

[VoIP PRE-DEPLOYMENT ASSESSMENT]

Ensuring our customers enjoy the very best VoIP experience.

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Once you've made the decision to adopt the many benefits of IP Telephony (increased productivity, innovation, collaboration, and cost savings) into your business or enterprise, the next step is confirming that your network is actually ready for Voice over Internet Protocol (VoIP). Empirical evidence from thousands of installations clearly demonstrates that a pre-deployment assessment greatly reduce costly post-installation issues and troubleshooting.

To ensure our customers enjoy the very best VoIP experience, Advantel Network requires that a VoIP Pre-Deployment Assessment (VPDA) be performed prior to installation of any VoIP solution by Advantel Networks engineers. These assessment not only satisfy the requirements of every VoIP product manufacturer, but go much deeper by ensuring the assessment addresses the specific VoIP related business needs of each of our customers.

For an overview of our VPDA Process, see reverse side.

Services Overview

Implementation Services

Advantel Networks knowledgeable, certified professionals will design your solution to both fit your budget and future needs.

Professional Services

Our Professional Services team has the expertise and experience to help you develop and integrate the right solutions for your organization.

Network Solutions

Advantel Networks combines our decades of data and voice networking experience and capabilities with key strategic partnerships to deliver unsurpassed, innovative, and costeffective olutions for our clients.

Monitoring and Managed Services

All of our products are supported by a range of maintenance and service options that ensure you get the most from your systems and services very day.

Turnkey Solutions

In order to provide a total communications solution to your business, we bring multi-vendor products together to complete your solution. We believe long lasting relationships with the right partners is key in providing the right solutions to our valued customers.

Best is a practice.

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[THE ADVANTEL VPDA PROCESS]

1. Planning

- Review the Scope of Work (SOW) for the proposed VoIP system to ensure testing is in concert with Customer business requirements
- Determine number of locations that will support proposed IP Telephony solution
- Estimate the number of simultaneous calls to each location during busiest time of day
- Determine codec to be used in testing (G.729, G.711, G.722)
- Establish estimated growth in telephony traffic in the next 12 - 18 months (if any)
- Establish Customer technical contacts for each location that is part of the VPDA

2. Discovery and Review

- Review customer provided network topology drawings detailing all networking equipment (Make, Model, Firmware revision) involved in the transmission of VoIP traffic.
- Review customer provided sample configurations of networking equipment
- Review customer provided carrier circuit QOS settings (i.e. MPLS, VPLS, PT to PT circuits etc...) if applicable
- Report to customer any issues or potential problems with customer provided information as it relates to preparing the network for VoIP traffic

3. Test Preparation

- Provide customer with information on best practices, as well as, sample configurations for prioritizing VoIP on their equipment (all work to be completed by customer or authorized agent of the customer)
- Provide customer with hardware and software requirements for testing endpoints
- Conduct short test to ensure proper connectivity

4. Testing and Reporting

- Perform synthetic VoIP testing for pre-determined period and collate results at testing center
- Generate reports from testing results and discuss results with Customer

If testing reveals acceptable results, Advantel Networks engineering will recommend proceeding with VoIP project. If results reveal issues, Advantel Networks engineers will discuss where those issues may be, and possible paths for mitigation. Among those paths may be: Customer resolving issue/s and paying for re-testing of network or contracting with Advantel Networks professional services on a time and material basis to troubleshoot issue and re-test. With the Advantel Networks professional services option, customers will only pay for professional services, all subsequent testing will be at no-charge. Testing Criteria and Requirements

Testing Criteria and Requirements

One way network delay	less than or equal to 80 – 180 ms
Jitter	less than or equal to 20 ms (RFC 1889)
Network Packet Loss	less than 1%
Mean Opinion Score (MOS)	Scale between 4-5
VoIP Dedicated VLAN/s	24 bit subnet mask or larger with 254 hosts or less
Layer 2, 3 QOS	End to end Quality of Service specific to VoIP traffic
DNS Resolution	Able to resolve netproxy.Advantel.com (12.201.152.201)
Testing Endpoint	A computer running MS Windows 7, XP, 2000, 2003

Additional Service Offerings

Advantel Networks offers additional assessment services to include Security, WLAN, Large (beyond 10 locations) VoIP testing and complete services for companies with no or limited IT departments. Please visit www.Advantel.com or call 1-800-377-4911 for additional information.