





# Enabling Australia's Field Technicians to build, troubleshoot and maintain better communications networks.



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## DA-3400, DA-3600A VolP Analysis Option

# Comprehensive real-time troubleshooting



**Key Features** 

- Real-time analysis of 64,000 simultaneous calls (DA-3600A)
- Real-time analysis of 8,000 simultaneous calls (DA-3400)
- Simultaneous VoIP and IP data analysis
- MOS/R Factor and detailed statistics for each call
- Extensive display customization and filtering
- Signaling analysis with call signaling trace
- Supports post capture analysis and playback with the PVA-1000

Ensuring VoIP quality on highly utilized networks presents unique challenges. Many monitors and analyzers have limits on the number of calls they can accurately monitor. Often the mix of Data to VoIP traffic limits the capability of the device to perform up to expectations.

These limitations are not present on the DA-3400 and DA-3600A. By utilizing custom developed hardware and software JDSU can ensure accurate results even on the most heavily utilized VoIP circuits. Data traffic levels have no impact on VoIP quality monitoring capability.

#### **Features**

## Real-time high call volume support

The DA-3400 and DA-3600A perform VoIP call quality analysis and statistics measurements in custom hardware implementations. This ensures that all call statistics and quality measurements are accurate regardless of the network utilization or the presence of non-VoIP traffic.

#### MOS. R factor

Industry standard MOS and R factor calculations are provided for each direction of every call. Additionally, detailed statistics help identify problem areas. Sorting, filtering, and display customization allow the user to focus on specific areas of concern.

## **Expert quality events**

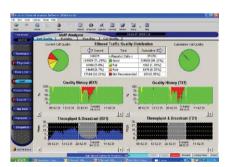
Each call is monitored for packet transport quality. Expert events are generated when user defined thresholds are exceeded. SNMP and E-mail notification alert the user when quality falls below configured thresholds.

## **Historical trending**

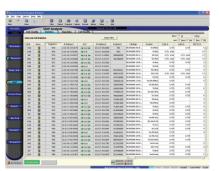
Historical trending enables users to monitor VoIP quality over time. Users may display call statistics for selected time intervals and focus on periods of transient quality impairments. Statistics and events can be used to identify the source of these transient events.

## **Display Filtering**

With the ability to store statistics on thousands of calls searching for specific calls or groups of calls becomes an important capability. The DA-3400 and DA-3600A allow highly flexible display criteria including call quality, phone number, phone number prefix, area code, VLAN, MPS label, IP address, subnet and many more.



Summary



Statistics

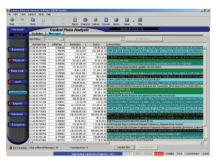




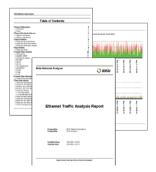
Signaling



Call Quality



Examine



Reports

## Signaling analysis

A graphic display of call signaling messages shows the timing and response codes during call setup and disconnect. The Multi-station display shows all connections to a conference bridge.

#### Reporting

On demand and scheduled reporting ensures that a record of performance, utilization, and events is available for future reference. Users may select a print ready format or a database export format.

### **Protocol decoding**

A key feature of any network analyzer is the ability to decode protocols. The DA-3400 and DA-3600A provide capture file decode as well as real-time decoding. VoIP protocols supported include RTP, RTCP, SIP, H.323, SCCP, MEGACO/H.248, MGCP/NCS, and SIGTRAN.

## **Applications**

### **Quality troubleshooting**

Using the extensive display filtering of the VoIP analysis option, users can display a subset of calls. For example, users may want to view poor quality calls on a specific subnet, with a specific phone number, or on a unique VLAN or MPLS label.

### Signaling troubleshooting

Troubleshooting of call setup and tear down requires a detailed view of the signaling exchange. The VoIP analysis option can graphically display all message exchanges with message type, message timing, and response code. To resolve issues with conference calls, the multi-station capability will detail the signaling of multiple participants in a single graphical display. Supported protocols include SIP, MGCP/NCS and SCCP.

#### **Combined VoIP and data analysis**

Call quality may suffer due to data traffic on the network. The DA-3400 and DA-3600A simultaneously identify and monitor both voice and data traffic on the network, allowing engineers to determine the true source of the problem.

#### **Network Performance baselining**

Long term performance monitoring creates performance baseline data. Through periodic comparison, it is possible to identify performance degradation and changes in user call patterns and data traffic for network planning purposes.

Part number	
DA3000T-VOIP	

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