

**Regional Activity to Promote Integration through
Dialogue and Policy Implementation (RAPID)**



**SUPPORT FOR
TRANSPORT AND TELECOMMUNICATION REFORM IN
SOUTHERN AFRICA:
PROTOCOL IMPLEMENTATION
Task Order 2.1**

**Technical Report:
KEY PERFORMANCE INDICATORS**

**Brian Goulden
William Schulte
Chemonics International**

August 2001

(Contract No. 690-I-00-00-00149-00)

Introduction

This paper provides a background to the topic of Key Performance Indicators (KPIs). What they are; the reasons for having them, what information they provide, some of the principles underlying the development of appropriate KPIs. In addition, mechanisms for monitoring performance and the incentives and sanctions associated with achieved performance are also considered.

What are Key Performance Indicators?

Broadly-speaking, there are three types of key performance indicators as they relate to telecommunications sector performance; these are:

- A set of targets against which the performance of the telecommunications sector nationally can be measured;
- A set of targets used to assess the level of operators' or service-providers' delivery of services to their customers;
- A set of internal targets against which the performance of the regulatory institution is assessed to measure its effectiveness and contribution to telecommunications sector development.

Examples of specific Key Performance Indicators are shown below.

Why have Key Performance Indicators?

At the national level, KPIs give a broad indication of movements in telecommunications sector development and allow comparisons to be made with regional and global benchmarks. They give a strategic level view of the effectiveness of national telecommunications policies and the effectiveness of the regulatory institution in its sector development role.

At the operator and service-provider level, KPIs monitor the achievement or otherwise of licencees' obligations; they provide an incentive to operators and service-providers to attain and maintain acceptable standards of service; they ensure that customers are treated in acceptable manner. At this level, customers can be both other service-providers to whom, for example, interconnect and other services are provided and consumers who receive direct services from an operator or network. The information they provide includes:

- Overall performance of operators / service – providers relative to their individual obligations to consumers;

- Performance of operators' consumer – focused performance relative to their competitors
- Operators' performance in relation to their perceived competitors – issues such as interconnection.

It is important to note, however, that Key Performance Indicators are not a mechanism for the regulator to manage operators' / service-providers' operations, to determine what technology the operator must use, decide on the working methods to be employed, or the numbers of staffing to be employed. It is also important that KPIs do not impact operators' / service-providers' organisational structures except for ensuring transparency of operations.

At the institutional level within regulatory authorities, KPIs accomplish the following for management:

- Identifies effectiveness of people, processes and technology and indicates need for training and development, systems development and Business Process Re-engineering,
- Identifies the level of overall organisational effectiveness – achievement of mission / objectives and statutory obligations;
- Measures progress of individual units in achieving stakeholder satisfaction;
- Measures level of partnership / support between units;
- Develops integration / team unity;
- Fosters peer involvement;
- Raises stakeholder perception of the regulator's activities
- Enhances the regulator's credibility with sector stakeholders.

Approach to KPI Development

At the national level, the range of KPIs will be relatively limited and development of the specific indicators will follow on directly from national policy considerations.

At the operator / service-provider and regulatory institution levels, as with general business objectives, indicators should be "SMART":

- Specific: linked to a particular activity, clear and unambiguous
- Measurable: objective not subjective
- Attainable: incrementally challenging but realistic
- Relevant: meaningful to operators and consumers alike
- Time-bound: regularly measured and reviewed

If indicators values are set at an unrealistic level – either too high or too low, they become meaningless as a tool to measure real performance. However, the targets for achievement should be sufficiently challenging to ensure the operator

/ service-provider has to be efficient in order to meet them. It is also necessary when setting targets to consider the consequences of the operators' / service-providers' achievement or failure to achieve the targets. There is little value in setting targets if there is not some incentive to achieve or sanction for not achieving them.

Appropriate Key Performance Indicators

National Level

At national level, the appropriate indicators may relate only to access to services. These might include:

- Traditional tele-density figures, ie lines per hundred head of population;
- Urban and rural penetration
- Network coverage – both for fixed and mobile operators

Operator / service-provider Level

At operator / service-provider level, there are three broad categories of KPI; these are:

- Coverage / roll-out performance
- Network performance
- Interconnection performance
- Customer-focused performance

Examples of relevant indicators within these categories are as follows:

Coverage / Roll-Out KPIs

- Numbers of new lines connected (fixed operators)
- Number of “settlements” covered (fixed & cellular operators)
- Number of Base stations commissioned (cellular operators)

Network KPIs

- Level of digitalisation in trunk and local loop – transmission & switching (fixed operators)
- Level of noise / static / dB loss
- Speed of network restoration when outtages occur – number / frequency of outtages (fixed & cellular operators)
- Levels of traffic with individual interconnected networks (fixed & cellular)

Interconnection KPIs

- Speed of provision of interconnection circuits

- % of interconnection cut-overs made on scheduled date
- Quality of switching & transmission measures agreed and met (eg peak hour congestion, transmission loss or delay)

Customer-Focused KPIs

- Speed of provision of service – number of days between application and provision of service
- Speed of restoration of service after outage
- Percentage of faults cleared within specified times, that is within 24 hours, within 72 hours, within one week, within 30 days
- Customer perception of service – satisfaction surveys
- Serviceability of public telephones

- Accuracy of customer bills
- Timeliness of bills – adherence to published billing schedule
- Clarity of billing information – full disclosure of information on destination, time and duration of calls
- Handling of queries (time to resolve queries)

KPIs for Regulatory Institutions

The three categories of internal performance indicators for regulatory institutions are:

- Process times – to complete transactions
- Cycle times – how quickly are complaints and other issues dealt with
- Decision-making times

Specific KPIs could include the following:

- Level of access available to consumers – how much time is taken to answer queries
- Time to process routine requests (licences etc)
- Time to process major issues (tariff proposals, bids for licences)
- Number and type of complaints – measuring effectiveness of regulators' actions
- The level of customer-satisfaction with the regulator

Monitoring Performance

Monitoring Mechanisms

- §Desk analysis of data submitted by operators*
- §Remote surveillance / testing*
- §Auditing operators' operations*
- §Regulators' staff*
- §Independent auditors*
- §TRASA regional capability*
- §Consumers' role – satisfaction surveys*

Utilising Auditors

- §Independent auditors*
- §Can be paid for by operators but report to regulator*
- §Operators should be monitoring their own performance so this is not added cost to them*
- §TRASA Regional capability*
- §Utilises scarce resources*
- §Builds internal capability*
- §Overcomes resistance to criticising operators*

Frequency of Monitoring

- §Routine monitoring*
- §How often: weekly / monthly / quarterly?*
- §Differing periods for different KPIs?*
- §Non-routine monitoring*
- §Purpose / reason*
- §Mechanism – desk analysis / independent audit?*

Effective Monitoring

- §Gives operators an independent view of their quality of service / customer satisfaction*
- §Develops an atmosphere of mutual respect between regulators and operators*
- §Enhances regulators' credibility with consumers*
- §Raises overall awareness of consumer rights and service-provider obligations in other sectors*
- §If you don't monitor, you lose a valuable tool for stimulating sector development*

Performance Incentives & Sanctions

If Key Performance Indicators are to be meaningful to operators /service-providers, it is important that there are appropriate incentives for them to achieve the target performance set by the indicators. These incentives may vary depending upon the performance area being considered. For example, an operator's "exclusivity period" could be lengthened if network / service roll-out targets are met within the specified time frame. There might be a reduced reporting burden on operators if they are seen to be meeting targets set for them. It may also be appropriate to take into account operators' / service-providers' improved service levels against targets when reviewing applications for changes to tariffs.

Similarly, where operators / service-providers are not meeting their obligations, it is appropriate for there to be a range of sanctions available to the regulator to act as a deterrent to continuing below target performance. Different sanctions may be appropriate for different performance areas and different operators. For example, it may be appropriate to shorten an "exclusivity period" for failure to meet roll-out targets. Operators may be required to create a compensation scheme for customers who suffer excessive numbers or periods of outage and slow restoration of service. It may also be valuable to levy fines for overall failure to meet licence targets for service quality.

Conclusion

In summary, Key Performance Indicators are essential tools for regulators to carry out their sectoral and service development role and enable them to monitor licensees' performance against agreed obligations.

National KPIs allow Government to measure overall sector performance in terms of growth and development – both nationally and in comparison with their regional partners.

The KPIs set for operators and service-providers safeguard consumers' rights and, in the case of competing operators / service-providers, safeguard non-dominant operators from predatory actions or inaction from a dominant operator seeking to retain market-share in an unfair manner.

The internal Key Performance Indicators set for regulatory institutions measure the progress of the institution and have the potential to enhance regulators' credibility with stakeholders, who view the regulator as not only acting to develop the sector but doing so in an efficient and effective manner. KPIs also aid the development of regulatory agencies' capabilities by challenging them to perform in a customer-focused manner.

The specific values assigned to Key Performance Indicators may vary between countries within the SADC region and between operators within countries.

TRASA members are invited to endorse the need for Key Performance Indicators as a regulatory tool. Further, TRASA is invited to consider developing appropriate regional guidelines for KPIs with a view to developing a model KPI framework for adoption by SADC telecommunications regulators.