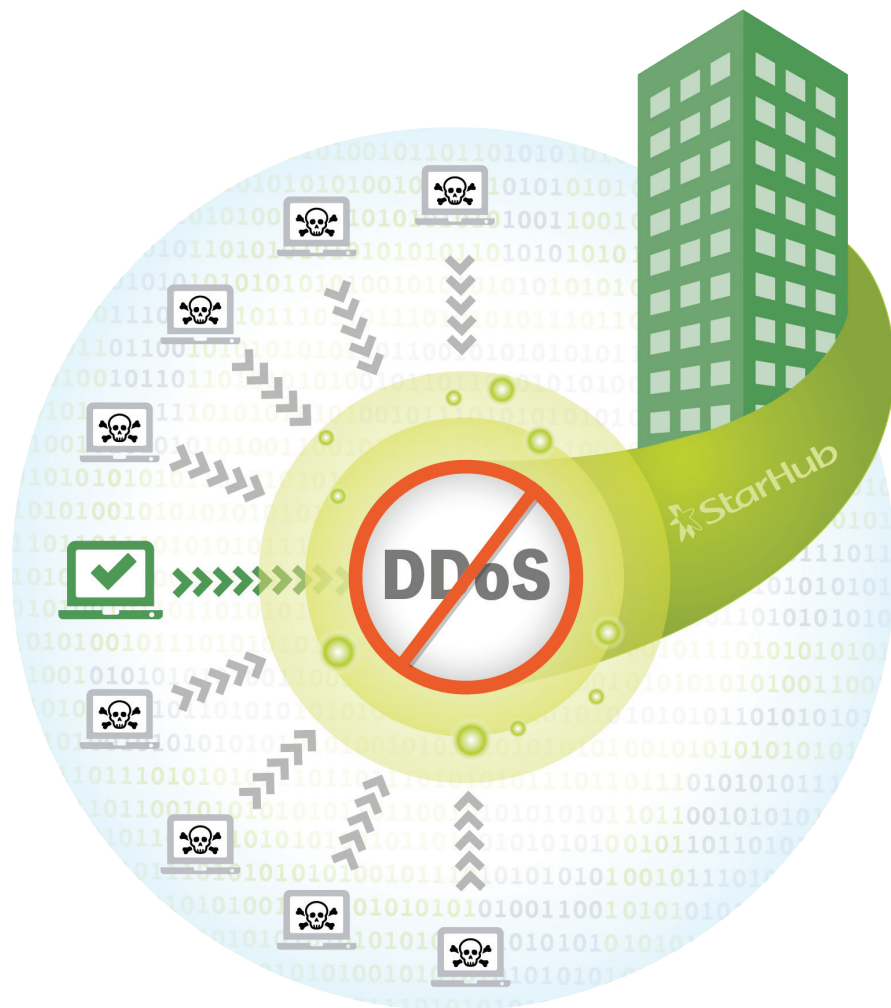




StarHub Clean Pipe

Proactive protection
against distributed
network attacks.

Distributed network attacks can halt your business operations, causing decreased productivity, revenue losses and damage to business reputation. Protect your network with StarHub Clean Pipe and safeguard your company against security disruptions that can affect your business.



Identify

Rigorously screens and stops all security threats at the core-router level from the ISP side, before they even reach your network.



Manage

Provides comprehensive round-the-clock protection by performing detailed flow analysis with proactive real-time detection and mitigation.



Protect

Ensures business continuity in the face of network threats, while securing your strategic assets and brand reputation against damage.



DDoS Attacks

AND

The Cost of Downtime

Distributed Denial of Service (DDoS) attacks and other causes of network downtimes can cause a tremendously negative impact on businesses in terms of revenue. What are the many repercussions of being the target of a malicious attack?

Instigating a DDoS attack is cheap



The cost of hiring a "DDoS attack service" to target a company:

1 Hour		\$5
1 Day		\$40
1 Week		\$260
1 Month		\$900

Being a victim of a DDoS attack is expensive

An average company earning \$10K/hour operating 8 hour/day x5 days/week will lose a revenue of:



	\$10,000 / Hour
	\$80,000 / Day
	\$400,000 / Week
	\$1,760,000 / Month

Calculate your cost of downtime

$$\text{LOST REVENUE} = \frac{\text{Gross yearly revenue}}{\text{Total yearly business hours}} \times \text{Percentage impact} \times \text{Number of hours of outage}$$

Can you afford to lose this much?



Is your business protected against DDoS attacks?

StarHub Clean Pipe can protect your business by stopping DDoS attacks before it reaches your network.

Not to mention the financial backlash in terms of...

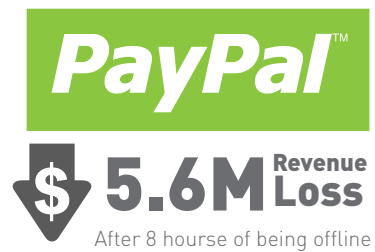
1 | Loss of Productivity

Cost of 1.6 hours average downtime/week for a Fortune 500 company



2 | Loss of Revenue

Companies lost revenue after a DDoS attack:



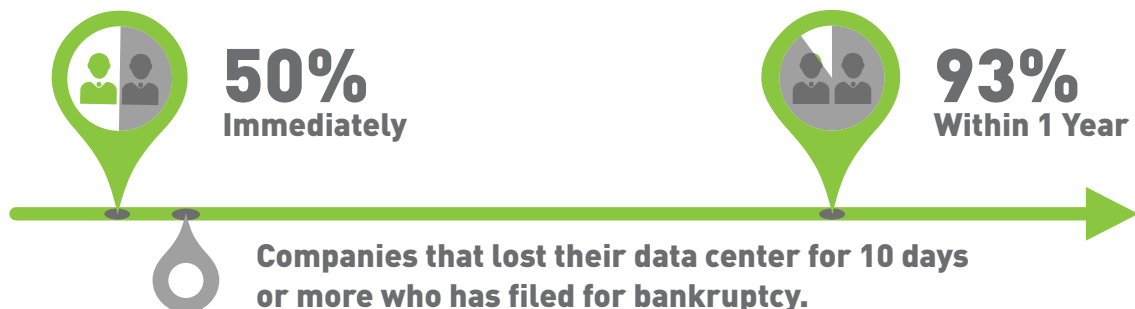
3 | Reputation Damage

Stock prices for trading companies who were affected by IT downtime:



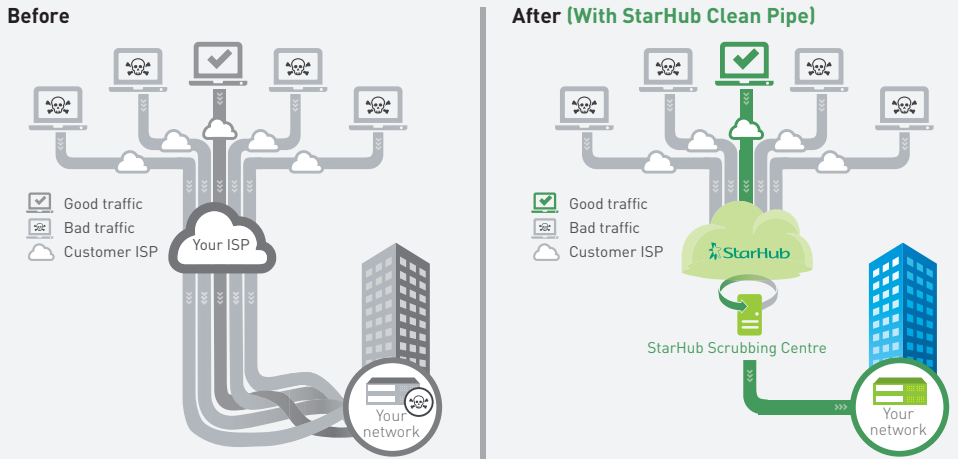
4 | Loss of Customer Confidence

Loss of customer confidence and potential business opportunities can lead to bankruptcy.



Protect your network from DDoS attacks

StarHub Clean Pipe protects your network by blocking malicious traffic and allowing only legitimate traffic to be processed. The result – secure online transactions with optimum network availability even in the face of targeted Distributed Denial of Service (DDoS) attacks.



StarHub Clean Pipe Services	NEW	
	Clean Pipe Standard	Clean Pipe Premium
Volumetric/Bandwidth congestion protection	✓	✓
Application-Layer/Multi-layered protection	✗	✓
Automatic blocking of known attack signatures	✗	✓
Managed 24/7 by StarHub security operations centre	✓	✓

1 Protection at the Core Router Level

- StarHub Clean Pipe pro-actively stops DDoS attacks in their tracks before they reach your network
- Re-routes malicious traffic to several "Scrubbing Centres" where potential threats are filtered and removed
- Sends legitimate traffic back to your network for business processing and transactions

2 Proactive Detection and Mitigation

- Full protection from one single solution with inline detection and automated mitigation
- Detects complex DDoS attacks, including Application-Layer and State Exhausting Attacks
- Employs Cloud Signaling Coalition for Volumetric DDoS protection

3 Business Continuity Assurance

- Peace of mind against potential Internet threats while protecting your company's strategic assets and business reputation
- No costly investments as no hardware or software is required at the customer premises
- Minimise customer downtime and potentially reduce costly bandwidth spikes and network congestion



StarHub is a leading provider of information communications solutions that matter to businesses in Singapore and beyond. We are passionate about co-creating innovative solutions that can help businesses stay ahead of change, delivering flexibility to meet unique requirements, and ensuring reliability that allow the organizations we serve do what they do best. With peace of mind.