CASE 17: Tarantella Web-Enabling Software

ABOUT TARANTELLA WEB-ENABLING SOFTWARE
http://tarantella.sco.com/info/wps/broker2.html
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Tarantella is software that provides centralized deployment and management of server-based applications. It is designed for IT Professionals who need to provide users with instant access to applications and services. The standards-based Tarantella technology provides application access that can be custom-built to meet your needs.

Users can easily access their applications from Java™ technology enabled client devices, without the need for additional software to be installed on those devices. This approach drastically reduces the time to deliver applications, allows the applications to reach more users, increases manageability and moves the management of users and applications back to centrally located servers.

Tarantella uses an innovative, three-tier architecture that integrates diverse application servers and diverse types of client with little or no disruption to the existing environment. Applications continue to run on existing servers, and many existing clients, such as PCs, UNIX workstations, and Net work Computers, can all be used.

The Tarantella server acts a type of middleware storing information centrally about users and their associated applications. When a user connects to the Tarantella server, a WebTop (a dynamically created web page that is unique to each user) is delivered to the user. Users can access all the applications and data on the network through this WebTop with Tarantella managing all the connections, sessions and security.

Tarantella provides the option to use 'native' clients: software that does not require a Java Virtual Machine on the client, or a Java technology enabled browser. The Tarantella Native Client provides an application 'launchpad' interface that is consistent with the WebTop.
In contrast to public or sometimes mixed ownership WAN infrastructure, a *Local Area Network* (LAN) is usually owned by a single enterprise, the one that is actually using the network for its business purposes. Commonly, a LAN is designed to carryout much greater communications load and greater information bandwidth, often beyond 4-10 Mbps data rate (e.g. 10/100 Mbps is common Fast Ethernet data-rate.). In fact, it is to provide networking infrastructure for common data processing, data packet routing, and switching as in case of ATM switching hubs, digital data switching boards in CSN, and to support *plain old telephone* (POT) and digital voice communications used by the PBX. Naturally, LAN design is often influenced by rapid changes in IT and ubiquitous application of modern digital technology. As mentioned earlier in Computer Telephony Integration topics, the convergence trends of IT currently play important role in the choice of suitable enterprise LAN.

Prior to introduction of *Intranet* technology in enterprises, we should state few important differences between LAN and WAN:

- **LAN** has *smaller scope* since confined to a single building or a cluster of buildings in business, government, or university campus
- **LAN** is *owned by the same organisation* that makes use of it
- **LAN** infrastructure requires substantial *capital investment*, not only for equipment but also for upgrade, maintenance and support, and procurement of software
- **LAN** internal *transmission data rates* by default are much higher than in WAN. There are two distinct communications technology types applied in LAN
- **Circuit Switching** uses digital PBX mainly for voice but also for data switching.
- **Packet Switching** uses LAN broadcasting mainly for data frames but also for voice.

Historically, usual LAN transmission media were *multidrop or multiplexed lines*. Today, primarily shared *bus* or switched *peer-to-peer* lines are used for LAN communications.

The scope of LAN applications remains broad. Usually, LAN applications perform *data processing* (entry-order systems), *transaction processing* (point-of-sale, or database applications), *file and print services*, *remote batch processing*, *MIS, office automation services*, *CAD/CAM applications* and *CIM process control* in factory automation, *energy management services*, *multimedia and teleconferencing*, *electronic library and publishing services*, *back-plane server communications*, etc.

The ubiquitous penetration of LAN into enterprises and recently in individual homes is due to the appealing benefits of office automation, enterprise integration, and sharing of network ownership costs. The evolving technology along with constant and favourable price/performance trends in digital technology provide adequate support for common business needs. Moreover, the prevailing standardization of network interfaces provides additional flexibility, accessibility, safety, and network reliability.

However, even simple as it may look, LAN wiring is considered to be common cause of problems mainly due to missing or wrong implementation of existing