custom-train the Smart translation system between English and 70+ international languages.

With MoxNMT, Process9 offers an unparalleled and unprecedented combination of value-added translation quality in real time with high accuracy and adaptability.

## Underlying Technology

MoxNMT is built on the cutting-edge neural network technology platform. High quality parallel-corpus data has been used for custom training the proprietary AI models used in MoxNMT. In addition, Scoring and ranking AI models have been created and used to monitor the industry-specific MT response quality.

**Transformer-Based Architecture:** Utilizes an advanced encoder-decoder structure with multiple layers of self-attention and feed-forward networks.

**Key Features:**

- **Attention Mechanism:** Facilitates effective information extraction across input and output sequences.
- Over 150M parameters
- **Scalability:** Designed for handling large-scale datasets and diverse language pairs. The inferencing models are deployed on Nvidia GPU servers within India.
- **Versatility:** Capable of adapting to various domains and linguistic nuances.

## More than just MT

Machine translation alone has limited utility. Process9 value-added translation enhancement techniques take the MT delivery to a very different level as compared to any vanilla MT engine. These value-added services and options can significantly enhance translation quality and efficiency for a customer and/ or specific applications.

1. A customer-specific private Translation Memory is maintained for each customer to reuse translations and minimize translation costs
2. Smart automated QA checks are performed to identify and eliminate pre-identified MT errors
3. Smart automated correction of errors such as spellings, grammar etc to enhance translation quality and consistency
4. Comprehensive, easy-to-build, dynamic terminology specification. The Smart translations conform to the specified terminology
5. Mox Smart translation fee includes access to the best-in-class TMS and editing tools to quickly, interactively, and consistently improve translations at any time

6. Continuous and frequent translation model retraining and machine learning to continuously improve the MT quality
7. Ability to recognize and translate structured sentences containing identifiable patterns
8. Ability to customize translations for domain specific needs
  - a. Customize your MT response to meet the unique requirements of your company's specific application use case

## Compliances & Safety

1. Data security compliance

All data is broken into smaller unidentifiable components and is anonymized. The Translation Memory for each client is private and unique, and is not shared among different customers.
2. Data privacy compliance

Data privacy norms are strictly followed. Personal data is not stored in the system anywhere, and is handled on a pass-through basis. Data masking option can be custom configured

## Best of both worlds

Process9 Smart translations based on MoxNMT models offers 4 layers of additional benefits added on to a basic MT system.

- Customer-specific private Translation Memory to avoid paying for repeated translations
- Complete control on quality of translation using built-in TMS
- Highly automated translations saving time and cost
- Ability to customize automated translations to meet your needs
- Continuous quality enhancement through state-of-the-art GenAI techniques

Process9 Mox Smart Plus based translations using MoxNMT model additionally offers the following features, over and above the Smart translation method

- Selective post editing of Smart translation, before delivery
- Free of cost correction of translation errors post-delivery, during a warranty period

## Unparalleled ROI

Human edited translations are high quality but are expensive, unscalable and time consuming. Generic MT is affordable but falls short in terms of required accuracy and customizability.

Process9 MoxNMT offers a unique combination which gives you the best of both worlds. MoxNMT is inexpensive, scalable, provides translations in real time, and can be custom-trained to meet your terminology requirements.

MoxNMT is the future of translation and is ready to be adopted for all progressive business users.

## MoxNMT is suitable for a wide variety of applications

- Translation of websites, eCommerce, and service portals
- Translation of mobile apps
- Translation of multi-channel customer service interfaces such as CRM, BPO, email communications, and chatbots
- Translation of documents, databases, high volume content repositories
- Cross-lingual digital communication interfaces
- Translation of video and audio content
- Live video feed translation
- Live news wire feeds and streams
- Live conversation transcription and translation
- Bespoke real time translation delivery needs

For more information:

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