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EXHIBIT 17

Phantom Traffic
Pennsylvania Telephone Association
New York State Telecommunications Association

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Phantom Traffic
Agenda – Discussion Points

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- **Today I will discuss:**
  - What is Phantom Traffic
  - Problematic call scenarios
  - Types of Fraud
  - How the Industry can work together

Phantom Traffic
What is Phantom Traffic?

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- **Phantom Traffic is defined as calls being established into or transiting a carrier's network that lack sufficient information to determine the offering carrier or the jurisdictional nature (interstate vs. intrastate) of the traffic for billing purposes.**
  - Sources – Any Interconnect Carrier: Wireless, CLECs, IXCs, ILECs, ISPs.
  - Verizon also subtends other's tandems
- **National Exchange Carrier Association (NECA) indicates that, for a random sample of NECA central offices, between 10% and 30% of traffic that transited their switches lacked sufficient information to perform accurate billing. This figure does not include instances in which message parameters were modified, allowing the calls to be billed, but at improper rates.**

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- **What is the missing/manipulated identifying information?**
  - Information needed is contained in the Initial Address Messages (IAMs) of the SS7 Signaling Message associated with the establishment of a call. All of this information (with the exception of the Called Party Number) can be selectively manipulated or deleted en route. These parameters include:
    - Calling Party Number (CPN)
    - Charged Number (CN)
    - Jurisdictional Information Parameter (JIP)

Phantom Traffic
What is Phantom Traffic? (cont.)

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- **Verizon is not immune to Phantom Traffic.**
  - Verizon acknowledges that it is a growing concern, and is working to better understand the full extent of Phantom Traffic. Some recent Verizon Studies:
    - Measured Phantom Transit Traffic is in the 3% to 6% range.
    - Phantom Calls Terminating on Verizon's network is in the 12% to 15% range.
    - Bottom Line: Significant Issue at Verizon.

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- **Interconnect Fraud organization recently formed in Verizon.**
  - Identifying and quantifying the magnitude of the issue.
    - Intentional Fraud is the main focus. Detecting and assessing the impact of anomalies associated with external events.
    - Inadvertent Fraud is associated with internal process/system issues, such as trunk recording, incorrect application of billing factors, network routing, inappropriate rates, etc.
    - Both result in revenue leakage and/or inflated expense levels.

Phantom Traffic
Problematic Call Scenarios

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- **Intentional Fraud Example**
  - Originating carriers have "business incentives" that motivates deletion or manipulation of information
    - Rate application and/or rate differentials due to jurisdictional issues
    - Regulatory and Legal issues
    - Contractual issues
- **Inadvertent Fraud Example**
  - Call Detail changed by an Intermediate Carrier that uses it for billing purposes and other processes
    - Terminating Carrier is reliant upon intermediate switches to "faithfully" pass along the IAM information from the originating switch.

Phantom Traffic
Problematic Call Scenarios (cont.)

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- **Intentional or Inadvertent Fraud? Could be either one?**
  - Transit traffic that is unbillable
    - Calls where a carrier's tandem is used as an intermediate switch and the carrier has insufficient information to properly bill the originating or terminating carrier.
    - Underlying issue may be strictly technology based. Issue needs to be addressed on three fronts:
      - Technology
      - Standards
      - Regulatory
    - Inadvertent Fraud occurring in this area lends itself to be addressed at an Industry level.
    - Verizon strongly desires proper routing and billing of this traffic. Please contact us if you feel we can be of assistance.

Phantom Traffic
Intentional vs. Inadvertent Fraud

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- **How to curtail Phantom Traffic?**
  - Need to make a distinction between Intentional vs. Inadvertent Fraud
    - Intentional Fraud Detection is focused on detecting external activities targeted at damaging your company and is focused on the network.
    - Detecting Inadvertent Fraud is generally focused on your company's internal processes and events.
    - Action plans and ownership of the issues will greatly differ
  - There are three different types of Telecom Fraud – Interconnect, Carrier and Consumer. Focus of this discussion is on Interconnect Fraud (which can be Intentional or Inadvertent).

Phantom Traffic
Different Types of Telecom Fraud

There are 3 categories of telecom fraud. In the table below, examples have been outlined:

1. *Interconnect Fraud*: Fraud perpetrated between carriers
2. *Carrier Fraud*: Fraud perpetrated by carriers against consumers
3. *Consumer Fraud*: Fraud perpetrated by consumers against carriers

Interconnect Fraud	Carrier Fraud	Consumer Fraud
• Invalid Billing Factors • Illegally sourcing power, usually inadvertent (collocation) • Prepaid calling card – routing and jurisdiction issues; is it an Information Service, not subject to Access? • VoIP - disguising access as local • Access over Local-only trunks • Routing calls through Canada • Routing 900 calls to carriers to increase settlement • etc	• *Slamming* - LD carrier requests Local carriers to change a customers LD carrier without the customer's request • *Cramming* - LD carrier puts erroneous or complex charges on a Local carrier's bills to the customer (eg, LD service fees) • *Jamming* - LD carrier applies a PIC freeze on a customer's LD provider to prevent the customer from being changed to another LD carrier • etc	• Subscription and Roaming Fraud - Invalid sign-up without intention to pay • Prepaid Card Fraud - Fraudulently recharging cards • Voice Mail Fraud - Transferring calls when in a customer's voicemail • Call Forwarding Fraud - Call a forwarded number and fraudulently change the destination number • etc

Phantom Traffic 2004
Fraud Markers

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- **Industry Accepted Phantom Traffic Markers**
  - CPN Stripping
  - CN Manipulated
- **Other Potential Phantom Traffic Indicators**
  - Use of Pseudo CPNs
  - Sudden shifts in CPN Delivery percentages
  - Average Holding Time (AHT) trend shifts
  - Percentage of Unanswered Calls trending higher
  - Historical Revenue and Volume Data Trends
    - Trend analysis by Carrier, by state, by Interstate, Intrastate and Local MOUs
    - Compare market share and industry trend data against a Carriers' MOU trend data

Phantom Traffic 2004
Categories of Suspicious Activity

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- **Data anomalies can be captured and classified into the following "buckets" based upon Business Rules:**
  - Jurisdictional
    - CPN stripping and CN manipulation
    - Identify arbitrage markers and Phantom Traffic usage patterns
    - Correlation of low CPN delivery and trends as an indication of potential Phantom Traffic
  - Billing Factor Issues
    - Factor misrepresentation (Carrier reported)
    - Factor inaccuracies
  - Routing Issues
    - Reporting of multiple hand-offs, transit routing through ITC and potential "Least Cost Routing" schemes
  - LNP Dip Issues
    - Carrier performing "dips" and routing inaccuracies

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PTA - Carrier Interface Committee - Phantom Traffic Issue

- 1. Large volume of wireless CDRs with empty SS7 Jurisdictional Information Parameter (JIP) field coming through a connecting company's tandem. SS7 JIP field usually populated on direct interconnection trunks.
  - The JIP standard for Wireless carriers is still under development via OBF Issues 2308, 2349, and NIIF Issue 208. Even when these standards are final, there is no certainty as to when they will be put into practice from a Generic perspective.

- 2. Large volume of interstate traffic being routed on wireless trunk groups. We believe it to be IXC traffic being routed as local to avoid access.
  - Local Traffic from Wireless carriers may appear to have an Access (Intra/InterLATA) Jurisdiction due to CPN identification of traveling wireless callers. When these customers roam or travel out of their MSA, and access a local cell site for a local call, jurisdictions assigned based upon the handset number will not be correct.

Phantom Traffic
Addressing Exchange Carrier Member Input (cont.)

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- 3. IXC traffic being routed as VoIP – decrease in EMI records and an increase in zero-CIC EMI records.
  - Difficult issue. From an originating perspective, VoIP local customers belong to another carrier, i.e. so there is no customer to bill. From a PSTN originating perspective, IXC VoIP transport/termination perspective, the Originating Access is BAU.
  - From a Terminating perspective, VoIP originated/transported traffic looks like wireline traffic to the PSTN terminating company, and terminating access or recip comp charges are applied BAU. Possible exceptions are improper routing (tandem to tandem) or improper use of ISDN PRI connections.

Phantom Traffic
Addressing Exchange Carrier Member Input (cont.)

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- 4. Missing Calling Party Number (CPN) / ANI from AMA and/or SS7 record. We have been able to track down missing CPN if SS7 record is populated.
  - No From Number can be caused by: No Calling Party Number (CPN) being signaled by the terminating carrier.
  - Verizon contractually requires a 90% or higher CPN delivery rate in its Interconnect Agreements.
  - Verizon is also interested in pursuing the party responsible.

- 5. Calling Party Number is populated with an 800 #.
  - Verizon has no control over the SS7 signaling of CPNs. Many call centers signal the 800 number of customer they are soliciting for instead of the actual call center number. This is just another example where CPN does not correctly identify jurisdiction or ownership.

Phantom Traffic
Addressing Exchange Carrier Member Input (cont.)

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- 6. Receiving, via Verizon Access tapes, FG D records that contain zeros in the CIC. Some of these records contain valid "from NPA-NXXs" and some contain zeros in the "from NPA-NXX".
  - Zero CICs can be caused by:
    - 1) Use of Pseudo CICs (NANPA reserves CICs 9000-9199 for local Intra-network use). OBF Issue 2139 prohibits the use of these CICs for EMI exchange, and instead provides for billing identification by use of the Originating OCN field as per OBF Issue 1921. Pseudo CICs are often assigned for Wireless carriers and some CLECs who do not have CICs assigned by NANPA.
    - 2) Traffic identified LEC terminated (instead of IXC terminated) is also to be identified by Originating OCN instead of CIC, although CIC may optionally be populated as per OBF Issue 2309.

Phantom Traffic
Addressing Exchange Carrier Member Input (cont.)

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- 7. Nearly half of the "zero-CIC" traffic that makes it to our CABS system comes off the switch with a Structure Code 364. 364's do not store a CIC and almost always terminate to a toll free number.
  - That is correct and another growing concern. SC364/CC142 are defined for LEC carried 800 service. The 110 CIC associated with these calls is not valid for billing, and in not recorded by the SCP. Billing ownership needs to be determined via the POTS translated number (which may also be pooled or ported). There also appear to be RESPORG issues concerning improper SMS800 administration and revenue responsibilities by 3rd party RESPORGs.

Phantom Traffic
How can the Industry work together?

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- **Establish Industry Standards. Such as:**
  - Record Exchange – Establish a standard that record exchange under meet point billed arrangements is to be done between companies without charging one another for the records.
  - Review of originating number – Establish a standard that all carriers involved in transiting traffic will check the originating number to determine if the traffic has been delivered to the appropriate tandem. If traffic is not being delivered to the appropriate tandem, the transiting carrier will contact the originating carrier to inform them of the proper routing.

Phantom Traffic
How can the Industry work together? (cont.)

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- **Establish Industry Standards. Such as:**
  - Establish a clearinghouse to share information concerning RESPORG activities. The concept would be that every participating company would provide information when they find suspicious RESPORG activity involving the use of 800 numbers.
  - Establish a PRI Standard. All companies offering PRI service would include a provision, either in their tariff or in their contracts with customers, that prohibits the use of PRI service for access bypass. Each company would establish internal controls to attempt to prevent use of PRI service to bypass access.
  - An interMTA Record Field. Create a field in SS7 record that indicates "yes/no" for interMTA CRMS traffic. Would most likely an OBF issue.

Phantom Traffic
How can the Industry work together? (cont.)

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- **Lobbying and Regulation**
  - In addition to company specific fraud investigations, this effort would include additional preventive measures from a regulatory and legislative perspective. Ideas include:
    - Potential to require 3rd party audits / verifications of networks and billing data
    - Legislation requiring that certain data legally must be passed on traffic (cannot be stripped out or omitted)
    - Impact legislation / regulation by using historical data about fraud related investigations to show how your company was negatively impacted (even in cases where no monies were recovered)
- **Goal: Regulation or Legislation that prevents companies from benefiting from unethical behavior.**

Phantom Traffic Conclusions

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- **Phantom Traffic needs to be addressed at both a company and industry level.**
  - Each company must develop and manage Business Rules
  - Must seek out and reach a "common ground" at an Industry level, especially on Inadvertent Fraud issues.
- **Understanding the types of Phantom Traffic is a key to addressing the issue.**
  - Intentional vs. Inadvertent
  - Action plans will differ

Phantom Traffic Conclusions (cont.)

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- **Industry solutions and Regulatory standards are effective, and are being pursued and evaluated throughout Verizon. Three key areas that must be addressed:**
  - Technology (generally ahead of standards/regulatory, e.g. VoIP)
    - Evaluation of feasible technical alternatives. Cost/Benefit analysis.
  - Standards
    - Understanding the role of existing Industry Standard bodies
  - Regulatory
    - State and Federal Levels
- **Many Phantom Traffic Issues are not state or region specific and tend to be national in scope. Addressing as such may facilitate near-term solutions.**