IBM

IBM CICS Online Transmission Time Optimizer for z/OS, Version 1.2
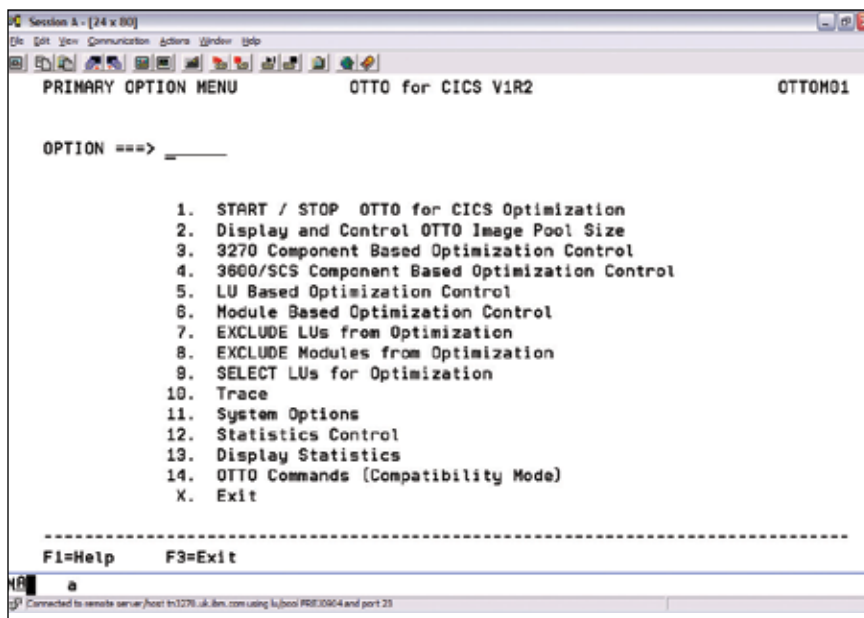
Highlights

- **Examines and dynamically compresses outgoing data streams**

- **Eliminates repetitive characters**

- **Helps ensure that only changed data reaches terminals**

- **Increases printer speeds**

- **Is easy to install, customize and use**

- **Operates transparently to users and applications**

- **Provides flexible features to control optimization**

- **Monitors its own operation to provide compression status**

- **Provides a data-stream error display for comprehensive compression-status management**

Built-in controls enable administrators to customize the way CICS Online Transmission Time Optimizer works.

Optimize your 3270 networks

Keeping customers happy — and building loyalty — in an increasingly competitive marketplace is critical to your success. To reach customers and meet their needs on time, the productivity of your 3270 network can make all the difference.

Improving IT efficiency — including that of existing 3270 networks — is high on the operational priority list for the majority of companies. The challenge you face is that a growing number of applications rely on 3270 business-network resources. The variety of business applications in use sometimes makes it difficult for system programmers to improve efficiency or control the volume of data being transmitted. IBM CICS® Online Transmission Time Optimizer for z/OS, Version 1.2 can help improve the efficiency of your 3270 network — and help save time and money — by improving network response time and limiting its impact on critical, routine operations.

CICS Online Transmission Time Optimizer uses the following optimization techniques:

- *Eliminates repetitive characters for 3270-type terminals and printers.*
- *Eliminates blank character spaces for 3270 Systems Network Architecture (SNA) Character Set printers.*
- *Transmits only changed data for 3270-type terminals by keeping screen layout in memory.*
- *Uses string control byte (SCB) compression for 3600- and 4700-type terminals.*

Improve resource use, response time and user productivity

CICS Online Transmission Time Optimizer helps identify and remove repetitive data by examining and dynamically compressing outgoing data streams. Repetitive characters — typically as much as 25 percent of all characters sent to terminals and other 3270 network devices — are reduced to only 4 bytes, decreasing transmitted message size considerably. Blank spaces are eliminated to improve print speed. CICS Online Transmission Time Optimizer also minimizes outbound data transmission to the terminals by keeping screen layout in memory and removing data fields already present on the screen.
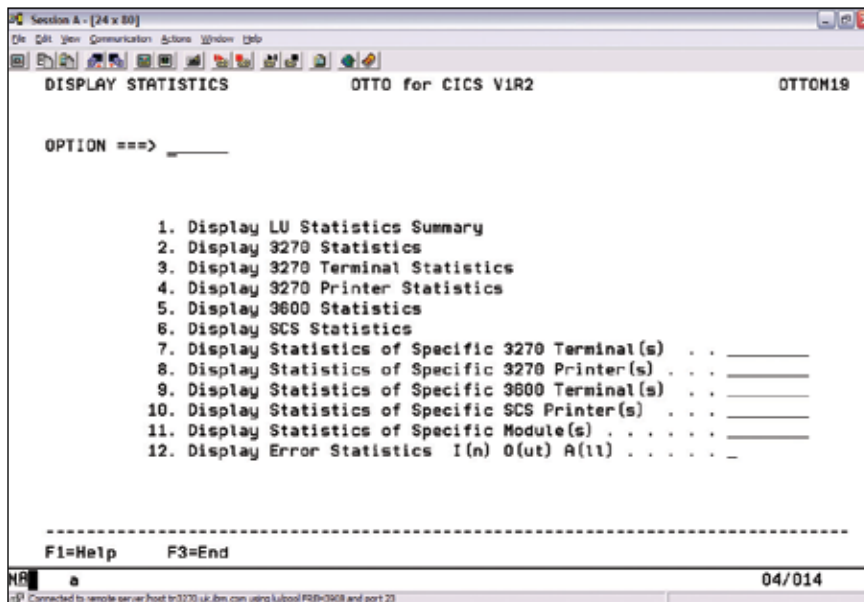
CICS Online Transmission Time Optimizer is easy to install, set up and use, and is transparent to all applications and users. It also supports local and remotely attached devices using the IBM VTAM/SDLC protocol. System administrators can use built-in controls to temporarily or permanently customize the way CICS Online Transmission Time Optimizer works when it launches with your CICS system at startup. Available controls enable you to:

- *Start or stop CICS Online Transmission Time Optimizer.*
- *Display and control the image-pool size.*
- *Select or exclude specific terminals or transactions to optimize.*
- *Dynamically add or remove terminals or transactions from optimization in run time.*
- *Change the data stream in the optimized message using an optional exit.*
- *Start and stop a trace and view trace data.*
- *Display optimization and error statistics.*

By using the provided user exits, it is possible to:

- *Use return codes to process specific messages unchanged.*
- *Keep and reinsert message parts after optimization.*
- *Change characters for specific countries.*

Comprehensive help is available throughout the product to help maximize ease of use.

```
Session A - [24 x 80]
File  Edit  View  Communication  Actions  Window  Help

   DISPLAY STATISTICS              OTTO for CICS V1R2                OTTOM19


   OPTION ===> _____


            1. Display LU Statistics Summary
            2. Display 3270 Statistics
            3. Display 3270 Terminal Statistics
            4. Display 3270 Printer Statistics
            5. Display 3600 Statistics
            6. Display SCS Statistics
            7. Display Statistics of Specific 3270 Terminal(s)  . . _____
            8. Display Statistics of Specific 3270 Printer(s) . . . _____
            9. Display Statistics of Specific 3600 Terminal(s)  . . _____
           10. Display Statistics of Specific SCS Printer(s)  . . . _____
           11. Display Statistics of Specific Module(s) . . . . . . _____
           12. Display Error Statistics  I(n) O(ut) A(ll) . . . . . _


   ----------------------------------------------------------------------
   F1=Help    F3=End

NA   a                                                             04/014
Connected to remote server/host tr3270.uk.ibm.com using lu/pool FRB*0908 and port 23
```

View and analyze optimization results using comprehensive statistics.

Flexible optimization controls

The optimization features of CICS
OTTO are controlled based on two
different types of start modes:

- Fully started *indicates that all logical
  units (LUs) and modules are included
  in the optimization except for those
  LUs and modules that are specifically
  excluded by the user.*
- Selectively started *indicates that only
  those messages that are destined for
  terminals and printers specifically
  defined in the CICS Online Transmission
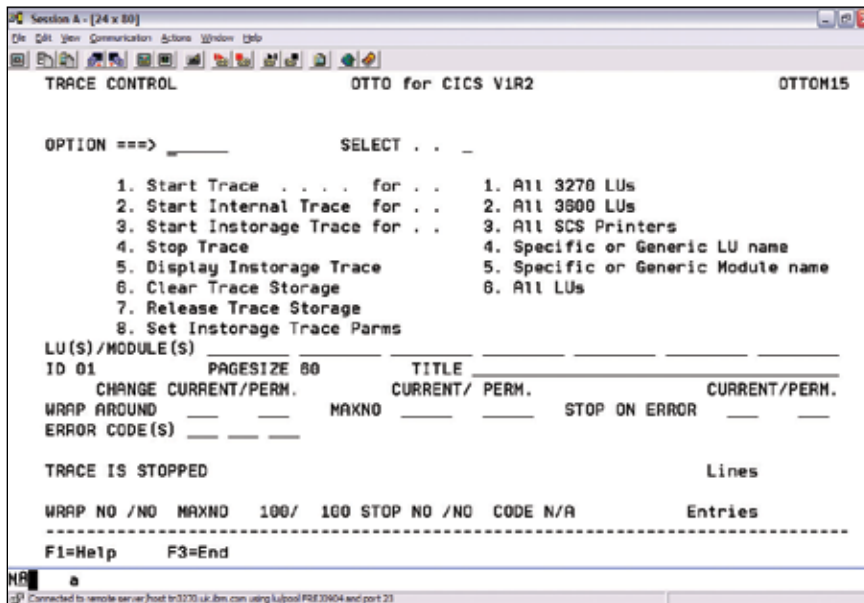 Time Optimizer selection list are to
  be optimized.*

The minimum definitions that are
required are those that define which
optimization features should apply
to the components. This capability is
called *component-based optimization*.
After defining the optimization features
of a component, you can further control
the optimization for the component
at the LU and module level. LU-based
definitions take priority over
the component-based definitions.
Module-based definitions take
priority over both LU- and component-
based definitions. This structure
helps ensure that you can handle
most of your optimization needs at
the component level.

Depending on the options you select,
you can treat module names in
exclusion and selection lists as CICS
transaction IDs or CICS program
names. You can also add flexibility
by setting LUs to be treated as IBM
VTAM® LU names or CICS terminal
IDs to add flexibility.

Data-stream error display

CICS Online Transmission Time
Optimizer records every error that can
prevent message optimization, whether
the error is found in an inbound or an
outbound data stream. You can
easily view the summary of all recorded
errors, error codes and counts using
this display, as well as information
about the terminal where a particular
error code occurred most recently. This
capability enables you to access the
cause of compression errors and their
effect on the optimization rate.

TRACE CONTROL   OTTO for CICS V1R2   OTTOM15

OPTION ===> _____   SELECT . . _

        1. Start Trace . . . . for . .   1. All 3270 LUs
        2. Start Internal Trace for . .   2. All 3600 LUs
        3. Start Instorage Trace for . .   3. All SCS Printers
        4. Stop Trace   4. Specific or Generic LU name
        5. Display Instorage Trace   5. Specific or Generic Module name
        6. Clear Trace Storage   6. All LUs
        7. Release Trace Storage
        8. Set Instorage Trace Parms
LU(S)/MODULE(S) _____ _____ _____ _____ _____ _____
ID 01   PAGESIZE 80   TITLE _____
     CHANGE CURRENT/PERM.   CURRENT/ PERM.   CURRENT/PERM.
WRAP AROUND   __   __   MAXNO _____   STOP ON ERROR __   __
ERROR CODE(S) __ __ __

TRACE IS STOPPED   Lines

WRAP NO /NO MAXNO   100/ 100 STOP NO /NO CODE N/A   Entries

F1=Help   F3=End

Flexible trace options enable you to choose the type of trace, as well as filter the information to be traced.

Comprehensive trace-data viewing

CICS Online Transmission Time Optimizer performs traces — which you might find useful for problem-determination activities — on all input and output messages before and after optimization for those components for which the trace facility was activated. The trace file is opened when a trace is started, and closed when the trace is stopped. You can start and stop a trace as required, and display and save the information received.

You can view the trace activity either online or offline. Extensive controls are available to help you make the most of your trace data. For example, you can activate the trace function for specific LUs or modules, using wildcards to make the selection. You can also enable CICS Online Transmission Time Optimizer to automatically control traces to detect specific errors.

Improve efficiency of your CICS systems with CICS tools

By using current lines, modems and controllers, CICS Online Transmission Time Optimizer offers a more cost-effective solution for 3270 network optimization. And, programmers can use CICS Online Transmission Time Optimizer to help improve network productivity and enhance functionality without rewriting existing applications.

CICS Online Transmission Time Optimizer is one of the tools in a comprehensive portfolio of IBM CICS tools that are designed to improve CICS platform efficiency, maximize system availability and make the most of your CICS skills, as well as plan for Web services implementation. CICS tools from IBM can help you:

- *Support application transformation and CICS technology-based service oriented architecture (SOA) implementations.*
- *Enable easier CICS version-to-version migration, including upgrades from IBM CICS Transaction Server for z/OS, Version 1.3, and especially to CICS Transaction Server for z/OS, Version 3.1.*
- *Reduce the complexity and cost of CICS system and application management.*
- *Improve CICS application and data availability.*
- *Comply with regulations like the U.S. Sarbanes-Oxley (SOX) Act.*

For more information

To learn more about IBM CICS Online Transmission Time Optimizer for z/OS, Version 1.2, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/software/htp/cics/otto/

IBM CICS Online Transmission Time Optimizer for z/OS, Version 1.2

Hardware requirements

Any hardware that can support IBM CICS Transaction Server for z/OS, Version 2.2 or later

Protocol support
- Local and remote devices using the VTAM/SDLC protocol.
- Devices connected using Advanced Communication Facility (ACF) and Telecommunications Access Method (TCAM) through the TCAM Subsystem Interface (SSI), appearing to CICS Transaction Server as if they are using one of the valid VTAM protocols.

Supported LUs and devices
- IBM LU types
  - LU type 0 3600/4700-type financial systems
  - LU type 1 SCS printers
  - LU type 2 3270-type terminals
  - LU type 3 3270-type printers
- IBM device types
  - 3178 display station
  - 3179 display station
  - 3180 display station
  - 3191 display station
  - 3192 display station
  - 3193 display station
  - 3194 display station
  - 3275 Models 1 and 2
  - 3276 display station
  - 3277 Models 1 and 2
  - 3278 Models 1, 2, 3, 4 and 5
  - 3279 Models 2A, 2B, 3A and 3B
  - 3284 Printer Models 1 and 2
  - 3286 Printer Models 1 and 2
  - 3287 Printer Models 1, 1C, 2 and 2C
  - 3289 Line Printer Models 1 and 2
  - 3290 partitioned display station
  - 4700 financial system
  - 8100 running in 3270 data-stream compatibility mode
  - 5550-type terminals and printers that handle Double-Byte Character Set
    (DBCS) Kanji characters

Note: CICS Online Transmission Time Optimizer also supports other non-IBM devices that are compatible with the terminals listed above. To be supported, these terminals must recognize standard 3270 hardware order streams and tolerate SCB compression.

Software requirements

CICS Online Transmission Time Optimizer requires System Modification Program/Extended (SMP/E) for the supported IBM z/OS® system for installation and maintenance. It operates with the following platforms:
- CICS Transaction Server for z/OS, Version 2.2 or later
- IBM z/OS, Version 1.4 or later

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