



LinguaSkin® SaaS

Service Definition

Interceptor Solutions Ltd.



1 Service Name

LinguaSkin® Multilingual Web Application Localisation

2 Service Summary

LinguaSkin® creates multilingual and bilingual user interfaces for monolingual web applications with minimal effort and cost and no changes to the target application.

LinguaSkin® replaces and transforms user interfaces in real time providing rapid internationalisation and localisation.

LinguaSkin® supports all languages, integrates with translation tools and works with all kinds of web applications, content and technologies.

3 Service Description

Many organisations need or want to provide online services and communications in more than one language. Existing methods of creating multilingual software are slow, expensive, and not always possible.

LinguaSkin® integrates with a web server to 'intercept' all incoming and outgoing traffic. It applies pre-configured transformations and replacements, inserts a language selector and manages the user session – everything needed to create a multilingual interface without any change or impact upon the target application.

LinguaSkin® works from pre-configured translations, ensuring translation quality and eliminating layout concerns. It can also be integrated with online translation services (Google, Bing, etc.) if required.

LinguaSkin® is deployed in a reverse proxy configuration – ideal for third party hosting, SaaS applications and syndicated (CDN) content.

4 Top Features

- Real time localisation – quick, easy, and cost-effective.
- Unlimited languages – adding languages is easy.
- Non-invasive – no changes to the target application/site.
- Online management toolset – edit translations and manage deployments.
- Transparent – the end-user sees a fully multilingual interface.
- Works for all applications – third party, hosted/SaaS, all platforms.
- Multiple applications – unify look/feel and standardise add-on features.
- Benefits beyond language – SEO, accessibility, and other real time transformations
- Language management – languages easily added, translation tool integration.
- Language selection – inserts selector, manages session, tracks language use.

5 Business Benefits

- Use the customers language – for improved service and engagement.
- Cost savings - internationalisation and localisation at fraction of normal cost.
- Quick implementation – can be configured and deployed within a week.
- Equality across languages – identical structure and content ensures equivalence.



- Language quality – pre-configured translations enable translation tool and process integration.
- Language usage tracking – measure and analyse language selection and use.
- Legislative compliance – Bilingual (e.g. English/Welsh) compliance with minimal cost and effort.
- Vendor independence – flexibility, increase procurement options, reduce cost and risk.
- Operational and maintenance savings – single base application for all languages.
- User interface flexibility – easily make changes with minimal complexity.

6 Functional Description

LinguaSkin® consists of two software applications. The LinguaSkin® Management Centre (LS-MC) and the WebSkin® Module (WSM).

LinguaSkin® Management Centre (LS-MC)

The LS-MC is a cloud-based SaaS application that provides the following capabilities:

- Selection of languages to use.
- Extraction of candidate Matches from the target application.
- Configuration and organisation of Matches and the Matching algorithms.
- Translation and maintenance of Replacements.
- Export of translations and integration with external translation tools.
- Management of multiple applications and deployments.
- Maintain configuration options for the LS-MC and WSM.
- Publication to the WSM agents and interaction with WSMs.
- Style, structure, placement and options for language selector insertion.
- Proxy mapping and rules for reverse proxy implementations.

LinguaSkin® operates around the concept of Matches (the source content from the user interface and the rules that define how to find it) and Replacements (the content to be used to replace the Match depending on selected language).

LinguaSkin® has a variety of Match methods, intended to ensure precision of selection and optimise performance. These include:

- Contextual matching – i.e. identification of surrounding tags/structure.
- Regex matching – use of regular expressions for specific matching.
- Position – defining the ordinal position range to look for a match.
- Between – the Match is the content region between two defined limiters.
- Parameterised – matching text with variable elements (e.g. 'page 3 of 33').
- Simple – a simple search operation across the source content.

Likewise, Replacements also have a range of methods:

- Simple – replace the Match with the configured Replacement.
- Remove – remove the Match with no Replacement.
- Insert – place the replacement at a defined place in the content.
- Parameterised – extract Match values and put them in the Replacement.
- Lookup – lookup a replacement value for the Match from a list.
- Move – move the match and insert it in a defined location.



Multiple Match and Replacement methods can be used and combined to provide very specific and flexible transformation capabilities.

WebSkin® Module (WSM)

The WSM integrates with a web server, either the web server for the target application/site or as a reverse proxy to a remotely hosted application. The functions it provides are:

- Insert a language selector.
- Track user language selection throughout and between sessions.
- Replace identified Matches with Replacements for the selected language.
- Extract (scrape) candidate Matches from the target application.
- Provide the reverse proxy capability.
- Apply HTTP and content transformation rules for accessibility and vulnerability protection features.
- Act as a local agent for other capabilities.

One WSM is required for each site/application. It is deployed as a reverse proxy (cloud, hosted or on premise).

The WSM effectively acts as an 'agent' for the LS-MC. It runs from a set of local XML configuration files that are maintained from the LS-MC either via a secure https connection or by file transfer. This latter option is ideal for usage scenarios where applications do not have a direct connection to the Internet (e.g. such as gsi.gov.uk).

The WSM can handle all content types that pass over http and that can be parsed as clear text, e.g. HTML, CSS, XML, Javascript, JSON, Txt, etc. Further modules are planned that will handle other content types such as PDF, Doc, XLS, etc.

7 Service Options

7.1 Implementation Services

Though a customer can implement LinguaSkin® for an application, the production of the initial configuration (i.e. 'skin') will require a technical skillset to create the reverse proxy, set up scraping rules, etc.

Typically, we provide this initial configuration service through a fixed price implementation service plus a day rate for configuration services specific to an application and additional project management. See our pricing document for further information.

Section 11 (Service On-Boarding) provides more detail on what is involved in a typical implementation.



7.2 Packages

LinguaSkin® is available in Standard, Premium and Enterprise options.

The following features are implemented by the WSM:

Feature	Standard	Premium	Enterprise
Language Management and Selection			
Multiple languages (LTR, RTL, incl non-Latin)	Up to 5	Up to 15	Unlimited
Language selector insertion	Standard	Flexi	Custom
Language tagging	✓	✓	✓
Translation export, import and re-use (within an app)	✓	✓	✓
Language schemes		✓	✓
Translation repository (across all applications)		✓	✓
Language usage metrics			✓
Proxy Capabilities			
Custom domains (incoming)	1	Up to 5	Unlimited
Proxy mapping (single target) and rewrite rules	✓	✓	✓
HTTP redirects (incl to HTTPS)	✓	✓	✓
All non-proprietary/non-compiled content types	✓	✓	✓
HTTP exception handling	✓	✓	✓
Caching control	Auto	✓	✓
Basic path translation		✓	✓
Multi-target proxy mapping		✓	✓
Complex applications (JS, Angular, Dynamics, React, etc)		✓	✓
Websocket handling and content replacement		✓	✓
Performance optimisation (per-lang caching & stats)		✓	✓
URL whitelisting & blocking		✓	✓
Complex path translation			✓
HTTP header and cookie manipulation			✓
High-volume performance (internal caching and pass-thru)			✓
Matching & Replacement			
Translation replacements	✓	✓	✓
Parameterised replacements	✓	✓	✓
Standard target sets (Global, URL, querystring & lookup)	✓	✓	✓
Scraping (HTML: parsing, other: Regex rules)	✓	✓	✓
Encoding handling and management	Standard	Advanced	Custom
Differential scraping		✓	✓
Advanced target sets (shared, complex criteria)		✓	✓
Content monitoring (for static & unauthenticated pages)		✓	✓
Replacement inversion (Regex & lookups)			✓
Deployment & Support			
Deployments (Test, Staging, Prod, etc)	2	3	Unlimited
Instances per deployment	1	3	Unlimited
Usage volume (average replacement requests per day)	< 1,000	< 10,000	Unlimited
Support SLA	Optional	Optional	Premium

When licensed, in addition to providing a configuration interface for the above capabilities, the LS-MC also provides the following features (enabled depending on WSM version):

Feature	Standard	Premium	Enterprise
Multiple users	✓	✓	✓



Multiple deployment management	✓	✓	✓
Unified management for multiple applications		✓	✓
Machine Translation (MT) integration		✓	✓
User roles (varying permissions)		✓	✓
Content Monitoring (for static content)		✓	✓

7.3 Managed Language Packs

We can provide a Managed Language Pack (MLP) in any required language. We have two service levels for these:

Standard MLP:

- We will use translations in our repository and a professional translator for the rest.
- A detailed review with our translator of all text when it is in place on the site.
- Customer review/edit of translations before 'go live' and then once every 3 months.

Premium MLP:

- All translations will be provided by a professional translator (new or post-edited).
- A detailed review with the translator of all text when it is in place on the site and a second review with another, independent translator.
- The customer can make edits/updates to the translations as frequently as required.
- Each year, we will translate any new/changed text that doesn't have a translation, The customer can provide translations during the 3-monthly review if preferred.

Alternatively, customers can provide their own translations. We will build these into language packs as part of the configuration services that are scoped for the project.

8 Cloud Platform

The LS-MC is a SaaS service, hosted on the Microsoft Azure platform.

It consists of Azure Virtual Machines, Azure Databases and Azure Storage services. All are located in the Azure 'UK South' region.

The WSM acts as an agent for the LS-MC. At present, the WSM is only available as a Microsoft IIS module, however, the reverse proxy capability means that it works equally well with target applications on any web server platform.

The WSM is either deployed to the customer's cloud platform or is available as a hosted option on our Microsoft Azure Cloud (UK South region).

The structure of LinguaSkin® (see Functional Description) means that there is no operational dependency between the Target Application, WSM and the LS-MC, with the LS-MC just being used for offline configuration and maintenance purposes.

9 System Requirements

The LinguaSkin® Management Centre (LS-MC) is a cloud-based application and therefore does not have any system requirements (other than a standards compliant web browser).



The WebSkin® Module (WSM) is either deployed to the customer's network infrastructure/cloud platform or hosted on our Microsoft Azure Cloud and has the following requirements:

- Microsoft IIS server or Azure App.
- HTTP/HTTPS access to the target application.
- Network configuration to route HTTP requests via the WSM.
- Remote access for us to deploy and provide support.
- HTTPS WSM access for remote LS-MC management (optional).
- SSL certificate for any domains used.
- Test application (or test users) for configuration and test.

10 Service Interface

The LS-MC is accessed via a standard web browser.

The WSM is designed to transparently pass through the interface for the base application without modification, other than those changes configured.

The resulting application interface will therefore have the same level of accessibility compliance and security resilience as the base application. However, accessibility improvement rules and web vulnerability blocking/filtering rules can be added when using the Premium and Enterprise versions.

11 Service On-Boarding

Implementing LinguaSkin® requires three types of activity:

- **Configuration**

This involves setting up proxy maps and rules, defining the language selector, and performing a scrape, organising and defining any manual matches required.

The selected text will then need translating into each target language and the configuration of other language-sensitive content (e.g. images with text, external URLs, etc.) with the relevant replacements.

- **Testing**

Functional testing ensures that the replacements and any proxy configuration have not adversely affected the operation of the target application. This rarely happens with language replacement but needs to be considered if other transformations are applied. These issues can be remedied with configuration changes.

Presentation testing is to check that replacements and transformations present well and to the required quality in the user interface. Issues usually relate to language quality, size and parameterised replacements. These can be remedied by reverting to the translator, applying layout transformations and other configuration refinements.

Acceptance testing is for the customer to validate that LinguaSkin® meets requirements within acceptable performance parameters and without defect.



- **Deployment**

The WSM agents need to be deployed to the relevant cloud/web servers. This is typically a minor task as the agents have minimal external dependencies with all configuration managed from the LS-MC.

There will usually be the need to provide an external URL, redirect or subdomain that will route to the LinguaSkin® proxy. An SSL certificate will also need to be applied to the LinguaSkin® proxy site (LinguaSkin® then functions as a SSL bridge).

We offer a range of implementation services that are either provided as a fixed price implementation package or provided on a day rate basis. They include:

- **Project Management.** For an implementation project. The low scale, complexity and risk of a LinguaSkin® implementation usually means this is a lightweight activity.
- **Configuration.** The activity outlined above – to configure LinguaSkin® for a target application, including configuration of the matches.
- **Language pack build and integration.** The level of these services required will depend on the translation option selected by the customer.
- **Testing.** The functional and presentation (excl. language quality) testing outlined above. We would expect the customer to perform some level of acceptance testing, and we support this activity to the degree required.
- **Deployment.** As outlined above and specific to the requirements of each customer.
- **Training.** Both technical and user training according to customer requirements. Typically, users find the LS-MC straightforward to use and require little support beyond the user guide. Technical training is not necessary if we do the configuration.
- **Consultancy.** We are experts in the implementation, localisation and transformation of web applications to provide multilingual capabilities and can provide additional consultancy and analysis around a LinguaSkin® implementation or for any Cloud related applications or migrations.

This typically takes between 4 – 10 days of effort. This will vary depending upon the scope and complexity of the target application and customer requirements.

12 Service Off-Boarding

As no changes are made to the target application, discontinuing use of the service is straightforward.

There will be data held in the LS-MC that may be of value to a customer:

- Any translations or other replacements that have been configured.
- Usage logs, including language use and session logs.

We will perform an extract of these to a CSV file on request and provide them to a customer as part of the included support provision, i.e. at no additional charge.



13 Support

Once implemented, LinguaSkin® requires little maintenance, except for when:

- The underlying application is changed/upgraded.
- Configuration changes occur that affect the text in the user interface – e.g. new forms, changes to fields, rewording of text, etc.

We offer three support plans:

1) Basic. This is included in the core annual license and provides:

- Service desk to log requests via email.
- Software defect resolution.
- Software updates.
- Any additional configuration support is at our day rate.

2) Standard, includes the Basic plan plus:

- Standard working hours SLA.
- Email and minor support (up to 15 mins) – subject to reasonable usage.
- Ability to log product change requests.
- Half a day (4 hours) p.a. configuration support.

3) Premium, includes the Standard plan plus:

- Priority working hours SLA.
- SLA for minor (up to 15 mins) config changes.
- Proactive maintenance and monitoring.
- One day (8 hours) p.a. configuration support.

Alternately, the LinguaSkin® Management Centre (LS-MC) is available as an option to enable customers to maintain a configuration without our involvement.

Full details are provided in our standard service desk process document.

14 Interceptor Solutions Ltd

Based in Newport, Wales, Interceptor Solutions Ltd specialises in multilingual software solutions and consultancy.

LinguaSkin®, the flagship product creates multilingual and bilingual user interfaces for monolingual web applications.

The innovative real time internationalisation and localisation approach used by LinguaSkin® eliminates software change, significantly reducing implementation time and cost.

We have extensive experience of working with the UK public sector and with legislative compliance for bilingual (English/Welsh) solutions.

The LinguaSkin® product site is at www.linguaskin.com

For enquiries, please call 01633 439439 or email us at info@linguaskin.com