



## Implementing IPv6 in a z/OS environment?

Look beyond the hysteria surrounding IPv4 address limitations and you'll see a steady increase in the number of organizations implementing IPv6 in enterprise network environments. Whether this is being brought about by federal mandate, advanced application design or an increase in IPv6 clients, the fact remains that IPv4 and IPv6 cannot easily exchange network packets, which makes transitioning to IPv6 under z/OS challenging.

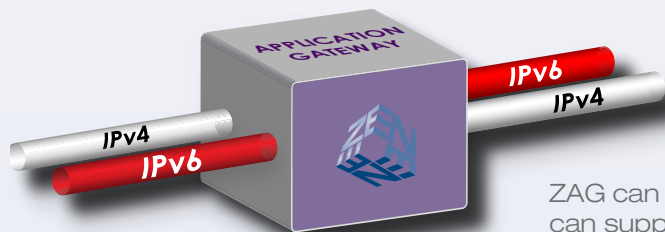
Incompatibilities between IPv4 and IPv6 is one of the reasons preventing a swift transition to IPv6 for z/OS users. Organizations needing to adopt IPv6, for whatever reason, are faced with potentially costly hardware and application changes. But what if there was another way? What if it were possible to test and implement IPv6 seamlessly using your existing network and application infrastructure?

William Data Systems, leaders in System z™ network management have developed just such a solution. The ZEN APPLICATION GATEWAY (ZAG) has been specifically designed to quickly and simply resolve many of the challenges facing businesses as they attempt to test and implement IPv6 under z/OS.

## ZEN APPLICATION GATEWAY (ZAG)

The ZEN APPLICATION GATEWAY, or ZAG, is beautifully simple. It allows you to *connect any IPv6 or IPv4 client to any IPv4 or IPv6 application over any IPv4 or IPv6 network, without the need for additional application, network or hardware changes.*

For example:



- Connect IPv6 clients to an IPv4 application
- Connect IPv6 applications to each other over an IPv4 network
- Connect IPv4 to IPv4 through an IPv6 "tunnel"
- Bridge IPv6 clients and IPv4 applications via multiple stacks

ZAG can listen on all interfaces, including VIPA or DVIPA IPv6 addresses and can support multi-stack environments where IPv4/IPv6 traffic is isolated on separate stacks.

ZAG can be monitored via the ZEN user interface and full audit log facilities provide summary and detailed connection information.

Great care has been taken to ensure the path length through ZAG is kept to an absolute minimum. Once a connection has been established with a target application there is no discernible difference in performance, whether using ZAG or not.

## ZEN APPLICATION GATEWAY

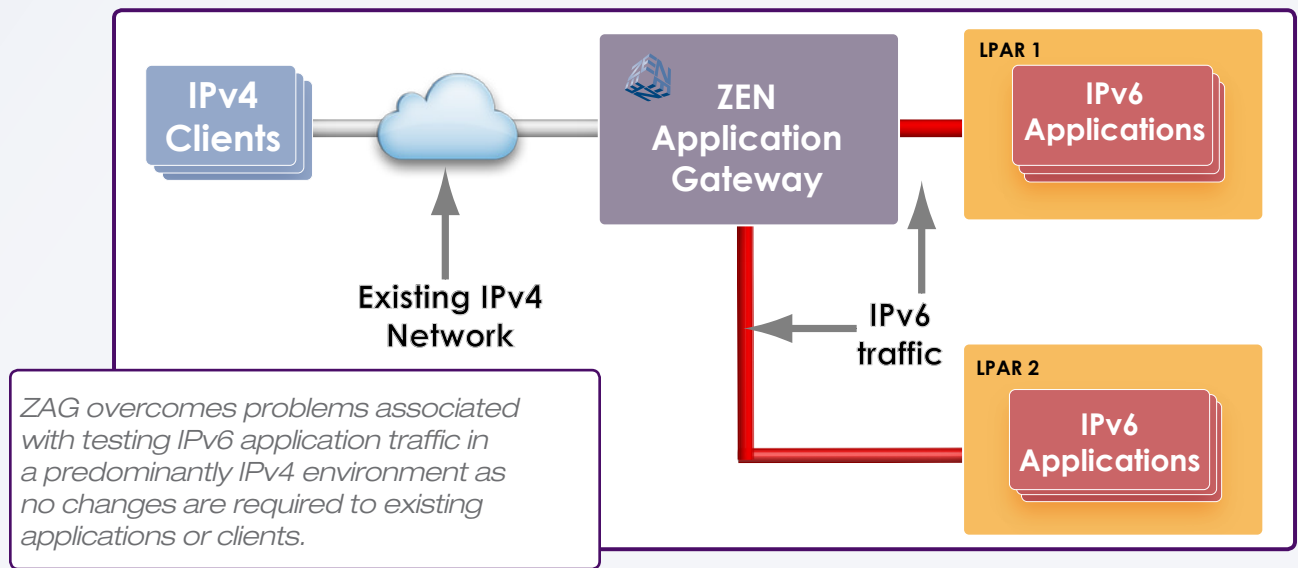
While it may be possible to find alternative ways of resolving IPv4/IPv6 compatibility issues, any such alternative solutions are likely to involve significant time and cost, since they may require any/all of the following:

- Network changes
- Hardware changes
- Application changes

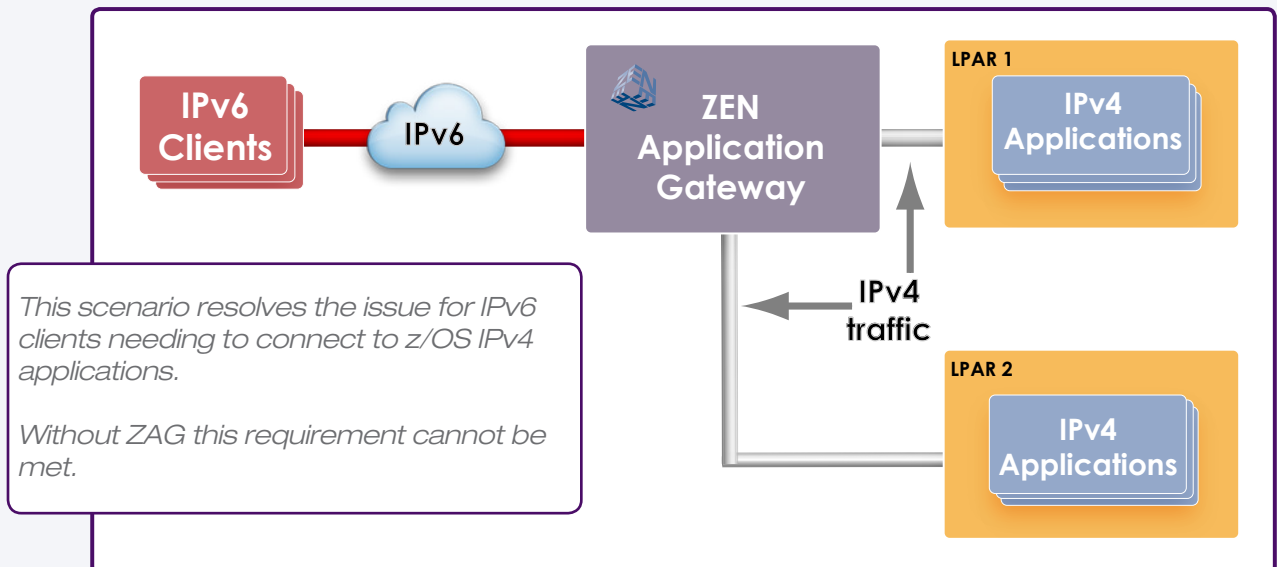
By comparison, ZAG is extremely simple to install and set-up and requires no changes to the existing network infrastructure or applications.

The following illustrations provide some examples of how ZAG can enable the interconnection of clients and applications across different IP protocols.

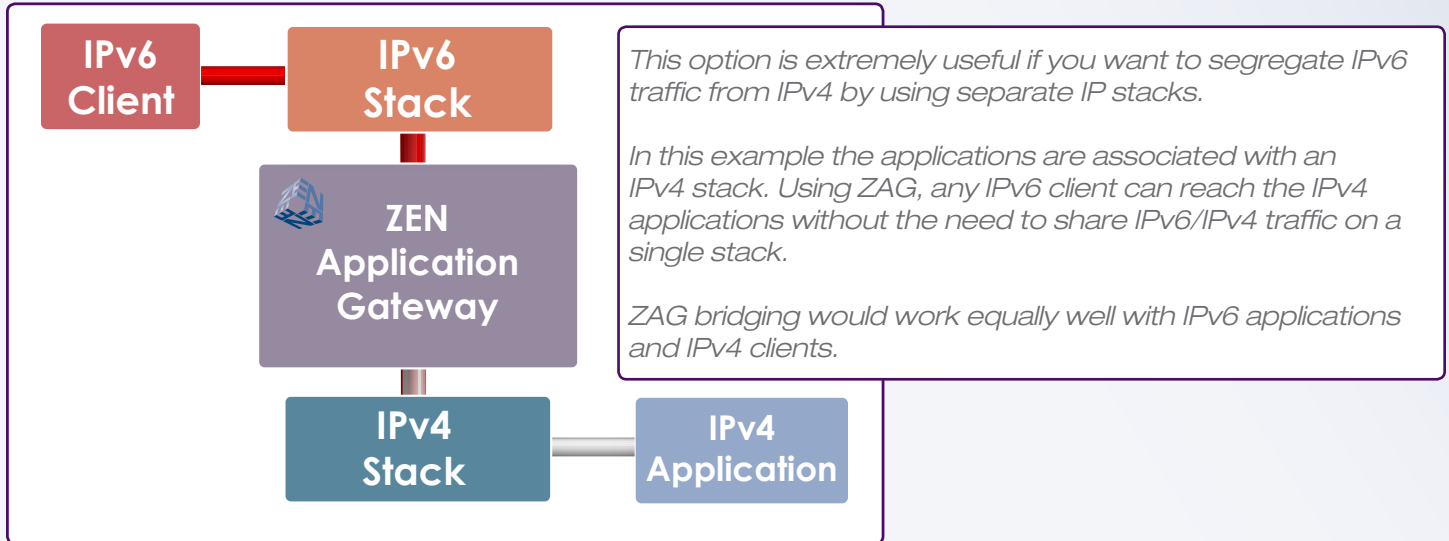
### Testing IPv6 applications made easy



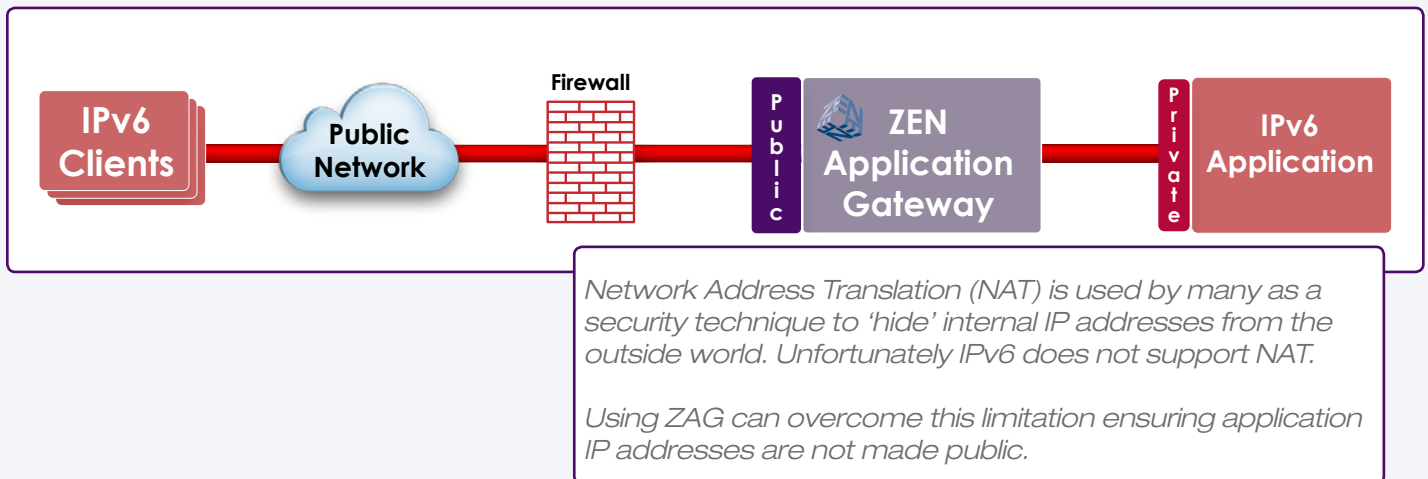
### Enable IPv6 clients to access z/OS IPv4 applications



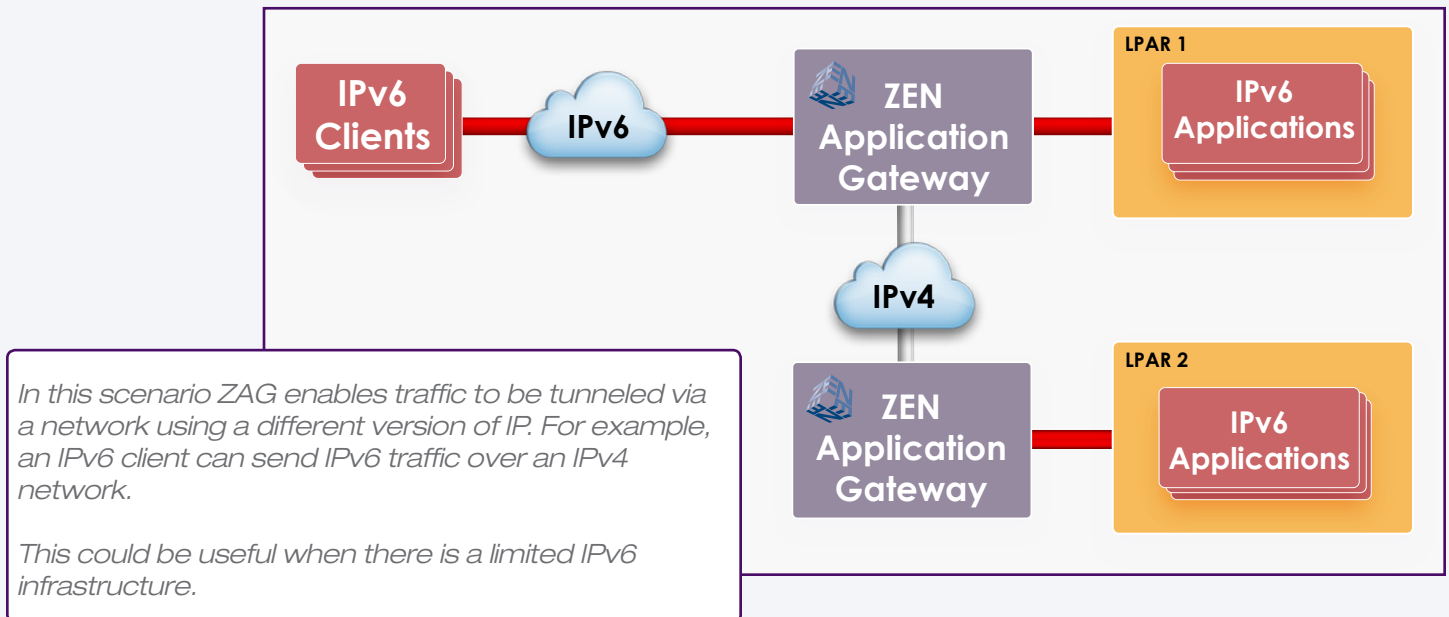
## Bridging Multiple IP Stacks



## Pseudo NAT for IPv6



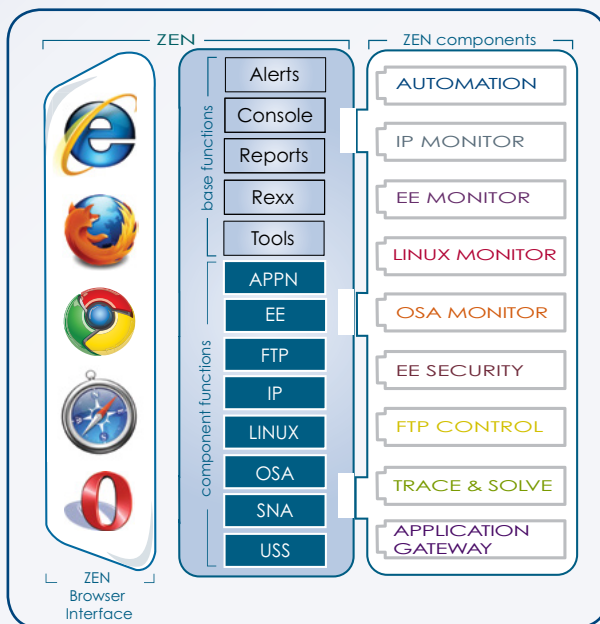
## IPv4 - IPv6 'Tunneling' options



## ZEN SOLUTIONS

ZEN APPLICATION GATEWAY (ZAG) is a component of ZEN, the William Data Systems suite of network management solutions. ZEN enables a comprehensive insight into System z network operations and availability by offering targeted solutions, adapted to meet your unique business needs.

The suite consists of the ZEN browser interface and a selection of network management solutions that provide network performance and availability management, monitoring, tracing, automation, reporting and security. ZEN solutions are critical for maintaining business continuity and meeting network service level agreements.



## FREE TRIAL

For further information about ZEN APPLICATION GATEWAY, including details of how to obtain a no-obligation evaluation copy, please contact your local William Data Systems office.



## ZEN APPLICATION GATEWAY

Simplified IPv6 transitioning and testing

Minimize application or hardware changes



William Data Systems (WDS) is a pioneer of specialized z/OS network management solutions. Established in 1993, we are an independent global organization that provides innovative solutions to run mainframe networks efficiently and securely. ZEN, the WDS network management suite, offers a selection of user-friendly and cost-effective solutions to meet your unique needs. To overcome both business and technology challenges, WDS provides customers with licensing and pricing terms that are as flexible as our solutions.

WDS supports customers worldwide in sectors such as finance, banking and manufacturing, and our client list includes Fortune 100 companies and government agencies. WDS is an IBM Business Partner and a member of the IBM PartnerWorld for Developers program. We are committed to the global z/OS networking market and to leading the way with innovative solutions through the latest advances.



To learn more about WDS ZEN solutions, for support or to contact our offices, visit [www.willdata.com](http://www.willdata.com)

IBM logo, the Business Partner emblem, z/OS, VTAM and SNA are trademarks of International Business Machines Corporation. ZEN, the ZEN logo, ZEN IP MONITOR - IMPLEX (ZIM), ZEN EE MONITOR - FERRET (ZEM), ZEN OSA MONITOR (ZOM), ZEN LINUX MONITOR (ZLM), ZEN TRACE & SOLVE - EXIGENCE (ZTS), ZEN FTP CONTROL - FTPALERT (ZFC), ZEN EE SECURITY - APIAS (ZES) and ZEN APPLICATION GATEWAY (ZAG) are trademarks of William Data Systems Ltd. All other brand and product names are trademarks or service marks of their respective holders.

Copyright © 1999-2012 William Data Systems Ltd. All rights reserved.

