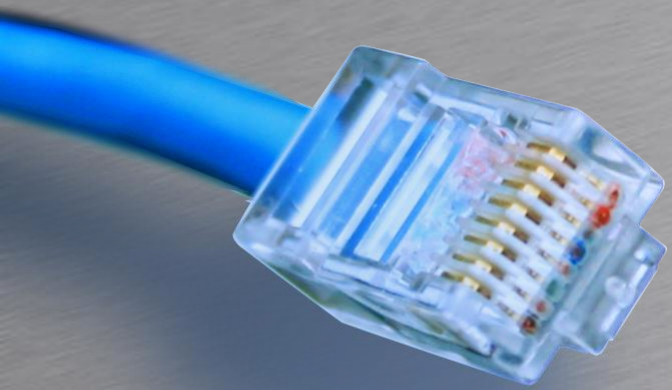


RTP



HOUSE OF
TECHNOLOGY



- en del af **mercantec⁺**

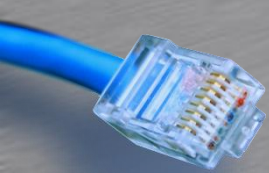
Real Time Protocol

TDC IP telefoni Scale



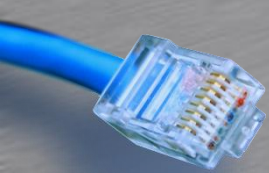
RTP design mål

- Skal give mulighed for at tids synkronisere en kontinuerlig strøm af data
- Skal give mulighed for a overføre forskellig type af data
 - Video (forskellige formater)
 - Lyd (forskellige formater)
 - Anden type af data

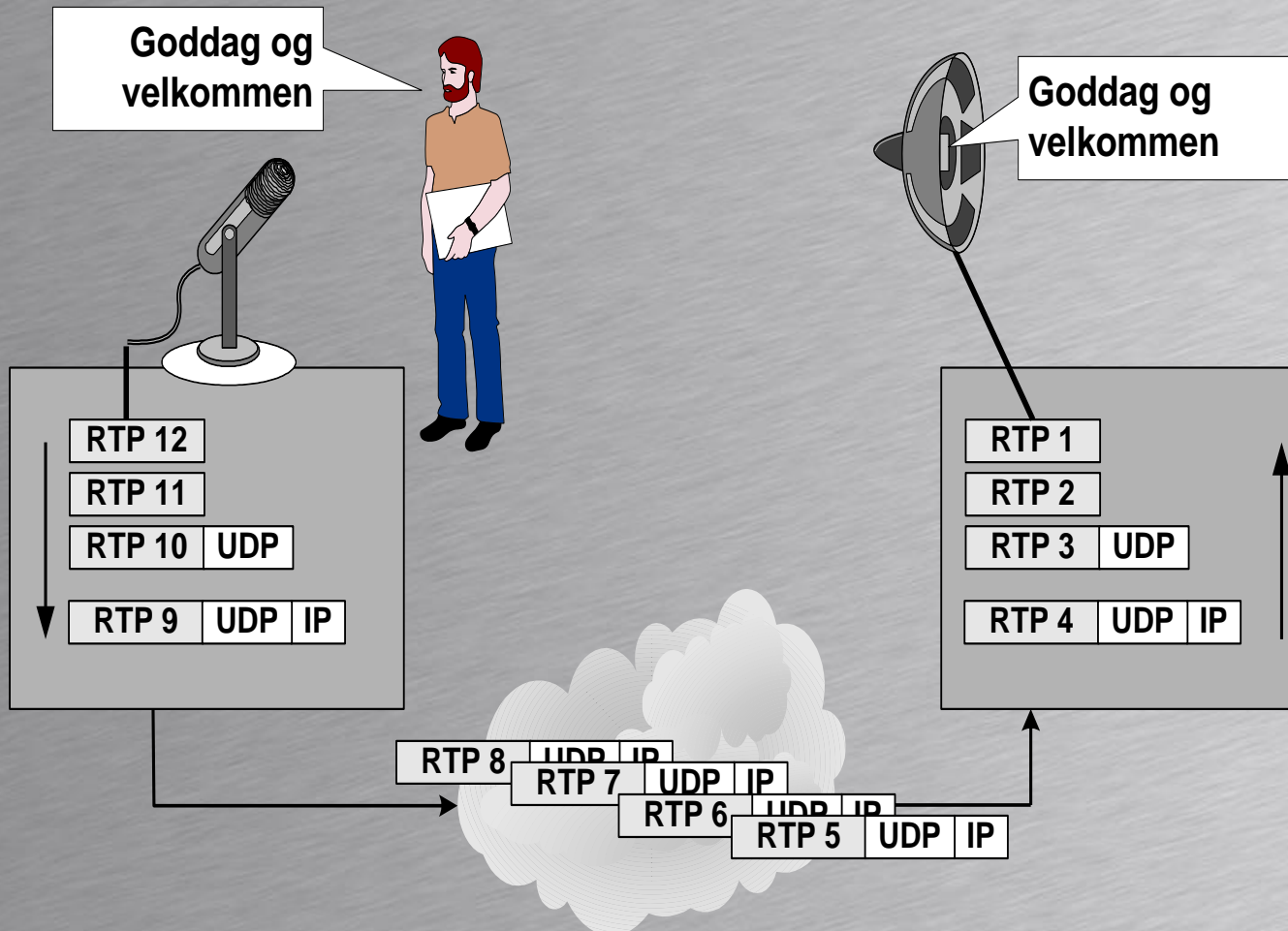


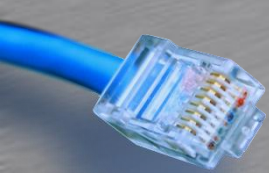
RTP design mål

Feature	Voice Needs	TCP	UDP	RTP
Reliability	No	Yes	No ✓	No ✓
Reordering	Yes	Yes ✓	No	Yes ✓
Time-stamping	Yes	No	No	Yes ✓
Overhead	As little as possible	Contains unnecessary information	Low ✓	Low ✓
Multiplexing	Yes	Yes ✓	Yes ✓	No

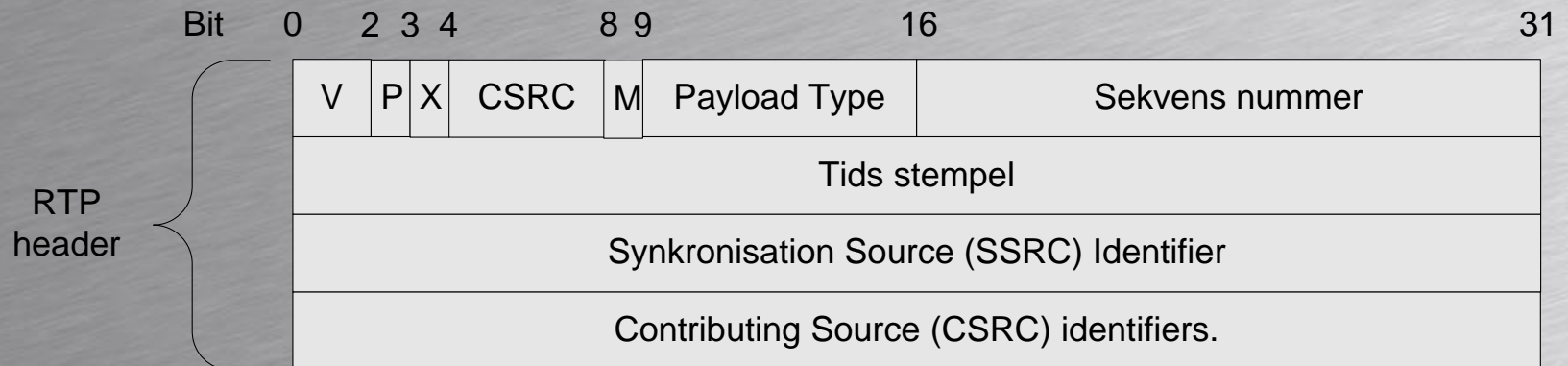


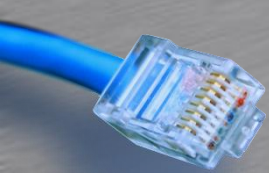
Data stream princippet





RTP header format

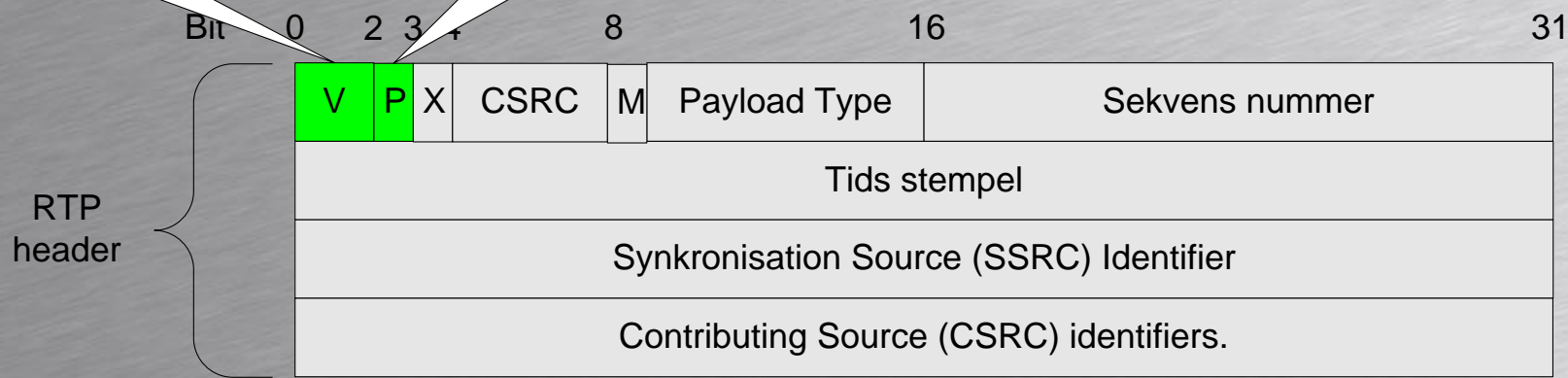


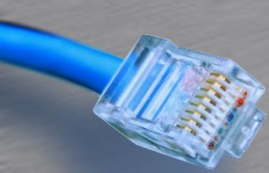


RTP header format

Padding felt.
Hvis denne bit er sat vil pakken indeholde padding bytes, som ikke der en del af de reelle data.

RTP Version



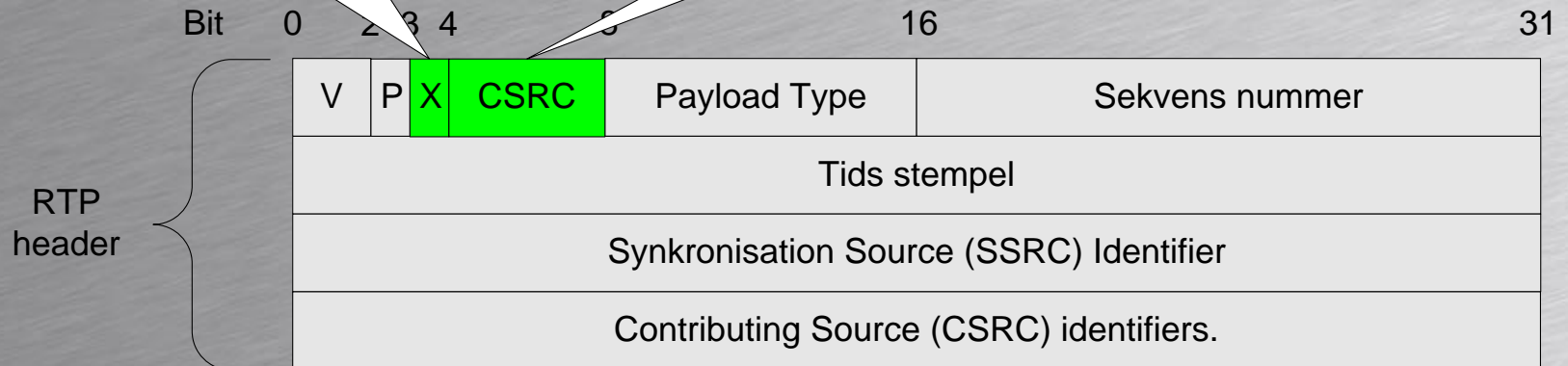


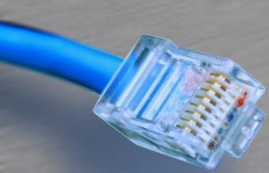
RTP header format

Extension bit

Hvis denne bit er sat følger der en Header udvidelse efter den normale header, vist her.

CSRC Count: Indeholder det antal af yderligere identifiere for payload.

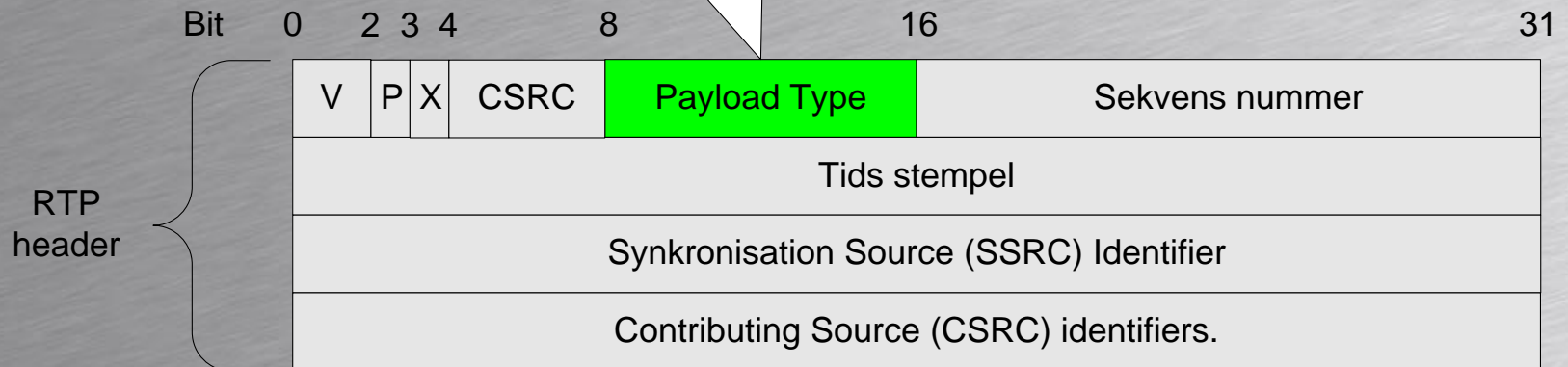




RTP header format

Payload Type

Data som følger RTP Headerens





RTP og RTCP

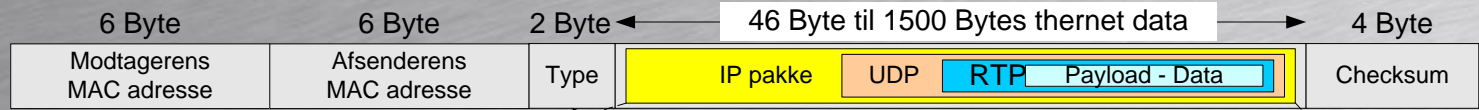
- RTP – Real Time Protocol
 - Tilbyder transport af real-time data i et pakkekoblet netværk
- RTCP – Real Time Control Protocol
 - Overvåger kvaliteten af RTP data strømme.



Indpakning af RTP pakke

Ethernet frame (pakke)

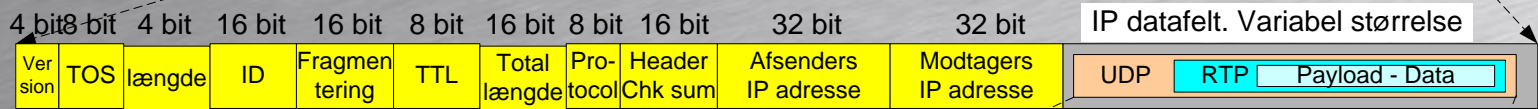
Indeholder en IP pakke som indeholder en UDP pakke som indeholder en RTP pakke som indeholder data



Indeholder 0x800 som viser at Ethernet data feltet indeholder et IP-datagram

IP pakke

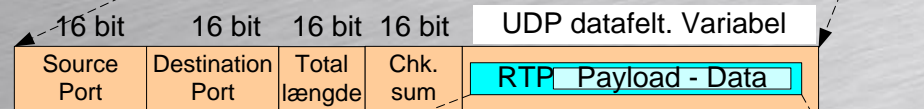
Indeholder en UDP pakke som indeholder en RTP pakke som indeholder data



Indeholder 0x17 som viser at IP data feltet indeholder et UDP datagram

UDP pakke

Indeholder en RTP pakke som indeholder data

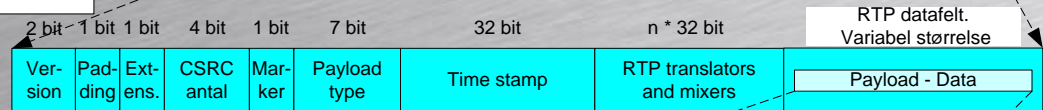


Indeholder Port nummer på modtagermaskinen hvor et multimedie program venter på RTP pakker.

RTP pakke

Indeholder data For eksempel G.711 A-LAW (PCMA)

Fortæller multimedie programmet hvilken type data payload indeholder. For eksempel G.711 A-LAW lyd.



n = CSRC antal

Payload - indeholder Real Time Data F.eks. G.711 A-LAW. 20mS lyd 160 Byte



Opgave



- Hvor meget båndbredde bruger G.722 på med IP headeren



325P_022

