



# Data

## Boost your trusted data communication!

### Data IP

Do you meet your subscribers' demands with GPRS, EDGE, UMTS and HSPA Data Services?

Over the Air (OTA) IP data services offer subscribers a highly effective way to connect to a dynamically rich world filled with internet based services such as Email, Instant Messaging, websites, VoIP and much more.

GPRS represents the first step towards faster access provided via EDGE, UMTS, HSPA (HSDPA / HSUPA). To maintain this flexibility in speed, network operators have to deal with the operation and maintenance of multiple technologies. This complexity drives up costs.

To increase revenue and service quality, SITE and GlobalRoamer offer data tests to access all available technologies via dedicated interfaces to discover service performance and functionality problems.



- Data IP
- E-Mail
- Web / WAP Browsing

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#### Sample KPIs

- **PS:** GPRS Attach Duration  
GPRS access point  
PDP context activation Duration  
PDP setup Connect Duration  
PDP IP UP Duration
  - **CS:** CSD Dialin Duration  
CSD connect assign IP Duration
  - **Download:**  
Downloading Duration  
Download Rate
  - **FTP:** Downloading Duration  
Uploading Duration  
Mean Download Rate
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#### Sample Features

- DNS request
  - Download URL
  - HTTP browsing
  - FTP upload / download
  - Ping a host
  - TCP/IP command
  - Transfer rates measuring
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## E-Mail

Modern life is unthinkable without E-Mail!

Subscribers not only need voice communication, they also want to be in contact with friends and colleagues via mobile E-mail. In order to gain acceptance as a reliable service frequently used by the subscribers, network errors must be avoided and uncovered by performing active continuous tests.

The question is, whether mobile E-mails are delivered on time to the receivers' designated email addresses.

Keynote SIGOS Test Systems provide E-mail testing via multiple interfaces, like GSM Um, GSM Gb, 3G UMTS Uu or Iu PS.

It can be checked whether a mobile E-Mail can be sent and received via a POP3 / IMAP / SMTP server. The mobile E-Mail would be sent via Simple Mail Transfer Protocol (SMTP) to an E-Mail server and fetched via Post Office Protocol version 3 (POP3) or Internet Message Access Protocol (IMAP).

### Sample Features

- Mobile E-mail upload and download from an E-mail server
- Interfaces: GSM Um, GSM Gb, 3G UMTS Uu or Iu PS
- SMTP server
- POP3/IMAP server

### Sample KPIs

- Mobile E-mail address
- Mobile E-mail size
- Mobile E-mail fetch duration
- Mobile E-mail send duration
- Mobile E-Mail End-to-End Transaction Time with Notification
- Mobile E-mail success ratio



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## WAP / Web Browsing

What about mobile Internet browsing?

The combination of high throughput protocols such as WLAN, EDGE and HSPA along with the variety of today's multi-functional, big screen handsets have greatly enhanced the mobile internet browsing experience. The network operators need to ensure access to the internet directly via HTTP, HTTPS and FTP via a mobile device.

Response, accessibility and data throughput are the major performance indicators for monitoring the quality of service. In addition, Web Browsing tests can access websites, fill in forms, receive cookies, initiate secure transactions, download contents and much more!

### Sample Features

- Chains of user interaction on a web application, e.g. a full ecommerce session
- HTTP post/get request methods
- HTTPS (SSL) for secure transactions
- Cookie handling
- Follow links both by name or URL

### Sample KPIs

- HTTP data packet duration
- HTTP data size
- Web Browsing duration
- GPRS access point
- PDP context activation duration
- PDP setup connect duration
- PDP IP UP duration