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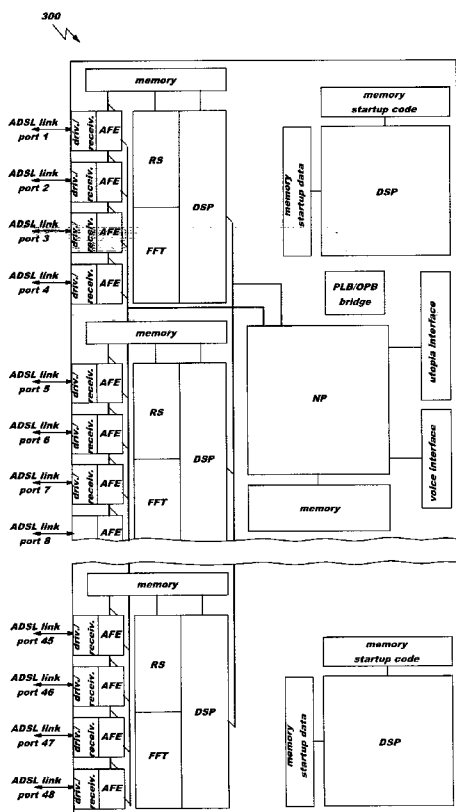
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(54) Title: METHOD AND SYSTEMS FOR OPTIMIZING ADSL CONNECTIONS IN DSL ACCESS MULTIPLEXOR



(57) Abstract: A method and systems for optimizing Asymmetric Digital Subscriber Line (ADSL) connections in DSL Access Multiplexor (DSLAM) that marries benefits of G.dmt and G.lite standards, using a flexible method implemented on a programmable Digital Signal Processor (DSP) and a Network Processor (NP) is disclosed. It provides a means to support full G.dmt rates for any of the attached users as long as less than half the users are actively moving data through the DSLAM, but by only using half the digital signal processing hardware and half the power consumption for the line drivers. The invention allows doubling the number of ADSL ports available over a conventional scheme given about 20% more power is under 50% with only half the respective connections, all those G.dmt rates possible on their exceeds 50%, gradually active G.lite rates based on either based on a tiered tariff structure, until ultimately, when the utilization reaches 100%, all subscribers will be forced back to a maximum rate afforded by G.lite. Only as utilization drops back off, will active subscribers be brought back up to G.dmt's maximum transmission rates. Once the utilization drops below 50% again, then all active subscribers will be able to utilize G.dmt's maximum transmission rates. budget. When the utilization subscribers active on their users experience the maximum wire. However, when utilization subscribers start to experience a fixed policy or one that is based on a tiered tariff structure, until ultimately, when the utilization reaches 100%, all subscribers will be forced back to a maximum rate afforded by G.lite. Only as utilization drops back off, will active subscribers be brought back up to G.dmt's maximum transmission rates. Once the utilization drops below 50% again, then all active subscribers will be able to utilize G.dmt's maximum transmission rates.

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