

**GOVERNMENT OF PUNJAB
DEPARTMENT OF GOVERNANCE REFORMS**

To

All the Principal Secretaries/Secretaries/
Head of the Departments

No.1/60/2012-AM(EG)DGR/ 5074

Dated, Chandigarh, the 18th December, 2013

Subject: Usage of Punjab State Wide Area Network (PAWAN) by all Punjab State Government Departments, Boards, Corporations and Commissions.

Punjab State Wide Area Network (PAWAN) is a robust and converged network under NeGP for Data, Voice and Video communications throughout the state of Punjab. The objective behind creating PAWAN is to create a dedicated closed user group (CUG) network among various state offices.

2. A detailed overview of PAWAN prepared by Department of Governance Reforms has been enclosed for the better understanding of PAWAN network and its advantages. Currently PAWAN have 193 Point of Presence which has been extended to all Districts, Subdivisions and Block headquarters. CM Residence, Punjab Civil Secretariat I & II, 20 State departments with more than 400 field offices have already been connected to this network. In addition to this, 139 offices of Heads of Departments/Public Sector Undertakings etc. located in Chandigarh and Mohali, 1000-1500 under e-district state wide rollout project, 240 offices of Punjab Police department etc. are being connected with PAWAN shortly.


3. PAWAN network is a highly secured from external attacks with required security infrastructure in place. More than 70 engineers are dedicatedly maintaining this network along with BSNL team and a third party auditor is regularly monitoring the performance of PAWAN to ensure high performance as per defined service levels. The Department of Governance Reforms has signed the Service Level Agreement with BSNL for maintaining specified service standards. In the event of failure on part of BSNL to maintain the service standards (such as 99.50% uptime), there is provision for heavy penalties.

4. Services provided by various government departments can easily be integrated, once connected with PAWAN. Replication of hardware infrastructure and bandwidth will not be required by the departments if PAWAN is used. PAWAN Vertical bandwidth is provided free of cost to State Government Departments, as it is funded by Government of India. However, in certain cases the horizontal (last mile) connectivity has to be funded by state government.

5. In addition, Internet lines of 80Mbps by State funds and 100Mbps under the National Knowledge Network (NKN) are connected with PAWAN which have been extended to various state government offices free of cost.

6. It is advised that all the State Departments/Boards/Corporations/Commissions may use PAWAN instead of creating separate network for their applications, to ensure that the objective of creating such a robust, efficient and cost effective state network can be achieved. It is state policy that PAWAN is the primary network for connectivity. However, for redundancy purposes, individual departments/organisations may have secondary connectivity from another service provider depending upon requirement. Going for a private agency as primary connectivity service provider in suppression of the PAWAN facilities will result in wastage of public resources and the department/agency concerned should justify and take responsibility for any such wastage. In case of any clarifications regarding PAWAN, please feel free to contact Director Governance Reforms, Ph: 0172-2661808, E-mail: dgr@punjab.gov.in

Encl: Overview of PAWAN


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Department of Governance Reforms
18/12/13

Punjab State Wide Area Network (PAWAN)

An overview

Department of Governance Reforms
SCO 193-195, Sec- 34A
Chandigarh

Punjab State Wide Area Network (PAWAN)

Overview

PAWAN is a converged fiber network for data, voice and video communications throughout the State of Punjab with the following salient features:

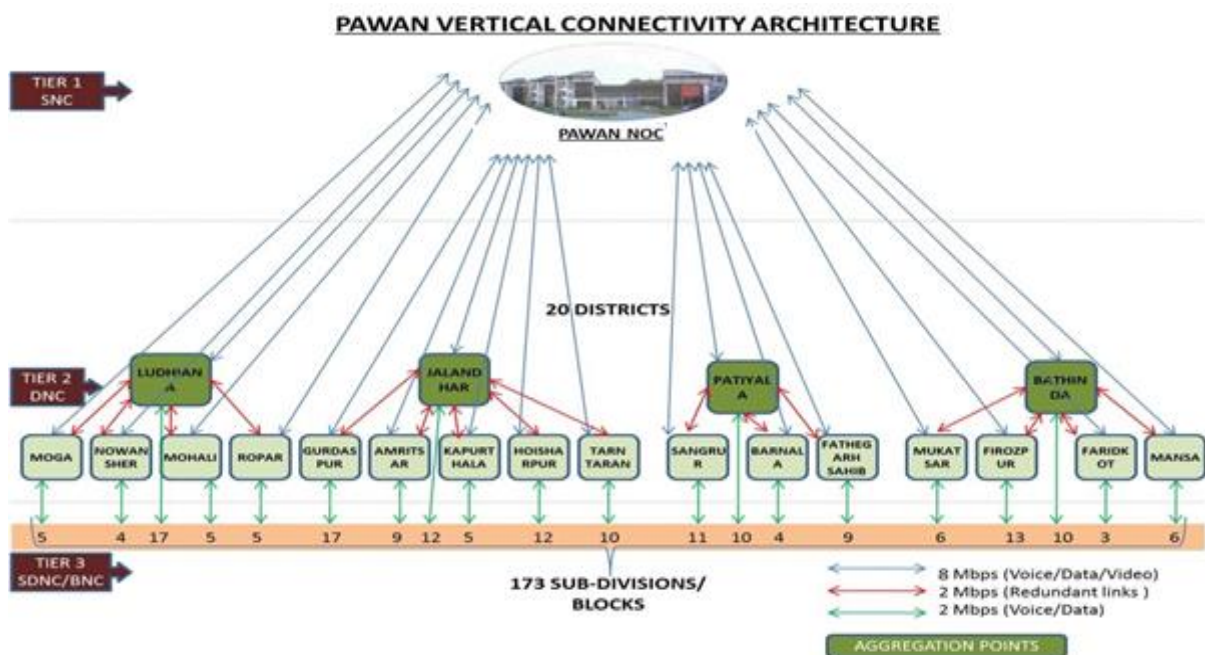
- Dedicated state owned fiber Network infrastructure to connect Government offices at State, District & block levels.
- Designed to cater to the Governance information and communication requirements of whole State of Punjab.
- Aims to create a dedicated Closed User Group (CUG) network among State's Civil Secretariat, Departments, Corporations, Boards, District offices and Block offices.
- Dedicated e-mail service of Punjab which is now being used by more than 4800 state government officials.
- HCL Infosystem is the PAWAN operator and Bharat Sanchar Nigam Limited (BSNL) Punjab is the bandwidth provider for PAWAN.

Network under PAWAN

1. Vertical Connectivity

A total of 193 Point of Presence has been created at State, each District and Sub-Division/Block Headquarter.

- State Headquarter (SHQ) has been connected with District Head Quarter (DHQ) with a bandwidth of 8 Mbps on optical fiber cable.
- District Head Quarter (DHQ) has been connected with Subdivision/Block Head Quarter (BHQ) with bandwidth of 2 Mbps.
- Backup link of 2 Mbps has been connected to all District Head Quarters (DHQ).



Punjab State Wide Area Network (PAWAN)

2. Horizontal connectivity

PAWAN has been extended to CM Residence, Punjab Civil Secretariat I and II and 20 State Departments with more than 400 Field offices.

Food, Civil Supplies and Consumer Affairs
General Administration
Programme Implementation
Governance Reforms
Industries and Commerce
Parliamentary Affairs
Punjab Police
Revenue, Rehabilitation and Disaster Management
Rural Development & Panchayats
Employees and Pensioner Database Cell

Finance
Personnel
Removal of Grievances
Information Technology
NRIs Affairs
Planning
Election
Jails
Courts
Treasury and Accounts

Security under PAWAN

PAWAN network has below secured infrastructure to protect data and information against external attacks:

1. Firewalls
2. Intrusion Detection System (IDS)
3. Antivirus
4. Spam mails and Junk mails protection.

PAWAN network operations center (NOC)

PAWAN NOC is operational at Sector-26 MGSIPA. The NOC operates 24*7 with team of engineers continuously monitoring the network.

A dedicated help line no. 1-800-180-2036 is being used to register user complains.

Also complains can be registered on mail.support@punjab.gov.in

A total of 70+ engineers are deployed across state of Punjab to Manage and Monitor PAWAN POPs.



PAWAN Helpdesk



PAWAN NOC

Punjab State Wide Area Network (PAWAN)

Service Level Agreements (SLA)

Two Separate SLAs have been signed under PAWAN as below:-

1. PAWAN Operator (M/s HCLi)

Network Segment	Network Uptime	
	Prime Business Hours (PBH) 8AM to 8 PM	Extended Business Hours (ESH) 8PM to 8 AM
SNC	99.50%	95%
DNC	99%	90%
BNC/SDNC	95%	85%

2. Bandwidth Provider (M/s BSNL)

Uptime of Link	Tier-1 Links	Tier-2 Links	Tier-3 Links
For MLLN Circuits	99.50%	99%	98%
For non MLLN Circuits	98%	95%	92%

However, the above service levels can further be improved with the involvement of additional funds, if required by any department(s) for any specific application.

To regularly monitor the performance of PAWAN, Third Party Auditor (TPA) M/s TCIL has been appointed by the State.

Advantages of using PAWAN

- A dedicated state owned Network infrastructure which can be shared by all Government department, boards, and corporations.
- Secure closed user group, with capability of facing external intrusions/cyber-attacks.
- Better Integration of Services provided by various government departments, once PAWAN is connected with State Data center (SDC).
- No need to replicate same infrastructure (Routers, switches, Power Backup, manpower) at SHQ, DHQ's and BHQ's by different departments. Instead the state may invest further to strengthen existing infrastructure.
- Huge cost savings due to use of PAWAN hardware at SHQ, DHQ's and BHQ's by different departments.
- PAWAN Vertical bandwidth along with internet is provided free of cost to state government departments as, it is funded by Government of India. However, the horizontal (last mile) connectivity from the existing PAWAN POP has to be funded by State government.

Way Forward

- Up gradation of Vertical Bandwidth from 8Mbps to 24 Mbps for SHQ-DHQ link and 2 Mbps to 4 Mbps for DHQ-BHQ link.
- Up gradation of links between DHQ-BHQ from Copper to Optical Fibre Cable.
- Connectivity of 139 Offices of all Departments, Boards, Corporations & Commissions of Punjab Government in Chandigarh & Mohali.
- Connectivity of 1000-1500 Offices under e-District State wide Roll out Project.
- Connectivity of 242 offices under CCTNS Project.