



# 16-Channel Multi-Format DCI Line System

MPB Communications Inc.

OIDA Technology Showcase  
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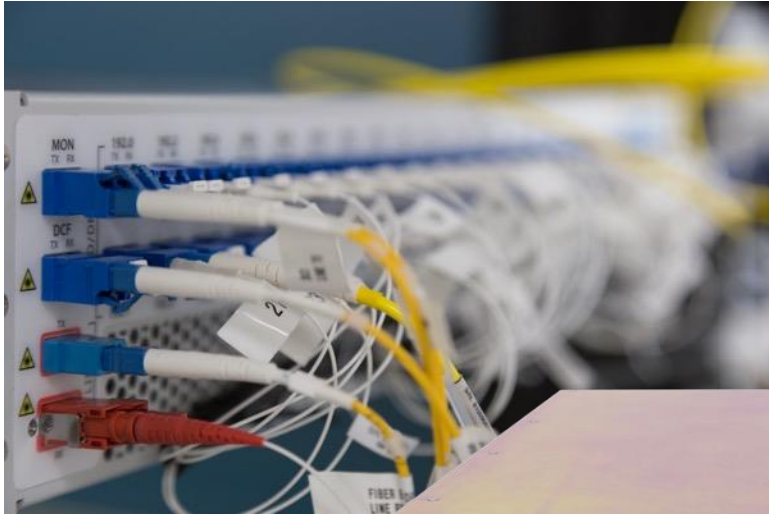
# We know how to amplify



PRAT, Chile  
Longest unrepeated link: 418 km

# So why DCI?

## DCI LR & SR Series



- Provides all of the optical grooming necessary for transmission of up to 40 DWDM PAM4 channels
- 5 km to 120 km SMF
- Zero-Touch Provisioning (ZTP)



# Challenge accepted

*DCI LR & SR Series*

- High power erbium-doped fiber booster amplifier and preamplifier
- Wavelength multiplexing/demultiplexing
- Power and dispersion control
- Fiber integrity monitoring
- Automated Zero-Touch Provisioning



# Then came ECO

*DCI ECO Series*



- 1U single box solution
- Supports up to 8 PAM4 QSFP28 100G channels
- Flexible configuration options
  - Optional Zero-Touch Provisioning
  - Optional VOA for manual link budget adjustment
  - Optional tunable dispersion compensation module
  - Optional remote fiber characterization with OTDR
  - Optional remote monitoring of far end unit

# For Today *and* Tomorrow

## 16-Channel Multi-Format DCI Line System

### Multi-protocol capability from a single unit on a single fiber

- Pay as you go provisioning
- Support legacy 10G lambdas investments as well as providing seamless upgrade path from 10G to 100G and 400G ready
- Zero-Touch Provisioning

**NEW!**



# Addressing your needs

## 16-Channel Multi-Format DCI Line System

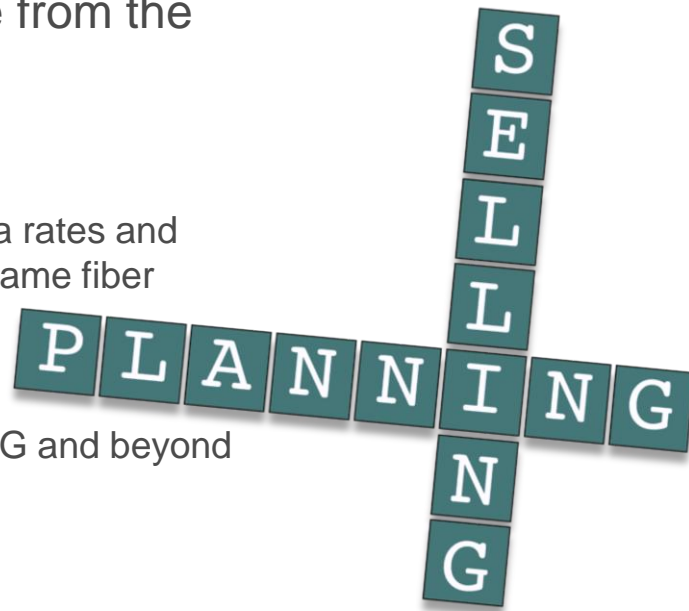
The target customers for this product range from the customers who are:

### Selling Wavelengths –

need for transmitting wavelengths at different data rates and different data formats (Coherent / PAM4) on the same fiber

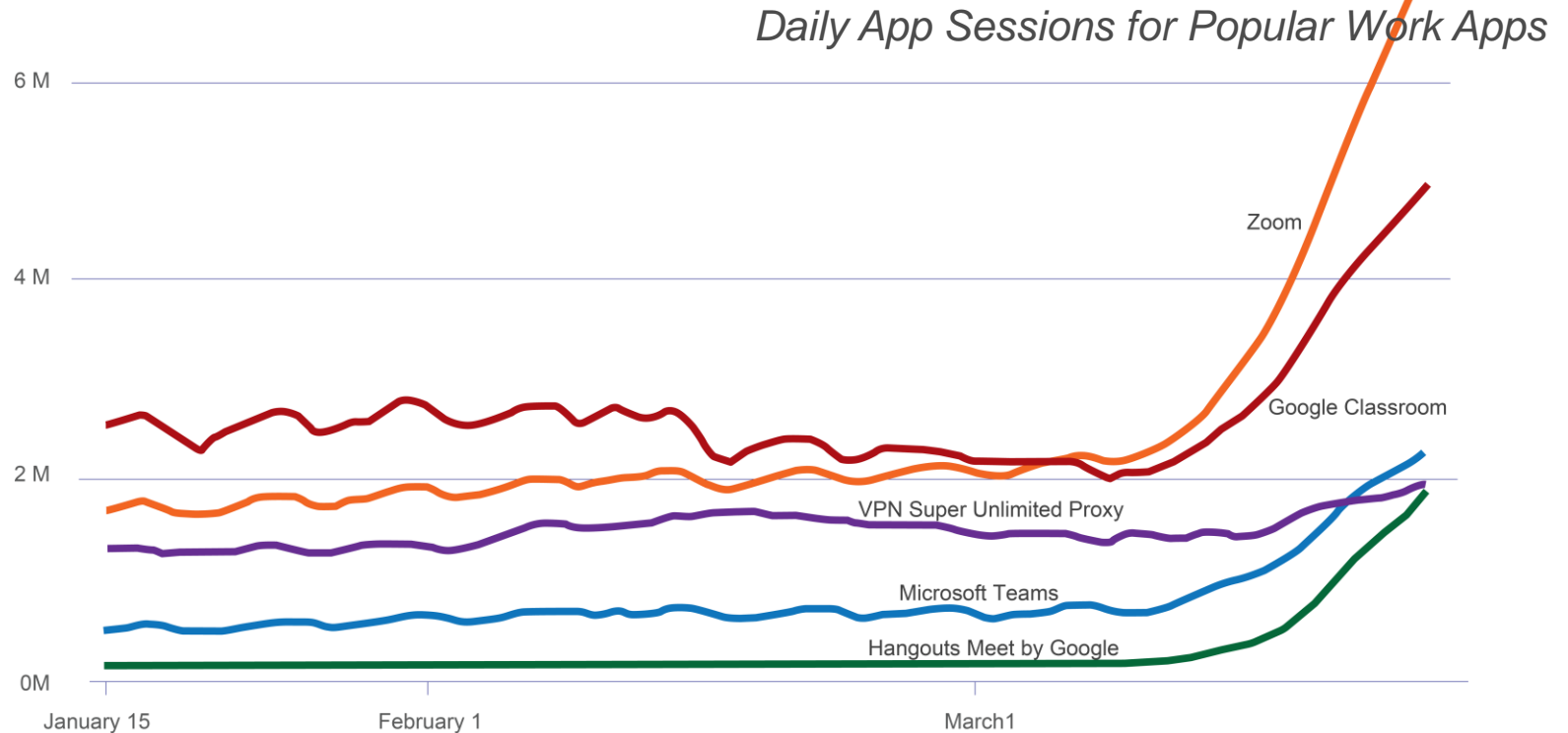
### Planning for Future Growth –

carrying 10G traffic & would like to expand to 100G and beyond but do not yet have the volume to support





# Just in March....



App popularity according to iOS App Store rankings on March 16-18, 2020

Adapted from "The Virus Changed the Way We Internet," The New York Times, April 7, 2020

Graph Source Original Credit: Apptopia



# A future-proof investment

## 16-Channel Multi-Format DCI Line System

### *CapEx – Future-proof!*

- Supports legacy 10G NRZ channels, side by side with 100G PAM4 and / or Coherent channels
- 400G “ready”
- Scalable
- Cost-effective



*While transceiver development continues to evolve, the investment in the line system does not get outdated*

# With operational simplicity

## 16-Channel Multi-Format DCI Line System

### *OpEx – Zero-Touch Provisioning*

#### **Automatic Gain Control (AGC) Operation**

- Amplifier line output power adjusts to changes in channel count

#### **Automatic Dispersion Compensation Setting**

- Tunable dispersion compensation adjusts to measured link distance

#### **Automatic Link Loss Auto Adjustment**

- Compensates link loss to ensure preamplifier optimal performance

#### **Automatic Fiber Fault Location**

- Remote Fiber Management
  - Continuously monitors the fiber plant
  - Provides distance characterization of fiber fault location in case of fiber break
  - Provides for reduced mean time to repair (MTTR)



# Solutions that meet all your needs

## 16-Channel Multi-Format DCI Line System



### CapEx – The 16-ch Multi-Format DCI line system - future-proof your investment

- 1-16 channels for capacity growth
- Multi-protocol capability from a single unit on a single fiber

### OpEx – Simplified operations and maintenance

- ZTP
- Remote Fiber Management

### Low Power Consumption

### Small Physical Footprint