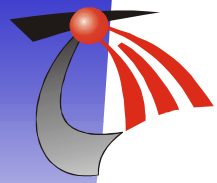

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Background of SMIng

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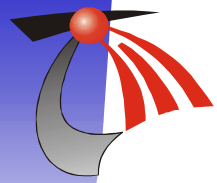

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HISTORY OF SMIng

DEVELOPED BY IRTF-NMRG

- SNMP over TCP
- SNMP compression
- SNMP GetSubTree
- XML DTD for SNMP MIBs
- SMIng

WHY DID WE START SMIng?

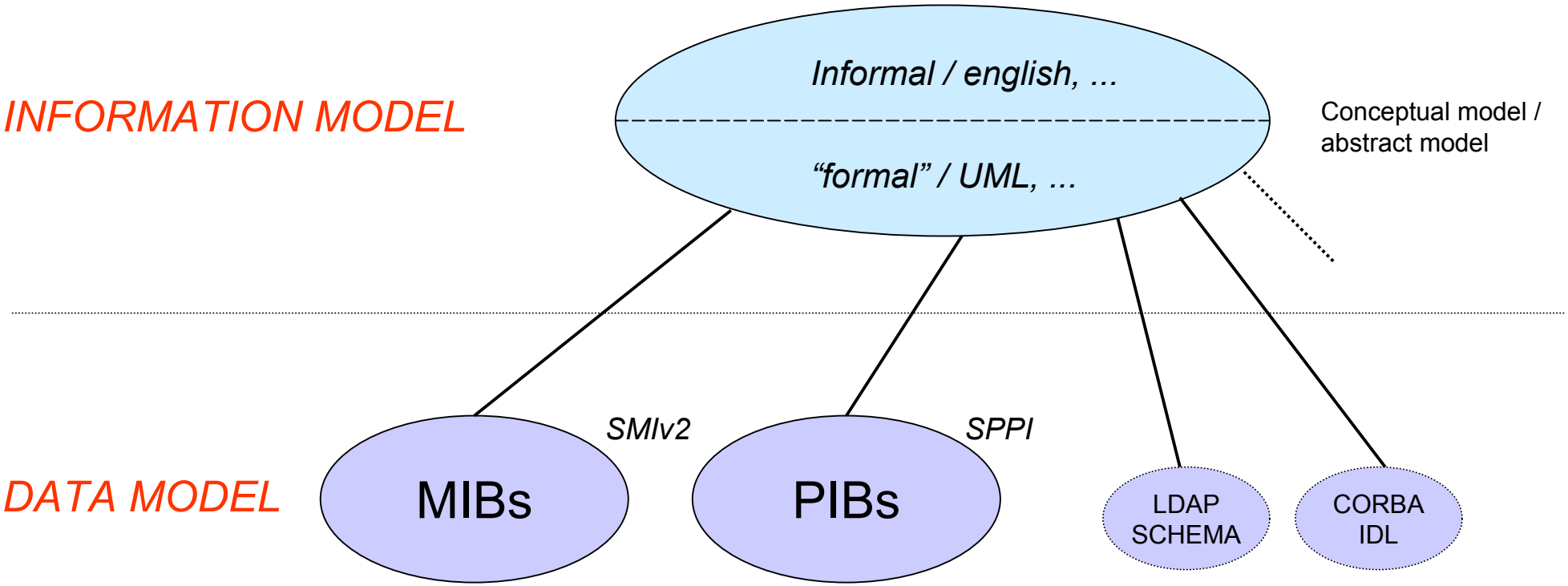
- SMIv2 RELIED ON 1988 VERSION OF ASN.1
- TOOLS FOR SMIv2 RELATIVELY COMPLEX
- CERTAIN DATA TYPES WERE MISSING IN SMIv2

  64 bit integers, …
- LIMITED FACILITIES TO REUSE DEFINITIONS
- SMIv2 DID NOT ALLOW FOR EXTENSIONS
- NEW, POSSIBLY INCOMPATIBLE VARIANTS APPEARED

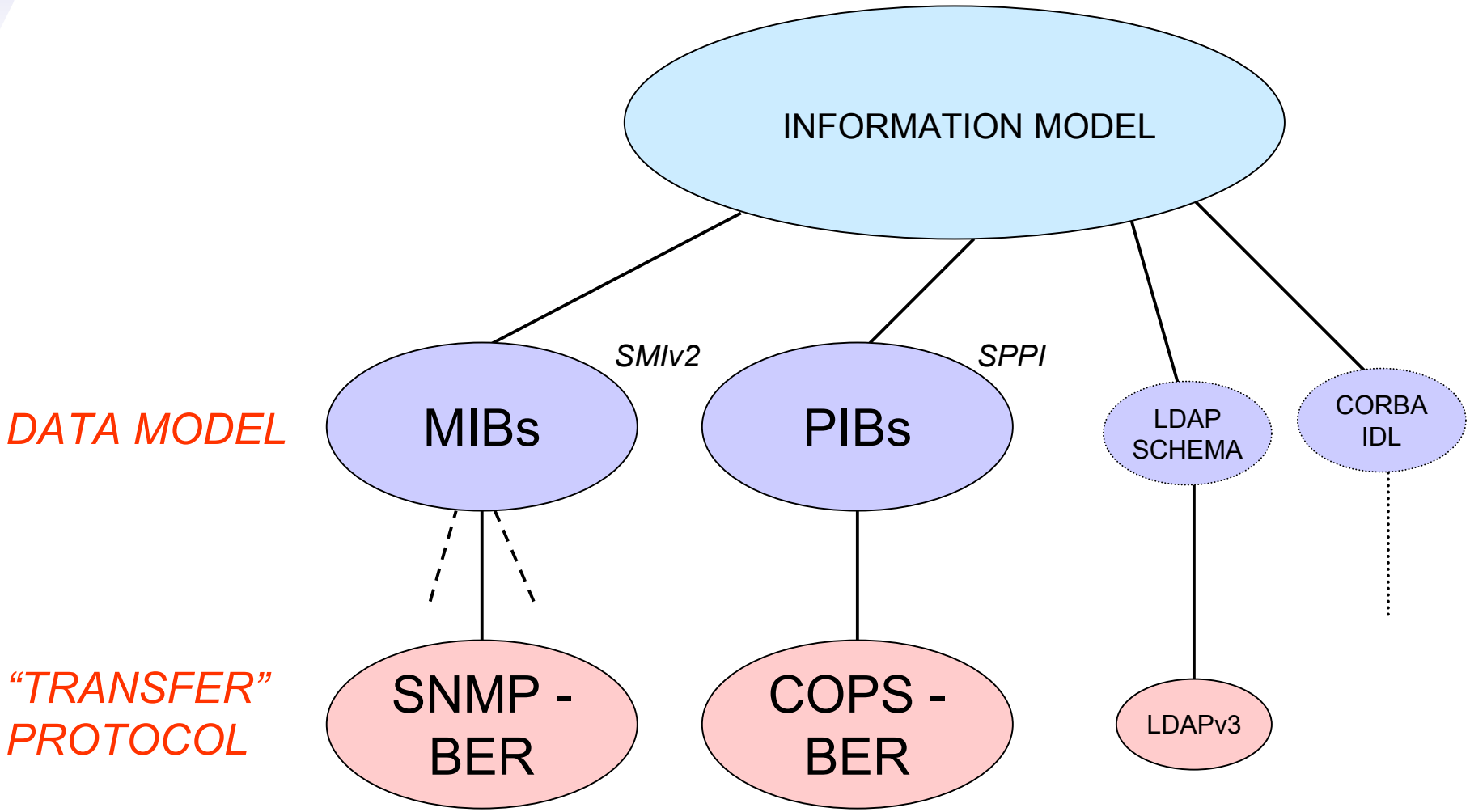
THE CHALLANGE:

CREATE A COMMON DATA DEFINITION LANGUAGE, INDEPENDENT OF SPECIFIC PROTOCOLS

DATA VERSUS INFORMATION MODEL

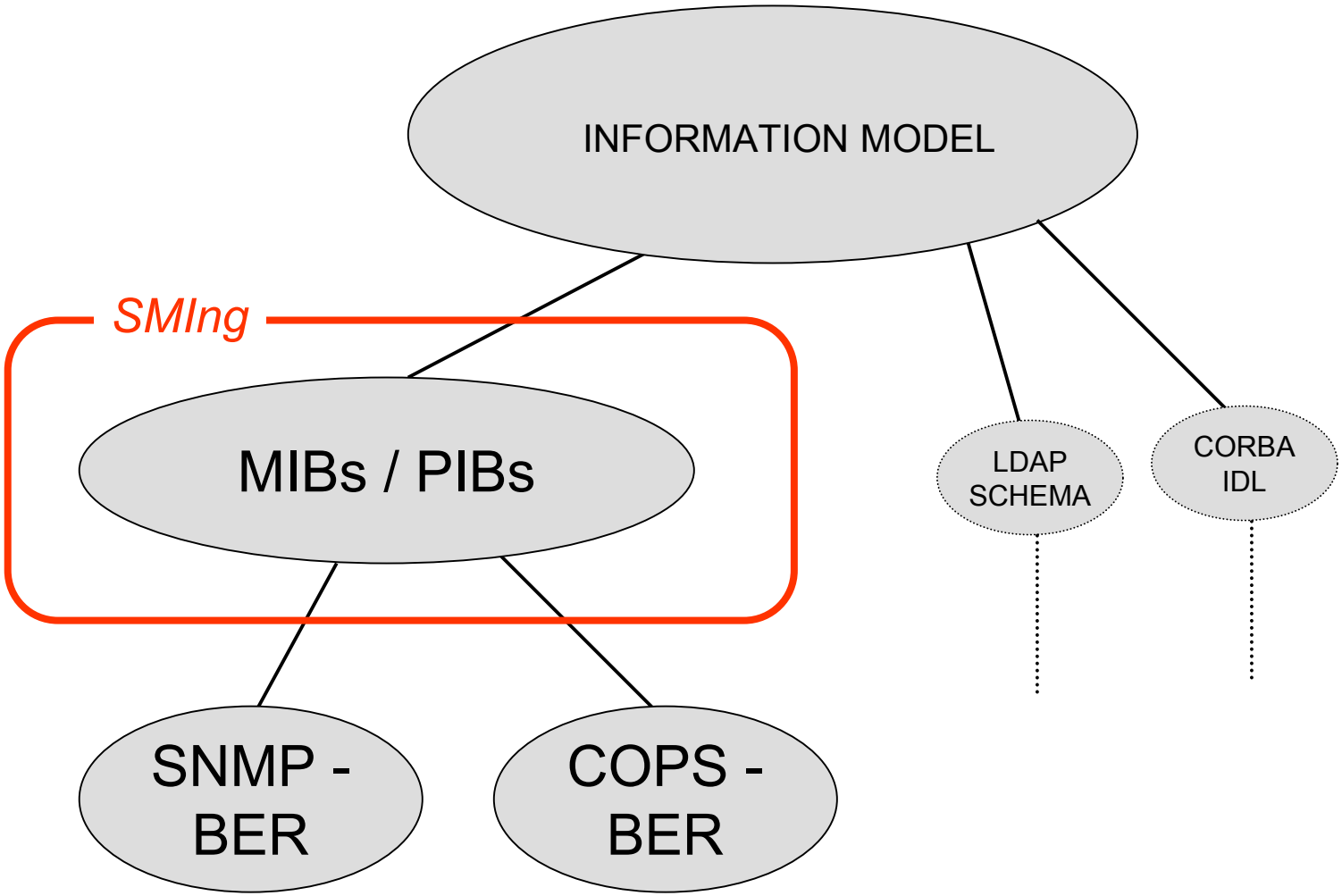
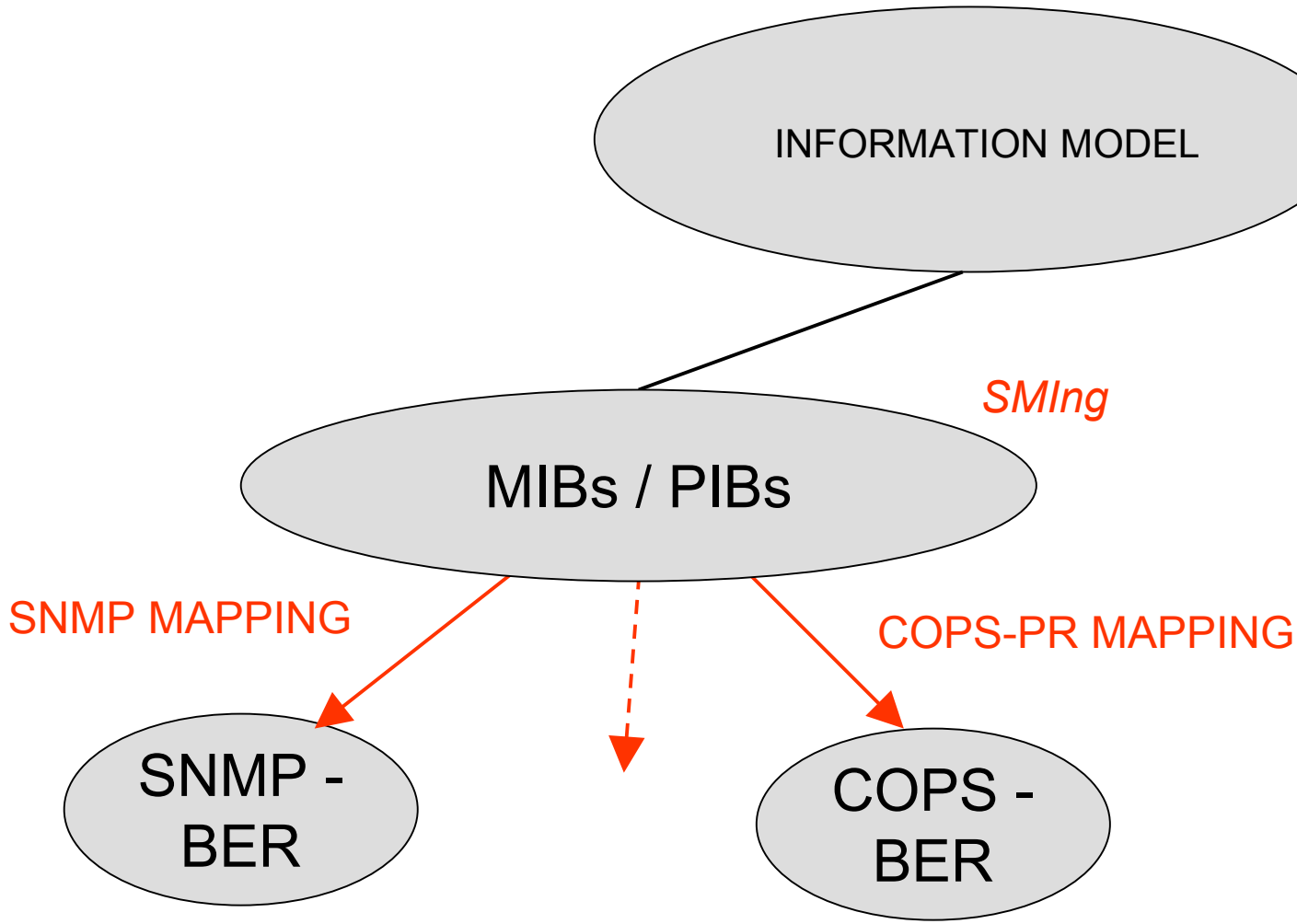


DATA MODEL & "TRANSFER" PROTOCOL



ROLE OF SMIng

DATA MODEL



SMIng PROTOCOL MAPPINGS