



# Software Product Description

**PRODUCT: Compaq TeMIP Network Data Loader V4.1 for Tru64 UNIX®**

**SPD 70.66.02**

## DESCRIPTION

TeMIP for Tru64 UNIX® is a family of software products for the management of telecommunications and corporate networks, including fixed wire and mobile/cellular voice and data multi-vendor, multi-technology networks. TeMIP V4.0 provides comprehensive off-the-shelf fault and trouble management functions such as Alarm Handling and Event Logging for telecommunications network management.

TeMIP supports the International Standards Organization (ISO) management standards ISO 10164-x and 10165-x. TeMIP and its features are applicable in the context of the International Telephone Union-Telecommunication Standards (ITU-T) X.73x and Telecommunication Management Network (TMN) M.3010, M3100 Recommendations. It gives network operators a global view of their networks, and enables them to activate management functions and operations from single or multiple workstations.

TeMIP is built on top of the TeMIP Framework, and fully benefits from the object oriented and truly distributed software architecture.

## TeMIP Network Data Loader features

The Compaq TeMIP Network Data Loader provides the means to address a need common to the majority of TeMIP-based network management solutions:

- How to automate and control the process of “feeding” TeMIP with the current network elements configuration and attribute values.
- How to automate the definition of collection domains and visualization maps.

- How to keep this data up to date in TeMIP when a change — addition, modification, deletion - happens in the network configuration.

The TNDL is needed in any of the following situations:

- Configuration of network elements, their location and characteristics are already described in a configuration database outside the TeMIP system. It is necessary to “feed” TeMIP with this data in an automated and controlled way.
- No such configuration database exists, but it is decided that the definition of the network elements, their characteristics, domain membership and map location must be a controlled process which cannot be left to multiple processes and TeMIP operators. The input of this process is still “manual”, in the sense that the TNDL input is a hand-written file, but its execution is fully under control, because it takes place according to predefined procedures and rules.

The TNDL is a generic tool — it does not contain any “hard-coded” description of the network elements that are managed by TeMIP, nor does it have any “hard-coded” limitations in:

- The structure of the management model hierarchy for Network Elements.
- The number of Network Elements and their attributes.
- The number and hierarchy of the domains.

The TNDL is able to create and register network element instances, define and undefine synonyms, and set characteristic and reference attributes.

Once network elements are created by the TNDL, they can be made members of collection domains by the TNDL.

If a geographical position of the network elements is provided as input, the TNDL places the network element

icon at the corresponding position on the visualization maps.

The TNDL always takes the total configuration as input. It is able to determine any differences since its last execution and executes the appropriate commands to reflect these differences in the TeMIP configuration.

The TNDL is able to set the managing director of the network elements. It may be run on any director of a distributed TeMIP system.

The handling of TNDL-maintained network elements using the TeMIP Client PM or FCL PM is possible, but certain conditions apply to ensure data consistency.

### Network Element Topology file

The TNDL manages its own representation of network element data. It expects the data to be located in a single place, with a specified format. Network element data might be located in different databases, or even not electronically stored. It is not the purpose of the TNDL to gather and convert raw data. The Network Element Topology file must hold the full list of entities (both global and child entities) to be maintained using the TNDL.

The following information is associated with each entity instance definition:

- The entity name.
- The list of attribute/argument names and their values.

Following is a list of optional items:

- The collection domains that the entity is a member of.
- The visualization maps in which the entity is displayed, with its coordinates on the map backdrop.
- The shelf views in which the entity is displayed.
- The icon, nickname and URL to be used to display the entity on a map.

### Domain Topology file

Collection or visualization domains are pure TeMIP entities. Domain data must be provided manually to the TNDL, in a single place, and specified with a defined format.

The Domain Topology file must hold the full list of domains to be managed by the TNDL. It contains their hierarchical structure and the icon to use for display. Reference attributes may also be specified.

### Data Conversion

A pre-processing phase known as Data Conversion is necessary to convert the network inventory raw data to the TNDL input format. The Data Converter(s) are user-defined (depending on the technology used to store the customer's network inventory).

Two examples of Data Converter programs are supplied, with the toolkit of Data Conversion facilities used to build them and some documentation.

### Automatic Topology Delta Computing

The TNDL automatically computes the "delta" of changes when presented with the most recent full Domain or Network Element Topology file: these changes include the addition, modification and deletion of network elements and domains.

### Topology Updates

Depending on the operation to perform on an entity/domain – addition, modification, or deletion – the TNDL updates registration data (including the managing director) and MIR data with the entity and attribute values.

### Collection Domain Updates

The TNDL updates collection domain membership for the addition/deletion of domains and global network element entities.

### Maps Updates

The TNDL V4.1 can generate and update maps compatible with the TeMIP Iconic Map V4.0 on Tru64 UNIX or the TeMIP Client V4.1 on Windows. The TNDL updates the graphic characteristics of entities (coordinates, graphical representation – icon, line, or shortcut – nickname, association with a shelf view or URL, map layers) according to the addition, modification, and deletion of domains and network elements.

Map coordinates are automatically computed, either from a geographical position or from a grid layout.

### Support for graphic objects

In V4.1, the TNDL recognizes graphic objects and supports them as pure graphic objects or representing an entity. The graphic objects available in the Iconic Map V4.0 for Tru64 UNIX and the TeMIP Client V4.1 for Windows supported by the TNDL are:

- Line
- Double Line
- Filled Circle
- Double Circle
- Rectangle
- Double Rectangle
- Polyline

A polyline is like a set of straight lines connected end to end to make a segmented path between two entity icons.

**Communications**

The middleware for TNDL communications is provided by Compaq TeMIP Framework V4.0, which is prerequisite software.

**DOCUMENTATION**

TNDL V4.1 documentation set:

- *Compaq TeMIP Network Data Loader, Release Notes*
- *Compaq TeMIP Network Data Loader, Installation and Configuration Guide*
- *Compaq TeMIP Network Data Loader, User's Guide*

**HARDWARE REQUIREMENTS**

Compaq Professional Workstation XP1000  
 Compaq AlphaServer 4000, 4100, 8200, 8400  
 Compaq AlphaServer DS10, DS20  
 Compaq AlphaServer ES40  
 Compaq AlphaServer GS60, GS140  
 Compaq AlphaServer GS80, GS160, GS320

**Disk Space Requirements:**

Disk space required for installation:

Root file system	0 Kbytes
Other file systems	38 Mbytes

**Memory Requirements:**

The minimum memory requirement is 35Mbytes. Note that if more memory is made available for use with TNDL software, performance will be improved.

**SOFTWARE REQUIREMENTS**

Compaq Tru64 UNIX Operating system V4.0F or V4.0G  
 Compaq TeMIP Framework V4.0

**GROWTH CONSIDERATIONS**

The minimum hardware/software requirements for any future version of this product may be different from the current version requirements.

**DISTRIBUTION MEDIA**

Software Media and Documentation:

**QA-6HPAA-H8.4.0.B**

**ORDERING INFORMATION**

TeMIP Network Data Loader flat licenses:  
 Software License: QM-6HYAA-AA

Software Product Services: QT-6HY\*\*-\*\*

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