

## Statement of Direction for IPv6 in TCP/IP FOR VSE

This document announces the direction CSI International is taking with its development of IPv6 capabilities in TCP/IP FOR VSE.

The changes will affect both the CSI and the IBM versions of the stack. (These versions are identical.)

There is NO change to the plan for continued support for the existing standard 1.5F interfaces. Support for 1.5F will continue through subsequent TCP/IP FOR VSE releases (1.5G, 1.5H, 2.0, and beyond).

Changes for implementing IPv6 will affect multiple service levels. Here is a summary of the changes for each release:

- 1.5G—This version is an interim release to introduce the Enhanced Socket Interface and to allow applications to prepare for full IPv6 integration. Although support for IPv6 hosts will be limited in this interim release, all the new features and functions will be available. Applications written and compiled using the 1.5F (standard) interfaces will continue to run as is. The standard programming interfaces will continue to be supported, and applications using them will continue to function as before.

When the Enhanced Socket Interface is used, the SOCKET and related macros will produce new calling sequences. These sequences will fully support both IPv4 and IPv6 traffic. In addition, the Enhanced Socket Interface will offer many new and expanded capabilities and will provide more options, convenience, speed, and reliability.

Converting to the Enhanced Socket Interface is optional. It is required only if your application needs to be “IP address aware” (most applications don’t require this) or if you want to use the new features. Release 1.5G is intended to provide ample time to prepare applications for IPv6 if these changes are required.

The following are scheduled to be included in the 1.5G release:

- SOCKET macro and documentation
- BSD interface and documentation
- 1.5H—This version will include the upgrade of CSI-provided applications to use the Enhanced Socket Interface and to be IPv6 ready.
- 2.0—This milestone release will complete the adding of full IPv6 support to the Enhanced Socket Interface introduced with 1.5G. Subject to licensing, this release will execute on all CPUs and under all versions of z/VSE that can run the current 1.5F release. All network adapters (OSA, OSA/2, OSA/Express, CTC, IPNET, CLAW) will fully support simultaneous use of mixed IPv4/IPv6 traffic.

## Summary of Enhanced Socket Features

Capabilities	Introduced in this release of TCP/IP FOR VSE
IP address parsing for both IPv4 and IPv6	1.5G
IP address de-parsing into the shortest valid form	
Improved debugging and tracing information	
More control of stack processes by applications	
Access to flow-control information	
IPv6-enabled CSI applications: telnet, FTP, etc.	1.5H
Full IPv6 support	2.0

The BSD interface is being brought into conformity with “Basic Socket Interface Extensions for IPv6” specified in informational RFC 3493.

### Additional Information

A full set of the documentation is available, including an updated *Programmer’s Guide* describing the Assembler Enhanced Socket and BSD APIs. Advance copies of these documents can be obtained from your Technical Support Representative. Comments and suggestions are welcome.

### Early Releases

To assist third-party vendors, business partners, and interested customers in evaluating and using the Enhanced Interfaces, we are making available early releases. These early releases will provide a reasonable base for coding and testing applications. The first early release was available in early June 2010 and consisted of a full distribution of the 1.5G alpha code.

If you have no immediate need for IPv6, please consider testing the early releases. There is no cost or obligation. By evaluating the new programming interfaces before they are released, you have the opportunity to work with the CSI design and development team to ensure that your needs are met in the final release. Your level of participation in the testing is at your discretion. A good first step is to download and read the draft documentation. If you have additional questions or if you foresee any problems, your local representative is able to provide you with answers or to work with the product developers to ensure your needs will be met, both now and in future releases.

If you are interested in the early releases and in sending us your feedback, test results, and test scenarios, please contact CSI International or your local CSI Business Partner for further information.

Further information is available on CSI International’s Website:

<http://www.csi-international.com/>