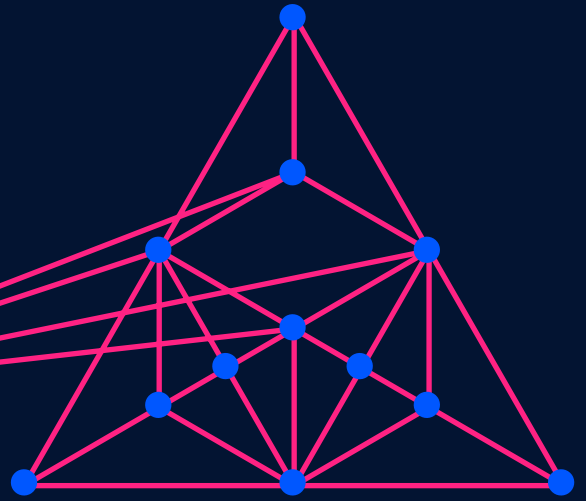


ElastiCLOUD™

FOR DATA CENTERS



SECURED TRANSPARENT CONNECTIVITY

Cloud networking has gone mainstream. Driven by IT outsourcing, increased mobility and the need for access “at any time, from anywhere”, hosted services applications are exploding from the confines of individual data centers to a virtualized network of data centers. No longer is the cloud a possibility; it is a reality.

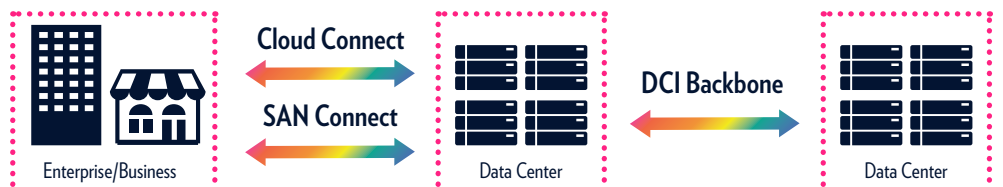
As data exceeds the boundaries of space and time, cloud service providers and data center operators are vying to develop data center networks that provide their end customers with fast response times at the most economical cost. No small challenge, considering the exponential growth and constantly increasing demands of the market.

ElastiCLOUD™ is ECI’s holistic solution for cloud networking. Whether you are looking for a data center interconnect backbone, a network to access private or public cloud services, or SAN connectivity, ElastiCLOUD is the solution for you. ElastiCLOUD offers:

<p>Guaranteed Performance with top speeds and feeds, E2E management, and SDN applications</p>	<p>Secured Services with our multi-layer, comprehensive security suite</p>	<p>Minimized OPEX with lowest \$/bit, super-low power consumption and extremely high density</p>
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Multiple Cloud Connectivity Applications

An efficient cloud connectivity solution must serve multiple applications.

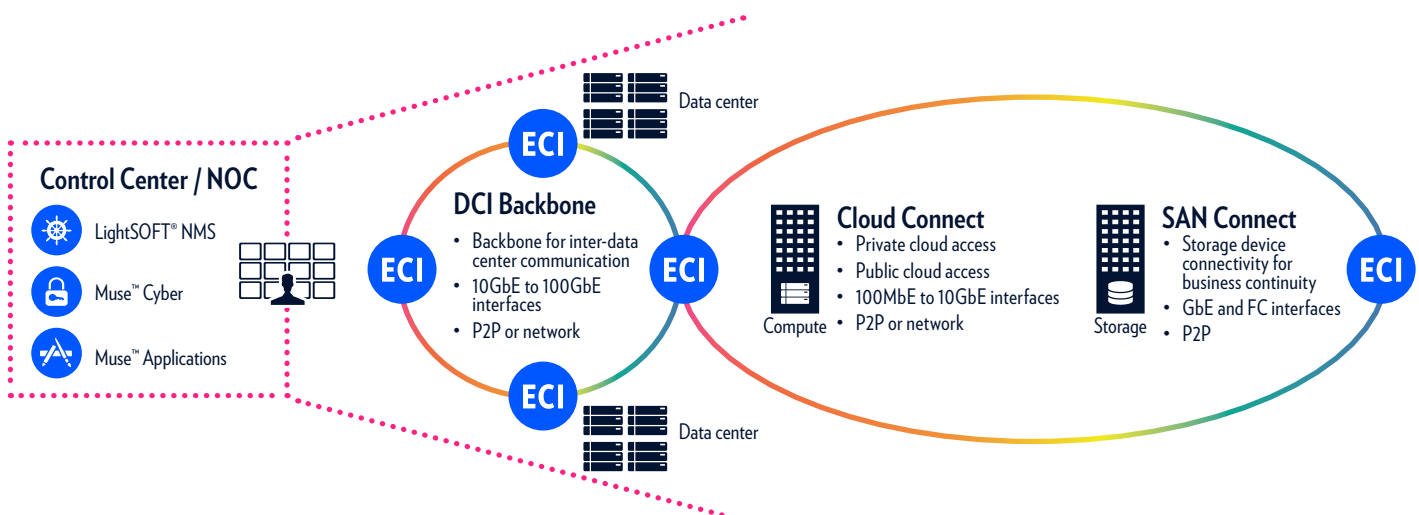


APPLICATION	DESCRIPTION	NEEDS
Cloud Connect	<p>Enterprise access to cloud-hosted applications, including:</p> <ul style="list-style-type: none"> • Private cloud access (e.g. from HQ to remote VMs) • Public cloud access (e.g. from business to Amazon Web Services) • Hybrid cloud access (mixture of above) 	<ul style="list-style-type: none"> • User transparency (high speed with low latency) • Scalability as communication needs grow • High availability • Typically 100MbE to 10GbE interfaces (which may span several DCs) • P2P or network implementations
SAN Connect	<p>Backup and synchronization between distributed storage systems for business continuity</p>	<ul style="list-style-type: none"> • All FC and GbE interfaces • High bandwidth with low latency for active synchronization • High availability with automatic switchover • High security for sensitive data • P2P implementations
DCI Backbone	<p>Service distribution between data centers, as if within a data center, and other inter-data center communication functions</p>	<ul style="list-style-type: none"> • Low cost bandwidth • Scalability – ease of growth based on demand • High availability • 10GbE to 100GbE interfaces • P2P or network

The question is then: How to serve any one or combination of these cloud connectivity applications most efficiently?

ECI's ElastiCLOUD Solution - Main Benefits

ElastiCLOUD is ECI's holistic solution for cloud networking. ElastiCLOUD utilizes ECI's portfolio's scalable, modular architecture and flexible support of 'any technology mix' to address the needs of all cloud connectivity applications with high performance, flexibility, operational efficiency and high security.



COMMON APPLICATION NEEDS

ElastiCLOUD SOLUTION

Performance to provide a transparent , low latency, and always-on end-user experience

Blazing fast 400G, plus:

- Multiple high-speed low latency transport options
- Multiple service protection schemes

Flexibility to support all data center connectivity applications, high growth and fast changing needs

SDN applications like bandwidth-on-demand, plus:

- All client interfaces for all applications
- Integrated L1 and L2
- Software-based interface upgrades

Efficiency to minimize operational costs

Lowest cost per bit per fiber, plus:

- Pay as you grow
- Plug-and-play installation
- E2E network management
- SDN applications – dynamic resources usage
- Lowest power
- High density

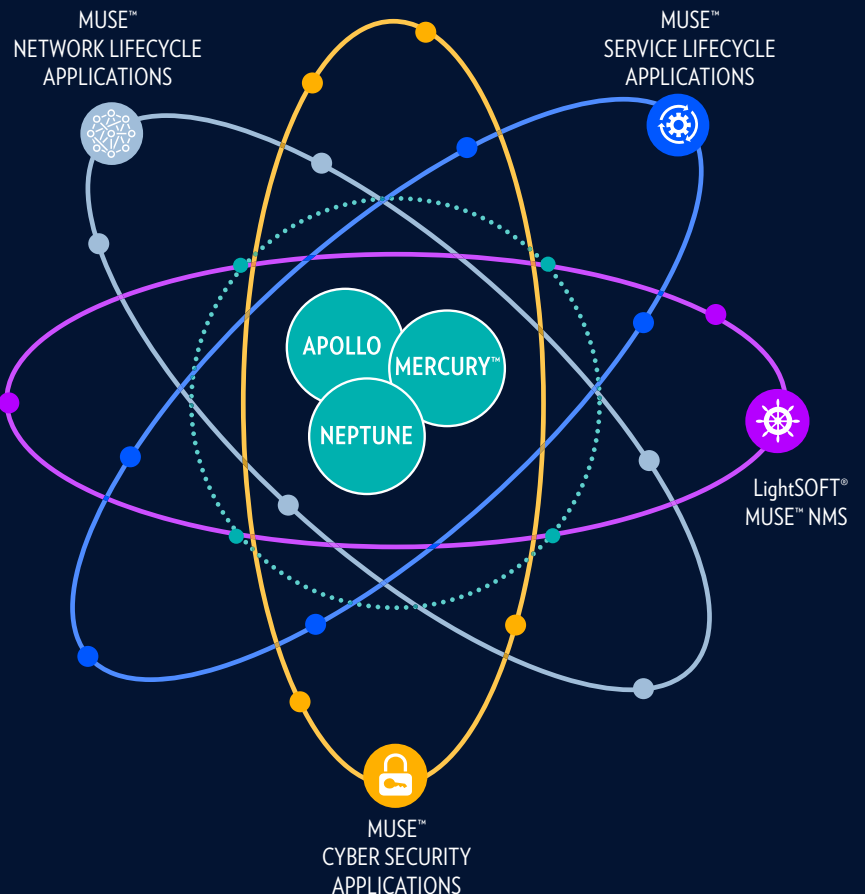
Security as if all customer applications and data were local

Encrypted links, plus:

- Secure administration
- Muse™ Cyber Security suite

Elastic Services Platform

The ELASTIC Services Platform is ECI's portfolio framework for simplifying service delivery and automating network operations. It leverages a suite of modular software applications that exercise real-time control over a programmable network infrastructure.



ElastiCLOUD builds on the following components of the ELASTIC Services Platform:



APOLLO Optical Transport Family

Apollo's modular architecture enables super-efficient DWDM transport solutions that extend from the customer premises to data centers, and around the metro ring and to regional long haul for data center interconnection. Apollo is equally at home with point-to-point, ring, and mesh networking architectures. Apollo combines software selectable high-performance low latency OTN transport and optional OTN switching, with software configurable optical routing, for maximum efficiency of SAN Connect and DCI Backbone applications. Benefits of using Apollo include:

- Highest capacity on a single fiber, up to 25.6Tbps
- Blazing fast 200G connectivity on a single 50GHz fixed or 37.5GHz flex channel
- All Ethernet and Fibre Channel client interfaces, including 32GFC, with an ability to multiplex any combination of these on a 200G channel
- Layer 1 optical encryption with AES-256 GCM encoding, selective to the level of individual client interfaces
- The lowest power and highest density NEBS/ETSI compliant platform in the industry
- Multiple automatic protection switching and dynamic (shared resource) restoration options
- Easy to configure and use, with intuitive management interfaces



NEPTUNE Packet Transport Family

Neptune (NPT) is a family of carrier-class, MPLS-based, multiservice packet transport platforms, offering best-in-class packet transport solutions for the metro.

NPT combines transport network reliability and ease of management with packet efficiency. It is the ideal platform for rich Carrier Ethernet transport from the customer premises to the cloud for Cloud Connect applications. In particular, NPT ensures:

- Deterministic packet performance with resiliency and E2E visibility
- Mission critical service availability via full redundancy, multiple protection schemes and full RDR support



MERCURY™ Virtualization Platforms

The Mercury Network Function Virtualization (NFV) family lets you mix and match a rich library of certified ECI and third-party virtualized network functions (VNFs) to instantiate service and network functionality quickly and economically. Optimized for deployment at the enterprise premises or in a data center, Mercury is ideal for adding virtualized security and WAN management functionality to Cloud Connect applications.



MUSE™ Software Suite

The Muse suite is ECI's holistic software offering, leveraging the best of industry-leading management systems and SDN/NFV applications. Powered by a carrier-grade PaaS, Muse delivers real-time control over a programmable network infrastructure and automates the service and network operation life cycles. It guarantees that the right people and systems get the right capabilities for their requirements, through intuitive, easy-to-use user interfaces, or industry-standard APIs.

Specific benefits it brings to ElastiCLOUD applications are:

- Customized network planning, using “what-if” applications to create network designs using Apollo optical and Neptune packet facilities to exactly match traffic and business needs, including redundancy against failures.
- Plug-and-play network builds, which turns design files into equipment manifests and configurations, that are then downloaded to the equipment for fast and error free turn-up.
- Point-and-click service provisioning, for creating optical routes and L2/L3 VPNs. This can also be used to add value-added functionality, like layer 1 encryption on top of optical links for SAN Connect or DCI Backbone applications, or virtualized WAN monitoring or security functions on top of VPNs for Cloud Connect applications.
- Ongoing network and service assurance, through monitoring of the links and traffic, and raising warnings in the event of degradations so that actions can be taken before they become service affecting.
- Powerful maintenance tools to quickly locate and address hard failures. In particular, LightPULSE™ OTDR interworking with a GPS mapping system lets you precisely locate faults in the fiber connecting your Enterprise and data center locations, so that field personnel know exactly where to go.



Guaranteed Performance

YOUR CHALLENGES

OUR SOLUTIONS

Supreme Performance	State of the art packet-optical transport portfolio provides: <ul style="list-style-type: none">• Rate-adaptive 400G that transports data at blazing speeds• Incredible 25T max transport capacity per fiber• Multiple high-speed, low latency transport options
Future-Proof Flexibility	<ul style="list-style-type: none">• Flexible platforms scale from 2U and up with any mix of client-network interfaces• Software upgradeable 10GbE/40GbE/100GbE client interfaces• Muse™ SDN applications, like bandwidth-on-demand, service scheduling and network analytics• End-to-end, point-and-click service provisioning and network management
End-To-End Visibility And Control	LightSOFT® unified multi-layer NMS, utilizes intuitive point-and-click GUI for end-to-end network management and control. Muse™ provide SDN intelligence and control

Ultimate Security

YOUR CHALLENGES

OUR SOLUTIONS

Secured Services	<ul style="list-style-type: none">• Layer 1 AES-256 GCM encryption protects entire payload at wire speed• Muse™ cyber security applications defend against data center intrusion, and includes gateways, network anomaly detection and Big Data analytics
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Minimized OPEX

YOUR CHALLENGES

OUR SOLUTIONS

Reduced Power Consumption	<ul style="list-style-type: none">• Less than 85W per 100G leads industry for low power• Unique ability to run hot at 55° C saves on cooling
Maximized Real-Estate	<ul style="list-style-type: none">• Ultra-high density, 30*10GbE or 3*100GbE in 2U• Multi-solution mix in single platform saves hardware, space and power• Maximum capacity per fiber• SDN applications like bandwidth-on-demand saves capacity
Increased Operational Efficiency	<ul style="list-style-type: none">• Plug-and-play installation• End-to-end network management• Software reconfigurability from card to network level

Contact us to discover how ECI's ElastiCLOUD goes beyond cloud connectivity

ABOUT ECI



ECI is a global provider of ELASTIC network solutions to CSPs, utilities as well as data center operators. Along with its long-standing, industry-proven packet-optical transport, ECI offers a variety of SDN/NFV applications, end-to-end network management, a comprehensive cyber security solution, and a range of professional services. ECI's ELASTIC solutions ensure open, future-proof, and secure communications. With ECI, customers have the luxury of choosing a network that can be tailor-made to their needs today – while being flexible enough to evolve with the changing needs of tomorrow. For more information, visit us at www.ecitele.com