

# COMMUNICATING THE FUTURE

Wireless Solutions

STAND 12

# INTRODUCTION

- AIM OF PRESENTATION.
- RAFT SYSTEMS / STRATEX NETWORKS RELATIONSHIP.
- WIRELESS TECHNOLOGY.
- REAL EXAMPLE CASE STUDY.
- SUMMARY.

## RAFT AND STRATEX NETWORKS IN PARTNERSHIP

- RAFT Systems established 1987 in the UK.
- Stratex Networks (formerly DMC) established in 1984 (USA), UK since 1988.
- Working relationship since 1992.
- Turnkey Wireless Systems Solutions.
- Long Established Relationship - Strong Links with Academia. .

## THE WIRELESS ADVANTAGE

- Faster to deploy than wired infrastructure.
- No right-of-way issues.
- Lower total cost of ownership.
- Coverage over difficult terrain.
- Flexibility for network upgrades or changes.
- Quick return on investment.

# THE WIRELESS TECHNOLOGIES OFFERED



## Digital Microwave Radio Systems

## Laser or Free Space Optical Systems



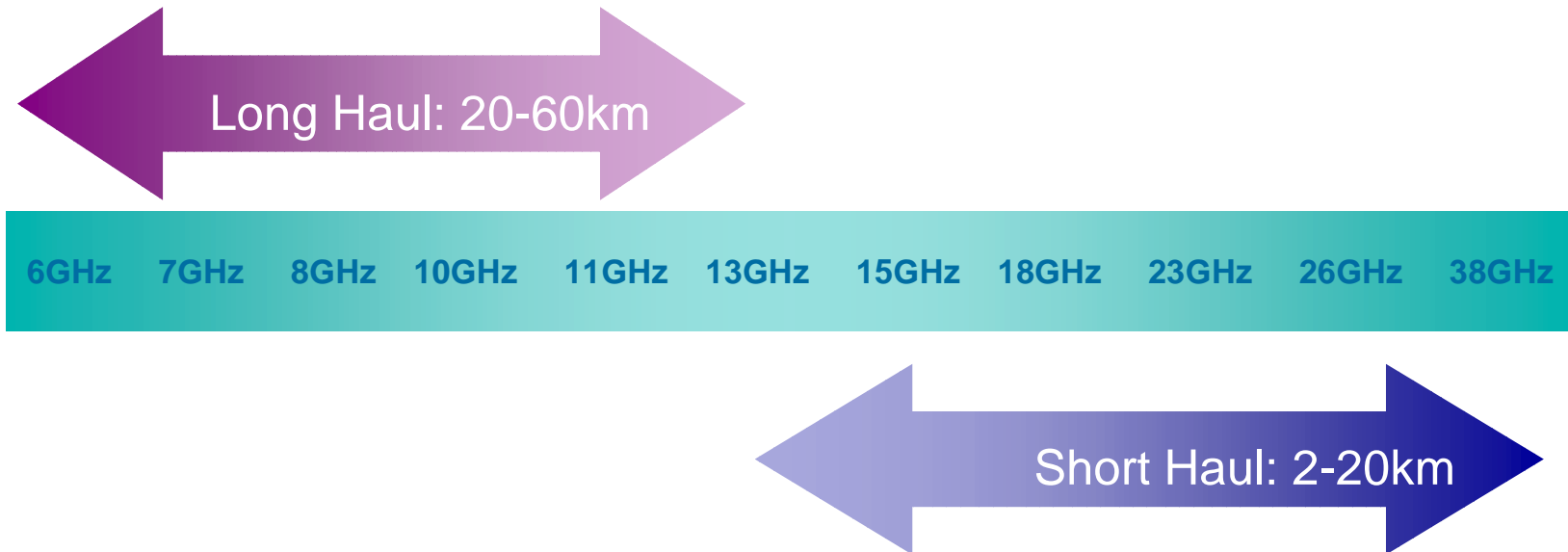
## MICROWAVE RADIO

- Modern microwave radio systems are digital
- Split mount configuration
- Slip-Fit Antennas
- E1 to n x STM-1 capacity rates with 10BT/100BT data rates

## FREE SPACE OPTICS

- 2nd Generation of products
- Advanced technology
- Mix of software switchable interfaces
- STM-4, STM-1/100BT capacity rates

## TYPICAL DISTANCES - MICROWAVE



Dependant upon Frequency and Antenna size

## TYPICAL DISTANCES - FSO

- Dependant upon environmental conditions
- Dense or freezing fog areas, typ. 500m
- Non-fog environments, typ. 2Km

## CASE STUDY

# A METROPOLITAN AREA NETWORK FOR KENT

## THE REQUIREMENT

In 1999 a consortium of Higher Education Institutions (HEIs), came out to tender for high speed telecommunications facilities to provide a Metropolitan Area Network (MAN) in Kent and to provide connectivity within multi-campus HEIs.

Raft Systems offered a microwave radio solution, using Stratex Networks radios, and won the business.

## THE SOLUTION

**A developed progressive solution of three phases.**

- Phase 1 - 155MBit/s Microwave radio backbone.
- Phase 2 - 34MBit/s access radio links to satellite sites.
- Phase 3 - Extension of the backbone to form a ring.

# PLANNING A ROUTE

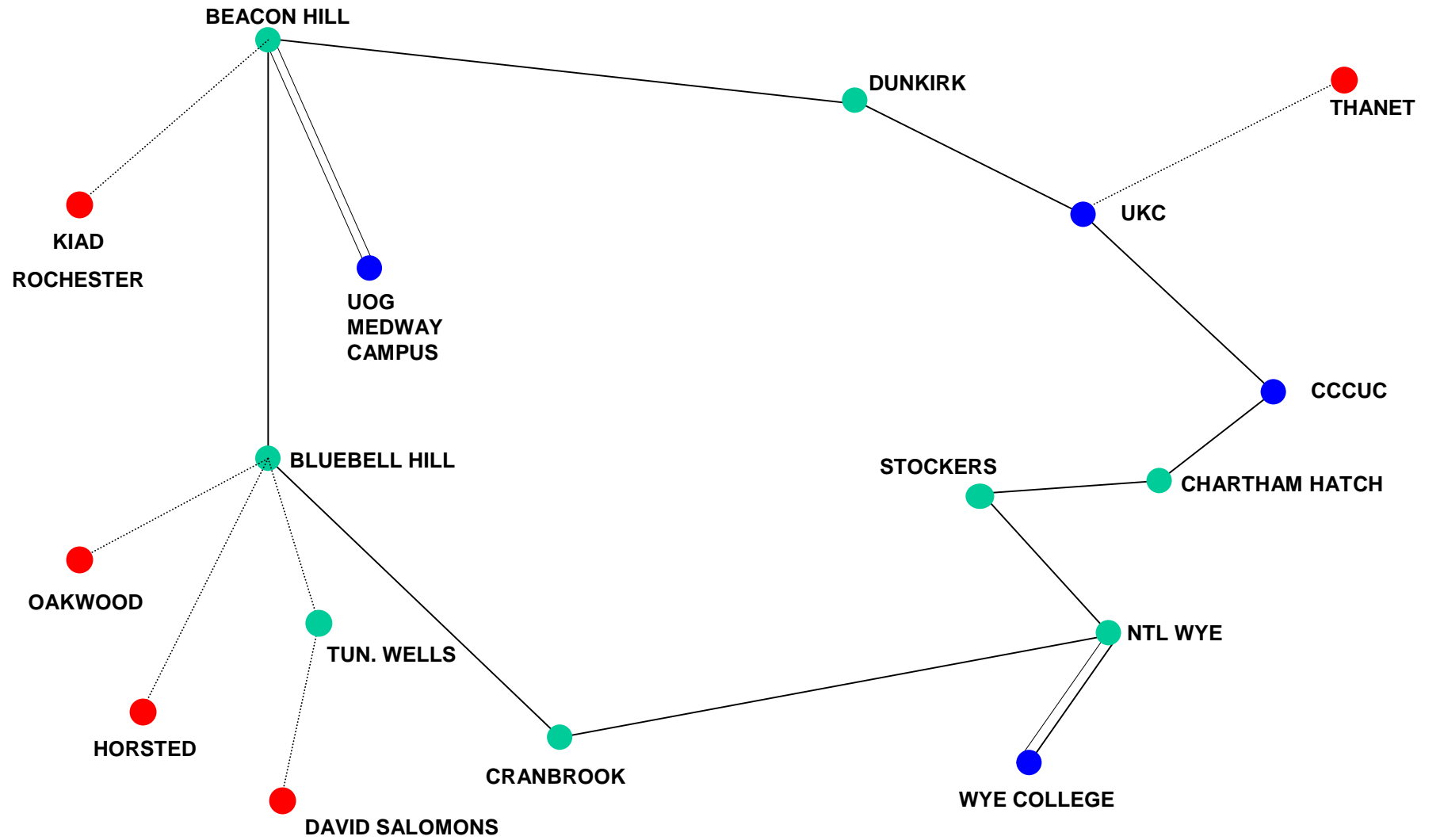
## Considerations






- LOS requirement
- Difficult Topography
- Repeater Site Acquisition
- Phase II Considerations

# PLANNING A ROUTE

## Implementation

- Initial Map Study.
- Path Profiles.
- Path Performance Calculations.
- LOS Surveys.
- Frequency Applications.
- Site Share Applications.



	155MBit/s Link		155MBit/s node
	34MBit/s Link		34MBit/s node
			Repeater

IN PARTNERSHIP  
WITH EDUCATION



## SUMMARY

- Well established relationship between RAFT Systems and Stratex Networks
- Wireless solutions from E1 to STM-4
- Full Turnkey capability
- Many successful academia projects
- Good solid reputation
- Excellent pre- and post sales support

# COMMUNICATING THE FUTURE

## Wireless Solutions

<http://www.raft-systems.co.uk>

**Contact: Matthew Hutchins  
Business Development Manager**

**Tel: 023 92 253195**

**E-Mail: [matthew-hutchins@raft-systems.co.uk](mailto:matthew-hutchins@raft-systems.co.uk)**