

## GoS 360° Solution

### The need for a 360° solution

As new services launch and bandwidth demand grows, network operators are increasingly challenged to maintain service performance and user experience.

GoS 360° is a portable software solution that solves the problem of bandwidth demand by extending policy control on to the client device. It enables operators to see exactly what is happening on the device whilst dynamically pushing policy rules. It integrates with the network infrastructure to maximise existing resources.

### The Value of GoS 360°

GoS 360° manages traffic at the client device so that operators can optimise and prioritise traffic before it reaches their network. This minimises contention and enables operators to deliver bandwidth-assured applications to satisfied customers.

With a GoS-enabled network, operators can:

- Enforce congestion management on the device
- Manage signalling overhead before it reaches the network
- Enforce dynamic offload based on specific rules
- Prioritise and protect revenue generating traffic
- Keep unwanted traffic under control

### GoS 360° delivers profitable networks

GoS 360° enables networks to recognise applications and implement policy at the client device. This means they use bandwidth more efficiently and deliver better use of network resources. Real-time congestion management can be based upon multiple factors (cell status, location, throughput etc.).

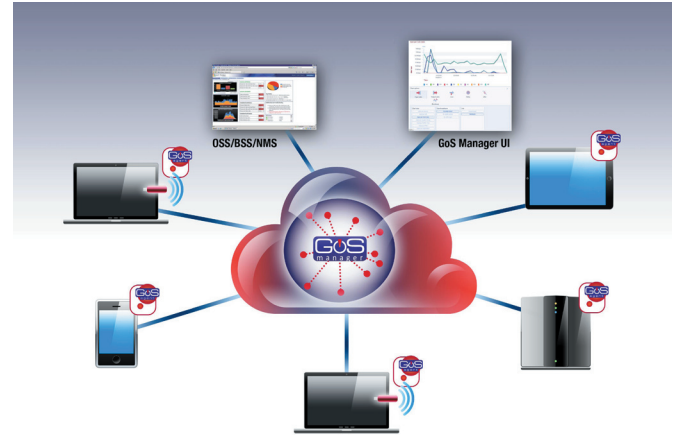
Revenue generating traffic can be prioritised and network capacity can be dedicated to the services and applications that make money.

### GoS 360° delivers profitable customers

Deploying GoS 360° in the network means that customers know their real-time multimedia services will perform. This means they use them more frequently, spend more money and stay with their service provider.

With GoS 360° in your network you can monitor customer experience at the client device, access real-time performance diagnostics and ensure satisfaction.

## Policy Control on Client Devices



### GoS Agent

GoS Agent is a lightweight software solution that consists of the following modules:

- DPI & Application Awareness (optional)
- LAN Connectivity & Diagnostics (optional)
- QoS Performance and Enforcement (GoS™)
- Link Rate & Bandwidth Performance (optional)
- Service Monitoring

GoS Agent contains a unique and powerful QoS software module called "Guarantee of Service" (GoSTM). GoS controls loss and delay simultaneously and delivers multiple real-time classes of service with predictable, differentiated quality.

GoS Agent is embeddable software that can be deployed in any fixed, mobile or M2M device, such as:

- Mobile Broadband 3G / HSPx Dongles / Drivers
- Mobile Handsets and tablets
- Fixed-line Access Gateways
- M2M devices and gateway

### GoS Manager

GoS Manager is a centralised service level manager that enables 2-way communication with all GoS Agents across different client devices. It is deployed on standard COTS platforms and comes with standards-based OSS / BSS / PCRF interfaces for integration with existing management systems. GoS Manager monitors and measures traffic at the Agent devices and enables instant reconfiguration of individual devices based on their current link and application utilisation. Its user-friendly GUI provides simple administration access for a range of functions; measuring, monitoring, configuration and reporting.

## GoS 360° Solution

### Key Benefits

- Gain complete visibility and control of user traffic at the client device
- Dynamically enforce congestion management locally on device
- Integrated with network-based Policy Control and management systems
- Manage signalling traffic locally on device
- Assure and protect revenue generating services
- Identify & implement business opportunities and customer packages
- Save OPEX through simplified provisioning, improved diagnostics and reduced support costs
- Save CAPEX by deferring capacity investments and reducing over-provisioning
- Launch differentiated services backed by reliable & predictable QoS / QoE
- Confidently upsell measurable SLAs
- Reduce churn rates through consistent quality
- Maintain consistent low latency for VoIP and gaming applications

### Key Features

- Scalable and flexible deployment model
- Compatible with any existing network configuration
- Compatible with 3GPP / TISPAN Policy architecture and framework
- Integration with OSS/BSS & PCRF infrastructure
- Alarm and trend reporting
- Simple reconfiguration of end points
- Centralised and secure remote management
- LAN diagnostics & link bandwidth measurements
- Granular measurement of QoS at the network boundary
- DPI and Layer 7 application identification

### Technical specifications

#### Bandwidth control

- Guaranteed bandwidth
- Enforced bandwidth limits
- Reuse of unclaimed bandwidth
- Automatic and on-demand measurement of up / down link rate

#### Quality classes

- Nine quality classes for prioritized real-time traffic
- One Best Effort class
- Up to 128 bandwidth partitions per class

#### Utilization

- Fills link to 100%; 90% of link bandwidth available for priority traffic

#### loss / delay control

- Independent control of loss and delay priority
- Predictable loss and delay behaviour under saturation

#### Interoperability

- Interoperable with common network technologies such as routing, firewall, VPN, compression, etc.
- Compatible with network standards, such as DiffServ (RFCs 2474, 2475, 2596, 3246)

#### Monitoring

- Flexible end-point grouping and selection
- Clear charting of QoS parameters
- Bandwidth per application

### Optimise Network Performance to Generate Maximum ROI

GoS 360° has been deployed by major vendors and service providers. GoS technology is patent protected and has been independently verified. It is based on unique expertise founded on partnerships with academia and researchers at CERN.