

Downstream Power Back-Off Support on Cisco Integrated Services Routers

PB607733

Cisco is committed to support xDSL standards as defined by both standards bodies and service providers' local requirements.

The Cisco® Integrated Services Routers (ISRs) ADSL/ADSL2/ADSL2+ technology was developed in 2004 to support the defined asymmetric DSL (ADSL) standard at the time; it complied with the Deutsche Telekom T-Home U-Interfaces specification in effect as of 2004. The U-Interface specification 8.0 released November 2007 included a new Downstream Power Back-Off (DPBO) feature for the deployment of outdoor installed DSL access multiplexers (DSLAMs).

DPBO was introduced with Amendment 2 of the G.992.5 ADSL2+ standards in March 2006 and G.997.1 (Ploam); the Cisco Integrated Services Routers (ISRs) designed before the release of these standards do not support this feature. Not supporting the feature means routers will not successfully establish an ADSL connection with the DSLAM when the DPBO feature is enabled on the DSLAM side.

Cisco investigated extensively with our component vendor in order to add DPBO support for our current portfolio of ADSL products, and we concluded that the current ADSL hardware cannot support the DPBO feature.

Cisco's estimate from the cases reported to date is that a limited number of service providers have deployed new services with the new architecture requiring DPBO support, and very few ADSL connections are affected by the DPBO feature in service provider networks today.

Upgrade Paths

To support the new requirement of DPBO and Deutsche Telekom's/T-Home's U-Interface specification, Cisco will introduce new Cisco 800 Series xDSL Integrated Services Router platforms with release planned for August 2010 and new modules with release planned for 2011.

Table 1 lists the replacement products to support the DPBO feature.

Table 1. Replacement Products Supporting DPBO

Products Not Supporting DPBO	Replacement Product
<ul style="list-style-type: none"> • Cisco SOHO 96 ADSL over ISDN Secure Broadband Router • Cisco SOHO 97 ADSL Broadband Router 	CISCO886VA-K9, CISCO886VA-SEC-K9 CISCO887VA-K9, CISCO887VA-SEC-K9
<ul style="list-style-type: none"> • Cisco 836 ADSL over ISDN Broadband Router • Cisco 837 ADSL Broadband Router 	CISCO886VA-K9, CISCO886VA-SEC-K9 CISCO887VA-K9, CISCO887VA-SEC-K9
<ul style="list-style-type: none"> • Cisco 876 Integrated Services Router • Cisco 877 Integrated Services Router • Cisco 877M Integrated Services Router 	CISCO886VA-K9, CISCO886VA-SEC-K9 CISCO887VA-K9, CISCO887VA-SEC-K9 CISCO887VA-M-K9
<ul style="list-style-type: none"> • Cisco 886 Integrated Services Router • Cisco 887 Integrated Services Router • Cisco 887M Integrated Services Router 	CISCO886VA-K9, CISCO886VA-SEC-K9 CISCO887VA-K9, CISCO887VA-SEC-K9 CISCO887VA-M-K9
<ul style="list-style-type: none"> • Cisco 1801 Integrated Services Router • Cisco 1801-M Integrated Services Router • Cisco 1802 Integrated Services Router 	Planned release November 2011

Products Not Supporting DPBO	Replacement Product
<ul style="list-style-type: none"> • Cisco 1-Port ADSL-over-Basic Telephone Service WAN Interface Card (WIC-1ADSL) • Cisco 1-Port ADSL-over-ISDN with Dying-Gasp WAN Interface Card (WIC-1ADSL-I-DG) 	Planned release January 2011
<ul style="list-style-type: none"> • Cisco 1-Port ADSL High-Speed WAN Interface Card (HWIC-1ADSL) • Cisco 1-Port ADSL-over-Basic Telephone Service High-Speed WAN Interface Card (Annex M) (HWIC-1ADSL-M) • Cisco 1-Port ADSL-over-Basic Telephone Service with Dying-Gasp High-Speed WAN Interface Card with backup ISDN port (HWIC-1ADSL-B/ST) • Cisco 1-Port ADSL-over-ISDN High-Speed WAN Interface Card (HWIC-1ADSLI) • Cisco 2-Port High-Speed WAN Interface Card with 1-Port ADSL over ISDN and 1-Port ISDN BRI-S/T (HWIC-ADSLI-B/ST) 	Planned release January 2011

If you have a requirement for DPBO support in your network, please contact your local Cisco account team to discuss the roadmap and migration plan.

Cisco Services

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