MACHINE READABLE TRAVEL DOCUMENTS TECHNICAL REPORT

Digital Travel Authorizations

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FOR THE INTERNATIONAL CIVIL AVIATION ORGANIZATION

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1. SCOPE

Part 7 of Doc 9303 defines the specifications for physical machine readable visas (MRV) which allow compatibility and global interchange using both visual (eye readable) and machine readable means. The specifications lay down standards for physical visas which can, where issued by a State and accepted by a receiving State or Organization, be used for travel purposes. The physical MRV shall, as a minimum, contain the data as specified in a form that is legible both visually and by optical character recognition methods, as presented in Part 7. Part 7 contains specifications for both physical Format-A and physical Format-B types of visas.

This Technical Report, as a potential companion to 9303 Part 7, contains specifications and guidance for non-physical Digital Travel Authorizations (DTAs), including those that have evolved since the most recent issuance of specifications for machine readable visas. The DTA is intended for use by all 193 ICAO member states, irrespective if they have or do not have visa waiver relationships and/or interactive Advance Passenger Information.(iAPI). That is, states are not required to have iAPI in order to have a DTA. The DTA can certainly serve countries with iAPI, but additionally the DTA will also provide an automated electronic means for ALL states to issue such non-physical travel authorizations. Therefore, this TR contains for all states, guidelines/frameworks for the issuance process of a DTA. The six elemental steps associated with a non-physical travel authorization (DTA) are: Application, Fees, Materials Submission, Biometrics (if used), Notification/Authorization and Verification. This TR is intended to provide uniformity and global standardization f the formats and content for DTA information and data element definitions to insure that the most important quality, which is interoperability, is available to travellers, issuers, border authorities, airport operators, and airlines.

2.   DTA PROGRAMS

2.1   Background

The use of travel authorizations that partially or wholly rely on non-physical concepts has increased broadly. This has occurred without the benefit of standardization, commonality, or even shared definitions of what constitutes a non-physical travel authorization. Among the many missing aspects of consistency, nomenclature became increasingly confusing during this period and the recognition arose that "eVisa" and other terms needed to be redefined, standardized, and must be replaced for purposes of interoperability and standardization.

Building on the experiences with visas and the creative deployments of other-than-physical travel authorizations, it has become clear that electronic records for the purposes of immigration are not limited to traditional visa processing and, as such, new terminology is required, which resulted in this set of specifications.

2.2   Definition of non-physical Travel Authorization

Over the past few years, many governments have turned to online, technological assistance in the visa process including accepting visa applications and issuing a notification in response that serves as the authority to travel. This has resulted in the term "eVisa" having a multitude of often unrelated interpretations and little or no interoperable foundation. For example, in exploring and testing the use of the contactless IC approach to visa storage of data, it was determined that significant anomalies were created with multiple ISO 14443 compliant chips in a passport. Document 9303 was supplemented to reflect that ICAO did not recommend or support the use of IC chips in visas. Nevertheless, one of the many persistent improper uses of the term "eVisa" continued to be applied to such a form factor. As States began to deploy technologically enabled authorizations to travel, a number of differing approaches began to proliferate. The number and widely varying nature of such programs have resulted in the need for a term that has standardized meaning, consistent data content, and universal definition of terms. For this reason, Part 7, Doc. 9303 will as a matter of formal travel document nomenclature, not recognize the term "eVisa", because of the numerous versions, sometimes mutually exclusive.

More recently, Governmental operational procedures for issuing these non-physical travel authorizations, and equally important, for border management and airline operation, requires a meaningful and comprehensive broader term to capture the scope of issuer, inspection and airline activities involved. With the publication of these standards, we now have the definition and substantive content to capture the means for this interoperability: DTA. This term shall now serve to encompass all of the steps of the travel authorization process from application, providing supporting materials, on through to notification of action taken on the application. In recognition of the sovereign rights of states in determining how their borders are governed and protected, it is up to the issuing state to determine which and how each of these steps will be digitized.

Doc 9303-1 defines a DTA as "An electronic visa, issued and maintained within the issuing state". This Technical Report now defines the DTA as follows: "DTA is an electronically enabled travel authorization".

2.3   Purpose

The purpose for implementing a DTA program is to take advantage of automation for the steps associated with the travel authorization processes, including the continuum from application through airline verification to border inspection or acceptance. Automating these steps, especially the application submission, expedites the pre-vetting and eligibility decisions as to allow an applicant to travel to a country. This reduces the burden on both the issuing authority as well as the applicant, using an online approach for submission, while providing an efficient method for applicants, governments, and airlines to verify the acceptance for travel.

The use of online submission of applications, as well as supporting documentation if the issuing authority so chooses, provides an opportunity to evaluate the bona fides of the applicant and timely notification of the decision to the applicant. Some Governments are using online mechanisms to pre-vet foreign nationals prior to their commencement of travel and providing the passenger with a non-physical travel authorization, DTA, making personal appearance for interviews as well as physical pick-up of the visa document unnecessary. This can be done as part of a lighter touch visa-waiver program to maintain visa free travel for a selected segment of the traveling public. Similarly, a formal notification to the applicant on approval of a DTA can be presented to border and airline authorities if/when needed. (Some states have found as a recommended practice, when practicable under local and national law, that an applicant can have a one-time application that provides multiple entry authorization for a specified time period).

2.4   Benefits

The benefits of DTA Programs include:

Applicants are able to complete the application form(s) at their own pace and transmit them to the adjudicating authority electronically without the need to travel to a consulate. The proper instructions and guidance will be available online to smooth the provision of the needed information. This saves both time and money for the applicant. Finally, with comprehensive guidelines provided from the issuer, and the time to effectively devote to the collection of documenting materials, applications will be more usable on receipt, reducing the need for repeat requests for benefit of both applicant and Government. While these benefits are considerable, the manual approach that can include an in-person visit(s) to a consulate or embassy to effect the application process can remain available to the applicant if the issuing authority chooses.

There are substantial benefits that accrue to *Governments*, especially issuing authorities, border management and law enforcement globally. In general, the benefits taken as a whole will substantially increase the overall integrity of the travel authorization process for all those responsible for the activities There are cost savings of several types by moving from a physical to a digital visa: unnecessary staff work years will be reduced in reviewing, returning erroneous applications, storing and maintaining paper records of physical applications; facility and space reductions as well as maintenance; unneeded expense for producing the physical evidence of a visa, usually a sticker; no longer a need to store the valuable and highly secure visa blanks; and, of sizable meaning, enhanced tourism to the receiving state due to streamlined travel authorization processes. Another important benefit is the reduced risk of stolen blank and unauthorized issued visas. A digital travel authorization also provides an opportunity for governments to introduce a lighter-touch application to screen visa-exempt populations before they travel to the border. Finally, border control authorities will have the issuance verification, containing security measures, as outlined later in these standards.

For aircraft operators, the DTA provides harmonization of the display for more efficient visual verification and the means for increased automated reading and processing if the DTA information comes in the form of a machine readable and machine verifiable 2D barcode, such as the Visible Digital Seal as specified by ICAO.. This offers some possibilities for streamlining the check-in procedures as well as enhancing assurance that each passenger is in possession of accurate and valid travel authorizations and will be accepted in the transit/destination country. the trust that the aircraft operators can have regarding the veracity of the traveller, minimizing the likelihood of uplifting improperly documented passengers allowing for trust and confidence in the legitimacy of the traveller's authorization to travel before issuing a boarding pass. When the standards of this Part 7 are followed, aircraft operators have a continuing, consistent and reliable record regarding the traveller and the traveller's journey. The use of standardized DTAs will save the operators human resources in terms of the tensions, diminished efficiency and frustrations caused by ambiguous and erroneous travel authorizations.

2.5 Program description

The DTA Program is not a singularly defined entity, but a full and complete process comprised of six distinct steps. (The DTA steps are Application, Materials Submission, Biometrics (if used), Fees, Notification/Authorization and Verification. The steps and functions associated with traditional visa adjudication can be mapped to the concept of DTAs with close, but not total, parallels. The primary differences revolve around the incorporation of a photo or not and/or biometrics, both of which are among the optional features that a State can choose. The steps as discussed here are generic in nature for illustrative purposes; inclusion or exclusion as well as modifications of steps are at the sovereign discretionary choice of the issuing authority.

2.5.1 Application

The *first of these steps*, the *Application* for a DTA, is usually performed via the internet and approval is normally communicated to the applicant via electronic means. For globally appropriate definition purposes, the key differences in physical authorization practices lie in 1) the standardization of information content and format of the authorization itself, and 2) in this scenario the State validates the existence of the travel authorization as linked to the passenger's passport. Taken as a whole, the DTA process provides Governments, travelers and airlines with a standardized DTA pre-travel verification and vetting system resulting in enhanced interoperability and efficiency.

The nature and content of the travel authorization *application* process are determined by the issuing authority as the issuing authority determines to meet its own specific needs. The application process and the online form(s) to accomplish this will need to request, as a recommended, minimum the following information that the applicant provides:

- Name as defined in Doc 9303 and printed on the passport
- Date of birth
- Sex
- Nationality
- Passport number and 3 letter code of the Passport issuing state or organization.
- Passport date and place of issue
- Passport expiry date
- Contact details while traveling (telephone, email and address in State of destination)
- Residence address
- DTA type sought (e.g Business, Tourist etc.)
- Length of stay
- Primary destination/point of entry
- Purpose of the travel
- Previous application(s) and date(s)
- A declaration statement attesting to the truth and honesty of all information provided
- Any additional information as needed by the issuing authority.

(See Appendix A for a notional application example that you may adapt to your needs.)

2.5.2 Supporting materials

The DTA program provides a very convenient technological tool in the **second step** of the process, **Submission of Materials.** The ability to submit supporting materials in digital form is a major enhancement for the applicant and is also of great value to issuers in storing and managing the material.

Application process best practices include:

- The information required in the online application should be kept to the minimum in accordance with national laws and regulations of that country;
- The online application form requirements should be easily understood by the applicant and available in multiple languages;
- The application interface should include tools built into the application to assist individuals to avoid errors when completing the application form. Additionally, to enhance data quality, the application interface should enable the electronic capture of the passport data page for automatically populating the fields in the application. In case of ePassports, data from the chip should be used.
- Full disclosure from 3rd parties who are completing the application on behalf of the applicant. The 3rd party vendor should confirm they have advised the passenger of the extra charges for their services and confirmed they have reviewed all questions with the applicant.
- The online application should have clear instructions as to the applicability of who is required to apply for a DTA and not allow application processing for non-eligible passengers..

2.5.3 Biometrics

The third step of the DTA process, **Biometric Collection and Use,** are dependent on the national policies of the issuing State and can depend on traditional practices as employed by the issuing authority for physical travel authorizations. The collection of fingerprint and iris are not at the time of this writing readily and securely available from a technology standpoint in an online digital approach. Some states may have access to these biometrics through other methods such as databases, and given adequate third-and-additional party agreements, could use them accordingly.

- For the DTA, there is no requirement that a photo be requested or used if the issuing state chooses to not do so. However, the use of the photo is highly recommended.

- A Photo, however, can be requested and provided through the digital online method if the issuing authority chooses to do so. If chosen to do so. A State can use the photo specifications for physical travel authorizations (see Doc 9303-7.), as guidance but not as mandatory.
- For security, Visible Digital Seal as a verification feature, MUST be affixed to the notification.as shown in the format below. This feature is mandatory.

The **fourth step** inherent in the DTA is the **Payment and Collection of Fees.** This brings together in automated form the financial accounting as well as the internal controls needed to insure financial integrity of fee collections. The typical approach is the use of credit cards and similar vehicles. (Additional discussion of fee policies follows later.)

2.5.4 Notification

The *fifth step*, **Notification of Authorization Decision,** is an extremely important step in that this is the feedback to the applicant regarding decision on the application. As well, it is this notification that can be provided to the airline operator at check-in or, if needed, to inspection or other authorities as proof that the authorization is valid. Therefore, the notification is to be retained (downloaded and printed) by the traveler and carried by the traveler throughout their journey in order to provide evidence of validity to airline, border and other officials in the travel continuum which is the **sixth step**, **Verification**, in the comprehensive process of DTA. In addition to printing it out, the Notification document can be downloaded to another device such as a smartphone or other

smart device. When downloaded and printed out by the traveler, the Notification document from the issuer then serves as the validation/verification of the legitimacy of the Authorization. The notification format (shown below and Appendix B) is to be used as defined in order to provide interoperability and continuity that all authorities can rely on and trust. The notification must include, at a minimum, the following (see Appendix B for specific format to be used):

{NATIONAL SYMBOL}
TO: APPLICANT
DTA NOTIFICATION OF RESULT

Authorization Decision	The decision on the travel authorization request as assigned by the issuing authority OR refusal advisory regarding the decision
Name	First and Surname
Passport Number	The number of the passport with which the travel authorization is linked
Passport Date of Expiry	The expiry date of the passport with which the travel authorization is linked
DTA Number	The number given to the authorization by the issuing State.
Document	The word or words in the language of the issuing State for the Digital Travel Authorization document which confers on the holder that State's authority to travel to a port of entry in its territory. Generally, for DTA documentation, the Notification (discussed below) is such a document.
Place of issue	Post/location (usually a city) where the DTA is issued. A translation of the name into one or more languages, one of which should be English, French or Spanish, shall be given when the translated name is more familiar to the international community.
Valid from (date)	In most cases this will be the date of issue of the DTA and indicates the first date from which the authorization can be used to seek entry. For some States the date of issue and the date the DTA becomes valid may differ. In such cases the latter shall be indicated in this field.
Valid until (date)	In most cases this will be the date of expiry of the authorization and indicates the last day on which the DTA can be used to seek entry. For some States this will be the date by or on which the holder should have left the country concerned. For date format, refer to 9303-3
Duration of Stay	The number of days, months or years during which the DTA holder may stay in the territory for which the DTA is valid.
Number of entries	The number of entries for which the authorization is valid.
Type/class/category	This field shall include one or more of the following elements: • the issuing State's indication of the type and/or class of DTA granted in accordance with the law/practice of that State; • the broad categorization of the type of DTA granted, e.g. visitor/resident/ temporary resident/student/diplomat, etc., in accordance with the law/practice of the issuing State; • any limitations on the territorial validity of the travel authorization.
Additional information	This field may include necessary endorsements as to entitlements which attach to the DTA. The issuing State may also use this field to include a) the maximum authorized duration of stay; b) conditions related to the granting of the authorization c) date of issue if different from "Valid from" date; and d) record of any fees paid.
Verification feature	Mandatorily affix a digitally signed barcode (either as a VDS or a VDS-NC) in accordance with Doc 9303 and, if desired, a photo. Barcode is mandatory, photo is highly recommended.

Note:

i)	*The above items parallel those spelled out for physical authorizations*
ii)	*The VDS MUST follow the profile defined in Doc9303-13. It is to be noted that the VDS contains the MRZ as printed on an MRV sticker and a similar MRZ needs to be constructed from the entered data before creating the VDS.*
iii)	*If a VDS-NC is used, it MUST follow the specifications of [VDS-NC] with restrictions specified in section 4.*

2.6   Examples of Suggested DTA best practices

These DTA processes should be integrated with other government systems to facilitate the traveller as well as assist inspection and examination in the automated vetting of passengers against watch lists at the time of application.

Government entities associated with issuing documents and those responsible for border inspection are strongly encouraged to work closely together in both the planning as well as deployment stages of DTA programs. Additionally, consultations with the air transport industry will assist to effect an efficient deployment of an end-to-end solution. It is important for both perspectives to be shared in launching a new initiative that will call upon all for success.

To prevent stranding passengers in a third country, the aircraft operator providing transportation into the country requiring an authority to travel should seek to extend the uplift verification check to the point of origin rather than the last leg before entry to the destination country. This will depend on other aircraft operators' interline thru check-in capabilities and the relationship between the aircraft operators.

The State should establish a single official electronic platform where an online application for authority to travel can be created when necessary for that nationality. A country should make clear that its platform is the SOLE means for applying online in order to reduce and hopefully eliminate the number of unofficial third-party vendors that may charge a fee for the purpose of filing an individual's application.

The DTA will entail new requirements and procedures for many involved from traveller to airline to border inspector. It is important the State Government institute education and training programs to inform the public as well as officials of the new systems and the ways in which they will impact every-day travel.

To ensure the successful launch of DTA and minimize the potential negative impact to passengers and airlines, States need to have a comprehensive communication strategy in multiple languages to build public awareness of the program. This is particularly key when implementing a travel authorization program for visa-exempt foreign nationals who could previously enter the country with only a passport and did not need to seek approval for entrance prior to starting their journey.

As passengers book and start their travels from all regions of the world, the governments must have a suitable communication strategy to ensure their communications are reaching intended travellers in many countries. While it is primarily a Government function to make known and clear its traveller entry requirements, airlines share in this communication function, but alone cannot be responsible to communicate changes to entrance requirements. Similarly, Governments must ensure sufficient time to implement those requirements and include a period of time after implementation where passengers are allowed entrance into the country, but informed of the new requirements. (e.g. handing out a tear sheet with new requirements). This will help ensure passengers are not unnecessarily stranded at airports or enroute due to their not having been made aware of the travel authorization requirements to enter a country.

Governments should use bilateral and multilateral agreements with other governments and organizations, including airline associations, to communicate the planned implementation of digitally assisted travel authorization program. Governments should design communication strategies that incorporate all sectors of the travel industry, including travel agencies, airlines, and travel and tourism associations. Governments should use multi-faceted media such as print ads, community associations, trade shows, inflight magazines and social media to notify the traveling public of the requirements. The messages should be tailored to local market audiences. Aircraft Operators should inform their passengers of travel authorization requirements at time of booking.

Governments should consider setting up a support network to field inquiries from travellers who need assistance with completing the online application, e.g. call center, web, Frequently Asked Questions (FAQ), email help desk. As well, countries using DTA processes should consider back-up procedures in the event of a system outage, such as the introduction of a 24/7 support line and an entry operations center that provides assistance to travellers and airlines in cases of boarding issues.

Note: the above best practices are offered as examples and are not intended to serve as a full list. Best practices will be identified and communicated as experience affords.

2.7   Data Elements

Over the past years, the various countries in issuing travel authorizations have developed a well defined vocabulary of data elements. More recently, WCO, IATA and ICAO have worked carefully together to develop comprehensive, standardized and interoperable Guidelines on Advanced Passenger Information (API). These guidelines where API has been adopted, should be sought separately for definitions. The data elements listed here are intended to be used by issuing authorities, border management authorities and airlines. The data elements associated with each of the steps of the DTA program are outlined in the discussions of each of those individual steps, e.g., application and notification. This section is provided to allow a single source of reference for all possible travel and DTA data terms. Although the data elements associated with DTA application and notification are clearly delineated in their respective sections earlier, this section is provided in order to have a comprehensive glossary of data elements that may be needed/used in DTA programs.

These data include;

2.7.1 **Information required about/from the traveller**

Countries that have implemented a DTA have found that it is very important that all passports follow the ICAO Doc 9303 requirements so that applicants can efficiently enter their travel document information when applying for an authority to travel.

Core Data Elements as may be found in the Machine Readable Zone (MRZ) of the Travel Document:

- *Passport Number* - Passport or other official travel document number
- *Issuing State or Organization of the Passport - Name of the State or Organization responsible for the issuance of the official travel document*
- *Expiration Date of Official Travel Document - Expiration date of the official travel document*
- *Surname/Given Name(s) - Family name and given name(s) of the holder as it appears on the official travel document*
- *Nationality - Nationality of the holder*
- *Date of Birth - Date of birth of the holder*
- *Sex - Sex of the holder*

2.7.2 Information provided by the issuer

- *DTA Number*
- *Document*
- *Place of issue*
- *Valid from (date)*
- *Valid until (date)*
- *Number of entries*
- *Type/class/category*

2.8 Fee and Cost strategy

Fee policies of the issuing authority can vary in accord with consular agreements and laws. That is, as an example, whether there is a fee for application separate from the issuance decision. It is critical that fee information and the methods for paying such fees need to be fully explained. Some States have determined that the cost of evaluating and assessing an applicant's credentials for entitlement are a major share of the costs incurred for a travel authorization and thereby charge an application fee whether the authorization is ultimately approved or not. This must be made clear to the applicant. If the fee policy is that it is paid at the final completion of the full evaluation process, this fee generation step can as well be digitally completed at the conclusion of the entitlement assessment, again at the discretion of the issuing authority and any relevant consular reciprocity implications

Governments need to be sensitive to the combined cost of all fees and taxes when implementing a DTA program. As a best practice, if there is a cost associated with the implementation of DTA, as determined by the issuing authority and controlled by extant consular agreements, fees charged should essentially be for cost recovery and not serve solely as a source of revenue for other government programs. States are very strongly recommended to vet carefully the bona fides of an applicant in considering eligibility for a travel authorization and should consider assessment eligibility not fee generation as the priority consideration in travel authorization vetting.

2.9 DTA Program Deployment

A number of states have implemented technologically assisted travel authorization programs, DTAs, using differing approaches and concepts. While these programs share the same end result, the electronic issuance of the travel authorization, how that is done varies substantially from one country to the next. For example, several issuers have chosen to retain all of the steps from application through to personal appearance of the applicant for pickup. This approach allows for the benefits of online efficiencies of electronic submission of materials and the choice of personal interview or not, but still utilizes government staff resources to carry out the processes. Other countries have chosen to out-source the entire authorization procedure, usually splitting the fee for the travel authorization between the state and the service provider. The issuing authority must use caution in delegating the actual substantive determination of issuance or refusal since this is generally considered a government function. With very tight and clear evaluation criteria and close coordination between issuer and vendor, this approach can be viable from an efficacy perspective. Yet others have used hybrid approaches to deployment, performing some steps in-house and contracting for others. In this way the issuer retains control over those activities that it wants to reserve a government-only, while affording the efficiencies of technology as well as third party contractor resources.

In considering the ways in which DTAs can be automated, it is clear that one size does not fit all. Much depends on the legal and policy foundation of the issuing authority and the possibility of creating a vendor-use concept. As well, the resource availability of the authority may assist or inhibit the choices, for example, the country's tolerance/desire for labor intensity. Above all, it is the needs and circumstances that will dictate DTA determinations.

3. VDS-NC SPECIFICATIONS FOR DTA

Apart from the barcode being in VDS format, the barcode can also be in the format defined in VDS-NC TR. This section specifies a profile of [VDS-NC] for DTA.

The Version Number in the header for this profile is 1 (One). The Type(t) in the header is "icao.dta".

3.1 CSCA Profile

The CSCA used to issue the barcode signers MUST be the same CSCA that is used to issue eMRTDS.

3.2 DTA Signer Certificate Profile

The documentType value for this use-case is ND.

3.3 Schema Definition

English MUST be used for all data elements. The contents of the Message Zone for DTA MUST be as follows:

Object: Message {

Element	Content	Limitation
DTA Number(dtan)	The number given to the authorization by the issuing State.	13

Object: PersonInformation(pi) {

Element	Content	Limitation
Name(n)	Name of the holder	39
Passport Number(pn)	The number of the passport with which the travel authorization is linked	11
Date of Birth(dob)	Date of birth of holder. ISO8601 YYYY-MM-DD	10
Nationality(nl)	The nationality of the holder	3
Sex(sex)	Sex of the holder	1

}

Object:DigitalTravelAuthorization(dta) {

Element	Content	Limitation
Place of issue (poi)	Post/location (usually a city) where the DTA is issued	15
Valid from(vf)	The date of issue of the DTA which indicates the first date from which the authorization can be used to seek entry. The	10

	ISO8601 full date format YYYY-MM-DD MUST be used.	
Valid Until(vu)	The date of expiry of the authorization which indicates the last day on which the DTA can be used to seek entry. The ISO8601 full date format YYYY-MM-DD MUST be used.	10
Duration of Stay(dos)	The number of days, months or years during which the DTA holder may stay in the territory for which the DTA is valid. YYMMDD	6
Number of Entries (noe)	The number of allowed entries. - M denotes Multiple Entries 1 – Single entry 2 – 2 entries …	1
Type-class-category(tcc)	This field shall include one or more of the following elements: - the issuing State's indication of the type and/or class of DTA granted in accordance with the law/practice of that State; - the broad categorization of the type of DTA granted, e.g. visitor/resident/ temporary resident/student/diplomat, etc., in accordance with the law/practice of the issuing State; - any limitations on the territorial validity of the travel authorization.	46
Additional Information(ai)	This field may include necessary endorsements as to entitlements which attach to the DTA.	100
}		
}		

The JSON schema, in accordance with [JSON-SCHEMA], for the message zone for DTA is as follows:

```
{
    "$id": "http://namespaces.icao.int/VDS-NC_message_DTA.json",
    "title": "Message Zone DTA",
    "type": "object",
    "description": "DTA Message Schema",
```

```
"type": "object",
"properties": {
    "dtan": {
        "type": "string"
    },
    "pi": {
        "type": "object",
        "properties": {
            "n": {
                "type": "string",
                "description": "The name of holder"
            },
            "pn": {
                "type": "string",
                "description": "The number of the passport
        with which the travel authorization is
linked"
            },
            "dob": {
                "type": "string",
                "description": "Date of birth of
        holder.ISO8601 YYYY-MM-DD"
            },
            "nl": {
                "type": "string",
                "description": "The nationality of the
        holder."
            },
            "sex": {
                "type": "string",
                "description": "Sex of the holder."
            }

        },
        "required": ["n", "pn", "dob"],
        "additionalProperties": false
    },
    "dta": {
        "type": "object",
        "properties": {
            "poi": {
                "type": "string",
                "description": "Post/location (usually a
        city) where the DTA is issued."
            },
            "vf": {
                "type": "string",
                "description": "The date of issue of the DTA
        which indicates the first date from which the
authorization can be used to seek entry."
            },
            "vu": {
                "type": "string",
                "description": "The date of expiry of the
        authorization which indicates the last day on
which the DTA can be used to seek entry."
            },
```

```
                    "dos": {
                            "type": "string",
                            "description": "The number of days, months or
                    years during which the DTA holder may stay
            in the territory. YYDDMM"
                    },
                    "noe": {
                            "type": "string",
                            "description": "The number of allowed entries
                    to the territory."
                    },
                    "tcc": {
                            "type": "string",
                            "description": "The issuing State's
                    indication of the type and/or class of DTA
            granted in accordance with the law/practice
        of that State; The broad categorization of
    the type of DTA granted, e.g.
    visitor/resident/ temporary
    resident/student/diplomat, etc., in
    accordance with the law/practice of the
    issuing State; any limitations on the
    territorial validity of the travel
    authorization."
                    },
                    "ai": {
                            "type": "string",
                            "description": "Any necessary endorsements as
                    to entitlements which attach to the DTA. "
                    }
            },
            "required": ["poi","vf","vu","noe","tcc"],
            "additionalProperties": false
        }
    },
    "required": ["dtan","pi","dta"],
    "additionalProperties": false
}
```

3.4   Choice of Barcode

The choice of whether to use a VDS or VDS-NC is left to the discretion of the Issuing state. They may also choose to issue both a VDS and a VDS-NC.

Some considerations in making this choice are as follows:

1. If the state is already using a VDS for their MRVs, it would make more sense to re-use the same infrastructure for the barcode in the DTA.
2. A VDS requires specialised equipment to read and decode and scanners available along the travel continuum may not have the capability to read the VDS. Using the VDS-NC makes verification possible in multiple touch points during the travel.
3. The verification of a VDS requires the distribution of the barcode signer as it is not encoded in the barcode. A VDS-NC includes the barcode signer and does not require a separate distribution mechanism for the same.

4.   REFERENCES (INFORMATIVE)

[VDS-NC]   Visible Digital Seal for Non Constrained Environments V1.1

[JSON-SCHEMA]   https://json-schema.org

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APPENDIX A – DTA APPLICATION FORM

The following pages show an example of a notional online application form for a Digital Travel Authorization

UTOPIA
DIGITAL TRAVEL AUTHORIZATION
application form
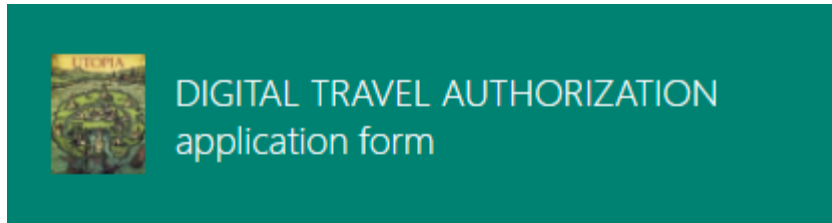
* Required

Personal details

1. Surname *

Enter your answer

2. Given names *

Enter your answer

3. Date of birth *

Please input date in format of M/d/yyyy

4. Sex *

○ Female

○ Male

○ Non-binary

○ Prefer not to say

5. Nationality *

Enter your answer

6. Upload photo

⤒ Upload file

Next

DIGITAL TRAVEL AUTHORIZATION
application form

* Required

Travel document details

6. Document type *

- ○ Passport
- ○ ID card
- ○ DTC
- ○ [Other]

1.

7. Document number *

[Enter your answer]

8. Place of issuance *

[Enter your answer]

9. Date of issuance *

[Please input date in format of M/d/yyyy]

10. Home address *

[Enter your answer]

11. Date of expiry *

[Please input date in format of M/d/yyyy]

[Back]   [Next]

DIGITAL TRAVEL AUTHORIZATION
application form

* Required

Travel details

12. Question

○ Option 1

○ Option 2

13. Purpose of travel *

☐ Business

☐ Education

☐ Vacation

☐ [Other]

14. City of entry *

[Enter your answer]

15. Length of stay *

[Enter your answer]

16. Destination address *

[Enter your answer]

17. Email address *

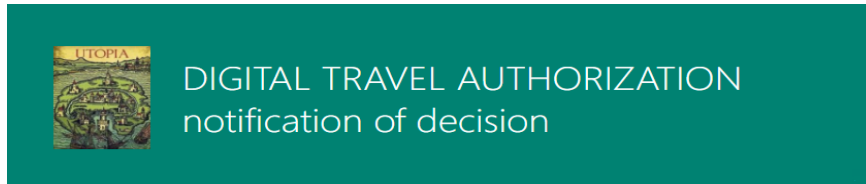[Enter your answer]

18. Phone number *

[Enter your answer]

| Back | Submit |

APPENDIX B – DTA NOTIFICATION OF RESULT

This Appendix shows an example of a notification of the result of the DTA application.

DIGITAL TRAVEL AUTHORIZATION
notification of decision

AUTHORIZATION APPROVED

Name	ANNA MARIA ERIKSSON
Passport Number	L8988901C
Date of Birth	11 March 1952
Nationality	United States of America
Sex	Female
DTA Number	123889546
Issuing Country	Utopia
Place of issue	Peacetown
Valid from (date)	10 December 2020
Valid until (date)	10 December 2025
Duration of Stay	5 years
Number of entries	Multiple
Type/class/category	Tourist
Additional information	Employment Prohibited

You have successfully submitted payment for the application listed above. A request by the cardholder to the bank or your payment service for a refund of fees will result in an automatic denial of the application.
Download and print out this form and retain throughout your travel.

APPENDIX C – VDS-NC FOR DTA (Worked example)

The following is an example of DTA issued as a VDS-NC:

```
{
        "data":{
           "hdr":{
              "t":"icao.dta",
              "v":1,
              "is":"UTO"
           },
           "msg":{
              "dtan":"N156702B",
              "pi":{
                 "n":"Anna Maria Eriksson",
                 "pn":"L8988901C",
                 "dob":"1952-03-11",
                 "nl":"USA",
                 "sex":"F"
              },
              "dta":{
                 "poi":"Peacetown",
                 "vf":"2021-06-06",
                 "vu":"2026-06-06",
                 "dos":"050000",
                 "noe":"M",
                 "tcc":"Tourist",
                 "ai":"Employment Prohibited"
              }
           }
        },
        "sig":{
           "alg":"ES256",
```

```
        "cer":"MIIBejCCAR6gAwIBAgIBazAMBggqhkjOPQQDAgUAMB4xCzAJBgNVBAYTAlVUMQ8wD
QYDVQQDDAZVVCBDQTIwHhcNMjEwNjA0MTAzNTI0WhcNMjYxMjA0MTAzNTI0WjAaMQswCQYDVQQGEwJVVD
ELMAkGA1UEAxMCMDkwWTATBgcqhkjOPQIBBggqhkjOPQMBBwNCAAQsaH3h2nIGayiuTkNKmTr8enZTqI3
b41MRU8BbUOo0-pt2fWf-
omHjETC2QNKJn4Pt13eHjHLA5qujsve7TCxoo08wTTASBgNVHSUECzAJBgdngQgBAQ4CMB8GA1UdIwQYM
BaAFNJDEqT4X_39oopXFVO95Og_ucXQMBYGB2eBCAEBBgIECzAJAgEAMQQTAk5EMAwGCCqGSM49BAMCBQ
ADSAAwRQIhAPeCrzHg9MupxQ1c2STKP-emea0-
zOcDMWeQvDBxDl_3AiBjRJ3wnhq4wp_Iy9ehCCyYezQfZGQcLfa1Th6q3MOPNA==",

        "sigvl":"b3ITrAjlwrqZH1Mxt7u3uB59_oqIso1eo8PnOdJnceNtKRypnIxTuvUwUYC9u4Z
dzT80H9Iay-QL_kBAsG631Q=="
```
```
        }
}
```

Digital Travel Authorization	Issued by UTO	Version 1	DTA Number: N156702B

PERSONAL INFORMATION

Name of the Holder: Anna Maria Eriksson

Date of Birth: 1952-03-11

Nationality: USA

Sex: F

Passport Number: L8988901C

DIGITAL TRAVEL AUTHORIZATION

Place of Issue: Peacetown

Valid From: 2021-06-06

Valid Until: 2026-06-06

Duration of Stay: 5 years, 0 months, 0 days

Number of Entries: Multiple

Type/Class/Category: Tourist

Additional Information: Employment Prohibited

— END —