


# Available Now

## New capabilities currently available on z/TPF


### TCP/IP Network Override Support

- *Makes it easier and less error-prone to create z/TPF test systems made from a copy of a production system*
- *Provides a way to override test system connectivity regardless of what middleware protocol is used*
- *Prevents z/TPF test systems from accidentally connecting to and corrupting production servers*

### Security Enhancements

- *Improved network connection security by using hardware accelerated ECC key exchange for TLS sessions*  TE Eligible
- *Identify all usage of cryptography on z/TPF for external and internal audit purposes*

### DFDL Enhancements

- *Use XML schema restrictions to validate data that conforms to what is required across multiple mediums without having to write code*  TE Eligible
- *Use the z/TPF DFDL parser to transform data in applications that run on Linux on IBM Z*
- *Learn about, develop, and debug DFDL in less time and with less difficulty*

### REST Enhancements



- *Provides the capability to limit the number of service requests per REST API to enhance system stability*
- *Easily see which artifacts changed when a problem occurs with a REST service*

### System Control Program Enhancements

- *Add additional DASD capacity without an outage*
- *Maximum z/TPF database size increased by 18x*
- *Automate PDU to run as low priority anytime without impacting transactional work*

### Simple Lock Enhancements

- *Improve system performance and reduce CPU utilization in multiple I-stream environments with high simple lock contention without application changes*

#### What is TE Eligible?

Transformation engines (TEs) are general processor (GP) engines that are available at a reduced cost to encourage z/TPF modernization, application extension, and integration with other IBM products.

#### What is Fenced I-Stream Eligible?

Fenced I-stream eligible means functionality that can use some dynamic CPU fenced I-streams at no cost.

### Runtime Metrics Collection Enhancements

- *Complex-wide dashboards show metrics from all z/TPF instances in a complex in a single dashboard*
- *New metrics and new dashboards, including REST services and business events usage*
- *Secure z/TPF real-time insights dashboard starter kit network connections to Apache Kafka*

### Loaders Enhancements

- *Recycle long running z/TPF servers only once when a program or file used by that server changes*

### Dynamically Resizable Record Cache Support

- *Increase the size of a logical record cache without losing any existing data in the cache while improving efficiency*

### z/TPFDF Enhancements

- *Reduce time investigating z/TPFDF application and I/O errors through improved z/TPFDF system error messages*
- *Identify and correct backward chain issues with CRUISE validation enhancements*

### IBM z/TPF Learning Platform

- *Access 4 hands-on programming challenges to learn by doing*



### TPF Toolkit Enhancements

- *Use TLS to secure HTTP connections between z/TPF and other platforms*
- *Deploy code to a test system and run the appropriate automated test cases with a single click and view test results*
- *The debugger detects and flags null pointer and address references to improve code quality*



# Moving Forward

## Upcoming for z/TPF

### Runtimes Metrics Collection Enhancements

- Define user metrics to send operational, application, and business metrics for real-time monitoring, analysis, and data science
- Easily install the runtime metrics collection sample analytics pipeline on Linux on IBM Z by using trusted IBM supplied open-source containers
- Monitor an entire z/TPF complex from a single runtime metrics collection offline utility instance

### Loaders Enhancements

- Quickly debug problems related to the wrong version of a file that is being loaded to z/TPF

### Secure File Transfer Support TE Eligible

- Remote clients can securely transfer files with the SSH server on z/TPF by using SFTP
- The loadtpf utility can load code securely to z/TPF

### z/TPF IBM MQ Support for 64-Bit

- Ability for IBM MQ to use 64-bit memory to support larger message volumes and free 31-bit memory to enable z/TPF to process more transactions concurrently
- More efficient IBM MQ checkpoint and sweeper logic to reduce I/O and CPU consumption
- Applications can exchange IBM MQ messages up to the architected limit of 100 MB in size

### Follow the z/TPF IBM Community


for updates about new functionality available throughout the year!



### Business Events Enhancements TE Eligible

- Define multiple unordered dispatch queues for business event dispatch processing, where each unordered dispatch queue is processed independently from other dispatch queues
- Assign high-volume business events to different unordered dispatch queues based on destination, SLAs, or other criteria to prevent one slow or nonresponsive event consumer from impacting events destined for other event consumers

### z/TPFDF Enhancements

- Use dynamic CPU fenced I-streams to decrease the time it takes to run the z/TPFDF CRUISE utility without impacting transactional workload  Fenced I-stream Eligible
- Decrease the amount of CPU resources required to run the z/TPFDF CRUISE utility on wide and shallow z/TPFDF databases

### z/TPF Support for Safeguarded Copy

- Run IBM DASD Safeguarded Copy operations anytime for z/TPF data, with time-sensitive aspects coordinated by z/TPF to minimize impacts to transactions

### z/TPF Programming Models Education

- Interactive, online self-paced course that provides an overview of z/TPF and introduces its programming models
- Includes quizzes to validate learning and completion certificate after passing a final assessment