

Teleworking: Centralisation of IT systems

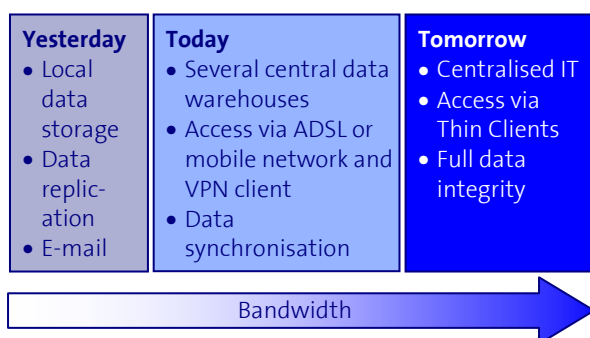
Context

Growing mobility and the increasing tendency for business and private applications to overlap are changing the way data are processed. Despite the speed offered by today's computers, managing data is becoming more and more of a challenge. However, thanks to fast networks there is a growing interest in centralised IT system solutions that store data centrally and allow access to these data from any location.

This way the workplace (private or business) can be accessed from anywhere: wherever you are, you will find the same desktop interface. There's no need to worry about data backup, since all data are professionally managed, centrally stored and backed up.

Evolution of teleworking solutions

Teleworking means creating and editing documents and data irrespective of where such documents or data are ultimately intended for use. In principle, data can be available locally or at some other location. The following diagram charts the evolution, supported by communication networks, from local to remote processing.



Formerly it was only possible to store data and files locally. They then had to be copied or sent by e-mail to another location.

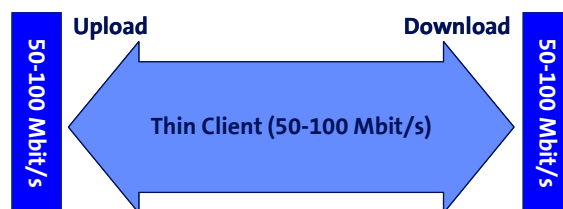
Nowadays, particularly in the business world, more and more users are accessing central data warehouses, usually over a secure virtual private network (VPN) via DSL or mobile networks (UMTS, WLAN). As a rule, data are still processed only locally using appropriate synchronisation methods.

In future, given sufficient bandwidth, IT can be fully centralised. Instead of having to replicate data, it will be directly processed over a network access, thereby enhancing flexibility and data integrity.

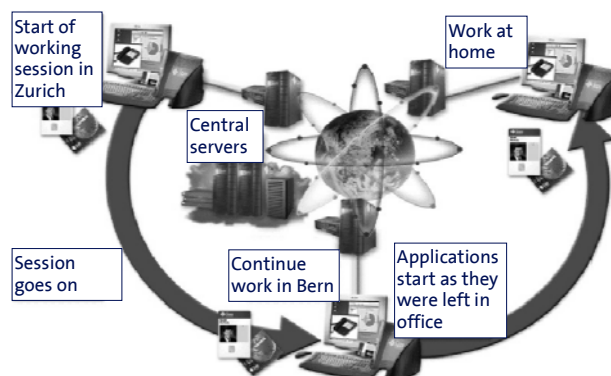
Demand for higher bandwidth

High bandwidth and low data transfer delays are needed to enable terminals to access centralised IT systems over the network.

The scenario depicted uses 50-100 Mbps and enables an extremely short delay of approx. 7 milliseconds compared to local processing.



The following diagram shows a typical Thin Client application: the Sun Ray Systems application shown in the Showcase.



Outlook

Given the rising trend towards mobility, an ultra-thin client architecture will also require wireless networks to provide sufficient bandwidth for such applications.