



IBM Software Group

TPF Users Group Spring 2005

z/TPF Implementation and Migration

How to get There From Here

Bill Supon

z/TPF Business Development

AIM Enterprise Platform Software

IBM z/Transaction Processing Facility Enterprise Edition 1.1.0

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Where do you start ?

- Identify the business requirements
- Understand the changes
- Identify the planning information and tools that are available
- Assess your current operating environment
- Develop a plan – schedules, costs, milestones
- Migrate !

Identify The Business Requirement

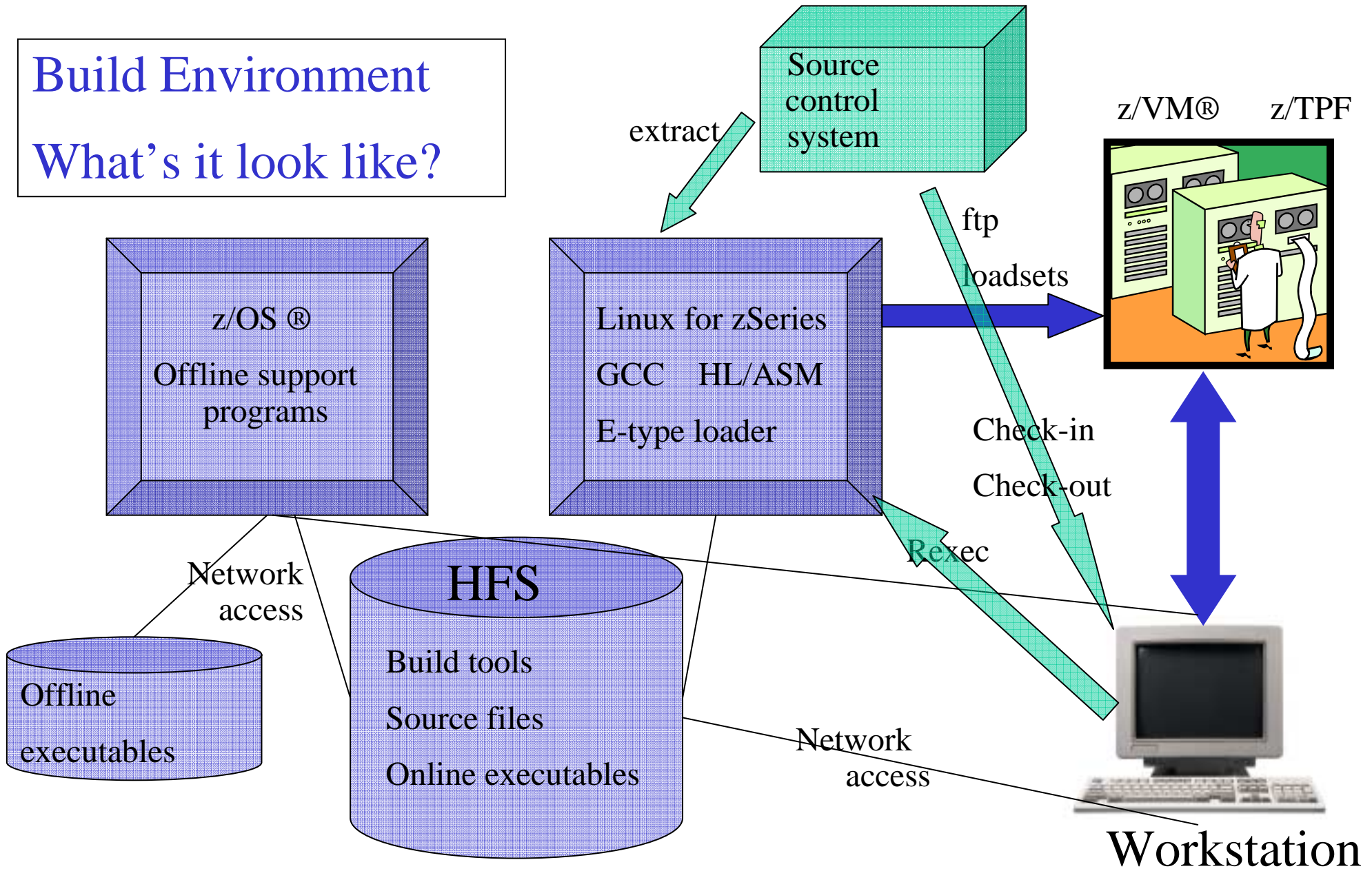
- The Executive View
 - Cost consolidation and reduction
 - Investment Protection
 - New Pricing Models
 - PSLC
 - WLC
 - Open environment
 - Connectivity
 - Development
 - Enable faster time to market

- The Technical View
 - Scalability
 - Improved Availability
 - Improved Functions
 - GNU tool chain
 - GFS in 1052
 - FTP Load Process
 - New Globals
 - z/TPFDF
 - z/TPFAR
 - Mountable File Systems
 - ... and more

Understand The Changes

- The z/TPF Development Environment
- The z/TPF System
 - Systems
 - Applications
- z/TPF Support
- z/TPF Pricing

Build Environment What's it look like?



Understand The Changes

- The z/TPF Development Environment
- The z/TPF System
 - Systems
 - Applications
- z/TPF Support
- z/TPF Pricing

Understand The Changes: Systems

- Build Processes & Library Systems
- Linux
- GCC-ize your C/C++ Systems Code
- Repackaging BAL code
- PUT15+ Apars
- New records for z/TPF
- User Exits
- 64 Bit Hardware
- Obsolete Hardware
- Main Storage Requirements
- Prime/dupe module pairing
- Co-existence
- Resource Monitor
- Improved debugging
 - The debugger itself
 - Dumps
 - Traces

Understand the Changes: Applications

- Single Source Apars
- Source Manipulation Tools
- GCC-ize your C/C++ Code
- Repackaged BAL code
- New interfaces to your development environment
- New Functions
 - Format 2 Globals
 - Improved debugging capability
 - Baseless programming
 - More memory
 - CallC..... And more

Understand The Changes

- The z/TPF Development Environment
- The z/TPF System
 - Systems
 - Applications
- **z/TPF Support**
- z/TPF Pricing

Understand The Changes: z/TPF Support

- No changes to IBM's support for z/TPF and z/TPFDF itself.
- There are, however, changes to support of the compiler environment.

GCC Compiler Distribution and Support

- **Deliverables:**
 - **GCC Compiler and Utilities required for z/TPF EE V1.1**
 - **Tooling and associated documentation to permit the customer to build a cross compiler**
 - **Compiler and Utilities documentation in HTML format**
 - **Program defect support services for problems found with the Compiler and Utilities through the execution of TPF Systems code**
- **Problem reporting procedures through TPF Services and Support**
- **All deliverables distributed via ftp**
- **Tentative Contract duration: One year**

As GPL open source software the GCC cross compiler cannot be supported through the same channels as are used for the C/C++ Compiler. GCC is not an IBM product. If accepted, this service offering is an option that allows z/TPF customers to report problems through the TPF Services and Support teams using mechanisms similar to problem reporting for z/TPF itself. Problems with the compiler submitted without a contract can not be accepted by IBM, however may be resolved by the customer through alternative channels.

Understand The Changes

- The z/TPF Development Environment
- The z/TPF System
 - Systems
 - Applications
- z/TPF Support
- **z/TPF Pricing**

Understand The Changes: z/TPF Pricing

- Still MLC (Monthly License Charge)
- PSLC : Parallel Sysplex License Charge
 - Both loosely coupled and uni-processor z/TPF systems
- WLC : Workload License Charges
 - Measured monthly 4 hour rolling average using the SCRT (subcapacity reporting tool)

<http://www.ibm.com/servers/eserver/zseries/swprice/>

Identify the Planning Tools

- z/TPF Migration Portal
 - <http://www.ibm.com/tpf/pages/ztpfmigration.htm>
 - z/TPF Migration Manual
 - TPF Users Group Presentations
 - TPF Newsletters
 - z/TPF Frequently Asked Questions
 - Links to related subjects
 - And more !

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- TPF
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- Library
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- Contacts
- Site news
- Site map
- Warranty info

Products > Software > Host Transaction Processing > TPF >

z/TPF Migration

This is a portal to the many pieces of information IBM is providing on the web to aid in migrations to z/TPF. If you are thinking about z/TPF, bookmark this page and check back often.

Resource Center

z/TPF Overview

- [z/TPF Announcement Letter](#)
- [z/TPF Overview and Announcement Review](#)
- [Introducing z/TPF](#)
- [z/TPF and z/TPFDF Migration Guide](#)
- [TPF System Technical Newsletters](#)
- [z/TPF Frequently Asked Questions \(FAQs\)](#)
- **Linux Corner**
 - **IBM sites:**
 - [Main IBM Linux portal](#)
 - [IBM Briefing Center](#)
 - [Linux on zSeries](#)
 - [New to Linux](#)
 - **External Sites:**
 - [Linux Tutorials](#)
 - [GCC Compiler](#)

Getting Ready

- [What You Can Do Today To Get Ready For Tomorrow - Assembler Programs](#)
- [Coding Today for z/TPF Tomorrow](#)
- [maketpf](#)

z/TPF Education and Services Offerings

- [Education Roadmap Flowchart](#)
- [TPF Services and Education Overview Spring 2005](#)
- [TPF Services and Education Detail Spring 2005](#)
- [VTS Implementation Services](#)
- [TPF Toolkit for WebSphere Studio Base Services 2005](#)
- [TOS Services Spring 2005](#)

z/TPF Technology

These are IBM presentations from the TPF Users Group TPFUG - [Fall 2004](#), [Spring 2005](#)

System Technology

- [z/TPF Scheduler/Dispatcher](#)

Build Environment

- [z/TPF Education - Taking the Mysteries Out of the z/TPF Build Process](#)

Getting Ready - Detail

- Feature, Functions and Benefits
- Web Services and TPF
- Single Source Considerations
- Application Analysis Services
- Migration Analysis
- Linux for z/TPF
- z/TPF 101
- z/TPF Migration Services
- Coding for z/TPF
- TOS for z/TPF
- z/TPF Pool Maintenance
- C and C++ Workshops
- z/TPF Comms overview
- TPF Collections Support
- TCPIP
- Websphere MQ for z/TPF
- z/TPF File Systems
- TPF Health Checks
- z/TPF Toolkit
- z/TPF Dump Analysis

Identify the Planning Tools

- z/TPF Migration Portal

<http://www.ibm.com/tpf/ztpfmigration>

- z/TPF Migration Manual
- TPF Users Group Presentations
- TPF Newsletters
- **z/TPF Frequently Asked Questions**
- Links to related subjects
- And more !

Address <http://www-306.ibm.com/software/hnp/tpf/support/>



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Software > Host Transaction Processing >

Sign in | Register

- TPF
- Features and benefits
- System requirements
- Library
- Technical resources
- News
- How to buy
- Training and certification
- Services
- Support
 - My Support
 - Submit & track problems
 - How to buy software support
 - Help
 - Site tours
 - Feedback

TPF

Search support for this product

Enter search terms, phrase, error code or APAR number

What are the single source Apars

Optionally, limit results

Solve a problem (FAQs, APARs, Technotes)

Download (Fixes, Patches)

Learn (Manuals, White Papers, etc.)



Submit

Search assistance

Advanced search for this product | Search all software support

Personalized support

My support, for fast access to your favorite features

Support programs

- Passport Advantage
- Software Support Guide

Related products

- ALCS (Airline Control System)
- TPF Database Facility (TPPDF)
- TPF Operations Server
- IBM TPF Toolkit for WebSphere Studio

Self help

Solve a problem

- Flashes (Alerts)
- Technotes (FAQs)

Download

- TPF Tools

Learn

- Online Publications (Newsletters, Periodicals)
- Product information and publications
- TPF Education

Plan

- TPF Services
- TPF Customer Support

Communicate

- TPF Users Group Meetings
- TPF Library
- Contacts

Information Center

Provides fast, online, centralized

Problem submission

If you didn't find a solution to your problem and you have a maintenance contract:

- Submit & track problems
- How to buy support for your software

Other resources

- TPF Product Maintenance
- TPF Tools Download
- ALCS Support
- TPF Product Support
- TPF PUT Summaries
- TPF Service Bulletins

Translate My Page

Select language

Translate

Related software

TPF ToolKit for WebSphere Studio
ALCS (Airlines Control System)

Related hardware

zSeries 900

Warranty info

Address <http://www-1.ibm.com/support/search.wss?q=What+are+the+single+source+Apars&tc=SSZL53&rs=400>

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- Site tours
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TPF

Search within results for: **What are the single source Apars**
Optionally, limit results by choosing one or more of the items below.

Additional search terms:

Document type:

Sort results by:

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Product category:

1 - 10 of 74 items found [Next>](#)

		Modified date
[1]	PJ29969: NEW APPLICATION MACRO SREGSC & NEW FUNCTION ON PNAMC APAR Type : E Bad APAR : [More items like this found in Other Host Transaction Processing]	2005-02-04
[2]	TPF Users Group - October 2004 IBM presentations for the Fall 2004 TPF Users Group (TPFUG) conference. [More items like this found in Other Host Transaction Processing]	2004-11-17
[3]	PJ29964: SINGLE SOURCE FOR GETPC AND PROGC APAR Type : S Bad APAR : [More items like this found in Other Host Transaction Processing]	2004-10-18
[4]	PJ29980: SINGLE SOURCE APAR TO BACKFIT HFP AND BFP CONVERSION APAR Type : E Bad APAR : [More items like this found in Other Host Transaction Processing]	2004-12-20
[5]	PJ30136: CORRECT SINGLE SOURCE MACRO LREGSC FOR PARM LOREG APAR Type : I Bad APAR : PJ29218 [More items like this found in Other Host Transaction Processing]	2005-02-04
[6]	PJ29691: Backward fitting next release source for single source APAR Type : I Bad APAR : [More items like this found in Other Host Transaction Processing]	2004-09-14
[7]	PJ29974: SINGLE SOURCE ERROR TRAPPING METHOD FOR MATH FUNCTION	2004-12-16

Select language

Related software:
 TPF ToolKit for WebSphere Studio
 ALCS (Airlines Control System)

Related hardware:
 zSeries 900

Assess your Current Environment

- User Interfaces
 - Application Programmers
 - Coverage Programmers
 - Operations
- Development Platform
 - Build Environment
 - Build Procedures
 - Source Code Libraries
- Systems Suite
 - User Modifications
 - 3rd Party Tools
 - Automation
- Applications Suite
 - 24 bit code
 - GCC Compatibility
- Database Changes – new records
- Automation
- Procedures
- Skills
 - Applications Programming
 - Systems Programming
 - Linux
 - New Functions
- Test and Systems
 - zVM
 - z/OS
 - Linux
- Hardware Requirements
 - 64 bit
 - Obsolete Hardware
 - CPU and Memory Requirements

Develop A Plan

- Things You Can Do Now
 - Migrate to an HFS structure
 - Consider the IBM TPF Toolkit, or equivalent
 - Buffer your applications programming staff from the changes to the development platform
 - Start to use makeTPF for TPF4.1
 - Implement the Single Source Apars
 - Bring your System to TPF PUT 15
 - 32 Way Loosely Coupled Apar (PJ27785 + ZMIGR)
 - FARF6 Conversion (PJ28097 + ZMODE 6)
 - PJ29083 for z/TPF LC Migration Mode
 - PJ29906 for the z/TPF Internet Mail Server

Develop A Plan

- Things You Can Do Next
 - Make use of Code Conversion Tools
 - Develop the SCM Development and Test Environment
 - Identify and Catalog User Modifications
 - Ensure C/C++ Compatibility
 - Check that you have no 24 bit code left
 - Convert your 24 bit globals
 - Start to build a Linux environment
 - Plan for New Hardware

Code Conversion Tools

- Convert registers instructions
- Convert 31 and 32 bit values to 64 bit register values
- Convert (most) branch instructions
- Convert appropriate literal instructions to immediates
- Convert macro names as needed
- Convert obsolete SPMs
- Convert \$ to underscore
- Convert long data types to integers
- Convert TPF4 build scripts to z/TPF makefiles
- Build the GCC cross compiler
- Convert usrtpf.cntl file
- Add /tpf to the headers
- Remove trigraph statements
- Remove trailing blanks after “/” in macros

Develop A Plan

- Once You Have z/TPF
 - Education
 - Implement makefiles for z/TPF
 - Recompile/Reassemble your code
 - Migrate your library system
 - Update your processes
 - Test, Test, Test

Develop A Plan

- Once It's Working
 - Can you exploit any of the new functions
 - New Packaging
 - BSOs
 - Fast Enters
 - New Load Processes
 - New Globals
 - TPF Application Requester
 - z/TPFDF

Thank You

From the IBM z/TPF Migration Task Force

Anyone up for a hot topic ?

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