

## Chair's Opening Remarks - Market Overview from Omdia

10:45 - 11:00  
Optical Networking

### Participants

**Ian Redpath** - Practice Leader, Omdia

## Super C + L: Smooth Evolution from Now to Future

11:00 - 11:20  
Optical Networking

- The trend and generation of backbone network
- The progress in the development of single wavelength speed
- How to evolve to Super C+L to obtain more fiber spectrum resources?

### Participants

**Maxim Kuschnarov** - Director of the Optical and Quantum Communications Laboratory, Huawei

## Panel Discussion: Advances in Optical Line Systems and the Road to 100 Tbps

11:20 - 11:50  
Optical Networking

- C-band, C+L band and Super C-band paving the way for enhanced optical system capacity
- Will existing technologies need an upgrade to support this expanded spectrum?
- The solution for fibre constrained enterprises

### Participants

**Moderator: Scott Wilkinson** - Lead Analyst - Optical Hardware, Signal AI

**Panellist: Szilard Zsigmond** - Director, Product Line Management Optical Transport, Nokia

**Panellist: Dejan Bilbija** - Director Sales Systems Engineering, Ciena

**Panellist: Ioannis Tomkos** - Professor, University of Patras

**Panellist: Thomas Logiadis** - Head of Core Transport Network Planning Section, Hellenic Telecommunications Organisation

## Root Cause and Trend Analysis (Anomaly Detection) on multi-domain and multi-vendor transport network using AI

11:50 - 12:05  
Optical Networking

- Transport Network (IP-MPLS-Transmission-Fiber) Relation and covering all transport domains
- Root Cause Analysis and failure prediction of IP-MPLS and Transmission service/equipment problems (performance and alarms)
- Trend Analysis and Anomaly Detection of MPLS traffic and predicting best cost values of IP-MPLS links under link failure
- Latency and delay prediction by using AI with real measurements
- Access-Transport Level relation, and provisioning customer service performance from end to end
- Using Spark Machine Learning Platform to perform best AI solutions for solving problems and making prediction on our real network

### Participants

**Fatih Mercimek** - Optical Transmission Expert, Turk Telecom

## Break

12:05 - 12:20  
Optical Networking

## Industry Analyst View of Optical DWDM Systems Market

12:20 - 12:35  
Optical Networking

- Overview of DWDM Systems Equipment market size and growth
- Current vendor landscape and competition
- Update on coherent wavelength shipments (400 Gbps, 600 Gbps and 800 Gbps)

### Participants

**Jimmy Yu** - Vice President of Optical Transport Research, Dell'Oro Group

## Addressing Architectural Transitions in Service Provider Transport Networks

12:35 - 12:55  
Optical Networking

- IP and Optical market transition
- Routed Optical Networking solution
- Any Service Transport Infrastructure
- Benefits of IP and Optical Convergence

### Participants

**Gianluca Calabretta** - Sales Specialist Leader, EMEAR Service Provider Architecture, Cisco

## Addressing Interoperability Issues and Preventing Vendor Lock-In

12:55 - 13:15  
Optical Networking

- Reducing infrastructure costs by adopting interoperable and open transponders to replace the mono-vendor supply model
- What are the technical and commercial implications of operators seeking interoperability and openness?

### Participants

**Anthony Clarkson** - Technical Director EMEA – Precision Optical Transceivers, Precision OT

## Bridging the Connectivity Gap

13:15 - 13:30  
Optical Networking

### Participants

**Bernard Bureau** - 5G and Wireless CTO, TELUS

## Sponsor Address: Building an Ultra-Broadband, Open and Flexible Optical Network with Compact ON Product

13:30 - 13:45  
Optical Networking

### Participants

**Francis Yan** - Chief Technology Officer Transport Network Product Line, ZTE

## Panel Discussion: Are Optics Indispensable for 5G Networks?

13:45 - 14:15  
Optical Networking

- Evaluating how optical fibre infrastructure is leveraged by 5G networks
- Will wireless technologies become an obstacle or necessity to adopting next-generation optical technologies?
- 5G's relationship with & reliance on optical networks

### Participants

**Moderator: Emir Halilovic** - Analyst, Global Data

**Panellist: Yu Rong Zhou** - Optical Network R&D, BT

**Panellist: Mark Gilmour** - VP - Mobile Connectivity Solutions, Colt Technology Services

**Panellist: Sander Jansen** - Director Product Line Management, ADVA

**Panellist: Dirk van den Borne** - Director of Systems Engineering, Juniper Networks

## Close of Day 1

14:15 - 14:25

# SCHEDULE

DAY 1 - 15/11/2021

NGON & DCI World

15 - 19 November, Online

<b>TIME</b>	<b>OPTICAL NETWORKING</b>
<b>10:00</b>	<b>10:45</b> - Chair's Opening Remarks - Market Overview from Omdia
<b>11:00</b>	<b>11:00</b> - Super C + L: Smooth Evolution from Now to Future <b>11:20</b> - Panel Discussion: Advances in Optical Line Systems and the Road to 100 Tbps <b>11:50</b> - Root Cause and Trend Analysis (Anomaly Detection) on multi-domain and multi-vendor transport network using AI
<b>12:00</b>	<b>12:05</b> - Break <b>12:20</b> - Industry Analyst View of Optical DWDM Systems Market <b>12:35</b> - Addressing Architectural Transitions in Service Provider Transport Networks <b>12:55</b> - Addressing Interoperability Issues and Preventing Vendor Lock-In
<b>13:00</b>	<b>13:15</b> - Bridging the Connectivity Gap <b>13:30</b> - Sponsor Address: Building an Ultra-Broadband, Open and Flexible Optical Network with Compact ON Product <b>13:45</b> - Panel Discussion: Are Optics Indispensable for 5G Networks?
<b>14:00</b>	<b>14:15</b> - Close of Day 1

## Chair's Opening Remarks

10:30 - 10:35  
Keynotes

### Participants

**Daniel King** - Consultant ODC & Teraflow Project, Old Dog Consulting

## Towards high-speed & Flexible Optical Networks

10:35 - 10:55  
Keynotes

- What 800G optical modules and transmissions can offer
- Assessing the current status of 800G optical modules and technologies
- 800G trials and roll-out early learnings – increased capability and maximised efficiency
- Status of and impact of 800G optics rollout

### Participants

**Secil Ekim** - Senior Network Planning Expert, Turkcell

## OTN to the Edge, Lighting up the All-Optical Metro

10:55 - 11:15  
Keynotes

### Participants

**Claudio Lugari** - Transport Network Solutions Director, Huawei

## Panel Discussion: What are the Challenges the Market Growth in the Optical Sector?

11:15 - 11:45  
Keynotes

- Understanding when to scale
- Assessing end-user demand
- CAPEX cost considerations
- Short, medium, or long-term ROI projections?

### Participants

**Moderator: Emir Halilovic** - Analyst, Global Data

**Panellist: Mattias Fridström** - Chief Evangelist, Telia Carrier

**Panellist: Alberto Boaventura** - Network Strategy and Architecture Manager, Oi

**Panellist: Nicolas Almendro** - VP Optics Europe Business Development & Pre-Sales, Nokia

## Break

11:45 - 12:05  
Keynotes

## The New Era of Optical Networking

12:05 - 12:25  
Keynotes

- The evolution of high performance, embedded coherent transponders for long haul and submarine networks that are complemented by a range of compact, standards-based pluggable form factors.
- An evolved optical layer based on flexgrid ROADMs, offering greater functionality and simplicity than ever before.
- A natural disaggregation point for Open Optical Networking being formed between the transponder and the Open Line System.
- Standardized data models and open APIs taking the place of vendor-specific control and management software

### Participants

**Geoff Bennett** - Director, Solutions & Technology, Infinera

## Panel Discussion: The Impact of Terabyte Technologies on Future Service Creation & Delivery

12:25 - 12:55  
Keynotes

- Exploring the potential services unlocked with next-generation technologies
- Are cloud gaming / cloud VR the services to justify future network spend?
- Which services will demand a pure optical network?
- What is the potential for more ISPs to use data caps to disincentivize heavy bandwidth use?

### Participants

**Moderator: Emir Halilovic** - Analyst, Global Data

**Panellist: Neil Parkin** - Research Manager, BT

**Panellist: Olivier Ferveur** - Senior Network Architect & ETSI ISG vice-chair, POST Luxembourg

**Panellist: Craig McMillan** - EMEA Sales Engineering Lead, Ciena

**Panellist: Paolo Volpato** - Telco Cloud Solutions Director, Huawei

## Examining the Changing Topology of Networks and its Implications on End-Users

12:55 - 13:15  
Keynotes

- Examining network design best practice
- What impact does network topology have on the performance of a network?
- Making sure end-users are catered for

### Participants

**Nick Benvenuti** - Senior Director, Product Line Management, Ciena

## Optical Access Network Ready for 5G Xhaul

13:15 - 13:35  
Keynotes

- How to gain your xHaul capacity for 5G with next-gen PON
- Cost-effectively introducing 5G-ready transport on your network
- How converged 5G and fibre operators can yield mobile transport operational and cost-efficiencies

### Participants

**Philippe Chanclou** - Team Manager Fixed Access Networks, Orange

## Close of Day 2: Keynote content

13:35 - 13:40  
Keynotes

# SCHEDULE

DAY 2 - 16/11/2021

NGON & DCI World

15 - 19 November, Online

TIME	KEYNOTES
10:00	10:30 - Chair's Opening Remarks 10:35 - Towards high-speed & Flexible Optical Networks 10:55 - OTN to the Edge, Lighting up the All-Optical Metro
11:00	11:15 - Panel Discussion: What are the Challenges the Market Growth in the Optical Sector? 11:45 - Break
12:00	12:05 - The New Era of Optical Networking 12:25 - Panel Discussion: The Impact of Terabyte Technologies on Future Service Creation & Delivery 12:55 - Examining the Changing Topology of Networks and its Implications on End-Users
13:00	13:15 - Optical Access Network Ready for 5G Xhaul 13:35 - Close of Day 2: Keynote content

---

## Chair's Opening Remarks

10:30 - 10:35  
Keynotes

## Participants

**Haomian Zheng** - Co-chair, IETF Routing Directorate

---

## Panel Discussion: The Journey Towards Open and Disaggregated Optical Networks

10:35 - 11:05  
Keynotes

- What are open and disaggregated optical transport networks and why is it being suggested?
- The efforts of ecosystem players in promoting fully disaggregated transport networks
- Examining the pros and cons of disaggregation
- What are the best ways to disaggregate an optical transmission system?

## Participants

**Moderator: Ian Redpath** - Practice Leader, Omdia

**Panellist: Roderick Dottin** - Sr. Project Manager – Optical Network Architect for US Domain, Orange

**Panellist: Rafael Canto Palancar** - Transport & IP Network Manager, Telefonica

**Panellist: Jonathan Sadler** - OIF Networking Interoperability Working Group Chair, OIF

**Panellist: Mark Gibbon** - Architect - Regional Portfolio Management, Ciena

---

## Unleash a new wave of network innovation with 400G everywhere

11:05 - 11:25  
Keynotes

- Open new network designs with application-optimized 400G coherent DCO solutions
- Enable 400G over any distance
- Enable efficient and cost-effective IP-Optical convergence

## Participants

**Marco Bertolini** - 1830 NE Product Manager, Nokia

---

## Optical Private Line Services, bringing game-changing ideas to life

11:25 - 11:45  
Keynotes

---

## Boosting Your Optical Network Infrastructure Using Automation

11:45 - 12:05  
Keynotes

- Is automation needed because of increased bandwidth innovations?
- How advanced automation is a means of reducing OpEx and network availability
- Using automation to test & validate new network features & upgrades prior to rollout

## Participants

**Helen Xenos** - Senior Director, Portfolio Marketing, Ciena

---

## Break

12:05 - 12:25  
Keynotes

---

## Optical Autonomous Network

12:25 - 12:45  
Keynotes

- An increasing industry focus is network operations automation.
- This presentation discusses advancements in data collection, analysis, decision-making and software-driven operation execution on the optical network.
- It discusses how standardized data and control models support operationally-useful operations automation of optical networks.

## Participants

**Christopher Janz** - Technical Vice President, Huawei

---

## Fireside Chat: Assessing the Future of Data Centres

12:45 - 13:05  
Keynotes

- International modernisation efforts and pilot schemes
- What are digitized data centres?
- The new emerging locations for hyperscale data centre investments. The market shift to Africa and Asia Pacific?

## Participants

**Alex Rabbetts** - Managing Director, European Data Centre Association

**Moderator: Haomian Zheng** - Co-chair, IETF Routing Directorate

---

---

## Ultra-Broadband, Intelligent and Efficient Optical Networks Facilitate 5G Development

13:05 - 13:25  
Keynotes

## Participants

**Gavin Zhang** - Global Marketing General Manager of Transport Network Products, ZTE

---

## Awards Ceremony

13:25 - 13:35  
Keynotes

---

## Close of Day 3: Keynote content

13:35 - 13:40  
Keynotes

# SCHEDULE

DAY 3 - 17/11/2021

NGON & DCI World

15 - 19 November, Online

TIME	KEYNOTES
10:00	10:30 - Chair's Opening Remarks 10:35 - Panel Discussion: The Journey Towards Open and Disaggregated Optical Networks
11:00	11:05 - Unleash a new wave of network innovation with 400G everywhere 11:25 - Optical Private Line Services, bringing game-changing ideas to life 11:45 - Boosting Your Optical Network Infrastructure Using Automation
12:00	12:05 - Break 12:25 - Optical Autonomous Network 12:45 - Fireside Chat: Assessing the Future of Data Centres
13:00	13:05 - Ultra-Broadband, Intelligent and Efficient Optical Networks Facilitate 5G Development 13:25 - Awards Ceremony 13:35 - Close of Day 3: Keynote content

---

## Chair's Opening Remarks

10:30 - 10:35

Data Centre Connectivity

## Participants

**Ian Redpath** - Practice Leader, Omdia

---

## Panel Discussion: Going Green/Green IT

10:35 - 11:05

Data Centre Connectivity

- How exponential data growth is contributing to increased power consumptions
- Analysing the environmental impact of multi-tenant data centres
- What strategies can best mitigate increased demands for electrical power?
- The green and sustainable options available to data centre operators

## Participants

**Moderator: Tomas Lamanuskas** - Managing Partner, Envision Associates

**Panellist: Alex Rabbetts** - Managing Director, European Data Centre Association

**Panellist: Andrew van der Haar** - Managing Director, Fiber Carrier Association

**Panellist: Stijn Grove** - Managing Director, Dutch Data Centre Association

**Panellist: Bill Kleymann** - Executive Vice President, Switch Data Centers

---

## Cloud Metro – Powers 5G with the convergence of edge data centers, cloud, and IP services fabric

11:05 - 11:25

Data Centre Connectivity

- What and where are the edge data centers
- Telco edge cloud - getting the best from both worlds
- The need to evolve traditional metro networks with IP services fabric design
- Cloud Metro – how all will come together

## Participants

**Irene Zhang** - Director of Product Marketing, Juniper Networks

---

## DevOps and the Cloud in the Data Centre: Finding a Crossroad

11:25 - 11:40

Data Centre Connectivity

- The limitations to automation of tasks
- Continuous integration and delivery
- Improving the software development lifecycle

## Participants

**Ali Elmali** - Cloud Services Planning & Infra Operations, Turk Telekom

---

## How Edge Computing is Shaping the Future of Data Centres

11:40 - 12:00

Data Centre Connectivity

- New applications require low latency, enhanced security, ultra-availability, leading to hyper-localization
- New models increase energy efficiency and make cost scalable
- Edge computing and data centres will complement existing data centre designs and challenge them

## Participants

**Prayson Pate** - Chief Technology Officer of Edge Cloud and Senior VP Solutions Marketing, ADVA

---

## Break

12:00 - 12:20

Data Centre Connectivity

---

## The Use of Artificial Intelligence for Network Monitoring in Modern Data Centres

12:20 - 12:35

Data Centre Connectivity

- The growth of traffic in modern data centers
- The benefits of machine learning in network monitoring
- Deep learning for anomaly detection

## Participants

**Oreste Alabiso** - Network Evolution Engineer, Telecom Italia

---

## Cloud Repatriation: Why it's happening and understanding the impact on cloud and data centres

12:35 - 12:50

Data Centre Connectivity

- The state of cloud and the data center: Yes, they can get along
- Key trends around workload migration and cloud repatriation
- Stories from the field: Why workloads are getting pulled from the cloud and how does this impact resiliency
- Looking ahead and understanding the cloud and data center balance

## Participants

**Bill Kleymann** - Executive Vice President, Switch Data Centers

---

## Edge and Data Center Convergence - A Winning Combination

12:50 - 13:05

Data Centre Connectivity

- Using distributed architectures to optimize application performance
- Distributed architecture challenges – tools, latency and resources
- Core, Edge and Far Edge, all together now.

## Participants

**Beth Cohen** - Distinguished Member of Technical Staff, NFV/SDN Network Product Strategy, Verizon

---

## Close of Day 4

13:05 - 13:10

Data Centre Connectivity

# SCHEDULE

DAY 4 - 18/11/2021

NGON & DCI World

15 - 19 November, Online

<b>TIME</b>	<b>DATA CENTRE CONNECTIVITY</b>
<b>10:00</b>	<b>10:30</b> - Chair's Opening Remarks <b>10:35</b> - Panel Discussion: Going Green/Green IT
<b>11:00</b>	<b>11:05</b> - Cloud Metro – Powers 5G with the convergence of edge data centers, cloud, and IP services fabric <b>11:25</b> - DevOps and the Cloud in the Data Centre: Finding a Crossroad <b>11:40</b> - How Edge Computing is Shaping the Future of Data Centres
<b>12:00</b>	<b>12:00</b> - Break <b>12:20</b> - The Use of Artificial Intelligence for Network Monitoring in Modern Data Centres <b>12:35</b> - Cloud Repatriation: Why it's happening and understanding the impact on cloud and data centres <b>12:50</b> - Edge and Data Center Convergence - A Winning Combination
<b>13:00</b>	<b>13:05</b> - Close of Day 4



## Chair's Opening Remarks

10:30 - 10:35

Future Tech & Free Space Communication

## Focus Session - Quantum Based Communication Explained

10:35 - 11:05

Future Tech & Free Space Communication

- Quantum Key Distribution: Is this the Future of Cyber Security?
- Building the World's First Integrated Quantum Communication Network
- The applications of such quantum communication

## Participants

**Diego Lopez** - Senior Technology Expert, Telefonica

**Antonio Perales** - Technical Expert, Telefonica

## Hollow Core Fibre - is it ready?

11:05 - 11:20

Future Tech & Free Space Communication

- What is Hollow Core Fibre
- What is the current status and characteristics?
- What potential use cases?
- BT Hollow Core Fibre trial

## Participants

**Neil Parkin** - Research Manager, BT

## Free Space Optical Communication I A Market Overview

11:20 - 11:35

Future Tech & Free Space Communication

- Outlining the major challenges and developments
- Overview of some of the opportunities this technology may present
- A roundup of some of the key players

## Participants

**Niek Doelman** - Senior Scientist, TNO

## To Infinity and Beyond!

11:35 - 11:50

Future Tech & Free Space Communication

- Bypassing Fibre by supplying satellite internet to modular data centres
- The operational challenges of building a space-based data centre
- Supporting customers who require cloud computing capabilities in hybrid or remote and challenging environments
- Examining various international case studies including the Microsoft, SpaceX and Starlink collaborative project and assessing its potential implications on global communications

## Participants

**Gint Atkinson** - VP Network Strategy and Digital Architecture, SES Satellites

## Submarine Cable Networks: Connectivity to Hosting, the next generation

11:50 - 12:05

Future Tech & Free Space Communication

- Regional to global connectivity and bringing the network closer to the edge
- Innovation and change-helping to deliver a new world class system
- Connecting local and regional areas into the global web

## Participants

**Derek Cassidy** - Senior Optical Specialist and Submarine Network Technologist, ICRG

## Break

12:05 - 12:25

Future Tech & Free Space Communication

## Fireside Chat: Assessing Next-Generation, More Efficient Submarine Cables

12:25 - 12:45

Future Tech & Free Space Communication

- Cables allowing for more traffic delivered, more connectivity in high-density subsea branches
- Reduction in cost per bit
- Higher spectral efficiency and lower power consumption can be achieved through fibre types with low attenuation
- Subsea fibre cables used for monitoring: seismic monitoring and security
- Discussing the potential impact on the marine environment and ways of ensuring minimal damage is done

## Participants

**Geir Holmer** - CEO, Skagenfiber

## Focus Session - ETSI F5G

12:45 - 13:15

Future Tech & Free Space Communication

- F5G – The Future is Coming
- AI-assisted Network Automation: A Telecom Data Ownership Perspective
- F5G Use cases Perspective

## Participants

**Olivier Ferveur** - Senior Network Architect & ETSI ISG vice-chair, POST Luxembourg

**Behnam Shariati** - Project Manager, Fraunhofer HHI

**Sjors Braam** - Research Scientist, TNO

## Focus Session - TeraFlow: Utilizing Optical Network Slicing to Connect Clouds for Autonomous 5G and Beyond Services

13:15 - 14:00

Future Tech & Free Space Communication

- Overview of the TeraFlow Project and Stakeholders
- SDOs Enabling Optical Network and IT Convergence
  - Challenges & Requirements
  - Optical Network Automation and Slicing Techniques
- Deploying and Integrating Automated Optical Network Slicing
  - Examples of 5G Application and Services
- Future Challenges and Opportunities

## Participants

**Daniel King** - Consultant ODC & Teraflow Project, Old Dog Consulting

**Oscar Gonzalez de Dios** - Technology Expert of Transport Networks, Telefonica

**Ricard Vilalta** - Senior Researcher, Centre Tecnològic de Telecomunicacions de Catalunya (CTTC)

**Håkon Lønsethagen** - Senior Research Scientist, Telenor

**Moderator: Adrian Farrel** - Managing Director, Old Dog Consulting

## Close of Day 5

14:00 - 14:05

Future Tech & Free Space Communication

# SCHEDULE

DAY 5 - 19/11/2021

NGON & DCI World

15 - 19 November, Online

<b>TIME</b>	<b>FUTURE TECH &amp; FREE SPACE COMMUNICATION</b>
<b>10:00</b>	<b>10:30</b> - Chair's Opening Remarks <b>10:35</b> - Focus Session - Quantum Based Communication Explained
<b>11:00</b>	<b>11:05</b> - Hollow Core Fibre - is it ready? <b>11:20</b> - Free Space Optical Communication I A Market Overview <b>11:35</b> - To Infinity and Beyond! <b>11:50</b> - Submarine Cable Networks: Connectivity to Hosting, the next generation
<b>12:00</b>	<b>12:05</b> - Break <b>12:25</b> - Fireside Chat: Assessing Next-Generation, More Efficient Submarine Cables <b>12:45</b> - Focus Session - ETSI F5G
<b>13:00</b>	<b>13:15</b> - Focus Session - TeraFlow: Utilizing Optical Network Slicing to Connect Clouds for Autonomic 5G and Beyond Services
<b>14:00</b>	<b>14:00</b> - Close of Day 5