



| z/TPF V1.1

# TPF Users Group - 2010

## Title: IBM TPF Operations Server and Tivoli Monitoring/CDC Updates

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Venue: Operations and Coverage

AIM Enterprise Platform Software  
IBM z/Transaction Processing Facility Enterprise Edition 1.1.0

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# Agenda

- **TPF Operations Server V 1.2.06**
  - Enhancements
  - Maintenance
  - Software Levels
  - Host Interfaces
    - 3215 automatic fallback to HMC
- **IBM Tivoli Monitoring for z/TPF and CDC**
  - Continuous Data Collection (CDC) APARs
  - ITM Agent for z/TPF update
- **Interface between IBM Tivoli Monitoring and TPF Operations Server**

# TPF Operations Server 1.2.06 and maintenance

- **TPF Operations Server V 1.2.06**
  - Availability - November 2009
  - CD and softcopy/electronic delivery
  - Registration required to receive electronic delivery.
    - [http://www.ibm.com/software/http/tpf/pages/req\\_full.htm](http://www.ibm.com/software/http/tpf/pages/req_full.htm)
- **Individual APARs available on the Web**
  - TPF -> SUPPORT -> MAINTENANCE  
(<http://www.ibm.com/tpf/pages/maint.htm>)
  - APARs listed in the order closed
  - Unzip package and run TOSAPAR.BAT to apply.
- **Patch file containing all the latest closed APARs**
  - TOS\_PATCH\_V1206\_20101015.ZIP
    - Extract and run TOS\_Patch.BAT

## Enhancements with IC61448

- **Improved throughput of messages to GUI**
- **Resizable console session tab font**
- **Configurable console main window title**
- **Kill() API stops automatic reconnects**

## Recent Maintenance

- **IC68728 – Special characters allowed with AUTO SEND**
- **IC69172 – Filters with –K parameter load problem**
- **IC70677 – TOSLOG logging routed messages**
- **IC71813 – TOS API error with ETOSBREAKLINE**

## Software Levels

- **Windows XP Professional with Service Pack 3**
- **Windows Server 2003 with Service Pack 2**
- **Windows Server 2008 R2**
- **Windows 7**
  - Windows 7 and Server 2008 increases user security
- **IBM Personal Communications V 5.9 CSD 4**
  - Part of Host Access Client Package
- **DB2 V 9.7 tested with logging client**
- **Open Object REXX V 3.2**
  - <http://www.oorexx.org/>

## Windows 7 and Windows 2008 Server user security

- **For TPF Operations server the default installation is to the C:\Program Files directory.**
- **This requires using the 'Administrator' id for installation updates.**
- **The following may be placed in user directories:**
  - Session configuration files for console clients
  - RAVEN execution directory
  - RAVEN variation directory

# TPF Operations Server Host Interfaces

- **3215 Console Support**
  - IBM OSA-ICC 3215 (Ethernet)
  - HMC for fallback and test environment
  - IBM 9663-001 (ESCON)
    - End of hardware support – December 2009
    - Driver not available on TPF Operations Server 1.2.06
    - V 1.2.05 drivers may be used with TOS 1.2.06
  - Luminex 3215 TPF Console Interface (ESCON)
    - Cards may no longer available from vendor
- **3270 Console Support**
  - IBM OSA-ICC (Ethernet)
  - IBM 2074 (ESCON w/Ethernet to TOS)










## 3215 Automation Console fallback to HMC













- **APAR PJ37340 creates an option to automatically fallback to and use the hardware management console (HMC or SE) operating system messages interface**
- **New INCLUDEHMC statement on CRASTB statement in SIP**
  - INCLUDEHMC=YES means try and use HMC when:
    - No 3215 devices are available at IPL time
    - z/TPF is up and running, then the primary and alternate 3215 devices fail
  - INCLUDEHMC=NO means do not try and use HMC (default)
    - Manual fallback (ZACRS FBK) still allowed
- **Automatic fallback to the HMC is only attempted when z/TPF is not running under VM**
  - INCLUDEHMC=YES is ignored when z/TPF is running as a z/VM guest
- **Define TOS console to connect to HMC**

TPFHM3: Hardware Management Console Workplace (Version 2.10.0) - Microsoft Internet Explorer


**Views**


 **Groups**  **Exceptions**  **Active Tasks**  **Console Actions**  **Task List**  **Books**  **Help**


**CSS0 Images Work Area**


 P001153F CF1	 P001153F CF2	 P001153F CF3	 P001153F TPFP1 (SK0001:B)	 P001153F TPFP2 (BI0001:A)	 P001153F TPFP3 (SK0001:C)	 P001153F TPFP7 (SK0001:F)	 P001153F TPFP8 (MS0001:C)	 P001153F TPFP9
 P001153F TPFT4 (EYDEVP:B)	 P001153F TPFT5	 P001153F TPFT6 (MS0001:B)						


**Daily**


 **Hardware Messages**

 **Operating System Messages**

 **Activate**

 **Reset Normal**

 **Deactivate**

 **Activity**

TPFHM3: Operating System Messages

P001153F : TPF7

LOW SPEED	0
ROUTED	0
CREATED	4504691
SDO CREATED	0
SNA	0
THREADS CREATED	8
TCP/IP INPUT	661 149
TCP/IP OUTPUT	424 398
BSS SUBSYSTEM COUNTS FOR 1 SUBSYSTEM USERS	
ACTIVE ECBS	21
DLY/DFR ECBS	0
PROCESSED	23799
LOW SPEED	0
ROUTED	0
CREATED	2827007
SDO CREATED	0
SNA	0

END OF DISPLAY+

CSMP0097I 13.28.24 CPU-F SS-BSS SSU-HPN IS-01

CSMP0099I 13.28.24 010000-F ZDSYS+

CSMP0097I 13.28.24 CPU-F SS-BSS SSU-HPN IS-01

DSYS0001I 13.28.24 THE SYSTEM IS IN NORM STATE FOR SUBSYSTEM BSS

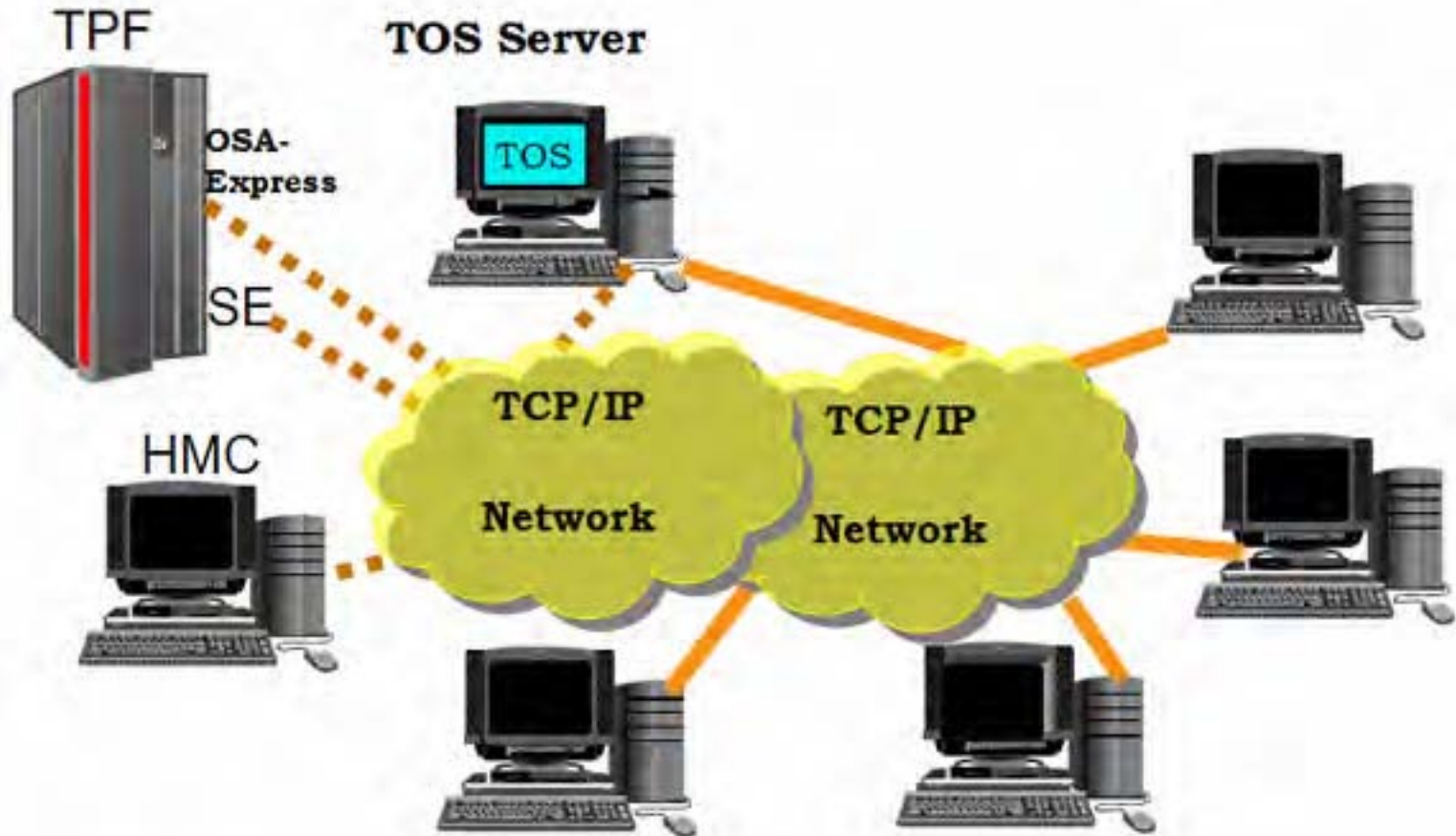
ON SK0001 CPU-F 20OCT

END OF DISPLAY+

Command:

☐ Priority (select this when responding to priority (red) messages)

# New TOS OSA-ICC 3215 Configuration with HMC



# System z Application Programming Interfaces

- **SB10-7930-13**
- <http://www.ibm.com/support/docview.wss?uid=isg2b09e422f170ffc9c85257075004bde92&aid=1>
- **Chapter 6 explains enablement of API**
- **Also see Chapter 5-Rexx Management Functions**
  - Including example (HWMCARX.CMD) available on HMC



# Configuring HMC APIs panel

TPFHM3: Customize API Settings - Microsoft Internet Explorer

**Customize API Settings**

☒ **Enable SNMP APIs**  
SNMP agent parameters:

*Community Names*

Select	Name	Address	Network Mask / Prefix	Access Type
<input checked="" type="radio"/>	public1	0.0.0.0	0.0.0.0	write

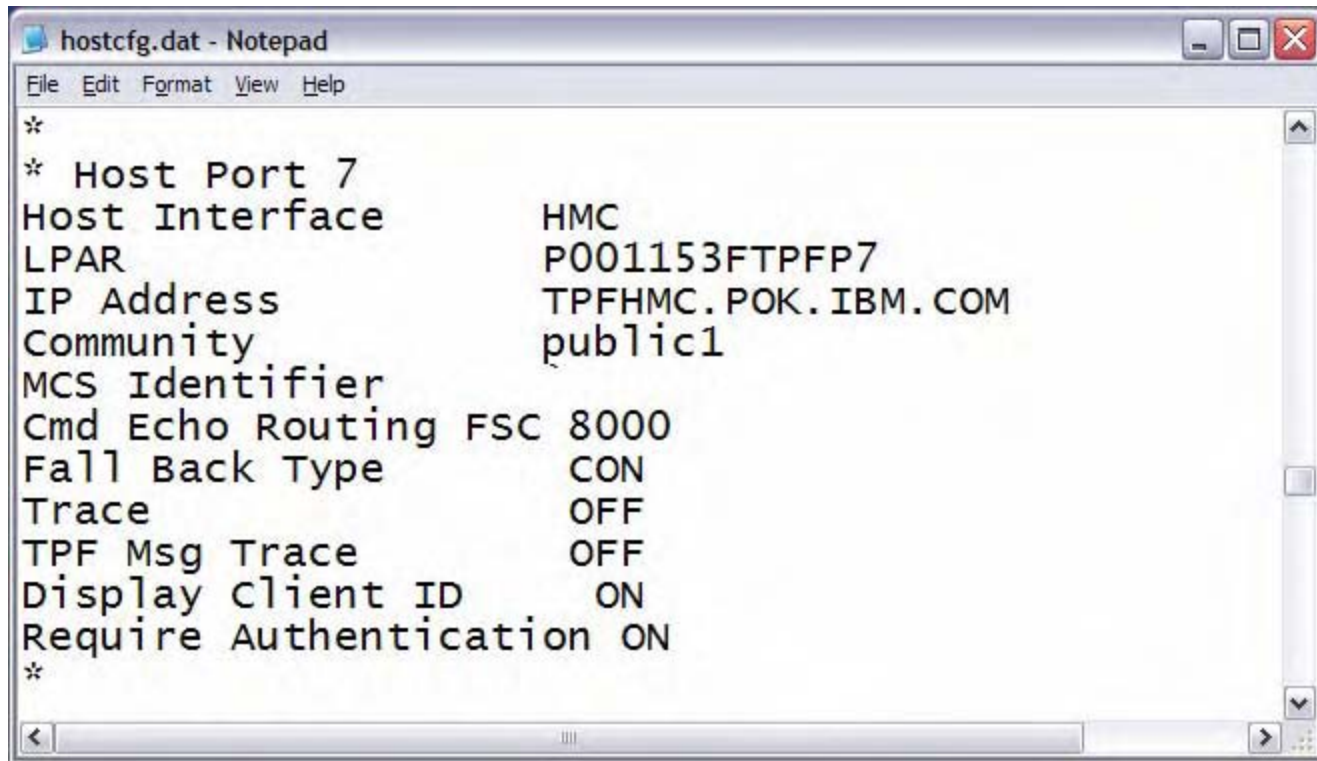
*SNMPv3 Users*

Select	User Name	Access Type
--------	-----------	-------------

*Event Notification Information*  
Specify any additional locations where SNMP trap messages will be sent.

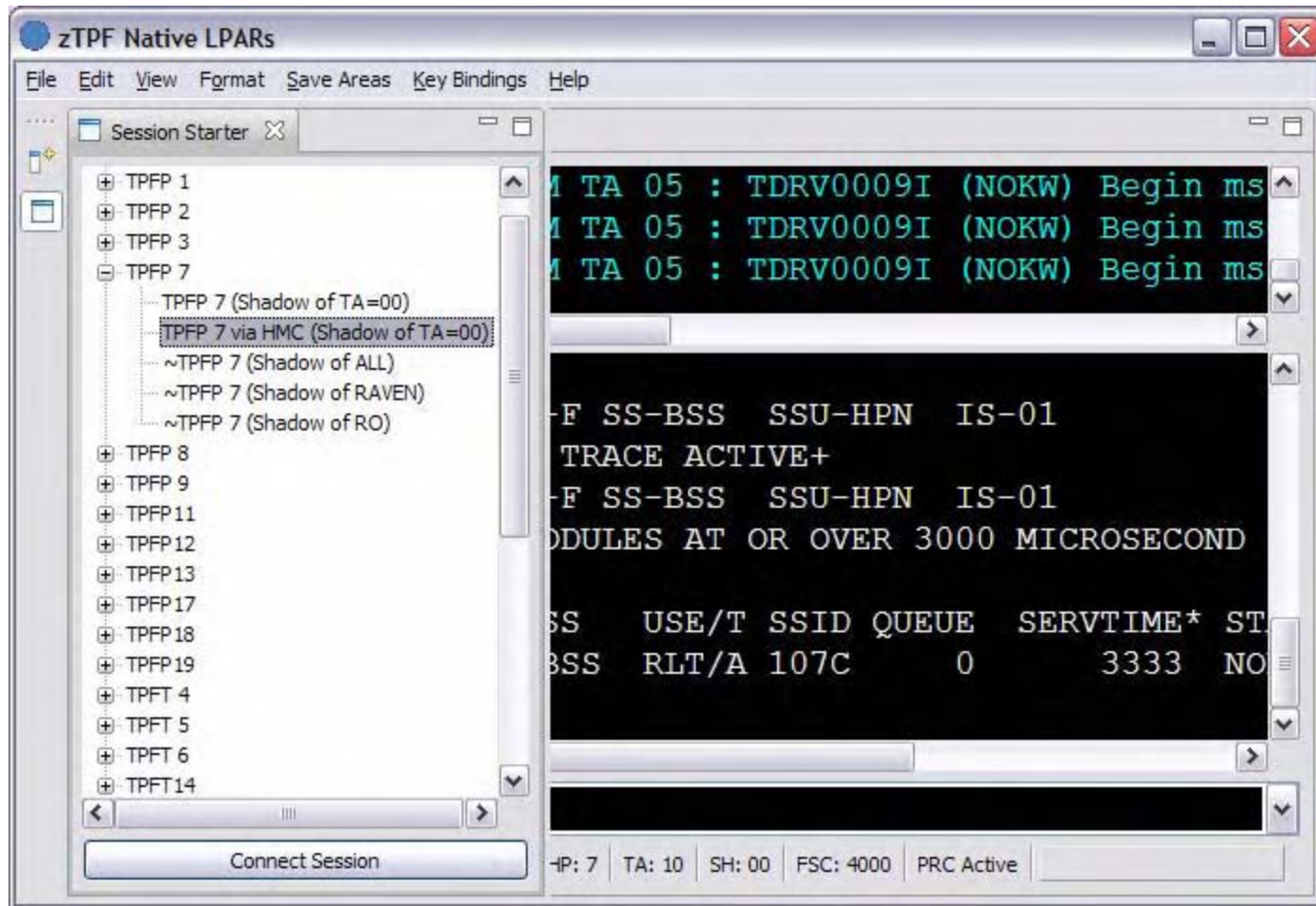
Select	TCP/IP Address
--------	----------------

# HOSTCFG.DAT



```
*
* Host Port 7
Host Interface      HMC
LPAR                P001153FTFP7
IP Address          TPFHMC.POK.IBM.COM
Community           public1
MCS Identifier
Cmd Echo Routing    FSC 8000
Fall Back Type      CON
Trace               OFF
TPF Msg Trace       OFF
Display Client ID    ON
Require Authentication ON
*
```

# TOS connection to HMC Operator Messages







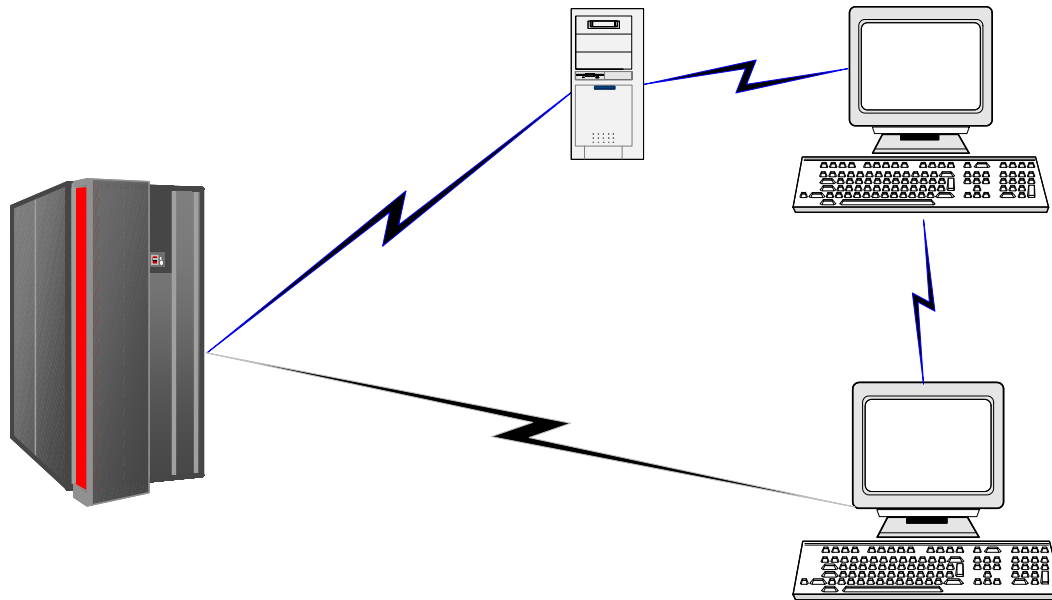
# TPF Continuous Data Collection APARs

- **PJ37311 – Zeros in CDC Channel Utilization with PJ31435**
- **PJ37443 – Incorrect tape data when traditional data collection running**
- **PJ37791 – Wrong LPAR utilization numbers and CDCO0022W when writing to TPFDF**
- **PJ37838 – With PJ30885 LPAR percent of capped utilization wrong**
- **PJ38191 – CTL-064012 system error when writing to CDC TPFDF database**

# IBM Tivoli Monitoring for z/TPF updates

- **Latest Windows Agent available – February 2010**
  - PJ37284 – Monitoring agent and z/TPF runtime error
  - Update to CDC for larger MQ messages when monitoring large number of MQ queues
- **New Linux and AIX support installer available – May 2010**
  - Application support files for the Windows Agent to function with AIX and Linux IBM Tivoli Monitoring (ITM).
- **The Monitoring Agent for z/TPF is the strategic monitoring tool for CDC; IBM continues to support the [CDC client](#) but there are no plans to enhance the CDC client.**

# IBM Tivoli Monitoring with TOS

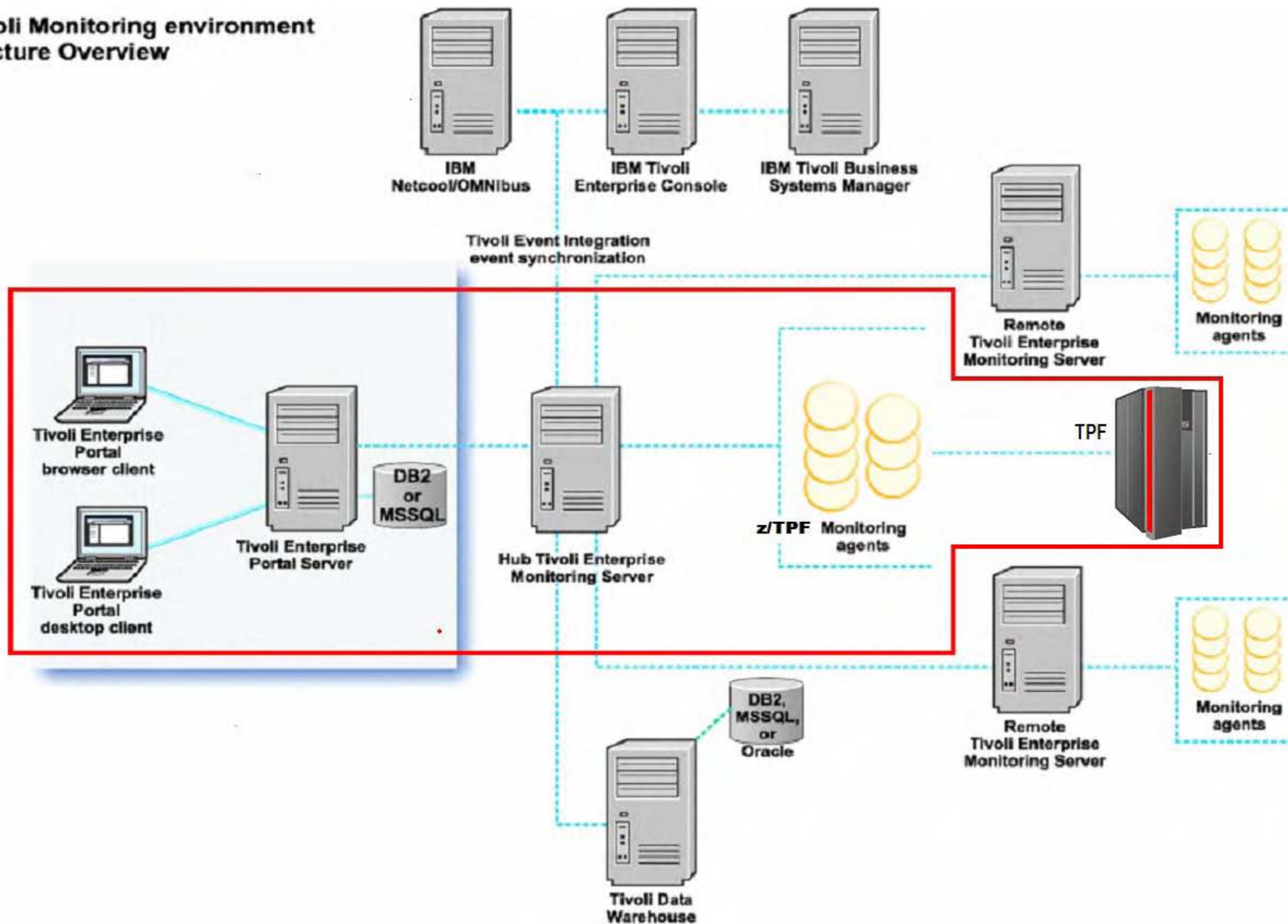


\* CDC historical data options not shown

## Tivoli Monitoring invoking TOS APIs

- **On situation or alert, invoke TOS API program**
  - Rexx, C++ or Java
  - Open connection to TOS hostport
  - Send Command to TPF or Automation
    - Activate a RAVEN Variation
  - Send Messages to Operator Console
    - Possible Highlight or Audio Alert on the message
  - Close connection to TOS hostport

# IBM Tivoli Monitoring environment Architecture Overview





## Do correlation in Tivoli

- **Utilize TPF Operations Server interface to Tivoli Enterprise Console (TOS2TEC) or even Tivoli Netview**
- **Correlate console messages and alerts within TEC or Tivoli Netcool Omnibus**
- **Send TPF Operator or Automation Commands or Operator Messages back through TOS Interface TOS2TEC.**



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