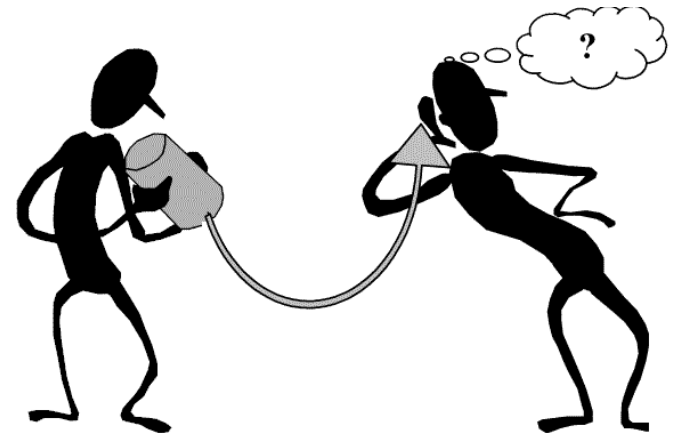


UDP (Encryption) vs. HTTP(S)

Kaba GmbH Workforce Management



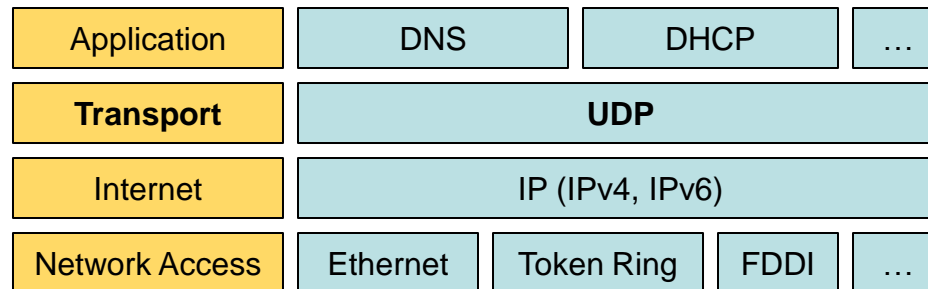
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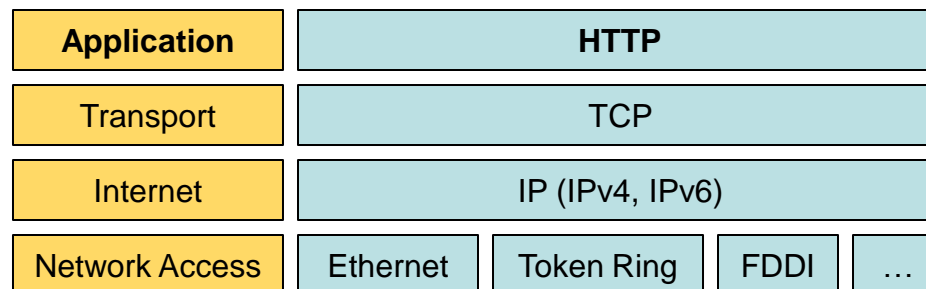
A man in a white dress shirt and a striped tie is sitting at a desk in an office. He has his hands behind his head and is looking upwards and to the right with a thoughtful expression. The background is a bright, out-of-focus office window. In the foreground, a computer monitor and a mouse are visible on the desk.

What is UDP / HTTP?

- UDP – User Data Protocol
- simple, connectionless network protocol
- transport layer of the internet protocol family
- Task of UDP: to hand over data on a network to the proper application
- Example: fast and easy data communication to certain applications (B-COMM)



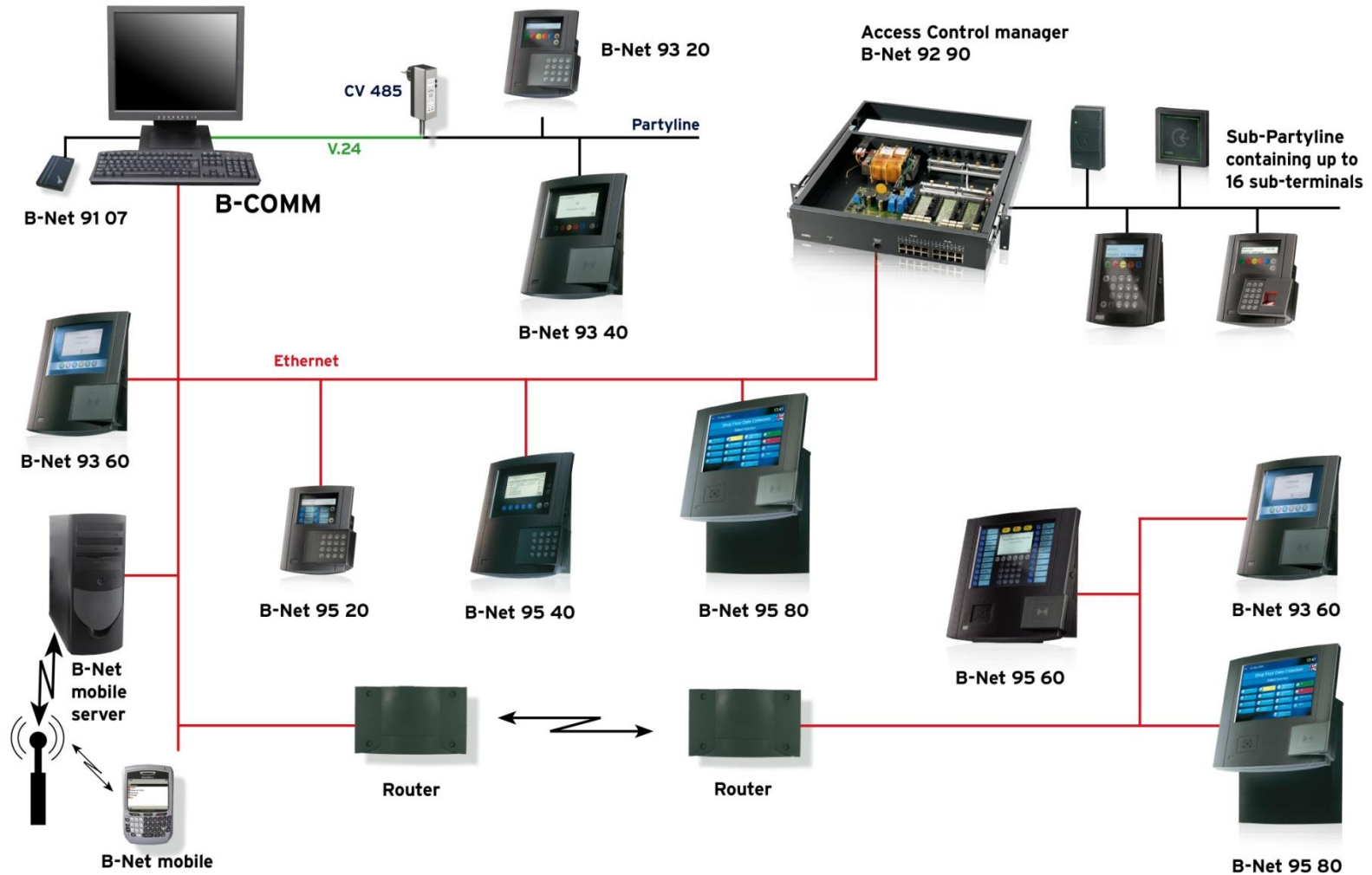
- HTTP – Hypertext Transfer Protocol
- stateless protocol
- application layer of established network models
- based on TCP – Transmission Control Protocol
 - reliable, connection-oriented network protocol
 - transport layer of the internet protocol family
- Task of HTTP: Transmission of data on a network
- Example: to load web pages from the Word Wide Web in a Web Browser



The image shows two men in light blue shirts and dark trousers, standing in a modern office environment. They are looking at a large architectural plan or map spread out on a table. The man on the right is pointing at a specific area on the plan, while the man on the left has his hand to his chin in a thoughtful pose. The background is filled with various architectural drawings, including floor plans, site maps, and a 3D model of a building. The overall scene conveys a sense of professional collaboration and detailed planning.

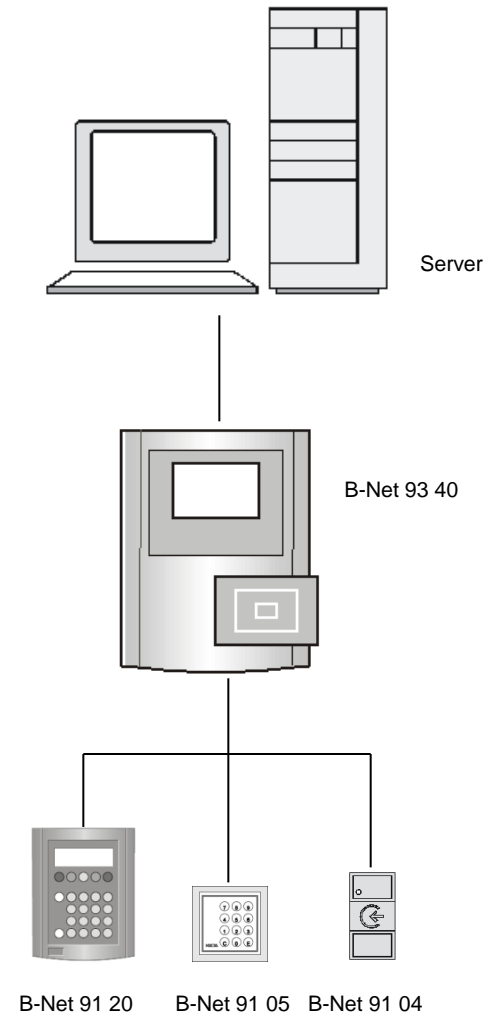
Overview Terminal Communication

Overview Terminal Communication



- Communication Terminal – Server
 - Serial – BPA
 - Ethernet – UDP (Encryption)
 - Ethernet – HTTP(S)/XML

- Communication Terminal – Subterminal
 - Serial – BPA



A photograph of two men in business attire (light blue shirts and striped ties) standing in a modern office environment, looking out a large window. The scene is brightly lit with natural light from the window. The men are positioned in the foreground, with their hands in their pockets. The background shows a blurred office interior with glass railings and structural elements.

UDP (Encryption) vs. HTTP(S)

- UDP (Encryption)

- Transport Layer: UDP (User datagram Protocol)
 - No error correction, no flow control, ...
 - fast protocol
 - reliable protocol (by B-COMM)
- Standard protocol for B-Client HR / PDC terminal applications
 - used by all Ethernet based terminals
- Firewall must be configured
 - UDP: Port 7700 ... 77EF (Hex)
- Terminal act as Client and Server
 - Example: Download master records as an order

- HTTP(S)

- Transport Layer: TCP (Transmission Control Protocol)
 - Error correction, flow control, ...
 - reliable protocol
- Standard protocol for B-Client XML terminal applications
 - B-Net 93 20/40/60
 - B-Net 95 20/40/60
- Firewall friendly
 - HTTP: Port 80 (default)
 - HTTPS: Port 443
- Terminal act only as Client
 - Example: Download master records within a HTTP response
 - terminal is active part

- UDP (Encryption)

- One Server
 - Possible Exceptions: separate servers for Finger Template distribution, CardLink data
- Use proprietary UDP Server
 - e.g. B-COMM
- Encryption available as software option
- UDP (Encryption) communication is integrated in B-COMM
- Secure or not secure transfer
 - global configuration

- HTTP(S)

- Switchable servers during runtime
 - Communication via Proxy Server possible
- Use Standard HTTP Server
 - e.g. Apache, IIS
- “S”-Encryption available as software option
- HTTP(S) communication is not integrated in B-COMM
- Secure and not secure transfer
 - each http and https request

- UDP (Encryption)
 - Communication
 - UDP Sockets

- HTTP(S)
 - Communication
 - Initialization process
 - Translation file (xmltrans.xml)
 - Configuration file (xmlconfig.xml)
 - Terminal: HTTP(S) Request with GET method
Example:
`http://10.10.12.160/in.xml?GID=3&DID=10&MODE=%20&RTRTM=B1&TIMESTAMP=0807101125&ID=0200000000123`
 - Server: HTTP(S) Response with XML content
 - all file types (.xml, .asp, .aspx, ...)
 - MIME Type (or Content-Type or Internet Media Type)
 - application/xml
 - text/xml

- UDP (Encryption)

- Security with additional implementation for UDP
 - Blowfish
- No Restrictions
 - used within B-COMM
 - Subterminal support
 - Finger Template distribution (separate UDP Port)
 - B-COMM options
 - Parameter editors
 - Terminal status
 - E-Mail Server
 - AVISO module
 - User management
 - CardLink
 - ...

- HTTP(S)

- Security with Standard Secure Layer SSL/TLS for HTTP
 - RC2, RC4, DES, 3DES, ...
- Restrictions
 - No Subterminal support
 - No Finger Template distribution with HTTP(S) (UDP based)



The HTTP(S) Target Group

- Software Partners / End-Customers
 - HTTP/HTTPS based applications
- Software services: rental models
 - ASP – Application Service Providing
 - SaaS – Software as a service