Wholesale change ahead as the industry rethinks its long-held business relationships

Industry forums are thrashing out the essential roles wholesale carriers will have in the networks and services of the future. **Marc Halbfinger**, CEO of PCCW Global, tells Alan Burkitt-Gray of the major challenges ahead.

**Wholesale carriers** are going through rapid change and the industry still has to work out how they will do business in the markets of the future.

Companies need to agree a new financial model, says one of the industry’s leading executives.

Does that mean the current model is broken? Marc Halbfinger, CEO of PCCW Global, doesn’t put it as dramatically – or as gloomily – as that. But it’s clear he has thought long and hard about the state of the business.

It’s also clear that he is one of the best positioned people in the industry to comment on its status and future. He’s been in the industry 25 years and has been CEO at PCCW Global for 10 years.

He’s also chair of the ITW Founders’ Council, set up to oversee International Telecoms Week, which Capacity Media runs in Chicago every year, and of the related Global Leaders’ Forum (GLF), created to help the industry discuss many of the issues before it.

At the heart of the problem is this: “The wholesale relationships which have facilitated the international direct-dial voice and roaming businesses for many years are apparently declining step by step as the margins for these services continue to decline,” he says.

“We’re moving to software-based virtual networks, and interconnect will also be software-dependent. That means “the behaviour around wholesale settlements for traffic, and the underlying units of value for exchange and settlement, have necessarily begun undergoing change”, he adds.

Settlements used to have to count voice and roaming in seconds and minutes, or at least fixed monthly values. But they “are shifting from two-dimensional vectors to multi-dimensional values”, says Halbfinger.

These will have to take into account “elements such as virtualised machines spun up on partner networks or perhaps IP flows happening between and among networks and devices”.

**Future of business**

How will the industry do it? “The manner of settlement for these new dimensions has yet to be fully agreed by the industry,” he says.

“The wholesale business is in a state of change as the underlying units of value shift – from the way business has been done until now to the way business will need to be done at the wholesale level in the near future.” And the market will be joined by new participants, that will join physical service providers: cloud applications.
Commercial principles

This is where the ITW founders and the GLF have a role, and why it is important to listen to the views of Halbfinger, who leads both groups.

The founders have invited "various forums to introduce their thought processes around both technical forms of interface as well as organising wholesale commercial principles", he says.

These industry leaders "hope to serve as a platform upon which these views can be heard". The ITW founders and the GLF would then ensure "that the principles are then delivered to the operating structures of service providers", a term that encompasses carriers, internet service providers, cloud providers and other companies in the wider industry.

The aim of the founders’ council is to “serve as a senior body that would ensure that different ideas are heard commonly by a large cross-section of those who provide service and who facilitate the commercial layer of settlement in a way that will benefit end users — consumers or enterprises”, he says.

So, as we approach this year’s ITW – which takes place in Chicago from 15 to 17 May – this annual gathering of carriers looks as though it will have a central role in providing a forum where the industry’s future is discussed.

Differing agendas

But Halbfinger clearly realises the size of the task ahead. “I think that certainly as the industry is shifting, and applications are delivered both by physical-based network service providers as well as by software-based cloud players, each with perhaps slightly differing agendas, it may take some time for principles to be organised commercially in a way that is sensible for different ecosystems as well as for the end user,” he says.

“Historically though, telecommunication or ICT-based services have organised themselves towards global ubiquity as opposed to independently separate ecosystems.”

Each element of the industry “is working hard to provide exciting new services to end users, whether consumers or enterprises or other wholesale service providers”, he adds.

Eventually it seems plausible that simple commercial wholesale organising principles are valuable to everyone in the industry, even as providers compete with one another at the retail level.”

PCCW Global is investing in infrastructure as bandwidth demands continue to rise

Investment in infrastructure is key, but PCCW Global is also taking steps to move into the new software-defined world, says CEO Marc Halbfinger. The company is keeping ahead of the changes that are taking place across the industry, changes that he outlines in the main interview, left.

“Undersea fibre infrastructure continues to be a core value,” he says. “The AAE-1 system is coming on line this year. We have taken up investment in the new Japan-US undersea system and we continue with initiatives in other parts of the world.”

But “we also understand the need to develop software-based capabilities”, he adds. PCCW Global has acquired capability in three primary areas:

- cybersecurity;
- unified communications as a service (UCaaS); and
- software toolsets for the delivery of over-the-top (OTT) media solutions.

“All three of these elements are important in ensuring that we have the software-based applications that can help deliver intelligently more value across the core physical infrastructure. Our cybersecurity capability has grown significantly and that business has also become a feeder to other applications developments throughout our portfolio,” he says.

The UCaaS business “which we grew through acquisition has been an immediate success”, he says. “The software toolsets for OTT media delivery will be a key to complementing what we expect to be significant demand for even larger bandwidth in the very near future.”

PCCW Global has already taken a big step in the move towards that high-bandwidth world he forecasts. In early April Hong Kong hosted the annual Rugby Sevens tournament “and we provided a source-to-screen virtual reality experience of a live sports event”, he says.

The company delivered 360-degree ultra-high-definition (ultra-HD) images, streamed over the internet, “which was able to be viewed by end users using a virtual reality head-mounted display”, he says.

“We believe this was the first such instance done live.”

It "proved that bandwidth, which is the core of our business, is going to be growing even further as subscribers will in future seek live HD virtual reality delivery. We are excited to be at the forefront of these developments.”

The internet of things (IoT) is another driver of bandwidth. But here, too, one company will not act alone. “Commercial organising principles at the wholesale level will be valuable for IoT to find further economic trajectory,” he says.

 providers, he suggests. “The question is, can wholesale recreate its financial model to help organise flows in and among applications, networks and end users?”

Is there a consensus among members of the industry or is there still a diversity of views? A conflict of views, even?

“I don’t know if there are conflicting views,” says Halbfinger. There are various approaches being articulated in different forums, he says, listing working groups in such organisations as MEF, TMForum and i3Forum.

Open-source initiatives

“There have been views articulated within the GSMA and there are views being articulated regarding technical architecture and interfaces by various open-source software-based initiatives,” he adds, pointing to the Open Network Automation Platform (Onap), that is a combination of “the former AT&T-led E-Comp and the mostly Asian effort known previously as Open-O”.

These new initiatives “make an effort to organise ecosystems technically, and there is now some effort to create commonly agreed methodology for wholesale commercial settlements in and among the different ecosystems”, says Halbfinger. “I expect that over time, due to end-user needs, technological and commercial organising principles will help shape the next generation of wholesale interactions among entities that provide service.”

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