cutting through complexity

Understanding the impact of the Universal Service Fund and Intercarrier Compensation Transformation Order

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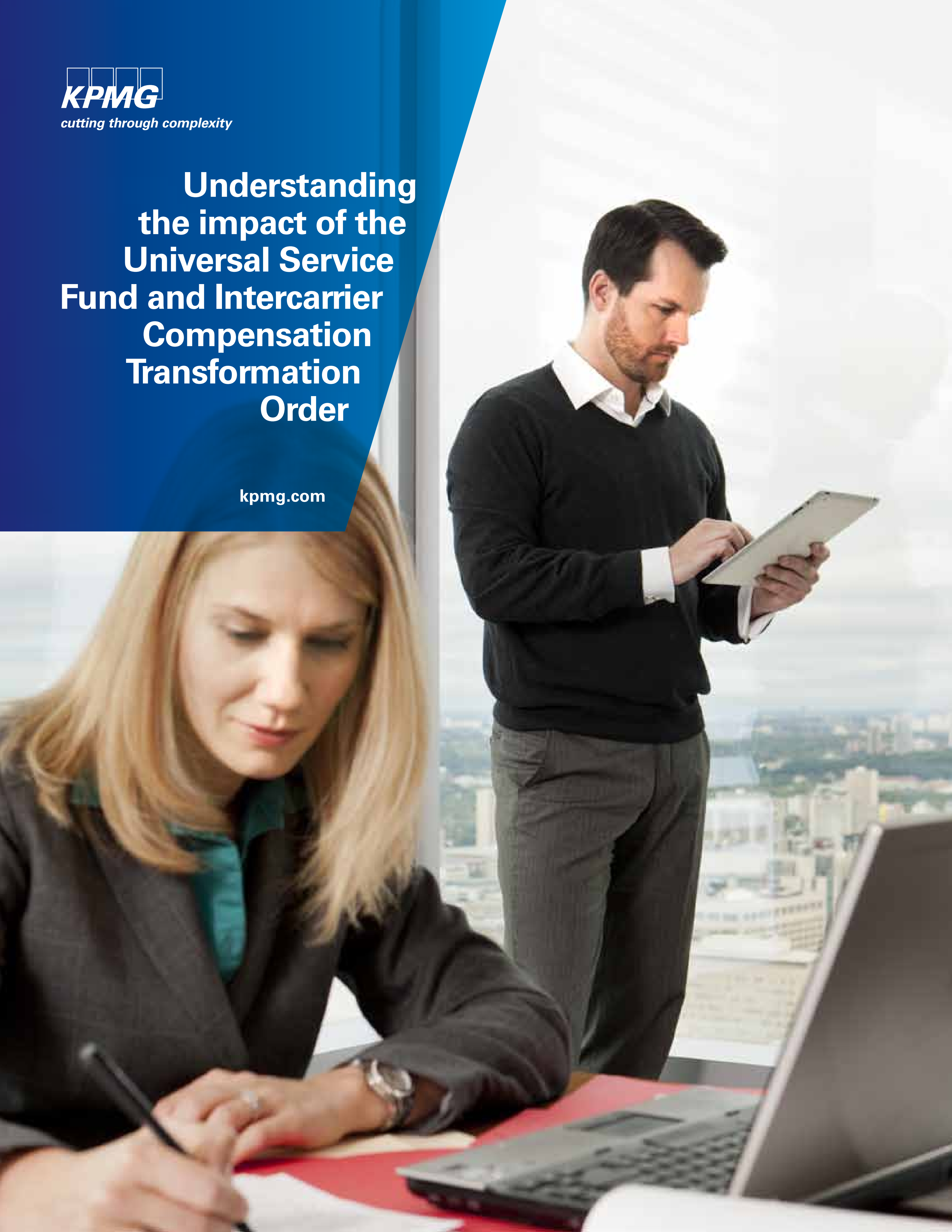

Introduction

The Federal Communications Commission's (FCC) Universal Service Fund (USF) and Intercarrier Compensation (ICC) Transformation Order was released in late 2011. The reform, intended to improve the accessibility and affordability of broadband services and foster greater accountability with respect to taxpayer-funded subsidies, is expected to have far-reaching consequences for the telecommunications sector.

Carriers that accept funding will be subject to stricter oversight, including regulatory-required monitoring and pressure for better real-time reporting. Funding caps will likely force providers to drill down on the numbers and sharply improve the quality and timeliness of forecasts and budgets. Underlying systems will need to be realigned and integrated to support better cost and profitability performance on a macro level as well as by product, service and geography. Although some carriers may be able to stretch existing networks, others may need to invest in additional spectrum technology upgrades.

In some cases, the changes will go right to the heart of existing business models. For rural providers, for instance, the shift away from USF funds could affect up to 30 percent of revenue. In light of ICC reforms, carriers across tiers will need to rethink their pricing, product offering and market positioning to protect and grow top-line revenue. Organizations will also need to knit together an array of business processes, create an effective audit trail, and establish the right management reporting mechanisms to gauge progress, refine strategy, and fulfill compliance obligations.

With several phases of the Order in effect and others due to come on line later in 2012, providers are under pressure to respond quickly. This paper outlines the key impacts of the Order on different carriers and suggests a framework that management can use to break down the process and prepare an effective response.

Context for the USF/ICC Transformation Order

The Order replaces the old "high-cost" fund used to support affordable basic local telephone services (voice) in remote or underserved areas, with a new Connect America Fund (CAF) aimed at fostering better and more affordable wireline broadband rollout. The CAF Mobility Fund, an extension of the larger CAF, will support expanded wireless and mobile broadband access. To distribute awards, the FCC will rely on competitive bidding and market-driven policies. To spur greater oversight and operational efficiency on the part of recipients, the CAF will be capped at $4.5 billion ($1.8 billion "at most" to price cap carriers; $500 million for the Mobility Fund; $200 million for tribal and remote areas support, and $2 billion "at most" for rate-of-return carriers.[1]) Both the CAF and the CAF Mobility Fund will be implemented in two phases, beginning in 2012.

In addition to reforming the USF, the Order also seeks to iron out the web of fees carriers pay one another to complete calls on their networks by implementing a Bill and Keep framework. Bill and Keep shifts the billing relationship to the end user rather than between carriers, simplifying the payment structure and enhancing transparency. To give carriers time to get used to the new system, the Order allows for a six to eight year transition during which termination rates will decline on a fixed scale. In addition, carriers will be prohibited from increasing rates or shifting costs between or among other rate elements. The formal shift to Bill and Keep goes into effect on July 1, 2018 for price-cap carriers and July 1, 2020 for rate-of-return carriers. The ICC changes make it less likely that "invisible" charges will be passed down to consumers, particularly in rural markets where such charges in the past have been high. In addition, by making compensation market-driven, the FCC hopes to compel carriers to improve cost performance and efficiency.

Other ICC changes are intended to curb phantom traffic and arbitrage, abuses that are alleged to have cost carriers and consumers hundreds of millions of dollars. To thwart artificially stimulating traffic volumes, for instance, the Order will require competitive carriers and rate-of-return incumbent local exchange carriers (ILECs) to refile interstate switched access tariffs at lower rates during periods of high volume. In addition, carriers will be required to include an identifying telephone number in all call signaling and pass that information along unaltered to downstream and terminating carriers to reduce phantom traffic.

[1] Connect America Fund; A National Broadband Plan for Our Future; Establishing Just and reasonable Rates for Local Exchange Carriers; High-Cost Universal Service Support; Developing a Unified Intercarrier Compensation Regime; Federal-State Joint Board on Universal Service; Lifeline and Link-Up; Universal Service Reform – Mobility Fund; WC Docket Nos. 10-90, 07-135, 05-337, 03-109, CC Docket Nos. 01-92, 96-45, GN Docket No. 09-51, WT Docket No. 10-208, Report and Order and Further Notice of Proposed Rulemaking, released November 18, 2011 (FCC 11-161), paragraph 126.

Major implications

Given its scope, the Order has major implications for the telecommunications sector. Chief among them are:

1

Market-driven changes may punish inefficient operators

Where the old USF system provided support to multiple carriers in a single service area, the CAF reverse auction process awards subsidies to one carrier per market. That change will pitch wireline and wireless carriers in competitive markets in winner-take-all style battles. Because the reverse auction will go to the lowest bidder—the one capable of providing the required service for the least amount of funding — inefficient carriers may find themselves shut out. Likewise, to remain viable, winning operators must be sure their modeling has accurately projected potential revenue and budgeted the full range of costs.

2

Near-term revenue streams may be negatively impacted

The reforms are expected to change the revenue structure of many carriers across tiers. Industry estimates suggest that for some carriers, such as rural operators, those changes may be significant, representing as much as a 5 – 20 percent reduction in revenue over an 8 – 10 year period. Small rural local exchange carriers (RLECs) used to having operating and capital expenses reimbursed dollar-for-dollar through USF subsidies, will likely see major cuts. Those funds represent an average of 30 percent of revenue for the typical rural carrier. ICC changes may result in a similar top-line impact. Wholesale business income could decline as much as 15 – 20 percent over the next five years with the shift to a Bill and Keep model. This may be offset, however, by increased revenue recovery directly from the end-user.

3

Oversight requirements may stress current process and control environment

The competitive nature of the bidding and compensation process is likely to force carriers to step up governance and oversight down through their supply chain, network, and billing operations, including ongoing monitoring of call records, hand-offs, and settlements controls, as well as revenue assurance and margin enhancement activities. Operators that accept CAF funds must be able to document that network enhancements satisfy prescribed broadband speeds. In addition, carriers must have processes in place to detect whether a call has the appropriate identifying signal or telephone number before advancing it. This includes monitoring, reporting, and network enhancement requirements. Additional reporting requirements related to network operations and financial and regulatory compliance are also expected to be put in place, although formal guidance has not yet been published.

New ICC rules will require carriers to regulate call hand-offs on a close to real-time basis. In addition, recipients will face more frequent reviews on key parameters, such as the number of calls dropped in a month, re-transmission rates, and call volumes per jurisdiction, to ensure efficient handling between carriers and lower tariffs if the originating or terminating call volumes meet certain thresholds. While better oversight should shrink the number of arbitrage disputes over time, in the near term (1 – 2 years), dispute volumes might climb as carriers iron out differences in the way call hand-offs are monitored. As part of that process, the requirements themselves might also need to be clarified to address varying interpretations and gray areas such as which party, the originating or intermediate carrier, will be held responsible for issues such as "incomplete data."

4

Carriers with outdated technologies may need to upgrade

Carriers need to offer new services at higher speeds, but some carriers, especially those in rural areas, may lack the requisite network reach, capacity, and equipment, forcing them to purchase or partner with others. In addition, the reforms will likely accelerate the move from core public switched telephone networks (PSTN) toward greater adoption of digital or "soft" switches capable of handing a broad variety of data formats. Big carriers, boosted by deeper pockets, may have the upper hand in driving this shift while smaller players may find themselves struggling to bring the necessary resources to bear.

Breaking down potential impacts by tier

Tier one carriers and their wireless affiliates

Opportunities:

- *Cost savings:* The sliding rate scale for terminating switched access during the six-year transition to Bill and Keep could yield big savings. Smoothing out ICC may also mean fewer disputes with other carriers, delivering long-term cost savings.
- *M&A:* The transition period may offer promising acquisition opportunities to acquire spectrum and/or rural carriers whose viability may be compromised by the USF and ICC reforms.
- *Increased business volume:* Both competitive and independent local exchange carriers (CLECs and ILECs, respectively) could see their business grow by expanding service into neighboring/underserved areas.

Challenges:

- *Existing business models may be challenged:* Reforms may introduce new competitors and challenge traditional market share and pricing. The FCC has released a Further Notice of Proposed Rulemaking (NPRM) seeking comment on ways to reform, modernize, and streamline the USF contributions process. This could subject new carriers and/or revenue streams to USF surcharges.
- *Management time/resource drain:* Significant management time and resources will go into assessing the direct and indirect impact of reforms on profitability. In addition, leadership may need to invest already limited capital into research and development to roll out new products and services and expand the organization's geographical catch-net to make up for lost volume in other areas.
- *Increased real-time monitoring and reporting requirements:* Networks and systems may need to be configured to prevent the transmission of calls with inadequate identification. Processes and controls will likely need to be developed upfront to prevent incomplete call transmission and at the back end around dispute and settlement processes.
- *Need to shore up business processes:* Carriers will need to develop best practices for ICC agreements that address least-cost routing and ongoing compliance monitoring without impairing Service Level Agreements.

Breaking down potential impacts by tier

Wireless Broadband Providers

Opportunities:

- *New business volume:* The CAF Mobility Fund provides mobile wireless broadband providers up to $300 million in one-time support for the deployment of 3G/4G services in unserved areas and up to $500 million in annual support for ongoing operations and maintenance, giving them the opportunity to expand their market reach and compete against traditional incumbents. Some carriers could see their business grow dramatically. However, eligible participants must go through a reverse auction process, scheduled for late 2012.
- *Very rural areas:* In many cases, wireless broadband may be the only practical solution to providing high-speed broadband services in remote areas with challenging geographic terrain.

Challenges:

- *Loss of identical support:* Wireless carriers may need to find new sources of revenue and/or cost savings to offset the loss of existing support in areas served by ILECS and/or multiple competitors.
- *Spectrum capacity:* Many carriers will need to secure additional spectrum to expand into broadband. Only limited opportunities to acquire (redeploy) spectrum exist, however, typically involving significant acquisition costs and a rigorous regulatory approval process.
- *Access to fiber optic networks:* Carriers must contract with fiber optic network providers and potentially contribute to the construction of fiber optic networks that connect to new rural service territories.
- *Increased real-time monitoring and reporting requirements:* As discussed above, networks and systems may need to be configured to prevent the transmission of calls with inadequate identification.

Breaking down potential impacts by tier

Mid-tier Price Cap ILECs

Opportunities:

- *Potential to grow base:* The Order locks in USF subsidies at current levels. The FCC provides ILECs the chance to obtain additional (one-time) funding to support broadband infrastructure rollout in under-served areas within their service territories.

Challenges:

- *ICC revenue loss:* Mid-tier carriers will likely see traditional ICC revenue decline with the transition to Bill and Keep. However, carriers can recover some lost ICC revenue through a transitional Access Recovery Charge (ARC) mechanism, which allows limited increases in end-user subscriber line charges (SLCs). In some cases, additional funding from the CAF can be authorized if warranted.
- *Capital expenditure requirements:* Networks built primarily to offer voice services will be stretched to accommodate high-speed broadband data services. Carriers will likely need to refine capital budgeting, deployment, and monitoring processes to ensure capital is effectively deployed in the highest impact geographic areas and potentially reallocate funding away from other initiatives.
- *Increased real-time monitoring and reporting requirements:* As discussed above, networks and systems may need to be configured to prevent the transmission of calls with inadequate identification.

Breaking down potential impacts by tier

Rural Local Exchange Carriers (RLECs) and their affiliates

Opportunities:

- *Reforms will be scaffolded:* The Order grants RLECs up to $2 billion in annual support through 2017, a level that is roughly equivalent to current USF support, to serve as a scaffold as rural carriers adjust to the new funding regime. Rate of return carriers will also be able to tap ARC funds to offset declines in ICC revenue and can seek waivers where extreme impacts on customers and networks can be evidenced.
- *Opportunities for very rural operators:* The ability to leverage incremental CapEx/OpEx may give rural carriers a competitive advantage over newer entrants in providing services to surrounding areas. In addition, broadband performance requirements may be tailored or relaxed given the unique characteristics of very remote areas.

Challenges:

- *Scope of impact:* RLECs have traditionally been most dependent on USF to support their business operations, and thus, changes may significantly undercut the bottom-line. In the past, some carriers received more than $3,000 per line per year in USF funds in "high-cost" service areas. Going forward, funding will be capped regardless of the actual costs incurred, meaning the direct relationships between costs incurred and revenue/subsidy payments will be severed. That change may require RLECs to implement broad-based cost management efforts to remain profitable. In response, some may look to consolidation and other business combinations to gain scale.
- *Cost performance key to viability:* RLECs in many cases will face significant changes to their business models and philosophies as a result of the Order. To survive, carriers must embrace the changes brought about by the order and operate in a new environment of potentially lower operating margins and incentive, rather that cost-based, regulation. The ability to effectively manage capital and operating costs, while maintaining high quality service, will be critical. Carriers will likely have to significantly revamp their current budget and cost management systems, given the emphasis on reducing their cost base in order to increase profitability. There may be increased pressure to consolidate overhead functions or move to shared service models in order to remain viable and compete with larger carriers for CAF funding.
- *Significant new operational and financial reporting requirements:* As is the case with other tiers, stricter reporting requirements may require significant network configuration and process improvements.

Breaking down potential impacts by tier

Cable and VoIP providers

Opportunities:

- *Reciprocal access and compensation rates:* VoIP-originated traffic has largely been excluded from the ICC regime. With this Order, interconnected VoIP-originated traffic will be treated on par with PSTN traffic with reciprocal access and compensation rates.

Challenges:

- *Additional regulation of VoIP traffic:* The Order subjects all traffic, including VoIP-PSTN traffic, within the jurisdiction of Section 251(b)(5) of the FCC's Rules and Regulations as well as the new regulations imposed by the Order. Additional effort and costs will be incurred to comply with these new regulatory requirements.
- *Additional costs:* Prior to the Bill and Keep transition, carriers may accrue additional costs related to terminating interconnected VoIP calls. During this transition period, VoIP traffic will be subject to interstate access charges and/or reciprocal compensation depending on the nature of the traffic.
- *Need for structural changes and investment:* Some pure interconnected VoIP carriers may need to upgrade their processes, systems, and data to perform the additional operational and financial reporting activities required of them, including the necessary processes and controls to prevent the transmission of calls with inadequate identification.
- *Significant new operational and financial reporting requirements:* As is the case with other tiers, stricter reporting requirements may require significant network configuration and process improvements.

Breaking down potential impacts by tier

Wireless Satellite providers

Opportunities:

- *Additional funding:* The Order provides up to $100 million annually for broadband satellite and unlicensed wireless broadband service expansion to remote and hard-to-reach locations. Those funds could give satellite providers a financial advantage over terrestrial wireless or wireline providers in reaching remote areas. The incremental cost of expanding the satellite network to reach remote areas will likely be more in line with the higher investment in cell towers and/or fiber buildout required in such areas.
- *Partnership opportunities:* Satellite providers could complement their service offerings by partnering with wireless/wireline/fixed wireless carriers to develop a comprehensive broadband service offering that is truly "nationwide."

Challenges:

- *Increased competition:* Satellite providers will be required to compete on price and quality of service against terrestrial wireless providers that have an established local presence. They'll need to develop a strong local brand related to the provision of broadband services and tailor marketing and customer relationship strategies accordingly.
- *Need for structural changes and investment:* They'll also need to establish new interconnect agreements with IXCs and invest in building the necessary terrestrial infrastructure.
- *New operational and financial reporting requirements:* As is the case with other tiers, stricter reporting requirements will likely require significant network configuration and process improvements.

Where to go from here?

The changes outlined in the Order are expected to affect a wide swath of business functions, from strategy and operations to the core business model itself. Award recipients have the potential to expand beyond their core markets, increase share, and introduce new products and services. But availing of those opportunities will require carriers to improve service quality, upgrade reporting and monitoring, and manage their costs with greater precision. Nonrecipients also face challenges, since the Order will shift the operating landscape and increase the number of carriers that offer converged services, which may encroach upon the market position of niche providers.

The following steps can help management make sense of the proposed changes and frame an effective response.

Establish a steering committee and conduct a baseline assessment
Given the value at stake, organizations should start by undergoing a complete baseline review of the Order's requirements. That review should be led by a cross-section of senior management, ideally comprising leaders from finance and administration, legal/regulatory, operations, and key business units championed by C-level management and the board of directors. Under the guidance of this steering group, the baseline assessment and related business strategy can be conducted in-house or referred to outside advisors as fits the needs and capabilities of the organization.

The assessment should examine business readiness in terms of policies, process, oversight, and control across the organization. The scope should cover such areas as governance, compliance, and risk management; cost management; network enhancements, business process management, and IT; as well as talent and vendor management. (See Exhibit 1)

Exhibit 1: Key elements of a strategic/operational baseline review

Strategy	• Quantify the one-time, transition period and long-term cash flow and bottom line impacts of the USF/ICC reforms.
Governance compliance and risk management	• Assess the effectiveness of the internal control environment over governance, risk management, and compliance related to regulatory changes. • Map regulatory changes to policies, objectives, risks, and controls to show evidence of compliance and address gaps in controls as well as systems and data needs.
Cost management	• Assess the true cost structure and the impacts of USF and ICC reform, and project the incremental revenue needed to recover capital and operating costs going forward. • Shift from a cost-recovery mindset to a market-based profitability model.
Network enhancements	• Pinpoint the amount of additional network capacity and/or wireless spectrum needed in specific geographies. • Identify network equipment purchase, lease, or upgrade requirements. • Determine the licenses and agreements to be negotiated to secure needed land (easements, rights-of-way, franchises) and air (spectrum) rights.
Business process management	• Inventory current processes and the state of the existing IT environment, including network management and usage processing systems, network monitoring and reporting capabilities, billing systems, contract management systems, and compliance monitoring capabilities. • Identify overlapping and fragmented systems, the degree of manual entry/automation, and the quality of reporting and monitoring.
Talent and vendor management	• Attract and retain talent in remote areas.

Where to go from here?

Prioritize near-term actions

Gaps revealed in the baseline review should be weighed according to the urgency, opportunity or risk posed. Those steps should be prioritized based on the timeline and requirements laid down by the USF/ICC Order. As with any change process, it is important to break down tasks into small steps, each with a dedicated project team supervised by the steering committee. Be sure to consider short-term "wins" that can boost momentum and pave the way for longer-term reforms. (See Exhibit 2 for a sample set of initial milestones.)

Effective use of specialist advisers can flex valuable resources and minimize the risk of missteps. Delegating appropriate tasks to third parties can allow management to stay focused on the needs of the business. One wireless carrier, for instance, approached KPMG to test the effectiveness of the carrier's data analytics and reporting systems. That guidance helped the carrier to "clean up shop" in advance of the Order's implementation deadlines and helped correct and capture misclassified and over-reported revenue up front.

Exhibit 2: Getting the house in order – initial milestones

- Standardize cost performance and monitoring systems:
  - Quick "wins": Consider software overlays that work atop existing legacy systems to bridge different databases and applications and improve accuracy and response rates without need for a radical system overhaul.
  - Longer term: Leverage technology to increase automation, standardize the data environment, integrate analytics capabilities, and provide more effective "dashboards" and reporting interfaces to enable better management decision-making.
- Refine contract compliance practices:
  - Quick "wins": Revamp Service Level Agreements (SLAs) and build processes and controls to weed out fraudulent traffic and "free riding" on the network.
  - Longer term: Institute a more comprehensive contract compliance system to negotiate, manage, and monitor SLAs and vendor agreements and identify and resolve carrier disputes on a timely basis, reflective of specific requirements, such as traffic volume reporting and more effective revenue and expense management.
- Establish a formal vendor management program:
  - Quick "wins": Set up a vendor project management office to oversee vendor performance, compliance, and reporting.
  - Longer term: Determine if the right IT, network, and equipment partners are in place and create an oversight mechanism to ensure third parties have the requisite technical, financial, and operational experience to meet their obligations.

Develop a comprehensive strategy and implementation plan

The USF/ICC Order will require many carriers to rethink their business strategy as they shift from cost recovery to profitability models. That means investigating new sources of revenue, different types of collaborations, and a broader mix of go-to-market practices. Bring in a range of voices to see how improvements can be extended to other parts of the organization. Consider ways for process changes to deliver benefits beyond compliance, such as greater automation and deeper operational convergence in risk, governance, and reporting. Some organizations, for instance, establish centers of excellence to capture and disseminate effective practices and guidance.

How one RLEC got its shop in order and prepared for the reverse auction

Given the prospects of reduced subsidies and ICC revenue, one RLEC recognized that it needed to overhaul its current expense management system. Wary of taking on too much too fast, the carrier hired KPMG and addressed the necessary process and system changes in phases. Their first priority was transitioning away from cost-recovery budgeting to a forward-looking planning and cash flow management system. In addition to tracking expenses across the business, the system had to be capable of projecting revenue from such things as originating, terminating, and signaling calls. They used those design priorities to vet and hire a partner that could run the billing and expense management model on an outsource basis. That freed management to focus on other priorities, such as building out an array of new fee-generating services and call center support and network management. To make these steps easier to digest, the steering committee set up a project management office (PMO). A series of weekly performance reviews allowed the PMO to stay on top of issues as they came up and gave the steering committee and senior management a single point of contact for questions and updates. Although the project is still ongoing, the carrier has seen some early benefits. An expanded product offering has helped them reduce churn, and the process improvements associated with the new expense management model have fostered greater integration among functions.

How a Tier One reformed its revenue allocation and recovery process

A large Tier One operator brought KPMG in to help assess its regulatory reporting of revenues for USF purposes and prepare for changes under the CAF. On the reseller side, for instance, frequent discrepancies in the number of accounts being managed versus those certified left the provider shouldering the bulk of the contribution at year-end. In many cases, legacy billing and accounting systems made it difficult to isolate USF-exempt services, such as Customer Premise Equipment (CPE), which meant USF contributions were often made on the whole service bundle, resulting in higher than necessary payments. Compounding the issue, the company relied heavily on back-end manual adjustments to make the right revenue allocations. That workload required a dedicated handful of full-time staff.

KPMG helped the carrier find a more effective approach. KPMG laid out a series of short-term fixes aimed at correcting misclassified charges across the provider's product portfolio. We also helped flag and address back-end adjustment errors. Those improvements netted savings of several million dollars. Longer term process changes aimed at improving end-to-end data automation from billing through to the general ledger and regulatory reporting are planned over the next two to five years. Taken together, those efficiencies are expected to generate annual savings of several million dollars.

Conclusion

The USF and ICC Transformation Order is expected to have a broad impact on carriers, consumers, and potentially even the wider economy as increased broadband access brings more American citizens and businesses online. With those opportunities come challenges. Carriers will need to address internal structural reforms, such as refining and integrating a comprehensive regulatory framework across the organization, as well as rethink external, market-facing strategies to make up for lost revenue and incursions by new and nontraditional competitors.

Contact us

Carl R. Geppert
Partner
U.S. National Account Leader
Media & Telecommunications
T: 303-295-8827
E: cgeppert@kpmg.com

kpmg.com