Singtel Business

Product Brochure
Managed DDoS Protection Services

Safeguard Your Internet Presence with Sophisticated DDoS Mitigation

The Internet age has made every company a technology company – each with an online presence that engages customers via websites, applications, online stores and more. This has also made any business a potential target of Distributed Denial-of-Service (DDoS) attacks bent on destroying your online presence. Singtel Managed DDoS Protection Services are designed to proactively monitor, detect, mitigate and protect your business against destructive disruptions caused by DDoS attacks.

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Impact of DDoS Attacks On Your Business

Fast mutating and getting more complex by the day, DDoS attacks aim to cripple online services, compromise personal data, steal credit card data, deface brands or even mask as a smoke screen for other attacks – for political, financial or other malicious reasons.

Almost **278 DDoS attacks take place every hour** against major companies around the world[1].

Largest reported DDoS attack clocking **400Gbps**[2].

In 2014, **8 out of 10 were mega attacks** at or above 100Gbps[2], compared to the same at merely 8Gbps just ten years ago[3].

90-hour average duration of each attack campaign[4].

What Today's DDoS Attacks Look Like

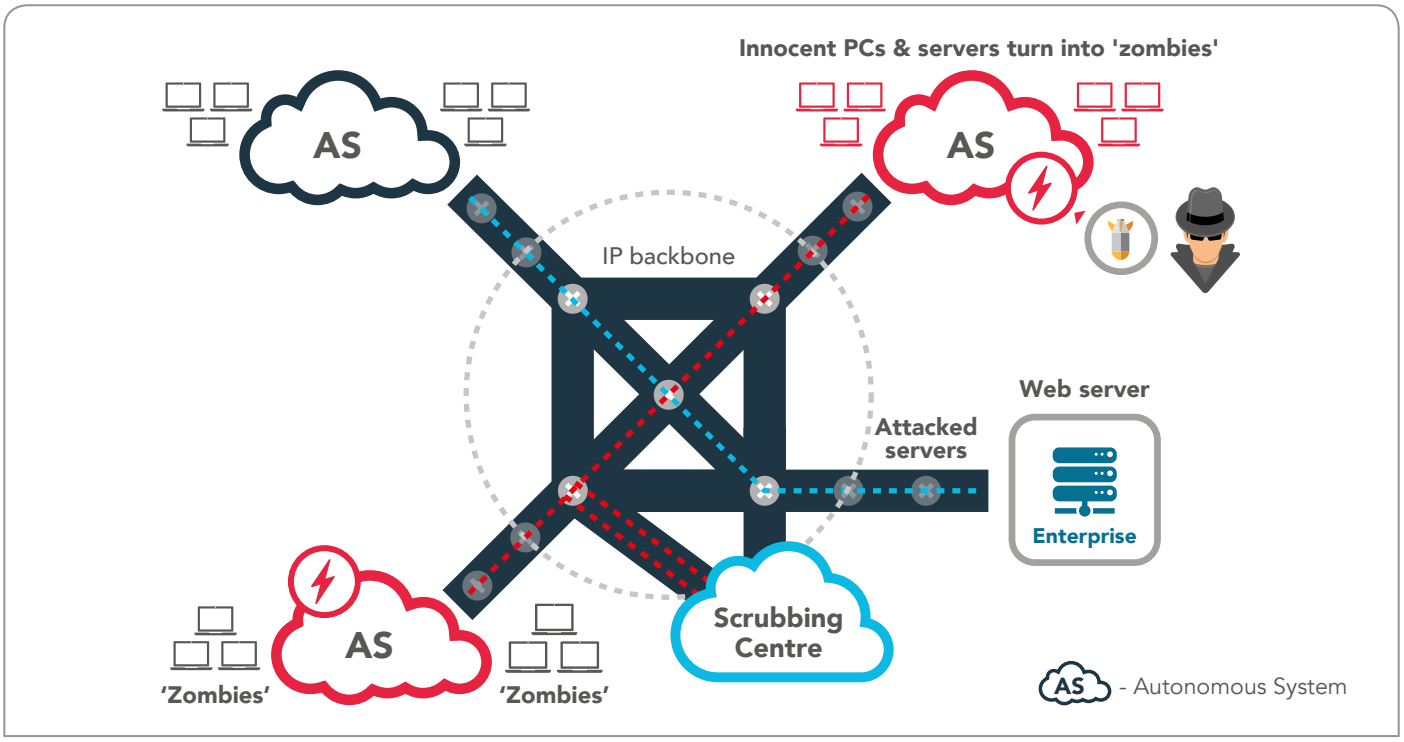
As businesses increasingly recognise the importance of DDoS mitigation, hackers alike are employing sophisticated, fast-evolving DDoS technologies to create maximum devastation.

Typical hallmarks of today's attacks
Complex and diverse attacks ranging from volumetric, state-exhaustion to application-layer attacks aimed at causing upstream saturation, state-exhaustion and service outages.
Smartest attacks are multi-vector or blended attacks that combine any of the 3 attack categories. Attacks are cleverly disguised by being ever-increasing in scale at times, or non-sustained with intermittent service disruption at other times – making detection and circumvention challenging.
Application-layer attacks are becoming more frequent as commonly accessed customer-facing applications (eg. online banking applications) are deemed most vulnerable and thus attractive targets. Requiring only one machine to carry out the attack, application-layer attacks are often masked to make it difficult to differentiate between legitimate and botnet traffic, again frustrating detection and circumvention efforts.

Managed DDoS Protection Services

Singtel Managed DDoS Protection Services is a suite of network security services that offers comprehensive end-to-end managed DDoS protection for your corporate network, web services and data centres. Stay ahead of threats with real-time, round-the-clock proactive monitoring of your internet traffic that addresses security threats and notifies you ahead when abnormalities are detected. With traffic filtering and DDoS scrubbing services by our DDoS scrubbing centre, you can be assured that only legitimate traffic is forwarded to your router.

How DDoS Infects Innocent PCs



What happens during a volumetric attack:

- Targeted server is flooded with a high volume of meaningless traffic beyond what the server can cope to consume bandwidth and cause congestion.
- Server goes down and cripples online services, denying user access to websites, thus affecting customer experience, causing revenue loss and affecting credibility.

Managed DDoS Protection provides localised to global offload of DDoS data:

- Round-the-clock traffic monitoring of your routers gives us visibility to detect unusual Internet traffic.
- Upon detection, we will notify you of a possible attack.
- With your consent, the internet traffic will be re-routed to our DDoS scrubbing centre to reduce undesired traffic. Legitimate, filtered traffic will then be forwarded to your router.
  - Localised DDoS Mitigation: Detects volumetric attacks and provides network-tier mitigation against non-http and data centre attacks; scrubs attack traffic with in-country circuit mitigation of >10Gbps to 100Gbps.
  - Global DDoS Mitigation: Detects volumetric attacks and mitigates to offload DDoS traffic in excess of 100s or 1000s of Gbps.
- Mitigation efforts to be sustained until DDoS attack subsides - before seeking your approval to normalise traffic flow.
- Subsequent 24-hour monitoring of customer traffic patterns to ascertain that DDoS attack has subsided.

Service Offerings

Two Managed DDoS Protection service offerings for comprehensive, end-to-end DDoS mitigation:

	Managed DDoS	
	Protect Enhanced	**Protect-as-a-Service**
Who is it for	Medium to large SMEs/enterprises with web servers in Singapore	Multinationals/large enterprises with geographically-distributed presence and web servers in the region
What it offers	• In-country mitigation for businesses concerned with protection of local web servers and Internet trunks from saturation by DDoS attacks • Protection of web services from large scale attacks of >10Gbps to 100Gbps	• Global mitigation for businesses concerned with protection of regional/global web servers and Internet trunks from saturation by DDoS attacks • Protection of web services from large-scale attacks in excess of 100s or 1000s of Gbps
Charging model	• Monthly recurring charge + additional Gbps bandwidth protection	• Monthly recurring charge
Features	• **Internet profile setting:** Monitor customer's Internet traffic for a period of time to establish baseline of company's typical Internet traffic profile. • **Monitoring and detection:** Perform proactive 24x7 macro-level (IP flow) analysis to monitor and detect any traffic anomalies. • **Notification:** Notify customer of a possible DDoS attack. Seek customer's confirmation to carry out next course of action, such as mitigation. If company detects a possible DDoS attack, contact Singtel Corporate Helpdesk immediately for escalation. • **Mitigation:** Re-route customer's internet traffic for mitigation upon their agreement. • **Incident Reporting:** Provide comprehensive incident reporting after case closure; includes before-and-after traffic profiles after the DDoS mitigation. • **Online DDoS portal:** Empower customers with anytime, anywhere access to monitor and view real-time DDoS attack reports with secured login access.	

Benefits

Always-on service continuity of websites to reduce risks of data loss/theft, revenue loss, brand defacement, loss of corporate credibility and more.

Mitigation of DDoS high-volume attacks up to terabit scale[6] with minimum IT resources and involvement from you.

Peace of mind by leveraging Security Operations Centre (SOC) expertise skilled in managing advanced threats; relieve IT staffing burden and free up limited IT resources to focus on core business objectives.

Improved visibility and better control with real-time dashboard and comprehensive incident reporting.

Protection against new and evolving threats with intelligence monitoring and reporting.

Low total cost of ownership with no upfront capital expenditure.

Greater protection with on-demand capacity[7] to scale mitigation capacity against larger-than-expected high-volume DDoS attacks.

Why Singtel

Comprehensive solution for end-to-end managed DDoS mitigation, ranging from network clean-pipe solution to cloud-based DDoS mitigation for highest-volume attacks.

End-to-end service management backed by ISO 270001-certified Security Operations Centre for a single point of contact and 24x7 security related incident and response management; enable single pane of visibility for managed network system and components.

Best-in-class DDoS mitigation technology

Best-of-breed partnership with industry leaders delivering proven, best-in-class platform for innovative, advanced protection for web presence.

Proven record

Extensive experience in offering DDoS mitigation services to government and large enterprises.

Footnotes:
1. Arbor Networks Inc, 10th Annual Worldwide Infrastructure Security Report (WISR), January 2015.
2. Ibid.
3. Ibid.
4. Ibid.
5. Ponemon Institute LLC, DDoS Impact Report, March 2015.
6. Available with Singtel Managed DDoS Protect-as-a-Service offering.
7. Available with Singtel Managed DDoS Protect Enhanced offering.

About Singtel

Singtel is Asia's leading communications group providing a portfolio of services including voice and data solutions over fixed, wireless and Internet platforms as well as infocomm technology and pay TV. The Group has presence in Asia, Australia and Africa with over 550 million mobile customers in 25 countries, including Bangladesh, India, Indonesia, the Philippines and Thailand. It also has a vast network of offices throughout Asia Pacific, Europe and the United States.

Awards

Asia Business Continuity Awards (ABCA) 2014
NCS - Business Continuity Provider of the Year

Computerworld Readers Choice Awards 2014
Singtel Managed Connectivity and Managed Services

Computerworld Readers Choice Awards 2014
Singtel EXPAN Hosting Services

NetworkWorld Asia - Information Management Award
Best in Security-as-a-Service (2012-2014)
Disaster Recovery & Business Continuity (2014)

NetworkWorld Asia - Readers Choice Award
Best Managed Services (2008, 2009, 2010, 2011, 2012)
Managed Security Services (2014)
Managed Infrastructure Services (2013, 2014)

SEP 2015

For more information www.singtel.com/security Contact your Account Manager