उत्तराखण्ड शासन

Information & Communication Technology Policy, 2006

Table of Contents

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I. Preamble

The State of Uttaranchal was formed on the 9th November 2000 when it was carved out of northern Uttar Pradesh. Largely a hilly State at the foothills of the Himalayan mountain ranges, its population currently stands around 85 Lakhs in a geographical spread of 53,483 sq km, 88 per cent approximately of the geographical area being hilly; rich in natural resources especially water and forests with many glaciers, rivers, forests and mountain peaks. It's truly God's Land (Dev Bhoomi).

1. Government of Uttaranchal proposes to harness the full power of Information and Communication Technology (ICT) for improving the quality of life of its citizens, bring in accelerated social and economic development, ensure transparency in the Government decisions, accelerate the IT adoption amongst various user segments – all leading to an ideal e-society model through efficient, Service oriented, cost-effective, information networked, eco-conscious, and with year-on-year growth approach.
2. The purpose of this document is to provide a policy framework for effective infusion and management of ICT for achieving a genuine progress of the State in all its aspects. This policy document will become an extended document to the New Industrial Policy 2003 of the Government of Uttaranchal, released by the Department of Industrial Development, Directorate of Industries and the State Industrial Development Corporation of Uttaranchal Ltd.

II. Vision & Goals

3. The vision is to have the State of Uttaranchal fully digitized – a networked society where information flow and access across all sections of the society, enabled through effective ICT infrastructure, would propel the economic growth of the State, leading to a very high quality of life of its citizens.

4. An important outcome of this ICT initiative will be employment generation. Given the fairly high literacy rate (higher than the national average), the Government aims to reduce unemployment by encouraging IT and ITES to establish their enterprises in Uttaranchal. The focus of job creation in Uttaranchal has to be on the Services Sector of the economy.
5. The Government also plans to reduce various divisions such as the digital divide, economic divide, literacy divide and the social divide. With knowledge playing the leveller, ICT infusion could gradually remove these divides.

III. Objectives

i. Encourage the use of IT in the Government not only as a tool for management and decision support systems but also to re-engineer the processes of the government to provide a more efficient, transparent, accountable and responsive government to its citizens.

ii. To upgrade the quality of life of citizens of the State by facilitating easy access to consumer applications of IT.

iii. To encourage private sector initiatives for the development of world class IT infrastructure adequate for the needs of the citizens, the industry and the government.

iv. To upgrade and develop manpower skills required for the IT industry and to accelerate the use of IT in schools, colleges and other educational institutions with a view to providing skills and knowledge to the youth so as to render them fit for employment in this industry.

v. To use IT as GDP driver by promoting IT industry in the State, developing the State as an attractive IT destination with a view to generating employment for youth in this sector thereby raising their earning capacity and simultaneously realizing the export as well as domestic revenue potential in this sector.

(A) Good Governance through ICT

6. Recognizing the fact that good Governance is primarily the combined effect of People, Processes and Technology, the Government of Uttaranchal would strive to deploy 'state-of-art' technologies supported by optimized administrative processes, simplifying the interface of the citizens and businesses with the Government, and building adequate skills among people in the effective use of ICT. The e-governance policy of the state shall use information as a tool for empowerment of its citizens.

7. As such, one of the goal of the Government is to **cooperate, collaborate and integrate information** across different departments in the State and the Centre that would help in delivering prompt services to the citizens, businesses and other Government Departments, in a manner that simplifies Government Processes and aggregates different inter-related services amongst various Departments.

(B) Accelerating Industrial Growth through IT adoption and attracting knowledge industries

The economic growth of a State is driven by increased value-added business / industrial activity and the availability of a rich set of natural resources. A major portion of the State's GDP currently comes from the services sector, making the State a service oriented economy. The main contributors to GDP include Tourism, Agriculture, Horticulture, Medicinal / herbal wealth, Hydro energy, Info technology and bio-Technology.

8. It shall be the policy of the government to promote private investment in the IT industry in the State. The State shall play an enabling role in creating world class infrastructure, provide a friendly administrative set up, involving industry leaders in policy making framework and providing other fiscal and non fiscal incentives to make Uttaranchal as an attractive destination of IT industry.

Fiscal Incentives

9. Fiscal incentives have already been mentioned in the New Industrial Policy 2003 (Sections for IT Industry are included as Annexure 'A'). Special incentives for projects above Rs 50 crore will be decided in a high level committee chaired by Hon'ble Chief Minister .

10. The Government will encourage various Hardware and software and IT enabled services to set up industries in the State; also attracting industries in general to set up business in Uttaranchal to explore and harness its rich diversities.

Non fiscal Incentives

11. The State Government shall generate an investor friendly environment in the State and shall ensure:-

    i. Preferential allotment of land for IT industry in the State.

    ii. Continuous/uninterrupted power supply to IT industries.

    iii. Encouragement to Captive power generation. Total exemption from payment of electricity duty.

    iv. Lending in IT shall be considered as priority sector loaning by State level Financial Institutions.

    v. Special efforts to develop high quality social infrastructure like schools, housing, health, entertainment, and leisure facilities in IT locations.

    vi. Providing an enabling administration system for obtaining easy clearances & approvals from various Government Departments. Single windows to be set up for all Statutory Clearances in Department of IT.

Infrastructure Support

12. The State shall endeavor to attract these high technology industries by leveraging its strength: a cool and picturesque locale, abundant water, competitive real estate prices, qualified HR, skilled IT workforce, proactive administration and developing an infrastructure to improve air, rail, road and telecommunication connectivity.

13. The State has a clear road map for attracting IT based industries to Uttaranchal, as well as using the ICT investments to improve the efficiency of the administration and bringing in a truly democratic citizen-Government interaction.

14. The Government will aggressively identify potential investors as part of a planned approach and will present Uttaranchal's value proposition in the specific context of their businesses.

15. The Government will attempt to attract the knowledge industry to Uttaranchal by providing the necessary infrastructure for IT education.

16. The Government will ensure that all clearances to set up a new business will be done on top most priority.

17. The Government will also consider tie-ups with leading international consultancy firms and global investment promotion agencies for the establishment of an ICT conducive environment.

18. The Government will support workshops/seminars on IT with industry participation to increase the awareness of the benefits of deploying such IT products for improving efficiency, productivity, competitiveness and global impact.

(C) Building a knowledge Society

19. Uttaranchal will strive to establish a knowledge society that will be characterized by significant access to information across the entire State.

IV. Enabling Policies

(A) Building an effective ICT Infrastructure

a) Supporting National ICT policies

20. Various initiatives of the Department of Information Technology, Government of India relating to State Wide Area Networks (SWAN), Broadband Policy, Common Service Centres (CSCs), State Data Centres (SDC), National eGovernance Action Plan (NeGAP), Policy framework for implementation of .IN Internet domain names will be implemented as per the directives of the Central Government. Additional infrastructure needed beyond the central support will be provided for by the State Government.

b) Technology Architecture & Standards

1 - Architecture

21. In developing an eGovernance Architecture Framework, due recognition will be given to the role of the different players in the service creation and delivery, such as the Service Seekers, Government Service and other third-party service providers such as authentication and payment gateway services, network providers, Infrastructure Management services and will provide hassle free interface amongst these players to ensure smooth and efficient creation and delivery of services, ensuring 24 X 7 quality of services through effective Public – Private - Partnership models.

2 - Standards

22. Based on the framework being adopted by the Centre, the State has devised data standards that are specific to the context of Uttaranchal, which the Government will follow for the present and will mandate compliance to those eGovernance Standards relating to interoperability, Data and Metadata as recommended by the Department of Information Technology, Government of India as and when these Standards are released.

23. In addition, the Government may insist on the adoption of specific ICT standards as approved by recognized international bodies such as IEEE[1], IETF [2] W3C[3], ISO[4], CMM[5] etc.

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1 Institution of Electrical and Electronics Engineers
2 Internet Engineering Task Force
3 World Wide Web Consortium
4 International Organization for Standardization

24. The Government of Uttaranchal is technologically neutral but it is necessary for integration that any software is based on open standards and its integration standards are defined. Therefore Government of Uttaranchal will work on transparent standards. For selection of platform, the main consideration will be the Total Long Term Cost of Ownership (TLCO).

c) Infrastructure Management (IM)

Once various components of the ICT infrastructure are in place, IM as an outsourced element would become 'sine quo non'. IM will govern the ICT infrastructure including the data centre, network (voice and data), desktop and help-desk operations.

25. The GoU IT infrastructure running all mission critical applications and storing records in the data vault will have Business Continuity (BC) and Disaster Recovery (DR) systems in place to restore system in the event of a natural or unnatural disaster ensuring a minimum 99.9% uptime. The IM will ensure 24 x 7 data / information availability to the back end departments and to service access providers.

26. The operation, management and maintenance of the infrastructure would be, as far as possible, outsourced with Service Level Objectives (SLOs) and Service Level Agreements (SLAs) clearly defined. The State views with favour, ownership and implementation of such arrangements in the Public Private Partnership (PPP) mode with appropriate financial modeling.

d) Statewide Digital Repository Data centre Information Life Cycle Management

27. The State Data Centre and its interoperability with Data Centres of other States / Centre will be in conformity to the guidelines of the Government of India.

28. With the projected accumulation of data from across different departments in the State, the data centre will be augmented into a full-fledged State-wide digital repository. This repository will capture, store, index, preserve, and redistribute Government data. Uttaranchal would perhaps become the first Government to have implemented a futuristic standards-based digital repository.

29. Information Life Cycle Management" (ILM), will take into consideration the value of the information over time, how quickly and at what cost it must be made available for user queries and how long it must be retained before being deleted. All data entered into the system will be assigned a type or category based on access rules, retention requirements and business practices.

e) Network / Communication infrastructure

30. Creation of a connectivity backbone is the foundation on which the building blocks of eGovernance initiatives will be placed. A State Wide Area Network (SWAN) is proposed to be established for connectivity across the state. Given the difficult terrain of the state, the WAN shall be a hybrid primarily based on wireless technologies supported by existing networks. The SWAN guidelines and

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[5] Capability Maturity Model

support from the Centre will be utilized to fully reap the benefits of the communication infrastructure. The Government will encourage proliferation of other Public and Private Networks to increase the bandwidth availability and to bring price affordability through competition.

31. The State Government will welcome potential investors who wish to create connectivity infrastructure in Uttaranchal. The State encourages a "Right of Way" policy to allow speedy clearance to private vendors for establishment of a Connectivity backbone.

32. Computer and Internet penetration, form an important part of infrastructure creation. Connectivity shall be provided in a phased, but time bound manner to institutions. In the home segment Uttaranchal has taken proactive steps to increase the same under Project "*Gyanotkarsh*", State has joined hands with public sector banks to provide low-interest/easily repayable loans to all government employees and teachers for purchase of computers. Several Internet Service Providers (ISPs) are already operational in the State.

33. Effective- electronic Records Management (eRM) will support:

- Easy and quick retrieval of relevant electronic records,
- Efficient joint working, information exchange and inter-operability between Government organizations,
- Evidence-based policy making by providing reliable and authentic information and interlinked data for the evaluation of past actions and decisions ,
- Administration of data protection principles and effective implementation of freedom of information and other information policy legislation, through better organisation of records,
- Knowledge management across sectors of Government by making reliable information available for sharing, extraction and summarization.

(B) Work Process Flows Re-engineering Government Processes

Interoperability framework and Integrated Services Delivery mechanisms are critical elements in simplifying the Government interface with the public, so that the citizen realizes the single-face of the Government, delivering to him the services he wants.

34. The endeavor of the State therefore shall be to move beyond process automation in providing e-governance to demand driven eGovernance. Thus it would require a serious attempt at Business Process Re-engineering of the government processes. Change management, in itself is a major challenge to facilitate a certain level of automation in decision making.

35. Special focus would be given for ensuring eGovernance deliveries in rural and distant areas of the state which, due to sheer distances are the most under privileged in terms of ready availability of government services.

36. Based on the re-engineered government process and the expectations of the people, ALL departments of the State would be computerised.

37. The Government would therefore undertake necessary administrative reforms involving reengineering, value-engineering, abstraction of common functional elements across different departments – for instance in terms of e-filing, e-payment, e-returns, e-approvals etc. This will

bring down the time and cost for deployment and the Government will encourage extensive reuse of processes, patterns, designs and components.

38. The Government recognizes the major challenge in managing silos of applications both in terms of technology and ever changing requirements of the users across Departments. The focus will be to seamlessly manage such changes by integrating appropriate interoperability mechanisms in the eGovernance architecture.

(C) Government Services Framework

39. The Government will deliver services with speed and certainty.

40. Therefore based on the extent of e-readiness of the back end department, the services could be categorized into four levels of delivery. These four service levels are: i) Information sharing, ii) Interaction, iii) Transaction, and iv) Integration.

41. **Publish Information Sharing** - This will largely be used for:

- Placing online Government laws and regulations on various matters,
- Making available the contact names, addresses, emails, fax numbers of local/ regional/ national government officials online,
- Making available information such as governmental plans, budgets, expenditures, and performance reports online,
- Sharing key judicial decisions which are of value to general citizens and create precedence for future actions online, viz. key environmental decisions, state vs. citizen decisions etc.

It is an entry point to the more complex service-offerings of the Government.

42. **Interaction** is the next higher level of Government service where the citizen is able to interact with the department. Most Departments can provide a simple interaction mode which is to provide a link to contact a concerned official in the department. Grievance reporting is one example where an aggrieved person can file his complaints through eMail.

43. The third level of Government Service involves '**Transaction** processing. A best example is the delivery of birth certificates on line by the local bodies.

44. The highest level of Government Service is the **integrated** service, combining services from multiple departments of the Government to provide a single unified interface and service to the community. A single window industrial clearance is a typical example of this.

45. The State shall endeavor to assimilate the best practices available internationally, innovate on its own to provide relevant services and to ensure that the transparency of usage of such services (*ease of use of such services*) is such that even the non-literate amongst the populace is able to access these services.

46. It shall be the endeavor to use these services for empowering the population. It also means to provide all services electronically in the urban and rural sector

(D) Channel Strategies

47. Through e-governance, the State of Uttaranchal believes in anytime, any place delivery of a government service to its citizens. The choice must rest with the citizen and not with the government department. The State shall therefore use technologies to overcome the handicap imposed by its terrain to deliver such services.

48. Special emphasis will be laid to provide user interface in a form and manner that is easy and convenient for large sections of the society to interact with the technology interface. A choice of devices – PCs, telephones, digital TV, mobile devices, kiosks, Personal Digital Assistants etc will be considered to create and support an infrastructure to facilitate pervasive online access, subject to device suitability to support transactions.

49. The Government will coordinate with Central Government agencies, banking / financial institutions and NGOs for funding low cost access devices (for internet / broadband access) to citizens.

50. In order to ensure access for the citizens to the Government offices and relevant information, the state proposes to set up Community Service Centers (CSCs) in all villages in line with the Common Services Centre Scheme proposed by the Government of India, Department of Information Technology. These CSCs shall serve as the common access point to the Government and its various offices.

51. The Government will support the standardization of representation and processing in local language and e-Literacy programmes for effective usage of computers.

52. Government will ensure that applications developed for delivering eGovernance Services factor in the need to provide interfaces that are easy to use for the physically challenged.

(E) Developing Human skills

53. In the area of ICT, Government will address development skills that have the potential for increasing employment opportunities - **Building the capacity of citizens**, especially the youth, Government employees, teachers, industrial employees, rural communities including women, providing employment opportunities in information technology industry.

54. As part of the capacity building exercise, the Government of Uttaranchal aims at universal computer literacy. Towards this end Government of Uttaranchal has initiated Project **Aarohi** under which computer labs have been established in all the Government and Aided higher secondary and secondary schools in the State. Ultimately Project Aarohi will be implemented in all the colleges of Uttaranchal in a phased manner. In future Project Aarohi will be further strengthened.

55. For introduction of professional courses in the Government and Aided degree colleges and University Campuses, arrangements are being made with the top Education Providers (EPs) to set up franchisee centers to impart professional and employment oriented computer education to the students. This initiative has been started under Project **Shikhar** . Project Shikhar would be further strengthened so that students getting education at our universities and colleges become a part of Knowledge-Economy and employable.

56. Capacity building within the Government will be taken up based on the guidelines of the Department of Information Technology, Government of India under the National eGovernance Plan. This will include a mix of outsourcing and in-house competencies for various skill levels such as Program management, business process reengineering, Change Management, Architecture designs, etc)

(F) Legal Framework & Third-party services engagement framework

57. The supporting legal framework will aim to:

- Preserve basic public policy goals, such as privacy, security, retention, and public access to information.
- Provide the statutory basis of, authority for, and regulations related to the government processes and services that may be supplied electronically.
- Assign responsibility for and ownership rights to the data provided and accumulated electronically.
- Address the sharing of data collected by one government agency with other government agencies that require the same information.
- Clearly define jurisdictional responsibilities related to intergovernmental transactions and business to government transactions.
- Provide a mechanism by which legal requirements are recognized and enforced.
- Provide a basis for the establishment of fees related to electronic processes and services.
- Identify the records that should be maintained, the period of retention, and the required storage media.
- Not be technology-specific or favour one form of service delivery (traditional or electronic).
- Minimize costs and the potential for litigation.
- Provide for an effective dispute resolution mechanism, which may be invoked by the service Seeker.
- Provide contractual terms / Service Level Agreements between various Private players and the Government and between / among private players in the maintenance and operation of various services

For the above a legal framework will be set up which will ensure transparency of all Information Technology processes.

a) Security

58. The Government will encourage use of smart cards and biometrics across many domains such as banking, retail payments, vehicle registration, internet payments, citizen Identity, ration cards, pensions, driving licenses, health records etc.

59. Government will encourage use of digital certificates and will identify existing certifying authorities and service providers and strive to keep the prices affordable for common use. The

government therefore, plans to put in place the Public Key Infrastructure (PKI) to ensure transparency, online security, personal authentication and certification. Defined as the entire set of policies, processes, server platforms, software, workstations and delivery points, the adoption of PKI in the State would generate the necessary confidence for transactions. The PKI would be backed by a private key known only to user. The issues of certification (multiple versus single certifying authority) and authentication would be addressed at an appropriate time. Supplemental legislation specific to Uttaranchal and in line with the IT Act 2000 enacted by the Government of India would be put in place.

60. For delivery of government services, which require Identity Management Systems (IMS), the Smart Card infrastructure would be put in place. It would also be integrated with the PKI and it would be for multiple uses by the citizens as envisioned by the Government of India also.

61. The Government of Uttaranchal has already declared its intention to be a Zero software Piracy Government.

62. For the security of Government Information, the Government will implement appropriate security architecture involving the use of firewall, intrusion detection systems, access controls, business continuity and Disaster Recovery Plans etc.

V. Competing Policies

63. The **competing** Policies are those elements which bring in private participation, and a competitive context in the State. The Government recognizes the need to be free of any technology / vendor domination and will therefore encourage multiple technologies and vendors to co-exist that would contribute to the improvement in the quality of services rendered by these vendors / service providers. This would provide the necessary lee-way for newer technologies to be brought in. This accelerates the private participation in the delivery of services for the citizens.

64. The strategies include harnessing of resources from the private sector such as Networks, Hosting Centres, Revenue models, availability of service level guarantees and agreements. This would also include policy frameworks that insist on technology neutral specifications to be drawn up that would encourage multiple technologies to build the solution framework based on the set of neutral specifications; policy to regulate the proliferation and domination of any technology across the State to mitigate the risks of technology obsolescence or safeguards against cartels eroding the competency factor in the State.

65. The Government will encourage multiple service providers in telecommunication, Data Centre hosting services, Infrastructure Management etc. allowing varied kind of services to be offered by such service providers.

66. Government Departments will consider partnering with intermediaries to create opportunities to open up government, and, where applicable, they provide a more appropriate route for delivering improved customer service and value for money.

67. Partnership decisions will seek to open up government and not exclude competition in the intermediaries market, which is necessary to drive innovation, improved customer service and value for money. Access to Government Services will be available to multiple service providers licensed by the Government.

68. The selection of contract awardees will be based on a combination of Technical and Financial factors on a case to case basis.

VI. Accepting Policies

69. The **Acceptance** Policies factors are required right from the inception of strategic interventions, and include appropriate change management framework and models. Such change interventions will include the individual, group, organization and the structure of the Organization. These would touch various stakeholders in the Government and Community.

70. In every change Strategy, the Government will ensure that the five key factors – vision, skills, incentives, resources and action plan are in place for the change to be effective.

71. Surveys will be periodically undertaken to assess the level of acceptance of any initiative. This would throw up alerts indicating the need for course corrections in the strategy options and implementations.

72. The Government will strive to train all its employees in the effective use of the ICT infrastructure to ensure that all employees are skilled in the use of computers and its accessories that would increase efficiency, transparency and productivity.

73. The Government, either directly or with the support of NGOs will design or implement training programmes to various Service Providers such as the Kiosk operators, Teachers, Women, youth, senior citizens, physically challenged in the use of infrastructure.

74. The Government assures that in the process of ICT implementation and the resultant automation of many of the Government Processes, the employees will NOT be rendered surplus.

VII. Promoting Policies

75. The **promotional** Policies augment the acceptance strategy. Through mass media publicity and special incentives for transacting online, the Government would actually be encouraging the use of ICT.

76. The Government would examine the cost savings on account of the newer forms of service delivery and how such savings could be passed on to the end users.

VIII. Executing Policies

77. In the implementation of the various eGovernance Projects, the Government will set up a Project Monitoring Unit, which will work closely with Independent Software Developers / Vendors / system integrators, Back end Departments of the Government, under the supervision of the Nodal Agency (ITDA).

78. When the shift is made from a manual process to an automated computerized process, the Department will ensure that after the test-runs are satisfactorily completed, from a fixed date, migrate to the automated process. Manual and automated processes will be allowed concurrently only for a predefined period.

79. Each department will decide on the extent of digitization of previous records, the phased manner in which such back log records have to be brought into a digital form, the nature of data that are to be brought into a digital state and the priorities thereof. In all such cases of data digitization, the department will assign officials from the department to validate the data after they have been digitized either through inhouse or outsource models for data entry.

80. After launching of the eGovernance project, the Departmental head will submit a complete report on the learning and recommendations.

(A) IT Advisory Committee

81. The Government of Uttaranchal has set up a high-level committee (Core Group on IT), the IT Advisory Committee has the Chief Secretary as Chairman and the IDC, FRDC, Principal Secretary (Personel), Secretary(Finance) and Secretary(Planning) as members. Secretary(IT) will be the convener of this apex body.

82. The Information Technology Development Agency (ITDA) shall function as the Nodal Agency for all IT initiatives of the state.

Annexure

INFORMATION TECHNOLOGY (As mentioned in New Industrial Policy 2003):

The State is naturally endowed and has all pre-requisites for developing as a preferred destination for IT & ITES along with hardware production.

- IT and IT related services have been accorded Industry status.
- Utlaranchal offers high speed connectivity with the establishment of an STPI Earth Station at Dehradun and proposed Earth Station at other locations. Other reliable connectivities available in the State are by BSNL and Reliance.
- A dedicated IT park is already coming up in Dehradun & other are planned in other parts of the State.
- Land use and conversion charges and regime are being rationalized.
- IT and IT enabled services will be accorded public utility status. Relaxation of norms will be given for the working of women in all three shifts subject to proper controls, facilities & infrastructure.
- Exemption on Electricity duty on Generator sets will be given for IT Industry established in IT Parks/Industrial Estates.
- Stamp Duty Concessions will be given to units located in IT Parks.
- The State Government will provide free Bandwidth up to 2 mbps to all IT Software Companies/IT enabled service based Companies, Call Centres, BPOs etc. for 1 year, subject to the following stipulation :

  (i) Hardware/Installation cost would be borne by the applicant.

  (ii) The Bandwidth will be non-sharing and non-transferable.

  (iii) The Entrepreneur/Company can connect to BSNL/VSNL/STPI or any private service provider for the said Bandwidth. However, the cost of the said Bandwidth would be kept at the rates offered by STPI/BSNL.

(iv) The following criteria will be adopted for providing the connectivity:

(a) **Category-I:**

Call Centres.

25Seater - 512KBPS

50 Seater - 1 MBPS

100 Seater - 2 MBPS

(b) **Category-2:**

Offline BPO and such other establishments: 1/4th of the above.

(c) **Category-3:**

Online BPO and such other establishments: 1/2 of the above.

(d) **Category-4:**

Combination of activities: subject to maximum prescribed in 1st category.

(v) Cyber Cafe / IT establishments for entertainment of people are excluded from the purview of this offer. .

(vi) The commencement date would be the date of first connect and the offer of an incentive is for continuous one year and cannot be availed in patches.