Prodapt
powering
global telecom

Deep Packet Inspection Services

Growth in mobile data networks and the rising demand for network intelligence have spurred the growth of deep packet inspection market. Traditionally Network Equipment Manufacturers leverage technology and expertise from DPI specialists to accelerate their time to market, maximize value added capabilities, minimize costs & risks and keep their internal developers focused on delivering next generation solutions to markets.

And DPI Vendors, in a race to remain competitive, face their own set of challenges:

Updating library of Application and Protocol signatures:

Growing number of new protocols get introduced into the network by upcoming OTT providers, P2P providers, content providers, content aggregators and operators.

DPI vendors must continuously invest in redeveloping their software to handle the latest protocol versions.

Monitoring packets for Application and Protocol

OTT providers, P2P providers, content providers, content aggregators and operators seek to evade visibility by regularly updating their application or protocol rendering the application/protocol signature library of DPI vendors outdated.

DPI vendors are required to keep a regular watch on such changes.

Use of Encryption by Applications and protocols :

In the DPI world, life is becoming much more difficult with the use of encryption – the concealing of data to guarantee security and privacy. Encryption is a procedure which renders the contents of a message or a file unintelligible to anyone not authorized to read it.
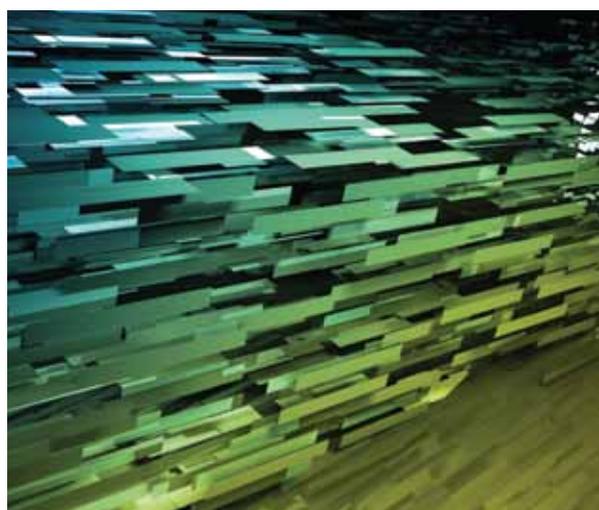
Use of Obfuscation by Applications and protocols :

Creators of several applications have chosen to conceal their operation by scrambling their related communications to avoid traffic shaping done by subscriber management devices.

Our services enable DPI vendors to enhance DPI functionalities to overcome the above obstacles by providing efficient deep packet capture and enabling comprehensive service discovery.

1. Enabling better Service Discovery

Prodapt has experience and expertise in enabling DPI vendors discover and classify applications by providing regular updates to application and protocol signatures. We assist our customers in the following areas:

- Protocol Signature updates and Implementation.
- Obfuscation Tracking
- Decryption of encrypted protocols and applications
- Protocol Co-relation updates
- Customer/Application specific metadata

- Service Discovery -Signatures for family of Protocols – Standard, Tunneling, Peer to Peer, IM, VOIP, Streaming, Gaming etc.
- 300+ protocols and applications identified
- 1000+ metadata extracted

Examples of Traffic Metadata Delivered	
Flow level	IP address, TCP / UDP ports, etc.
Service level	VoIP quality metrics per user
Application level	Type and name of downloaded file, Google query, etc.
Application content	Text and subject of emails, webmails and instant messaging
User level	Sender, receiver, login, etc.

Examples of Protocols and Applications Identified	
Standard Protocols	FTP, HTTP, HTTPS, IMAP, SNMP,SMTP, Telnet URL signatures, RADIUS, POP3, PPP, NFS, Mapi, NETBIOS, OSPF, BGP, EGP
Audio/Video streaming	RTP, RTSP, WMP, YouTube, Dailymotion, Real Player, etc.
VoIP	H323, SIP, MGCP, etc.
Enterprise	Citrix, Oracle, SAP, MS Exchange, McAfee, etc.
Peer-to-Peer	eMule, BitTorrent, Deluge, AppleJuice, LimeWire, Opera, Shareaza, Direct Connect, eDonkey, Filetopia, Freenet, Gnutella, iMesh, Manolito, Pando, StealthNet, thunder/ Webthunder, WinMX, Winny, XDCC etc.
Network	TCP / IP, DNS, DHCP, etc.
Tunneling	SSL, GRE, GTP, IPsec, OpenVPN, ICMP, HTTP tunneling, etc
Instant Messaging	Skype, MSN, Gtalk, Jabber, Paltalk, Oscar etc.
Webmail	Gmail, Hotmail, Yahoo! Mail, etc.
Mobile telephony	Blackberry, MMS, WAP, GTP, etc.

2. Protocol/Application Monitoring Services

Inorder to provide consistent monitoring of applications and protocols over time, it is necessary to observe the changes in applications and protocols that happen frequently. Prodapt assists DPI vendors in capturing and scanning the packet payloads to check if the signatures in the DPI vendor's library are still unchanged.

This we achieve by using our established framework and best practices to execute various possible use-cases to capture the packets helping DPI vendors save time and cost.
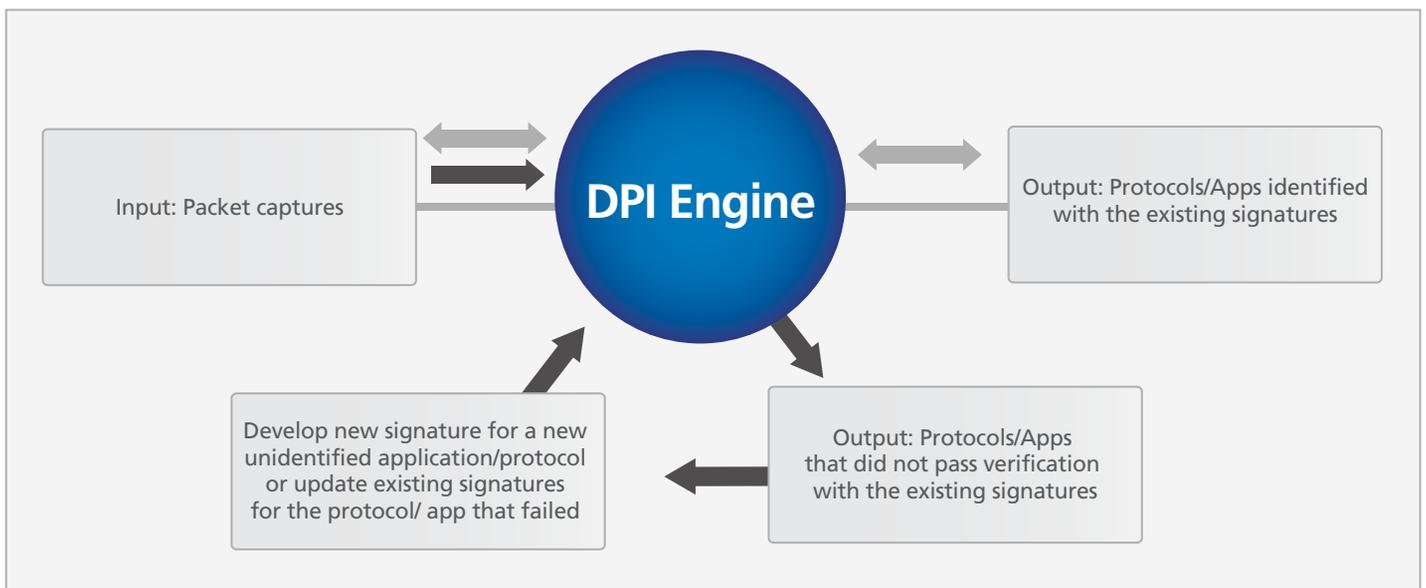
Related DPI services

- Integration of DPI engine into Network Elements
- DPI engine enhancement and maintenance
- Testing

Value Proposition

- Prodapt provides **Proof of concept** of our service for protocol monitoring and signature development services.
- Leading DPI vendors have **improved their time to market** with the help of Prodapt's DPI services.
- Specific development for additional protocols / applications with **aggressive timing**
- Test bed and tools to test the DPI engine.

About Prodapt

Prodapt is a leading provider of IT services to telecommunication clients around the globe. We work with communications service providers (CSPs), ISVs and OEM customers to help outsource, reduce cost and maximize value from IT investments.

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