

PCS WIRELESS, INC.

Changing the way the world communicates

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Annual General Meeting

Vancouver, B.C. - August 23, 1995

OVERVIEW

- u Our Distributed Antenna Array Technology
- u Fiscal 1995 in Review
- u International Activities
- u CDMA - What Happened?
- u Outlook and Projections



FY '95 in Review: Highlights

- u Sold \$1.4 million of MEX and BEX products to 11 customers in 7 different countries
- u Completed successful field trials of RAD and RASP and sold \$300,000 of these products
- u Positioned company for sales of RAD and RASP products into rollout of North American PCS networks
- u Raised \$2.3 million through exercise of 5 million share purchase warrants

Company Performance - Financing

- Cash on hand - February 28, 1995: \$116,132
- \$10.8 million Special Warrant Financing - July 1995
- \$3.5 million exercise of warrants and share options - March through June 1995
- Cash on hand August 23, 1995 - in excess of \$11.5 million

The Wait for PCS is Over...

- u New wireless systems offer secure voice / data in:

- wide area mobility
- business

AND

- residential service
(i.e. LOCAL LOOP)

- u PCS is here NOW



The REAL target of PCS

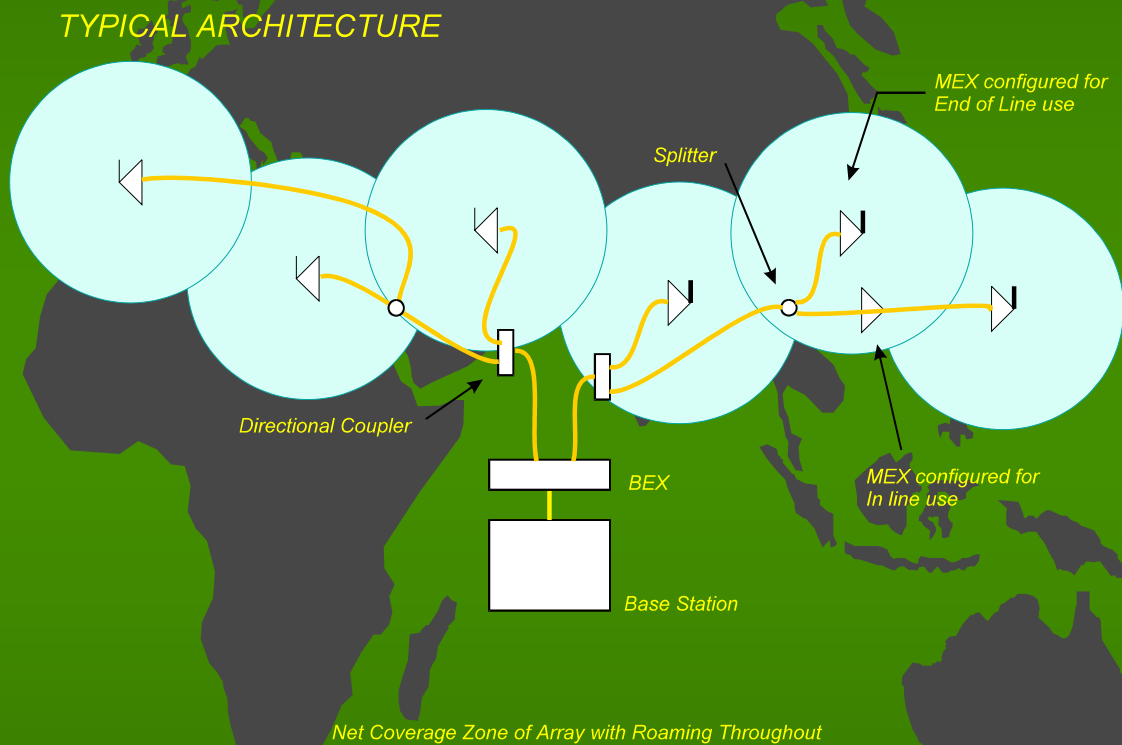
Our Distributed Antenna Arrays

- u Replace high power transmission towers
- u Integrate Cable-TV and wireless networks
- u Extend the reach of wireless service into buildings, tunnels, undergrounds and homes
- u Help wireless network operators fulfill the promise of affordable, ubiquitous, advanced personal communications services



DAA Overview

- u Networks of smart, low-power repeaters
- u Centralized resources
- u Minimize costs



Activities in Canada



- Sep'94: Major CT2+ contract announced with Microcell 1-2-1
- Dec'94: Industry Canada announces PCS licensing process; Microcell 1-2-1 cancels CT2+ contract
- May'95: Renewed MoU with Microcell 1-2-1 for 1.9GHz products
- *Dec'95: Industry Canada announces PCS license holders*
- *1996: Network rollout begins*

A horizontal yellow arrow pointing from left to right, indicating the progression of time.

1994

1995

1996

Activities in Asia

- June '94: China - Purchase of 5 CT-2 trial systems
Operators: Guangzhou, Shenzhen, Shenvang, Wenzhou, Dalian
- Dec '94: Sale of additional CT-2 systems to China
- Jan '95: Extensive CT-2 trials underway in China
- Aug '95: Sale of US\$560K of CT-2 MEX/BEX units
- *Sep '95: PCS Wireless holds seminar in China*
- *Feb '96: PCS1900 systems expansion into Korea*



1994

1995

1996

Activities in Europe



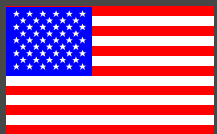
- July'94 - May'95: Sale of CT-2 BEX/MEX Trial Systems to France Telecom, Matra Communication and Dassault AT
- Fall'95: GSM Cellular MEX trial in UK
- Fall'95: Projected commercial sales of CT-2 system

1994

1995

1996

Activities in the US



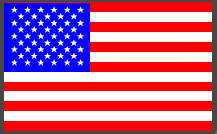
- Sep'94-Jun'95: Sale of prototype Platform RAD to Ericsson, Motorola, NorTel, AT&T, Nokia
- Mar'95: Major Supply Agreement with Motorola for Platform RAD units
- Apr'95: Major Supply Agreement with Ericsson for GSM Platform RAD units
- Jul'95: Sprint Telecommunication Venture (STV) selects CDMA technology

1994

1995

1996

Activities in the US



- u Aug'95: Ericsson GSM Supply Agreement cancelled
- u *Aug'95: Expected pre-production CDMA system marketing trials*
- u *Nov/Dec'95: Major CDMA network vendors selected*
- u *Oct'95: Cellular MEX commercial trial*
- u *Q1'96: CATV/CDMA network rollout begins*

1994

1995

1996

CDMA - Industry Situation

CDMA

- New technology
- Untried
- Made in America

GSM (Global)

- Proven technology
- Extensively tested
- European

CDMA - Market Positioning

Ericsson

- u No CDMA
- u Must win time to market
- u Spent significant \$\$\$ attempting to secure STV contract

Nortel

- u Supplies both CDMA and GSM

AT&T

- u CDMA ONLY, NO GSM
- u Very confident in CDMA
- u Have financing capability

Motorola

- u Supplies both CDMA and GSM
- u Switched trials to CDMA 4 months ago

Outlook and Projections: The US PCS Market

- υ 102 major licenses (MTA) issued
- υ Almost 500 additional basic licenses (BTA) due to be auctioned
- υ When all is said and done:
 - 6 new service providers everywhere in US
 - **PLUS** 2 existing cellular providers
 - **PLUS** several additional data and 2-way paging operators

Outlook and Projections: The US PCS Market

CDMA National Service

- PrimeCo + cellular backfill
- STV (over CATV, from scratch)
- NAW (from scratch)

IS136 National Service

- AT&T Wireless
+ cellular backfill

PCS GSM National Service

- GO (from scratch)
- DCR (from scratch)

Others

- BellSouth (GSM)
- PacTel (GSM)
- WesternPCS (GSM)
- APC (GSM)

SUMMARY

- υ FY'96 was a building year
- υ We are well positioned to supply CATV based PCS systems (RADS) for BOTH GSM and CDMA
- υ We have over \$10 m cash on hand
- υ We have a superb development team
- υ We are diversifying our product line and expanding into new international markets

Overview

- u PCS Wireless, Inc.
- u Meeting Operator Challenges
- u CablePATH RAD/RASP Overview
- u New Project:
 - HomePATH 1.9GHz
 - MEX slaved to RAD
- u CablePATH RAD/RASP Training
- u Other issues

PCS Wireless, Inc.

- u Who are we ?
 - a Vancouver based, Canadian public company
 - a pioneer in Distributed Antenna Array technology since 1990
- u What do we bring to the industry?
 - a fresh set of network deployment alternatives
 - efficient, low-cost indoor/outdoor wireless coverage deployment solutions

Meeting Operator Challenges

u Offer a new generation of wireless services:



Quickly

- Planning
- Buildout
- Marketing



Affordably

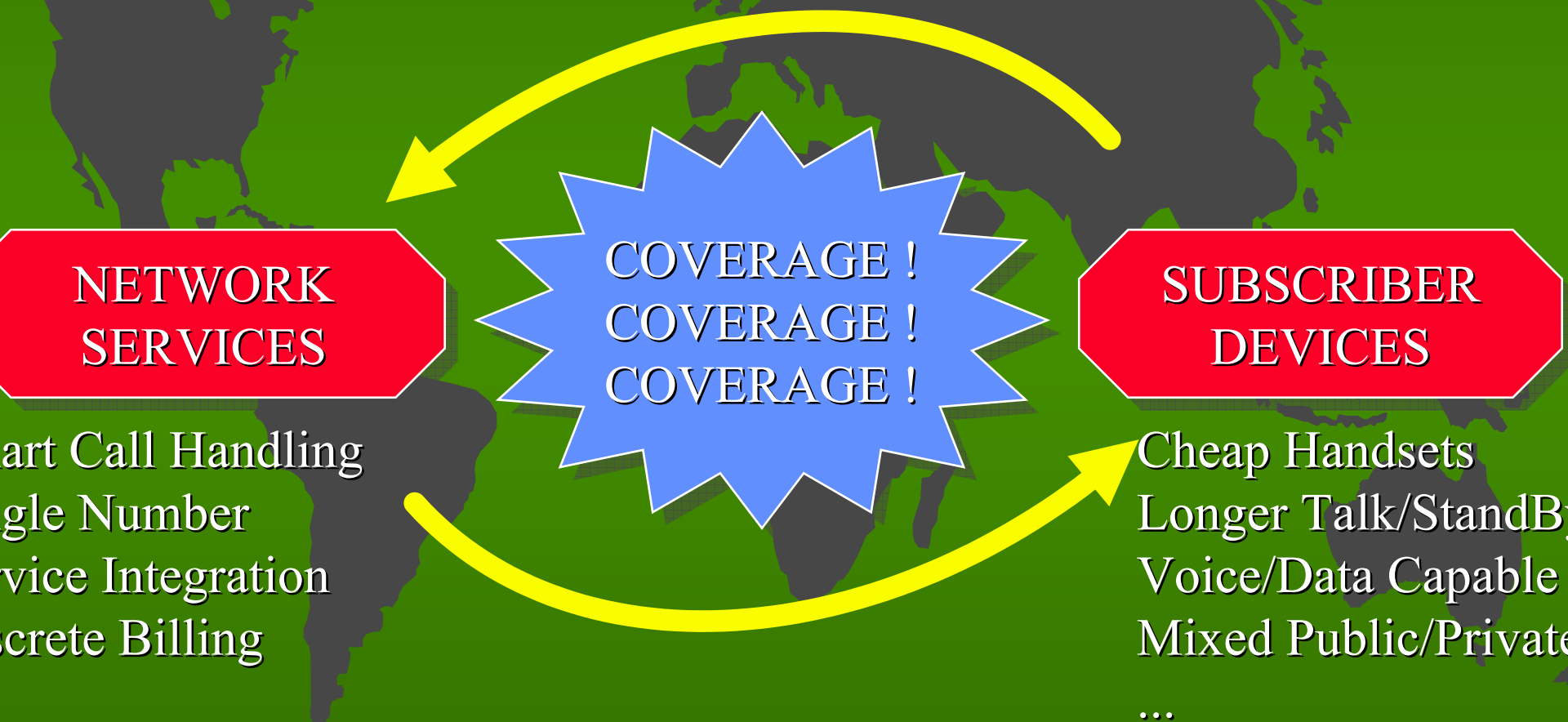
- Infrastructure
- Operations
- Subscriber



Creatively

- Distribution
- New markets
- Integration

The RF Delivery Factor



RF Delivery Alternatives

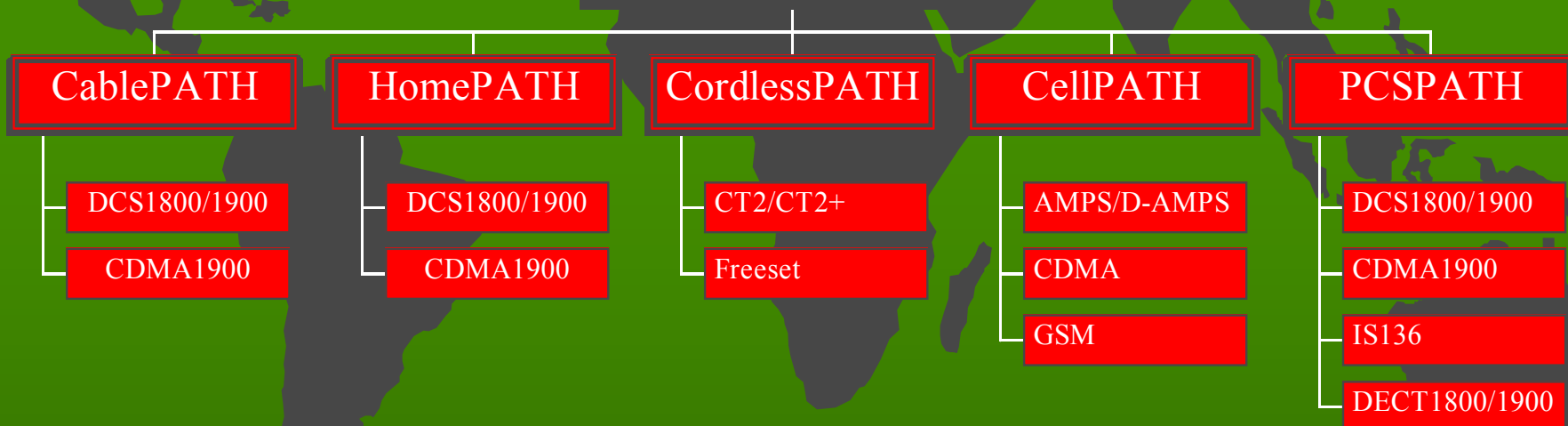
- ▮ Conventional Distributed Base Stations
- ▮ Passive Distributed Antennas
- ▮ Active Distributed Antennas

Performance



PCS Wireless Product Family

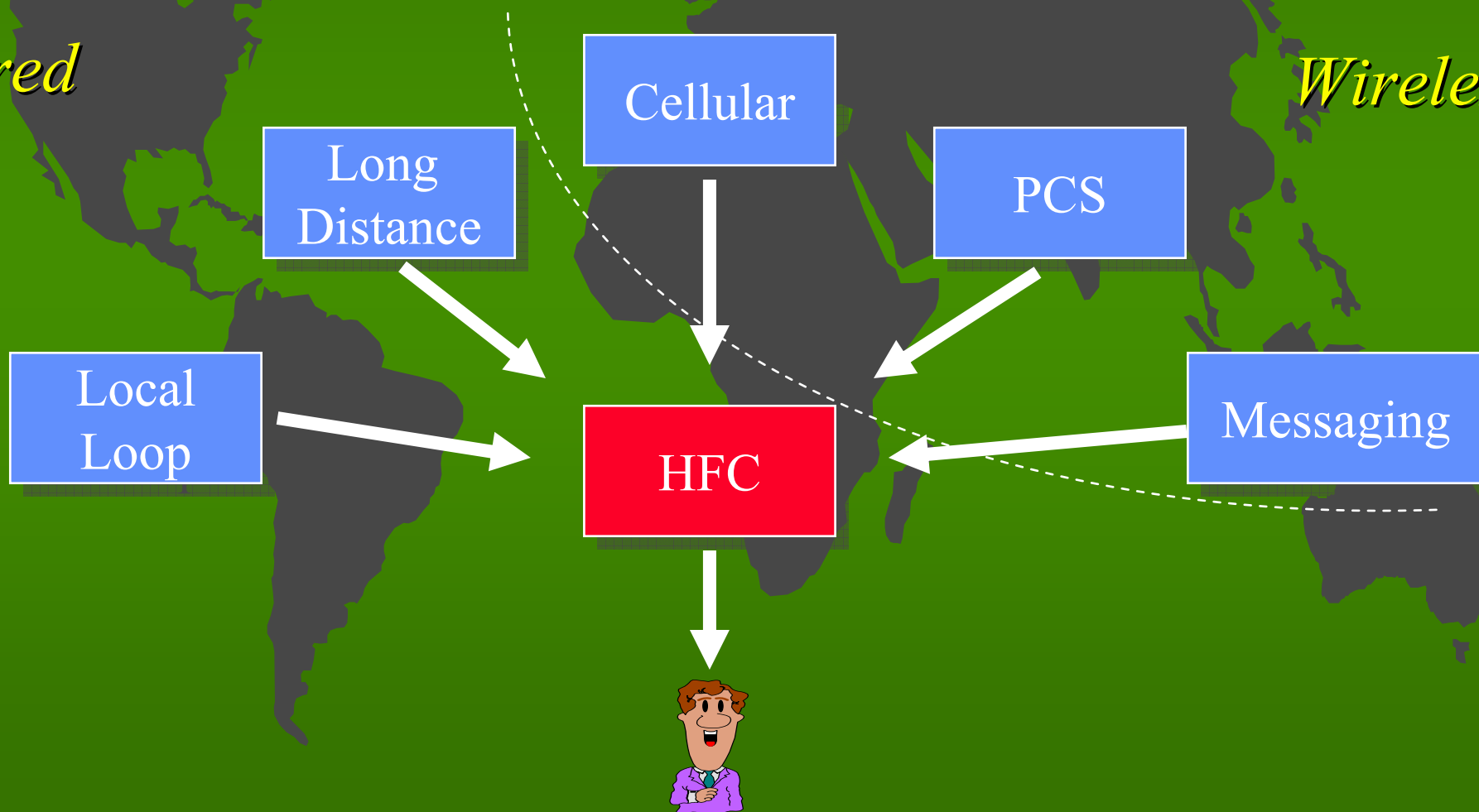
PATHWAY



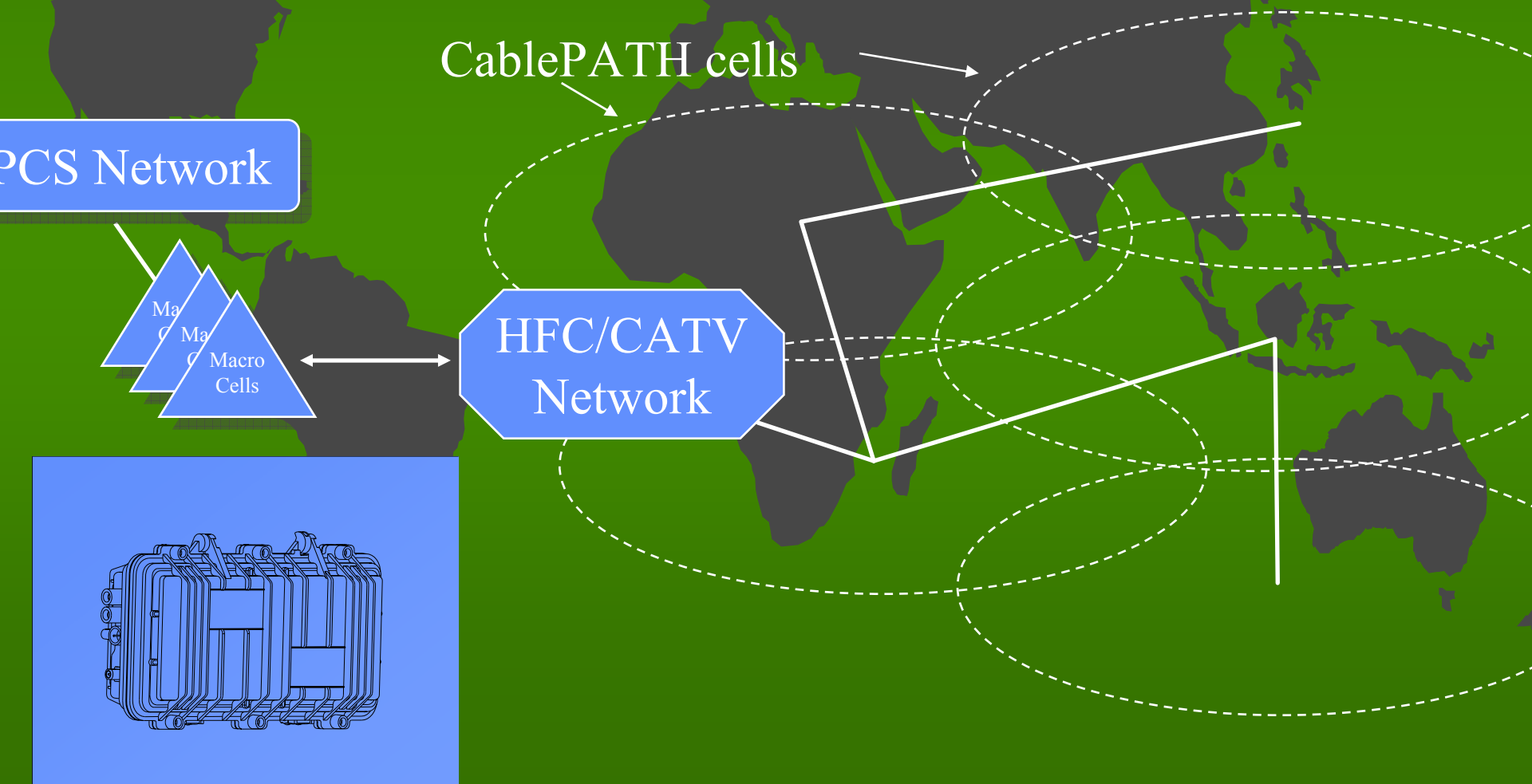
Network Convergence: The Hybrid Fiber Coax Factor

Tired

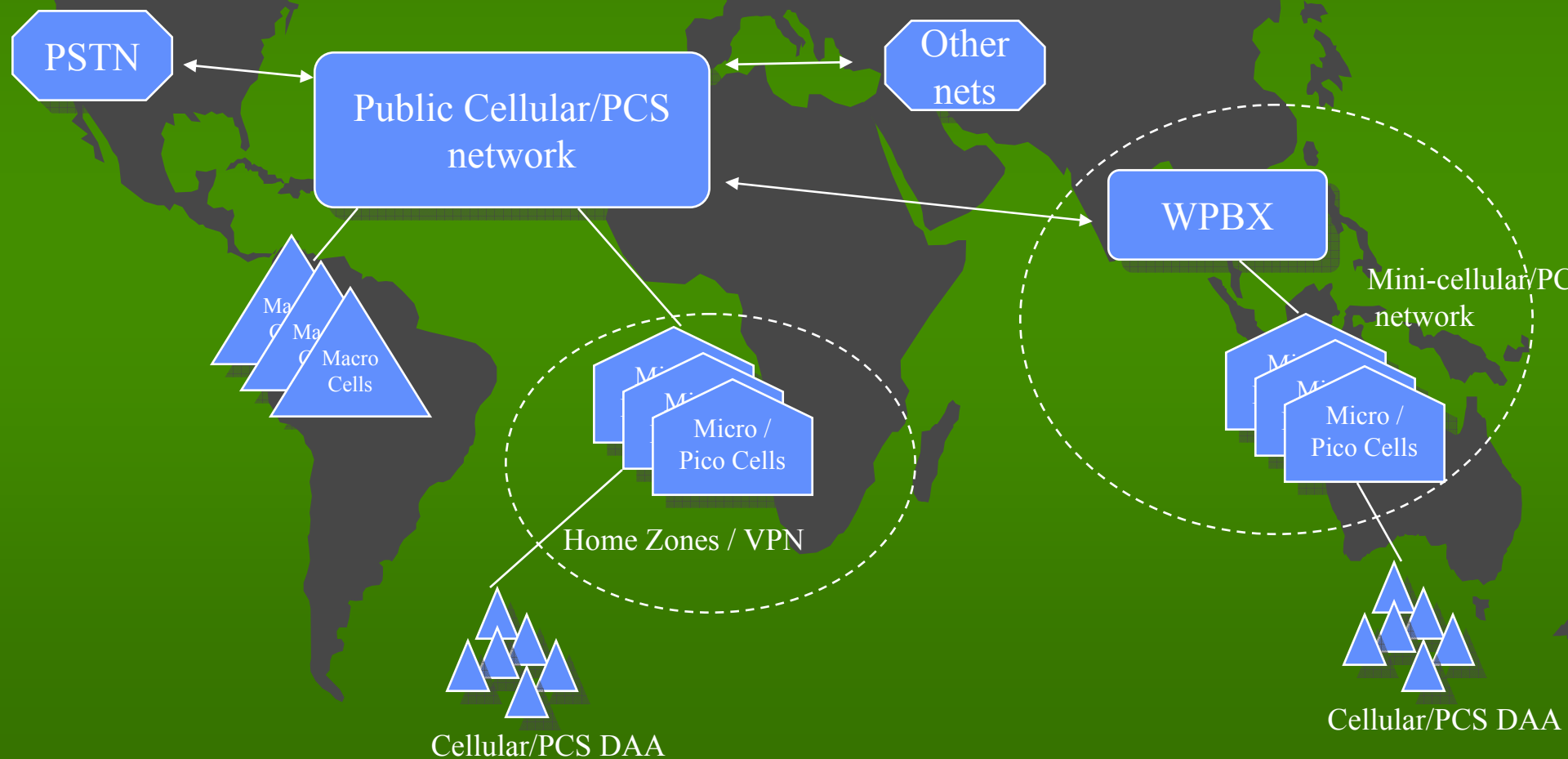
Wireless



CablePATH RAD/RASP



CellPATH & PCSPATH Public/Private Application



PCSPATH 1.9GHz MEX

- u Public and private market subnets slaved off a RAD acting as a “gateway”
- u Uses dedicated coaxial cable. This allows multi-band, multi-vendor usages (e.g. mixed public 1.9GHz network with private 902 MHz networks).

Field Trials

United States



- Time Warner
 - Satcom
 - Cable Montana
 - US West
 - Pactel
 - US CableLabs
 - Cablevision Systems Corp
 - COX
 - Adelphia
 - Motorola/RTI
 - Ericsson/COX
 - Motorola/COX
 - Northern Telecom/COX
 - AT&T Network Systems
 - Nokia
- CATV CT-2 PCS Network
 - MMDS PCS Network
 - CATV PCS Network
 - CT-2 PCS Network
 - DCT900 Wireless PBX
 - CATV PCS Network
 - Multi-Standard RAD
 - Vehicular CATV PCS Network
 - CDMA CATV PCS Network
 - CATV PCS Network
 - Vehicular PCS Network
 - DCS1900 CATV PCS Network
 - DCS/CDMA 1900 CATV PCS Network
 - DCS1900 CATV PCS Network
 - CDMA1900 CATV PCS Network
 - DCS1900 CATV PCS Network

Field Trials

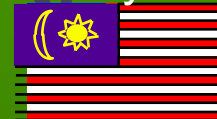
Public Area CT-2
MEX Networks

- Hutchison
- Pacific Telelink
- Chevalier Telepoint
- Malaysia Telekom
- Singapore Telecom
- France Telecom

Hong Kong



Malaysia



Singapore



France

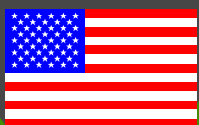


Current Sales

Regulatory Approvals Pending

Regulatory Approved

United States



DCT900 Ericsson Freeset
In-Building MEX Network

- Telesis - John Muir Hospital
- Motorola - DCS1900 Platform RAD
- Ericsson - DCS1900 Platform RAD

Public Area CT-2
MEX Networks

- Chinese CT-2
- Hutchison
- Vietnam/
Steamers
Communications
- Telecom Australia
(Telstra)

Hong Kong



Vietnam

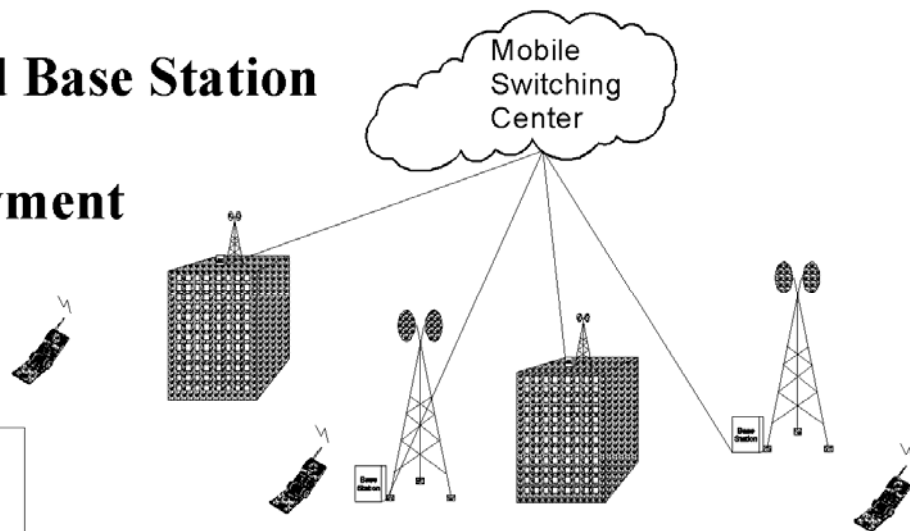
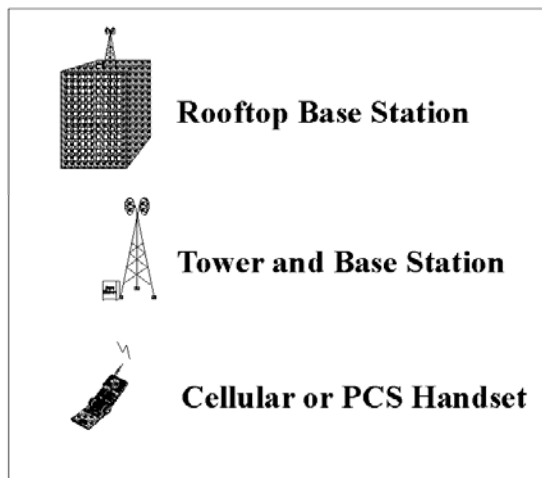


Australia

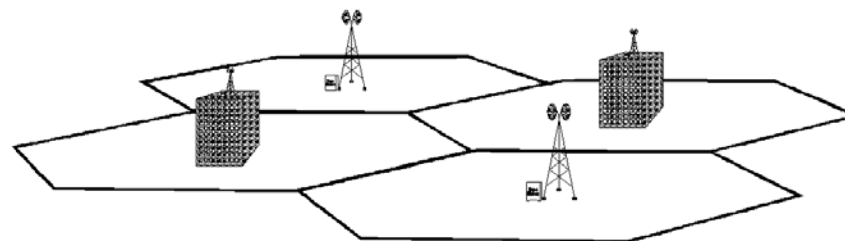


Distributed Base Stations

Conventional Distributed Base Station Macro-Cell Coverage Deployment



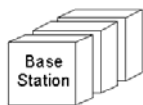
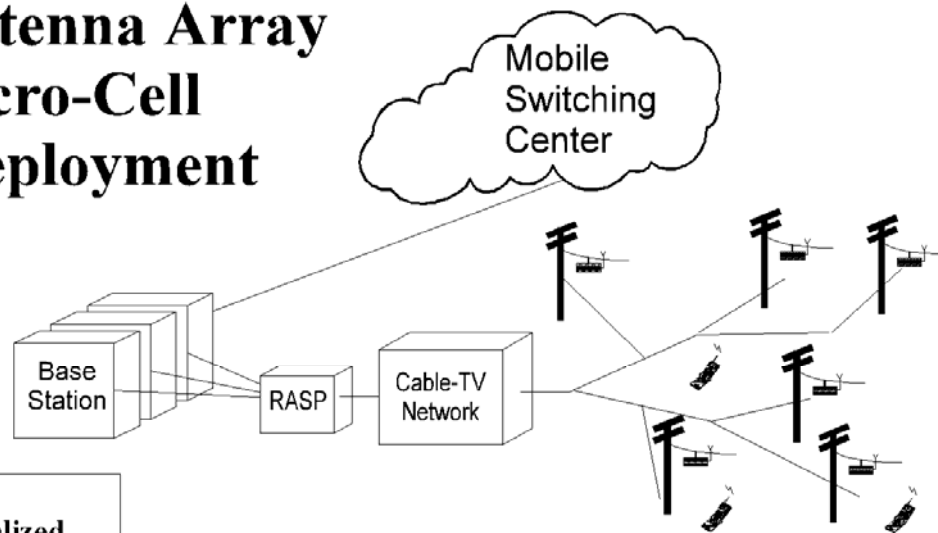
Network Architecture



Resulting Coverage

Distributed Antennas

Distributed Antenna Array CATV Micro-Cell Coverage Deployment



Base Stations Centralized at Head End location



Remote Antenna Driver (RAD) Mounted on Cable-TV Plant

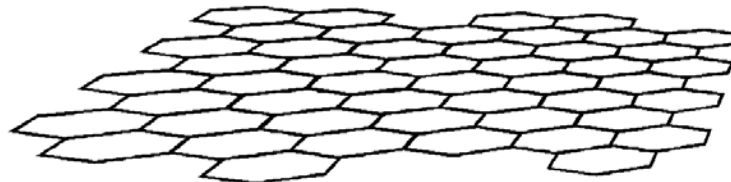


Remote Antenna Signal Processor (RASP) provides interface between base stations and CATV network



Cellular or PCS Handset

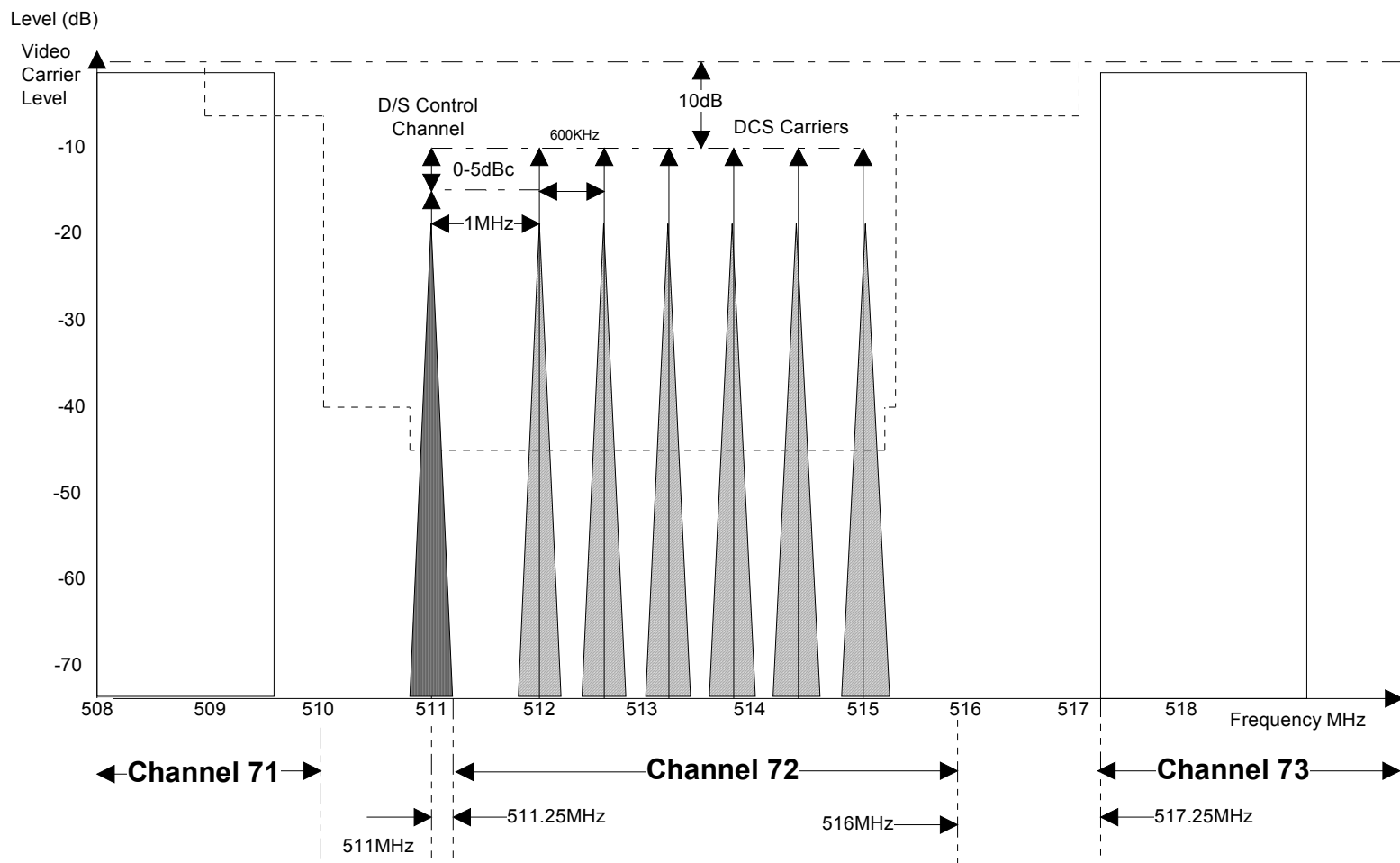
Network Architecture



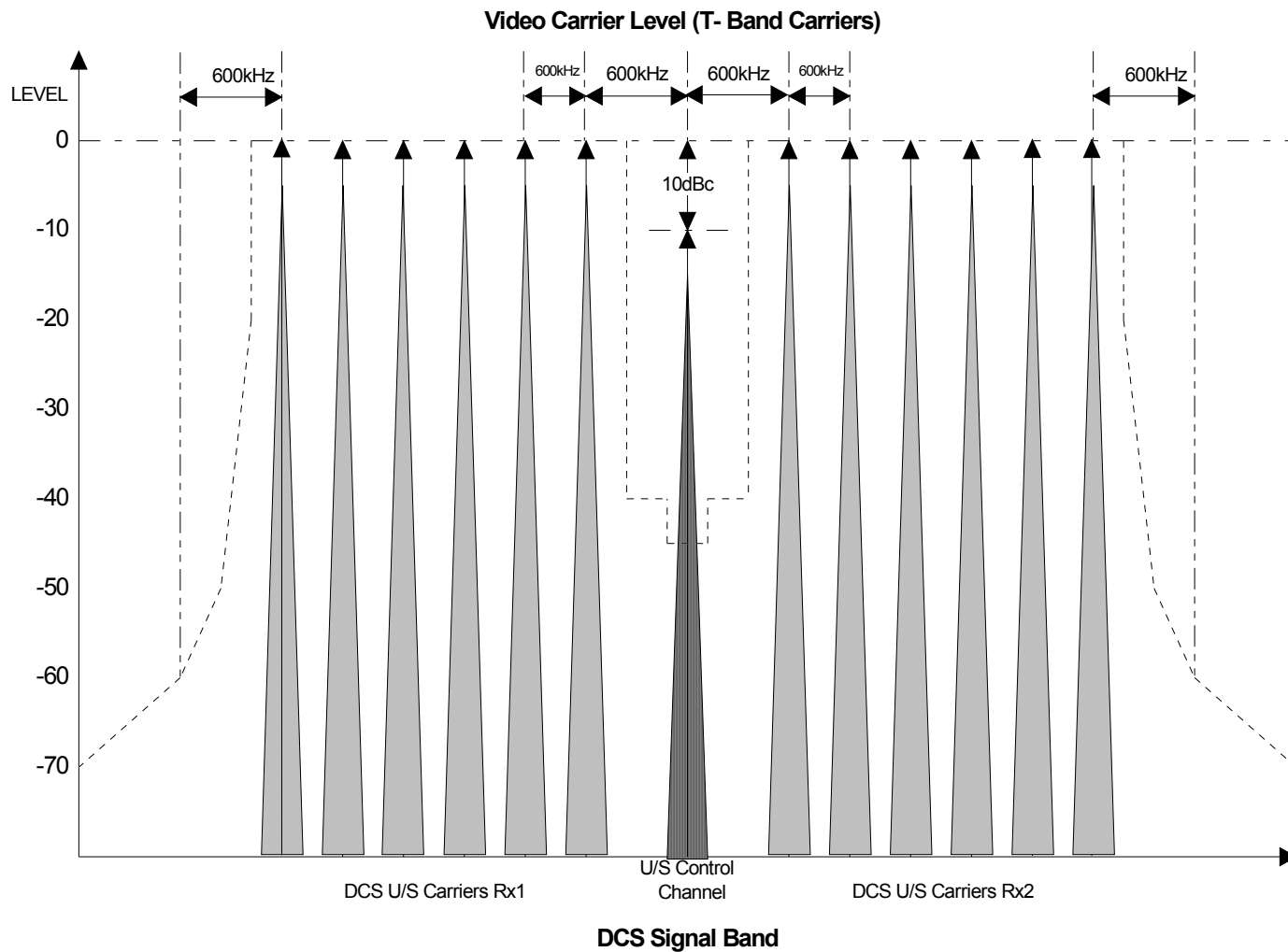
Resulting Coverage

Typical DCS1900 Tx over CATV

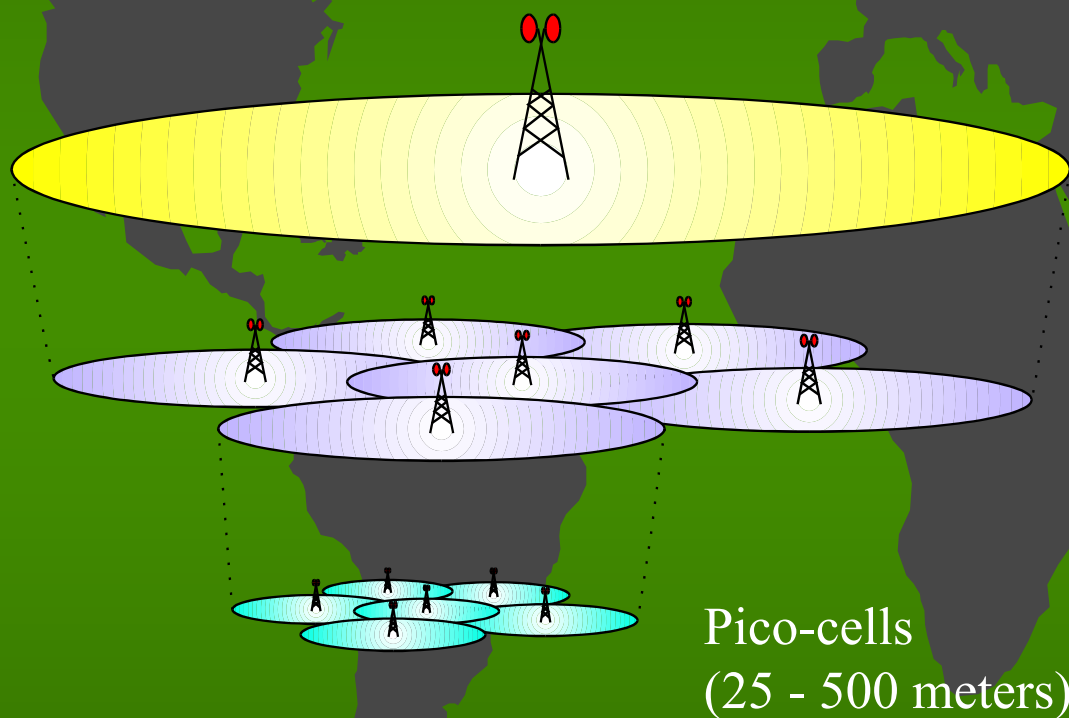
Six D/S DCS Carriers and 1 Control Carrier in a 4.5MHz "Channel Slot" for an IRC CATV Plant



Typical DCS1900 Rx over CATV



Conventional Coverage Deployment



Macro-cells
(5 - 20 km)

Micro-cells
(0.5 - 5 km)

Pico-cells
(25 - 500 meters)

Cellular

\$

PC

\$\$

\$\$\$




Wireless Services Evolution

	Cordless 70's	Cellular 80's	PCS 90's
Technology	Analog	Analog/Digital	Full digital
Mobility	Limited	Vehicular	Vehicular/Pedestrian
Market	Residential	Business	Multiple
Capacity	Voice only	Voice, some data	Voice and data
Privacy	Unprotected	Unprotected	Complete
Cost	Low	High	Low/medium



“PCS is likely to be a \$50 Billion industry by the close of the decade. The system will serve as many as 150 million people world-wide and 60 million people in the United States . . .”

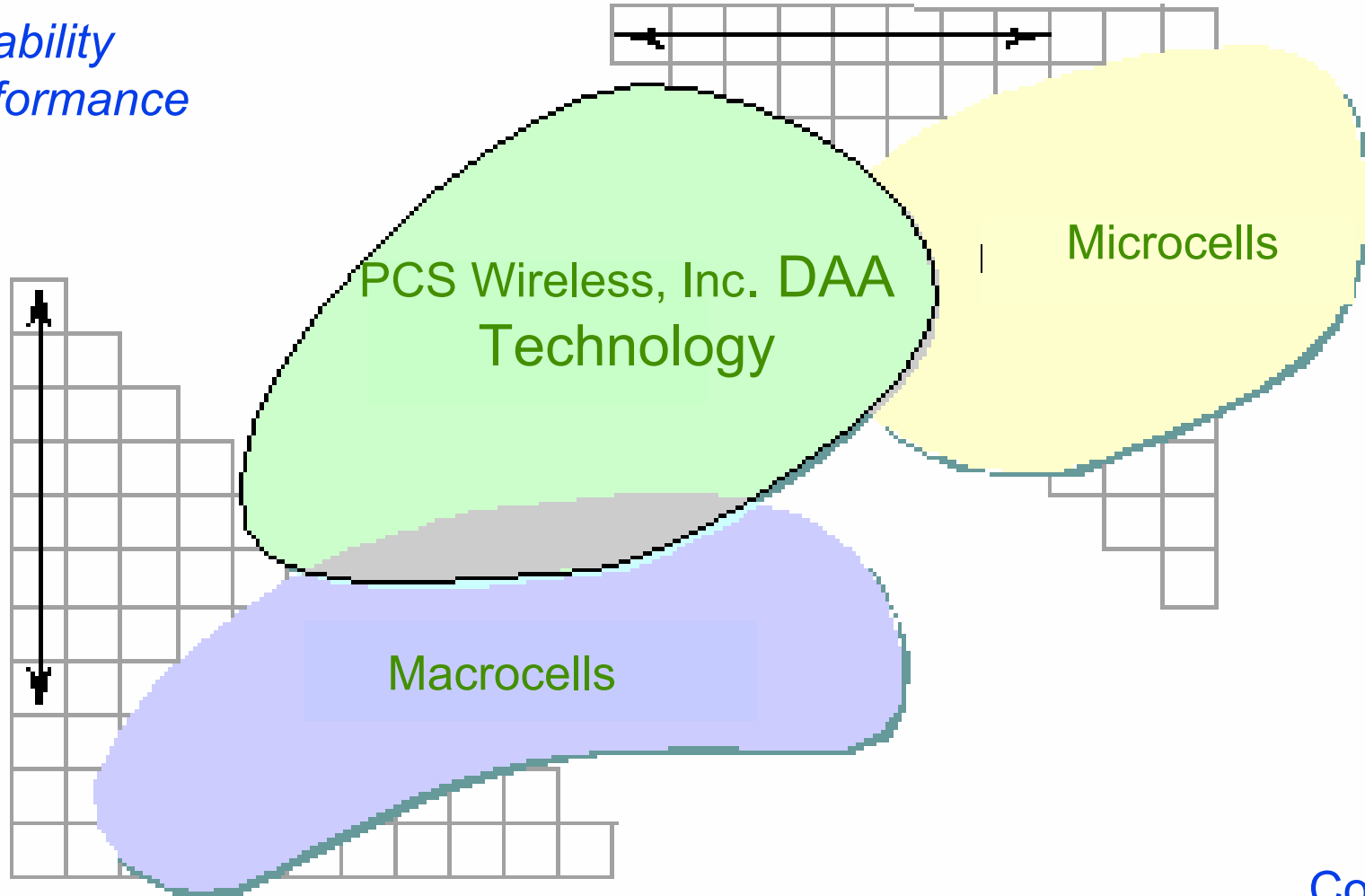
- IEEE Communications



“The next decade will see the emergence of fortunes in ever-changing transmutations of PCN, digital video, multimedia and wireless computers that dwarf the yields of cable and cellular.”

- Forbes Magazine

Capability
/Performance



Cost

Field Trials

Canada



- Rogers
 - World's First CATV Based PCS Ntwk
- Canadian CableLabs
 - CATV Network CT-2 RAD Trials
- Cantel
 - Public Area CT-2 MEX Trials
- BC Mobility
 - In-Building Wireless PBX MEX Trials
- Northern Telecom
 - CT-2+ Trials
- Ericsson
 - DCT900 Freeset Trials
- Telezone
 - CT-2+ Public Network
- Microcell 1-2-1
 - CT-2+ Public Network

Intellectual Property

- Protection Mechanisms
- Patents, Pending Patents
- Trade Secrets
- Copyrights
- Know-How

Key Operating Personnel

Ralph Scobie

President & CEO

Derek Spratt

Executive VP

Andrew Beasley

VP Technology

Paul Lancaster

VP Engineering

Suresh Singh

VP Operations

Guylain Roy

Director of Sales

Key Operating Personnel (Cont.)

Richard Topham

Financial Controller

Evelyn Haines

Office Administrator

Anthony Chu

Director of Quality

Stephen Vandenbrink

Project Manager - 900 MEX

Dean Schebel

Project Manager - All RAD

Brad Kelly/Bob Ballam

Project Managers - 1.9 MEX

Lewis Yu

Asia Sales Mgr

Herman Van de Kerkoff

Manufacturing Mgr

Paul Marcanto

Service Supervisor

Board of Directors

Ralph Scobie

Derek Spratt

Don Sheldon

Todd Parker

Director

Director

Director

Outside Director

Finances: Capitalization Structure

- 20,500,000 issued and outstanding shares
- 24,000,000 fully diluted
- Initial private placements for financing the business were handled by Canaccord and First Marathon
- Completed a \$7 Million financing in the last year for business operations/aquisition

Finances: 4 Year Proformas (000's)

	1995	1996	1997	1998	Totals
Revenue	4,120	16,594	27,925	48,911	96,675
COGS	1,430	7,723	13,471	22,358	49,781
R&D	1,008	2,544	4,743	8,384	17,277
SG&A	2,680	4,863	6,469	9,702	22,805
Net Income	(998)	1,464	3,242	6,604	9,813