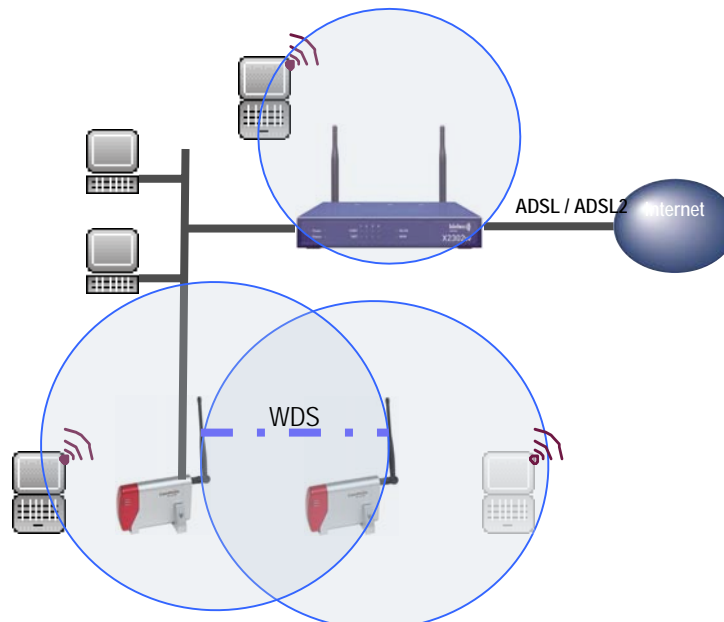


artem Solution—ComPoint Butterfly:
Range Extension with and without WDS



Due to the 5 dBi antenna included in the default scope of delivery, the artem Butterfly is well equipped to extend the transmission ranges of existing routers with WLAN interfaces in SoHo environments. The above example shows a bintec X2302w which is connected to the Internet by means of ADSL. The coverage by wireless transmission is extended via two further ComPoint Butterflies. One Butterfly is directly connected to the LAN; the second Butterfly is connected wirelessly with the first Butterfly by means of a so-called WDS link (WDS: Wireless Distribution Service). As a result, the second Butterfly is integrated into the LAN in such a way as if it were directly connected to the LAN. This makes it possible to cover areas in which no LAN sockets have been placed without the hassle of further cable installation. A Butterfly can set up as much as 6 WDS links to neighboring Butterflies. The WDS links can be cascaded theoretically in an arbitrary manner. The net data rate, however, decreases with each further link due to the fact that the same channel has to be used to send and receive data.

A WDS link cannot be protected via WPA encryption. Here, WEP128 is the maximally possible encryption to be used. If secret or confidential data is to be transmitted, which is not protected via secure browser sessions such as HTTPS or ssh, an IPSec client should be used, for instance, on the connected PCs. Secure encryption via TKIP and AES can be implemented with the artem products of the Wx000 series.