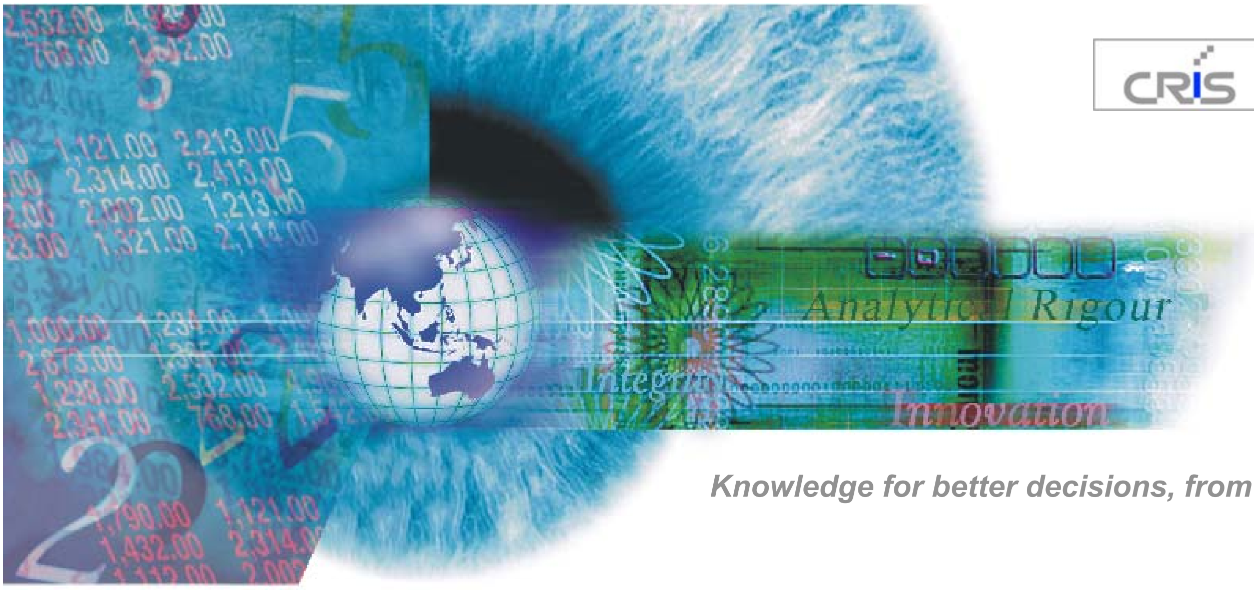

Knowledge for better decisions, from the expert

Impact analysis: Telecom regulatory policy changes

November 2005

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On November 10, 2005, the government announced a slew of policy measures, aimed at deregulating the telecom services sector, increasing competition, and lowering tariffs. This report analyses the impact of the measures announced on the telecom services industry and specific services licences. We have also explained our view on the takeaways from the measures for future policy direction.

Contact details

Client Servicing: (clientservicing@crisinfac.com) 022-56913561

Telecom regulatory policy changes: Impact analysis

Executive summary

Continuing its policy of deregulating the telecom services sector and lowering costs for consumers, the Department of Telecommunications (DoT) announced a slew of policy changes on November 10, 2005, to be effective from January 1, 2006.

The changes announced include relaxation in the licensing conditions for national long distance (NLD) and international long distance (ILD) services, permitting long distance service providers to access subscribers directly, and removal of policy restrictions placed on Internet telephony. The requirement of prior experience in the telecom sector for being granted service licences has also been done away with.

The scope of the licence of access service providers has been expanded, as they have been allowed to provide unrestricted Internet telephony, Internet services and broadband services under their existing licence. Access service providers can now provide triple play, that is, voice, video and data over a single licence.

CRIS INFAC believes that the measures announced will completely alter the competitive landscape in the long distance services market. More players will enter in the market, and competition, especially in the lucrative corporate segment, will intensify. Domestic and international bandwidth prices, especially that of higher capacities, are expected to decline further, as a result of greater competition amongst service providers.

The new policies may sound the death knell for standalone Internet service providers (ISPs), as a licence fee has been imposed on ISPs providing restricted Internet telephony; they also cannot provide content services on a managed network not derived from the Internet. ISPs may have to procure long distance licences in order to survive. (Sify has already indicated its intent to obtain a long distance licence.)

The central message running through the policy changes is clear – simplify licensing procedures, ensure that the regulatory environment evolves with progress in technology, lower entry barriers, and allow for greater competition in the interest of the consumer. Government policy has evolved to enable economics and technological progress to determine the direction in which the telecom services industry will move ahead.

CRIS INFAC is of the view that, as a result of the policy changes announced, the government will soon have to change the method of levy of access deficit charges (ADC) from the existing per minute basis to a revenue share basis. The fixation of licence fees for long distance operators at 6 per cent makes us believe that the licence fees on access service providers will also be bought down to this level in due course. Once these decisions are taken, it is likely to result in the death of distance, that is, same tariffs for local and STD calls as envisaged under the OneIndia initiative of the government.

The policy changes announced by the government, and the impact of these changes on service providers and consumers has been summarised in the table below. In the pages that follow, CRIS INFAC has explained in detail each of the changes and their impact on the telecom services industry and specific service licences. We have also explained what, in our view, are the takeaways from the measures taken for future policy direction.

Telecom services: Policy changes and impact

			Impact on	
Service/Measure	**Current status**	**With effect from January 1, 2006**	**Service providers**	**Consumers**
National Long distance				
Entry fees Revenue-share licence fees Net worth	Rs 1,000 million 15 per cent Rs 25,000 million	Rs 25 million 6 per cent Rs 25 million	Entry of more players to result in increased competition. Negative impact on existing service providers to be softened by increase in traffic volumes.	Tariff declines expected. The benefits received in the form of lower licence and entry fees to be passed on to consumers.
Rollout obligations	Point of presence in each of the 321 long distance charging areas in the country within 7 years. Coverage of uneconomic and remote areas over the 7-year period	Rollout obligations waived for existing licence holders, and will not be applicable for new licensees	Makes the business case of operators more viable. Can cherry pick routes, that is, offer services only between routes where it makes economic sense.	To get lower rates between high traffic density locations. Bandwidth prices between such locations also to come down.
Access to customers	Service providers cannot access subscribers directly. They have to go through access providers.	Service providers can access subscribers directly for the provision of domestic leased circuit/closed user group services	Increased competition for corporate subscribers. Existing access service providers likely to lose market share in corporate segment. Their profitability also will be hit.	Domestic bandwidth prices to fall, especially that of higher capacities. Large corporates to be main beneficiaries.

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			Impact on	
Service/Measure	**Current status**	**With effect from January 1, 2006**	**Service providers**	**Consumers**
International long distance				
Entry fees	Rs 250 million	Rs 25 million	Entry of more players to result in increased competition. Negative impact on existing service providers to be buttressed somewhat by higher traffic volumes.	Tariff declines expected. The benefits received in the form of lower licence and entry fees to be passed on to consumers.
Revenue-share licence fees	15 per cent	6 per cent		
Net worth	Rs 2,500 million	Rs 25 million		
Rollout obligations	Four points of presence (one in each of the four regions of the country) within 3 years.	Prospective ILD licensees will be required to have only at least switch in India	Operators can choose of offer services only between destinations where it makes economic sense.	Lower rates between high traffic density locations. Bandwidth prices between such locations also to come down.
Access to customers	Direct access to customers not permitted. Service providers have to reach subscribers through the network of NLD and access service provider.	Service providers have been permitted to access subscribers directly for the provision of international leased circuit/closed user group services.	Increased competition for corporate subscribers. Existing access service providers likely to lose market share in corporate segment. Their profitability also will be hit. Existing NLD service providers will lose some revenue.	International bandwidth prices to fall, especially that of higher capacities. IT/ITES companies to benefit the most.
Access services				
Scope of licence	Can offer fixed and mobile services under existing licence.	Scope of licence expanded to include unrestricted Internet telephony, Internet and broadband services	Expanded scope of licence seen as a positive for access service providers. Movement from circuit-based to packet-based IP networks envisaged. ISPs to be badly hit.	The birth of unrestricted Internet telephony in India. To put downward pressure on call tariffs.

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			Impact on	
Service/Measure	**Current status**	**With effect from January 1, 2006**	**Service providers**	**Consumers**
Internet services				
Licence fees	Re 1 per annum, irrespective of whether restricted Internet telephony is provided or not	Licence fee of 6 per cent of adjusted gross revenues	Internet service providers to be adversely affected. Cost of service to increase.	No impact. Possibility of passing on the licence fee is minimal in a competitive market.
IP-VPN licence done away with	Several large ISPs offer IP-VPN services to corporate consumers.	Existing IP-VPN licensees to be allowed to migrate to NLD/ILD service licence. Entry fees to be adjusted on migration. Licensees not interested in migrating cannot carry voice traffic over VPN network.	A major source of revenues for ISPs to be closed.	No major impact. Market situation to ensure competitive tariffs for corporate consumers.
Managed services	Several ISPs provide network, applications, security and hosting services to corporate consumers.	ISPs cannot provide content services on a managed network not derived from the Internet.	Closure of a lucrative source of revenues and a profitable business for ISPs.	No major impact
Infrastructure provider - II				
IP-II licence done away with	IP-II licensees provide bandwidth to telecom service providers.	Existing IP-II licensees can choose to migrate to NLD/ILD service licence or continue to provide bandwidth to telecom service providers under their existing licences.	IP-II licence holders can obtain a NLD licence at much lower costs	Lower tariffs due to increased competition in NLD services.

Source: CRIS INFAC

Measures announced and their impact on the industry

NLD, ILD services licensing conditions relaxed

The entry fees for a new national long distance (NLD) licence is to be slashed drastically from the existing Rs 1,000 million to Rs 25 million with effect from January 1, 2006. The annual licence fees has been reduced from 15 per cent of adjusted gross revenues (AGR) to 6 per cent. The net worth and paid-up capital requirement for stakeholders desirous of obtaining a new NLD licence has also been reduced sharply to Rs 25 million, from Rs 25 billion and Rs 2.5 billion, respectively, at present.

The mandatory rollout obligations have been waived for existing NLD licence holders, and will not be applicable for new licensees. Currently, the NLD licence requires licensees to set up a point of presence (switching and transmission centre of appropriate capacity to provide on-demand inter-circle long distance services) at each of the 321 long distance charging areas (LDCAs) in the country over a period of 7 years from the date of signing of the licence agreement in a phased manner. The rollout obligations also require coverage of uneconomic and remote areas over the 7-year period. These rollout obligations will now not be enforced.

The government has also allowed NLD service providers to access subscribers directly for the provision of domestic leased circuits/closed user group (CUG) services. The current regulations do not permit NLD operators to access subscribers directly; they have to go through access service providers.

Similar relaxations have been mooted in the licence conditions for international long distance (ILD) services. The entry fees for players wanting to provide ILD services is to be reduced to Rs 25 million from the existing Rs 250 million, and the revenue-sharing licence fees has been brought down by 9 percentage points to 6 per cent. The net worth and paid-up capital requirement has been fixed at Rs 25 million. ILD service providers too have been permitted to access subscribers directly for the provision of international leased circuit/CUG services, instead of reaching the subscriber through the network of the NLD and access service provider, as is the case at present.

For ILD service providers as well, the rollout obligations have been relaxed; prospective ILD licensees will be required to have only one switch in India. As per the existing licence conditions, ILD licensees are required to establish at least four points of presence (one in each of the four regions of the country) within 3 years from the effective date of the licence agreement. Furthermore, they are required to ensure delivery of traffic to all the countries in the world through at least four direct routes (one each to North America, Gulf region, Europe, and any one location in South East Asia, Far East and Oceania) within a 3-year period.

It may be recalled that in CRIS INFAC's annual report on the telecom services industry (released in October 2004), we had expressed the view that the entry fees for provision of NLD and ILD licences should be kept much lower than the Rs 1,070 million (for both NLD and ILD services) suggested by the Telecom Regulatory Authority of India (TRAI) in its draft recommendations on the unified licensing regime. We have also continuously been stating the licence fees on telecom services will be brought down to 6 per cent.

New players to enter NLD and ILD services sector

Currently, the ILD and the NLD services market in India is dominated by the fully integrated players. There are four players in the NLD services segment in India – Bharat Sanchar Nigam Ltd (BSNL), Bharti Tele-Ventures Ltd, Reliance Infocomm Ltd, and VSNL Ltd. In the ILD services space, VSNL, Bharti Tele-Ventures, and Reliance Infocomm are the major service providers.

With the government relaxing entry and licensing conditions significantly, CRIS INFAC expects the number of players in NLD and ILD services to increase over the medium term, resulting in greater competitive intensity in the market. The relaxation in the regulations, allowing ILD and NLD operators to access subscribers directly for offering leased circuits/CUG, will be another driver for the entry of more players.

Since rollout obligations have been removed, prospective long distance operators could also choose to just offer their services between locations that make economic sense (for example, between Mumbai and New Delhi, and Mumbai and USA). This, in turn, would improve the business viability of long distance operators.

We are of the view that large players in the mobile services business such as Hutchision-Essar Ltd and Idea Cellular Ltd, who currently route their inter-circle traffic through other NLD service providers, will enter the NLD services business. For routing their inter-circle traffic, these operators pay carriage charges to the NLD operator (according to CRIS INFAC estimates, the average NLD carriage charge currently is around 65 paise.) Now that licensing conditions have been relaxed so significantly, it would make business sense for Hutchison-Essar and Idea Cellular to start offering NLD services between at least some routes where it makes economic sense and retain the carriage charge (which would include the margin of the NLD operator) with themselves.

Infrastructure provider category – II (IP-II) licence holders such as Gas Authority of India Ltd (GAIL), Power Grid Corporation of India Ltd and RailTel Ltd are also likely to start offering NLD services, since the new regulations allow them to migrate to a NLD licence. (This has been explained in detail later in the document.)

Global telecom companies such as British Telecom, Cable and Wireless, etc are expected to enter the ILD services market. ISPs who already laid down optic fibre in central business areas are also likely to consider procuring ILD service licences. The main target customers of the new entrants would be high revenue-generating corporate customers, who have extensive international connectivity needs.

Heightened competition expected for corporate customers; bandwidth prices to fall

As stated earlier, the government has allowed NLD and ILD service providers to access subscribers directly for the provision of leased circuits/CUG. Currently, an NLD operator has to go through an access operator, and an ILD operator has to connect through an NLD operator and an access operator to get customer access. The regulations, as they stand, provide access service providers control over the customer. The change in policy will allow long distance service providers as well to get customer control.

With long distance operators being allowed to provide last mile connectivity and more players expected to enter the market, we expect the battle for corporate customers to intensify over the medium term. Prices of both domestic and international bandwidth are likely to fall further, especially that of higher capacities.

Limited competition in residential segment; but benefits to be passed along

In the residential space, CRIS INFAC does not anticipate any significant increase in competition, even with more players coming in. Competition in this segment will intensify only once the carrier access code (CAC) system, which would enable an individual subscriber to choose the carrier through whom she wishes to route her long distance calls (either through carrier pre-selection or call-by-call carrier selection), is in place, and tariff plans evolve such that an access provider passes on differences in NLD carriage charges to customers.

Even without the implementation of CAC, we expect the reduction in licence fees of long distance service providers (9 percentage points) to be passed on to subscribers. The government's decision to allow access service providers to provide unrestricted Internet telephony services (detailed impact discussed later) using voice over Internet protocol (VoIP) should result in further downward pressure on long distance call charges. (IP-based networks are more efficient than traditional circuit-based networks.) If CAC is implemented, the rate of decline in long distance call charges would be more pronounced.

CAC system may be in place soon

Currently, telecom subscribers do not have the freedom to choose a long distance operator to carry their calls, and most of the large access operators are integrated, as a result of which the long distance traffic of their subscribers is routed through their own long distance network. For example, an STD call of a Bharti (or BSNL) customer is carried on Bharti's (or BSNL's) NLD network; a Bharti/BSNL subscriber cannot route her call through, say Reliance, even if she desires to do so. This would be possible once a carrier access code (CAC) system is in place.

The implementation of CAC has been delayed; access service providers have been dragging their feet over the issue. (TRAI had, in July 2002, directed access service providers to put a CAC system in place within 6 and 18 months, but there has been no progress even after 3 years.)

The government has now once again initiated the process of CAC implementation. On November 11, a day after DoT announced the changes in telecom services sector licensing regulations, TRAI sent out a letter to all service providers, asking for their current state of readiness for the implementation of CAC on their networks. It appears that it is just a matter of time before a CAC system is in place.

Restrictions on Internet telephony lifted; move towards IP-based networks to be accelerated

The policy changes provide for the birth of IP telephony in India. As stated earlier, access service providers have been allowed to provide unrestricted Internet telephony, Internet services and broadband services under their existing licence. They can now provide triple play, that is, voice, video and data over a single licence. If required, the access service provider can use the network of a NLD/ILD service licensee for offering these services.

Currently, for providing these services, one would have to procure an ISP licence. Furthermore, only restricted Internet telephony is allowed. Internet telephony can only be used to make calls from:

- A PC in India to a PC outside India
- A PC in India to a PC in India
- A PC in India to a telephone outside India
- IP-based H.323/SIP terminals in India to similar terminals, both in India and abroad

Thus, to originate an Internet telephony call, a computer or an IP phone would be required under the existing regulatory conditions. In addition, calls originating from any location in the world are not permitted to be terminated on any phone in India. Further, government regulations permit corporates other than IT-enabled services companies to use VoIP only within a closed user group, that is, for inter-office communications.

It may be recalled that TRAI, in its recommendations on unified licensing, announced in January 2005, had mooted the provision of a single licence all types of telecom services (voice as well as non-voice) including fixed, mobile, national and international long distance, cable television, direct-to-home television, radio broadcasting and unrestricted Internet telephony, irrespective of media and technology.

With the government allowing operators to offer Internet, broadband and unrestricted Internet telephony, a step in this direction has been taken. As per our initial understanding on the policy, Bharti TeleVentures, for example, can offer all the service mentioned above (except cable television, direct-to-home television, and radio broadcasting) under its existing licence.

Internet telephony (as allowed under current regulations) has not caught on so far. The minutes of usage of Internet telephony was around 143 million minutes in 2004-05. CRIS INFAC believes that this may be because of the fact that only ISPs, with limited financial strength and wherewithal and customer reach, have been providing Internet telephony till now, and that too, restricted.

With access providers being allowed to provide unrestricted Internet telephony using VoIP, we believe that the usage of Internet telephony will increase, and operators will change their network infrastructure from circuit-based networks to more efficient IP-based networks, based on packet switching, in a phased manner. (Unlike the conventional phone network, where every call has a switched circuit dedicated to it for the duration of the call, in VoIP, only a fraction of the data carrying capacity of the channel is allocated to the call and the packets are sandwiched in between data packets. This results in lower costs for operators and better prices for consumers.) Access service providers, many of whom have deep pockets, will invest in creating systems and networks, creating awareness about the value that VoIP offers to consumers, and marketing their services aggressively.

ISPs to be badly hit

The government has imposed a licence fee of 6 per cent of AGR on ISPs providing restricted Internet telephony services. Currently, ISPs have to pay a licence fee of only Re 1 per annum for providing their services, whether they are providing restricted Internet telephony or not. It has not been notified yet whether ISPs providing restricted Internet telephony will have to pay the 6 per cent licence fee on revenues from Internet telephony only or on all services provided by them.

Further, ISPs can provide only Internet access/content services; they cannot provide content services on a managed network (virtual or real) not derived from Internet. The government has also decided to do way with Internet protocol-based virtual private network

(IP-VPN) licences, and allow existing IP-VPN licensees to migrate to NLD/ILD service licences. IP-VPN licensees not interested in obtaining an NLD/ILD licence will not be allowed to carry voice traffic over VPN network.

CRIS INFAC is of the opinion that standalone ISPs would be adversely affected by these new policy measures, as their costs would increase, sources of revenue would reduce, and they would also have to face competition from larger integrated players. Several ISPs are already struggling to stay in business, and the measures announced could sound the death knell for standalone ISPs. The only way out for ISPs may be to procure long distance service licences.

IP-II licence holders expected to procure NLD licences

The government has decided to do away with infrastructure provider category – II (IP-II) licences. Existing IP-II licensees can either migrate to NLD/ILD service licences or can continue to provide bandwidth to telecom service providers as per existing licence guidelines.

CRIS INFAC is of the opinion that most of the IP-II licence holders would obtain a NLD service licence; the reduction in the entry fee and licence fee for providing NLD services would make the business case attractive for them. GAIL, Power Grid Corporation, and RailTel (these three companies have an IP-II licence) own extensive optic fibre infrastructure across the country, which can be leveraged on to offer NLD services. While GAIL has laid down around 13,000 km of optic fibre cable network, Power Grid Corporation owns around 19,000 km of cable linking 60 major cities. RailTel connects 2,200 towns with a 27,500 km-long cable network.

Impact on specific licensees

CRIS INFAC has also attempted to capture the impact of the policy changes announced on individual service licensees. Our analysis is presented below.

Access service providers

Access service providers can provide unrestricted Internet telephony, Internet and broadband services under their existing licence itself. Also, we believe that the reduction in licence fees for NLD and ILD services to 6 per cent is an indication that the licence fees for access operators too would be brought down to this level. However, access service providers would have to face increased competition in the corporate segment, as long distance service providers have been allowed direct access to customers.

NLD and ILD service providers

The relaxation in licensing conditions is viewed as a negative for existing NLD and ILD service providers and a positive for customers and the industry as whole. More players are expected to enter these segments, and competition, especially in the corporate segment, is expected to intensify. We expect considerable pricing pressure and loss of market share for existing players over the medium term. On the positive side, NLD and ILD service providers have been permitted to access customers directly. Call volumes may also increase with declining tariffs.

Internet service providers

Internet service providers such as Sify and Net4India will be badly hurt by the imposition of licence fees of 6 per cent of AGR on ISPs providing restricted Internet telephony services and restrictions placed on the managed services provided by them to corporate customers. Our initial analysis says that several standalone ISPs may be forced to shut shop. The only way out for ISPs may be to procure long distance service licences. (Sify has already indicated its intent to obtain a long distance licence.)

Infrastructure provider category – II service providers

IP-II service providers are expected to benefit from the government's decision to allow them to migrate to NLD/ILD service licence at considerably lower costs. We are of the opinion that most IP-II licence holders will take advantage of the lowering of entry barriers, and obtain an NLD licence.

VSAT service providers

The annual licence fees for commercial very small aperture terminal (VSAT) service providers has been reduced from 10 per cent of AGR to 6 per cent. This would lower the cost of service of VSAT service providers such as Hughes and Bharti.

Takeaways for future policy direction: CRIS INFAC's view

ADC will have to be levied on a revenue-sharing basis

CRIS INFAC is of the opinion that as a result of the change in licensing conditions the government will soon have to shift from the current per minute access deficit charges (ADC) regime - ADC refers to the charges payable by access operators to fixed line service providers for the below-cost services being provided by them – to a regime based on revenue share.

Currently, ADC is levied on a per minute basis on the following types of calls:

- Inter-network local calls at the rate of Rs 0.3 per minute
- Intra-circle calls over distances greater than 50 km from a fixed phone to another fixed phone
- Inter-circle calls across all distances at a uniform rate of Rs 0.3 per minute
- ·Outgoing ILD calls at the rate of Rs 2.5 per minute
- Incoming ILD calls at the rate of Rs 3.25 per minute

Internet telephony calls are not subject to ADC. If the current ADC regime continues to be in place, it offers considerable scope for arbitrage for access service providers, especially in the ILD services segment where the amount of ADC is quite high in relation to call charges. Access service providers would find it profitable to route their calls through the Internet and would switch to IP-based networks. Also, as per our initial understanding, we are of the view that it would be difficult to distinguish between local, STD, and ISD calls over the Internet; this would make it difficult to continue with the current ADC regime.

Therefore, we believe that the government will soon have to shift to an ADC regime based on revenue share. As per CRIS INFAC estimates, the telecom services industry will pay 10-11 per cent of the revenues earned in 2005-06 as ADC. Even if the total amount of ADC is kept constant at Rs 63,300 million, we believe that if the ADC is made payable on a revenue-share basis, then the percentage of revenue share will be around 2 percentage points lower than the 10-11 per cent currently. With telecom traffic and industry revenues increasing, ADC as a percentage of revenues will keep coming down over a period of time. Furthermore, over time, ADC will be levied on all service providers and would be made independent of technology.

Licence fees on access service providers will be reduced to 6 per cent of AGR

The licence fees on long distance operators has been brought down to 6 per cent. This, in the opinion of CRIS INFAC, is a pointer towards an imminent reduction in the licence fees imposed on access service providers as well. Currently, access operators in metros and category A circles, category B circles, and category C circles pay a licence fee equivalent to 10 per cent, 8 per cent and 6 per cent of AGR, respectively (weighted average is around 9.3 per cent). CRIS INFAC believes that the government would reduce the licence fee to a uniform 6 per cent for operators in all circles.

OneIndia to be a reality sooner

Once ADC is made payable on a revenue share basis, and the licence fees on access service providers also is bought down to 6 per cent of AGR (equal to the licence fee on long distance telephony), it will be only a matter of time before pricing becomes distance insensitive, and

OneIndia (same tariffs for local and STD calls) – the stated objective of the government - becomes a reality.