1. History

In February 1976 NOS/BE evolved from the CDC operating system SCOPE 3.4.4. A significant enhancement of NOS/BE over SCOPE was the support for the new CYBER 170 computer systems.

At this time CDC began to promote the more modern operating system NOS, which was better suited for timesharing applications. But many customers hesitated to migrate to NOS and according to some sources CDC renamed SCOPE3 to NOS/BE so that their marketing could say, that all mainframe customers use the same operating system.

At its core, NOS/BE was an operating system of the 60s. It had a highly sophisticated batch and tape management, but was very poor regarding user identification, resource utilization, accounting and permanent file ownership.

Intercom was the timesharing and networking solution for NOS/BE. It evolved from the SCOPE/Intercom, which was developed in the 60s. It provided a very basic environment for program development, but was well suited to do batch processing from interactive sessions.

Intercom had only a line editor with capabilities comparable to the editor of early MS/DOS systems. Control Data never released a full screen editor for Intercom. Thus evil tongues said, that NOS/BE did not have an editor at all. With Intercom CDC mainframes and remote batch stations could be connected to a network.

Compared to the operating system NOS, NOS/BE only got little further development. Customers felt, that they were subsidizing NOS development with their license and maintenance fees.

But there was an extensive set of common products for NOS and NOS/BE of operating system add-ons, compilers and applications, which were actively maintained. Thus, NOS/BE users could benefit from the further development of these products, which included as of 1980:

- UPDATE
- LOADER
- COMPASS
- CRM – BAM and AAM
- FORM
- CCL
- CID
- SORT/MERGE
- 8-BIT SUBROUTINES
In the 80s the networking capabilities of NOS/BE were significantly improved with the release of the Remote Host Facility. This enabled NOS/BE mainframes to become a member of a loosely coupled network (LCN) with other CDC and IBM mainframes. The Interactive Transfer Utility allowed Intercom users to enter commands on an LCN coupled mainframe.

Despite the benefits of NOS in time sharing operations and networking, NOS/BE customers shunned the cost of a migration and waited for an operating system with breakthrough features like “true” 8bit compatibility, virtual memory and filesystems with long filenames and subdirectories. In 1983 Control Data announced NOS/VE, an operating system with that capabilities for their new line of Cyber 180 computer systems. On Cyber 180 machines NOS/BE could run in parallel with NOS/VE which allowed a seamless migration. Thus, NOS/BE customers changed to NOS/VE this way, if they stayed with Control Data at all, which was already a company in decline.

Like its predecessor SCOPE NOS/BE was maintained at the CDC „SVLOPS“ facility in Sunnyvale, California.

The last assured NOS/BE release was Version 1.5 level 712 (1985). A further release (level 750?) could have existed, but at least the active development of that NOS/BE phased out in the second half of the 80s.
2. Presence

As far as this is known, there is no surviving CDC computer system running NOS/BE any more. But you can run NOS/BE on a high fidelity emulator of CDC supercomputer systems, which is available for Windows, mac OS and Linux.

See How to use a ready to run NOS/BE Level 712 system for getting started quickly. If you are an expert and would like to tailor a NOS/BE system see How to build NOS/BE 1.5 Level 712 from Scratch.

1) CDC Operating System History
   , page1-6
2) CDC SCOPE article on Wikipedia
3) NOS/BE to NOS Migration Report (VIM), page 6
4) NOS/BE to NOS Migration Report (VIM), page 5
5) NOS/BE to NOS Migration Report (VIM), pages 63,64
6) NOS/BE Installation Handbook, Rev M, pages II-42-1 and II-43-1
7) see this interesting information about the Bayview Club