Fujitsu Technology Solutions

openUTM-LU62 (Unix/Linux/Windows Systems)
Release V5.1A41

Edition May 2010

Release Notice

C o n t e n t s

1 General

openUTM, the open universal transaction monitor, supports the creation
and running of transaction applications on the BS2000/OSD and on
UNIX systems available on the market (Solaris, HP-UX, AIX, etc.),
in LINUX and several Windows operating systems.

The product openUTM-LU62 allows openUTM applications to be linked to
any partner applications which support the LU6.2 protocol.

This Release Notice is a summary of the major extensions, requirements
and operating information with regard to openUTM-LU62 V5.1A under the
operating systems Solaris, Linux, AIX, Windows XP, Windows Vista,
Windows 2003, Windows 7 and Windows 2008.

This Release Notice is supplied as a README file with the product.

The use of names, trademarks, etc. in this Release Notice does not
entitle readers to assume that these names/designations may be used
without restriction by anyone; often the names/ designations are
protected by law or contract, even if this is not indicated here.

1.1 Ordering

openUTM-LU62 V5.1A can be ordered from your local distributors.

openUTM-LU62 V5.1A is subject to the general terms and conditions of the software product use and service agreement.

1.1.1 Usage rights

openUTM-LU62 is a licensed product and usage rights are required for its use.

The usage rights are an integral part of the contract which you concluded with Fujitsu Technology Solutions when you purchased openUTM-LU62.

1.2 Delivery

1.2.1 Software on data media

openUTM-LU62(SOLARIS) V5.1 is supplied on a DVD, which also contains additional software products of the openUTM product family and for communications.

1.3 Documentation

1.3.1 German manual for openUTM-LU62

Title:

openUTM V5.3, openUTM-LU62 V5.1
Verteilte Transaktionsverarbeitung zwischen
openUTM- und CICS-, IMS- und LU6.2-Anwendungen

Order number: U5461-J-Z135-6

1.3.2 English manual for openUTM-LU62

Title:

openUTM V5.3, openUTM-LU62 V5.1
Distributed Transaction Processing between
openUTM and CICS, IMS and LU6.2 Applications

Order number: U5461-J-Z135-6-76

Please refer to the openUTM Release Notice for further manuals on openUTM.

1.3.3 Documentation availability

The German and English documentation is stored on the product DVD for openUTM V5.3. The order number is U11421-C151.

The manual is also available on the internet at http://manuals.ts.fujitsu.com

A configuration example for openUTM-LU62 is available as file /opt/lib/utmlu62/genexamp.txt.
It contains complete data for the following cases:

- openUTM-LU62 on Solaris using base software TRANSIT-SERVER/TRANSIT-CPIC
- openUTM-LU62 on Solaris using base software SNAP-IX
- openUTM-LU62 on Linux using base software IBM Communications Server

2 Software extensions

2.1 New functions in openUTM-LU62 V5.1A41

In this version the Windows platsforms
- Windows 7
- Windows 2008
are supported.
The product can be also installed on the 64 bit variants of Windows XP,
Windows 7 and Windows 2008; but as long as IBM does not provide a 64 bit
version of IBM Communications Server, the program will not run properly.

2.2 New functions in openUTM-LU62 V5.1A00

2.2.1 OSI address configuration without TNSX

The version V5.1 supports a direct configuration of the TCP/IP address
information of the local and the remote OSI application in the INSTANCE
instruction besides the configuration in TNSX, where both types of
configuration may be mixed up.
If the TCP/IP address information is generated in the INSTANCE instruction,
the representative AE has to be configured with the parameters
     LOC-APT, LOC-AEQ, LOC-TSEL and LOC-LISTENER-PORT
otherwise with the parameters
     LOC-APT, LOC-AEQ and LOC-AE
Analogously the partner application may be described with the parameters
     REM-APT, REM-AEQ, REM-NSEL, REM-TSEL and REM-LISTENER-PORT
instead of
     REM-APT, REM-AEQ and REM-AE

2.2.2 Lukewarm start

Besides a cold and a warm restart of openUTM-LU62 you have now the option of
a so called "lukewarm" start. This means that all existing transactions - like

during a cold start - are discarded silently, whereas the log names of the
previous run will be reused.
For this the new option
     -k
of u62_start is necessary. (Cannot be combined with the option -c!)

2.2.3 Status information of the sessions with mode CPSCVMG

The status program u62_sta provides the number of all LU62.2 sessions with the

special mode CPSVCMG in the form

```
LLU name          RLU name                   Number of CPSVCMG sessions
=====================================================================
LLU1              RLU1                       2
LLU2              RLU2                       2
```

if called with the additional option -c.

2.3 New functions in openUTM-LU62 V5.0A30

UTM applications can use KCOF=C at the APRO call, if they want to set up

a transaction-oriented connection to an LU6.2 application program.

The new configuration parameter
    UTM-ASYNC
with the values YES and NO (default = NO) allows to determine per openUTM-LU6.2
instance, whether a new dialogue initiated by UTM without handshake (KCOF=B)
should be converted to a conversation towards CICS with sync level 0 (NO) or
1 (YES). The value YES is needed for asynchronous transactions (APRO AM).
In previous versions of openUTM-LU6.2 the only way to achieve this was to
set the shell variable U62_UTM_ASYNC=YES (resp. the corresponding registry
entry on Windows). But in this case all instances were affected.
Therefore the shell variable is no longer evaluated.

2.4 New functions in openUTM-LU62 V5.0A20

On all Unix platforms openUTM-LU62 V5.0 can be administrated
by all system users after the installation. In order to restrict
the administration to certain users, you can edit the file
    u62_users
in the installation directory (normally /opt/lib/utmlu62).
All openUTM-LU62 adminstrators are listed here, separated
by komma, blank, tab or new line.
The user root has always administration permission and
need not be registered.
Comments start with a # character.
If this file has no entries or is not present at all, all
users have administration permission.

2.5 New functions in openUTM-LU62 V5.0

2.5.1 Transaction-secured LU6.2 communication

As of openUTM-LU62 V5.0, transaction-secured communications with
LU6.2 partners is also possible.

2.5.2 Enhanced security functions

It is now also possible to transfer a user ID and, if required,
a password when starting a process. This applies when starting
remote (e.g. CICS) transactions via openUTM applications and
viceversa.

2.5.3 Enhanced ASCII-EBCDIC conversion

It is now possible to set an international or German EBCDIC
character set for each BS2000 or IBM mainframe application.
All user data is then converted if required.

3 Technical information

3.1 Resource requirements

Approximately 3 MB disk space is required for installation
(including OSS). An additional 1 MB is required for operation.

On UNIX systems this memory is needed under /opt, on Windows
platforms the place can be determined during installation.

Approximately 5 MB main memory is required for each application/
application linkage.

3.2 Software configurations

For openUTM-LU62 under Solaris:

```
Solaris                   as of V9
CMX                       as of V5.1E
or PCMX                   as of V6.0

and either
TRANSIT-SERVER(UNIX)      as of V3.6A
TRANSIT-CPIC(UNIX)        as of V3.6A

or
Metaswitch Networks SNAP-IX    as of V7.0.2.2

OSS is contained in openUTM-LU62.
PCMX is delivered on the openUTM DVD.
```

For openUTM-LU62 under Linux:

```
Red Hat Enterprise Linux    as of V3.0  (recommendation V4.0)
or
SUSE Linux Enterprise Server as of V8.0

IBM Communications Server    as of V6.2

openUTM-LU62 requires PCMX. PCMX must be installed from the
openUTM DVD.
OSS is contained in openUTM-LU62.
```

For openUTM-LU62 under AIX:

```
AIX                       as of V5.3
IBM Communications Server as of V5.0

openUTM-LU62 requires PCMX. PCMX must be installed from the
openUTM DVD.
OSS is contained in openUTM-LU62.
```

For openUTM-LU62 on Windows platforms:

```
Windows XP, Windows Vista, Windows 2003, Windows 7 or Windows 2008
IBM Communications Server as of V6.0

For Version 6.0 of the IBM Communications Server, bug fix
JR12716 must also be installed. It is available at the following
address:
    ftp://ps.software.ibm.com/ps/products/csnt/fixes/v601/jr12716
If this bug fix is not used, openUTM-LU62 may terminate with the
following error message:
    026 openUTM-LU62 aborted in module dm_unexp_event

openUTM-LU62 requires PCMX. PCMX must be installed from the
openUTM DVD.
OSS is contained in openUTM-LU62.
```

openUTM-LU62 V5.1 can work with openUTM applications as of Version
5.2.

The products openUTM-D and OSS are also required in BS2000 for
communication with openUTM(BS2000).

The software configuration contains partly products which technically
are usable, of which there already, however, are newer versions.
The current versions should always be used according to possibility.

3.3 Product installation

On Solaris and Windows platforms the installation is carried out
with the usual installation procedures. On Solaris there are
different installation packages depending on the basic software
TRANSIT or SNAP-IX.

On Linux openUTM-LU62 must be installed as follows:

    The openUTM DVD contains the following file within the
    directory LINUX/OUTM-LU62:
        UTMLU62.51A.rpm

    This file must be installed using the command
        rpm -i UTMLU62.51A.rpm

    It is not possible to do an update installation. Before
    installing a new release, the old release has to be
    deinstalled.

    To deinstall the software use the following command:
        rpm -qa|grep UTMLU62
        rpm -e UTMLU62-5.0A30-xx
    Here xx denotes the actual release ID, which is showed by the
    command rpm -qa.

On AIX openUTM-LU62 must be installed as follows:

    The openUTM DVD contains the following files within the
    directory AIX/OUTM-LU62:
        utmlu62.tar
        instal62.sh

    The DVD must be mounted with e.g. the following command
        mount -v cdrfs -o ro /dev/cd0 /cdrom

    After this the following commands are needed:
        cd /cdrom
        cd AIX/OUTM-LU62
        sh instal62.sh

    Then openUTM-LU62 is installed.

    To deinstall the product the following command can be used:
        /opt/lib/utmlu62/u62_deinst_aix

See the above section for the installation of OSS and PCMX on the
respective operating systems.

3.4 Product use

3.4.1 Updating to openUTM-LU62 V5.1A

The following must be noted when updating from the previous
version openUTM-LU62Gate(UNIX) V4.0:

The OSI-TP link to openUTM-LU62 must be generated with the
AP title in the openUTM application, i.e. the APT parameter
must be specified in the UTMD and OSI-LPAP statements. AE
qualifiers must also be specified in the ACCESS-POINT and the
OSI-LPAP statements.

The application context in the OSI-LPAP statement should be
changed from UDTDISAC to UDTSEC.

If the distributed transaction security of openUTM-LU62 V5.1
is to be used,
      PAIR=xx yy
in the TRANSIT configuration at XLU must be replaced with
      PAIR_EXT=xx yy SYNCLEVEL ALREADY_VERIFIED

The statement
      XSYMDEST GATEWAY2,...
in the TRANSIT configuration can be omitted with openUTM-LU62
V5.1.

The format of the openUTM-LU62 generation file has changed
greatly. If just one openUTM application is linked to a LU6.2
partner system, it is sufficient to rewrite the old generation
file in the new format. The two statements LU62REP and OSIREP
are then replaced with one INSTANCE statement.

Example:

old TRANSIT configuration:
   ...
      XLU T02CGEI4,
          TYP=6,
          NETNAME=DESNI000.T02CGEI4,
          SESS-CTRL=IND,
          PAIR=CICST6 MODDIS89
       ...
      XSYMDEST GATEWAY2,
          RLU=CICST6,
          MODE=MODDIS89,
          TP=GATEWAY2

new TRANSIT configuration:
   ...
      XLU T02CGEI4,
          TYP=6,
          NETNAME=DESNI000.T02CGEI4,
          SESS-CTRL=IND,
          PAIR_EXT=CICST6 MODDIS89 SYNCLEVEL ALREADY_VERIFIED

old generation of openUTM-LU62Gate V4.0:

      OSIREP SMP22804,
          RLU=CICST6,
          CODE=ASCII
      LU62REP T02CGEI4,
          PARTNER-APPL=SMP22800.utmlu62,
          CODE=EBCDIC

new generation of openUTM-LU62 V5.1:

      INSTANCE
          LOC-LU-ALIAS = T02CGEI4,
          LOC-AE   = SMP22804,
          LOC-APT   = (1,2,3),
          LOC-AEQ   = 1,
          REM-LU-ALIAS = CICST6,
          MODENAME   = MODDIS89,
          LU62-CODE   = EBCDIC-500,
          REM-AE   = SMP22800.utmlu62,
          REM-APT   = (1,2,4),
          REM-AEQ   = 1,
          APPL-CONTEXT = UDTSEC,
          ASSOCIATIONS = 15,
          CONNECT   = 4,
          CONTWIN   = 5,

```
          OSITP-CODE   = ASCII

old openUTM generation:

     ...
     ACCESS-POINT OSIREP8,
          P-SEL=*NONE,
          S-SEL=*NONE,
          T-SEL=SMP22800
     OSI-LPAP ACICS04,
          APPLICATION-CONTEXT=UDTDISAC,
          ASS-NAMES=OSIC4,
          ASSOCIATIONS=15,
          CONNECT=2,
          CONTWIN=10

new openUTM generation:

     ...
     UTMD APT=(1,2,4)
     ACCESS-POINT OSIREP8,
          P-SEL=*NONE,
          S-SEL=*NONE,
          T-SEL=SMP22800,
          AEQ=1
     OSI-LPAP ACICS04,
          APPLICATION-CONTEXT=UDTDISAC,
          APT=(1,2,3),
          AEQ=1,
          ASS-NAMES=OSIC4,
          ASSOCIATIONS=15,
          CONNECT=2,
          CONTWIN=10
```

If several openUTM applications and/or several LU6.2 partner
applications are to be linked via openUTM-LU62, the naming
concept may have to be changed.

In openUTM-LU62Gate V4.0, several partner LUs could be reached
from one local LU. This local LU was generated in
openUTM-LU62Gate V4.0 with an LU62REP statement. This was
representative for a specific openUTM application. If several
partners are to be reached in openUTM-LU62 V5.1 from one
openUTM application, one representative LU is required for each
partner.
This means that a change is also necessary on the LU6.2 partner
side.

Conversely, in openUTM-LU62Gate V4.0 it was also possible to
reach several openUTM applications from one local application
entity.
This local application entity was generated in
openUTM-LU62Gate V4.0 with an OSIREP statement. It was
representative for a specific LU6.2 partner application. If
the same LU6.2 partner is to be reached in openUTM-LU62 V5.1
from several openUTM applications, a separate, representative
application entity is required for each openUTM application.
This means that changes are also necessary when generating the
openUTM applications.

To simplify the transition from openUTM-LU62Gate V4.0 to
openUTM-LU62 V5.1, both versions can be used simultaneously on
a UNIX system. This allows larger configurations to be
converted over a number of steps.

3.5 Obsolete functions and those to be discontinued

3.6 Incompatibilities

      see 3.4.

3.7 Restrictions

3.8 Procedure in the event of errors

The following information is required for error diagnosis:

  - an exact description of the error condition
  - the version/correction status of the software involved

The error documentation should be as complete as possible and
include the following:

On Solaris using TRANSIT:

  - all files from directory
    /opt/lib/utmlu62/PROT,
  - all files from directory
    /opt/lib/transit/PROT,
  - the configuration file (generation) of openUTM-LU62,
  - the TRANSIT generation,
  - the TNSX entries.

On Solaris using SNAP-IX:

  - all files from directory
    /opt/lib/utmlu62/PROT,
  - all files from directory
    /var/opt/sna,
  - the configuration file (generation) of openUTM-LU62,
  - the SNAP-IX node configuration file
    (/etc/opt/sna/sna_node.cfg),
  - the TNSX entries.

On Linux:

  - all files from directory
    /opt/lib/utmlu62/PROT,
  - all files from directory
    /var/opt/ibm/sna,
  - the configuration file (generation) of openUTM-LU62,
  - the configuration file of IBM Communications Server
    (/etc/opt/ibm/sna/sna_node.cfg),
  - the TNSX entries.

On Windows platforms:

  - all files from directory
    Program Files\utmlu62\Prot,
  - the file C:\IBMCS\PCWMSG.MLG,
  - the configuration file (generation) of openUTM-LU62,
  - the configuration file of IBM Communications Server,
  - the TNSX entries.

On AIX:

- all files from directory
  /opt/lib/utmlu62/PROT,
- the files from diretory
  /var/sna,
- the configuration file (generation) of openUTM-LU62,
- the configuration file of IBM Communications Server,
- the TNSX entries.

If the error can be reproduced, the following traces should be
activated prior to reproduction:

- complete trace of openUTM-LU62
  (u62_adm -ton or u62_start -ton)

On Solaris using TRANSIT:

- SNA trace of TRANSIT (SNA_trace on)
- LU6.2 trace of TRANSIT (SNA_trace -6 on)

On Solaris using SNAP-IX:

- line trace of SNAP-IX

On Linux:

- line trace of IBM Communications Server

On Windows platforms:

- connectivity trace of IBM Communications Server

On AIX:

- line trace of IBM Communications Server

Traces of SNAP-IX or IBM Communications Server must be
evaluated using the corresponding tools before sending
them to Fujitsu Technology Solutions.

In some cases it may be useful to know the cuurent contents of the internal
control blocks of openUTM-LU62 and/or of the XAPTP provider.
A control block dump can be created at any time with the command

u62_adm [-l <LU>] -b IN   (openUTM-LU62)
u62_adm [-l <LU>] -b XAP   (XAPTP provider)
u62_adm [-l <LU>] -b IN,XAP   (both)

The Output is written into the directory PROT:

in.dump.<LU>.<counter>
xap.dump.<LU>.<counter>.DIAG00

where the counter is incremented with each control block dump.

4 Hardware support

openUTM-LU62 V5.1 will run on

- Fujitsu Technology Solutions Primepower Systems,
- all Intel PCs, for which one of the Windows operating systems

listed above is available,
- all systems supported by AIX 5.3,
- all systems supported by Red Hat Enterprise Linux 4 or
  Suse Enterprise Server 9.