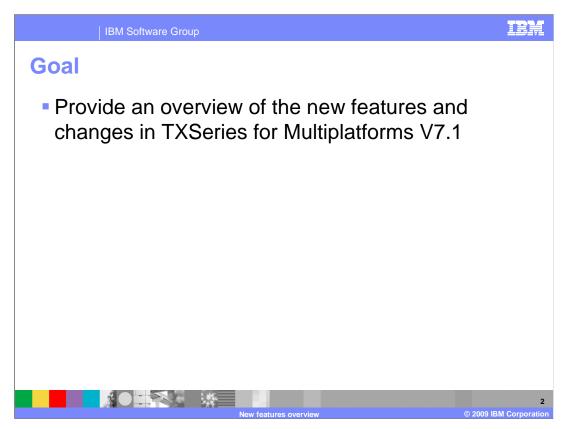


This presentation provides an overview of the new features and changes introduced in IBM TXSeries for Multiplatforms V7.1 release.

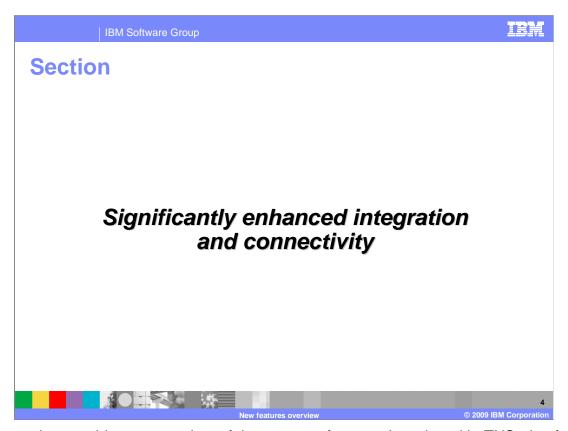


The goal of this presentation is to provide an overview of the new features and changes introduced in TXSeries for Multiplatforms V7.1.

New features and changes in TXSeries V7.1

Significantly enhanced integration and connectivity
Improved system reliability, availability and serviceability
Enhanced scalability
Improved application development and migration
Better usability

TXSeries V7.1 introduces several features and enhancements that provide you with a better experience with the product. The release provides significantly enhanced integration and connectivity, improved system reliability, availability and serviceability. Changes have been made for improving scalability, better application development and migration and for better usability. The following sections explain the specific features that fall under each of these.



This section provides an overview of the two new features introduced in TXSeries for Multiplatforms V7.1 that significantly enhance integration and connectivity. These are IPIC (IP connectivity) and containers and channels.

IPIC (IP interconnectivity)

- IPIC is a new communication protocol for intersystem communication
- Extends intersystem connectivity over TCP/IP.
- TXSeries and CICS® TS can now connect using TCP/IP in addition to SNA
- Supports intersystem connectivity across regions
- Supports only DPL-based communications and only with synclevel 1
- SSL-based security support available using GSKit.
- Existing SNA connections with CICS TS work as before
- Existing TCP/IP connections across TXSeries regions work as before



TXSeries V7.1 introduces a new protocol for intersystem communication called IPIC (IP interconnectivity) that extends intersystem connectivity over TCP/IP. Significantly, this protocol enables TXSeries regions to connect to mainframe CICS or CICS TS over TCP/IP. In this sense, it provides an alternative for communication over SNA (Systems Network Architecture). You can also use the IPIC protocol to connect two TXSeries regions.

Note that in TXSeries V7.1, IPIC support is restricted only to DPL-based communications and only with synclevel 1.

TXSeries V7.1 also provides support for SSL-based security by using the GSKit (IBM Global Security Kit) for communication over IPIC. At the same time, existing SNA connections with CICS TS continue to work as before; as do existing CICS-TCP and PPC-TCP protocols.

Containers and channels

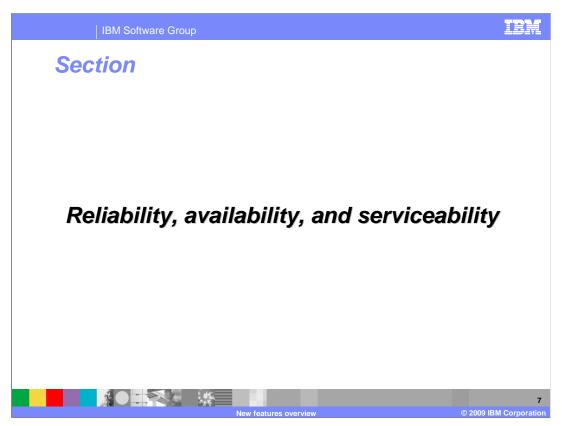
- New API support for containers and channels
- Introducing containers and channels for passing data
- Containers and channels can replace COMMAREA
- The prevailing 32 K restrictions on size of data removed
- Data size limitation now based on amount of storage available
- COMMAREA can still be used as before



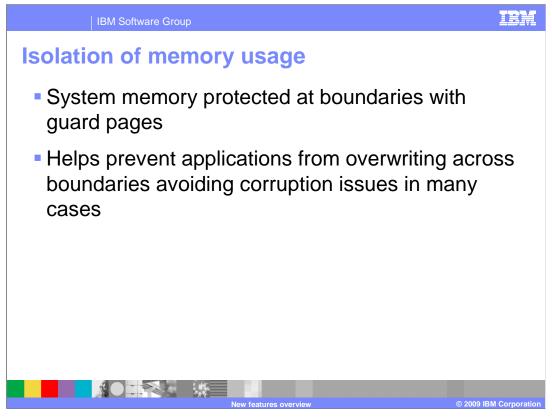
TXSeries V7.1 provides for interoperability between CICS regions over TCP/IP through its support for containers and channels. A group of new APIs are included that introduce containers and channels. Containers are named blocks of data for passing information between programs. Containers are further grouped in named channels. Containers and channels can now replace COMMAREA for passing data.

The support for containers and channels eliminates the existing restriction of a maximum of 32 K that applied to the amount of data that can be passed between programs by using a COMMAREA. As a result, data greater than 32 K can be passed and the limitation on the amount of data that can be passed is now based on the amount of storage available.

All the communication protocols support containers and channels. At the same time, COMMAREA is still supported as before and applications can use COMMAREA if required.

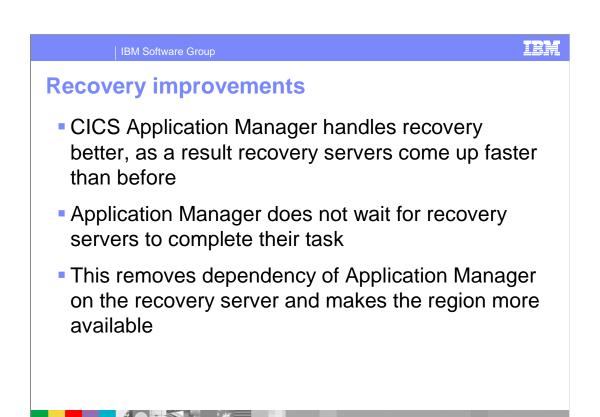


This section provides an overview of the new features introduced in TXSeries for Multiplatforms V7.1 that provide improved reliability, availability and serviceability. These are isolation of memory usage, recovery improvements, and facility for task history logging, information about a remote task, dump enhancements, and cicsservice utility.

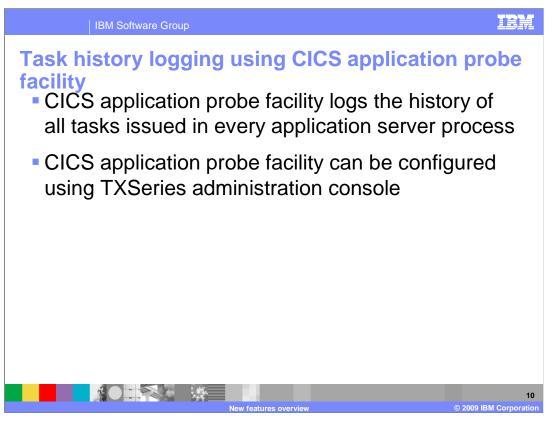


In TXSeries V7.1, changes have been made to isolate memory usage and to protect system memory at boundaries. To isolate memory usage, guard pages have been added at the boundaries of system memory. This is done by segregating memory allocated from task-private pool from other heap allocations.

The isolation of memory usage prevents applications from overwriting system memory across the boundary and avoids corruption issues in most cases. It thus improves the overall reliability and problem determination capability.



In TXSeries V7.1, the CICS Application Manager has been modified to better handle upcoming recovery servers. With this enhancement the Application Manager does not wait for recovery servers to complete recovery. The removal of this bottleneck makes the region more available and enables faster overall recovery.



TXSeries v7.1 introduces the CICS application probe facility that enables better task history logging. The CICS application probe facility logs the history of all tasks carried out in every application server process. Whenever you are faced with a problem, you can use this facility to trace the sequence of events within an application.

You can use the TXSeries administration console to configure the CICS application probe facility.

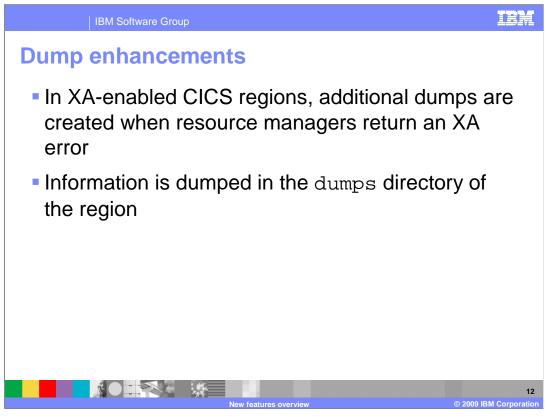
Transaction life mapping

- Enables transactions running on a back-end region in an ISC (intersystem communication) scenario to map to the corresponding front-end region which invoked it
- Can gather critical information such as PID (process ID), TID (task ID), program name, transaction name, terminal ID and so on.
- Generates information in an extrapartition TDQ

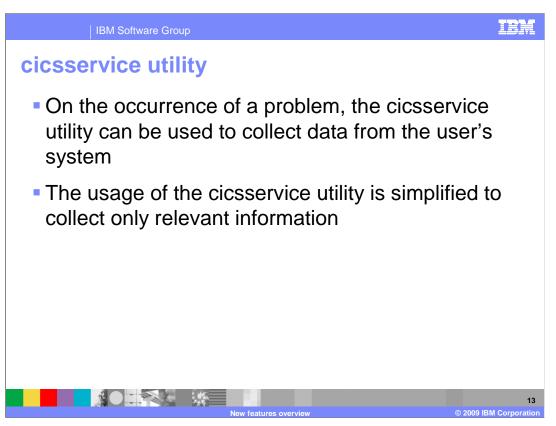


The Transaction life mapping (remote task information) feature of TXSeries V7.1 helps you to collect information from a back-end task about the corresponding task in the front-end region. Critical information such as PID (process ID), TID (task ID), program name, transaction name, terminal ID, and task start time and so on can be obtained. Typically this is useful when a back-end task is running a CPMI task, and sometimes when both the corresponding front- end and back-end task run a CPMI. At times, when CICS monitoring data are not useful because of lack of clarity regarding the relationship between the front-end and the back-end task, this feature can help to resolve the situation.

When enabled, this feature logs data to an extrapartition TDQ (Transient Data Queue). As of now, there is no mechanism to invoke this feature explicitly.



Dump enhancements made in TXSeries V7.1 provide for generation of additional information for error logging. For XA-enabled CICS regions, additional dumps, such as ring buffer trace, are created whenever resource mangers return an XA error. As usual, the additional information is dumped in the **dumps** directory of the region.



TXSeries V7.1 has introduced changes to the cicsservice utility that allow you to collate the diagnostic information required by an IBM support representative. The usage of cicsservice utility has been simplified to collect only the relevant information without user prompts, as a result of which it can be used in scripts directly.



This section provides an overview of the enhancements made in TXSeries V7.1 that allow for greater scalability. These are locking improvements and enhancements to WLM.

Locking improvements and WLM enhancements

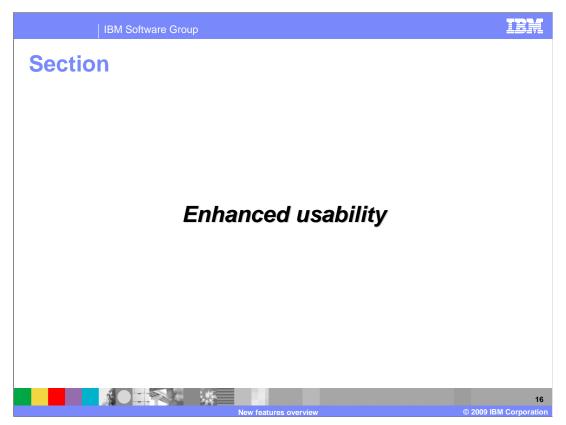
- Locking improvements
 - CICS runtime locking improvements on AIX® and HP platforms
 - Locking bottlenecks removed
 - A larger number of concurrent users can connect in a load scenario
- WLM enhancements
 - Availability of Application Owning (AOR) regions improved to minimize transaction abends in case of AOR outage
 - Continues to maintain constant TPS



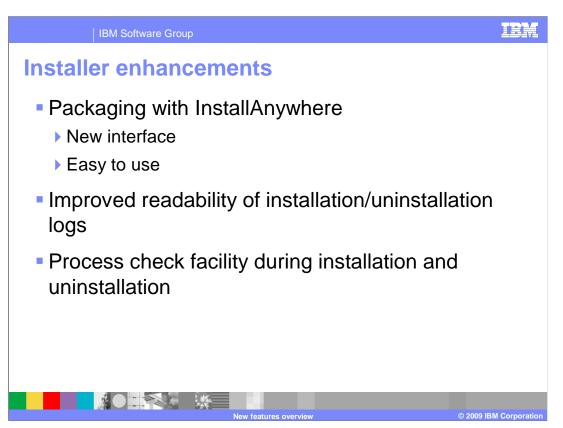
TXSeries V7.1 allows for better scalability through improved provision for locking and through enhancements to WLM (Work Load Manager).

On AIX and HP platforms, a few internal changes have been made to the locking mechanism which better handle the mutex locks in a distributed system and improve system response during heavy load. As a result, an increased number of concurrent users can now use TXSeries regions at the same time.

In case of WLM, the availability of application owning regions (AORs) has been improved by reducing the transaction abends in the event of an AOR outage. This continues to maintain constant TPS.



This section provides an overview of the new features and changes made in TXSeries V7.1 that improve the usability of the product. These include enhancements to the installer, an improved TXSeries administration console, and re-designed product documentation.



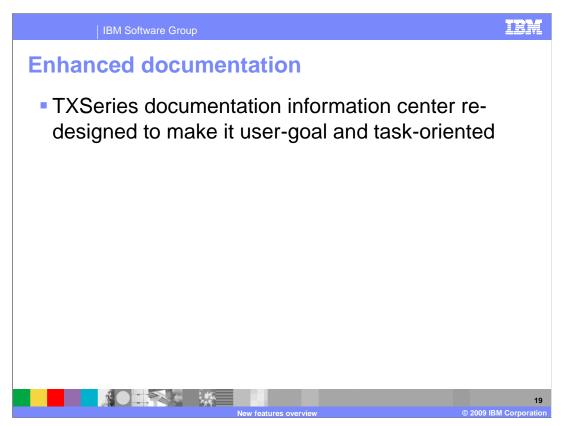
The TXSeries V7.1 installer is now based on InstallAnywhere. Apart from a new interface this feature provides for greater ease of use. Installation logs have also been modified to make them more readable. To ensure that your installation or uninstallation is error free, an additional feature has been introduced that allows you to check whether a CICS process is running.

Administration console enhancements

- Enhanced usability in selecting multiple programs for start and shutdown
- WLM attribute validations moved from the server to client
- A reorganized WLM view
- Improved granular control on monitoring data
- Ability to monitor multiple regions concurrently
- Ability to configure CICS application probe facility



Improvements to the TXSeries administration console allow for enhanced usability in selecting multiple programs for start and shutdown using a pop-up window. There are improvements in performance and usability as a result of moving WLM attribute validations from the server to the client. The WLM view in the console has been reorganized to provide a groups perspective. Improvements made to the console allow for better monitoring of monitoring data. A granular control on monitoring data is now possible. Also, multiple regions can be now be monitored at the same time. A new feature allows you to configure the CICS application probe facility by using the TXSeries administration console.



The TXSeries v7.1 documentation information center has been substantially re-designed. In contrast to the earlier book-oriented format, information is now presented in a task-oriented user-goals format reflecting the tasks that a user performs when using the product.



This section provides an overview of the enhancements made to the application development tools and the support provided for migration in TXSeries V7.1.

Enhanced BMS and support for migration

- BMS enhanced:
 - To accept lower case label names and blank lines
 - ▶ To generate logical map files of consistent lengths to match with CICS TS generated maps files
 - To primarily address integration with IBM Rational® Developer for System z®
- Migration
 - Supports migration from TXSeries V6.1 onwards to current release



TXSeries V7.1 introduces improvements in application development through an enhanced Basic Mapping Support (BMS) application development tool. Lowercase label names and blank lines are now accepted in the BMS map translator. These enhancements now make it possible to generate logical map files of the same length as CICS TS generated map files. Enhancements to BMS primarily address the requirements for integration with IBM Rational Developer for System z.

TXSeries V7.1 continues to support version to version migration from the previous two releases. That is, it supports migration from TXSeries V6.1 and TXSeries V6.2 to the current release.

Other improvements

Microsoft® Windows® 2008 added to the list of supported platforms

Support provided for pt_BR (Brazilian Portuguese) on HP platforms

GSKit not installed by default, but shipped with TXSeries

A few more features and enhancements have also been introduced in TXSeries V7.1. For instance, Microsoft Windows 2008 is now added to the existing list of supported platforms. Another small change is that pt_BR (Brazilian Portuguese) locale is now supported on HP platforms; earlier, this was supported through pt_PT (Portuguese) on HP platforms. Other platforms already support pt_BR.

GSKit is once again shipped with TXSeries. But note that it is not installed by default. If required, you can install it by following the instructions given under the installing user goal in the TXSeries information center.

Summary

TXSeries V7.1 includes these changes and enhancements:
Significantly enhanced integration and connectivity through IPIC (IP connectivity) and, containers and channels
Improved reliability, availability and serviceability through isolation of memory usage, recovery improvements and more
Greater scalability through locking improvements and enhancements to WLM
Improved usability through enhancements to the installer, the TXSeries Administration Console, and product documentation.

Enhanced application development tools and support for

In summary, several changes and enhancements have been introduced in TXSeries V7.1. TXSeries now provides significantly enhanced integration and connectivity through IPIC (IP connectivity) and, containers and channels.

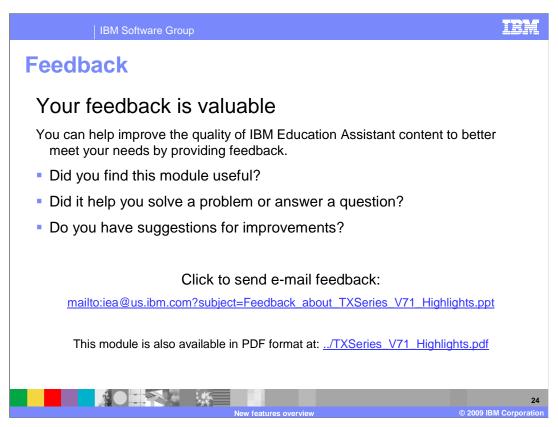
There are improvements in reliability, availability and serviceability such as isolation of memory usage, recovery improvements, and facility for task history logging, information about a remote task, dump enhancements, and cicsservice utility.

TXSeries V7.1 allows for greater scalability through locking improvements and enhancements to WLM.

The usability of the product has been improved through enhancements made to the installer, the TXSeries Administration Console, and the product documentation.

Enhancements have also been made to the application development tools. The product supports migration from TXSeries V6.1 onwards to the current release.

migration



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