

# TPS<sup>®</sup>/SNA

## GENERAL INFORMATION



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## OVERVIEW

TPS®/SNA ( Systems Network Architecture ) is a full-featured SNA implementation for both traditional hierarchical subarea networks ( PU 4 / 5 to PU 2.0 ) and peer-to-peer networks (PU 2.1). LU support includes dependent support for LUs 0, 1, 2, 3, 4, 7 and dependent and independent LU support for LU 6.2. TPS®/SNA supports multiple links ( PUs ) and data link types on the same system ( limited only by the number and type of hardware adapters on the system ). Data link types supported include: SDLC, Token Ring, Ethernet, or Data Link Switching—DLSw ( Switch-to-Switch Protocol ).

TPS®/SNA provides a full set of standard SNA APIs, including CPI-C ( Common Programming Interface - Communications ), APPC ( Advanced Program-to-Program Communications ) and dependant LU API for LU types 0, 1, 2, 3, 4, and 7. Developers can then write user application programs to interface directly with host applications. TPS®/SNA can also be used with [TPS®/SNA Primary](#) to create a 'Virtual SNA Mainframe' so you can migrate your host applications to the UNIX® platforms.

TPS®/SNA works with TPS®/3270 emulation, [TPS®/RJE \(Remote Job Entry\)](#), and many other networking software applications to provide exceptional client-to-host connectivity. TPS®/SNA can also be used with [TPS®/TN3270 Server](#) to create an Internet TN3270 gateway environment.

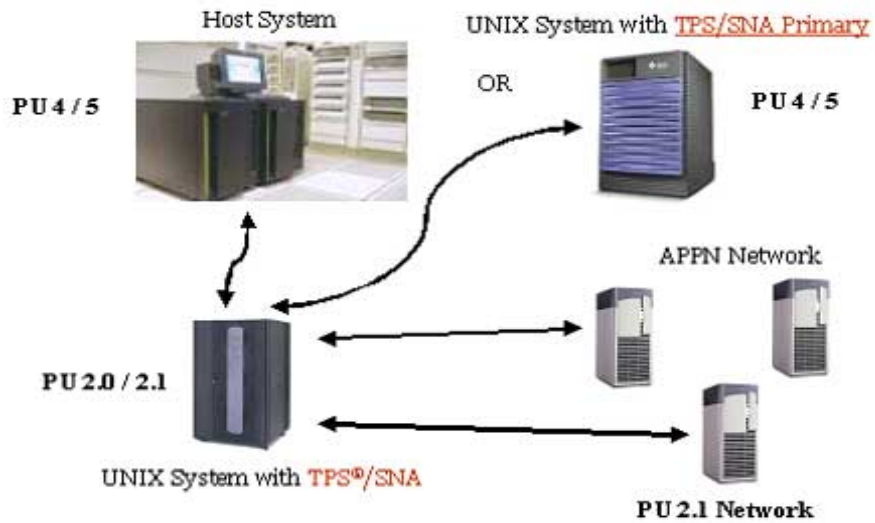
TPS®/SNA is not only exceptionally reliable, but it makes host connectivity economical and easy.

## HIGHLIGHTS

- Full-featured SNA software platform for connecting to upstream SNA Hosts and APPN networks
- Supports Application Program Interfaces ( APIs ) for LU 6.2 ( CPI-C and APPN ) and for Dependant LU types 0, 1, 2, 3, 4, and 7
- Supports a wide range of data link connection types including SDLC, Token Ring, Ethernet, Data Link Switching - DLSw ( Switch-to-Switch Protocol )
- Very easy installation and configuration
- Can be used with [TPS/SNA Primary](#) to provide a 'Virtual SNA Mainframe'
- Low system resource requirements
- High reliability and performance
- Interfaces with a full set of SNA applications
- Advanced diagnostic tools for problem determination
- From [TPS® Systems](#) — with 25+ year tradition of excellence in providing network software and support for large global enterprises

**TPS®/SNA -- General Information**

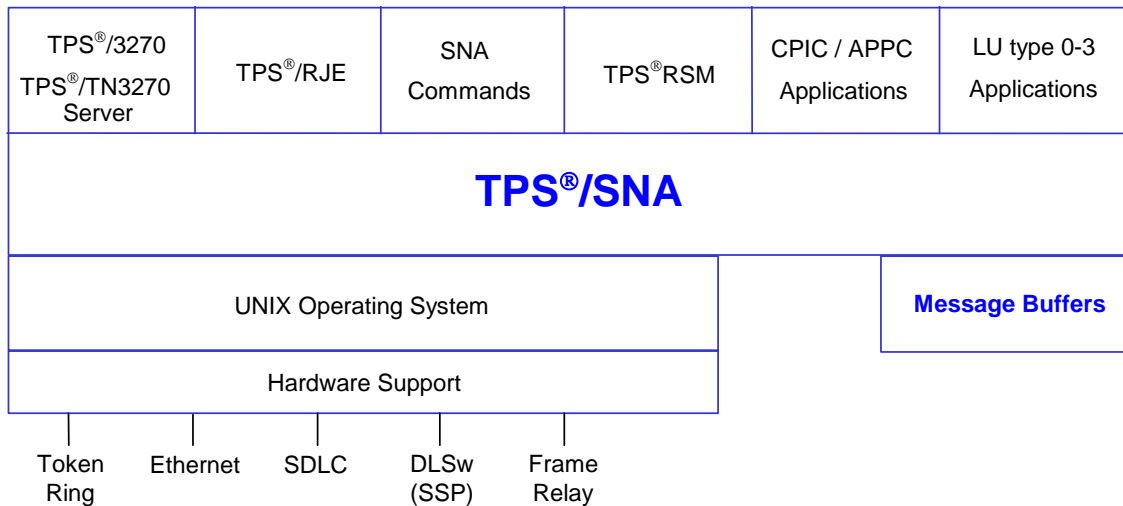
**TOPOGRAPHY**



**ARCHITECTURE**

TPS®/SNA uses standard UNIX® functions to support the data link and application interfaces. This makes TPS®/SNA portable across UNIX® platforms and gives a common look and feel if TPS®/SNA is run on differing UNIX® platforms. It also makes the product very independent of UNIX version changes. When an upgrade is made to the operating system, a new version of SNA is not required.

TPS®/SNA was designed with performance in mind. Advanced message buffering and handling techniques have been used for the SNA traffic to reduce the processor and memory overhead.



## **FEATURES**

### ***Data Link Protocol Support***

TPS®/SNA supports many data link types:

- Synchronous Data Link Control ( SDLC )
  - Leased or switched connections
  - RS-232, RS-422, V.35, V.25, and SmartModem
- Token Ring
  - IEEE 802.2 LLC
  - IEEE 802.5
  - Multiple connections per Token Ring supported
- Ethernet
  - IEEE 802.2 LLC
  - IEEE 802.3 Ethernet or Standard Ethernet
  - Multiple connections per Ethernet supported
- DLSw - Data Link Switching connection ( SSP – Switch to Switch Protocol )
  - Uses TCP/IP connection
  - PU connection to DLSw server using SSP
- Frame Relay
  - Speeds to T1/E1
  - Uses TPS®/SoftFRAD product

### ***SNA PU Protocols***

Complete PU level support is provided to connect to an upstream SNA PU4/5 host or an APPN environment:

- PU type 2.0 support ( connection to PU4/5 host system )
  - Up to 255 dependent LUs per PU
- PU type 2.1 support ( connection to APPN networks or PU4/5 host systems )
  - Up to 10,000 independent LU sessions
  - APPN LEN node support
  - APPN EN node support
  - APPN NN node support

### ***SNA LU Protocols***

Complete LU level support is provided to connect to any host application or any peer program in an APPN node:

- Dependent LU support for LU types 0, 1, 2, 3, 4, and 7
- Dependent and independent LU support for LU type 6.2

### *SNA LU Protocols (Continued)*

SNA works with any of the following LU applications to provide complete communications support:

- [TPS<sup>®</sup>/3270](#) - 3270 terminal emulation
- [TPS<sup>®</sup>/RJE](#) - Remote Job Entry emulation
- [TPS<sup>®</sup>/TN3270 Server](#) - TN3270 gateway
- Any application using the SNA APIs (without extensions) described below.

### *SNA APIs*

A wide variety of standard programming interfaces is provided to allow program-to-program interactions with host systems and to peer-to-peer nodes.

- CPI-C (Common Programming Interface - Communications)
  - Peer-to-peer applications using LU type 6.2
  - Support for C and COBOL language
  - Conformance classes: Conversations, LU 6.2, Server, Data Conversion Routines, and Security
  - Extended functions including dynamic update of TPN and SIDEINFO information
  - Advanced diagnostic facilities

### *SNA APIs*

- APC (Advanced Program to Program Communication)
  - Peer-to-peer applications using LU type 6.2
  - Support for C language
  - Advanced diagnostic facilities
- Dependent LU API for LU types 0, 1, 2, 3, 4, and 7
  - Support for C language
  - Advanced diagnostic facilities

### *Management Systems*

TPS<sup>®</sup>/SNA is designed for straightforward central site installation/deployment and efficient ongoing manageability. A Management Subsystem provides:

- Installation using the operating system's standard facilities
- Quick and easy configuration
- Full SNA and PU status display
- Error logs
- Complete trace facilities including fully formatted output

### *Additional Features*

TPS<sup>®</sup>/SNA also provides the following additional features:

- LU prioritization by dependent LU address or COS (Class Of Service)
- Multiple PUs can be multiplexed on the same Token Ring or Ethernet link
- A Conversion utility that transfers configurations from IBM<sup>®</sup> SNA Server for AIX into TPS<sup>®</sup>/SNA. It is not unusual for users to completely install TPS<sup>®</sup>/SNA and convert their existing IBM<sup>®</sup> SNA Server configuration in under 10 minutes!

### ***Network Availability & Resiliency***

TPS®/SNA provides automatic link restart and standard link error recovery procedures to support mission critical networks.

## **OPERATING ENVIRONMENT**

TPS®/SNA currently requires:

### **Operating System:**

- IBM® AIX® for IBM® pSeries (32 / 64-bit)
- Linux® for IBM® pSeries (64-bit), Intel®/AMD®(32-bit), Intel® Itanium (64-bit)
- HP-UX™ for HP9000 (32 / 64-bit)
- Sun Solaris® for Sparc (32 / 64-bit)
- SCO® OpenServer 5

### **Other Requirements:**

Supported driver for communications adapter

## **PRODUCT POSITIONING**

TPS®/SNA is an ideal solution for SNA connectivity in distributed UNIX® networks. In addition to being full-featured, ultra-reliable and delivering maximum performance with minimum system overhead, TPS®/SNA is very competitively priced.

## **CUSTOMER CONSIDERATIONS**

### ***Evaluation Licenses***

Evaluation copies of TPS® software products are available for a pre-specified timeframe under the terms and conditions of the one-page TPS® Evaluation Agreement.

### ***Return & Refunds***

TPS® Systems guarantees that if a product does not meet your requirements, it may be returned within 60 days for a full refund.

### ***Warranty Period***

TPS® software products have a 90-day warranty period. After this period, customers should register for annual maintenance to receive continued technical support and no-charge program updates.

## **CUSTOMER CONSIDERATIONS (Continued)**

### ***Maintenance***

TPS®/SNA post-warranty maintenance is available through the TPS® Annual Maintenance Agreement. Maintenance coverage includes telephone technical support and availability of new versions/releases at no additional charge. Annual maintenance charges are 20% of the license fee per system up to a maximum per customer enterprise. Please contact your TPS® Sales Representative for further details.

### ***Customer Responsibilities***

Customer responsibilities include:

- Performing site preparation, system planning, and other vendor preparations.
- Arranging common carrier service installation and maintenance/support coverage.
- Performing product installation, setup and configuration.
- Performing routine trouble-shooting procedures before contacting TPS® support.
- Providing diagnostic or trouble-shooting information as directed by TPS® support.

## **PRICING**

For current pricing information, please contact TPS® Systems at (210) 496-1984, or email us at [sales@tps.com](mailto:sales@tps.com).

## **ORDERING INFORMATION**

TPS® software products are available under the Agreement for TPS® Licensed Programs. To order this product or obtain further information, please contact the TPS® Sales Department at (210) 496-1984 or e-mail [sales@tps.com](mailto:sales@tps.com).