

Case Study

Success Story: Impact Telecom

Impact Telecom relies on Empirix’s Service Assurance solution to proactively eliminate ticking time bombs in the network and accelerate the Mean Time to Recognize (MTTR) problems before they disrupt service and customers.

Full-Service Telecommunications Provider

Impact Telecom is a leading, full-service telecommunications company comprised of a family of brands that deliver effective and flexible solutions to carrier, commercial and retail customers worldwide. Impact Telecom brands include Americatel, Excel, Matrix Telecom, Trinsic, Startec and Zero11 Wireless.

Impact Telecom owns and operates a network that is a full-scale deployment of both TDM and VoIP, with the network providing on-net coverage of virtually every U.S. LATA (local access and transport area). The state-of-the-art Voice over IP (VoIP) network carries billions of minutes monthly. The company maintains interconnect agreements with more than 300 carriers.

The total Impact Telecom network encompasses a complex deployment of a private, nationwide IP network combined with a nationwide network of interconnection facilities and fiber interconnects. Impact Telecom utilizes state-of-the-art equipment to ensure quality and integrity in the voice fabric. Network equipment includes a combination of session border controllers (SBCs), media proxy, media gateways, and telemetry to bring the customer the highest quality experience. Using a combination of private IP connections, public Internet and DS3 (SS7)

facilities, the company interconnects with customers and vendors via a wide range of technologies and other options.

Impact Telecom is committed to achieving growth and meeting the challenges of the constantly changing telecommunications landscape with continual improvement as well as maintaining a very high level of customer experience. These goals are achieved by delivering the highest quality services at the most competitive rates through customer service, technology innovation and operational efficiency.

Impact Telecom’s Network Monitoring Challenges Due to Acquisitions

With the acquisition of Matrix Telecom in February, 2013, Impact Telecom needed a

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Bob Beaty,
President and CEO
Impact Telecom



Company Name

Impact Telecom

Industry

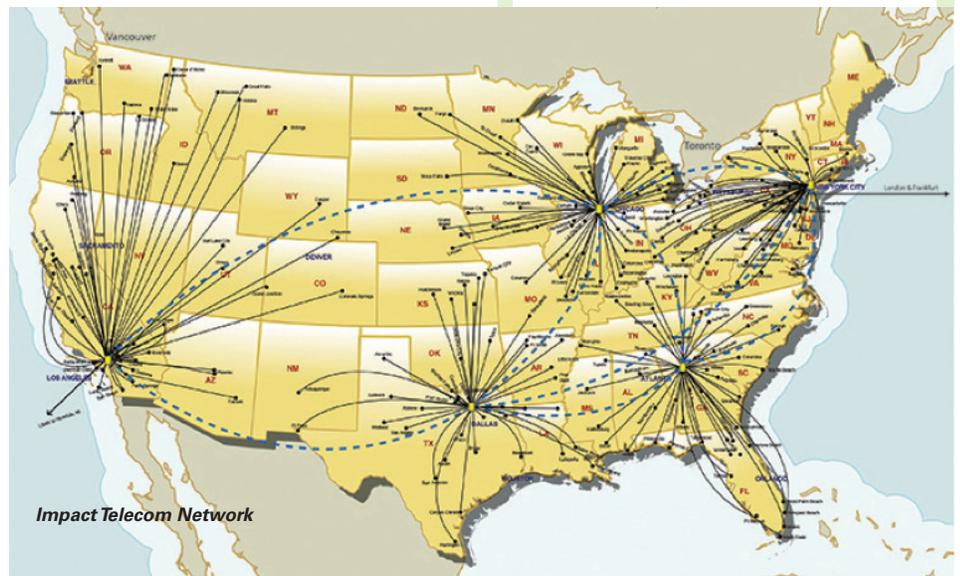
Telecommunications

Empirix Solution

Empirix E-XMS

Website

www.impacttelecom.com



carrier-grade voice monitoring solution to monitor the merged Impact Telecom and Excel network. A single solution to monitor everything across the entire network was needed because of the network's intricacy.

This challenge was complicated by several factors. Legacy equipment was being moved and a facility was being turned down, so traffic was being transitioned. Impact Telecom needed call records pulled from all servers into one place to get a complete view of entire call flows plus call records older than two weeks, which was the limit of their existing solution, in order to better identify issues and related trends that could be used to improve network performance and keep customers from experiencing problems.

Prior to Empirix, Impact Telecom could not meet its objectives with its previous monitoring solution. Impact Telecom needed the ability to view and correlate entire call flows for the combined network. But, this could only be done by arduously running multiple traces and manually pulling the information together, which was highly inefficient and required additional manpower. Further, existing tools only covered certain equipment and vendors, creating call correlation problems. For example, SS7 was not covered. Plus, the existing monitoring tool lacked ladder diagrams, a key troubleshooting and diagnostic feature offered by Empirix.

With all of these shortcomings, Impact Telecom was being charged for the existing solution by the session, which became increasingly expensive as network traffic increased.

Empirix Service Assurance Solution Delivers 100% Call Correlation for Entire Call Flows

After extensive investigation into possible alternatives, Impact Telecom selected Empirix's service assurance solution to be the single monitoring tool for their combined network. Key reasons why Impact Telecom chose Empirix over other alternatives:

- End-to-end visibility into the network that enables both proactive and rapid reactive problem resolution.
- A single monitoring platform for both SIP and SS7 that eliminates extra costs associated with needing multiple monitoring tools for different protocols.
- Scalability from a single monitoring platform to accommodate and integrate future network acquisitions and expansion.
- Strategic partnership with Empirix where the Empirix team contributes to deciphering and resolving network issues when needed.
- Dramatically reduced ticket escalations to support tiers 2 and 3.
- Predictable operational expenses for monitoring due to elimination of the variable aspect of monitoring costs based on events, sessions, etc.

According to George Hammons, the primary operational user at Impact Telecom, "Empirix provides unlimited vision into our network to both proactively and reactively address and resolve network problems. The sooner we realized that we could trust the Empirix monitoring tool, the better off we were—and are today."

The Empirix implementation for Impact Telecom addresses three regions, each with a different network configuration.

The Empirix Platform covers the Impact Telecom network, monitoring SIP, SS7 and RTP. While New York and Los Angeles are SIP only, Dallas and Chicago both support M3UA SS7 as well as the SIP protocol.

Overall correlation of calls is most critical because the network must be kept operating at all times, and the fast response time to deliver traces differentiates Empirix's solution. By monitoring all of the different sites holistically, Impact Telecom can also see declining MOS scores, and then proactively drill down to identify the source(s) of those decreases. In addition, capabilities such as tags play a key role in helping Impact Telecom build analyses.

Empirix pulls call data from all servers into one centralized location, which provides Impact Telecom with visibility into the entire call flow. In addition, the solution typically provides 30 days of call storage, which varies depending on how much traffic a customer pushes—from network origination to termination.

Significant Operational Time and Resource Advantages with Empirix Solution

Chuck Griffin, Chief Operations Officer at Impact Telecom, stated "A monitoring solution should be mandatory within every network because there are so many moving parts, and Empirix provides the way to aggregate and consolidate call and network data to prevent and address issues."

Because of its capabilities, Impact Telecom has been able to eliminate ticket escalations and complete more tickets without tier 2 and tier 3 assistance. Further, Empirix accuracy with call

correlation empowers the Impact Telecom team to understand issues that normally complicate ticketing. These capabilities dramatically improve Impact Telecom's response to resolve network issues and increases customer satisfaction.

Impact Telecom has been able to use Empirix to search for and proactively resolve "ticking time bombs" in their network. In one Impact Telecom example, the Empirix probe identified an issue in the IP portion of the network, but the equipment vendor's monitoring could not see this issue, so the people responsible for that equipment did not think that there was a problem. However, when the Impact Telecom team looked further into the situation, they found that indeed there was a configuration issue with the vendor's equipment that was impeding network performance. The equipment configuration was quickly corrected, resolving the issue before it materially disrupted the network and customers. Thus, Impact Telecom avoided SLA violations and dissatisfied customers by using their Empirix solution to proactively prevent a network problem.

Empirix "sees" potential and actual problems where other monitoring tools can merely raise a flag about a possible conflict. Further, Impact Telecom's issues get fixed earlier and more quickly, rather than dealing with the same issues repeatedly.

Thus, the Empirix solution directly reduces the number of tickets, the amount of effort required to resolve a ticket, and the number of escalations required to address more complicated tickets—all combining to save Impact Telecom valuable time and resources needed to maintain their network.

In addition to materially improving network performance and customer experience, Impact Telecom has experienced solid increases in its operational team's daily capacity and productivity. Monitoring processes have become more proactive, and there are now fewer "network fires" to put out.

An Empirix Team Committed to Partnership and Success

"Impact Telecom focuses on delivering one thing: outstanding telecommunications services. Our Empirix partnership truly advances Impact Telecom's ability to grow and meet customers' needs with high quality service," said Bob Beaty, President and CEO of Impact Telecom.

Impact Telecom has benefited from an Empirix team that listens well and is committed to Impact Telecom's success. Throughout the process, Empirix has worked closely with Impact Telecom to architect and sustain a high-quality monitoring solution that fits Impact Telecom's needs.

While Impact Telecom decided that the Empirix solution would be best to help achieve its goals, the company did not wish to make a large capital expenditure. The Empirix team then worked with the Impact Telecom's executives to find a financial model that enabled Impact Telecom's acquisition of Empirix probes via an OPEX-oriented financial agreement, making it possible for Impact Telecom to proceed.

Throughout this successful working relationship, Impact Telecom has found the Empirix team to be very accommodating, often working together to answer questions and solve issues.

Impact Telecom Gains Unlimited Network Visibility for Solving Problems with Empirix Service Assurance Solution

With Empirix, Impact Telecom proactively as well as reactively solves network problems more quickly. This has resulted in fewer network problem tickets, which has decreased the operational burden and increased daily operational capacity.

The Empirix team and the service assurance solution have significantly raised Impact Telecom's confidence that they can better search for, identify and address ticking time bombs—before they impact the network and customers.

For a complete list of offices worldwide, or to find an authorized distributor in your area, please visit: www.empirix.com/contactus.

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