West Bengal State Data Centre
Indispensible Facilitation with a Common Centralized System

West Bengal State Data Centre is constituted of a world class Tier II data centre (having redundant capacity components and distribution path serving business continuity) as per TIA 942 standards with a guaranteed service level of 99.749%. The data centre ensures safe, secure, constantly monitored and uninterrupted services with highly available power supply along with efficient cooling systems. The West Bengal State Data Centre has achieved both ISO 27K: 2013 and ISO 20K: 2011 Standards.

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National e-Governance Plan (NeGP) envisages setting up of core ICT infrastructure such as Wide Area Network and Data Centres at the States which would facilitate centralized computing and support for online services delivery to citizens, business and government.

West Bengal State Data Centre (WBSDC) was established primarily to provide services to the State Government, Line Departments and Public Sector Units of West Bengal. It hosts many critical mission projects related Commercial Tax, Crime and Criminal Tracking Network & Systems (CCTNS), Land Records, Excise, Registration, IFMS etc. The data centre facilitates hosting and management of various software applications online with the use of a common centralized system.

ABOUT WBSDC

WBSDC has been built up on a floor area of about 400 Sq. m and having provision to extend up to 120 Sq. m more. SWAN and WBSDC are composed of the latest state-of-art technology and infrastructure with a robust architecture containing multilevel redundancies, enhanced security system with detection & prevention of advanced perceived threats, distributed denial of services and a three-tier uninterrupted power supply system. Being a world class Tier II data centre (having redundant capacity components and distribution path serving business continuity) as per TIA 942 standards with a guaranteed service level of 99.749%, it is safe, secure, monitored and has a highly available power supply along with efficient cooling arrangements. The WBSDC has achieved both the ISO 27K: 2013 and ISO 20K: 2011 Standards. It has a centralized yet simplified management system and can accommodate several racks for network components and servers.

WBSDC is powered with a separate substation having two different sources of grid power supplies, supported with 3 diesel generator sets. An efficient building management system of the data centre with fire fighting arrangements, water leak detection system, biometrics for access control, alarms & surveillance, rodent repellent and public address system ensures safe and secure operation of the data centre, complying with the ISMS standards.

FEATURES OF WBSDC

The State Data Centre is fabricated with a full-bodied network infrastructure compliant of both the present generation Internet Protocol (IP v4) as well as next generation Internet Protocol (IP v6) using Dual-Stack deployment. This is equipped with multilevel security system including intrusion prevention, demilitarisation and two-level firewalling. WBSDC has a robust intranet backbone coupled with 2 different Upstream

Server Farm Area of West Begal State Data Centre

Internet Service Providers. The data centre is constituted of large number of servers to cater shared services over multiple OS platforms with virtualisation (Windows & Linux) and database management systems (Oracle, MSSQL etc.). The shared services also include power, storage spaces, local area network, tape library and abundant rack space to accommodate additional servers in the server farm.

Facility Management Services (FMS):
FMS includes routine backup, continuous monitoring to secure servers, network devices, application and database services, immediate resolution of defects and incidents, which are part and parcel of the 24x7 operational infrastructures. A disaster recovery facility has been established at the data centre for replication of data at National Data Centre (NDC), Delhi. Departments can add required computing facility at NDC to maintain absolute business continuity with prevention of any data loss.

HOSTING AT WBSDC
For hosting applications at WBSDC, the models available for the line departments on the basis of complexity, criticality and volume of their applications are:

- Dedicated hosting
- Partially shared hosting
- Fully shared hosting

The departments need to sign a Service Level Agreement (SLA) with DIT prior to hosting. Basic services (24x7) provided by WBSDC includes Power, Space, Cooling, Physical security, BMS, Application hosting (Collocated, Shared & Cloud), shared infrastructure such as Network, Server, Storage & Tape library, Staging, VPN, Antivirus, Monitoring & Management.

WBSDC's stakeholders are DeitY, Govt. of India, Composite Team State Implementing Agency, SDC Consultant, Data Centre Operator, Third Party Auditor and STQC. Time to time, various policies have been derived by the Composite Team and various procedures are adopted accordingly for smoother and efficient operation of SDC. Departments of hosting applications at WBSDC are required to get a prior approval from DIT&E, GoWB. The VA/PT of Operating System and Application Security audit is mandatory prior to Go-Live.

WBSDC's Server Farm Area is mostly occupied. Currently about 40 Applications are hosted in WBSDC, among which 10 applications are in Cloud environment. The composite team has introduced services such as Online Service Desk, Active Directory, SSL, Customer Feedback and Attendance Monitoring System for DCO and various processes to streamline application hosting. At server farm area, the complete floor space has been utilized and expansion work has already been initiated.

ENHANCEMENTS
Storage has been augmented to 180 TB to meet the requirements of Line Departments. Storage based replication has been initiated already for some of the applications and the major applications have been computed at National Data centre (NDC) end. Cloud Computing System (CCS) is in place as an additional facility for applications that need dynamic resources. WBSDC is the process of enhancing CCS by adding disparate Departmental servers. Online Portal for CCS has been introduced for the Departments to avail facilities easily through a simple registration process. Security system has been strengthened with inclusion of Checkpoint firewall equipped with features like Anti-DDOS, Anti-Bot, Threat Emulation, Advanced persistent threat (APT) management etc.

WBSDC strides ahead as an indispensible part of West Bengal providing services (24x7) for several mission critical applications.

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