At what point does a high-end system become a mainframe, and when does a big-iron machine become a distributed application server? When I tracked the AS/400 space (still a great piece of technology), IBM's visionary in residence, Frank Soltis, toyed with the concept of porting the operating system, OS/400, to an Intel platform. In fact, he did successfully build such a box, with OS/400 running on a Pentium processor. If IBM had picked up and run with the idea, it could have potentially had a powerful operating system package that could have competed with Windows in medium-sized IT shops (which Microsoft had its eyes on).

IBM did do the next best thing, by porting OS/400 to its RISC-based PowerPC platform (now just called POWER). But Soltis' early experiment in this space did demonstrate the undeniable convergence between systems, and growing irrelevance of hardware, at least to system choices. And those of us who respected OS/400 were left to wonder what might have been.

That's why recent announcements out of Platform Solutions Inc. (or PSI, not to be confused with Platform Computing) caught my attention. In March, PSI, founded in 2003 by former Amdahl engineers, disclosed that it had installed what it calls an IBM-compatible mainframe at a large customer site, L.L. Bean. The system, built on Intel Itanium processors, runs z/OS, IBM's zSeries operating system, along with Unix, and other Intel-based OSs - Linux and Windows. Itanium was designed as a multi-OS chip with HP-UX and Windows in mind. Unisys, in fact, has been selling its multi-processor ES/7000s as "Intel mainframes." But the ES/7000 is essentially a gigantic Windows platform. The capability to actually run z/OS on an Intel platform, however, has profound implications. Linda Zider, executive vice president of PSI, presented PSI’s case for this new hybrid platform at the recent Anaheim SHARE conference. The PSI Universal Server presents choices for an industry that until recently has relied on a single vendor, she said.

Pat Carroll, enterprise technical architect for L.L. Bean, also joined the session, explaining how the catalog and online retailing giant was testing the PSI server at its Freeport, ME, headquarters. The company needed more mainframe power for its operations, but needed more flexibility and granularity within its data center, which handled up to 20 million transactions a day. According to Carroll, L.L. Bean's data center, which has all the key components--including CICS, DB2, MQ, and WebSphere/J2EE--reports that its implementation of z/OS-on-Itanium has been "very stable." Gartner has weighed in on this new platform, cautioning, "it is still too early to consider PSI's system a viable alternative to IBM's zSeries," yet it also seems intrigued by the possibilities of deploying PSI as a transitional platform.

This means a new avenue of choice is opening up. With zSeries boxes capable of running z/OS and Linux, and Intel boxes capable of running z/OS, Linux, and Windows, and POWER boxes capable of running OS/400, Unix, and Linux, it means an infinite number of choices in both hardware and systems.