

# LAKSHADWEEP ISLANDS

## Digitally Bridging the Nautical Seclusion

The Union Territory of Lakshadweep (UTL) is geographically dispersed in the Arabian Sea with its capital at Kavaratti. It has achieved enormous success in deliverance of ICT services to its citizens despite its geographical isolation and bandwidth insufficiency, using the reliable and efficient infrastructure, training methods and positive approach of the UT administration.



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*Edited by R. Gayatri*

NIC Lakshadweep UT centre, since its inception in 1988 has been extending ICT services to the territory with utmost efficiency and commitment. Due to geographical isolation of the territory from the mainland and within the detached islets, ICT governance tools, infrastructure and the fleet of online applications has become the lifeline of the territory. UTL is a model of 'effective digital bridging of geographical isolations through Web/SWAN enabled MIS'.

Some of the very successful services are listed below.

### 1. LAKSHADWEEP SWAN

Connecting the inhabited islands, which are spread across the Arabian Sea under a single network, was one of the toughest tasks set ahead for NIC Lakshadweep. The designing of State Wide Area Network was done with the assistance of technology experts from Network Division of NIC HQ. With the support of Administration of UTL, the vertical network connecting all the 10 inhabited islands including the least populated Bitra, was built within a span of 1 year. The Administrative Headquarters, Kavaratti is designated as State Headquarters with 8 Mbps backbone connectivity and islands (DHQ) with 2 MBPS. There is no Block Headquarter (BHQ) level in LSWAN. LSWAN was inaugurated on 24th December 2009 by then Hon'ble President of India Smt. Pratiba Devi Singh Patil.

Today, LSWAN has become the only source of connectivity for various Government Departments as well as Non-Governmental organizations of Lakshadweep. Three years after inauguration, NIC Lakshadweep was able



**The Excerpts of her Excellency  
Smt. PRATIBA DEVI SINGH PATIL'S  
Speech**

"I am glad that the State Wide Area Network known as SWAN has been implemented in the islands to provide connectivity between the various Government Departments. It will be a platform for e-Governance and other IT enabled services. Even more significant would be SWAN's ability of ensuring a communication channel for disaster management, in case such needs arise. I am sure that as this Project begins operation today, it shall help in the improvement of education, health awareness, providing information about the weather, entertainment and news delivery services. I am, therefore, happy to be inaugurating the SWAN Project. I hope that as the bandwidth is increased, internet facilities will be extended to the people for their business and personal use".

to connect more than 450 Offices including schools, anganwadis, health centres, hospitals, Common Service Centres, Police Stations, Harbour Works, Port Offices etc., which are spread across

10 islands. VC and IP phone facility has been established in SDO offices of all the islands over the LSWAN. Internet is also provided in LSWAN by NIC.

With more than 85% of average bandwidth utilization, LSWAN proved to be the most successful SWAN implemented across the nation.

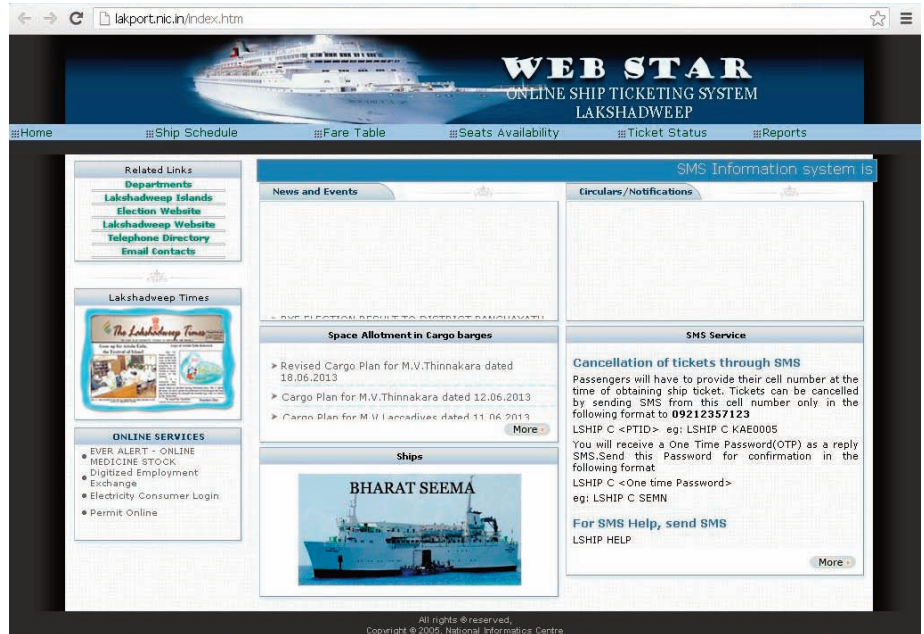
## 2. WEBSTAR - SHIP TICKET ADVANCE RESERVATION SYSTEM

Shipping is the lifeline of the people of Lakshadweep and all the thirteen Port Offices of the administration have been interconnected under PORTNET, extending the NICNET and also through LSWAN. This network has enabled the Web-based Ship Ticket Passenger Reservation and Cargo Booking Systems.

With this system, ship tickets in "anywhere to anywhere" basis can be reserved from any of the counters set up in islands and the mainland. The ship schedule, seats availability, ticket status, fare, passenger list etc. are available to the public through Internet. SMS alerts and information Kiosks. The website www.lakport.nic.in received 4,78,363 hits during the year 2012.

## 3. BILLING & CONSUMER MANAGEMENT SYSTEM (e-BCMS)

e-BCMS is a web-enabled system for total management of Consumer Service Connections in Lakshadweep Electricity Department (LED). This is a G2C, G2G application seamlessly operational since July 2007 for the Department of Electricity. It is a flow-based MIS, systematizing the total functionalities and business processes with regards to a Consumer Service Connection from its connection request point to



disconnection/deactivation. Major processes include Consumer Registration, Service Connection Establishment, Service Connection Maintenance & Management, Meter Management, Monthly and periodical Consumer Billing, Service Connection Fault Management and Consumer Disconnection/Deactivation.

e-BCMS has the following web-enabled interactions:-

- Consumer Registration & Management System (G2G)
- Energy Billing (Bill Generations & Cash collection) (G2G & G2C)
- Complaint/Fault Management System (G2G & G2C)
- Consumer Facilitations Window Online (Consumer Login- G2C)

All the consumers in Lakshadweep are covered under the application. All the 9 major sub-divisions and 4 minor sub-

divisions are connected to the system since 2007.

## 4. ONLINE SCHOLARSHIP SYSTEM

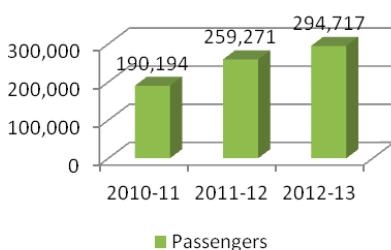
The Administration of UT Lakshadweep is providing scholarships to all the students going for higher studies from the islands to various parts of the country, irrespective of income, merit etc. Students are reimbursed all educational expenses based on the institution's bills. A Unique Student ID is created at the time of new registration for the students.

The key modules of the system are student registration, claim processing, bill generation and disbursement. All the registered students are provided access to the system with login and password to know the status of their claims and other information.

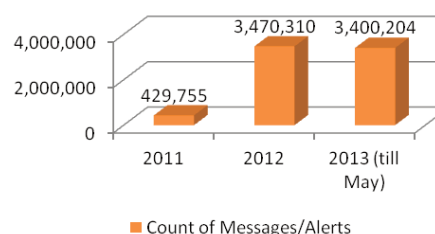
## 5. PLANMIS VER 2.0

Plan Monitoring Information System version 2.0 is a web based application for the Planning and Statistics Department. Main objective of the application is to generate sector-wise, Monthly Expenditure Report of schemes. The user departments of respective schemes and sectors enter the financial and physical progress for a month. Scheme-wise and sector-wise monthly MIS reports can be generated by Planning Department, whereas scheme-wise reports of a particular department can be generated by the respective department.

### Passengers



### SMS/Alerts to Passengers



**6. POWER GENERATION & DISTRIBUTION MANAGEMENT SYSTEM**

Power Generation & Distribution Management System is a web enabled application to monitor the operations of Diesel Powerhouses & Solar Power Plants in Lakshadweep for Electricity Department. The main objective of the workflow based application is to monitor the operations of powerhouses & SPV power plants, in various islands, besides checking the efficiency of diesel generators, total hours of operation of diesel generators, peak demands & hours in various islands, generator maintenance, track down defective generators alert etc. Alerts are sent to senior officers when generators are down.

**7. VSAT BASED VIDEO CONFERENCING SERVICES**

The VSAT based NICNET was established from the date of inception of NIC in Lakshadweep (1988) by installing and operationalization of C-200 VSAT at Kavaratti. Then gradually, NICNET has been extended to NIC at Lakshadweep Administration Office in Wellington Island, Kochi and Minicoy during 1990-91. Considering the isolation and very poor communication facility, NICNET service with C-200 was extended to the remaining islands- Andrott, Kadmat, Kalpeni and Chetlat with technical manpower of NIC, during 1993-94. These VSAT based NICNET service played a crucial role during Parliamentary Elections and during Monsoon season (May 15 to September 15). Today, around 43 VSATs are under operation in offices of the Electricity, Port, and Revenue Departments.

VC studios have been setup in Kavaratti,



Minicoy and Kochi. All the inhabited islands are provided with video conferencing devices by the Administration of UTL. During 2012-13 more than 300 Lakshadweep-centric video conferencing sessions were conducted over SWAN and NICNET.

**8. INTEGRATED SYSTEM FOR PROCUREMENT, INVENTORY, DESPATCH & DISTRIBUTION OF MATERIALS**

All materials for Lakshadweep are procured from mainland, stored in the respective stores of departments and then dispatched to various stores on the islands by available conveyance.

The application system keeps track not only of the inventory of materials but the overall management of the activities from purchase to disbursement in a workflow model. The major functionalities of the system are: supply order generation, distribution list, item receipt, stock transfer, packing, despatch, items tracking, indent, damage management, work estimation, billing, MIS reports generation etc.

The system was successfully implemented

at Department of Electricity and is being implemented at Department of Fisheries and Port.

**9. e-PERMIT SYSTEM**

Lakshadweep being a strategic area under the Union of India, the entry to the islands is restricted and the UTL Government is issuing entry permits to those who wish to visit Lakshadweep based on the act "The Laccadive Minicoy & Amindivi Islands (Restrictions on Entry and Residence) Rules, 1967".

e-Permit System is operational since 2008. The functionalities under this system are application registrations, Police verification, permit generation, island reporting, island exit, renewal etc. Logins are provided to Police Stations in all islands of Lakshadweep to capture the island reporting and exiting details of permit holders. The ADM/SDO/ASDOs also access the system to make endorsements such as extension/renewal of permits, permitting additional islands etc. The key features of the system are: online status of permit, tracking of permit holders, pending list, list of over stayers, permit register & profession wise break up and generation of statistical reports etc.

**10. COMPUTERIZATION OF PUBLIC DISTRIBUTION SYSTEM**

Computerization of Public Distribution System was initiated in March 2012. Lakshadweep has been chosen as one of the pilot state for PDS computerization.

Digitization of Existing RCs: Data collection and digitization of existing Ration Cards were entrusted with VLEs (Village Level Entrepreneurs) by UT Administration. ERCMS (Existing Ration



Card Management System) application has been used for capturing RC data. As the existing Ration Card holds very minimal details, data collection exercise was carried out to capture maximum information possible from households. Collection and updating of bank account details of beneficiaries were also taken up for facilitating Direct Cash Transfer. Bank details of more than 85 per cent of beneficiaries are already seeded into database and the process of seeding UID will be started soon.

### 11. SEAT ALLOTMENT SOFTWARE

The application is developed for Department of Education for allotment of seats for higher education in mainland institutions. As there are no institutions for pursuing higher studies after school education, MHRD has reserved seats in few mainland colleges for various courses such as post-metric diploma and ITI courses, graduation in different streams including professional courses and post-graduation. UT Administration has brought out its own seat allotment rules keeping compliance with merit criteria of respective universities/institutions, to ensure a fair allotment process for native students and also wards of employees from mainland serving Lakshadweep Administration.

### 12. LAND RECORDS

A web based application (Land Records Information System) has been developed wherein the Record of Right or RoR can be generated. Other reports like Land Register Extract, Fair Area List, Island Wise Land Holdings, Owner wise Holdings, Land Type wise Holdings, List of all landowners, Missing Survey Numbers etc. can also be generated. Integration with the online software for Registration & CollabLand software is also in progress. The software is implemented in all the 10 Revenue Subdivisions of Lakshadweep.

### 13. NADRS

State Level launching of NADRS was done on 06th Feb 2013 by Shri V.C. Pandey, IAS, MD (LDCL) and Secretary (Animal Husbandry) Lakshadweep. All the Animal Husbandry Units including State/UT Directorate and Liaising Office at Kochi and Animal Husbandry Hospitals in islands (Bitra to Minicoy)



Launch of NADRS

could be virtually connected by successfully establishing the NADRS Block level network. NADRS helped in online reporting of the diseases along with keeping the record of disease cases of various veterinary centres of each island and monitoring of these disease cases from the State Project Monitoring Unit (SPMU) at Kavaratti.

Training was conducted through VC for the remote locations. The lecture on various goat diseases by the scientists of Central Institute for Research on Goats, Lucknow was extended through VC on NICNET with active coordination by Shri M. Moni, former DG NIC.

### 14. e-MPEDA (MARINE PRODUCT EXPORT DEVELOPMENT AGENCY)

MPEDA is an autonomous body set up for the promotion of exports of seafood from the country. The Head Quarters of MPEDA is located at Kochi in the state of Kerala.

The project involves the re-engineering of various activities and development and implementation of online applications. The following areas are identified and NIC Lakshadweep Unit, Kochi is executing the project:

- Registration Management System

- Subsidy Management System
- NRCP Monitoring System (e-NRCP)
- Personal, Payroll and GPF System
- Pension System
- Financial Management System
- Asset Management System
- Plant Survey
- Online Farm Survey
- RCMC System
- Registration System for Aqua farms, Hatcheries & Feed mills
- Online PHT System

### 15. LAKSHADWEEP GRIEVANCE MANAGEMENT SYSTEM(LGMS)

Lakshadweep Grievance Management System is a web based online public grievance redressal mechanism which aims to bring in transparency and accountability in offering government services. With the introduction of LGMS, the administration is able to track, search and redress complaints in a more effective way. The key features of the project are:

- Complaint Registration through helpline



■ Integration of Common Service Centres for citizen interface

■ Designated Public Grievance Officers in all departments

■ Department wise, category wise reports, pendency reports and other MIS

### 16. ONLINE TAPAL MANAGEMENT SYSTEM- DEPARTMENT OF ELECTRICITY

As a part of implementing effective e-governance applications for speedy transactions in offering government services, NIC Lakshadweep Islands designed and developed Online Tapal Management System for Department of Electricity. The system is designed to digitally archive the tapals received in the department, send it for officer's perusal, mark the comments online, send the tapals to the employee concerned, acknowledge the received tapals and to move the processed tapals to respective file for processing. The system has admin controlled role menus, workflow based

application design and various pendency and MIS reports. The system is seamlessly working in Department of Electricity for the last 3 years.

### 17. JEEVANREKHA

Jeevanrekha is an online application that deals with the registration of birth, still birth and death events. The application is completely developed using open source technologies and has a workflow model. The application is seamlessly running and is used by Department of Health Services from 2011 onwards. The application offers local language support and certificates are issued in bilingual format.

In addition to the above projects, SchoolNet, EverAlerts, BUDGETMIS, Payroll and Lakshadweep official website are developed and maintained by NIC Lakshadweep.

In addition to the above projects NIC, Lakshadweep is implementing many Central projects like MGNREGA, IAY -

MIS, VAHAN ,SARATHI, e-Lekha, COMPACT,CDD02PA0, ReAICraft, e-Courts etc.

### ACCOLADES

- CSI Nihilent Award -Department of Electricity bagged the CSI-Nihilent e-Governance award 2006-07 for the Best e-Governed Department
- Microsoft Award - The WebSTAR project has received the "Award for Innovative Project" in the Microsoft e-Governance Awards 2006
- Manthan Award - Manthan Award in 2007

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