

# Enterprise-Grade, Secure Neural Machine Translation

SDL Machine Translation Edge  
Data Sheet



“SDL has transformed the way Made-in-china.com communicates with customers. It offers a rich experience and machine learning technology, and it supports many language pairs. This combination makes SDL ETS\* ideal for translating our high volume of information rapidly into all of our customers’ languages. SDL’s response was quick, and the whole project has achieved the desired goals.”

**Marcel Ning, MIC Business Manager,  
Made-in-china.com**

\*SDL Enterprise Translation Server (ETS) is now SDL Machine Translation Edge

## SDL\* Machine Translation **Edge**

SDL Machine Translation Edge uses state-of-the-art proprietary neural machine translation and market-leading adaptability to accelerate globalization of content-intensive business processes.

Human effort alone just can’t keep up with the content explosion. The variety of content channels and formats is growing exponentially, as is the need for information to be delivered in near real-time around the world in the language of the consumer. And a typical enterprise doesn’t only generate its own content – email, web, product documentation, marketing material, internal policy documents and more; it also has to deal with consumer-generated content from an increasingly global, multilingual user base.

An organization is often faced with the daunting task to increase its depth of insight based on multilingual content while trying to reach a global user base in their own language across all of the channels it support today and those it may be looking to support in the future. The modern digital enterprise must master these challenges to ensure that all content is available in the right language to the right stakeholder at the right time.

Only Machine Translation (MT) can deliver the ability to globalize content at scale, including in real-time.

For some, machine translation may appear to be a commodity capability that can be achieved through open-source development or accessed through free web-based portals. It is not uncommon for an employee to use an automatic translation feature they find on their own to translate an email or a document they receive or want to send to a colleague or customer. Unfortunately, the translated output may be inaccurate as corporate nuances are often misinterpreted by commonly available MT. Worse, this kind of behavior represents a security breach that may lead to loss or even theft of confidential data.

With open-source MT development, there is typically significant effort needed to integrate MT into content workflows. In addition, many open source development tools weren’t built to support enterprise needs such as ease of use, performance, fault tolerance and scale.



SDL services 90 of the top 100 global brands with software and solutions that span the entire content supply chain.

Key reasons clients use  
SDL MT Edge:

- Enterprise-ready solution
- Security, data protection and control
- Deployment flexibility
- Ease of use and ease of fit
- Enterprise-scale without enterprise-scale cost

Fortunately, enterprises have an alternative. SDL Machine Translation Edge offers a powerful MT solution that can be deployed on-premises or in a private cloud, keeping the content processed through MT secure within the organization's network. SDL MT Edge is highly scalable, adaptable, easy to deploy and intuitive to use and manage, enabling organizations to cost-effectively address even their greatest global content supply chain challenges. SDL MT Edge is complemented by SDL Machine Translation Cloud, a cloud-based MT environment, to form a complete, deployment-agnostic MT solution built with a unique Edge-Cloud architecture.

### What is Edge-Cloud?

Edge-Cloud is a unique architecture that underpins SDL's Machine Translation solution. It is able to bridge the gap between the on-premises environment and the public cloud environment to give SDL customers the freedom to leverage both interchangeably. The Edge provides the ability to secure sensitive tasks behind corporate firewalls, control performance with dynamic licensing and hardware optimization, and is built for volume. The Cloud provides an on-demand environment that is easy to enable for enterprise-wide usage. While the Cloud is secure by design, there are regulations that may prohibit any use of cloud for highly sensitive documents. Edge-Cloud enables customers to leverage the same environment for all of their machine translation needs without compromising security or accessibility.

### Features

#### Security and Control

- Deploy behind your firewall as an on-premises application or in a private cloud
- Authenticate using Active Directory (AD) or LDAP or through application-level username/password
- Create multi-tiered user roles for granular application access security
- Ease of administration and maintenance via intuitive admin GUI

#### Scale with lower Total Cost of Ownership (TCO)

- Efficient use of computation resources with a small footprint
- Lower hardware costs with ability to run Neural Models using CPU (vs GPU)
- Control computational resources with dynamic licensing and three modes of hardware-based optimization
- Accommodate low and high translation throughput demands via a robust back-end architecture

#### Ease of use and integration

- Use directly through an intuitive, browser-based UI, through a supported application such as SDL Trados, MS Office, or as part of a Translation Management System (TMS) workflow
- Integrate with and automate any content workflow using the REST API and .NET and C++ Embedded APIs
- Integrated OCR and enhanced PDF support makes it easy to work with forms and standard collateral
- Integration with ASR (Automatic Speech Recognition) solutions, such as Nuance, to address use cases where audio translation is required



### Quality, Adaptability and Customization

- Built using state-of-the-art proprietary NMT 2.0
- Over 120 uni-directional language pairs with models built by linguistic experts
- User-defined dictionaries and terminology lists
- Adaptive Language Pairs that users can train and deploy within the on-premises application or to the cloud (through SDL BeGlobal)
- Additional customization, including expert customization, available as a service

## 1. Quick translation using a browser-based interface

An intuitive interface for translating content from virtually any source. Translate text directly, upload files, or integrate machine translation directly into your existing content processes.

## 2. Integrated training for Adaptable Language Pairs

Language Pair	Model	User	Input Data	Progress	Status	Actions
French→English	Adapted-LifeScience 8.4.0	asimon@SDL.com	376,282 training translation units	100%	deployed	↑ ↓
German→English	Adapted-LifeScience 8.4.0	asimon@SDL.com	376,282 training translation units	100%	deployed	↑ ↓
English→French	Adapted-LifeScience 8.4.0	asimon@SDL.com	376,282 training translation units	100%	deployed	↑ ↓

Adapt language pairs using your own content within the ETS environment to improve quality and fluency of your machine translation output.

### 3. Manage your Adaptable Language Pair models in an intuitive interface

The screenshot shows the 'Adapted Language Pairs' management interface. A table lists various models with columns for Language Pair, Model, User, Input Data, Progress, Status, and Actions. A modal window is open for the model 'GerEng\_Adapted-Automotive\_SRV\_TNM\_8\_4\_x\_0', showing the following details:

- Baseline Language Pair:** GerEng\_Generic\_SRV\_TNM\_8\_4\_x\_0
- Training Host:** ip-172-30-0-157.ec2.internal
- Queued Time:** Mon, Jul 1, 2019 5:24 PM
- Training Start Time:** Mon, Jul 1, 2019 5:25 PM
- Completion Time:** Mon, Jul 1, 2019 10:28 PM
- Comments:** This is a language pair trained with Automotive data

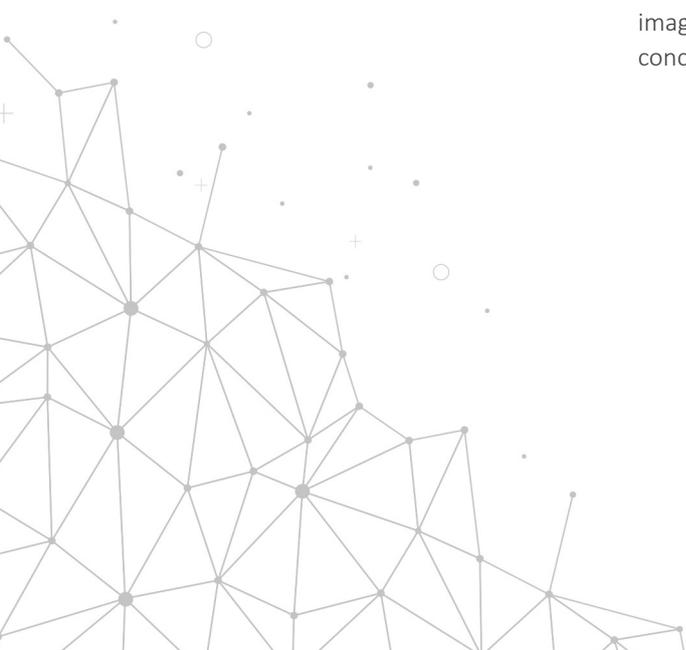
Below the details, BLEU Scores are shown:

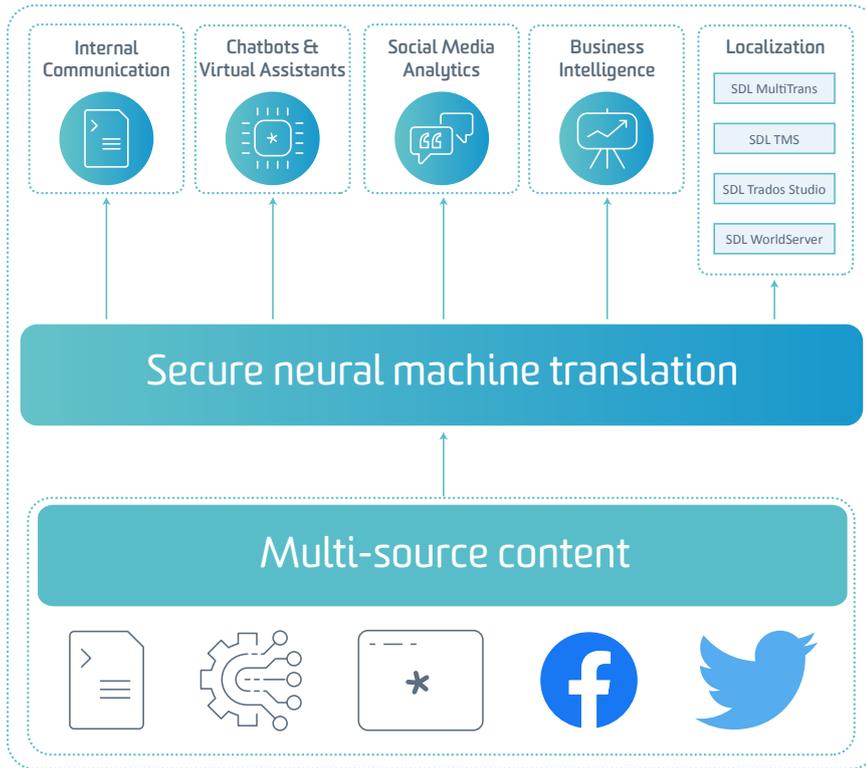
BLEU Scores for GerEng_Adapted-Automotive_SRV_TNM_8_4_x_0	
Generic	43.43
Adapted	55.77
Difference	↑ 12.34

Use an intuitive interface to manage your language pair models and, through Edge-Cloud, deploy these models to SDL MT Edge directly or through SDL Machine Translation Cloud.

Customers rely on SDL MT Edge to broaden their global customer reach more efficiently, ensure their global internal communication is protected, and achieve global content intelligence. The following are some ways that customers are deploying SDL ETS into their operations:

- Provisioning in-house translation portals and application plug-ins to enable secure communication and collaboration among globally distributed departments
- Helping knowledge-workers understand user-generated content (forums, reviews, tickets) to enable support and securely handle multilingual customer needs
- Monitoring global social media channels to gauge consumer sentiment and gather feedback
- Integrating with big data search and analytic platforms to enable multilingual eDiscovery and global content intelligence to support the analysis of text, images and video necessary for surveillance, fraud detection and security concerns (corporate and citizen)





SDL MT Edge is used to make a variety of processes and content channels multilingual faster and more efficiently than through human effort alone. For some applications, such as real-time chatbots, machine translation is the only option that can enable multilingual capabilities.

### Languages

SDL offers the broadest language coverage for commercially available solutions, with new languages added on a regular basis. For most commercial customers, we deliver trained language pairs that understand the domain or style of the particular company or organization. This helps to ensure that each single translation is appropriate for the company and its communication needs.

While improving on existing translation systems, SDL is committed to ongoing innovation and continues to build out its language coverage. All language pairs leverage Neural Machine Translation (NMT). SDL offers over 30 variations to and from English, including Asian languages, as well as the ability to translate select language sets to and from Japanese, German, Spanish, French and Arabic. Please refer to [sdl.com/mt](https://sdl.com/mt) for the full up-to-date list of languages supported.

SDL offers both standard and adapted language pairs to support the varied needs of our customers. Standard language pairs are provided out-of-the-box and can be guided using dictionaries and termbases. Adapted language pairs can be trained (and re-trained) within the application using any pertinent content, with the language models being deployed directly into the application for usage. These adapted language pairs can also be deployed to the cloud (SDL BeGlobal) by leveraging the Edge-Cloud architectural capabilities of the SDL Machine Translation solution.

For those looking for expertise along with technology, SDL provides world-class linguists and support resources, also delivering custom and expert consulting options.



### Why Choose SDL Machine Translation Edge

SDL brings the capabilities of industrial strength MT to the modern, content-intensive enterprise. It fits within any IT environment and is adaptable, flexible and highly scalable. SDL MT Edge is:

- Built on a highly scalable architecture that allows for multi-server deployment options on commodity hardware.
- A mature and reliable solution with very little administrative overhead to maintain high service levels.
- State-of-the-art Neural Machine Translation (NMT) 2.0 developed by expert linguists and experienced professional translators.
- One-of-a-kind and user-driven, offering adaptability with the introduction of Adaptable Language Pairs.
- Supported by expert resources to train models using customer data to better address customer language nuances and quality requirements.

SDL Machine Translation Edge is the new name for SDL Enterprise Translation

To learn more about **SDL MT**, visit [sdl.com/mt](https://sdl.com/mt)

### SDL\*

SDL (LSE:SDL) is the global leader in content creation, translation and delivery. For over 25 years we've helped companies communicate with confidence and deliver transformative business results by enabling powerful experiences that engage customers across multiple touchpoints worldwide.

Are you in the know? Find out why the top global companies work with and trust [sdl.com](https://sdl.com). Follow us on [Twitter](#), [LinkedIn](#) and [Facebook](#).

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