

# IS-IS Tutorial

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# History

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- Developed by ITU
- For OSI protocol stack (CNLS)
- IETF was standardizing OSPF
- Early '90, IS-IS include support for IP in RFC1195
- OSPF dominate enterprise network
- IS-IS used primary by large ISP engineers

# Why IS-IS?

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- **Security**
- **Simplicity**
- **Manageability**
- **Scalability**

# Security

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- Information is exchanged via CLNS
- Dual stack OSI CLNS and IP stack
- Defense in depth

# Simplicity

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- Only Level 1 and Level 2
- Use OSI CLNS and NSAP address for communication
- IP subnets are result of the computation
- Easier troubleshooting

# Manageability

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- **Ships in the dark**
- **Decoupled**
- **Simpler IOS configuration**
- **Level 1 and level 2 for different administrative control**

# Scalability

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- **Start from Level-2**
- **Scale by extending Level-2**
- **Optionally can introduce Level-1 (like OSPF)**