

Australian Universities - 1982 and ACSnet, Batch dialup and sendmail, then AARNet in 1989

You have accurately summarized a pivotal timeline in the birth of the Australian internet. Before the country had a permanent link to the global internet, Australian university computer science departments built their own foundational infrastructure.

The Era of ACSnet (1979–1989)

- **The Blueprint:** Developed from the late 1970s and fully established into the 1980s, the [Australian Computer Science Network \(ACSnet\)](#) linked computer science departments across Australian universities.
- **The Mechanics:** It relied on **batch dial-up, store-and-forward systems**. Rather than having a live, continuous stream of data, computers would periodically "dial" each other up over standard phone lines to batch-transfer emails, files, and Usenet newsgroups.
- **The Protocols:** It ran heavily on **MHSnet** (Message Handling System network, developed at the University of Sydney) and utilized Unix utilities like `sendmail` to route messages through intricate chains of machines (e.g., routing an email through paths like `...!munnnari.oz.au!basser!john`).
- **The Namespace:** This era birthed the `.oz` **domain** namespace (later `.oz.au`), managed locally long before standard country-code top-level domains were globally structured.

The Transition to AARNet (1989)

- **The Upgrade:** In 1989, the Australian Vice-Chancellors' Committee officially established [AARNet \(Australia's Academic and Research Network\)](#) to move past the limitations of store-and-forward dial-up.
- **The First Real Internet Packet:** On **23 June 1989**, network programmer Robert Elz at the University of Melbourne brought true TCP/IP internet to Australia. He opened a permanent, NASA-subsidized 56 Kbps satellite link directly to the University of Hawaii.
- **The Result:** This shifted Australian academia from clunky, delayed batch transfers to a continuous, real-time global internet infrastructure.

**** End of Page**