



Nanyang Technological University Network Technology Research Centre



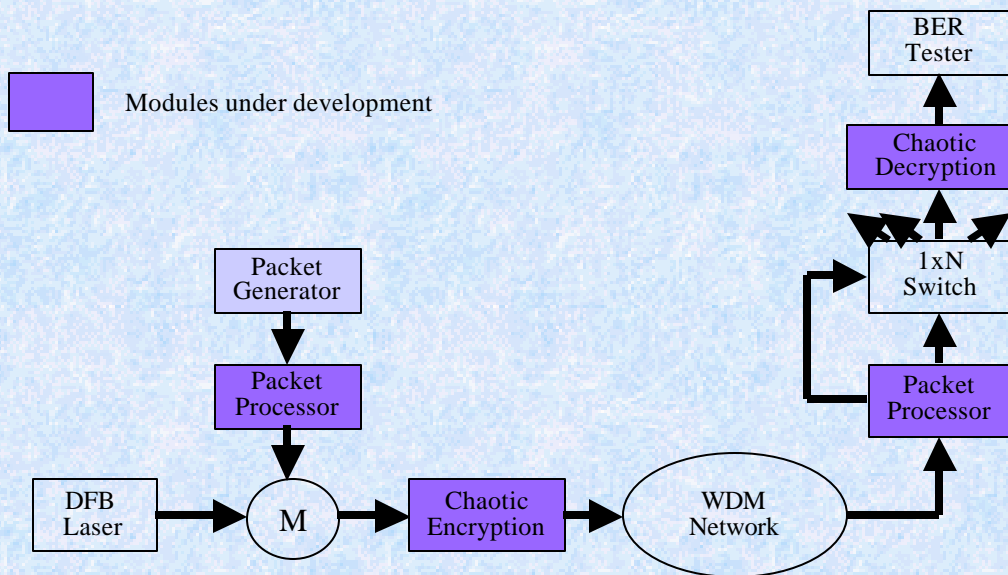
Secure IP over WDM Technology

Objectives:

- Design a scalable and secure optical IP over WDM network
- Design and implement packet processing modules for optical IP routing:
 - Optical IP packet processor (encoding, decoding and header processing)
 - Optical IP payload encryption and decryption
- Setting up proof-of-concept system
- System and network performance studies

Innovative features:

- The proposed optical packet processing technique suitable for both fixed and variable packet lengths.
- High processing speed—governed by the transmission delay of light in optical devices.
- Laser Chaos is utilized for data encryption and security is introduced in IP over WDM network
- Packet switching is carried out before data decryption



Schematic Diagram

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