

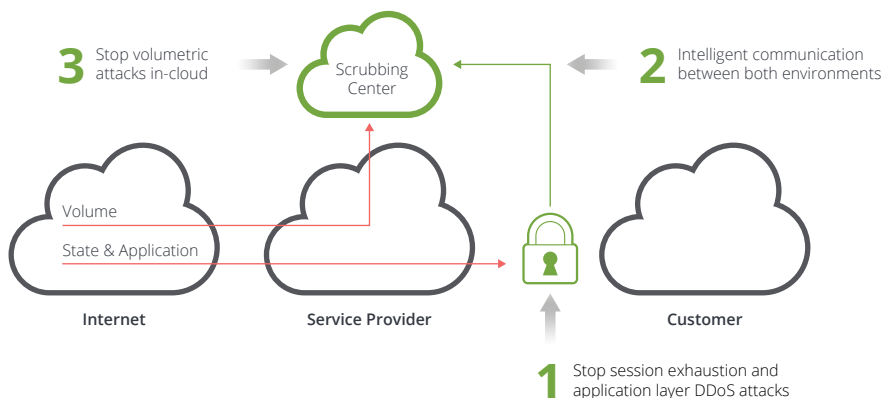
## NFV services from Arbor and Netcracker

### A Unique Approach to Offering Managed DDoS Protection and Threat Prevention Services

As service providers roll out new cloud services for the B2B market using SDN/NFV, much attention is paid to the tight security that is needed for these services. Enterprises are struggling with both the budget and security talent needed to deploy and manage security in-house. The modern enterprise security stack includes many functions of which Threat Prevention and DDoS mitigation are one of the most important. Netcracker and Netscout Arbor have partnered to deliver a business cloud solution with comprehensive DDoS mitigation and threat filtering that opens up new revenue opportunities for service providers.

#### Solution Overview

As more and more enterprises increasingly rely on Threat Intelligence (TI) to timely detect and block threats, they realize the growing number of TI feeds and Indicators of Compromise (IoCs) and the need to have a separate security function to apply them in the security stack. The necessity to have a separate function to stop commodity threats is usually caused by inability of other security functions to block or match millions of IoCs without performance impact.



At the same time, a lot of enterprises realized the need to have an on-premises DDoS prevention function as the element of hybrid or layered DDoS mitigation. Hybrid DDoS mitigation is the only way to successfully mitigate all kinds of DDoS threats: volumetric attacks are detected and blocked using in-cloud scrubbing centers, deployed by a majority of service providers; while low and slow state-exhaustion and application layer attacks are blocked by smaller inline customer edge DDoS mitigation systems.

Netscout Arbor and Netcracker have partnered to provide a new solution for service providers to deliver cloud based virtual DDoS mitigation and Threat Prevention services. The solution is based on Netcracker's Business Cloud solution and Netscout Arbor Edge Defense (AED) virtual functions.

#### KEY FEATURES AND BENEFITS

##### Faster Roll-Out of Next-Gen Security Services to a Broader Market

Our joint solution allows to quickly offer managed DDoS protection and Threat Prevention functions for different types of customers, from small enterprises to large organizations.

##### Best Technologies in Order to Provide Best Services

NETSCOUT is the indisputable leader in DDoS mitigation with more than 18 years of expertise and global view into 30% of Internet traffic. Netcracker is the market leader in BSS, OSS and orchestration solutions with significant experience in SDN/NFV commercial deployments.

##### Pre-Integrated Solution

The combined solution was extensively tested and verified by both companies to reduce deployment time.



Netcracker Business Cloud provides the orchestration and business environment to enable fast commercialization of NETSCOUT's AED VNFs. The orchestration functions include Network and Service Orchestration, VNF Management and VNF License Management to enable rapid onboarding of NETSCOUT AED VNFs with full lifecycle management across on-premise and in-cloud infrastructure. With Netcracker's orchestration environment, service providers can fully automate B2B security services that cross both physical (e.g CPE) and virtual domains, with support for additional 3rd party VNF functions, bringing significant operational cost savings and agility gains. Netcracker's business environment comprises a Self-Service Portal, Digital Marketplace as well as Revenue Management and CPQ to enable service providers to differentiate their offerings with a digital user experience and fully monetize the new virtual security services. Netcracker Business Cloud is based on a cloud native architecture that can be deployed on the service provider's data centers or offered as a cloud hosted service from Netcracker's Cloud or a multi-cloud environment for even faster time-to-market.

NETSCOUT AED is a first & last line of modern perimeter defence. It detects and stops all types of cyber threats - both inbound threats including DDoS attacks and outbound malicious communication from compromised internal devices. The intelligently automated, fully managed combination of in-cloud and on-premises components is continuously armed with ATLAS® global threat intelligence; offers the most comprehensive form of protection from all types of modern-day DDoS attacks. Deployed at the network perimeter, using stateless technology and armed with millions of IoCs, AED detects and blocks inbound commodity cyber threats thus taking pressure off of stateful devices such as Next Gen Firewalls. Missed by existing security stack, AED can detect and block outbound communication to known bad IP addresses, domains, URLs, geographies; thus helping stop the further proliferation of malware within an organization and avoid a data breach.

Depending on customer environment, the joint solution can be deployed in both centralized and distributed models:

<b>Centralized model</b>	Also sometimes referred to as "Telco Cloud", is based on virtual functions deployed in provider's data center. Only a "thin CPE" is needed on the customer's premises. NETSCOUT AED is deployed as a virtual network function (VNF) in the data center and its whole lifecycle is controlled by Netcracker's Business Cloud solution.
<b>Distributed model</b>	Also known as "universal CPE", relies on generic CPE located at the customer premises. NETSCOUT AED is deployed as a function hosted in a universal CPE under control of Netcracker's Business Cloud solution.

## About NETSCOUT

NETSCOUT SYSTEMS, INC. (NASDAQ: NTCT) assures digital business services against disruptions in availability, performance, and security. Our market and technology leadership stems from combining our patented smart data technology with smart analytics. We provide real-time, pervasive visibility, and insights customers need to accelerate, and secure their digital transformation. Our approach transforms the way organizations plan, deliver, integrate, test, and deploy services and applications. Our nGenius® service assurance solutions provide real-time, contextual analysis of service, network, and application performance. Arbor security solutions protect against DDoS attacks that threaten availability, and advanced threats that infiltrate networks to steal critical business assets. To learn more about improving service, network, and application performance in physical or virtual data centers, or in the cloud, and how NETSCOUT's performance and security solutions, powered by service intelligence can help you move forward with confidence, visit [www.netscout.com](http://www.netscout.com) or follow @NETSCOUT and @ArborNetworks on Twitter, Facebook, or LinkedIn.

## About NEC/Netcracker

Netcracker Technology, a wholly owned subsidiary of NEC Corporation, is a forward-looking software company, offering mission-critical solutions to service providers around the globe. Our comprehensive portfolio of software solutions and professional services enables large-scale digital transformations, unlocking the opportunities of the cloud, virtualization and the changing mobile ecosystem. With an unbroken service delivery track record of more than 20 years, our unique combination of technology, people and expertise helps companies transform their networks and enable better experiences for their customers. For more information, visit [www.netcracker.com](http://www.netcracker.com)



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