z/VM Service Critical Issues

Operating System Software Red Alerts

PK97437 - SSL Server Performance and Scalability Enhancements - Packaging Updates

With this APAR and its associated requisites (listed below), TCP/IP for z/VM provides significant performance and scalability enhancements for the CMS-based SSL server, introduced with z/VM version 5 release 4.

APAR PK97437 provides packaging and related infrastructure changes needed for running the SSL and TCPIP server modules, updated by APARS PK97438 and PK75662 respectively.

APAR PK97438 provides an updated SSL server module (SSLSERV) that incorporates changes that are intrinsic to the provision of enhanced server performance capabilities.

APAR PK75662 provides an updated TCP/IP server module (TCPIP) that incorporates changes to accommodate various scalability and performance changes introduced within the SSL server module and the TCP/IP infrastructure, as updated by APARS PK97438 and PK97437 respectively.

APAR VM64740 (CMS) provides updates to correct problems with the use of CMS queue management support within in a DCSS and adds execution of a STFL instruction during CMS initialization.

Detailed information about these enhancements, their use, and **system and configuration changes required to install these updates**, can be found at this z/VM web site URL:

   http://www.vm.ibm.com/related/tcpip/vmsslinf.html

Users Affected:

All z/VM customers who have configured the z/VM SSL server and are running it in a production environment.

Customers who acquire these updates, but have not employed an SSL server within their installation, do not need to complete the prescribed changes prior to placing service into production.

Problem Summary:

Symptoms indicative of a lack of the required changes will be reflected in the SSL and TCP/IP server consoles, represented by these examples. Note that messages different from those shown here might be produced, based on the system configuration that is in place:

SSL Server:
```
...
DTCRUN1005E Required tag :DCSS_Parms. was not found in file(s):
nodeIDDTCPARMS D1, IBM DTCPARMS D1
DTCRUN1099E Server not started - correct problem and retry
...
```

 (-- or --)
```
...
DTCRUN1041E A server of class SSL_DCSS_AGENT is not defined for SSLSERV
in files: nodeID DTCPARMS D1, IBM DTCPARMS D1
DTCRUN1099E Server not started - correct problem and retry
...
```

TCP/IP Server:
```
...
DTCRUN1038I Server is not configured to support secure connections
```

```
...
DTCPAR219I SSLServerID: SSLSERV; Timeout: 30
...
DTCIPI056I TCP/IP is configured to not allow an SSL server. The
SSLSERVERID statement is ignored.
...
```

Problem Conclusion:
The configuration changes described for these APARs, accessible via this URL:

  http://www.vm.ibm.com/related/tcpip/vmsslinf.html

must be implemented *before* the updated service provided by their respective PTFs is placed
into production (that is, *before* the **PUT2PROD** or **TCP2PROD** commands are used). If the
necessary changes are not implemented, **the SSL server will not properly initialize and no
longer will function**. Note also that these PTFs must be applied and installed together. The
various components updated by each PTF are interdependent, and must be used together in an
operational environment. These PTFs cannot be selectively applied, and then used on an
individual basis.

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VM64793 - New CP function to support protected-key CPACF requires Coupling Facility microcode support on the IBM System z10.

VM64793 provides support for the protected-key CP Crypto Assist Functions (CPACF)
available on the IBM System z10 processors. Guest support is provided such that guests
may execute the new protected-key CPACF functions.

In order to exploit this new function, customers who install PTF for APAR VM64793
will also need to install supporting microcode on IBM z10 processors running at DR76 or
DR79. Without the microcode support, you will not be able to initialize the guest
Coupling System.

Users Affected:
All z/VM customers running guest coupling support when they have both a z10 and the
PTF for APAR VM64793.

Problem Summary:
During IPL of a z/OS guest of z/VM with guest coupling support, the following message
is received:
HCPGIR450W: CP entered; disabled wait PSW
IPL continues, but z/OS issues message: IXC518I SYSTEM NOT USING COUPLING
FACILITY
with REASON: NOT CONNECTED TO SYSTEM.
and the coupling facility is not usable.

Problem Conclusion:

Before the PTF for APAR VM64793 is applied to z/VM 5.4 or 6.1, the following z10 MCLs must be applied and activated:

- CFCC EC N24403 MCL006 for driver 79
- CFCC EC N10964 MCL015 for driver 76