

## **AT&T Dedicated Ethernet Service Monitoring**

The ADE platforms (Ciena and Fujitsu) have in-band alarming and monitoring capability. Every ADE circuit will be connected to a central office-based monitoring location somewhere in the circuit path, to enable monitoring and alarming.

ADE is monitored 24 hours per day, seven days per week, with in-band alarming. In-band alarming offers NOC and CO based access to circuits for monitoring, alarming, and remote testing. The Global Business Assurance (GBA) High Speed center supports ADE for service assurance procedures.

Outages must be reported by the customer, and the circuit must be made available to AT&T for testing. Upon receiving a trouble report, AT&T will undergo cooperative testing with the customer and / or arrange a field dispatch in order to isolate the trouble and repair any defect in the AT&T network. AT&T is not responsible for trouble that occurs on the customer's side of the demarcation point.

Service credits are available for any outage over 10 seconds. An interruption of 10 seconds or more shall be credited at the rate of 10/8640 of the monthly charges for the affected AT&T Dedicated Ethernet circuit for each period of 5 minutes or major fraction thereof that the interruption continues. The credit for unprotected ADE is calculated at 10 times the outage timeframe. For instance, if the customer experiences a 5 minute service outage, the customer will get an MRC credit equal to 50 minutes for the outage

ADE does not have SLAs or objectives for jitter or latency, but the reasons for not having them are valid. Many services in the industry are offered over networks that include elements of switching, routing, or shared path, which can cause congestion or varied performance in packet delivery. Internet or public/private IP networks are a prime example, but even certain services such as Frame Relay, ATM and Switched Ethernet also have elements with switching and potential congestion. Thus most of these services need to include latency and jitter parameters that represent worst-case performance commitments.

ADE is a dedicated service with no network switching, routing, or shared path that would impact packet delivery rate. The latency involved with ADE is a function of propagation (the speed of signal across the distance-- the speed of light), and the regeneration that occurs in the Network Terminating Equipment (NTE) on customer premises and in the one or more Central Office (CO) gateway/repeaters. The aggregate of these two factors varies by specific design, but would be a matter of microseconds, rather than the milliseconds customers are concerned with. As a dedicated circuit, packets travel the same path in all cases, so there should be no discernable jitter (variation in packet delivery rate).

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