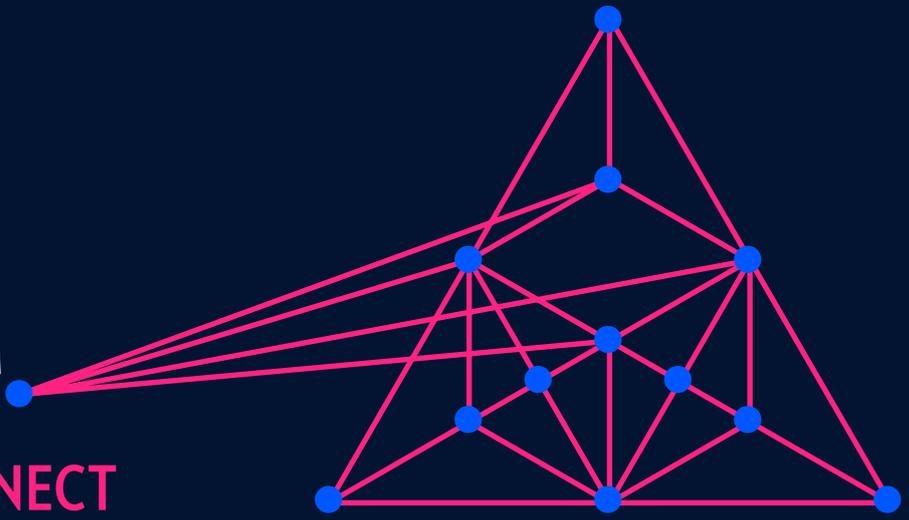# ECI THE ELASTIC NETWORK

ElastiCLOUD™
DYNAMIC CLOUD CONNECT

BRINGING FLEXIBILITY TO CLOUD CONNECTIVITY

ECI's ElastiCLOUD Dynamic Cloud Connect offers business customers dynamic services like Bandwidth-on-Demand (BWoD), bandwidth scheduling, and bandwidth automation to support their cloud applications and workloads. Dynamic Cloud Connect is based on real-time control of network resources that enables flexible connectivity, better network resource utilization, improved uptime, responsiveness, and availability.
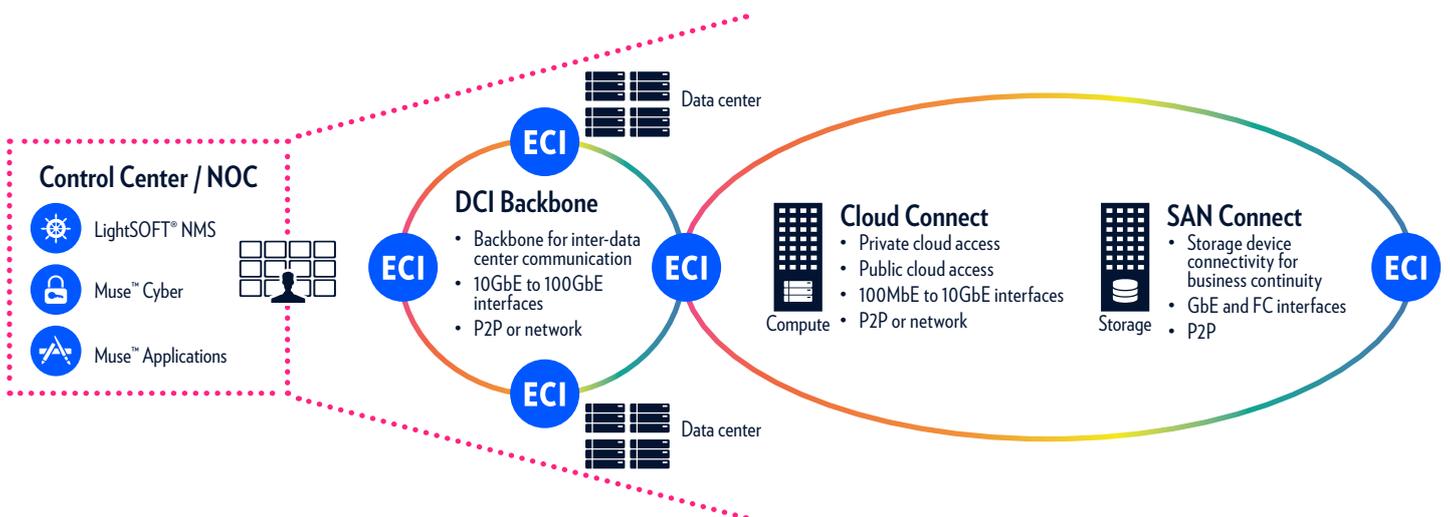
As business customers migrate to the cloud to benefit from its flexibility and scalability, cloud networking and cloud connectivity have become much more critical and complex. Consequently, balancing the data center and cloud workload bandwidth requirements with the business network traffic demand has become even more essential. By matching network flexibility with cloud flexibility, business customers can enjoy the full promise of cloud computing.

Real-time BWoD pay per use	**Bandwidth scheduling** 'Set it and forget it'	**Event-driven automation** for network programming	**Effective utilization** reclaim key resources

Control Center / NOC
- LightSOFT® NMS
- Muse™ Cyber
- Muse™ Applications

DCI Backbone
- Backbone for inter-data center communication
- 10GbE to 100GbE interfaces
- P2P or network

Data center

Cloud Connect
- Private cloud access
- Public cloud access
- 100MbE to 10GbE interfaces
- P2P or network

Compute

SAN Connect
- Storage device connectivity for business continuity
- GbE and FC interfaces
- P2P

Storage

CLOUD FLEXIBILITY

Cloud adoption is already used by nearly 100% of all enterprises and is rapidly expanding to Small and Medium Businesses (SMBs). The main driver for migration to public, private, and hybrid clouds is flexibility – including business agility, scalability, mobility, and innovation. Cloud flexibility for business delivers new levels of value for service offerings.
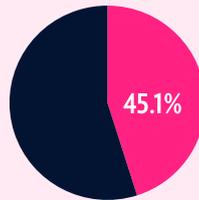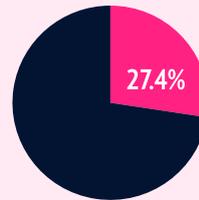
TOP CLOUD ADOPTION DRIVERS
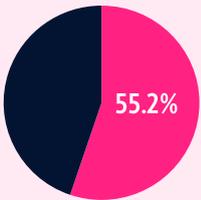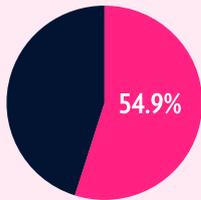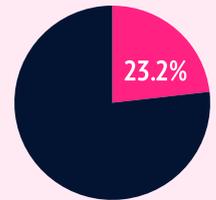
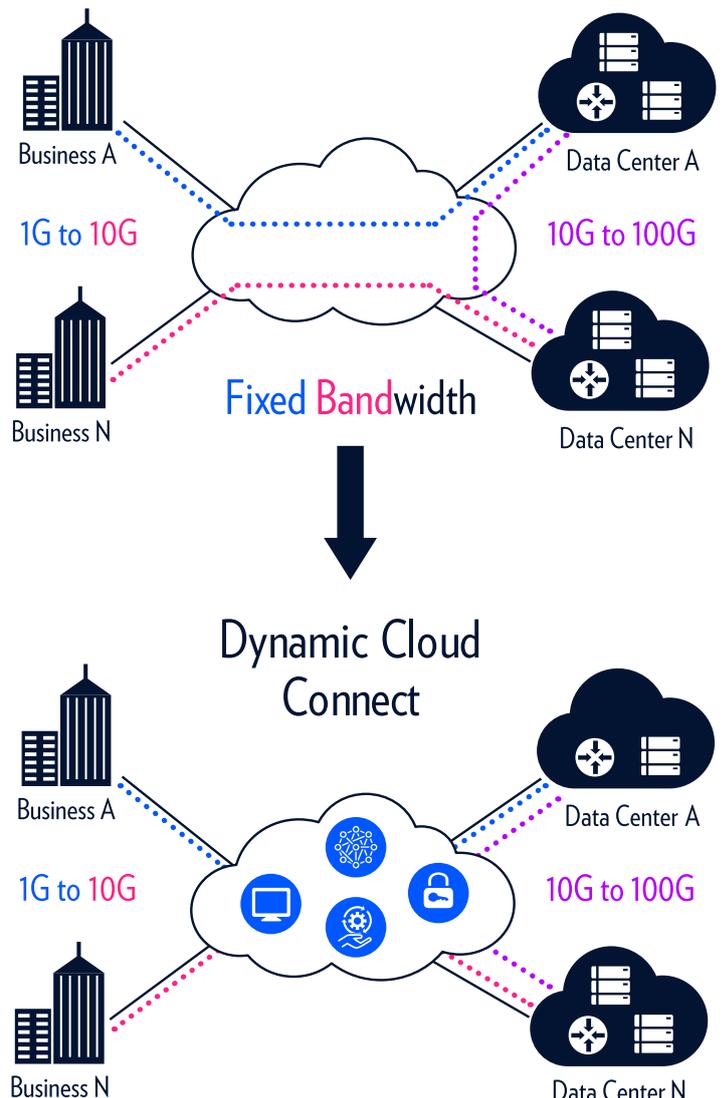| BUSINESS AGILITY	SCALABILITY	COST	MOBILITY	INNOVATION
55.2%	54.9%	45.1%	27.4%	23.2%

Source Gartner.com

CLOUD CONNECTIVITY CHALLENGES

Cloud connectivity has become even more critical, since businesses are now executing routine task workloads in the cloud. But, current networks were designed for fixed-rate services. Such services are typically connected to the network via fixed-bandwidth lines with an established service rate and availability index, contracted from a service provider. Cloud applications, like Business to Data-Center applications (1G – 10G) and Data-Center to Data-Center applications (10G to 100G) connect to the network, as shown in the following figure.Since an evolution from on- premise computing to the cloud is the new norm, cloud workload behavior can be quite complex. Therefore, it will inevitably change the path by which the workload travels and the bandwidth it requires. This will be challenging and expensive to support with the fixed bandwidth model, and certainly does not support scaling.

The sheer volume of cloud data adds new challenges and complexities to the network. Fixed network connections are no longer sufficient to enable the flexibility and scalability needed to match cloud workloads. The difficulty is how to make network connections more dynamic and flexible to match the cloud workload model.

Business A

1G to 10G

Business N

Data Center A

10G to 100G

Data Center N

Fixed Bandwidth

Dynamic Cloud Connect

Business A

1G to 10G

Business N

Data Center A

10G to 100G

Data Center N

NEW SERVICE OPPORTUNITIES

With ECI's ElastiCLOUD Dynamic Cloud Connect, a cloud service goes far beyond network connection. For cloud workloads, Dynamic Cloud Connect is a game changer, because it:

- Saves time while optimizing valuable network resources by adding, deleting, or reconfiguring high-speed (1GbE to 100GbE) cloud connections in minutes (not weeks or months).

- Creates temporary services where you pay only for the bandwidth used, rather than having to pay for fixed-rate services, even when the service is not in use.

- Supports event-driven automation to automatically define policies and tasks when changes occur in the infrastructure.

- Secures high-speed connections using Layer 1 optical encryption with advanced AES-256-GCM encryption.

- Protects Ethernet and IP layers with Layers 2 and 3 encryption services.

- Adds a variety of other security applications, including Network Anomaly Detection (NAD), Deep Packet Inspection (DPI), Firewall (FW), Distributed Denial of Service (DDOS), and many more — using LightSEC.

ECI's Dynamic Cloud Connect brings the agility of cloud applications and workloads to the WAN without wasting valuable resources. With Dynamic Cloud Connect business customers can match cloud speed and flexibility with cloud connectivity. The features and benefits for Dynamic Cloud Connect are summarized in the following table.

Dynamic Cloud Connect features and benefits

Customer Access	Customizes centralized management and control using a RESTful API to dynamically create, modify, program, and delete network connections and bandwidth.
Muse™ Network Manager	Automates action flows for network configuration, triggered either manually or by a network event. With no programming skills required, this GUI-based tool enables the definition of event-triggered actions implemented through policy-driven automation, like VM migration.
Muse™ Service Manager	Eliminates complexity by automatically creating and provisioning 1G to 100G temporary high bandwidth-on-demand connections for burst workloads or backup. Create new services with simple templates, just by specifying endpoints, bandwidth, profile (QoS template), and duration. Allows calendar-based service scheduling with the most efficient use of available bandwidth. Schedule one-time events, like a pay-per-view with the bandwidth and time needed.
Muse™ Cyber Security Suite	Addresses customer concerns when migrating their critical business applications to the cloud with configurable communications security. Select from a security suite that includes firewalls, DDOS, DPI, anomaly detection, and encryption (L1 to L3).

DYNAMIC CLOUD CONNECT

As businesses continue to shift to the cloud, connections for cloud workloads become increasingly more important.

ECI's ElastiCLOUD Dynamic Cloud Connect enables dynamic reconfiguration of cloud services in minutes, while providing a pay-per-use model for these services. Cloud service connections can be easily scheduled and terminated whenever required - just paying for what is used. Customers can manage loosely coupled services distributed across multiple public, private, or hybrid clouds with event-driven automation, reconfiguring the network automatically. Dynamic Cloud Connect provides safe, secure, and complete network visibility of business customer cloud network services. As Dynamic Cloud Connect matches network flexibility with cloud flexibility, your business customers will enjoy the full promise of the cloud.

PERFORMANCE	COST EFFECTIVE	FLEXIBLE	SECURE

• Blazing fast 400G
• Interoperability
• E2E management
	• Lowest cost/bit
	• Highest density
	• Lowest power
	  Easy installation
		• BWoD, BW scheduling
		• L1 - L3 + NFV in a box
		• SW upgrades
		• Easy provisioning and
		  scalability
			• L1 - L3 Encryption
			• Cyber security suite

Contact us to find out how the ElastiCLOUD Dynamic Cloud Connect can help your business grow

ABOUT ECI