

## It's a Mobile World...



# Network Management for the 21<sup>st</sup> Century

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We understand as well as anybody that our customers are under continual pressure to do more with less. Providing a better service without increasing head count or costs is hard. Maintaining existing service levels while reducing IT spend is even harder. But what if you could do both; Improve service delivery and reduce IT expenditure?

Over the past few years we have helped many customers achieve the seemingly impossible of reducing their software bill at the same time as improving the service they offer to their users and customers. Annual savings in excess of \$100k are not unusual.

In this latest edition of our update for customers we explore how some recent product developments are helping customers realize real cost savings. We feature new versions of our popular EXIGENCE (ZTS) and IMPLEX (ZIM) products as well as a brand new product for monitoring Linux environments plus several no-cost improvements to ZEN, including mobile user interfaces for smart phones and tablets.

You can also learn how one of the largest z/OS sites in the world chose ZEN IP MONITOR - IMPLEX as their preferred IP monitor, clearly illustrating the importance of product scalability. Our goal is to offer the same exemplary service to all our customers, whether a single-CPU System z set-up, or a complex multi-cpu, multi-data center Sysplex Distributor environment.

As always, we welcome your feedback and encourage you to contact us with your thoughts and ideas.

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**Reducing Software Costs**  
**Enhancing Business Services**  
**Simplifying Network Management**

# What is this ZEN thing?

So what's this ZEN thing all about? For long-term customers of products like IMPLEX & EXIGENCE it's a reasonable question.

Some time ago we started work on designing a new, unified user-interface for all of our products to use. We had pioneered the use of a 2-tier web-browser interface with version 1 our EE/APPN-HPR monitor, FERRET. This interface had none of the 'bloatware' associated with traditional mainframe web-browser implementations, requiring no additional web-servers, browser plug-ins or databases. Instead, web pages were served directly from FERRET.

The benefits of this approach resulted in a simple to install, easy to use interactive web interface, complete with re-sizeable windows containing data that could be updated asynchronously. This was achieved with a very effective utilization of AJAX (Asynchronous JavaScript and XML) methodologies.

With FERRET v1 we proved that web technologies could be applied successfully to create attractive and easy to use/easy to maintain user interfaces for mainframe software. The trick now was to apply the lessons learned to the rest of our products.

For years we had successfully developed and sold our network management products EXIGENCE, IMPLEX, FTPALERT, APIAS and FERRET. While all successful in their own right, with many customers buying multiple products, there was nothing to bind the products together, no sense of a family of network management products. With work underway on a common user-interface and unified code, the opportunity arose to re-brand the products with a new identity that reflected the product unification.

In 2008 we unveiled ZEN.

The work of adding a ZEN user-interface to all our products (what we call "ZEN-enablement") is ongoing but the new identity/new branding came into effect immediately, which meant new names for the products.

Original Name	New Name	ZEN-enabled?
EXIGENCE	ZEN TRACE & SOLVE (ZTS)	v5 in 2012
FERRET	ZEN EE MONITOR (ZEM)	Yes
FTPALERT	ZEN FTP CONTROL (ZFC)	Yes
IMPLEX	ZEN IP MONITOR (ZIM)	Yes
APIAS	ZEN EE SECURITY (ZES)	n/a
New ZEN Components		
	ZEN OSA MONITOR (ZOM)	
	ZEN LINUX MONITOR (ZLM)	

As we were developing ZEN it was obvious that we had to move the AJAX and web server code out of FERRET and into something that all the products could use. Since “ZEN” had been selected as the new brand name it made sense to move it into something called ZEN.

The ZEN task is a prerequisite for all ZEN-enabled products (or ZEN components as we refer to them now). ZEN makes it possible to display data from several components and/or display multiple panels from the same component, simultaneously. This means that you have a very flexible display environment that you can configure and manipulate in any way you choose. You can even save your favorite panel configuration as 'Home' and these panels will be automatically opened whenever you sign on to ZEN.

But ZEN is more than just a display engine for the network management components. ZEN provides core services for all components, has several additional network management features included plus some powerful optional automation facilities:



CORE ZEN FUNCTIONS	
Browser display	
Single sign-on for all ZEN components	
Component Alerting & Incident Reporting	

FEATURES INCLUDED IN ZEN	
Reference Data	Glossary of terms, RPL return and feedback codes, sense codes, SNA node or session status, all ZEN component messages
IP Tools	A selection of IP tools, including PING, QuickPING, NS Lookup, TraceRoute, QuickTraceRoute
CSM/ECSA/USS displays	Detailed CSM/ESCA & USS usage and historical information and graphs
Operator tools	<ul style="list-style-type: none"> <li>Command facility</li> <li>System Log</li> <li>Network Logs</li> <li>MVS Console</li> <li>SyslogD filtering</li> <li>Log facilities for displaying ZEN, USS, Rexx, VTAM, TCP/IP, MVS and SyslogD messages, with color-coding, filtering and command line functions</li> </ul>
OPTIONAL ZEN FEATURES	
Basic Automation	<ul style="list-style-type: none"> <li>Automated Message Commands</li> <li>Automated Timer Commands</li> <li>Alert-driven commands</li> </ul>
Advanced Automation	<ul style="list-style-type: none"> <li>Rexx interface and ZEN Rexx Function Pack</li> <li>User-definable ZEN menus, ZEN panels and associated Help</li> <li>Enhanced System and Network Logs (Operations functions)</li> <li>User-definable alerts</li> </ul>
Reporting	<ul style="list-style-type: none"> <li>Produce reports for any ZEN component that writes SMF records</li> <li>Batch Reporting for automating the production of reports</li> <li>Local PC download facility for reports built as CSV files</li> <li>Create, display, print and download reports in PDF format</li> </ul>

# ZEN IP MONITOR

IMPLEX v5

IMPLEX version 1 was launched in March 2001. The intervening 10 years has seen the first genuine real-time IP Monitor for z/OS evolve into a highly sophisticated, scalable, best-of-breed product, capable of processing many thousands of packets a second, selected for use by some of the largest System z customers in the world,

Version 5 of IMPLEX, known now as ZEN IP MONITOR (ZIM) became generally available in July. Now a fully integrated component of ZEN, ZIM v5 benefits from a brand-new user-interface, courtesy of ZEN's imaginative and flexible two-tier web-browser implementation.



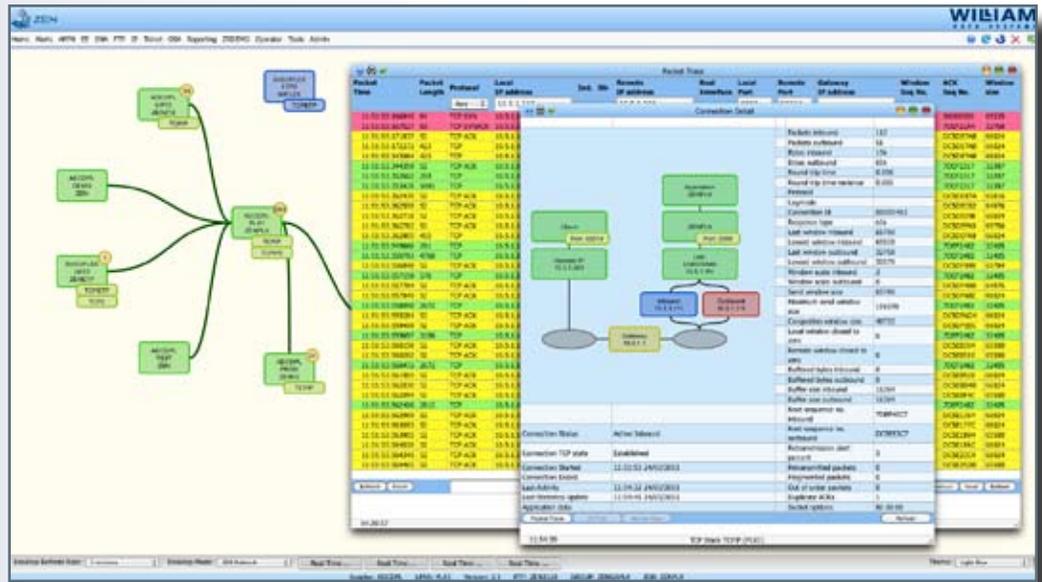
Fans of the 'green-screen' 3270-interface need not fear though as v5 also features enhancements to the 3270 interface.

ZIM v5 has several other enhancements, including:

- Significant new monitoring capabilities for complex Sysplex Distributor environments
- Improvements and enhancements to the Alerting function
- Enhancements to TN3270 and NTT Monitoring displays
- New Command Input Areas for many of the 3270 panels
- Large Screen Support for 3270 Emulated Panels
- Packet Trace Panel Improvements
- Enhancements to Enterprise Extender Alerting Group
- Delete and Add Service Group Ports by Server

Interoperability with TRACE & SOLVE - EXIGENCE (ZTS) means that customers with both products have the added advantage of being able to start, stop and view ZTS traces, directly from ZIM displays.

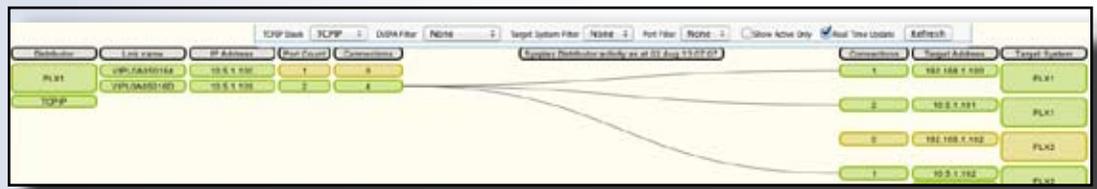
This streamlines and simplifies the process of problem diagnosis and results in speedier problem resolution times.



# SYSPLEX DISTRIBUTOR SUPPORT

Sysplex Distributor (SD) support is a major new facility in ZIM v5, providing real-time collection, monitoring and display of SD data. Several new panels (only available from the ZIM v5 web-interface) provide detailed information, including:

- Distributed VIPAs - All detected distributed VIPAs with essential details for each
- Distributed VIPA Detail - Full details for a distributed VIPA and all the distributed bound ports
- Distributed Ports - A complete list of all distributed ports on the SD system you are connected to
- Distributed Port Detail - Shows each target system for either all distributed ports, or for a selected distributed port; in both cases provides full details for the port.
- Distributed Port History - A daily graphical analysis of distributed connections and reliability
- Target Systems - All target systems available to the SD for distributing connections
- Target System Detail - Full details of the DVIPAs and distributed port(s) that the target system is handling, and how effectively new connection requests to the port(s) are being managed
- Distributed Connections - Lists all active connections for a selected distributed VIPA
- Distributed Connection Detail - Full details for a distributed connection with a graphical representation of the connection from source to destination, including all details of the path taken



As well as the SD panels, a new ZEN Desktop diagram is provided that shows how connections are being distributed to target systems. Options are available via the Desktop Control Box to filter on TCP/IP stack, DVIPA, Target System and/or Port, and also to filter on active connections only. To access the new diagram, select 'Sysplex Distributor' for the ZEN Desktop Mode.

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## The evolution of

In 1995 version 1 of our first product, EXIGENCE, was released. EXIGENCE was a revelation that turned the complex world of tracing mainframe networks from a last-resort tool for experts to a first-level diagnostic tool for all. In doing so this innovative product allowed customers to improve business continuity by accelerating problem identification and reducing the impact of outages.

In common with all mainframe products of that era, the user-interface (UI) was 3270-based, accessed either via a physical 3270 terminal or a PC using 3270 emulation. How times have changed.

The desire to keep pace with technology and innovate is pervasive through everything we do: the first real-time z/OS IP Monitor, the first dedicated EE Monitor, the first dedicated OSA Monitor... the list goes on.

With the increasing reliance we all have on mobile devices, delivering a mobile mainframe network management solution was the next obvious challenge for us to tackle.

The Boston SHARE technology conference (August 2010) gave us an opportunity to demonstrate another first when we debuted ZEN being used on Apple's ubiquitous iPad. With Apple selling over 9 million iPads in the third (fiscal) quarter of 2011 and reporting it in use at 80 of the Fortune 100, it is clear the device has great appeal for business users.

*The entire ZEN network management suite will run on any web-browser, without the need for any additional web-services or hardware.*

*Support for the iPad is included at no-cost as part of a ZEN license. ZEN on the iPad includes "touchscreen" support for all ZEN components.*



# the user interface

However, not everyone has an iPad...

We have continued to champion the mobile computing theme with core functions of ZEN now available on the iPhone, as well as Blackberry and Android devices too. Recent development enhancements mean ZEN's mobile facilities can be made available for all popular smartphone and tablet platforms.

Business agility is a key element of staying ahead of your competitors. As organizations change shape, lose elements, add others, there will be a knock-on effect on your network. The constant changes such agility demands means a need for regular planning meetings, but being away from your desk doesn't mean you have to be out of touch.

ZEN MOBILE means that you can stay in touch and in control of your System z network wherever you are/whenever you like, but still monitoring the network, receiving alerts and staying on top of the situation. But we save the best news until last...

ZEN MOBILE facilities are included at no additional cost for all licensed customers of ZEN, proving once again that WDS really is trying to help you do more but spend less.



ZEN  
MOBILE



*Core ZEN functions are available for any mobile phone platform.*

*Future plans include the ability for customers to build their own mobile displays using ZEN & REXX.*

# ZEN REPORTING

ZEN REPORTING (ZRP) is a powerful feature of ZEN that produces customized reports for any ZEN component. A wide range of tailorable report definitions enables you to create the exact reports you need, viewable in a variety of formats.

Report views can be altered using the built-in formatter and options allow you to select totals or a specific page or key fields from the report. You can also optionally display the extracted data in graphical form.

Version 2 of ZRP recently introduced several useful enhancements:

- Create, display, print and download reports in PDF format
- Report formatting for selecting data fields & editing column headings
- Batch Reporting for automating the production of reports
- Local PC download facility for reports built as CSV files
- Reporting support for the ZEN IP MONITOR - IMPLEX
- New Job Control Decks



## PDF Support

ZRP now has support for the creation of reports in PDF format, making it easier to distribute reports to colleagues.

## Report Formatting

The new Report and JCL Maintenance panel enables you to tailor each report as required, selecting just those fields you want to see and setting the column headings to your own chosen text.

## Batch Reporting

Full access to the batch side of the reporting process is now provided, allowing you to define and run report definitions independently of ZEN. This means that it is now possible to automate the reporting process, removing the requirement for any on-line intervention through ZEN.

## CSV File Download

A new menu option lists all the reports you have created in CSV format. You can either save a copy of the CSV file on your local PC or open the file with a program of your choice.

## Reporting Support for ZEN IMPLEX

ZEN REPORTING provides the following facilities for ZEN IP MONITOR (ZIM) SMF data:

- Access to a full set of sample ZIM report definitions
- Add (upload) any of your existing IPXREP definitions into ZRP
- An on-line editor to modify any IPXREP definitions
- A JCL deck to run any of the IPXREP definitions
- The ability to view or download any of the ZIM reports

## Reporting Job Control

The previous 3-step process to extract, sort and create reports has been simplified by a new, streamlined, single-step process.

# INTRODUCING ZEN LINUX MONITOR

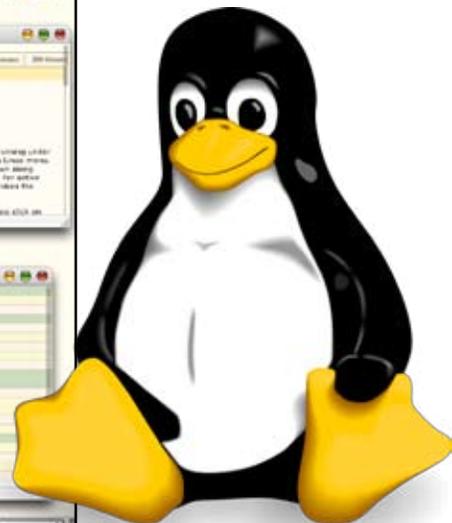
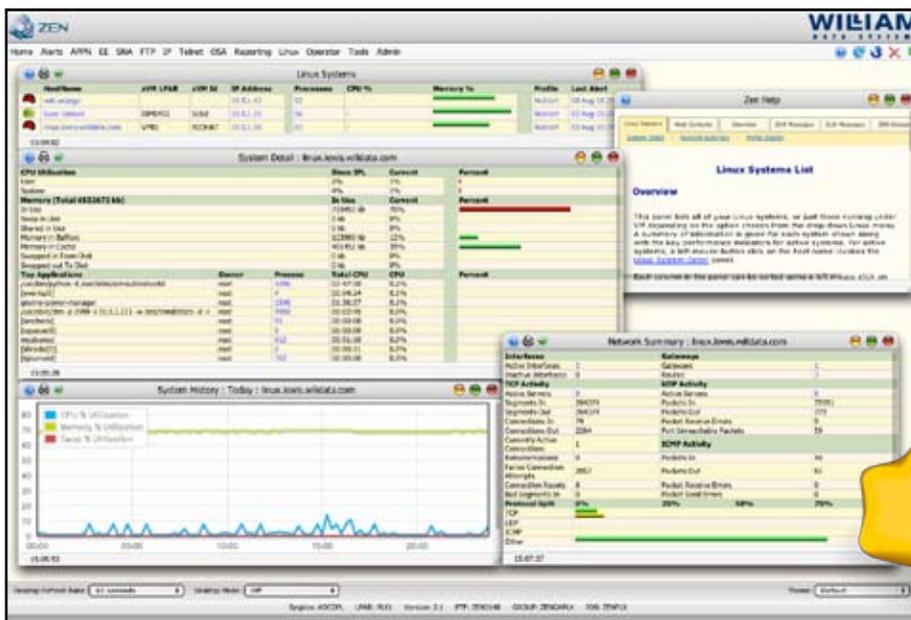
New this Fall, the latest component to be added to our suite of System z network management components is **ZEN LINUX MONITOR (ZLM)**, a low-cost monitoring solution for managing the performance and availability of *all* your Linux systems, whether running under z/VM, natively in an IFL, or even workloads running Linux on Intel-based PC servers.

ZLM enables you to monitor any/all Linux systems from your ZEN Desktop. It provides a summary of all monitored systems, along with detailed key performance indicators including CPU utilization, memory, busiest users (processes), network resources and traffic activity.

Performance and monitoring data is extracted from each monitored Linux instance via a small, optimized piece of (agent) code. The data is transmitted to ZEN on z/OS which allows ZLM to utilize core ZEN functions such as threshold-monitoring and alerting.

Taking advantages of ZEN's flexible user interface and core network management facilities means ZLM can easily and quickly tell you which Linux workloads are running efficiently and immediately pinpoint issues if they're not.

Contact your local office to learn more about how ZEN and ZLM help you meet your network management challenges.



# TRACE & SOLVE - EXIGENCE

For many of our customers, **EXIGENCE**, now known as **ZEN TRACE & SOLVE (ZTS)**, was their first introduction to William Data Systems. Introduced in 1995, EXIGENCE greatly simplified the process of capturing and interpreting traces. Trace analysis was transformed from being a crucial but complex commodity owned by experienced technicians, to a simple process that any competent individual could carry out.

## Version 4.7

ZEN TRACE & SOLVE - EXIGENCE continues to be a valuable and important product for our customers. In April this year we released version 4.7 which contained several new features, including:

- A new “Peek” function provides in-flight viewing of active IP traces allowing users to view an active trace while it is still running.
- Traces originally captured in OSAENTA, libpcap or Sniffer format can now be imported into ZTS.
- As well as accepting commands from the Operator console ZTS can now issue any commands (including ZTS commands) from JCL. This enables different trace formats to be automatically imported into ZTS, which helps to simplify the whole network problem solving process.
- Tracing of IPv6 is now faster and easier with the provision of improved Flow display text descriptions for recognizable packet contents, as well as the capability to search using IPv6 format addresses.
- Tracing packets in large Sysplex environments is usually complex but v4.7 makes it easier by providing improved facilities for expanding encapsulated data used by Sysplex protocols such as GRE and VIPA Route.

## Futures

EXIGENCE users currently have a choice of two user interfaces; either the traditional 3270 interface of the PC client. The PC client has proved popular as it offers a more flexible presentation of the data. However, some of our customers have indicated that having to install client software on their desktop can be problematic.

To overcome the installation issue we are currently working on version 5 of ZTS that will see a fully ‘ZEN-enabled’ user interface, utilizing all the advantages of ZEN’s advanced web-interface. Look out for v5 next year, which will also allow us to build on the interoperability between ZEN components.

# Customer Spotlight



Finanz IT (FI) provides services for 429 savings banks, 8 federal state banks, 10 state building and loan associations plus various other companies within the Savings Banks Group and the financial services sector.

FI services 130.3 million customer accounts. Each year it handles more than 84 billion technical transactions. FI employs 5,291 people and generates sales of about 1.5 billion euros annually.

In 2007 the networking staff at FI were unhappy with their existing IP monitor so they started looking for alternatives. The network team set up a requirements list and compared commercially available IP monitors against that list.

## IP MONITOR - *IMPLEX*

The FI team chose four products that were then installed and tested on the FI sysplex. Following the evaluation ZEN IP MONITOR - IMPLEX was selected as the monitor of choice.

FI staff have recognized that WDS are willing to listen to their ideas for product enhancement, some of which have been implemented in the product. Influencing the product development enables FI to match their network management strategy with ZEN deliverables from WDS.

### COMPANY PROFILE

IT Service provider to one of the largest savings and loans institutions in Europe

### BUSINESS SECTOR

Banking & Finance

### LOCATION

Frankfurt, Germany

### CUSTOMER CHALLENGE

Monitor approximately 150 System z IP stacks across 79 LPARS

### SOLUTION

ZEN IP MONITOR - IMPLEX

### KEY BENEFITS

- Quicker responses to problems
- Less skilled effort required to analyze problems
- Less manual intervention
- Pro-active network management
- Greater utilization of valuable network assets

Our customer portal was introduced in 2008 to make it easier for customers to download the latest versions of products, service libraries and product documentation, as well as check the status of production and evaluation product passwords.

We're pleased to announce that the portal has been further enhanced to allow customers to use our sophisticated problem management system (PMS). Access to PMS enables customers direct access to the management (open, update, close, search) of problem tickets. In addition, customers can now (at last!) manage their own portal passwords too.

Access to the portal is available from [www.willdata.com](http://www.willdata.com). If you haven't used the portal before or would like further information, please contact your local WDS office.





William Data Systems (WDS) is a pioneer of specialized IBM System z™ network management solutions. Established in 1993, we are an independent global company that provides innovative solutions to run mainframe networks efficiently and securely. With a proven record of technical innovation, our ideas are often copied but never bettered.



To help customers overcome both business and technology challenges, WDS provides customers with licensing and pricing terms that are as flexible as our solutions. Some of our competitors like to make unsubstantiated and entirely subjective claims that their products are the best in the world. We believe the customer is better placed to decide what's best for their business so we leave the hyperbole to the competition.



WDS supports customers worldwide across all vertical markets and our client list includes Fortune 100 companies and government agencies. WDS is an Advanced 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.



The William Data Systems ZEN suite of network management solutions provides a comprehensive insight into z/OS network operations by offering targeted solutions, adapted to meet your unique business needs.



The suite consists of ZEN, a central interface which enables users to integrate and operate tools easily, and a selection of targeted solutions that provide IT performance management, network optimization, monitoring, tracing, reporting and security. ZEN solutions are critical to maintaining business continuity and service levels of z/OS networks.



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