

Distributed Active Probing

Analyse how your end-to-end network performance is evolving

Cost effective, fast and simple set-up

Monitor and measure mobile data performance



General | Day Reports - Measurements | Day Reports - Services | Ping | Custom Reports | Cell Reports

Client:

Measurements

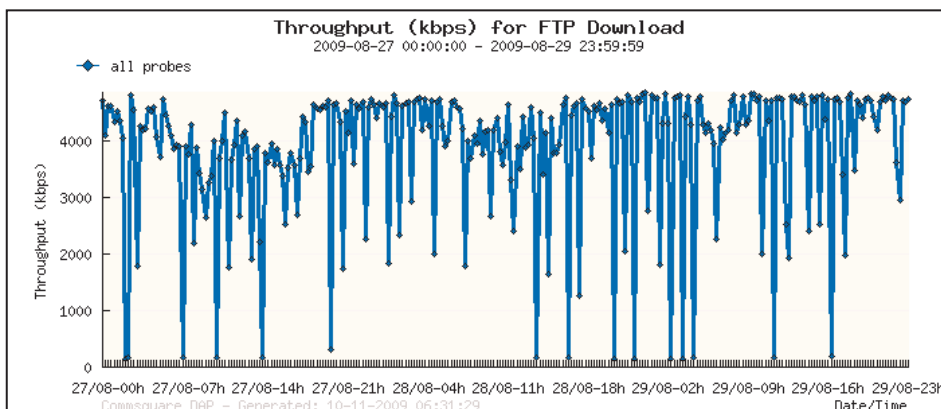
Note: A measurement is a combination of different datatests like FTP download or pings. It is considered as 'not successful' if one of the datatests fails.

Overview:

Probe	Successrate	Attempts #	Success #	Failed #
be	97.27 %	4035	3925	110

Last 15 attempts:

M-ID	Time	Probe	APN	IP	Technology	CellId	Status
22286	2009-06-15 21:47:41	be	gprs	10.161.12.218	3G - R99	20391	SUCCESS
22282	2009-06-15 21:32:38	be	gprs	10.161.113.229	3G - R99	20391	SUCCESS
22279	2009-06-15 21:17:20	be	gprs	10.161.127.87	3G - R99	20391	SUCCESS



Introduction

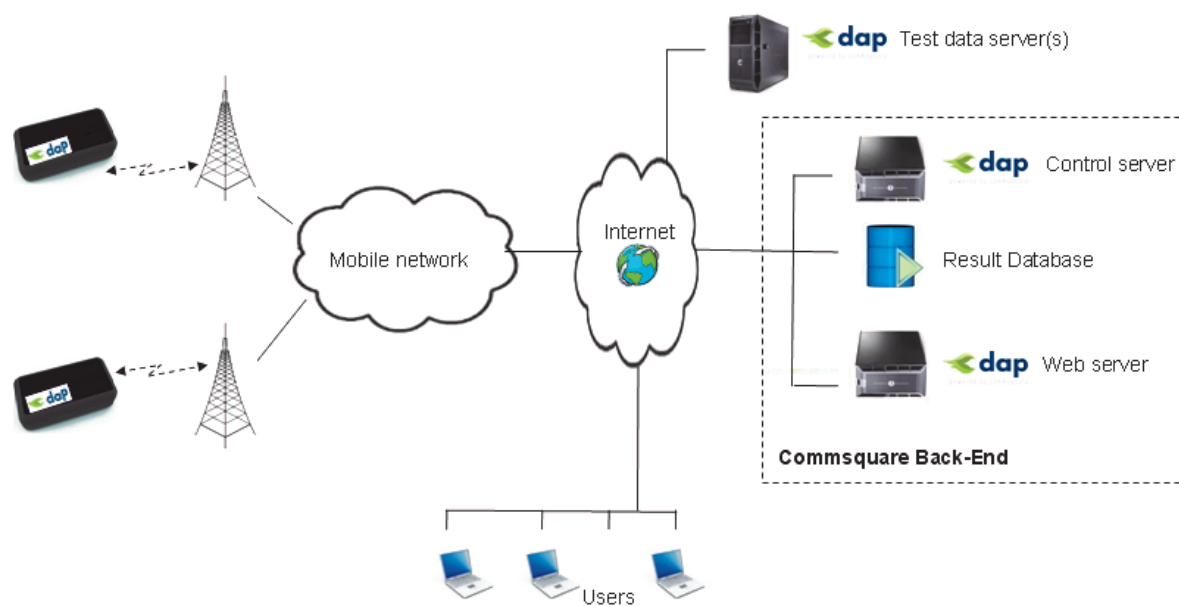
DAP is designed to monitor and measure the end-to-end performance of your **mobile data** services and mobile data network 24/7.

Commsquare's DAP is a very cost-effective, unattended and distributed active test solution. The DAP probes can be deployed fast, are easy to operate and have a small form factor.

DAP description

Commsquare's Distributed Active Probing (DAP) solution consists of active test robots (i.e. small devices operating as a test computer with a cellular data modem) and the Commsquare back-end infrastructure, providing web-based reporting on relevant KPIs.

DAP probes have a small form factor and only need power to operate. The *control server* centrally controls the probes "over the air" and test scripts are remotely configurable. DAP probes upload the KPIs of the tests into the *result database server*. Users can view results through a *web server*.



Usage Model

DAP probes are typically deployed at 10's of locations across your network.

By deploying DAP probes in each RNC and SGSN area and by testing different APNs, you will get an insight in which network elements suffer (operational) problems. You can also install a number of DAP probes in the network of your main roaming partners.

You can deploy a DAP probes at the premises of key customers to monitor SLAs; or you can send DAP probes to customer sites for trouble shooting purposes.

The auto-refresh capability of the web pages makes DAP an effective dashboard for your Network Operations Center.

Benefits of DAP

Fast deployment

Our DAP solution can be made operational rapidly. As a Mobile Operator you just need to decide about the local of the DAP units, deploy them and provide them with power. Commsquare will host and run the back-end database and web server for you.

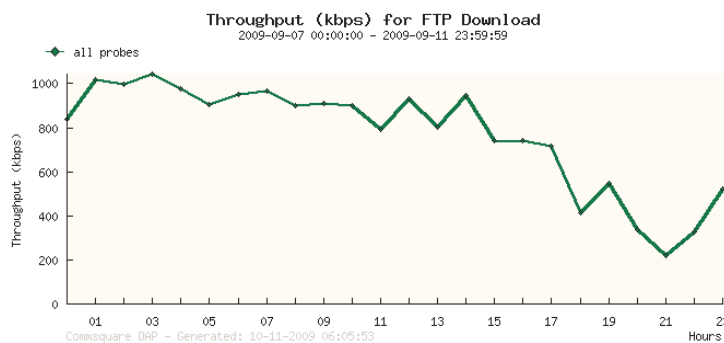
Easy to operate

The DAP probe has been engineered to be easily installed at key locations:

- Only power required
- Over-the-air control (no need for RJ45 connection)
- Automatic start after power-on
- Autonomous, fully unattended solution
- Small form factor
- Remotely control through the web interface

Near real-time results

As soon as the DAP probe has completed another test run, it will upload the results to the central database server. The user can then view the results without delay.



Competition spy

DAP probes can hold SIMs from different networks. DAP can be used to compare performance of your competition 24/7. This is important to get a true picture of mobile data performance. Indeed, drive tests are often only conducted during business hours and periods of poor data performance usually don't coincide with business hours.

Web-based results

Results can be viewed from anywhere, anytime.

Typical questions answered by DAP are:

- Is my network running in an optimal way?
- How does performance evolve during the day (i.e. day profile)?
- What is the effect of mobile data growth on performance?

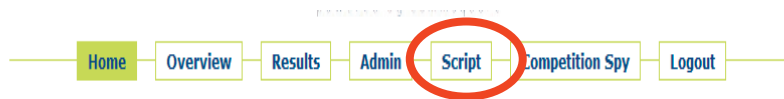
Remotely control via the web interface

Using the web interface it is possible to change the APN, the name of the probe and to create/adapt the test sequences to your needs.

Test Sequence

Remotely control via the web interface

Using the web interface it is possible to change the APN, the name of the probe and to create and adapt the test sequences to your needs.



Welcome to [DAP](#).

Define Test Sequence

[Back to DAP administration.](#)

[Back to sequence administration.](#)

Test script sequence [edit](#)

APN APN.internet every 30 minutes using Freemode

+ FTP Download	FTP DOWNLOAD ftp download
+ FTP Upload	FTP UPLOAD ftp upload
+ HTTP	HTTP galileo
+ Ping	PING 3x ping
+ Sleep	SLEEP no reason

Over the air update

The 'over-the-air' update feature facilitates the software remote upgrade of the DAP probes.

In this way the new features can easily be deployed, without any on-site intervention.

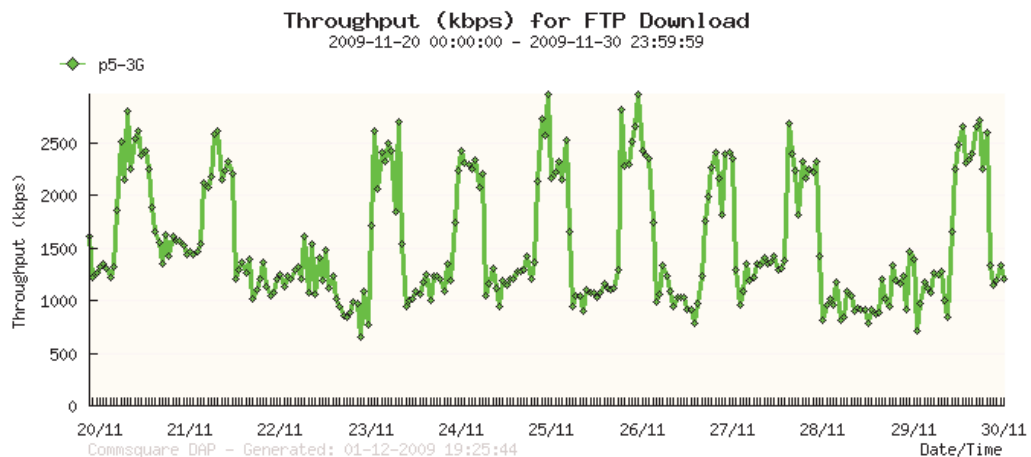
Business Benefits

DAP is providing

- A **complement to drive-tests**, since DAP is providing you with 24/7 information on your mobile data performance at selected key locations;
- A **complement to passive probing solutions** (such as Commsquare's DataMon), since DAP goes beyond your own network ("competition spy") and provides end-to-end mobile data testing.

Cost Effective

Commsquare's DAP solution is an extremely cost-effective solution. Quick return on investment is achieved.



More Information

Are you interested in a DAP trial?

After signing an NDA, we can ship you a few DAP probes you just need to power. Commsquare will also provide you with a web login so you can view results of your probes. It will take less than a minute of for your time to have the DAP solution operational.

A deployment in your network?

A small number of DAP probes in your network will already provide the crucial real-time info you require for end-to-end monitoring of the mobile data performance of your network.

Please contact us to discuss a deployment in your network. Don't hesitate:

info@commsquare.com



Annex: Loadtester

Outline

Regular benchmarking campaigns assume that the measurements happen in an environment that corresponds to an average user experience, in terms of capacity, coverage, etc.

In some cases, it can be interesting to also measure the behaviour of the network in less-than-ideal conditions, such as under maximum load.

Load testing is performed to measure this behaviour, by introducing enough traffic to saturate the cell(s) under test.

Hardware set-up

To perform the load testing, Commsquare has a solution to run multiple DAPs in parallel in a time-synchronized way. This allows you to ramp up the network load and validate network performance under increasing load. The solution is highly scalable. As shown in the picture below.

