

Marc Bage, Ph.D., P.Eng. : Achievements

1. VIPSWITCH

2000-2001

Design of optical interfaces (1 and 10 Gigabit Ethernet, SONET OC-48 and OC-192) for the very high performance metropolitan router. Preliminary design of the integration of the Optical Add/Drop Multiplexer (OADM). Investigation of solutions for optical backplane interconnections.

2. RISQ

1999-2000-2002

Architecture of the high performance broadband network that links Universities, Advanced Education and Research establishments in Quebec. Audit of the deployment of fiber optic links and of the strategy of dark fiber acquisition through purchase or exchange within optical cable condominium with irreversible rights of use. Documentation of the target architecture (IP, POS, SONET, Gigabit Ethernet, WDM, OADM).

3. SYNAPSE

2002

Architectural recommendation for the life-size testbed of 1500 km of optical fibers between Montreal and Rimouski for the 7-partner consortium representing the industrial, academic and carrier segments of the Quebec landscape.

4. CF TELECOM

1995

Planning and design of a SONET network for a Competitive Access Provider (CAP) operating on the Island of Montreal. Network dimensioning. Algorithm for optimizing the SONET rings. Requirements and equipment selection (RFI, RFP). Cost Analysis.

5. COGECO

1999

Planning of the evolution of the Cogeco transport network in support of digital video services and IP-based interactive services. Preliminary design of the SONET network with Wavelength Division Multiplexing and Optical Amplifier technologies. Requirements, Request for Proposals, Vendor and Technology selection.

6. TRANSVISION PLUS

1996

Strategic planning for the evolution from a predominantly analog cable network to a bi-directional digital cable network compatible with digital services (in the Granby area). Optical cable layout plan. HFC (Hybrid Fiber-Coax) technology. Budget requirements.

7. ALPHANET

1998

On behalf of Alphanet, an international voice carrier using the frame relay technology (pre-Voice over IP), planning of the SONET high speed access network and digital cross-connect (DXC) platform for

the major nodes in New-York, Los Angeles and London (UK). Requirements, Request for proposals, Vendor and technology selection and negotiations.

8. HYDRO-QUÉBÉCOM

1995-1996

Participation in the technological strategic planning of Hydro-Québec's diversification in telecommunications. Analysis of architecture for the access network (ATM, Fiber-to-the Home, Fiber-to-the Curb, Hybrid Fiber-Coax)

9. RÉSEAU INTÉGRÉ DE COMMUNICATIONS INFORMATIQUES ET BUREAUTIQUES (RICIB)

1989-1992

Chief Engineer, responsible for delivery of the feasibility study and the Request for Proposals for a unified, integrated, reliable OSI-based network in replacement for the 15 separate networks of the Government of Quebec. Management of a team of 6 professionals.

10. PROSA (MEXICO)

1995

Optimization of the X.25 Mexican banking network in anticipation of the deregulation of that industry and the arrival of international credit card companies. Traffic analysis. Performance modeling. Disaster recovery. Management of a team of 4 professionals.

11. GOUVERNEMENT OF NEW-BRUNSWICK

1987

Business plan for the integration of the multiple separate networks of the New-Brunswick Government into a single integrated and open network. Needs analysis. Traffic analysis. Design of the integrated network. Cost-Benefit Analysis.

12. MOTOROLA

1993

Project Leader of a successful \$ 4M bid for a turn-key project for the development of a dispatching system on behalf of Motorola. Negotiations with the vendors of hardware and software. Financial and contractual negotiations with Motorola.