

## Intelligent Management of Colocation Data Centers

Colocation data centers (colos) are a popular solution for organizations who don't want the hassle and expense of an on-premise data center, but prefer to own their equipment rather than keeping their workflows and data in the public cloud. Colo owners provide physical infrastructure such as cooling and security to their tenants, as well as connectivity to carriers for traffic in and out of the data center.

While tenants can control connectivity within their cages, connectivity from one cage to another, or to the carrier meet-me-room, must be provided by the colo owner or their authorized service providers. Providing this layer 1 connectivity can be a time-consuming and error-prone task, involving multiple manual patches in different locations across the data center.

Requests can take days to fulfill, and if a mistake is made it can take several more days to track down and fix the problem. The technician time required, and the difficulty of maintaining accurate documentation of connections in a manual environment, make it difficult to offer further value-add services. But what if those connection requests could be fulfilled in minutes instead of days?

## CrossCage Plus

To provide quicker service, Fiber Mountain's CrossCage Plus solution allows colocation data centers to manage layer 1 connectivity through software. CrossCage Plus utilizes a series of Optical Path Exchanges (OPXs) and Fiber Port Aggregators (FPA), managed via AllPath Director (APD) orchestration software to gain real-time visibility and software control of the cross connects between customer cages and meet-me-room. This level of control means CrossCage Plus does more than speed up cross connects. It also adds features that enable the colo to introduce value-added services that provide a competitive advantage to both the colo and their customers.

## Point and Click Connections

Physical connections in a colocation data center can be complex and tedious to set up or tear down. If a customer wants to connect two of their cages that are on opposite sides of a center, a team must physically run a new cable linking the two locations, as well as finding the correct ports on each end to plug into. This can take days depending on the complexity of the request.

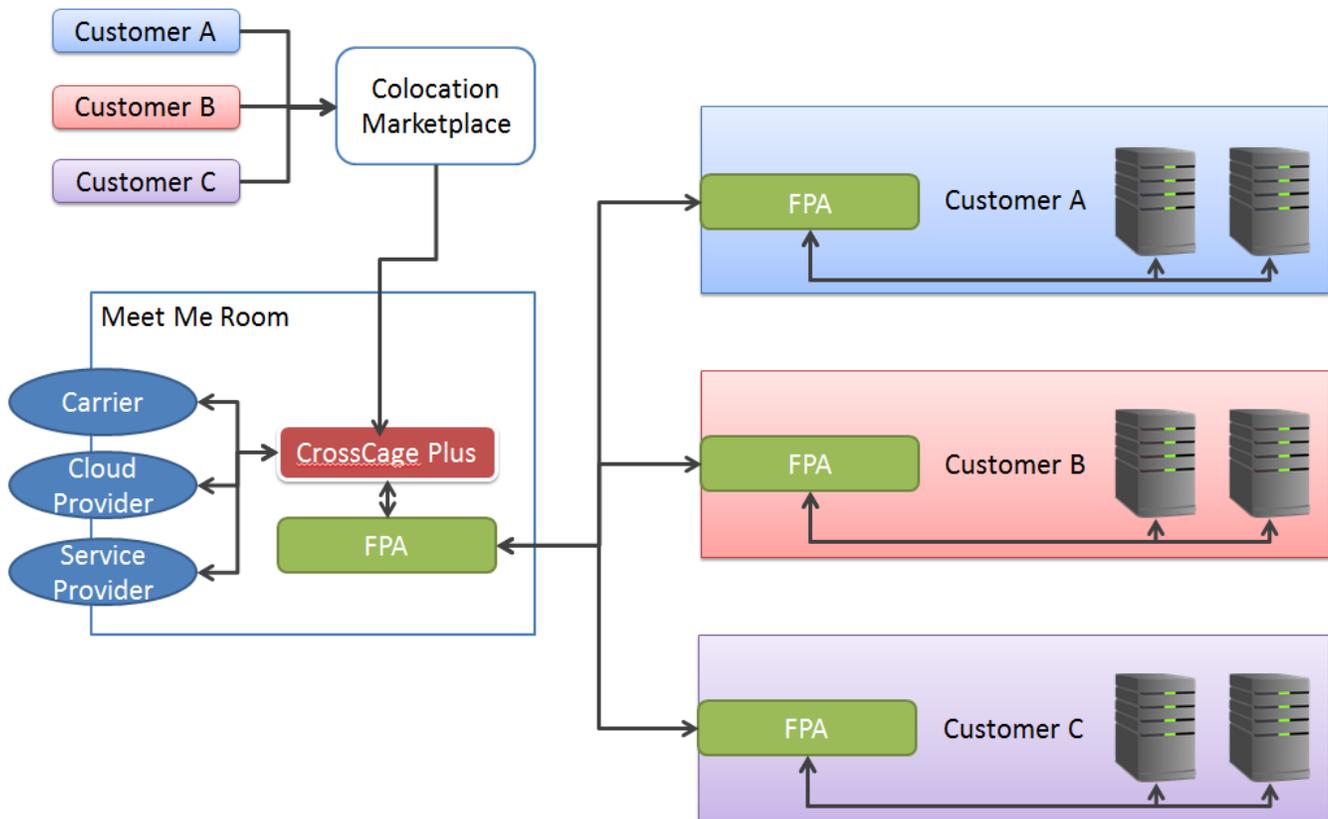
Fiber Mountain set out to simplify and speed up this process, making it quick and painless for both colo and tenant. By having drops and FPAs pre-wired at each cage, all a colo has to do to provision a new connection is point-and-click the desired endpoints in APD. With all FPAs connecting to central OPXs, any FPA port can be given a software-defined connection to any other FPA port without the need to run more cable or change where anything is plugged in.

## Instant Service Delivery

With no need to manually run cable or make connections, service request turnaround is only limited by how quickly the carrier or other managed service provider can approve the request. Service requests can be completed in minutes instead of days, an ability that opens up a world of options for offering tenants dynamic service arrangements. With CrossCage Plus, colos can offer their tenants the flexibility of expanding or downsizing as they see fit, which is an excellent value-add to a colocation center.

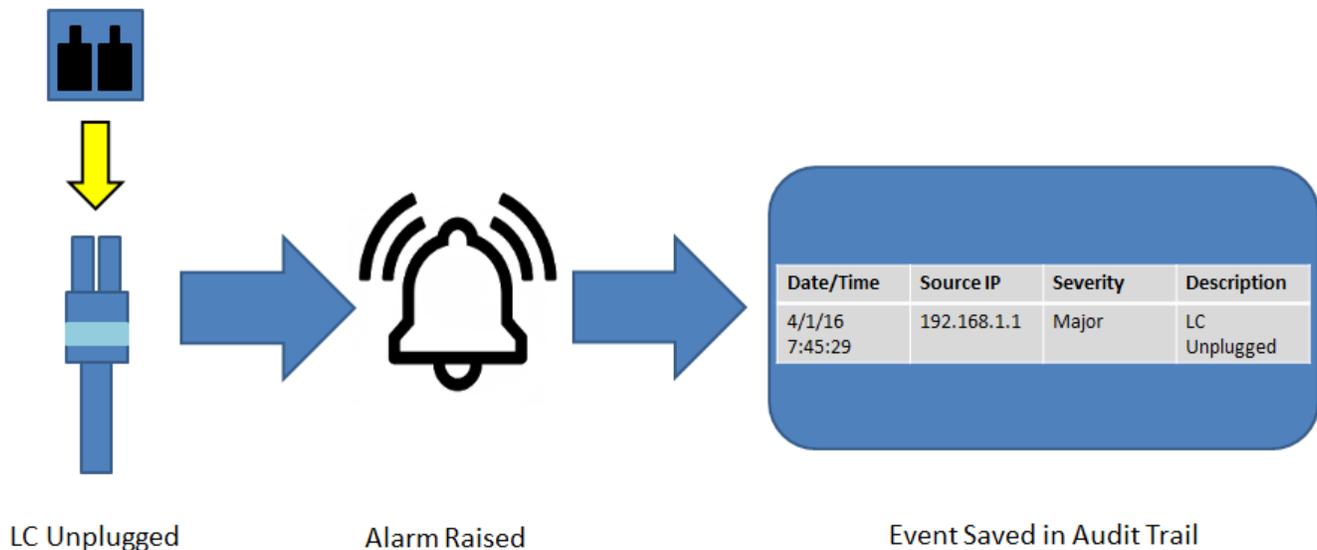
## On-Demand Marketplace

Colo owners can also add value with an on-demand marketplace, enabling their tenants to offer services such as security, storage and other services directly to other tenants. Imagine a marketplace where service providers, tapping and security providers, and other services are listed in one place. From this one place, customers can log in and choose the services they want – and the colo can provide the connection minutes after the service is purchased. By utilizing CrossCage Plus, colos can create an automated marketplace that processes orders and brings up connections upon completing the transaction. Conversely, once a contract for a service is finished, the system can then bring down the connections. All of this can take place in minutes.



## Business Interruption Security

One of a colo's main tasks is to ensure its customers have a 100% uptime and protect them from business interruption. This is a difficult task when you have limited visibility into the physical layer of the network. CrossCage Plus allows colos to document what is happening in their physical infrastructure at all times. If a cable in a meet-me-room is disconnected, CrossCage Plus will send an alarm to notify of the interruption, and even if it is re-connected right away there will be a record in the audit trail. This allows colos to respond to outages faster and spend less time troubleshooting, ensuring maximum uptime for their customers.



## Conclusion

Fiber Mountain's CrossCage Plus solution allows colocation data centers to add intelligence and automation to its physical layer. Doing so adds value to the colo as a whole, as it allows the introduction of new features such as on-demand marketplaces, layer 1 security and dynamic cross connects.