



TimePictra – Resiliency Option

KEY FEATURES

- Disaster Recovery Through Hot-standby
- Rapid Switch-over from One System to Another
- No Single Point of Failure

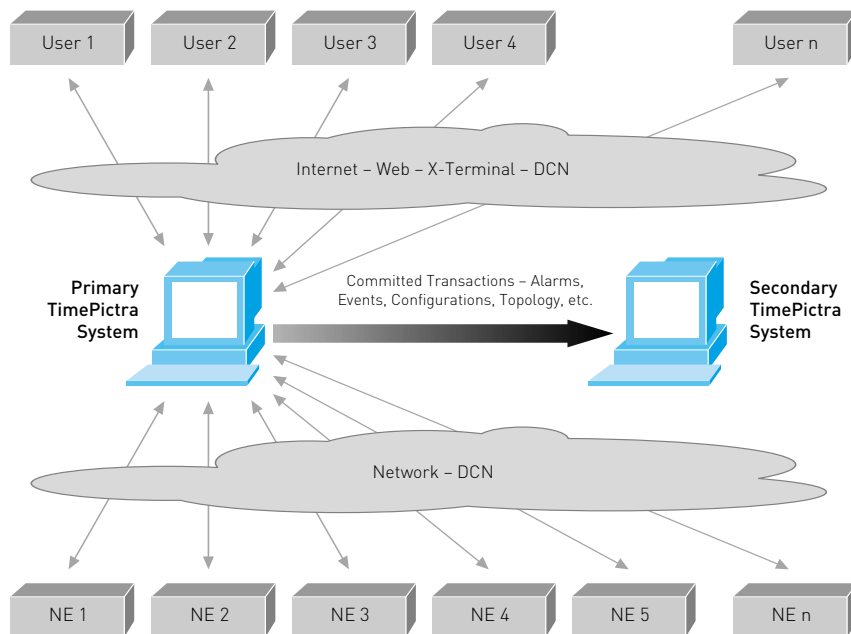
RESILIENCY OPTION

TimePictra™'s Resiliency Option is a 1+1 hot-standby feature that provides a complete disaster recovery solution for managed sync networks. The option offers high system availability when managing network elements with TimePictra. The management system runs on two systems simultaneously, with one being active and used for network management. In the event of an on-site emergency, control may be switched from one to the other.

The resiliency option provides TimePictra operators a disaster resistant system. In addition, it offers a tool for high system availability during maintenance activities.

Customers can switch network management to a remote system in the event of an on-site emergency or network outage. When the primary site is operational again, TimePictra can be "switched-back" to the primary system. Resiliency requires a reliable network link between the two TimePictra systems (called the "Primary master" and "Secondary master").

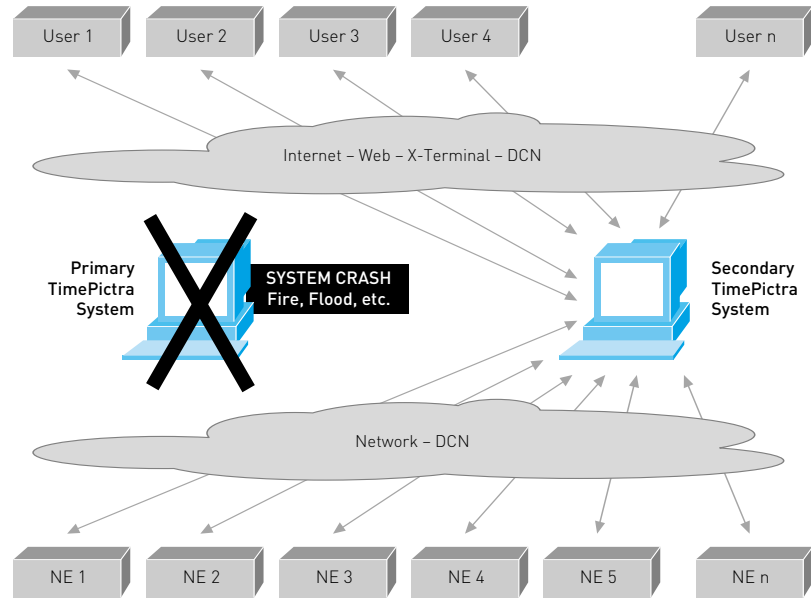
Each committed transaction is automatically transported to the remote (secondary) system, so that both the systems are synchronized. This feature allows the secondary TimePictra system to take over management of all the network elements (clock systems) in the network. If the primary system goes down



TimePictra resiliency – normal operations

because of an outage at the primary location and the network connections that were held by the primary system are released, then the replicated site provides a mechanism for switching over to the secondary system, thus quickly restoring all TimePictra services and functionality.

Transactions committed to the secondary systems includes all the alarms and events coming from the NEs, and all the attribute changes made by operators to the configuration of all NEs. Also included are transactions that create network topology (hierarchy and maps), creation/ deletion of TimePictra users, and manage/ unmanage operations. Domain, sub-domains and the network elements in these domains are replicated to the secondary system. In addition, the NEs and sub-domain icons as well as the placement information (on the map background) is replicated.



TimePictra resiliency – normal operation under disaster situation

Resiliency 3.0 Requirements

- HP C3700 or higher Server with 2 Gb RAM (4 Gb for over 500 NEs) and 70 Gb Hard Disk
- HP-UX 11i Minimal Technical Operating Environment
- Oracle 9i Release 2 version 9.2.0.7 Database Standard edition
- Oracle 9i Release 1.0.2.2.2 Application Server Enterprise edition
- TimePictra 3 or higher

(For detailed TimePictra software requirements, see the TimePictra's Administration Guide)



SYMMETRICOM, INC.
 2300 Orchard Parkway
 San Jose, California
 95131-1017
 tel: 408.433.0910
 fax: 408.428.7896
 info@symmetricom.com
 www.symmetricom.com