Today, it is evident that companies of all sizes need interconnecting workstations. Virtual private network (VPN) technology enables secure data exchange and VoIP phone calls between various sites via the public Internet.

This combines the advantages of open, widely-used TCP/IP architectures with the security of formerly used leased lines.

Administration challenges
VPN technology comprises a multitude of variants, parameters and protocols that require painstaking diligence when configuring the various devices and components. The administrator must possess high technical competence and the user interfaces typical of common VPN products allow logical configuration mistakes. This combination alone represents an enormous security threat. The demand for easy administration of a VPN product must not be understood as a simple desire for a modern graphical user interface that can be quickly and intuitively adopted. It must be viewed as a decisive, critical security element when designing corporate networks.

The unique characteristics
The R&S®Trusted VPN solution has been developed with two principal design goals in mind: hard-edged security and foolproof administration. R&S®Trusted VPN integrates all current security standards in their most stringent form as a default strategy and provides the optimal hardware platform to support such a design approach. Unlike most common products that look at the individual device configuration, R&S®Trusted VPN has implemented an administration concept that focuses on the higher level of logical traffic relationships.

As a result, typical network administrators without special security or VPN training can commission and maintain highly secure virtual networks very quickly. Such an architecture also allows simple, yet effective, auditing of the functionality and safety of desired traffic relationships plus exclusion of undesired communications links.
Architecture
The solution consists of two main components: the R&S® Trusted Objects Manager as the central management server and the R&S® Trusted VPN appliance as a VPN gateway deployable in several variations at remote sites and the headquarter. Both components are provided as ready-to-use appliances that have been effectively hardened for security purposes.

Security based on IPsec in its strongest form
All communications between R&S® Trusted VPN appliances are based on the standardized IPsec protocols. R&S® Trusted VPN appliances are preconfigured with safe parameter settings and require no action on the part of the administrator to enable secure communications. Incompatibilities are inhibited, incorrect or weak settings configured by administrators lacking sufficient security competence are prevented, and a very strict security scheme is enforced.