

**F. No. 2-1/2013/UDS**  
**Ministry of Communications & IT**  
**Department of Telecommunications**  
**Sanchar Bhavan**  
**(Security Cell)**

Dated 11<sup>th</sup> March 2014

To

**All Internet Service Providers**

**Sub: Security measures to be adopted in ADSL Modems to safeguard against misuse**

In recent past concerns have been raised about vulnerabilities in the ADSL Modems. These vulnerabilities can be exploited by attackers to implant malwares in modems, change configuration or manipulate data etc. Vulnerability in ADSL Modems needs to be addressed by all ISPs to the extent possible. Following guidelines are issued for implementation by ISPs:

1. The ADSL Modems are presently supplied by vendors with default setup of user id & password as admin and admin respectively. The default password needs to be changed to a strong password by customer at the time of installation of modem at customer site, to avoid unauthorised access to modem. The ISP executive visiting customer for installation of modem should ensure this. He should duly explain to customer, the process to change the password.
2. The protocol ports in ADSL modem on WAN side (e.g. FTP, TELNET, SSH, HTTP, SNMP, CWMP, UPnP) be disabled. These ports may be used by the hackers to enter into the ADSL Modem to misuse/ compromise the ADSL Modems by way of implanting the malwares, changing the DNS entries in the modem.
3. (i) There should be mechanism to upgrade the firmware of the ADSL modems remotely by ISPs. For this ISP needs to have separate login password, which is not possible in the present system of ADSL Modem design. Ideally there should have been separate logins for modem for its LAN & WAN side. Since at present there is only one login for both LAN & WAN side in modems, which is to be kept by customer only, ISP should advise the customer to upgrade/ download the latest firmware & software of their modem by visiting the site of the manufacture's website or from their website in case of ISP supplied ADSL modems . This should be advised by the ISP at the time of installation and periodically disseminated by other means also to the customer

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like printing on bills, bill inserts etc. ISP should provide information about the website of manufactures on their website.

(ii) The possibility of having separate user id & password for LAN & WAN should be explored with vendors for future supplies along with other necessary security features in ADSL Modems. The timeline for introduction of such ADSL modems will be decided separately, if needed.

4. There is a reset button in every modem. Whenever it is operated, all configuration settings in ADSL Modem are reset to default factory settings, resulting the resetting of modem login & password to default admin & admin respectively. Customer should change the default password again to earlier password or any other new password. All customers should be made aware regarding this feature.
5. Customer may be advised to switch off their ADSL Modem, when not in use.
6. Customer may be advised to check online his daily usage. And if any unexpected high usage of data is noticed, he may bring in the notice of ISP concerned.

These instructions should be followed immediately for new customers. All existing customers should be communicated via phone or e-mail and ask the customer to change the password. The ISP will assist the customer to change the password, including by physical visits. The above instructions should be complied with in 60 days.

  
(RK Mishra) 11/10/14


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Copy to

1. Internet Service Providers Association of India (ISPAI)
2. DDG (DS), Department of Telecommunications

Copy for kind Information to

1. PS to Member(T)
2. Sr DDG (TERM), DoT, New Delhi
3. DDG(Security)/ DDG(AS)/ DDG(CS)
4. Dir(S-II)/Dir (DS-II)
5. ADG(IT), DoT, New Delhi for uploading on DoT website

  
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Copy for necessary action to:

All Telecom Service Providers (BSO/ UASL/ CMTS//UL(AS)/ UL Licencees), if providing internet services on ADSL