

** Submitted by: Just In Time Translations **

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** rick.kuzik@jit-tr.com **



NHS Shared Business Services Limited (NHS SBS)

NHS SBS intends to put in place a Framework Agreement for the provision of Interpretation & Translation Services for Healthcare to be used by NHS SBS Approved Organisations—divided into six lots:

- Lot 1: Face-to-Face (Spoken) Interpretation
- Lot 2: British Sign Language (BSL)
- Lot 3: Telephone Interpretation
- Lot 4: Document Translation and Ancillary Services
- Lot 5: Video Interpretation
- Lot 6: One Stop Shop (Fully Managed Services)

Assumption

 Establishing "a Framework Agreement for the provision of Interpretation & Translation Services" is different from
 Implementing "a Framework." Please review our Appendices for

a discussion of our services related to BOTH of these issues.

OUR SUBMISSION TO LOT #4 (with implications for other lots)

(https://sbs_nhs_uk.demo.jit-tr.com)

1. Introduction

Just In Time Translations (https://jit-tr.com), a proud Canadian corporation, presents our patent-pending **browser-based** translation solution that provides **COMPREHENSIVE CONTROL** (and simplification) of translation services for the foreseeable future in the UK healthcare sector.

WE HAVE COMPLETED TRANSLATIONS FOR YOUR WEBSITES - **in one of over 200** Al-translated languages tailored for healthcare use.

The scope of our services encompass all six Lots, from **Face-to-Face (Spoken) Interpretation** to **Document Translation and Ancillary Services**, ensuring that every translation need within NHS SBS Approved Organisations **is verifiable** with expertise.

This process is designed for efficiency, allowing NHS staff to access high-quality AI translation services rapidly, contributing directly to improved patient care and communication within the NHS framework.

It should require a maximum of three days for full implementation on your end, ensuring immediate support for NHS SBS Approved Organisations across all Lots.

Our patent pending application number is 63/583,618; our confirmation number is 4076; date mailed: 09/26/2023.

(https://sbs_nhs_uk.demo.jit-tr.com)

2. Impact of a Browser-based vs. a Server-based Translation Service

a. **Immediate Translations:** With Just-In-Time Translations, we offer **UP-TO-DATE TRANSLATION CHANGES** to your webpage—for each of our 200+ AI-translated languages. All translations are rendered in LESS THAN 1 second!

b. Single Version Control: There is one—and only one—version of your website residing securely on your server.

c. Secure Content Management: By removing words from HTML tags and saving only the translated text, we store results inside our digital equivalent of "a collection of jigsaw pieces stored in a box containing 1,000,000 jigsaw puzzles." This method efficiently manages translations:

i) ensuring they can be easily reassembled as needed,

ii) making it near impossible for an outsider to recreate any web page,iii) creating a single location environment for human editing and verification,

iv) creating a single location environment for translation verification,
 v) creating a single location environment for immediate onsite support
 —where questions, answers, and emails are created, viewed, and maintained, ensuring quality control in a language-independent manner,

vi) creating a single location environment for Q&As—where posts, searches, results, and emails are created, viewed, and maintained in a language-independent manner.

d. Guaranteed Security: Your translations are secure—and GUARANTEED—as long as the software resides within your existing data protection frameworks in compliance with UK regulations. You maintain control over what is translated: sensitive information will not be sent for translation or will be sent in pieces so as not to compromise security. Our software is available—with or without source—for purchase and with guaranteed support and upgrades.

e. Security Integrity through Proven Techniques:

Understanding security is crucial for multi-server utilization surrounding your sensitive data. Therefore, we adhere to the latest IT literature regarding storage techniques using a hashing code. We use FNV1a (Fowler–Noll–Vo hash function), an efficient way to ensure that words are accurately delivered (<u>Source</u> and <u>Source</u>). This approach makes it extremely difficult to find contextual words used across various websites or involving any individual.

(https://sbs_nhs_uk.demo.jit-tr.com)

3. Key Financial Metrics:

Our solution can be deployed on your website within just ***three days*** **by a dedicated team**—allowing NHS staff to swiftly benefit

from enhanced translation capabilities that support frontline care, ensuring a seamless integration with existing web pages to enhance patient experiences.

(https://sbs_nhs_uk.demo.jit-tr.com)

4. **Risk Management**:

This technology has been proven effective; there are no risks associated with its implementation! We offer full implementation along with complete source code, detailed documentation, and two years of on-site oversight of your operations, as well as ongoing staff training to ensure smooth operation and understanding of the system!

(https://sbs_nhs_uk.demo.jit-tr.com)

5. Conclusion:

In this submission, we covered how JIT-TR's browser translation solution addresses limitations inherent in server-based systems, redefining what's possible in modern technology for internet communication that embraces compliance with the UK's regulations!

For further information or detailed discussions about implementing our transformative solutions, please reach out!

By leveraging our patent-pending technology, we provide UK organizations with UNPRECEDENTED flexibility, responsiveness, security, AND VERIFICATION in their communication strategies ultimately enhancing patient engagement, healthcare trust, and performance across diverse linguistic populations!

********** Our Offering *********

We OFFER and can CURRENTLY:

- 1. translate Web Pages (both front pages and back-office pages)
- 2. translate PDF and MS Word documents
- 3. translate text within PNG, JPG, or GIF image files
- 4. translate text and spoken words within videos
- 5. translate Q&A website add-ons (that we own) where real-time requests are made in one language and responses are sent in another, supervised by another in yet another language
- 6. translate Knowledge-Based websites (that we own) where content is written in any language but searchable and viewable in any other language

We OFFER and can CURRENTLY:

- 1. provide a Video Server (https://sr.jit-tr.com)
- 2. provide a multi-user Knowledge-Based website (https:// forums.jit-tr.com)
- 3. provide a multi-user Real-Time Chat Web Page add-on
- 4. provide an integrated system that tracks the use of our translation system

We are WORKING on:

1. Voice-to-Text and (Text-to-Voice / ASL GIF) translation services

We OFFER and can CURRENTLY:

- 1. provide full implementation on our server OR YOURS
- 2. provide complete source code with detailed documentation
- 3. incorporate an office in London
- 4. provide two years of on-site integration of our product into your procedures
- 5. provide two years of detailed and on-site/on-going staff training

APPENDIX ONE Existing Translated Websites

We have successfully completed translations for several prominent organizations that do not offer a translated website:

- 1. Encyclopedia Britannica Education https://britannica.tr.jit-tr.com
- 2. CERN https://cern.tr.jit-tr.com
- 3. The Perimeter Institute https://perm.tr.jit-tr.com
- 4. The Royal Society https://royalsociety.tr.jit-tr.com
- 5. Academy of Medical Science https://acmedsci.tr.jit-tr.com
- 6. Canadian Cancer Society https://ca_cancer.tr.jit-tr.com
- 7. Alberta Cancer Foundation https://acf.tr.jit-tr.com
- 8. Alberta Children's Hospital <u>https://ach.tr.jit-tr.com</u>
- 9. Calgary Drop-in Centre https://di.tr.jit-tr.com
- 10. Calgary Inn from the Cold https://inn.tr.jit-tr.com
- 11. The Calgary Food Bank https://cfb.tr.jit-tr.com

And many governmental entities:

- 1. United Kingdom https://gov-uk.tr.jit-tr.com
- 2. Scotland https://gov-scot.tr.jit-tr.com
- 3. Wales <u>https://gov-wales.tr.jit-tr.com</u>
- 4. Canada <u>https://can.tr.jit-tr.com</u>
- 5. British Columbia https://bc.tr.jit-tr.com
- 6. Alberta https://ab.tr.jit-tr.com

- 7. Manitoba https://mb.tr.jit-tr.com
- 8. Ontario <u>https://on.tr.jit-tr.com</u>
- 9. Quebec https://qc.tr.jit-tr.com
- 10. Newfoundland and Labrador https://nl.tr.jit-tr.com
- 11. New Brunswick https://nb.tr.jit-tr.com
- 12. Nova Scotia https://ns.tr.jit-tr.com
- 13. Yukon https://yk.tr.jit-tr.com
- 14. Northwest Territories https://nt.tr.jit-tr.com
- 15. Nunavut https://nu.tr.jit-tr.com
- 16. Calgary https://calgary.tr.jit-tr.com
- 17. Edmonton https://edmonton.tr.jit-tr.com

APPENDIX TWO Technical Overview for Software Engineers

a) Technology Overview

Our patent-pending method opens up new possibilities by allowing an "Unrelated Server" (our software) to access a second "Unrelated Server" (we use modernmt.com located in Italy) to directly modify content displayed by a "Browser," under strict control of a Primary Server (you). This process adheres to W3C Rules without compromising security and data integrity!

b) How It Works

i) Deflection Instruction Code: A single line added to the HTML component designates our Unrelated Server to access your webpage (<script src="https://api.jit-tr.com/"></script>).

(ii) Content Access & Display: The Browser accesses content from the Primary Server (you), according to CORS regulations. That webpage is displayed on your client's "Browser." Immediately the "Browser" sends your instructions to an Unrelated Server (us), and the "Browser" is refreshed with the new translated information typically in under 1 second.

(iii) Augmentation Process: The Unrelated Server (us) adds our instructions to yet a Second Unrelated Server (modernmt.com), processes the content delivered, and sends further instructions to our code residing on the "Browser."

(iv) **Reconstitution & Presentation**: By replacing the text part of the original DOM, as presented by the Primary Server (you), we preserve your structure seamlessly for the users to view.

c.) Why It Works

Dynamic Content Replacement via DOM Manipulation: The "Browser"

parses the W3C-compliant HTML text received from the Primary Server (you) into a JavaScript DOM object that we can modify—by legitimately interacting with the functionality of the browser—with realtime updates, always maintaining page integrity!

APPENDIX THREE Patent Application Details

Our application to the US Patent Office disclosed our novel method of opening communication pathways between a website's Primary Server and a trusted Unrelated Server to modify displayed content dynamically, adhering strictly to W3C Rules:

For example:

- This method allows for displaying localized translation content stored on the Unrelated Server to be consistently displayed in the layout design established by the Primary Server!

- It also permits NEW content stored on the Unrelated Server to be displayed in the Browser according to the rules dictated by the Primary Server!

Definitions

W3C Rules: Protocols established by the World Wide Web Consortium governing communications between devices connected to the Internet.

Device: Any computing product that is capable of engaging in communications over the Internet—including servers and consumer goods marketed as internet-ready devices.

Browser: Graphical-user-interface software installed on devices that display structured content in a manner governed by W3C Rules.

Client: A person seeking information via a Browser residing inside a device!

Primary Server: An internet-locatable device that sends data to a Browser controlled by a Client.

Unrelated Server: A non-Primary Server that is generally unknown to the Client.

Server-based Translations: A predetermined process that engages with an Unrelated Server to produce translations of static copies of static webpages and an immediate process with the Client to render the requested language-specific copy of the original webpage.

Browser-based Translations: An immediate process with the Client to render the one-and-only copy of a webpage with instructions to the Browser to engage with a trusted Unrelated Server to provide a translated page to the Browser.

APPENDIX FOUR - Our Suppliers

ModernMT 1.0

Languages Supported

ModernMT 2.0

The Evolution of AI Translations

Digital Ocean

<u>About</u>

APPENDIX FIVE Putting in Place "a Framework Agreement" - A Proposal

Our browser-based translation solution offers transformative benefits that align perfectly with your goals for establishing a Framework Agreement for Interpretation & Translation Services. Here's how your organization can leverage our technology:

1. Centralized Translation Management: Your organization can manage all translation activities from a single, centralized platform. This allows you to efficiently oversee and control translations for various documents, web pages, and communications across the entire NHS framework.

2. Secure and Efficient Content Handling: By utilizing our method of storing translations as discrete "jigsaw pieces," stored in a database of 100,000 jigsaw puzzles, you ensure that sensitive information is securely managed. This approach minimizes the risk of data breaches while allowing easy updates and modifications to translated content without compromising security.

3. Rapid Deployment and Proof of Concept: Within just three days, we will prove the concept by integrating our solution into your existing systems. This rapid deployment means staff can start using enhanced translation services almost immediately, providing you with an early view of what the final product could look like—right from the beginning.

By utilizing our "testing code" option, translated versions of your web site can only be viewed by those in an approved url list

4. Quality Assurance through Verification Processes:

Leverage our single location environment for human editing and verification, utilizing the tools we have already created to maintain high-quality standards in translations. This ensures that all patientfacing materials are accurate and culturally appropriate, enhancing patient trust and satisfaction.

5. Enhanced Communication Tools : Imagine the ability to communicate your thoughts instantly in your own language while

allowing anyone in any other language to search articles and retrieve information—in their language. Our integrated Q&A systems enable supervision and control by anyone in any language, facilitating seamless communication across diverse linguistic backgrounds within your organization.

6. Comprehensive Support Package: We offer full source code access, complete documentation, ongoing training - and - to ensure seamless integration into your operations - we are prepared to register an active office in the United Kingdom to be part of your implementation team.

7. Extensive Experience by a Dedicated Team: With 57 years of IT experience from our principal applications programmer and 38 years from our systems programmer backing us, we bring exceptional expertise tailored specifically for healthcare needs.

By adopting our technology, your organization can streamline translation processes, improve security measures around sensitive information, enhance patient interactions through better communication tools, and ultimately deliver more effective healthcare services across diverse linguistic communities.

We believe that by leveraging our patent-pending technology, we provide you with unprecedented flexibility, responsiveness, security, and verification in your communication strategies—ultimately enhancing patient engagement, healthcare trust, and performance across diverse linguistic populations within the NHS framework.

APPENDIX SIX Putting in Place "a Framework Agreement" - A Side-by-Side Comparison

Our Browser-Based Solution

1. Rapid Deployment: Implemented within three days, providing immediate benefits and an early view of the final product.

2. Security and Flexibility: Translations stored as discrete "jigsaw pieces" in a database of 100,000 jigsaw puzzles enhance security, translation consistancy, and allows flexibility for updates without compromising data integrity.

3. Cost-Effective: Eliminates the need for extensive hardware investments and ongoing maintenance costs associated with inon-ventralized servers.

4. Scalability: Easily scales to meet increasing demands without the need for physical infrastructure upgrades.

Server-Based System

1. Complexity and Maintenance Overhead: Requires significant infrastructure investment and ongoing maintenance, diverting resources from patient care.

2. Scalability Challenges: Scaling involves costly hardware upgrades or purchases, leading to delays in service expansion.

3. Security Vulnerabilities: Centralized servers are attractive targets for cyberattacks, posing risks to sensitive patient data if not meticulously managed.

4. Limited Flexibility: Rigid structure makes it difficult to adapt quickly to changing requirements or integrate seamlessly with other systems.

5. Single Point of Failure Risk: Any one server mis-alignment could disrupt translation services across the organization until resolved.

6. Slower Deployment Times: Longer lead times required for implementing changes or deploying new features due to testing and configuration processes.

7. Inefficient Resource Utilization: Resources must be allocated to each service compnent - even during low-demand periods - leading to inefficiencies without performance benefits during peak times.

APPENDIX SEVEN Approximate Cost Estimates

Caveat: We are a Canadian Supplier offering its services to a potential United Kingdom client. We only have a base knowledge of the culture and implementation requirements that you might need.

This Cost Estimate is offered as a BASIS for a final agreement that more completely meets your needs.

Any out-of-pocket additional costs (including, but not limited to, legal fees, direct person-to-person meetings, and cash-flow management) are outside the scope of the discussion presented here and must be considered as an extra cost borne by the NHS.

Our Browser-Based Solution EVERYONE interacts IN THEIR OWN LANGUAGE with the one-and-only copy of content.

We are a content delivery supplier for the web; amongst our offerings, we deliver translations.

We have in place a procedure to store received translations by "supplier", for example:

- Al translations from Modern MT for Web Page A, B, C ...
- Al translations from Google Translate for Web Page A, B, C ...
- manually created translations from Person A for Web Page A, B, C ...
- manually edited AI translations from Person B for Web Page A, B, C ...
- Al translations from <u>venue</u> A, B, C ...

We have in place a procedure to receive stored translations in a single location - very quickly.

This gives you the ability to store and retrieve translations from any "supplier" and validate translations amongst them:

- by allowing you to interact with any current or future AI model to automate the validation of any translations created, and
- to create decision trees on deliverables, as defined by the liability that you have in guaranteeing accuracy.

We are a content delivery supplier for the web; amongst our offerings, we deliver translations

For the <u>software component</u>,our charges are as follows:

- £ 10,000 per month month-by-month fee ... on our server. Maintenance and new versions are included.
 This gives you the ability:
 - 1. to organize all content in one location and control content validation with a minimum amount of manpower.
- £ 250,000 one-time-fee for you to download and install our <u>compiled</u> software on your server. Maintenance and new versions are £5,000 per year.

In addition to the above, this gives you the ability:

- 1. to protect all content of your one-and-only-one original content as well as all translations
- 2. to translate ANY W3C compliant content from any other source (your clients) that can access your servers

£ 2,500,000 one-time-fee for you to download and install our <u>source</u> software on your server.
 Maintenance and new versions are £50,000 per year.
 In addition to the above, this gives you the ability:

1. to <u>customize</u> translations for ANY W3C compliant content from any other source (your clients) that can access your servers.

If you cannot install our software on your existing server configuration:

- For the <u>delivery component</u>,our charges are based on the size of our CDN computers needed to deliver pages as follows:
 - for 100,000 page views per month, our delivery charges are £ 5,000 per month with linear incremental charges
- For the <u>security component</u>,our charges are based on the level of security required by you to be compliant with your laws
 - our security charges are approximately equal to our delivery charges

We are a content delivery supplier for the web; amongst our offerings, we deliver translations.

We use modernmt.com as our supplier; their publicly viewed rates are:

- Al translations (95% accuracy) to-and-from their list of 200 languages is US\$15 per one million characters
- AI + human translations (99% accuracy) to-and-from their list of 200 languages starting at US\$15 per one million characters

Potential implications to all Lots if you utilize our content delivery system

Our current offering is for text translations; we are poised to offer speech-to-text-to-translation-to-text-tospeech services

Overall

- with our software organizing a secure central location for content storage

- with AI doing all of the "heavy lifting" in providing 95% accurate translations AND in creating translationcomparison reporting and in providing an avenue into efficiencies

- with your ability to replicate our services to your clients

• This can be run with a small manageable staff

 $\circ\,$ This can be a profit centre for the NHS

Lot One Face to Face (Spoken Language) ... with implications to Lots 2 and 3

- as much as this is a human job, it may be a requirement to have an "open microphone" during the venue:

to produce a record of the questions and answers
to produce an Ai generated verification procedure (displayed on a computer screen or cell phone) that reflects the accuracy of the translation of the message
to produce a n Ai generated answer based on fact-checking within the centrally located storage of data
to produce data to analyse the need or exactly the correct translator for each venue

Lot 5 - Video Interpretation

this is already the state-of-the-art in Ai translations content can be readily store by any "supplier" - and used in the same manner as described above

APPENDIX EIGHT Transitioning to a true multlingual experience in the digital world

EVERYONE interacts IN THEIR OWN LANGUAGE with the one-and-only copy of content.

Our Browser-Based Solution "AUTO-MAGICALLY" - First Class Service Everyone in their own language - each agent / each supervisor / each customer in REAL TIME with NO extra (second-class) buttons to click

We are a content delivery supplier for the web; amongst our offerings, we deliver translations.

Our goal is that EVERYONE believes that YOUR web site is written "for them" - with all the nuances that their language and culture would require,

- 1. we offer web site translations
- 2. we offer chat bot translations
- 3. we offer bulletin-board translations
- 4. we interface with companies that offer text translations within images
- 5. we interface with companies that offer voice translations within videos
- 6. We have our own video server, available on a per-video basis or for outright sale.

<u>https://jit-tr.com</u> <u>https://onelinetomarket.com</u> <u>https://4ums4us.com</u>

Our ability to deliver

Notwithstanding your ability to view the front pages of your existing - live - NHS web site - already translated in 1/200 languages - at <u>https://sbs_nhs_uk.demo.jit-tr.com/</u>,

we offer our work experience at: <u>https://training.kuzik.com/training/resumes/</u> <u>resume_kuzik.php</u>