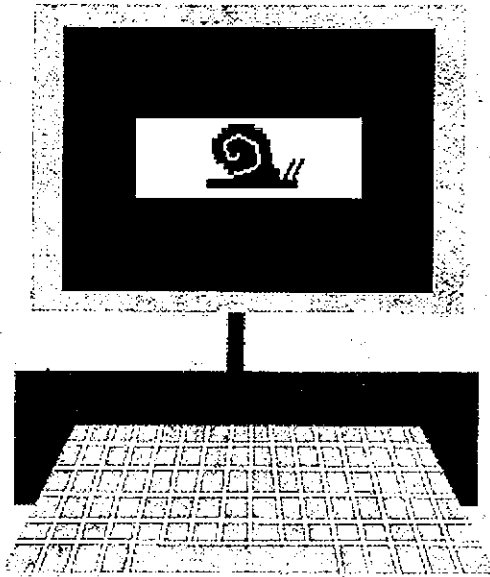


# The big broadband JOKE



Why Lebanon's Internet sprints at a snail's pace

**T**he long hours Lebanon's Internet users spend sitting in front of their computers waiting for content to download is not the fault of some computer conspiracy. The decrepit state of the Internet is the result of poor governance, suffocating bureaucracy, illegal internet providers and sectarian politics.

Illegal Internet networks made headlines last month when a microwave transmission connection installed on top of the Barouk Mountain in the Chouf region of Lebanon was alleged to have been taking bandwidth from Israel.

The incident set off a wave of accusations from Member of Parliament Ahmad Houry, part of the March 14 parliamentary bloc that won last June's elections, against the present care-taker telecom Minister Gebran Bassil, who is part of the Free Patriotic Movement (FPM) opposition party. Houry claimed Minister Bassil was somehow involved in facilitating the illegal connection. Hezbollah, allies of the FPM, said that the connection was discovered in April but "a large political party" had prevented the station from being raided earlier. The minister, who did not respond to requests for an interview, has denied the allegations. The station was installed in 2006, however, when Marwan Hamade — a March 14 ally — was telecommunications minister.

Sources in the telecommunications industry, who asked not to be identified in order to speak freely, told EXECUTIVE that the station owner has not been arrested, which is "very weird," said Habib Torbey, head of the Lebanese Telecommunications Association (LTA).

Mohamad Safa, an adviser to Bassil — who stressed that he speaks for himself and not the minister — said there were "many partners involved" in the Barouk business, which he claims is now being made an issue in order to maintain the "oli-

gopoly" of Lebanon's legal Internet providers, who are losing market share to unlicensed providers.

"Some of them [the partners] have been arrested and some have not, but there are no real details because these are security-related matters," he added. "No one will be able to tell you who the 'godfather' is, and if they do they are lying."

Ironically, the Barouk incident

## ILLEGAL INTERNET PROVIDERS IN LEBANON SERVICE MORE THAN HALF THE MARKET

has also cast light upon how technically uncomplicated it would be to increase bandwidth in the country.

"The official sector has [a bandwidth of] only 1 gigabit per second (Gbps). The Israeli antenna of Barouk alone had 10 Gbps," said Riad Bahsoun, telecom expert at the International Telecommunications Union (ITU), a UN agency for information and communications technology; Bahsoun also advises the Lebanese government on telecom issues. Telecom Minister Bassil recently contradicted this statement though, saying the station was only transmitting 300 megabits per second (Mbps).

### Does Lebanon have broadband?

Illegal Internet providers in Lebanon service more than half the market, and for good reason — even with these illegal suppliers, Lebanon's market is grossly under-supplied.

Many Internet service providers, like Cyberia and IDM, as well as state provider Ogero, claim they provide broadband internet service. That assertion is debatable.

"Nothing [in the market] is really broadband," said the LTA's Torbey when asked why his company, GlobalCom Data Services, which owns Inconet Data Management (IDM), one of Lebanon's largest Internet Service Providers, advertises

their Internet service as broadband.

The definition of broadband is foggy. The International Telecommunication Union (ITU) defines broadband as a transmission capacity that is 1.5 to 2 megabits per second (Mbps). In the United States, the Federal Communication Commission is currently seeking public comment on what should constitute broadband, with the goal being to

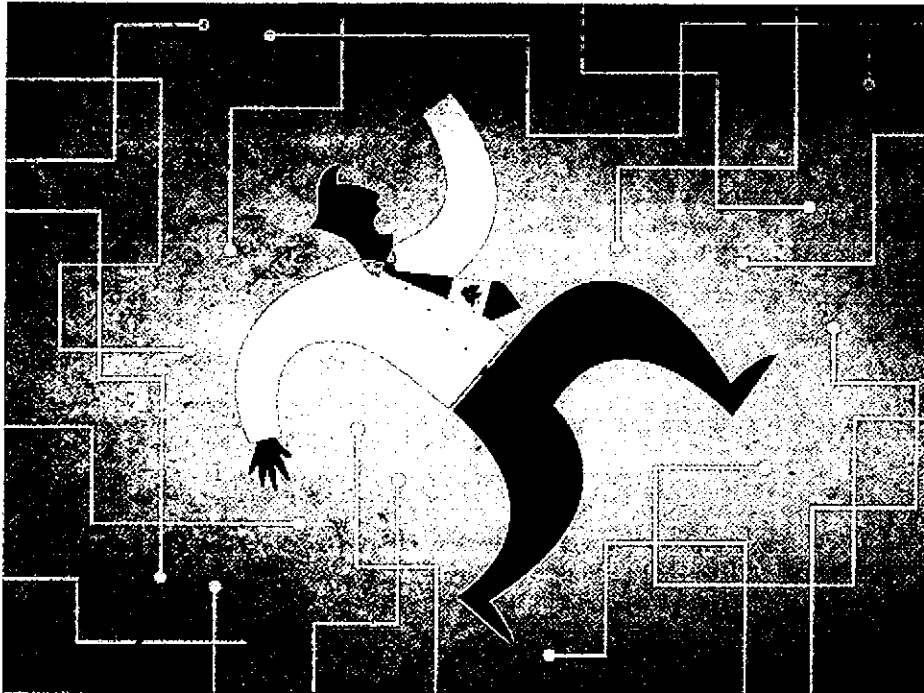
help consumers. The current minimum bandwidth to qualify as broadband in the US is 0.75 Mbps. The Organization for Economic Co-operation and Development defines broadband as 0.25 Mbps in at least one direction. This rate is the most common baseline that is marketed as "broadband" around the world.

Salam Yamout, co-founding member of the Lebanese Broadband Stakeholders Group, a local lobby group that pushes for broadband in Lebanon, defines broadband as 100 Mbps "at the access point for businesses and people who require it."

The Internet speeds available to the Lebanese public today vary from 0.125 Mbps to 2.3 Mbps. Lebanon's Internet download speed averages 0.59 Mbps, according to Ookla Net Metrics, an Internet diagnostic company. Ookla says the world average is about 10 times that, at 5.5 Mbps.

It's astonishing to think that these speeds represent major progress since Digital Subscriber Line (DSL) technology became available in the summer of 2007.

"The introduction of DSL was a very good step although it was long, long, long overdue," said Leila Serhan, country director at Microsoft Lebanon. "It is still a very shy step and [the slow speed] is definitely hin-



dering the introduction of a lot of the services you can get on the Internet.”

That hindrance has led to a low penetration rate for Internet service, resulting in a vast untapped market for broadband Internet. With ADSL penetration, a precursor to broadband Internet, at less than 10 percent of the population and consumers willing to adopt new technologies, there is ample room for the market to grow, yet it has not.

“There is no network and there is no infrastructure,” said a multinational telecommunications executive who asked to remain anonymous in order to speak freely.

The lack of decent Internet has also hindered Lebanon’s business world. Khalil Letayf, deputy general manager of Société Générale de

Banque au Liban and a member of the Lebanese Broadband Stakeholders Group, explained that because of the lack of broadband, his bank has to incur extra costs to make physical backups instead of transferring data over the Internet, due to the lack of reliable infrastructure. He said that, as a result of operating in such an environment, the risk factors associated with all the banks have increased.

#### Why so slow?

Lebanon’s Internet market does not run on a network made for data, but rather one made for voice. The current network was built by Siemens, Ericsson and Nokia in the early 1990s with \$1.3 billion of funding from the World Bank.

There has been no comprehensive plan for improving the infrastructure since then.

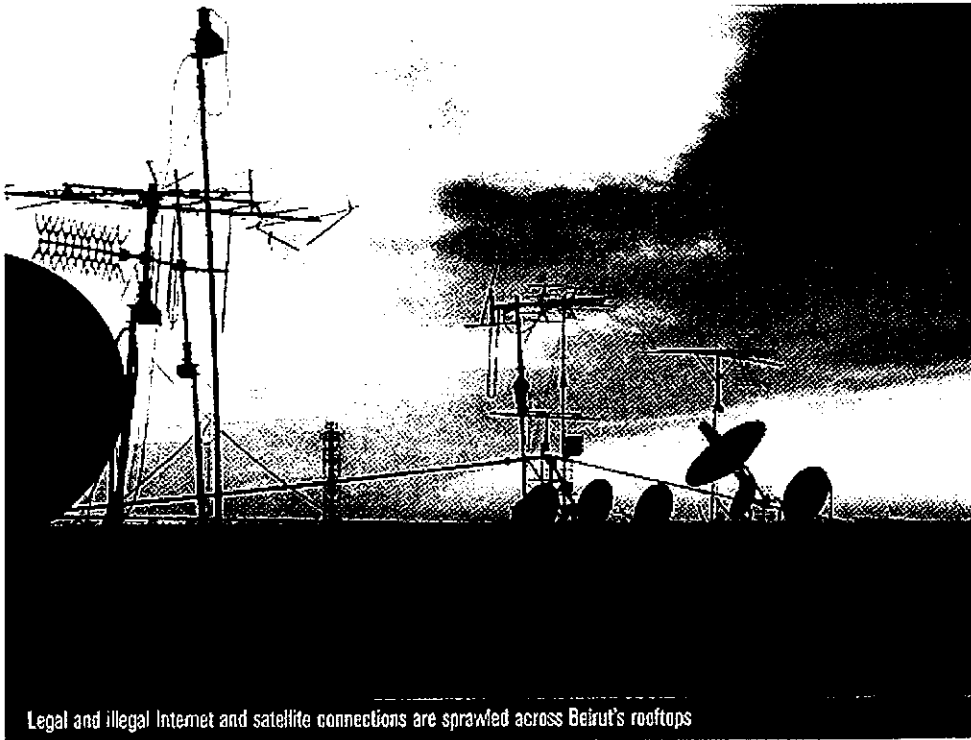
“What Lebanon has done since 1994 is build [its telecom infrastructure] in blocks,” said the ITU’s Bahsoun. Bahsoun explains that in the 1990s telecom operations like Internet and mobile were separate, and “back then they didn’t know that all these [Internet and communications technology] services, were going to converge.”

Since then, there has been little restructuring and Lebanon’s telecom ministry today is a fragmented body with two general directorates, a separate office that deals with mobile communications and miles of red tape holding it all together.

Meanwhile, regional telecoms have stayed on the cutting edge of Internet technology and service. Telecom services have been combined and broadband with hassle-free, high-speed upload and download is a reality across the region — but not in Lebanon. Transferring data is a costly and cumbersome process that involves the converting the data into a format suitable for transmission over Lebanon’s archaic network. The result for consumers is low quality and speed in tandem with high costs. The economy surely suffers, as broadband penetration has become a key economic indicator. The World Bank estimates that every 10 percent increase in broadband penetration accelerates economic growth by 1.3 percent.

### Lebanon’s telecommunications market indicators as of December 2008

	Penetration	Number of service providers	Private or state-owned	Level of competition
Mobile market	36%	2	State-owned	Monopoly
Fixed market*	68%	1	State-owned	Monopoly
Internet market**	38%	~16	Private	Competition
ADSL market**	~9%	~8	Private through MoT Local loan / Donor	Limited competition



Legal and illegal Internet and satellite connections are sprawled across Beirut's rooftops

## Where's the problem?

Because the government only allows Internet service providers (ISPs) a miniscule amount of bandwidth — the measure of available data communication resources — there is no variety in the market. The packages offered by the country's ISPs are identical in terms of speed, meaning all the options available are relatively similar. What makes matters worse is that the ISPs impose download ceilings or charge for additional downloads above a certain level. This has resulted in a situation where the typical Internet user in Lebanon pays eight times more than a typical user in similar countries like Jordan and Egypt.

Unlike the rest of the telecom sector in Lebanon, which is owned by the government, the retail Internet market does operate under conditions of limited competition. That fact has spurred the growth of several ISPs and Data Service Providers (DSPs). Both are licensed by the Telecom Regulatory Authority (TRA), Lebanon's telecom regulator — the only difference being that DSPs are assigned a certain frequency they can use to provide

services. At present, there are around 20 ISPs and 6 DSPs and many are owned by the same people who typically have connections to politicians. One example is the CableOne DSP, which also owns the Lynx ISP, and is partly owned by Karim Hamade, the son of Lebanon's previous telecom minister Marwan Hamade. One of the largest DSPs, Soderel, is half owned by the Ministry of Telecommunications itself and Solidere, the large real estate developer which was founded by the late Prime Minister Rafiq Hariri. The Hariri family also hold a major stake in the Cyberia ISP.

No matter how many connections exist or how much competition there is, without adequate infrastructure and capacity the market cannot grow. The problem is rooted in the amount of available bandwidth in the country and who controls it. Officially, the total amount of bandwidth in the country last January did not exceed 260 Mbps, according to the Telecom Regulatory Authority (TRA), but most observers put the figure today at around one Gbps. This, however, does not take into account the illegal market which controls "40 to 60 percent of the market," according to Torbey. The Ministry of Telecommunications distributes all the bandwidth in the country and does not release detailed information, even to the TRA.

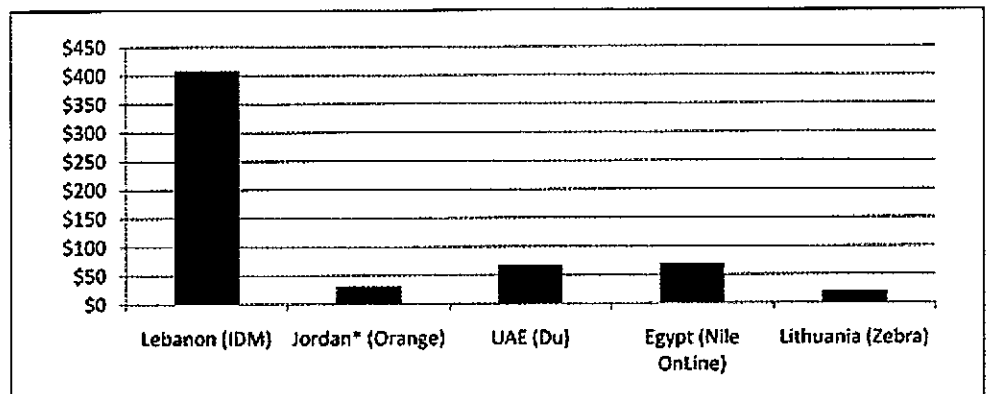
## How to make it better?

In order to legally increase the level of bandwidth however, sizeable investments have to be made to create a "national backbone" in Lebanon. The national backbone will be like an information superhighway that connects the major cities of Lebanon.

"Instead of a superhighway, what you have are small, small roads," said Kamal Shehadi, chairman of the TRA. "The connectivity between these places is not what it should be."

Bassil has announced several

## Monthly charge for 30 gigabytes of download using 1Mbps residential DSL



Source: Operator websites

### List of offers and prices in Lebanon as appearing on operators' websites (\$/month)

Residential	128 Kbps		256 Kbps		512 Kbps		1024 Kbps		2.3 Mbps	
	Fee (\$)	Cap (GB)	Fee (\$)	Cap (GB)	Fee (\$)	Cap (GB)	Fee (\$)	Cap (GB)	Fee (\$)	Cap (GB)
MoT	23	2	33	3	47	4	77	5	200	8
Sodetel	17/27	2/UL	23/36	3/UL	40	4	70	5	na	na
Terranet	19	2	23	3	40	4	70	5	na	na
IDM	19	2	23	3	40	4	70	5	na	na
Cyberia	19	2	23	3	40	4	70	5	na	na
Muscenet	19	2	23	3	40	4	70	5	150	6

**Notes:**

- ▲ All ISPs except MoT are offering an unlimited download capacity at night with double the speed
- ▲ Sodetel is offering an unlimited download package for 128 and 256 Kbps speeds
- ▲ na = price not available on website / UL = Unlimited download capacity
- ▲ Prices are subject to 10% VAT

Source: Telecom Regulatory Authority

projects in order to upgrade the current infrastructure, including an upgrade of the existing system like the backbone project.

One development expected to take place is a pilot project in the Hamra and Ashrafieh districts of Beirut that will, in theory, lay down fiber cables. The \$14 million project aims to supply better connectivity to residents as well as provide a reference for a previously announced project to build a national backbone that the ministry estimates will cost around \$64 million. But even the pilot project has yet to commence and the budget has not been approved by the Council of Ministers.

"They need decisions and they have not got all the decisions," said the ITU's Bahsoun.

The decisions in question must be made by the telecom ministry. The telecom ministry today consists of two general directorates, the Directorate of Operations and Maintenance and the Directorate of Construction and Equipment. Moreover, the Directorate of Operations and Maintenance, headed by Abdulmenaim Youssef, also controls the government-owned company that runs the current Internet infrastructure holder, Ogero.

#### A mess of a ministry

that the person implementing and supervising [the implementation] is the same person," said Safa, the telecom minister's advisor.

Youssef did not respond to repeated requests for comment. He was appointed to both posts by Lebanon's former telecom minister Marwan Hamade in 2005. Beyond being a gross contravention of efficient corporate governance, the position that Youssef maintains has made it almost impossible to ascertain who is in charge of what at the ministry. When EXECUTIVE called Naji Andraous, the director general of construction and maintenance, to acquire information about the status of the pilot project's progress, Andraous' office said that Youssef was in charge.

"Abdulmenaim Youssef is reluctant to progress in Lebanon [sic]," claimed Bahsoun.

Youssef held the position of general director of the Directorate of Operations and Maintenance from 1995 to 1999, when he was imprisoned and later released in an extremely politicized struggle for con-



"[Youssef's] appointments were made at the behest of the previous governments and Prime Minister [Siniora]," says Safa.

It is worth noting that Safa is an advisor to telecom minister

### IT IS ALMOST IMPOSSIBLE TO ASCERTAIN WHO IS IN CHARGE OF WHAT AT THE TELECOM MINISTRY

trol over the telecom industry. He is widely seen as the representative of current caretaker Prime Minister

Bassil, who is part of the opposition to Siniora's ruling March 14 coalition. The minister has become

Michel Aoun, Bassil's father in-law, and Saad Hariri, the prime minister-designate. Aoun is insisting that Bassil maintain his position at the helm of the telecom ministry.

But the fight over control of the sector seems to run much deeper than the ordinary squabbling between Lebanon's politicians. Lebanon's telecom law, Law 431, outlines the legal procedures that

also acquire the assets of the current operator, Ogero, which includes the current Internet and phone network and any upgrades made to it.

The latest point of contention between the ministry and the TRA is how to increase the bandwidth in the country. Having already announced the expansion projects, the ministry's current direction is to start by increasing the band-

width themselves. Critics say the process is hampered by the inner workings of the ministry, especially Youssef's offices.

as a result, it has been difficult to analyze the root causes of this slow development." The report goes on to state that "it can be concluded that while some of the problems stem from anti-competitive behavior, others relate to the lack of appropriate investments."

Factor in the political rivalries in Lebanon and the prospect of broadband becomes even less probable. "If your objective is to make the minister fail then, you move like a tortoise and tell people that the minister does not act," said Safa. [As stated above, calls to Youssef's office to respond to these, and other statements, were not returned].

The other option on the table would be to allow the private sector to install, operate and provision broadband services. However, this too has become a point of contention between Lebanon's ministry and its regulator.

The TRA wants to offer three "National Broadband Carrier Licenses" to the private sector which would allow them to install the fiber optic cables needed to facilitate broadband Internet and sell the services to end users. One of these licenses would legally have to go to Liban Telecom and other two would be offered in an open international auction. The proposal has been opposed by the minister who

### "IF YOUR OBJECTIVE IS TO MAKE THE MINISTER FAIL, THEN YOU MOVE LIKE A TORTOISE AND TELL PEOPLE THAT THE MINISTER DOES NOT ACT"

should be followed in order to reform the sector. The trouble is that the law has been implemented in pieces, and as such, its interpretation has been a contested topic between the TRA, the telecom ministry and all the political and commercial interests pegged to both bodies.

"If you implement [the law] in parts, especially when politics are involved, you take the parts that you like and the spirit of the law is lost," said Safa.

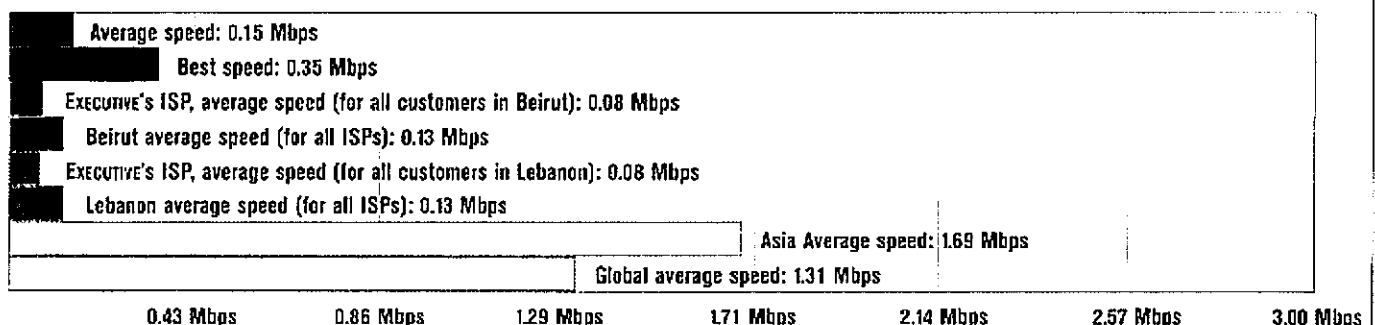
The law calls for the creation of a joint stock company called Liban Telecom that will be granted a license to operate for 20 years and provide all other telephony services to the public. Liban Telecom will

#### Evasive and unaccountable

"The minister asked in a letter about how the EIs are being distributed and the Abdulmenaim Youssef says 'don't respond,'" said Bahsoun. (An EI is a measure of bandwidth equal to 2 Mbps). "When the minister calls [to follow up], he says 'I don't know, the letter went missing.'"

Even the Telecom Regulatory Authority's annual report criticizes the telecom ministry because it will "only release limited information" about the current DSL market, "and

Internet speed test from EXECUTIVE's offices in Beirut on a typical Monday afternoon in August



## Proposed Telecom Regulatory Authority liberalization scheme

		2009	2010	2011	2012	2013	2014
Mobile (1)	Network operator	▲ (2)			■		
	Virtual network MNVDs				■		
PTSN / basic telephony	Network operator	▲			■		
	Reseller				■		
Broadband	Access	●					
	National (core, metro and access)	▲ (3)					
International access	Voice & data facilities based provider	▲ (4)					
	Data only facilities based provider	▲ (5)					
	Voice and data resellers						

● Open licensing  
 ■ Market review  
 ▲ License award

(1) The privatization of the mobile sector will depend on the regional and international financial markets conditions  
 (2) Two mobile operators and Liban Telecom  
 (3) Two national broadband and carrier licenses and Liban Telecom  
 (4) Two mobile operators and Liban Telecom  
 (5) Two national broadband and carrier licenses, subject to CoM's decision

Source: TRA Annual Report 2008

Note: The above liberalization 'roadmap' was updated in line with the development of the market and presented by the TRA in December 2008.

has issued his own policy paper stating that he would offer the already existing DSPs (data service providers) one of the two remaining licenses.

### TRA vs the telecom minister

The ministry's position has in part been facilitated by the fact that the law has not been fully implemented and Liban Telecom, the body that the TRA is mandated to regulate, does not exist.

"The [ministry's policy paper] has a schizophrenic nature," said Shehadi. "On the one hand it said



Telecommunications Minister Gebran Bassil

the TRA is not respecting the law and it is being autonomous. On the other hand it said clearly 'I want to change the law to make the TRA depend on and report to the minister.'"

## "THE T.R.A. PREPARED THE TENDER FOR THE MOBILE LICENSES AND THIS PROCESS WAS SUSPENDED BY POLITICAL DECISION"

Law 431 does say the minister is granted the authority to "establish the general rules for the regulation of telecommunications services in Lebanon" but it also says the TRA has the authority to "organize the bidding process, and issue, execute, oversee, amend, enforce, suspend and revoke licenses." The minister's policy paper also criticizes the TRA for not issuing licenses.

"That is bull," said Shehadi angrily. "The TRA prepared the tender for the mobile licenses and this process was suspended by political decision, not by the TRA. The TRA has [also] issued licenses to about 6 DSPs and about 20 ISPs."

Shehadi also criticized the minister for not forwarding the TRA's draft licensing regulation to the Shura council, Lebanon's highest court, in order to begin the bidding process.

Safa defended the minister's right to amend the legislation if he sees fit.

As far as the DSPs are concerned, they are happy to go along with the minister's policy because it serves

their purposes by protecting them from large international players.

Shehadi, on the other hand, says this policy and the position of the DSPs are putting Lebanon's economic future at risk by erecting barriers to trade and going against the government's stated liberalization policy.

"The four wireless service providers who claim, pretend or call for protection from foreign investors are jeopardizing Lebanon's accession to the World Trade Organization, and Lebanon's trade commitments to the European Union and to all of our trading partners, for very specific, very narrow private interests," Shehadi said, adding that any international player in his right mind "will ally with one of the incumbents," so they should not fear international entrants.

"We are not trying to recreate a new monopoly or oligopoly," protests the LTA's Torbey. "We do believe in competition and free markets. He said that the TRA "cannot start with a clean slate as if nothing has happened in the past," referring to their presence in the market and the preferential treatment they seek to gain.

Law 431, however, does state that "no discrimination or restrictions shall be imposed on providing the services, as no such restrictions shall be imposed on owning or operating the necessary infrastructure to provide these services."

But it seems politics have once again stunted the implementation of the law. "In principle the TRA is right, but the minister is the political representative and implements the politics of the government," said Safa.

#### Liban Telecom and sectarian politics

When it comes to political appointments in Lebanon, horse trading is commonplace and as such the country's politicians have yet to come to a consensus over the chairman and board of directors of Liban Telecom. Each delay makes the situation in the telecom industry worse and facilitates the wrangling for power over the sector. So why hasn't Lebanon Telecom been established?

### EACH DELAY MAKES THE SITUATION IN THE TELECOM INDUSTRY WORSE AND FACILITATES THE WRANGLING FOR POWER OVER THE SECTOR

If it is ever created, Liban Telecom will be regulated by the TRA, thus releasing the control the ministry currently wields over the network as well as dissolving the current operator of the network, Ogero. This will mean that Youssef and the interests that he represents will also have less control over the sector.

two years of the establishment of the company [Liban Telecom], sell a portion not exceeding 40 percent" to a strategic partner. That strategic partner could be anyone from the operators who are present on the market, such as Zain and Orascom, or those allied with political parties in Lebanon that have a stake in the telecom industry.

Whether or not there is a setup in the works may be one thing, but the creation of Liban Telecom also seems to hinge upon another of Lebanon's more unpleasant sectarian realities.

"The [future] board of Liban Telecom will need to split according to the confessions of the members and a lot of power has been given to the chairman. The chairman will have to be decided on the basis of confession," said Safa.

Here again there seems to be some horse trading at play because to appoint a member of one confession to a major post means there has to be a balance somewhere else. Sometimes that balance is not maintained and institutions function (or malfunction) without the presence of supervisors, or the intended accountability structures. The Lebanese government to date has failed to even appoint all of its mayors — the very officials who are responsible for providing basic

services to the country's population — let alone appointing the board of a nonexistent entity like Liban Telecom.

"You are in a country where there are sectarian issues," said the ITU's Bahsoun. "You have ministers who don't know why they are ministers; it's a system."

Supposing Lebanon's bickering

#### Internet service providers (ISPs)

- Broadband Plus
- ComNet
- Farah Net
- Fiberlink Networks (NewCom)
- IDM
- Kablon
- Lebanon OnLine
- Masco Group
- Moscanet (Wise)
- Onet Plus
- Pro Services
- Sodetel
- Solidere
- Terranet
- Transmog (Cyberia)
- Tri Network Consultants
- Virtual ISP (VISP)

#### Data service providers (DSPs)

- Cable One
- Cedarcom
- GlobalCom Data Services
- Pesco
- Sodetel
- Solidere

Source: TRA

ministry, Liban Telecom, privatization, the national licenses, international commercial interests and the implementation of Law 431, serious work will have to be done to implement a national backbone. This would seem to be a tall order for Lebanon's politicians who still cannot agree over the formation of a cabinet, let alone implement a progressive economic policy. One can't forget that the same politicians who are hampering the advancement of an essential economic development tool were also elected last June by the people who still pay exorbitant fees for archaic Internet access.

But, as the ITU's Bahsoun said: