Azurite IAD Chipset

Virata
Product Profile

August 2001

KEY FEATURES

- **Complete chipset and software for Integrated Access Device (IAD) applications**
- **The industry's most powerful communications processors coupled with the most widely-used DSPs**
- **Includes ATM signaling, IP routing, voice control and SNMP management software**
- **Complete DSP software for voice coders, echo cancellation, and telephony functions**
- **Real-time AAL2 processing provides toll-quality Voice over ATM**
- **Complete VoIP implementation with Quality-of-Service**
- **Demonstrated interoperability with market-leading central office (CO) voice gateways**
- **Interfaces for 10/100BaseT, PCI, and USB**
- **Available in both ADSL and PHY-neutral versions**

Introduction

Voice services are emerging as a key requirement in the broadband home marketplace. In addition to providing high-speed data access, new designs will merge data networking with multiple telephone voice channels. For customer equipment in the home or office, the convergence of voice and high-speed data brings a requirement for IADs – Integrated Access Devices – capable of delivering both types of service.

Description

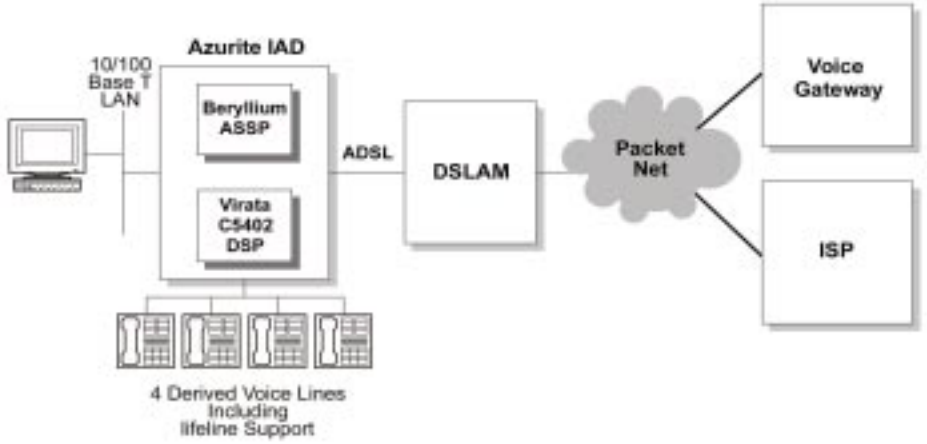
Virata's Azurite chipset combines a Virata communications processor, networking software, DSP chip, voice control and voice algorithm software, all supported by a range of equipment reference designs to deliver a complete silicon and software solution for IADs. By bringing its unique Integrated Software on Silicon™ (ISOS™) approach to the IAD market, Virata is providing equipment manufacturers with the shortest time-to-market, lowest risk and most cost-effective path to develop new IAD products.

ISOS provides Azurite users with proven real-time AAL2 software for toll-quality voice over ATM fully interoperable with market-leading central office (CO) voice gateways compliant with VMoA standards. In addition the Azurite software is continually modified to keep up with BLES standards.

In addition, the Azurite chipset reference designs incorporate IETF and ITU compliant signaling protocols, including MGCP and H.248. Azurite enables equipment designers to select the communications processor and DSP most appropriate for the solution. The Azurite 3000 chipset family contains the Helium™ communications processor and the powerful and efficient Magnesium DSP. Because Helium is PHY-neutral, Azurite 3000 chipsets are easily combined with a third party DSL PHY to create an IAD for any variety of DSL.

The Azurite 4000 chipsets include the Beryllium communication processor and the Magnesium DSP, providing a complete solution for ADSL silicon. By integrating the ADSL PHY directly on to the Beryllium silicon, Virata has made it easier for broadband equipment manufacturers to develop highly functional ADSL IADs at the lowest cost possible in the industry.

Both Azurite chipset families are available with any of the Magnesium DSPs. Magnesium bundles the powerful TMS320C54x™ DSP generation from Texas Instruments (TI) with Virata's complete line of voice processing algorithms and control-side device drivers under the Virata brand.



Sample VoATM IAD Application

Azurite IAD Chipset

Helium

Virata's Helium chip is a low-cost, PHY-neutral communications processor that enables high-speed Internet access capability for single- and multiple-user endpoint devices such as USB modems, home central office voice gateway devices and small office/home office (SOHO) routers. The Helium chip is fully integrated with a complete networking and protocol software suite that handles ATM, frame, routing, bridging and signaling functions, as well as SNMP management.

Beryllium™

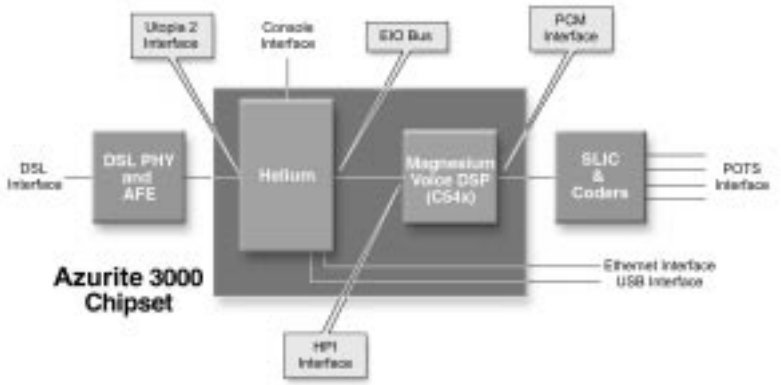
Representing the industry's first "ADSL home/office router-on-a-chip," Beryllium delivers up to twice the long-loop performance of alternative multi-chip ADSL router solutions. With its unique level of silicon integration, Beryllium enables manufacturers to drive equipment costs down to new levels of affordability. In addition, Beryllium includes a built-in ADSL transceiver, internal MAC for local connectivity, and expansion flexibility.

Magnesium

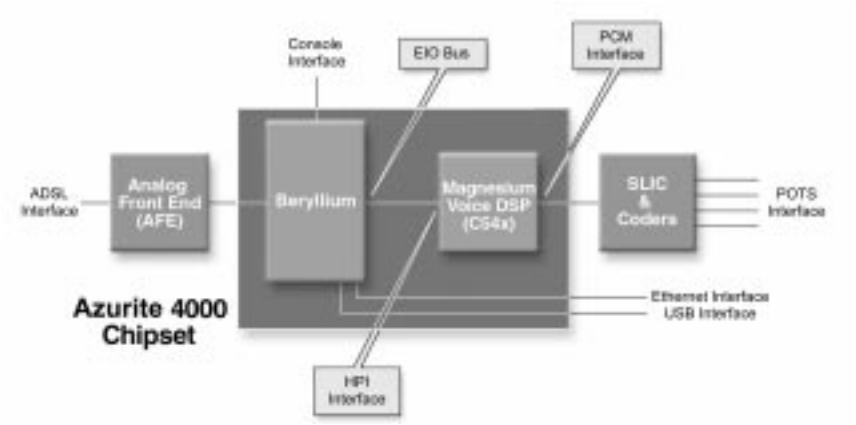
The Magnesium family of DSPs bundle TI's powerful C54x processors with Virata's voice algorithms and control-side device drivers. This strategic partnership with TI ensures technical leadership, volume production and competitive prices. Virata's vCore DSP software suite contains advanced telephony algorithms, network echo cancellers, voice coders, Fax, and Fax relay functions. Magnesium is available in three versions:

- Magnesium 02 – 100 MIPS, 16Kw RAM
- Magnesium 09 – 100 MIPS, 32Kw RAM

Azurite 3000 IAD Incorporates 3rd Party DSL PHY Technology



Azurite 4000 IAD – Low cost, High Performance ADSL Solution



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