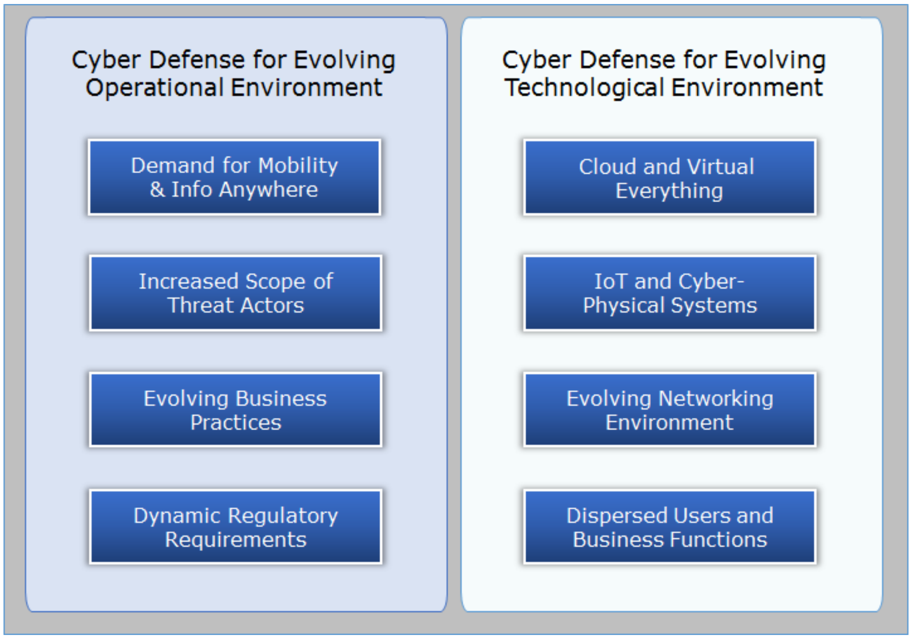
BlackRidge TECHNOLOGY

From Zero Trust to Extensible Trust System

Establishing and Enforcing End-to-End Trust in Zero Trust Environments

Enterprises and government agencies are facing increasingly borderless computing environments with mobile, cloud and now the Industrial Internet of Things. Delivering secure and trusted digital business services has never been more difficult in these increasing "zero trust" environments with constant cyber-attacks on their infrastructures.

Traditional security approaches focused on detecting breaches simply cannot keep pace with the continuous change in today's environments. A new, extensible approach to cyber defense is needed to support today's rapidly evolving technological and operational environments.



Cyber Defense for Evolving Operational Environment

- Demand for Mobility & Info Anywhere
- Increased Scope of Threat Actors
- Evolving Business Practices
- Dynamic Regulatory Requirements

Cyber Defense for Evolving Technological Environment

- Cloud and Virtual Everything
- IoT and Cyber-Physical Systems
- Evolving Networking Environment
- Dispersed Users and Business Functions

The Keys to Extensible Trust System

To effectively meet these new challenges and prevent cyber breaches, an extensible trust system must address three key needs.

An extensible trust system must enforce end-to-end trust across the business, supporting any enterprise, cloud and hybrid environments. Why this so important? Simply, systems that are exposed to unauthorized or unidentified network connections are vulnerable to attack and erode the trust in a company's ability to protect critical services. An extensible cyber defense model ensures that only identified and authorized users or devices can see and access sensitive systems and data by dynamically establishing and enforcing endpoint trust models.

An extensible trust system must dynamically segment both networks and complete data centers and be able to enforce consistent segmentation policies across enterprise and cloud environments. Network and micro-segmentation using identity can effectively block any identity from seeing and accessing unauthorized systems or network segments. This enables full access control of which identities can access the network, effectively cloaking systems from all unauthorized traffic without requiring any change to the network.

An extensible trust system must proactively isolate applications and cloud systems to prevent attacks, rather than simply react to attacks after a breach has already occurred. Isolation can block or redirect unauthorized or unidentified access to cloud services, providing real-time protection of critical business services at the network layer.

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Extensible Cyber Defense

From Zero Trust to an Extensible Trust System (XTS)

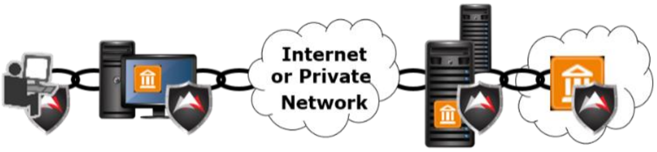
BlackRidge provides a new approach to cyber defense through an identity-based, extensible trust system. BlackRidge operates across network boundaries, effectively cloaking networks and systems from unauthorized access. This enables companies to explicitly trust who is accessing and traversing their network to better protect key business services, and reduce the risk of insider threats, DDOS and replay attacks.

BlackRidge XTS is based on the following three technical pillars, which together enable the most compelling new solution to preventing cyber-attacks.

End-to-End Enforcement of Trust

BlackRidge authenticates identity and enforces policy across network boundaries, without impacting network compatibility. Custom end-to-end trust models and security configurations are managed for each endpoint application, device and host, which can be dynamically changed in response to attacks.

Identity extends across any network boundary and policy is enforced at multiple points. This end-to-end security architecture reduces risks from remote and branch office access into any application or business service over the cloud or a corporate network.

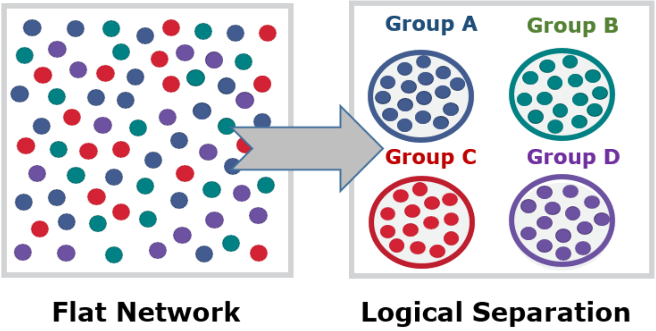


Identity-based Micro-Segmentation

Micro-Segmentation is a best practice for network security, that is increasingly hard to support in today’s IT and cloud environments. Traditional approaches of maintaining ACLs and firewall rules has high administrative overhead and network topology dependencies. Using firewalls for network segmentation is costly and can impact application performance.

BlackRidge provides a software-based approach to segmentation with identity-based access controls to block or allow network connections. This provides granular and topology independent security zones on shared networks without creating separate physical or logical networks.

Identity-based segmentation offers a practical way to describe and monitor access policies, handle exceptions, and provide proof to auditors and regulators of your controls, including actions taken by individual users.



Software Defined Perimeter

Applications and cloud services are dynamically isolated in real-time, at the first packet of a network session. The solution blocks or redirects unidentified or unauthorized traffic, including port scanning and network reconnaissance, isolating and protecting these services at the earliest time.

BlackRidge isolates and protects IT management networks, control planes and management systems across the cloud from unauthorized users and devices. This additional layer of protection lowers risks of IT and management systems being attacked.

About BlackRidge Technology

BlackRidge Technology enables our customers and partners to deliver more secure and resilient business services in today’s rapidly evolving cyber threat environments. Our zero trust approach to an extensible trust system uses identity to authenticate network connections and enforce access policies across networks, to proactively stop cyber-attacks and protect cloud services, servers and IoT devices.