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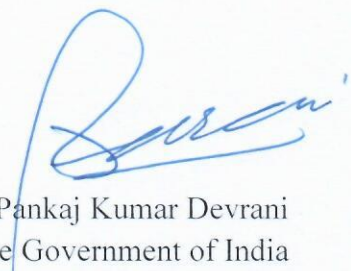
Government of India
Ministry of Tourism

Notification

New Delhi, the 19th of April, 2022

No. IT-13/7/2021-IT - Ministry of Tourism had constituted an inter-ministerial task force for National Digital Tourism Mission on 23rd July, 2021 to undertake consultations with the tourism industry and domain experts, define the context, mission, vision, objectives, and overall scope of the National Digital Tourism Mission.

2.   The Task Force has prepared a report on proposed National Digital Tourism Mission, which inter-alia lays down domain and technology principles, standards, digital stack, governance structure and plan for implementation of the envisaged National Digital Tourism Mission.

3.   In pursuance of the recommendations of the Task Force, the Ministry of Tourism hereby sets up National Digital Tourism Mission (NDTM) as per Annexure-1 to the notification.

Pankaj Kumar Devrani
Under Secretary to the Government of India
Ministry of Tourism

Government of India
Ministry of Tourism

National Digital Tourism Mission

1.   The Context

1.1.   Digitalization in tourism sector presents opportunities for tourism enterprises to expand their market reach, increased growth, improved operational efficiencies, and sharpen their competitive edge. At a collective level, it will help to develop and customize product offerings, improve destination connectivity, generate data to track performance, and help to improve destination management. Over the long term, digital transformation can unlock innovation and ensure the competitiveness of India's tourism sector.

1.2.   The tourism sector is highly fragmented. Subsectors of tourism such as transport, accommodation, restaurants and catering, tour operators, and personal services are all subject to very different challenges and opportunities. The adoption of digital technologies in tourism sector, which is dominated by MSMEs faces multiple challenges.

1.3.   Most of the tourism systems developed by Central Government, State Governments, Public sector and Private sector function in silos. As a result, the tourism ecosystem is unable to harvest the combinatorial benefits of information exchange. Data systems currently don't interact with each other using a common language, thereby curtailing data analytics and resultant policy-making. In order to overcome the same, there is need for seamless standardized data exchange amongst various stakeholders

1.4.   Ministry of Tourism had constituted an inter-ministerial task force for National Digital Tourism Mission on 23rd July, 2021 to undertake consultations with the tourism industry and domain experts, define the context, mission, vision, objectives, and overall scope of the National Digital Tourism Mission.

1.5.   The Task Force has prepared a report on proposed National Digital Tourism Mission, which inter-alia lays down domain and technology principles, standards, digital stack, governance structure and plan for implementation of the envisaged National Digital Tourism Mission.

1.6.   In pursuance of the recommendations of the Task Force, the Ministry of Tourism has set up National Digital Tourism Mission to be called NDTM hereinafter.

2.   Vision of NDTM

2.1.   The National Digital Tourism Mission envisages to achieve the objective of harnessing the full potential of digitization in tourism sector by facilitating exchange of information and

services in tourism sector spreading across national and state tourism organizations, tourism service providers, tourism destinations, products, experiences and tourists.

2.2.   The vision of **National Digital Tourism Mission** is to bridge the existing information gap amongst different stakeholders of tourism ecosystem through a digital highway.

Figure 1: Vision of National Digital Tourism Mission

3.   Strategic Objectives

The key strategic objectives of NDTM are:

(i).   To enhance the competitiveness of tourism sector in the Country
(ii).   To create smart destinations with the help of digital technologies
(iii).   To bring about digital transformation of business processes and models
(iv).   To cultivate markets through digital transformation
(v).   To help MSMEs in adopting digital technologies
(vi).   To promote digital skills in the work force

4.   Key Stakeholders

NDTM under the aegis of the Ministry of Tourism will work with a diverse set of stakeholders. The key stakeholders are:
(i).   Central Government Ministries
(ii).   State Governments
(iii).   Destination Management Organizations

(iv). Key Tourism Industry leaders
(v). Industry Associations in Travel and Tourism
(vi). Private Sector Players in Travel and Tourism
(vii). Reputed Government or other Institutions in any area of Tourism Development
(viii). Academic Institutions
(ix). Development Agencies
(x). Civil Society
(xi). Media

5. **Tourism Services Ecosystem**

The tourism services ecosystem comprises of various actors i.e.

(i). **Accommodation Services**

Hotels/ guesthouse/ lodge/ motels/ legacy vintage/ heritage hotels, shared accommodation, hostels, camping, bed & breakfast, cruises, home stay, house boats, farmhouse accommodation and agri-tourism, time share accommodations and resorts.

(ii). **Transport Services**

Airlines, car rental, bus transport, water transport, coach services, railways, space-craft etc.

(iii). **Food & Beverage Services**

Restaurants, catering, bars & café's, nightclubs, local eateries etc.

(iv). **Entertainment Services**

Shopping, casino, fun parks, adventure, circus, multi-purpose cultural complexes, theatre, spas, folk dances, events, festivals and online / offline information regarding tourist attractions.

(v). **Tourism Service Providers**

Travel agents, tour operators, online travel aggregators (OTAs), tourist drivers, waiters, chefs, tourist guides, destination wedding managers, Professional Congress Organizer (PCO), Association Management Company (AMC), Destination Management Company (DMC) and Event Management Company (EMC), managers of historical monuments, temples, excavation sites, sanctuaries, convention halls, auditoriums, Zoos, museums etc.

(vi). Connected Industries

Financial services (currency exchange, insurance), religion, sports, film, health and wellness, golf, cruise, education (conference, exhibition) and business (MICE).

6.   Lifecycle of a Tourist

NDTM will encourage digital support throughout customer journey. A tourist has three distinct time phases in the life cycle of a holiday, which may be identified as:

(i).   Pre-holiday Period

During this time the tourist searches for information on various tourist destinations, identifies suitable destinations to visit, prepares budget, prepares itineraries, creates expectations, packs bags, makes suitable arrangements at home (e.g. leave pet at another place), arranges for Visa (if required), buys tickets and related loans / insurance policies.

(ii).   Holiday Period

During this period, the tourist undertakes various activities like liaisoning with service providers, ticketing, transportation, laundry, accommodation, catering, shopping, entertainment & sightseeing and creates memorabilia. The tourist also shares his experience on social media.

(iii).   Post-Holiday Period

In this period, the tourist may give feedback to various service providers, clear dues if any, unpacks bags, laundry, grocery shopping and readies the home for daily activities.
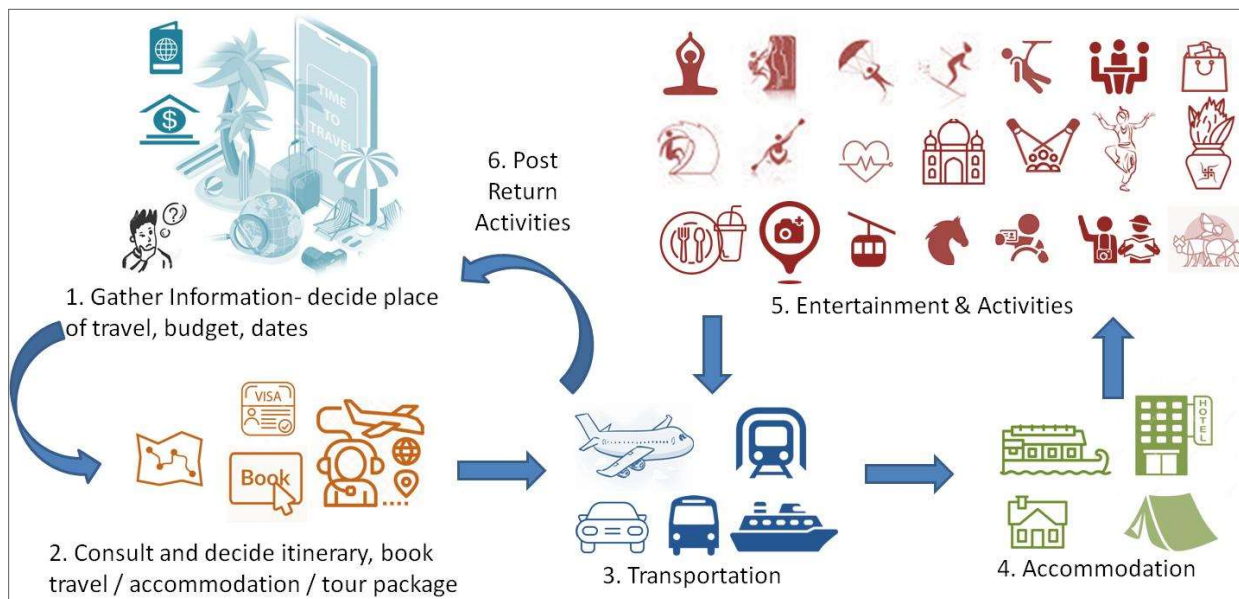
Figure 2: Lifecycle of a Tourist

7.   Setting up Standards for Tourism Sector

NDTM will work towards promotion of industry wide standards in the tourism sector both domain specific and IT related.

(i).   Protocols and Micro-services

The micro-services pertaining to standardized open data and other domain apps shall need to be exposed following open API specifications/ protocols pertaining to the tourism ecosystem. A committee consisting of technical representatives from different Ministries, States, experts, academia and industry may collaborate with BIS for ratification of these open protocols.

(ii).   Data Governance Policy

In order to ensure data protection, data quality, data security, data privacy, data sharing obligations, portability and interoperability and compliances under the applicable laws, a data Governance policy will be framed specifying roles and responsibilities of various ecosystem actors towards maintaining and facilitating reliable data exchange.

(iii).   Domain Standards

Some of the domain standards for the tourism may be star ratings of accommodation units, classification of transport as luxury, standard or local, badges for tourist agents

and tourist drivers, classification of tour operators, sustainable tourism criteria of India etc.

8. Streamlining Regulations for the tourism industry

There are a large number of regulations across Central and State Governments and NDTM will encourage rationalization, simplification and uniformity in these regulations across States. NDTM will work towards complete digital enablement of implementation of regulation ensuring transparency and reducing the burden of compliance.

9. Principles of National Digital Tourism Mission

NDTM will follow the relevant principles of Indian Enterprise Architecture for Tourism Ecosystem and its ICT services. It will cover domain principles, design and architecture principles, technology principles briefly described below.

10. Domain Principles

(i). Value-driven

The interests of the beneficiaries and users for whose benefit the digital infrastructure and solutions will be developed must be a central focus. Depending on the context and solution, beneficiaries and users can be the tourists, tour service providers, mobility service providers, accommodation service providers, food and beverage service providers, entertainment service providers and service providers of connected industries.

(ii). Unifying Services

Identify, design, and deliver integrated services that cut-across agency boundaries, to realize the goal of a connected ecosystem.

(iii). Outcome-driven

Define service levels and outcomes benchmarking with the best, and then build services around such outcomes. Define, design, deliver and measure services by adopting the laid down standards.

(iv). Affordable choices

Availability of affordable choices in solutions (localized, customized, multilingual), access (anyone, anytime, anywhere) and agency.

(v). Diversity and Inclusion

Diversity and inclusion across device types, linguistic barriers, geography and accessibility compliant.

11.   Design and Architecture Principles

(i).   Ecosystem Thinking

All digital initiatives to be designed as ecosystems, spanning across Centre and States, public and private, composed of several autonomous, interoperable and federated systems. Drive participatory design, ecosystem and end-user engagement at all stages of the digital initiative.

(ii).   Building Block approach

Architect and design systems and ecosystems in terms of minimal and reusable Building Blocks, categorized as Core, Common and Reference Building Blocks which are loosely coupled and combinable.

(iii).   Assured Service levels

The ecosystem members should define promise based inter-relationships and set-up quality control processes to achieve assured service levels for all participating stakeholders.

(iv).   Federated Architecture

Adopt a Federated Architecture model for designing digital ecosystems- build around the constructs of Single-Source-of-Truth and System-of-Records. While a central system can speed up adoption, it should be a choice, and bringing interoperability across many federated systems through common specifications is necessary.

(v).   Be open and inter-operable

Use and/ or build open standards, licenses, databases, APIs, etc. and promote inter-operability. It helps realize inter-platform efficiencies, promotes competitive behaviour and guards against potential monopolies of unfair value capture.

(vi).   Resilient

The building blocks should be orchestrated in a federated manner with no single point of failure. Services must be built to withstand failures by building automated recoveries and adaptation. Similarly, all processes must be designed to allow flexibility and re-adaptation to handle disruptions.

(vii). Minimal, Reusable, Unbundled and Shareable

Building blocks must be minimal (both data and functional), atomic, and generalized allowing solution builders to "reuse and extend" them to build contextual and scalable solutions, preventing reinvention of the wheel. The paradigm of minimalistic approach should be applied through a minimum viable and micro-services-based architecture, minimal documentation, agile procurement / resourcing and regulatory processes.

(viii). Innovation

Catalyze, energize and support (policies, infrastructure), 'responsible' deployment of emerging technologies.

12.   Technology Principles

(i).   Data is an asset

Design data systems in a manner that creates, supports, maintains and enhances value to the enterprise specifically, and to the ecosystem in general. Promote establishment of *Data Marketplace(s)* that enable regulated exchange of data for public purposes, innovation and research, and for permitted commercial purposes.

(ii).   Data sharing

Lay down clear policies specific to the relevant domain(s), that enable and regulate the sharing of data.

(iii).   Standards

Specify the existing technology and data standards applicable to the ecosystem. Define methods to ensure compliance.

(iv).   Privacy-by-Design

Design and publish a privacy policy that conforms to the principles of Privacy-by-Design.

(v).   Secure and Trust Based

Design to protect privacy of users and entities while inducing trust in every interaction.

13.   Digital Stack of NDTM

In order to realize the vision laid out by the National Digital Tourism Mission, considering the recommendations of the tourism stakeholders and following the above laid NDTM principles, the digital stack of NDTM has been illustrated in figure below:
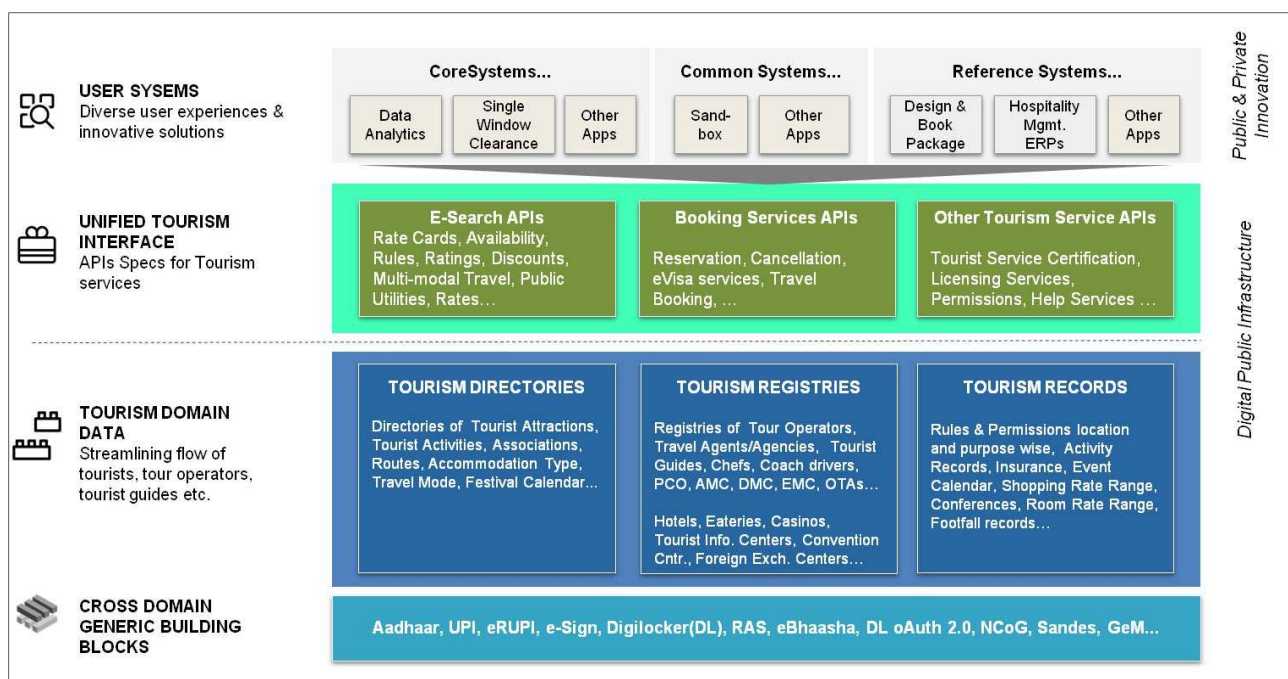

Figure 3: Digital Stack for National Digital Tourism Mission (NDTM)

13.1. Layer 1: Cross Domain Generic Building Blocks

This layer denotes the underlying digital infrastructure layer commonly available to all GoI Ministries, States and public at nominal or no cost. This digital infrastructure layer helps to achieve uniqueness of key data sets, economies of scale and facilitates all India portability for stakeholders of the ecosystem. Some of the key digital infrastructure are Aadhar, DigiLocker, UPI/BHIM etc.

13.2. Layer 2: Tourism Domain Data

The second layer consists of core domain data elements related to Tourism. The initial set of Core Master Data/Codes and Directories, Repositories and Records are as follows.

(i) Tourism Directories

Directories of tourist attractions, tourist activities, associations, routes, accommodation type, tourist transport facilities (e.g. ropeways), festival calendar, convention halls, public utilities etc.

(ii) Tourism Registries

Registries of tour operators, travel agents/ agencies, online travel aggregators (OTAs), waiters, destination wedding managers, tourist guides, chefs, coach drivers, PCO, AMC, DMC, EMC, OTAs, accommodation units, eateries, circus, fun parks, theatre, spas, events, casinos, tourist info. centers, convention centers, foreign exch. centers etc.

(iii) Tourism Records

Tourism records will include rules & permissions location and purpose wise, activity records, travel insurance, event calendar, shopping rate range, conferences, room rate range, footfall records etc.

(iv) Ensuring Single Source of Truth

This will ensure sharing of single source of truth among departments and external agencies thereby providing opportunities for improved efficiency and effectiveness in Governance. It will also enable departments at various levels of Government to identify, discover, describe, manage, protect, and share the System of Records (SoR) for consistent reuse information within and across agencies and their business partners. The creation of these directories and registries shall enable digital verification tour operators, travel agents, licensed bars etc., can lead to increased trust amongst the tourist and ecosystem actors.

13.3. **Layer3: Unified Tourism Interface**

(i) Data and information exchange amongst multiple ecosystem actors

The Unified tourism interface layers shall enable data and information exchange amongst multiple ecosystem actors and services. Depending upon the use case the information providers and information consumers may change.
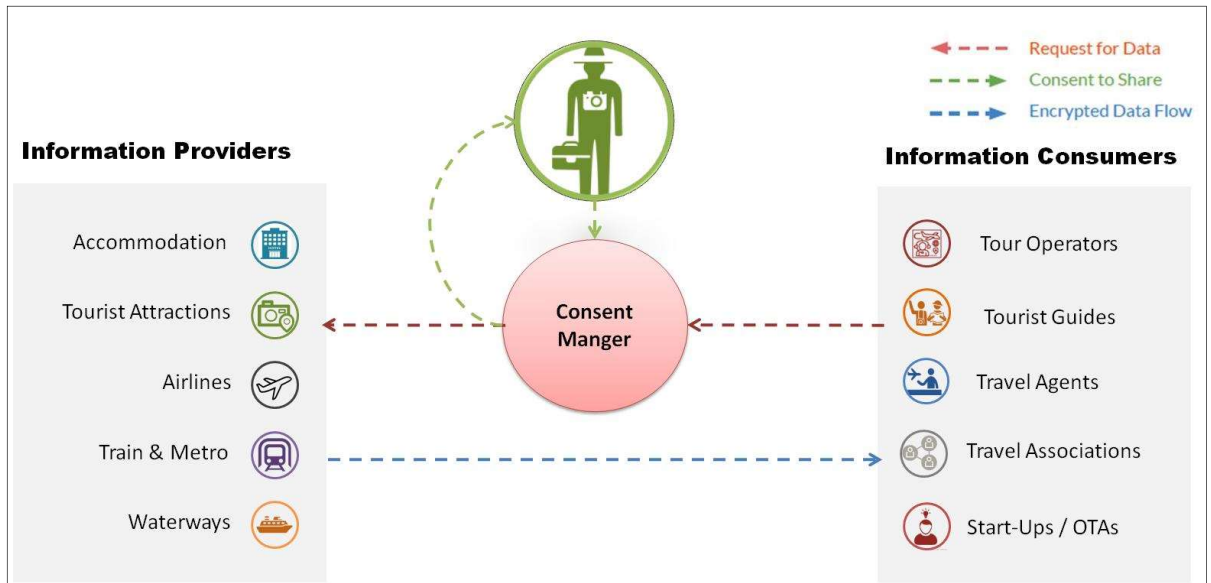
Figure 4: Unified Tourism Interface Enabled Data Exchange

(ii) Use of Block Chain

Identification of areas for using Distributed Ledger technology (blockchain) which would enable hassle free travel such as E-visa issuance and details of incoming travellers across the globe. This info can be made available post customer consent to various stakeholders. Such info would also generate a huge amount of data which can provide deep insight into customer requirements and help design and create product offerings to meet customer needs. The usage of distributed ledger technology (permission public shared) would go a long way in providing transparent and government verified information about various service providers / stakeholders to the travellers such as monument opening timings, verifying names of approved guides and their ratings / feedback, hotel and restaurants ratings / classification details etc. which would give customer confidence on using the services of these stakeholders.

(iii) APIs/ Micro services

The **third layer** of the tourism interface shall consists of services layer built on top of the data layer which shall enable various applications and systems. Actors of NDTM shall be encouraged to deploy their APIs/ micro-services as open APIs following API specifications/ protocols and standards of NDTM. These APIs shall be deployed on the NDTM eMarketplace / API exchange. Some of the identifiable services in the NDTM context are as below.

(iv) Discovery APIs

These API shall be help the tourism ecosystem actors and tourists to connect with the ecosystem in a convenient and cost effective manner. The systems in the tourism domain would be able to share live rate cards, get tourist accommodations availability details, tourist travel availability details, know-how of required permissions, know-how of applicable rules, discount details, access to multi-modal search for travel and route planning, nearby public utilities etc.

(v) Booking APIs

These APIs shall allow the ecosystem actors to reserve accommodations, restaurant tables, entertainment tickets, tourist coaches, tickets and cancel reservations, apply for eVisa services etc. for tourists who provide explicit consent for data sharing.

(vi) Other Tourism APIs

These APIs may relate to service rating, payment services, certification services, licensing services, permissions services, help services and other such services.

13.4. Layer 4: User Systems

(i) Core, Common and Reference Systems

This layer shall consist of core, common and reference systems and aggregate platforms. Usage of the services available in the Unified Tourism Interface (UTI) shall enable emergence aggregator platforms in the tourism space. The following core applications may be envisaged.

(ii) Single window compliance platform

This platform shall provide a single window platform to gain knowledge about rules, regulations and compliance requirements for all actors of the tourism ecosystem. For example, tourist visitor timings, ticketing rules, special travel requirements, medical requirements, conflict zone etc. shall be made available. For service providers, various license requirements, NOC requirements, compliance requirements etc.

(iii) Data analytics platform

The data analytics platform shall use aggregate anonymized data for research, planning and policy making etc. Aggregate data sources like telecom etc., can be used to understand the seasonality, movement patterns, trip length etc. of tourists.

(iv) International destination marketing and campaigns

Leveraging technology to market the destination in international markets. Using sentiment analysis and ML to formulate targeted social media and other marketing / ad campaigns in the source markets.

(v) Common Applications

Some Common applications which can be used by both public and private player like Sandbox environment, and API exchange gateway or eMarketplace shall also need to be provisioned.

(a) **Sandbox Environment-** to enable the various ecosystem actors to discover, understand, engage, experiment, innovate, and build on existing core data, infrastructure and exchange. The Sandbox encourages collaboration and development of various innovative applications and value added services. Test viability/response before a more expensive roll-out.

(b) **Tourism eMarketplace -** a National aggregate platform utilizing services from the National and State level to create a marketplace where customized tour packages may be available from authorized providers for domestic and international tourists.

(vi) Reference Applications

Apart from the above the Government may foray into building reference applications, which shall be built as open source and technology companies shall be encourages to build upon these products.

(a) Tour **Planning** software for tour operators who do not have access to large aggregate digital platforms, but want to provide customized best deals to the client.

(b) **Hospitality Facility Management ERPs** may be rolled out as open source. Such that low-cost digital options may be made available for small hospitality service providers.

(c) Reservations and OTA functionalities

(d) Usage of AR and VR technology at our places of interest. Visitor experience at destinations like Hampi and Lothal can be elevated dramatically by usage of AR in such monuments. A well-defined road map to use VR technology in promoting the culture / history of the destination will be drawn up.

14. Design and Technology principles to be followed

The systems servicing various needs of the tourism ecosystem should follow the design and technology Principles laid out in the document, and non-functional requirements like performance, usability, UI/UX, availability, recovery, error handling & resolution etc.

15.   Federated view of NDTM building blocks

The above-mentioned building blocks including registries etc., shall need to be built in line with the federated governance structure of India in partnership with the State Governments. The federated view of the building blocks discussed above is represented in the figure below.
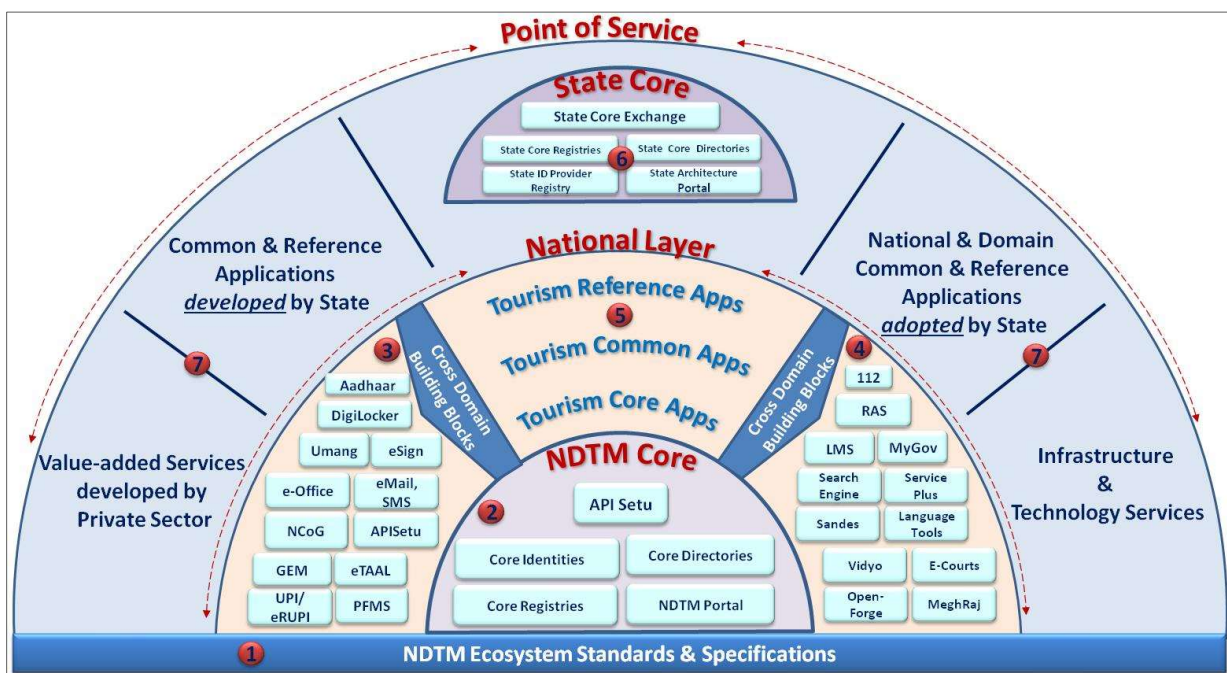

Figure 5: Federated View of NDTM Building Blocks

16.   Collaboration between Central and State Governments for implementation

Considering the federated orchestration of governance, the Central Government and State Governments shall need to coordinate in a proactive manner to make NDTM a reality:

(i)   NDTM will set up Core Registries such as accommodation registry, tourist guide registry, tour operator registry etc., in a federated manner i.e. in collaboration with States who may have already prepared such registries, such that rework is minimized and national uniqueness is maintained amongst the various actors who have enrolled in the registries.

(ii)   Further, Core Directories of tour routes, associations, tourist attractions, tourist activities etc. shall need to be prepared along with weather and mobility protocols. These standard notations and API specifications/ protocols need to be adopted by the Government organizations and agencies.

(iii)   The distribution, method of capture and governance of the core building blocks shall be taken up in discussion with the States.

17.   Quick Wins

NDTM envisages following quick wins after analyzing the challenges, and objectives of the Tourism Ministry and the list of building blocks elaborated in the National Stack for Tourism, which can have high impact on tourism sector.
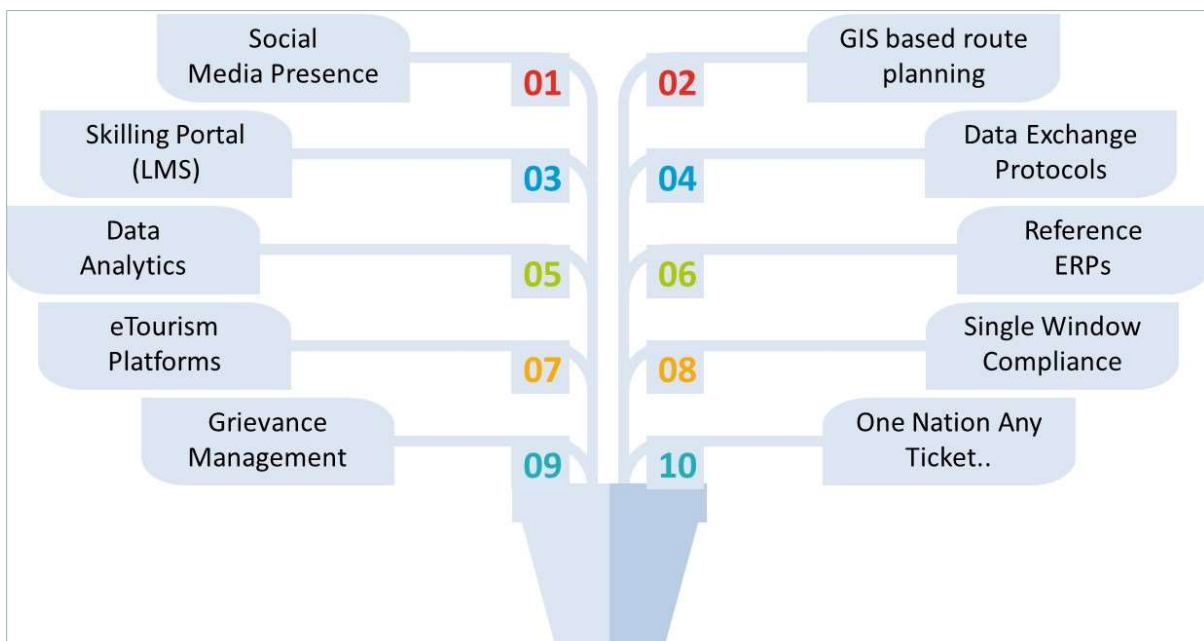

Figure 6: Recommendations reg. High Impact IT Interventions

18.   Incentivizing Stakeholders to join and participate in NDTM

In order to encourage stakeholders to join NDTM platform, an incentive scheme may be devised in partnership with the States. Each stakeholder must also be provided with a roadmap, which guides them through the whole process of joining NDTM platform and benefitting from it.

19.   Governance and Institutional Structure

The implementation of NDTM vision and principles will result in wide adoption by the ecosystem of Centre, State, public, non-profit, private as well other stakeholders. The Mission will adopt institutional structure after study of several analogous digital infrastructures created in other sectors in India - GSTN, NPCI, UIDAI, National Health Authority etc.

The objective of the institutional structure for NDTM would be "To orchestrate, catalyse and support the tourism and digital ecosystem in the development and adoption of a national digital tourism infrastructure to achieve the objectives of and fulfill the vision of NDTM".

20. Essential Elements

The institution structure should have a minimal footprint, be evolvable and agile, federated and inclusive (centre - state - public - private - unions) to enable and catalyse through multi-stakeholder ecosystem. A few essential elements that need to be carefully considered while designing the institutional framework for NDTM:

(i). **Mandate** - The scope and vision of the entity.

(ii). **Legal constitution** - The nature (statutory, autonomous, non-profit etc), ownership and autonomy of the entity.

(iii). **Composition and Governance Structure** - The composition of the entity and representation of diverse stakeholders (with appropriate experience and skill sets) across leadership, advisory and functional verticals, such that it ensures that the entity is set up for success.

(iv). **Roles and responsibilities/ services offered** - The roles and responsibilities charted out for the entity should reflect the mandate very clearly. The nature of responsibilities created in the first instance would be critical in ensuring that the NDTM organization can easily take an agile approach and continue to adapt to the rapidly evolving world of technology as well as changing needs of the stakeholders.

(v). **Funding** - The mechanism to fund the entity for its operations should be such that consideration is given to its independence in decisions and functioning to realize its vision as well as its long term sustainability, while financially supporting its formation and incubation till it reaches a steady state of operations.

21. Envisaged roles and responsibilities of the institution

21.1. Ecosystem – catalyze and energize the tourism ecosystem

(i). To achieve the objectives of NDTM as articulated in the blueprint and as it evolves from time to time, and realize the vision of NDTM.

(ii). To promote adoption of NDTM by GoI, States, Private/ NGO Sectors.

(iii). By engaging the ecosystem through events, hackathons, innovations, fests and other such outreach, engagement and development programs.

21.2. Building Blocks

(i). Enable and orchestrate the development, creation and evolution of the building blocks of NDTM.

(ii). Identify and share best practices in use of NDTM compliant building blocks to create diverse solutions.

(iii). Identify and share innovations and solutions compatible with NDTM building blocks, use of open data in tourism and improvements in efficient governance processes.

21.3. Standards, Specifications and policies: Develop, Support, Publish, Curate, Frame

(i). Standards, specifications and policies in the areas of technology for tourism, open data and protection of data of individuals and for a thriving and innovative ecosystem.

(ii). Specifications of core, common, reference and other building blocks.

(iii). Setting up standards for establishment and management of registries which will be a single source of truth for tour operators, hoteliers, event managers etc.

(iv). Rules and tools for fostering innovation and development of diverse solutions by energizing the tourism ecosystem of government, associations and the private sector.

21.4. Innovations and Solutions

Encourage, promote, incentivize, support, facilitate, support the development of:

(i). Diverse solutions and innovations by leveraging emerging technologies for the tourism ecosystem including but not limited to AI/ML, AR/VR, etc.

(ii). Reference solutions for NDTM by leveraging building blocks of the digital infrastructure.

(iii). Ecosystem Sandbox along with engagement frameworks, rules, and tools.

21.5. Capacity Building & Change Management

In relation to NDTM Architecture, Ecosystem Architecture, Ecosystem Technologies, Content Development.

22. Institutional structure

22.1. Autonomous Entity under the aegis of Ministry of Tourism

Given the vision, evolvable nature and diverse expertise required for NDTM, the institution may be created as an autonomous entity under the aegis of the Ministry of Tourism. The multi-stakeholder and ecosystem approach must be reflected in the institutional framework, with the involvement of non-profit and private sectors engaged to provide accommodation, food and beverage, transport, entertainment, online aggregators etc.

22.2. Strategic Control with the Government and allow diverse representation

While strategic control may remain with the Government; diverse representation and participation will foster innovation and will help NDTM in staying ahead of the curve in many domains. Such involvement will augment the ecosystem approach of NDTM and will ensure wider adoption of NDTM, by the tourism ecosystem, which will include not only the Centre and State governments and their allied institutions but also other associations and private entities. It is also envisaged that the regulatory role should remain with MoT.

22.3. A separate dedicated body to be set up

A new autonomous body will be required to house NDTM and allow for a strong and diverse leadership. This will enable NDTM to establish a broad platform for supporting and interfacing with existing institutions and adapting to the emerging needs of the ecosystem. The organization should have a dedicated board of directors/ governing council and CEO to handle operational responsibilities.

22.4. Strategic control of core technology

Like the ever-evolving nature of technology itself, NDTM would be an evolving ecosystem with multiple building blocks and will continue to develop and mature through efforts of multiple ecosystem partners. Continuous compliance with architectural principles and standards prescribed is also a challenge during implementation. Technology implementation, sustenance, upgradation, and knowledge transfer is a continuous process and can only be sustained with stable top level in-house expertise. Strategic control of the core technology that is used within the Government infrastructure is critical. Suitable organization within Government with experience in application of IT in different domains in Centre as well as State level, can be given responsibility to ensure the Government has

strategic control of core technology, ensure its compliance with rules & regulations, particularly from an openness and data protection perspective.

22.5. Provision of funds

Ministry of Tourism will make provision of appropriate funds for realizing NDTM's mandate and running day-to-day operations for the initial 4-5 years. In the long term, a phased transition will be planned for NDTM to move to a self-sustainable, revenue generating model (not-for-profit model). Potential revenue streams may include (but not limited to) monetizing reference applications and services it provides to other ecosystem players. Alternatively, it can also accept grants and aids from outside the Ministry of Tourism, and philanthropic contributions in funding or resources and assets for reduced dependence and increased sustainability. A self-financing model may also drive service orientation for NDTM and provide incentives to continuously innovate and respond to the needs of beneficiaries. This should ideally be accomplished without compromising the essential defining trait of NDTM building blocks being available as a public good.

22.6. PMU to be set up immediately

Even as the larger institutional framework may take time to fully fructify, in order to roll out the vision of NDTM and also to set up demonstrative examples of what NDTM envisages to do, the MoT would like to proceed with projects and programmes under the NDTM framework with immediate effect.

To immediately start working on NDTM, a dedicated Program Management Unit (PMU) may be set up, staffed with specialized consultants for the development of a roadmap for NDTM implementation, identification & prioritization of work, budgetary estimation, design, monitoring and follow up the progress of NDTM implementation. PMU should also provide opportunities for volunteers from the industry to join for a stipulated time. PMU shall initially work directly under the MoT until the NDTM institutional set up is ready.

22.7. NDTM Task Force

The Task Force for National Digital Tourism Mission will continue to review and monitor strategic direction and policy guidance to the PMU and other stakeholders. The Task Force will provide direction to the efforts of the operations group, including the PMU.

23. Envisaged Benefits of NDTM

23.1. NDTM to Bring Host of Benefits

The National Digital Tourism Mission is envisaged to bring about a host of benefits as summarized in the figure below. The implementation of NDTM shall have multifold benefits to various entities of the tourism ecosystem. Not only will it improve the efficiency and effectiveness, but it will also increase transparency and provide a boost to tourism economy by preventing data leakages.
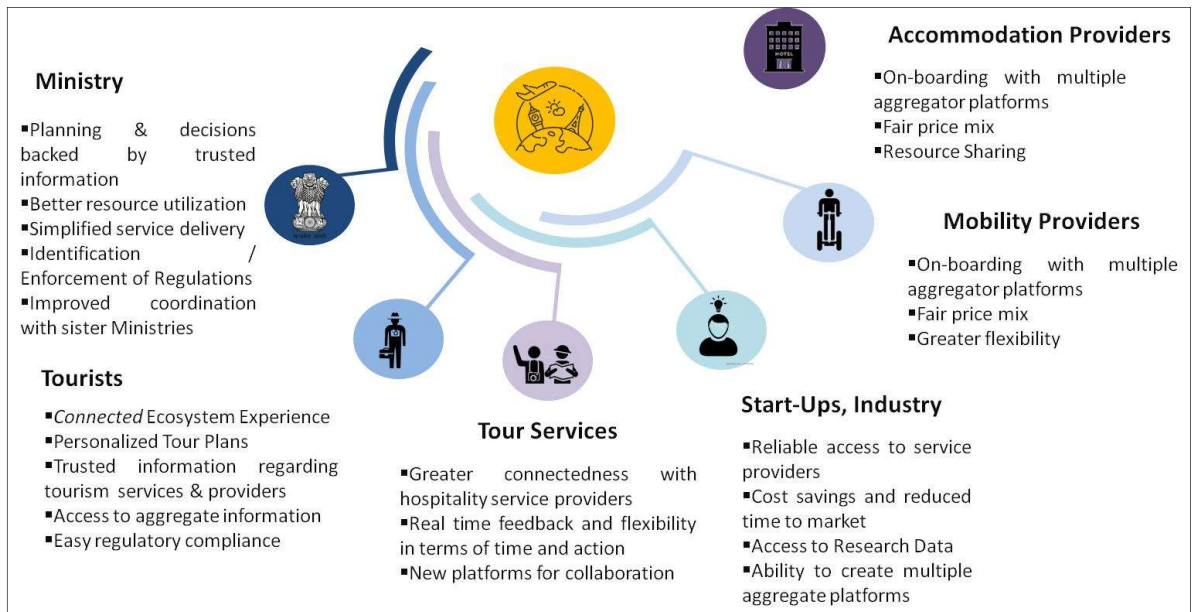

Figure 7: Envisaged Benefits of UTI

23.2. Information availability to tourists

Tourists are envisaged to receive a plethora of services, for which they may no longer visit multiple channels to design their travel plan. The tourist will be able to search for information on various tourist destinations/spots, identify suitable destinations, arranges for Visa (if required), book tickets for both local and outstation transportation (round trip), avail loans / insurance (if required), search and book accommodation and look for catering, shopping, entertainment in the vicinity of tourist spots.

23.3. Insights and personalized information

NDTM will give insights to the tourist about the travel time, cost and rating of the services to facilitate the tourist with multiple travel options. NDTM shall enable the tourist to securely store and access their previous activities, bookings, travel routes. Over the time, with data analytics, personalized tour plans and other suggestions will be provided to the user to further reduce the turnaround time.

23.4. Towards connected and smart tourist destinations

The mission shall empower the users with a connected government experience enabling easy and quick access to trusted aggregate information regarding tourism services & providers to enable informed decision making.

NDTM will provide the users both the options of accessing public as well as private services, facilitate compliance with regulatory guidelines and protocols, and improve accountability by displaying cost of tourism services.

23.5. **Enabling and assisting Tourism Service Providers**

NDTM shall assist Tourism service providers across all sectors a greater connectedness to their target user base by providing better access of tourist data for producing more efficient and user-friendly service. This cycle of using data and creating data shall strengthen the Tourism Ecosystem from within. The service providers shall also benefit from the Real time feedback facility allowing them to identify their gaps and improve on their services. This would also provide them with the flexibility in terms of time and action. Apart from their own websites and channels, the providers shall have a new national level platform for collaboration.

23.6. **Support to Startups**

NDTM will support the startups, new undertakings and industry by offering reliable access to open data, service providers and research Data. This shall help the new ventures to quickly integrate with the ecosystem and contribute to the system. Start-ups will be benefitted by authentic and ready data reducing their cost, effort and time to market allowing them to create multiple aggregate platforms.

23.7. **Support to Enterprises in onboarding on multiple platforms**

NDTM will also support both small and large accommodation providers, mobility service providers etc. with multiple platform on-boarding. Providers will also have various options for collaboration and attract tourists with exclusive offers. NDTM will provide them with interested tourist across the nation which would help them to expand their business. Providers can also share their resources to ensure better travel experience of tourists. NDTM will also ensure fair price mix which shall increase competitiveness between providers ensuring higher quality of service and helps regulate monopoly of service provider.

23.8. **Data for Planning and Policy Making**

Lastly, planning & decisions to be taken by policy makers and project managers shall backed by trusted information from NDTM to study and evaluate the effectiveness of various programmes. NDTM would facilitate a comprehensive feedback loop between

researchers, policymakers, and providers. High quality of data will enable effective utilization of resource, enable advanced analytics and improve overall efficiency of Tourism sector. It will also simply service delivery and ensure enforcement of regulations at grass-root level. NDTM will facilitate improved coordination and collaboration with sister Ministries strengthening implementation of various programmes and policies.