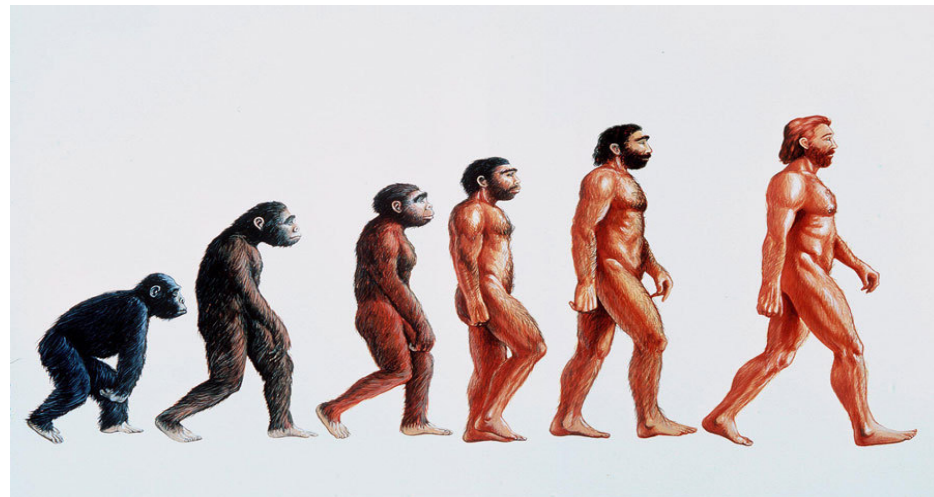




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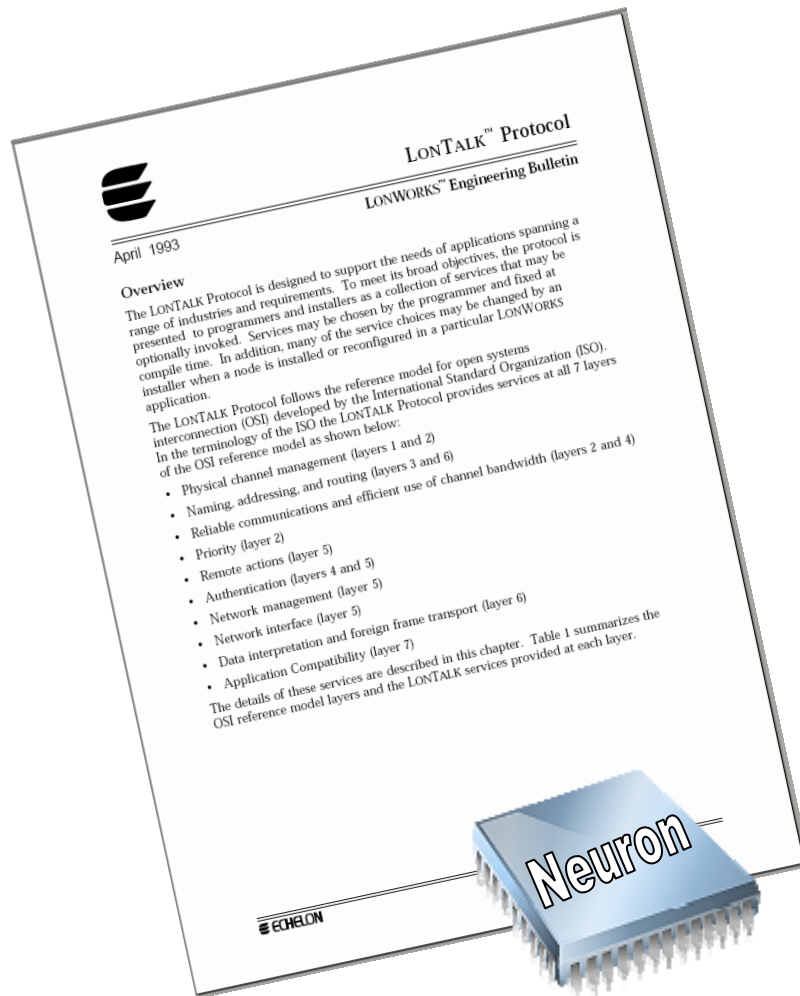
LonWorks vej til ISO/IEC standard





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Fortid



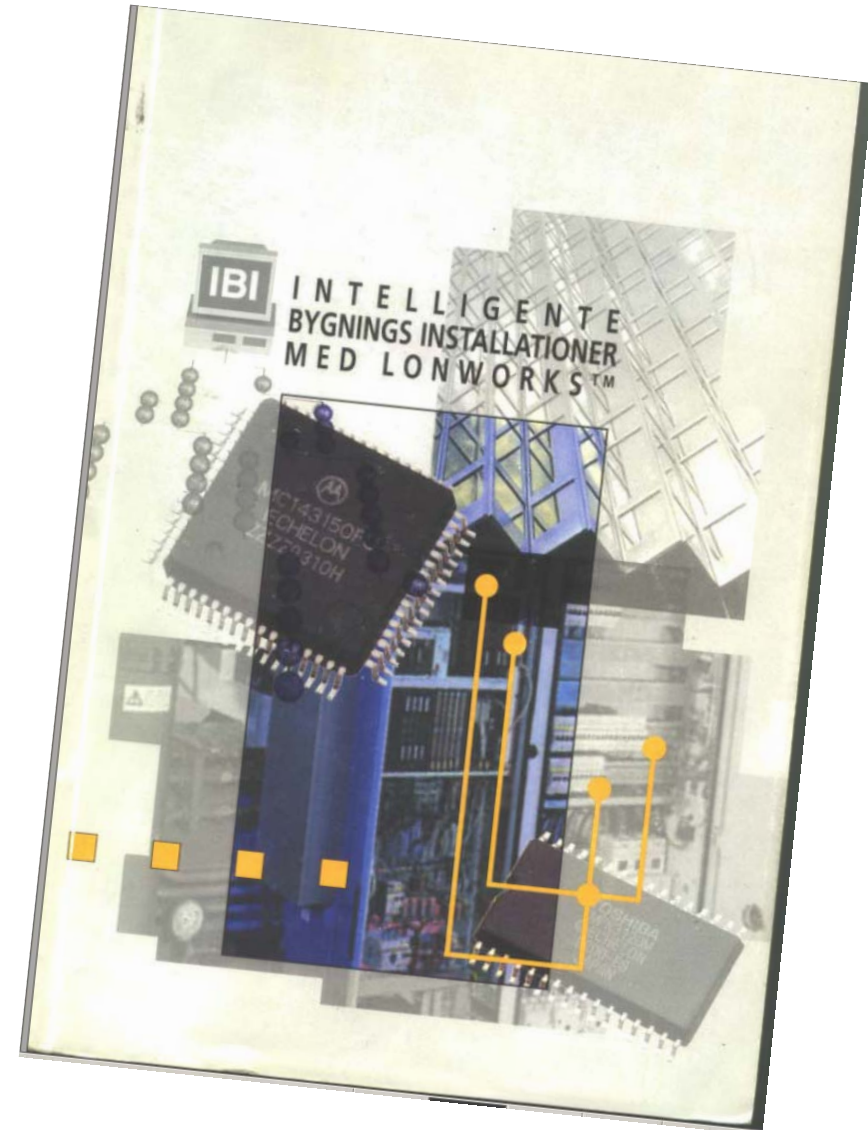
- Defacto standarden der vakte interesse
- Præsenteret af Echelon Coporation i 1990
- Frigivet som en åben standard i 1999
- Europæisk standard i 2005



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Fortid

- Første dansksproget publikation af protokollen var EFU's håndbog udgivet i samarbejde med LonUserGroup Denmark

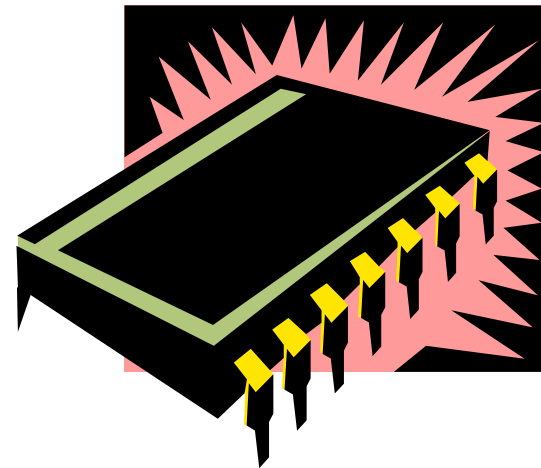




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Fortid

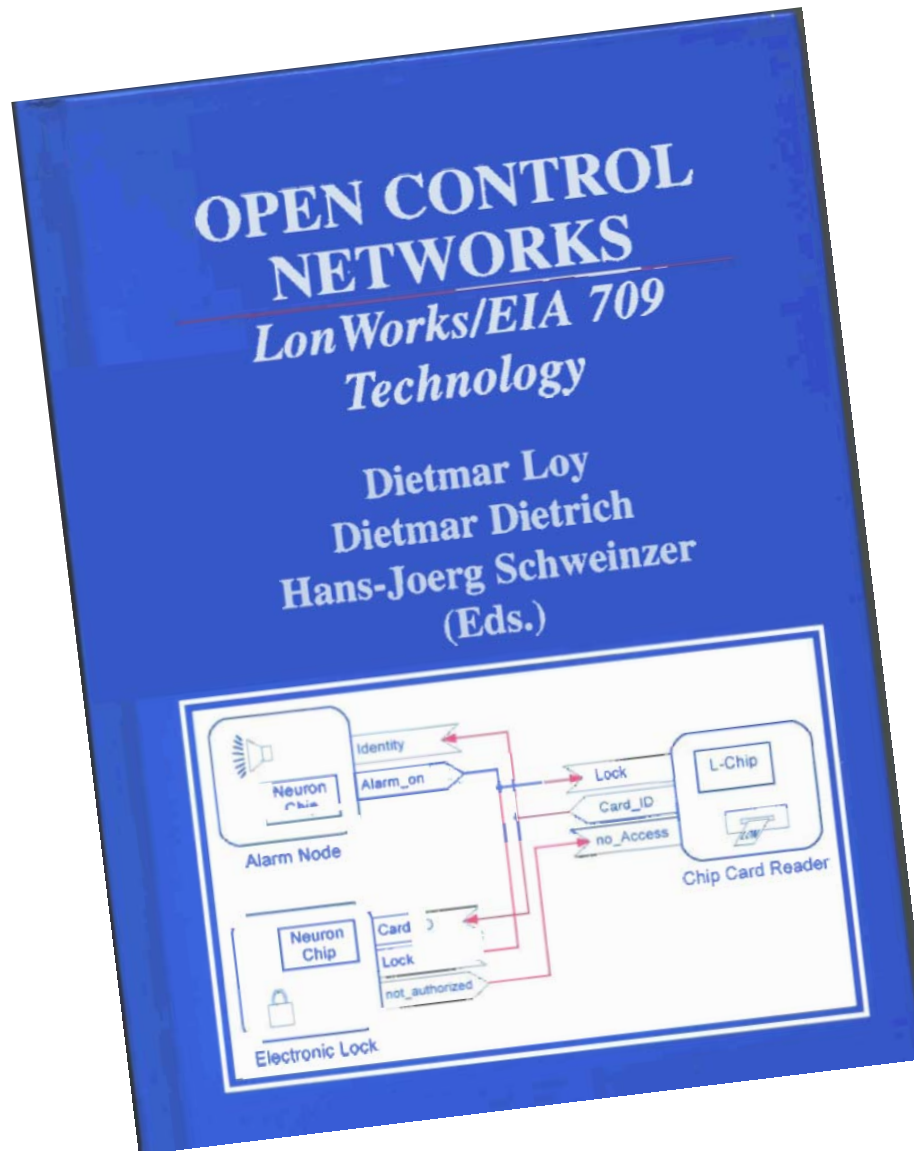
- Kan kun blive en åben protokol hvis flere implementere den.
- Adept Systems var første producent der i 1997 lavede en 'ikke' Neuron implementering af protokollen.



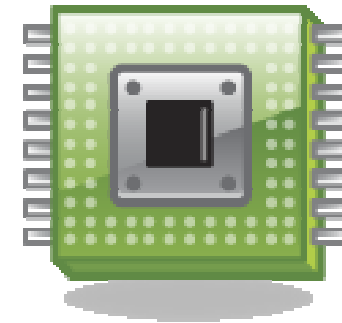


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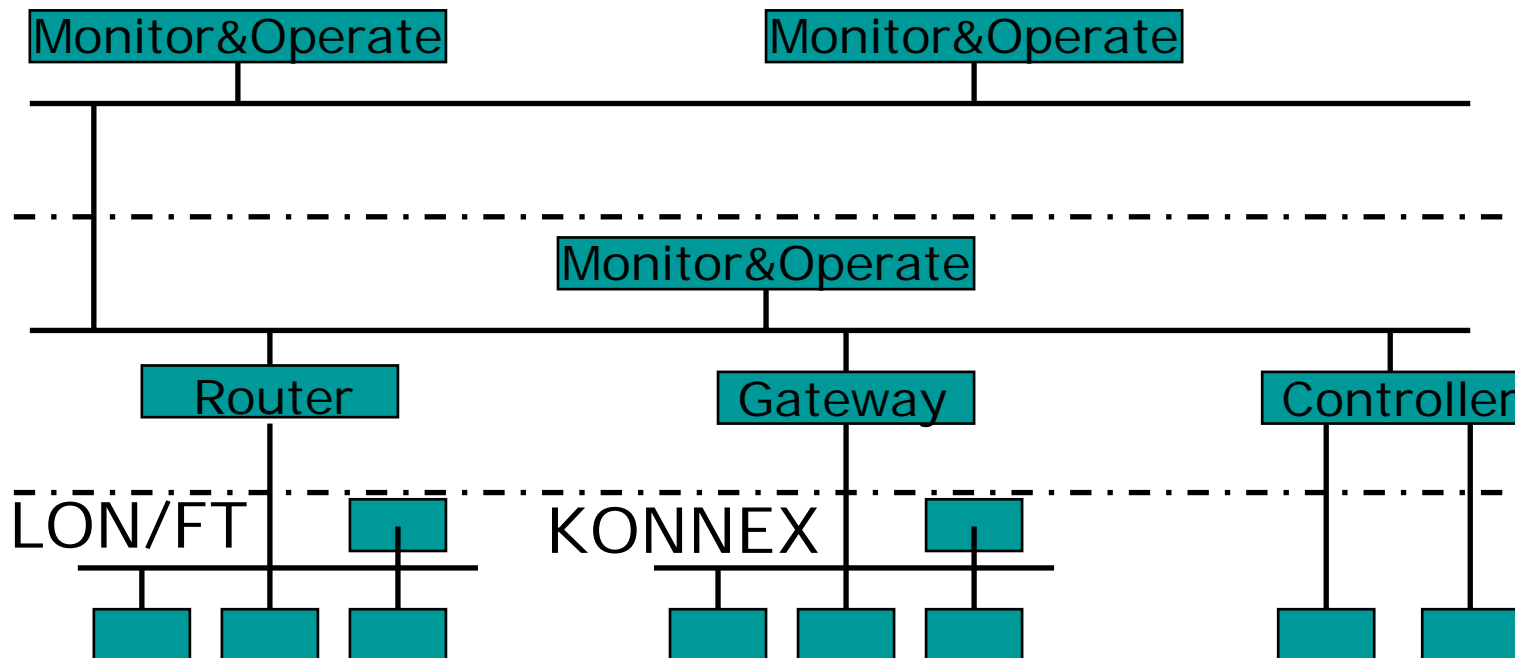


- LonTalk
præsenteres første gang som en åben standard i form af ANSI/EIA709.1 i 1999



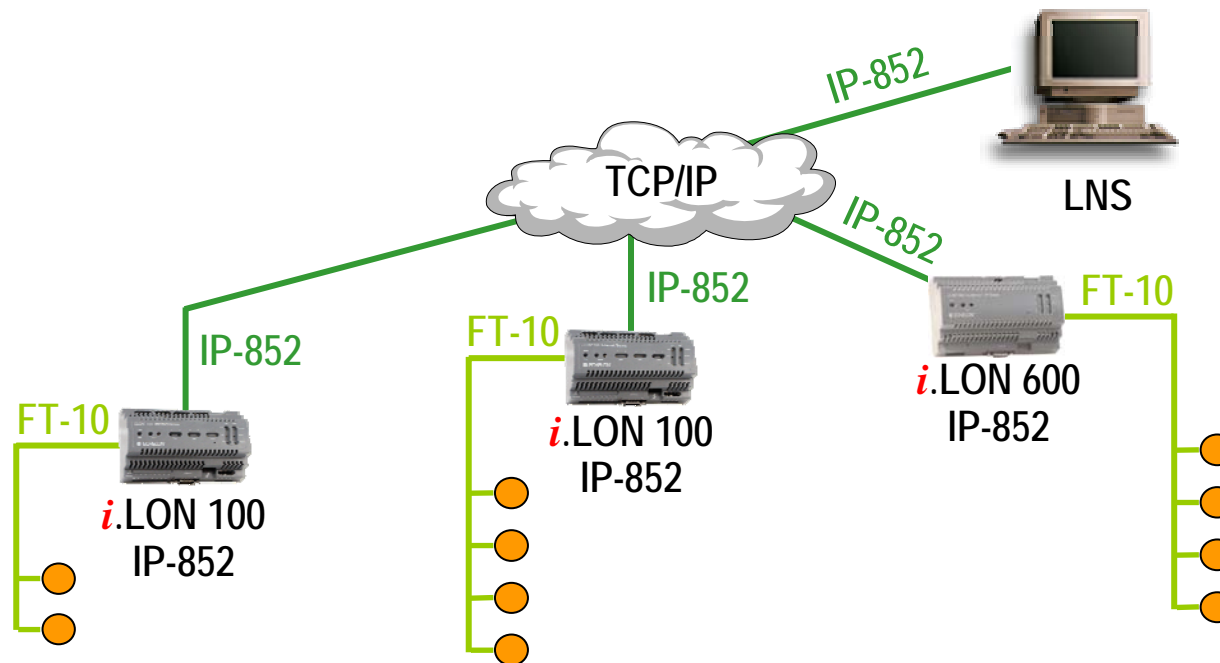


- Første Europæiske standardisering af LonTalk var som en field protokol for HVAC (ENV 13154-2) på linie med EIB, Batibus, og EHS.





- Lon over IP blev standardiseret som en amerikansk standard i 2002 som ANSI/EIA852





- Standarderne ANSI/EIA 709.x blev i 2003 adopteret af CEN TC247 som pre-standarderne:
 - prEN 14908-1 (protokol stak)
 - prEN 14908-2 (PowerLine kommunikation)
 - prEN 14908-3 (Twisted Pair kommunikation)
 - prEN 14908-4 (FiberOptic kommunikation)



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Endelig international !!

- **ISO/IEC 14908**

- Navn på standarden:
 - Open Data Communication in Building Automation, Controls and Building Management
 - Control Network Protocol
 - Tildelt statussen i november 2008

Bemærk undernumre !

- ISO/IEC 14908-1: Open Data Communication in Building Automation, Controls and Building Management – Control Network Protocol – **Part 1: Protocol Stack**
- ISO/IEC 14908-2: Open Data Communication in Building Automation, Controls and Building Management – Control Network Protocol – **Part 2: Twisted Pair Communication**
- ISO/IEC 14908-3: Open Data Communication in Building Automation, Controls and Building Management – Control Network Protocol – **Part 3: Power Line Channel Spec.**
- ISO/IEC 14908-4: Open Data Communication in Building Automation, Controls and Building Management – Control Network Protocol – **Part 4: IP Communication**
- ISO/IEC 14908-?: Open Data Communication in Building Automation, Controls and Building Management – Control Network Protocol – **Part 5: xxxxxxxx**



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Succes!

- Én standard for hele verden
- Ikke mere snak om proprietær Amerikansk protokol, og ophavsafgifter til Echelon
- Ensartet budskab uanset målgruppe og marked.
- Konkurrencen imellem LON og BACnet har til dels mistet pusten.

- **BACnet**

- Data Communication Protocol for Building Automation and Control Networks
- ISO standard 16484-5

- **LON**

- Open Data Communication in Building Automation, Controls and Building Management – Control Network Protocol
- ISO/IEC 14908

- **KNX**

- open standard for home and building control
- ISO/IEC 14543-3