



IBM Software Group

z/OS® V1R9 Communications Server

Overview

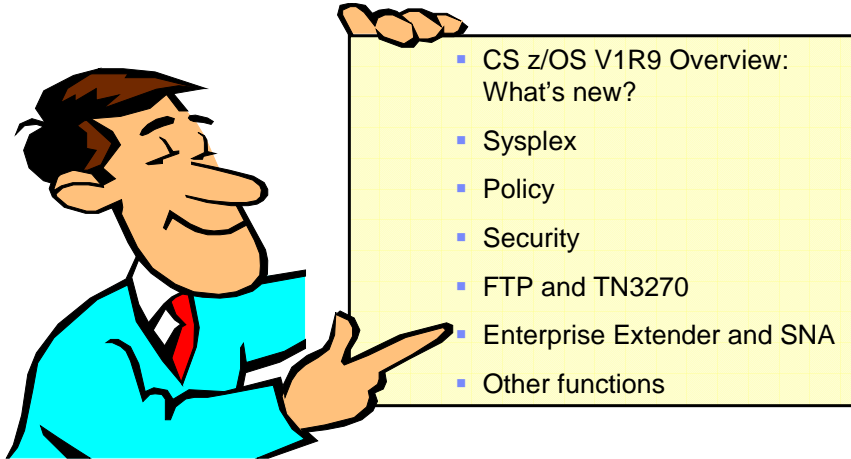


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This presentation is an overview of Communications Server for z/OS V1R9.

Agenda



These topics will be discussed during this presentation.

z/OS CS V1R9 overview - Sysplex

- Dynamic VIPA usability enhancements
- Source IP (SRCIP) enhancements
- Remove TCP/IP XCF links that are no longer valid
- Support for WLM routing service enhancements for zIIP and zAAP
- Add WEIGHTEDACTIVE distribution method for Sysplex Distributor
- VARY TCPIP,,SYSPLEX enhancements

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There are several Sysplex related enhancements in z/OS V1R9. The starting of AUTOLOG applications, that bind to a dynamic VIPA, can optionally be delayed until the TCP/IP stack has joined the sysplex. A port range can now be specified on the VIPADISTRIBUTE statement. A distributed dynamic VIPA can now be specified as the source IP address on the SRCIP statement. TCP/IP XCF links that are no longer being used are now deleted when the last stack on a LPAR leaves the sysplex. Sysplex Distributor and the Load Balancing Advisor take into account the processing on the specialty processors, zIIP and zAAP, when making load balancing decisions. A new Sysplex Distributor distribution method, WEIGHTEDACTIVE, provides more granular control over workload distribution. A single VARY TCPIP,,SYSPLEX command can now be used to quiesce or resume multiple listeners.

z/OS CS V1R9 overview - Policy

- Policy-based routing (PBR)
- Centralized policy services
- Removal of QoS and IDS LDAPv2 schema



Policy changes were made to allow the z/OS platform to remain competitive with other platforms. Policy based routing allows other criteria, defined by policy, to be used to determine how outbound traffic is routed. Policy for all the disciplines can now be defined and stored in a central location. The QoS and IDS LDAPv2 schema is no longer supported.

z/OS CS V1R9 overview - Security

- IPsec network management interface (NMI) support
- IPsec enhancements
- Network security services (NSS)
- AT-TLS API enhancements

Security enhancements were also made in the Communications Server for z/OS V1R9. A new network management interface (NMI) is available to monitor and manage IPsec. Some enhancements were made to the existing IPsec function in the area of Perfect Forward Secrecy and SWSA takeover and giveback. A new function, Network security services, allows certificate services for IPsec to be in a central location. It also allows for remote monitoring and managing of IPsec. The AT-TLS API has been enhanced to support stopping security on a connection and to allow both secure and non-secure connections on the same port

z/OS CS V1R9 overview - FTP and TN3270

- FTP Unicode support
- Allow FTP client to select source IP address
- RFC currency
 - ✓ FTP SSL/TLS RFC compliance
- AT-TLS enablement of CS-provided servers
 - ✓ Enable AT-TLS for the TN3270E Telnet server
 - ✓ Enable AT-TLS for the FTP client and server
- FTP Kerberos single sign-on support
- Allow the TN3270E Telnet server only in a separate address space

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Several FTP and TN3270 enhancements were implemented in z/OS V1R9. V1R9 builds upon the FTP UNICODE support added in V1R8 by including support for UTF-16. The FTP client can now optionally provide the source IP address that will be used when connecting to the server. FTP now fully supports SSL/TLS RFC 4217. The FTP client and server and the TN3270E telnet server have been enabled for AT-TLS. The FTP server now supports Kerberos single sign-on. Finally, the TN3270E telnet server can no longer run in TCP/IP's address space.

z/OS CS V1R9 overview - Enterprise Extender and SNA

- Local MTU Discovery for Enterprise Extender
- Enterprise Extender LDLC timers
- HPR path switch enhancements
- Add definitions to control generic resource resolution
- MPC activation enhancements
- Adjacent cluster table enhancements
- Display TN3270 client code page
- SNA APPN display enhancements
- Improve performance of SNA session encryption
- Increase maximum CAPACITY value
- Removal of APPC application suite (ASUITE)
- CSM serviceability enhancements

Several SNA and Enterprise Extender enhancements were made in z/OS V1R9. Enterprise Extender now learns of MTU changes dynamically. Furthermore, Enterprise Extender logical data link control timers can now be defined for each local Enterprise Extender VIPA. Enhancements were made to improve the performance when HPR path switch occurs in large networks. Generic resource resolution preferences can now be defined using VTAM definitions. Re-activation of MPC groups occurs automatically when the minimum number of subchannels become available for a FICON connected host. Enhancements were made to the adjacent cluster table to allow for more granular control in subnetwork searching. The character set and code page combination used by a TSO session is now provided on the GTTERM macro and the DISPLAY TSOUSER command. New messages are added to displays to aid in the diagnosis of problems related to RTP physical units (PUs) and other types of SNA PUs. The performance of SNA session encryption has been improved. The allowed range of CAPACITY values has been increased with an additional range of 1G to 100G (gigabits per second) for high speed connections on all definition statements where CAPACITY can be specified for high speed connections. The APPC application suite (ASUITE) is no longer supported. Messages are now issued to the console when the Communications Storage Manager (CSM) adjusts the maximum ECSA value configured. Messages are also issued when ECSA and FIXED storage are constrained.

z/OS CS V1R9 overview - Other functions

- Provide a programming interface for the SNMP manager
- CICS® sockets enhancements
- Enable application identifier in NMI, SMF, and Netstat
- New face on z/OS
 - ✓ Policy based routing GUI configuration interface
 - ✓ Network security services GUI configuration interface
 - ✓ Improve configuration assistant conceptual view
- Ping command detection of network MTU



Many enhancements were made in z/OS V1R9 that span several other functions. A new SNMP manager programming interface is now available. Multiple enhancements were made for CICS sockets for improve availability. A new API is available which allows applications to store unique identifying data on TCP sockets. This application data is also provided on the network management interface and SMF records.

The IBM Configuration Assistant for z/OS Communications Server supports configuring routing policy for the new Policy based routing function. It also supports configuration for the new function, Network security services. Configuration data is now stack-oriented instead of technology oriented. All the configuration data is kept in the same configuration file.

The Ping command has been enhanced to detect MTU problems in the network.

z/OS CS V1R9 overview – Other functions

- RFC currency
 - ✓ MLDv2 and IGMPv3 support
 - ✓ IPv6 scoped address architecture API
Reliability/Availability/Serviceability
- Health-checker enhancements
- Packet trace enhancement
- Various RAS items
 - ✓ FTP enhancements
 - ✓ SMTP enhancements
 - ✓ OMPROUTE enhancements
 - ✓ VTAM® internal trace enhancements

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Support is included for Multicast protocols MLDv2 and IGMPv3. Support for scoped addresses is available for link local addresses.

Several new checks were added to the Health-checker in z/OS V1R9 Communications Server. Checks were added for both TCP/IP and VTAM.

In z/OS V1R9 Communications Server, the Packet Trace command supports the PORTNUM keyword to collect packets with a matching destination and source port number for TCP or UDP packets.

Various RAS items were implemented in z/OS Communications Server for V1R9.

Statements of direction

- Web address for z/OS announcements, statements of direction, and notable changes:

http://www.ibm.com/servers/eserver/zseries/zos/zos_sods.html



There are a few statements of direction that should be mentioned.

The z/OS Communications Server has issued a statement of direction regarding Traffic Regulation Policies and the use of JES3 NJE over TCP/IP. The Web address on this slide is for the official statements of direction Web site.

For more information...



Web address	Content
http://www.ibm.com/servers/eserver/zseries	IBM eServer zSeries mainframe servers
http://www.ibm.com/servers/eserver/zseries/networking	Networking: IBM zSeries servers
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