



## Data Center Overview



**Delivering innovative, reliable and  
cost-effective solutions**

[www.opterna.com](http://www.opterna.com)

# About Opterna

Opterna leads the way in the communications industry, every time you make a call or access the internet, it is more than likely that you use Opterna products and services. For many manufacturers of mission critical computing and switching platforms, the Opterna name is renowned in the field of opto-electronics and is the brand of choice.

Opterna is a US based opto-electronic global product company established in 1992 and has fully owned world class manufacturing facilities. We are always near as we have sales and support offices in Europe, Asia-Pacific, Middle East & Mexico.

Opterna has organically grown its business through a decade of product development addressing customer needs in many different market segments.



Opterna is vertically integrated from active and passive components to value added modular solutions and is well versed in providing complete end-to-end solutions. The company has a strong technical base and emphasis on quality, reliability and support with a pool of highly qualified professionals.



“Forward thinking and passionate about communications. Opterna is a company on the cutting edge”

Opterna’s growth strategy focuses on the design and development of products and technology in the following segments:

- Fiber Interconnect Products
- Optical Passive Products
- Fiber Management Systems
- Structured Cabling Solutions
- Cable Management Solutions
- Opto-Electronic Components & Sub- Assemblies, including Active Optical Cables (AOC)
- FTTH Active Equipment
- Test & Measurement
- Tools & Consumables

We take an individual approach to every customer and every network. Our engineering teams will support you to develop the right solution for your individual network needs.

## Opterna – Your reliable connection

Our knowledge and experience has led to the development of industry leading fiber optic passive and active devices, fiber management, structured cabling and monitoring and security systems. Opterna’s research and development teams constantly create new solutions. Opterna’s patented fiber optic products are manufactured in our own world class manufacturing facilities.

# Opterna Data Center Solutions, Your Key To Success



## OPTimum solutions

Data Centers are at the heart of any enterprise today. Whereas in the past, data centers would be in support of business operations; today they take center stage of the majority of enterprises. Irrespective of size and purpose, the deployment and operation of any data center comes with great responsibility.

Opterna is here to share that responsibility with you. With our industry leading understanding of the optical and copper physical infrastructure, you will not be able to find a better partner for your data center.

## Data Center focus

Data Centers are associated with computing, storage, switching and routing and the main focus is often concentrated on the active equipment. Opterna believes that it is equally important to pay the same level of attention to the physical layer as over 59% of system downtime can be attributed to issues within the physical layer.

Our know-how and relentless focus on quality will, if installed and operated correctly, make physical layer failures a thing of the past.



# Flexibility, because no data center is the same

No data center is the same. This is why we have a wide variety of solutions and services that can be combined to create the optimum solution for your specific needs. Operating a data center can pose many challenges and there are many strategic decisions to consider, including:

- Copper or fiber
- Shielded or unshielded
- Multimode or singlemode
- 40/100G strategy and migration path
- Density, cooling and power consumption

Opterna offers all the solutions and expertise to help you to be successful. We are technology agnostic and do not favor one technology over another. We speak your language and are here to help you to make the best choice for your specific circumstances.

To meet challenges where our standard portfolio may be a compromise, we are able to deliver bespoke solutions quickly and cost-effectively.





## The right value for your investment

Total Cost of Ownership is a major concern for any data center. This is why Opterna focuses on solutions that are truly future proof and fully comply with the relevant standards.

We do not compromise on quality and design as we understand the importance of reliability and usability. We underpin this with our PreNET® system warranty which lasts for 25 years, giving you the confidence that your investment is secure for many years.

Because of our lean and highly streamlined processes, a global supply chain network and global manufacturing capabilities we are close to you when you need us.

## OPTimum density™

Opterna recognizes that data center owners want to get the maximum utilization of available floor space and yet, we also recognize that any high density solution should not impact usability and reliability. This is a tradeoff that requires careful consideration.

This is why all of our solutions are designed for specific applications. In cases where very few moves, adds and changes (MACs) are being made, we offer solution that give maximum density. In areas where MACs are a regular occurrence, we offer solutions that provide ease of access, routing and management.



## Forward looking solutions

Many data center infrastructure decisions are made for the foreseeable future, sometimes for multiple decades. This is why it is important to understand how your needs may evolve.

Our MTP/MPO solutions offer a very secure path to future applications without the need for invasive network modification thus reducing downtime to an absolute minimum. In addition MPO/MTP solutions are the technology of choice as part of the 40G and 100G standards.

You do not have to wait to deploy MTP/MPO. With our extensive portfolio of modular panels, cassettes, fanouts, backbone cables and adapter plates, you are able to meet your immediate needs whilst you know that your investment is ready for the future.

MTP/MPO solutions are based upon factory fitted connectorization that are 100% tested. This gives you peace of mind knowing that your investment works first time. In addition, the fact that you do not have to splice or terminate and test during installation, time savings are in excess of 45%. Opterna offers standard and high density modular MT solutions that enables flexible network design.

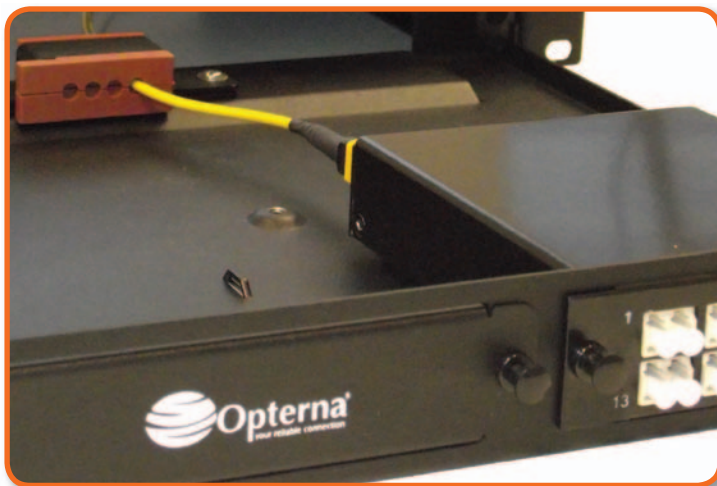


# The Opterna Difference

When we design our solutions we always have their purpose in mind. We take the time to analyse how they will be used in the field. This has led to a set of first principles that are integral to our designs.

## Durability

Opterna products are made to last. For example, we strike the right balance between material thickness and strength. By using clever designs, we ensure strong solutions that are reduced in weight and yet can take the strain of everyday use for many years.

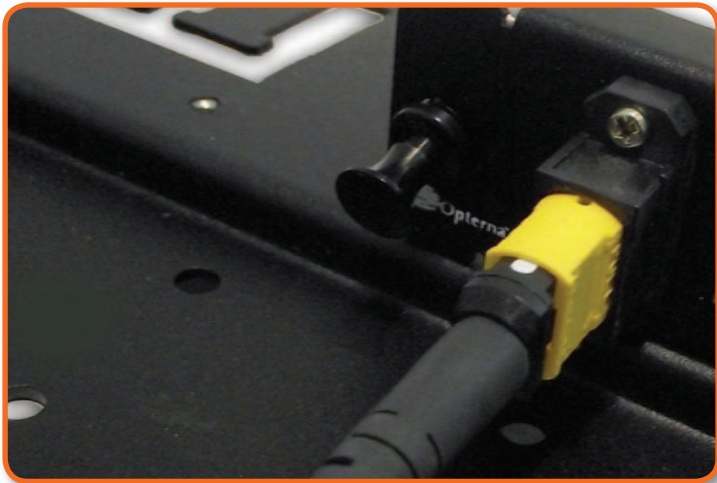


## Ease of Installation

As part of controlling your total cost of ownership, we pay a very high level of attention to how products are installed. We include features that make installation straight forward and fast.

All of our modular panels are provided with multiple ways for restraining incoming cables, making the installation of cables secure, intuitive and fast.





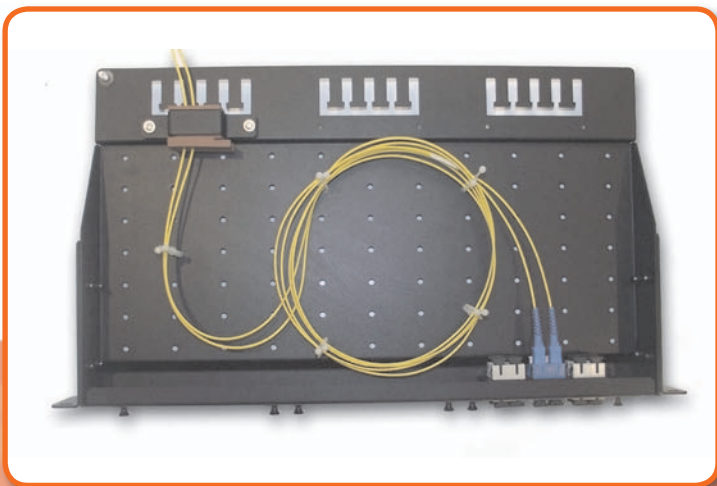
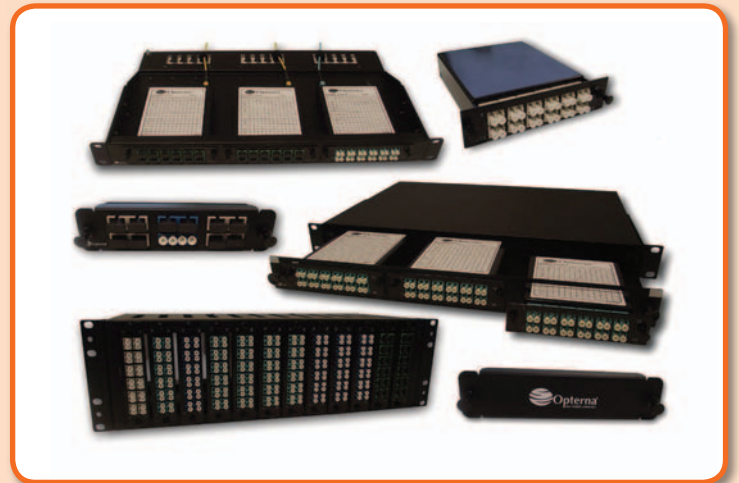
## Performance

At Opterna we only use the highest grade of components for our solutions. At the same time we believe that customers should have choice.

This is why we offer four different levels of performance in our MT based solutions, ranging from standard MPO to MTP Elite™ connectivity, ensuring cost effective solutions, whatever the application.

## Flexibility and Innovation

Although Modular Fiber Optic systems are mainly considered in conjunction with MTP /MPO connectivity, it also gives the opportunity to tailor panels to a specific application, saving valuable rack space and making panels application specific. This is why we have designed a rich portfolio of cassettes and adapter plates.



## The RouteOPT™

The RouteOPT™ grid in our modular panels allows internal cables to be routed in an extremely flexible manner. Internal cable routing is no longer confined to a set pattern but it is now possible to customize the routing to your specific requirements, whilst bend radius protection is guaranteed at all times.

# The Opterna Data Center solution

Opterna has solutions for every part of your datacenter physical layer infrastructure.

Our focus is on high quality 'tried and tested' components, combined with designs that focus on cable management, accessibility and bend radius protection creating OPTimum solutions for every part of your network.

## Equipment and Horizontal Area

The equipment and main distribution area deals with all intra data center and enterprise wide data connectivity.

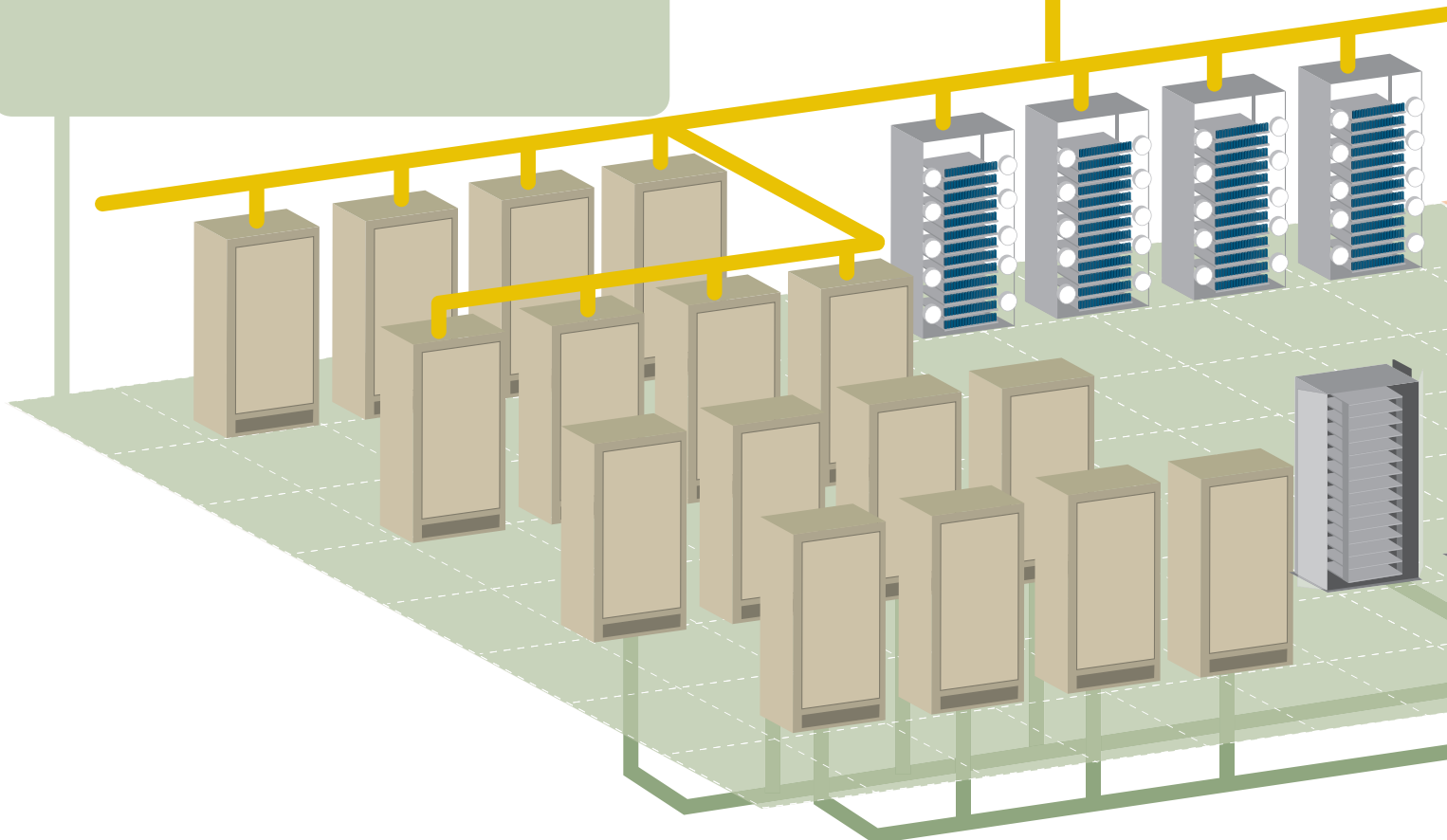
Opterna offers a wide variety of fiber and copper solutions, which meet any strategy that you may want to implement. Whether it is a high performance copper structured cabling solutions or fiber solutions and any combination thereof, we have the solutions that meet your needs.

## Cable routing and protection

Opterna understand fiber and cable management like no other.

Fiber is a great method to carry a large volume of traffic whilst the diameter of optical cable is a fraction compared to traditional copper solutions. To ensure ongoing reliability, and realise the full performance potential, managing and protecting fiber and cable is paramount.

This is why Opterna solutions include raceways that are easy to install, of sturdy design and made out of high grade plastics. Accessories are available for almost every challenge, including a wide range of exits and bends.





### Main Distribution Area

The main distribution area deals with all top level routing of data center connectivity.

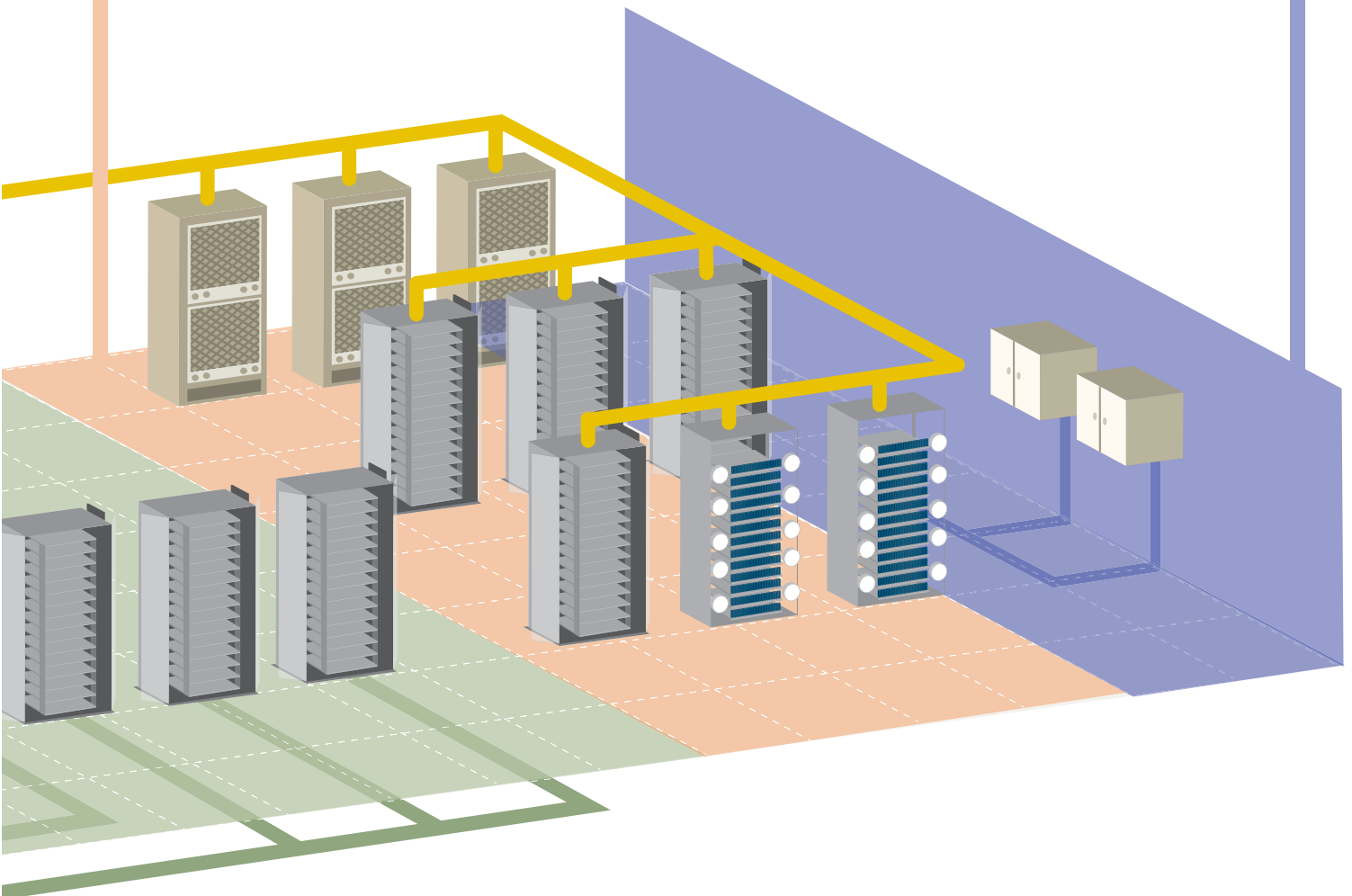
Opterna offers a wide variety of fiber and copper solutions, ranging from high density frame based solutions to traditional 19" panel based solutions.

For optical links, Opterna solutions provide directly terminated, fusion spliced and pre-terminated MTP/MPO options.

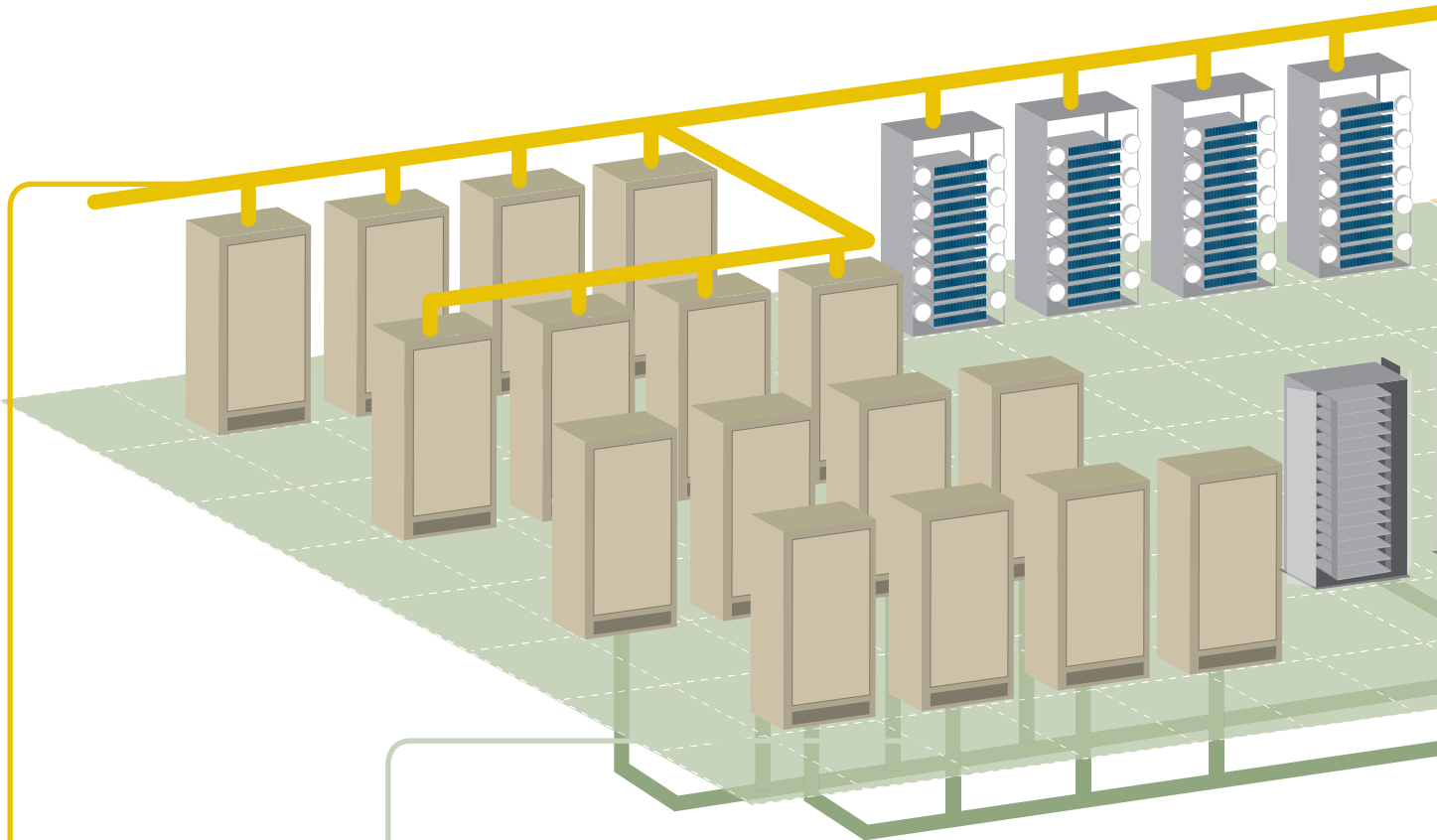
### Data Centre Entry point.

The entry point is where the connectivity to the outside world comes into the data center and houses the demarcation with both third parties and internal routing to multiple data halls.

Opterna solutions for this application range from just a number of fibers to high capacity solutions including the capability to provide Wavelength Division Multiplexing (WDM) functionality.



# The Opterna Data Center solution



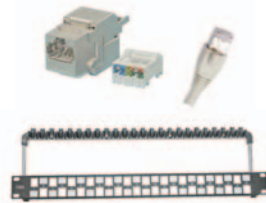
The Opterna Raceway is designed with sturdiness and flexibility in mind.

A wide variety of bends, multi channel and exits are available, meeting even the most challenging of environments.



Opterna offers a wide variety of patching and equipment cabinets as well as open frame solutions.

All are designed with strength and ease of use in mind.



The Opterna copper solutions are fully TIA and ISO compliant.

Easy to install Cat 5e, Cat 6 and Cat 6<sub>A</sub> systems are designed to provide the optimum copper infrastructure.

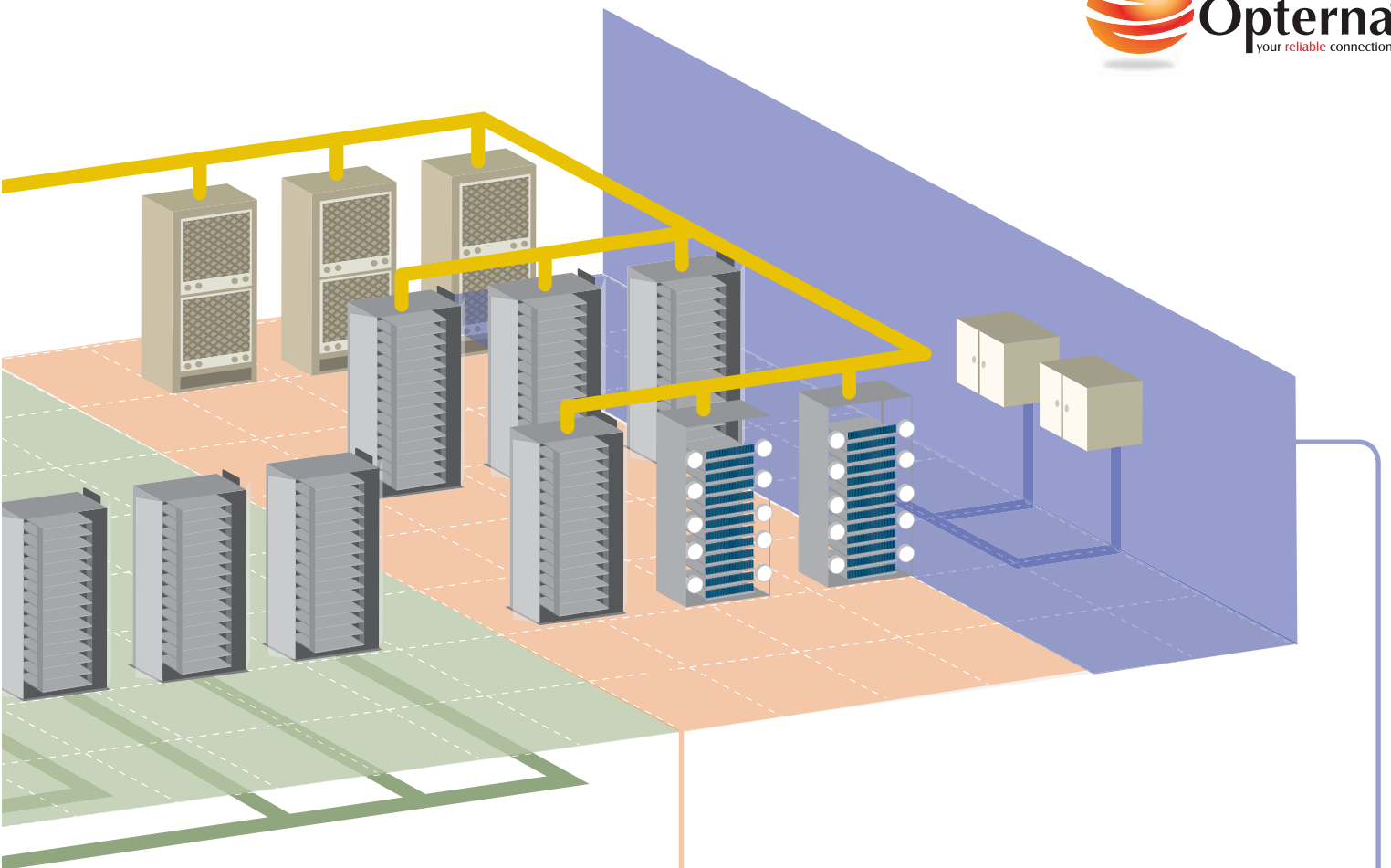


The Opterna Modular MTP/MPO portfolio is available in fixed and sliding versions.

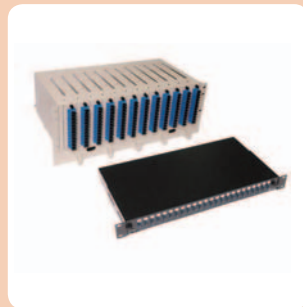
Cassettes are available in all popular adapter styles. In addition, a wide variety of adapter plates allows you create application specific configurations.

Opterna is able to provide a wide variety of MTP/MPO trunk cables and fan-outs for optimum density and flexibility.





The CentralOpt<sup>®</sup>- Fiber Distribution System is based on the 19" standard, which makes it easy to integrate into an existing network. Flexibility is the key, allowing different installation techniques and functionality.



The Opterna standard panel portfolio is available in all popular adapter styles. The panel is available in sliding and static versions and has the ability to house MTP/ MPO adapters on the rear.



For the entry facility, Opterna offers many types of solutions.



Whether fibers are spliced directly or a connectorised solution is required, we have the optimum solution.





## Making your Data Center rollout a success

Opterna understands that the IT world is constantly changing and we are here to help you to make the right choice.

This ensures seamless integration with any other parts of your data center infrastructure, including your active network elements.

Opterna's skilled staff can work very closely with you to find the most effective solution for almost every challenge. In addition, together with our network of Channel Approved Partners, we are able to deliver innovative solutions that are truly end-to-end.

With our leading industry understanding of all things related to the optical and copper physical infrastructure, you will not be able to find a better partner for your data center. We would like to invite you to contact our representatives to find out how we can help you.



# Opterna global coverage

We are always close to our partners



- USA – Sterling VA
- Mexico – Mexico City
- UK – Milton Keynes
- Sweden – Stockholm
- Ireland – Limerick
- France – Paris
- UAE – Dubai
- Tunisia – Bizerte
- India – Cochin
- Japan – Tokyo
- China – Shenzhen

We are determined to provide technical, logistic and sales support according to the highest standards. With Opterna offices on every continent our team is always there for you.





## AMERICAS

### USA

Headquarters  
44901 Falcon Place  
Suite 116 Sterling,  
VA 20166  
Ph: +1 703 653 1130  
Fax: +1 703 803 8313

### SOUTH AMERICA

#### Mexico

Vicente Guerrero No. 50B  
Col. Lomas del Huizachal  
México, D.F.  
Ph: 5295 3013 (Mexico City)  
+1 800 266 2286 (Rest of Country)  
001.703.653.1153 (EEUU)

### MIDDLE EAST & AFRICA

#### Dubai

PO Box 293862 B-14,  
Dubai Airport Free Zone Dubai  
Ph: +971 42997676  
Fax: +971 42991767

## EUROPE

### United Kingdom

5 Vermont Place  
Michigan Drive  
Tongwell  
Milton Keynes  
MK15 8JA  
Ph: +44 2031 301 710

### Sweden

Västberga Allé 60  
SE-126 75 Stockholm  
Sweden  
Phone: +46-8-58020800  
Fax: +46-8-58020801

### Ireland

National Technology Park  
Limerick Ireland  
Tel: +353 61 334466  
Fax: +353 61 334477

### France

69 Rue Crozatier 75012  
Paris  
Phone: +33 (0) 153 029 092

## ASIA

### India

Plot 43A  
Cochin Special Economic Zone (CSEZ)  
Kakkanad  
Kochi - 37  
Tel: +91 484 2413394

Vintage Building,  
1/1 Kalyana Mandapa Road,  
Jakkasandara,  
Koramangala Bangalore - 34  
Tel: +91 80 25506808/ 25500982

### Japan

Kamei Building 6F  
Minato-Ku  
Tokyo  
107-0052  
Ph: +81 - 3 3568 8670

### China

1010, Jiangnan Huafu 1,  
Donghuan Er Road,  
Longhua Street,  
Baoan District Shenzhen  
Ph: +86 755 89954293