IBDN *Success Stories*

VANCOUVER INTERNATIONAL AIRPORT AUTHORITY
Expansion and Renovation

The IBDN Structured Cabling System is the basis behind the Vancouver Airport's $250M Expansion and Renovation project, providing superior airport services and meeting customer needs.

The Vancouver International Airport Authority (YVRAA) has embarked upon an extensive project to insure that it is ideally positioned to provide advanced services to its customers. The project involves the expansion of the airport terminals, the creation of new buildings and the renovation of its current structures.

The YVRAA currently provides travelers with a wide range of facilities and services, some of which include a children's play area, a full service Business Center and a full set of banking services. The Airport Authority mission is to serve the community by building a better airport with superior airport services to meet the needs of YVRAA's customers. It is this mission that brought forth the onset of this comprehensive project.

The growing traffic passing through the airport each day, builds a need for faster, reliable voice and data communications. That's one reason why the YVRAA selected an IBDN Structured Cabling System manufactured by NORDX/CDT, Inc. (a subsidiary of Cable Design Technologies), for this project.
"With all of the renovation and new construction to come, we are also in the process of expanding the services and applications that we offer. This means that we have a need to insure flexibility in our communications infrastructure. We chose the IBDN system because it answers this need," explained Mr. Michael Lynn, manager of network and telecomm services, Vancouver International Airport Authority.

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Upon the completion of the project, the YVRAA expects to be able to accommodate an increase in the number of revenue passengers from 15 million to 21.8 million by the year 2015, roughly double the existing traffic level. The first phase of the installation began in March of 1995 and was completed in July of 1996. This phase cabled the following:

- The expansion of the USA Check-in Area. The expanded facility is expected to open in June of 1999.
- The expansion of the International Terminal adding seven jet gates to the building's north wing to accommodate more transborder (Canada-U.S.) flights. The additional seven gates are expected to be in service by June 2000.
- A $32 million concourse expansion connecting the hotel terminal, allowing hotel guests to proceed directly from the lobby to the transborder departure gates. Also, the concourse will provide additional airline check-in counters and baggage space. It is expected to be completed in the summer of 1999.
- An extensive renovation to the South Terminal. The new terminal will have improved utilities, a new terminal with an airside viewing lounge and restaurant and a general facelift. To partially finance these improvements, a new airport improvement fee of $5 is being collected by the airlines serving the South Terminal.

The first-quality product range offered by NORDX/CDT and the wide range of design and installation services provided by its Certified System Vendor, BMS Communications Services Ltd., include a complete set of voice, data, video and security applications.

Expansion Stories

This project cabled 3 auxiliary telephone rooms, 24 communications equipment rooms, 1 main equipment room and 1 main telephone room in the new International Terminal Building, as well as private communications equipment rooms for Canada Customs, Canada Immigration, US Customs, US Immigration and RCMP departments. This phase of the project includes some 10,000 cable runs with single mode and multimode fiber originating from the main equipment room to all 24 communications equipment rooms.

Voice applications include various quantities (75- to 600-pair) of Category 3, FT-4 Backbone cable originating from one of three auxiliary telephone rooms to service all communications equipment rooms within the vicinity. The communications equipment rooms are the termination points for the YVRAA's services (i.e. voice and data). From the workstation outlet to the communications equipment room, all services (whether voice or data) run on IBDNFlex cable within 90m. Approximately 4500 horizontal set runs have been installed for the initial completion phase.

A Customer Service Counter at the Airport

The size of this project and the various applications that are required to utilize this infrastructure makes this a rather unique structured cabling installation. Some of the voice applications include telephone, key system trunk lines, ISDN circuits, dedicated circuits (i.e. alarm), T1 lines, fax, modem and proprietary protocols for customer requirements. Data services include: 10BASE-T, IBM 3270, 100BASE-T, 4/16 MB Token Ring, T1, ISDN, 56k hyper-stream, FDDI, Arcnet, point of sale (POS) systems and proprietary airline reservation systems such as: American Airlines/Canadian Airlines - Sabre System, Continental Airlines - Shares System, Air Canada - ICOT, FIDS (Flight Information Display System), POS systems / Fast Ethernet / Prop, and future ATM applications.

Upon the completion of the first phase of the expansion and renovation project, all inter- and intra-building cabling and associated connection hardware received NORDX/CDT's IBDN Certification in September of 1996. This means that the cable plant and all associated connection and distribution hardware are warranted for 15 years and that the network and voice applications will receive a lifetime application assurance. The warranty guarantees that the cable system will support the intended services for now and well into the future.

Future phases of this project will be completed in various stages over the next several years and will involve the following work:

- The execution of the design and development of a seven-story office tower for YVRAA staff members.
- The construction of a 14-story, 400-room hotel by Canadian Pacific Hotels that will be built at the East End of the terminal. It is expected to open in late 1999.
- The upgrade of the Domestic Terminal such as expanded baggage carousel facilities, construction of additional retail space, replacement of internal systems and a general facelift. The cabling in this building will include some 14 communications equipment rooms, 1 main equipment room and 1 main telephone room.

A model of the International Terminal expansion project. At the back of the picture is a planned gate expansion. At the right forefront is the new hotel.

All future installations will also be certified by NORDX/CDT under its new Warranty Program in effect as of January 1998. All installations after this date will be Certified under this new program that will provide the installed connection and distribution hardware at the YVRAA with a 25 year warranty and the network and voice applications with a lifetime application assurance.

Once completed, the YVRAA can rest assured that its fast-paced environment and its ever-increasing traffic flow and new applications will be supported. This installation will deliver the benefits of a flexible, reliable network cabling system that is ready to bring the YVRAA into the future.

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