

On-Demand™

Subscriber Monitoring for Customer Assurance



Reduce the time and costs associated with addressing customer support calls with Tektronix' On-Demand offering. On-Demand arms an operator's Customer Support personnel with information at the critical point of engagement—when the customer calls to report a problem.

Incorporating On-Demand into the support organization's toolset can minimize the time spent on the phone diagnosing problems and accelerate resolution activities.

- Quickly access diagnostic-rich traffic records for critical technical details—granularity unavailable in more traditional records used for billing purposes and other Business Support Systems (BSSs).
- A single query launched by front line support representatives may also be used by downstream network operations engineers to access more information and initiate informed resolution efforts.

On-Demand Subscriber Monitoring

▼Filter

Level: Subscriber: Service Type:

Start Time: Direction: Calls status: Only Failures All

End Time:

Limit:

Call Detail	CDR Browser	Service Type	Service	Status	Procedure	Call Response Category	Start
<input type="checkbox"/>	<input type="checkbox"/>	VOICE	Voice Call	●		Successful	2009-
<input type="checkbox"/>	<input type="checkbox"/>	VOICE	Voice Call	●		Successful	2009-
<input type="checkbox"/>	<input type="checkbox"/>	VOICE	Voice Call	●		Successful	2009-
<input type="checkbox"/>	<input type="checkbox"/>	VOICE	Voice Call	✘		Request failure	2009-
<input type="checkbox"/>	<input type="checkbox"/>	VOICE	Voice Call	✘		Request failure	2009-

On-Demand for Voice and Mobility

Leverage an underlying CDR database to populate simple customer care windows.

Platform:

- UACN

Supported Data Feeds:

- SS7, VoIP, Mobile Core

Supported Views:

- Summary
- Detail
- Records

On-Demand for Mobile Data

Launch mobility, session and service failure data queries with ease.

Platform:

- Unified Assurance for Mobile Networks

Supported Data Feeds:

- Gb, GTP, Gi, SQM and luPS with bearer and service level information

Supported Views:

- Basic
- Advanced
- Records

Summary Views provide customer care personnel with automated queries to an underlying CDR database using simple input parameters.

UACN Platform Views

Summary Views support drill-through to the Detail View or the DR Browser*.

- Service Type/Service: Voice (Voice Call, Privacy, Call ID, Redirection, IM, Do Not Disturb, Emergency Services, Generic Event, Multi-Network), Mobility
- Status: Success, Failure
- Procedure: Specific signaling transactions
- Cause Category: English description based on DR Browser "Response Cause Category" information
- Start Date/Time and End Date/Time: Based on DR Browser timestamps with 1-second resolution

For Detail Views, select summary information is enhanced with additional data and instructions.

- Source Subscriber
- Destination Subscriber
- MSISDN
- IMSI
- SIP From/To URI
- IMEI
- High Value Account Identification
- HVA Group
- Drop
- Response Cause
- Location Name
- Error Description
- Customer Impact
- Action to Take
- Justification to the Customer

*View a selected record in the browser or automatically populate a new DR Browser query with the same parameters.

On-Demand Subscriber Monitoring Detail

[Go to On-Demand Subscriber Monitoring](#)

Detail			
Start Time	2009-05-22 20:51:34 CEST	End Time	2009-05-22 20:52:02 CEST
Service Type	VOICE	Service	Voice Call
Status	Failure	Failure	Yes
Drop	Yes	Procedure	
Response Code Category	Request failure	Response Code	487 - Request terminated
Protocol	SIP	Source Subscriber	4393401234567890
Destination Subscriber	4383891234567890	MSISDN	
IMSI		IMEI	
From URI	4393401234567890@telstra.com:54321	To URI	4393891234567890@voip.telstra.com:98765
Originating HVA		Originating HVA Group	
Terminating HVA		Terminating HVA Group	
Source Location Name	UNKNOWN - UNKNOWN	Destination Location Name	UNKNOWN - UNKNOWN
Error Description	Service failure due to network issues		
Customer Impact	Call or procedure could not be completed		
Action To Take	Escalate to troubleshooting team; send email with hyperlink		
Justification To Customer	Network problem possibly due to configuration issues, will open a ticket for further investigation		

Save as Pdf file Save as CSV file

Detail Views provide more information about a specific record and may be configured to guide front line customer care personnel through desired next steps and informative dialog with end users.

Elevate Customer Support Competence and Credibility

With On-Demand, Customer Support personnel can confidently decrease their reliance on time-consuming problem assessment scripts and accelerate resolution actions.

- Easy-to-initiate queries using input parameters allow front line support personnel to review any subscriber's recent failure history and provide insightful details regarding actual voice, mobility and service problems within seconds.
- Release cause category details include descriptions, examples, actions and extra information to guide support communications with both customers and downstream network engineers. All detail fields may be customized to meet individual carrier needs and internal processes.

This ability to directly hone in on an individual's experience adds credibility to support organizations and their commitment to subscriber satisfaction while at the same time reducing the associated support costs.



Accelerate Troubleshooting Activities

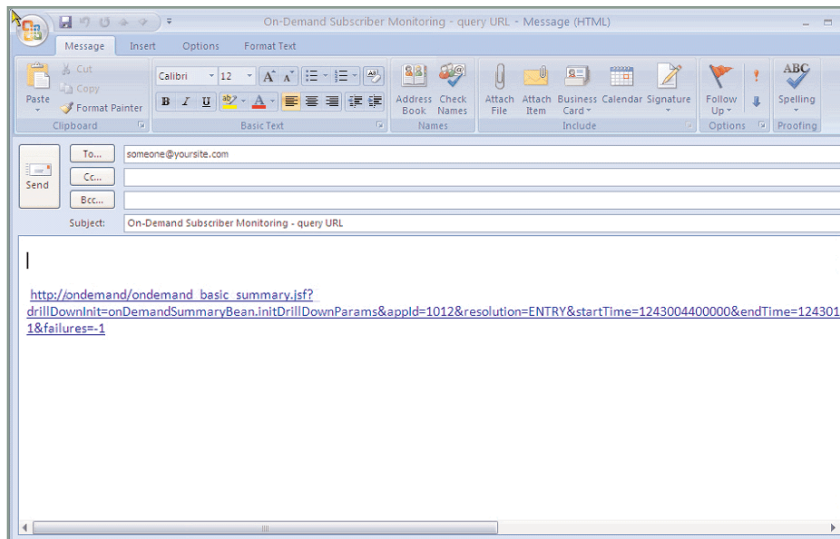
In addition to facilitating the investigation of failures associated with a particular subscriber, On-Demand offers additional capabilities for problem resolution by more seasoned support engineers.

- View complete failure records in order to identify offending network entities.
- Automatically drill from failure details to a web-based call trace and initiate troubleshooting if necessary.

Streamline Communications with Network Operations

With initial problem investigation capabilities in the hands of front line Customer Support representatives, more thorough communication of customer problems requiring operations intervention may be achieved.

- Email URL capabilities enable the sharing of investigated problems between tiered organizations and facilitates a smoother hand-off of complex problems to network operations personnel.



Share investigation results with downstream support engineers with a single-click.

Unified Assurance Platform Views

Basic and Advanced Views chronicle mobility, session and service failures based on simple IMSI/MSISDN queries.

- IMSI/MSISDN
- Start Date/Time
- End Date/Time
- Procedure
- Handset
- IMEI
- Release Cause Category
- Description*: Non-technical
- User Agent Profile (only applicable for service failures)
- Location*: SGSN (English word) + LAI (English Word) + Cell ID
- Service* (not applicable for mobility failures)
- Elements**
- Service Elements** (not applicable for mobility failures)
- Procedure Latency** (not applicable for service failures)
- End-to-End Delay (only applicable for service failures)
- Release Cause**: Number and Name

*Basic view only.

**Advanced view only.



On-Demand for Mobile Data Services

On-Demand (Basic View) [Switch to Advanced View](#) [Switch to Records View](#) [Email URL](#) [Printer Friendly](#)

MSISDN: 2146127998 IMSI: [] Starts: 01/05/06 00:00:00 CST End: 01/05/06 23:59:59 CST Apply

Failure Detail [Clear]

Start Time: 01/05/06 20:46:05 CST MSISDN: 2146127998 Handset: Samsung V660
 End Time: 01/05/06 20:51:26 CST IMSI: 561056697654382 IMEI:
 Procedure Head Handset: Samsung V660 UA Profile: http://www.samsung.com/vi660/sw
 Location: Central Texas Protocol: WSP
 Cause Category: Failure
 Description: Failure

Mobility Failures

SeqNo	Procedure	Cause Category	Start Time	End Time	Actions
1	GS Attach	Failure	01/05/06 23:03:39 CST	01/05/06 23:03:39 CST	[Details]
2	GS Attach	Failure	01/05/06 22:32:29 CST	01/05/06 22:32:29 CST	[Details]
3	GS Attach	Failure	01/05/06 21:30:11 CST	01/05/06 21:30:11 CST	[Details]
4	GS Attach	Failure	01/05/06 20:59:02 CST	01/05/06 20:59:02 CST	[Details]
4	GS Attach	Failure	01/05/06 19:46:44 CST	01/05/06 19:46:44 CST	[Details]

Session Failures

SeqNo	Procedure	Cause Category	Start Time	End Time	Actions
1	GS PDP Act MS Initiated	Failure	01/05/06 21:05:34 CST	01/05/06 21:05:36 CST	[Details]
2	GS 2nd PDP Act MS Initiated	Failure	01/05/06 19:00:57 CST	01/05/06 19:00:59 CST	[Details]
3	GS PDP Mod MS Initiated	Failure	01/05/06 15:54:02 CST	01/05/06 15:54:04 CST	[Details]
4	GS PDP Deact MS Initiated	Failure	01/05/06 10:42:33 CST	01/05/06 10:42:35 CST	[Details]

Service Failures

SeqNo	Procedure	Cause Category	Start Time	End Time	Actions
1	Head	Failure	01/05/06 20:46:05 CST	01/05/06 20:51:26 CST	[Details]
2	Gat	Failure	01/05/06 15:37:37 CST	01/05/06 15:42:58 CST	[Details]
3	Trace	Failure	01/05/06 10:26:09 CST	01/05/06 10:31:30 CST	[Details]
4	Put	Failure	01/05/06 10:26:05 CST	01/05/06 10:31:26 CST	[Details]

Basic and Advanced Views chronicle mobility, session and service failures based simple on IMSI/MSISDN queries. "Details" links guide customer care personnel to logical next steps based on defined operating procedures.

On-Demand (Advanced View) [Switch to Basic View](#) [Switch to Records View](#) [Email URL](#) [Printer Friendly](#)

MSISDN: 2146127998 IMSI: [] Starts: 01/05/06 00:00:00 CST End: 01/05/06 23:59:59 CST Apply Limit Results

Failure Detail [Clear]

Start Time: 01/05/06 20:46:05 CST MSISDN: 2146127998 Cell/SAC: 64761
 End Time: 01/05/06 20:51:26 CST IMSI: 561056697654382 BSC/RNC: California/Dallas
 Procedure Head Handset: Samsung V660 LAI Name: Dallas Convention Center
 Latency: 3010 DMEI: GS SSN: Dallas
 APN: WAP.WORLDFONE.COM UA Profiles: http://www.samsung.com/vi660/sw GGSN: California
 URL Host: Server IP: 10.0.1.1 Protocol: WSP
 Cause Category: Failure
 Release Cause: 8292 - Gateway Timeout

Mobility Failures [Records]

SeqNo	Procedure	Cause Category	Release Cause Name	Start Time	End Time	Actions
1	GS Attach	Failure	GMM No Cause Value	01/05/06 23:03:39 CST	01/05/06 23:03:39 CST	[Details] [Record]
2	GS Attach	Failure	GMM No Cause Value	01/05/06 22:32:29 CST	01/05/06 22:32:29 CST	[Details] [Record]
3	GS Attach	Failure	GMM No Cause Value	01/05/06 21:30:11 CST	01/05/06 21:30:11 CST	[Details] [Record]
4	GS Attach	Failure	GMM No Cause Value	01/05/06 20:59:02 CST	01/05/06 20:59:02 CST	[Details] [Record]
4	GS Attach	Failure	GMM No Cause Value	01/05/06 19:46:44 CST	01/05/06 19:46:44 CST	[Details] [Record]

Session Failures [Records]

SeqNo	Procedure	Cause Category	Release Cause Name	Start Time	End Time	Actions
1	GS PDP Act MS Initiated	Failure	GSM Timeout	01/05/06 21:05:34 CST	01/05/06 21:05:36 CST	[Details] [Record]
2	GS 2nd PDP Act MS Initiated	Failure	GSM protocol error - unspecified (1)	01/05/06 19:00:57 CST	01/05/06 19:00:59 CST	[Details] [Record]
3	GS PDP Mod MS Initiated	Failure	GSM Timeout	01/05/06 15:54:02 CST	01/05/06 15:54:04 CST	[Details] [Record]
4	GS PDP Deact MS Initiated	Failure	GSM Timeout	01/05/06 10:42:33 CST	01/05/06 10:42:35 CST	[Details] [Record]

Service Failures [Records]

SeqNo	Procedure	Cause Category	Release Cause Name	Start Time	End Time	Actions
1	Head	Failure	Gateway timeout	01/05/06 20:46:05 CST	01/05/06 20:51:26 CST	[Details] [Record]
2	Gat	Failure	Not acceptable	01/05/06 15:37:37 CST	01/05/06 15:42:58 CST	[Details] [Record]
3	Trace	Failure	Service unavala	01/05/06 10:26:09 CST	01/05/06 10:31:30 CST	[Details] [Record]
4	Put	Failure	Conflict	01/05/06 10:26:05 CST	01/05/06 10:31:26 CST	[Details] [Record]

Advanced views also support drill-through to "Records" views with access to network-level call trace applications.

About Tektronix:

Tektronix Communications provides network operators and equipment manufacturers around the world an unparalleled suite of network diagnostics and management solutions for fixed, mobile, IP and converged multi-service networks.

This comprehensive set of solutions support a range of architectures and applications such as LTE, fixed mobile convergence, IMS, broadband wireless access, WiMAX, VoIP and triple play, including IPTV.

For Further Information:

Tektronix maintains a comprehensive, constantly expanding collection of application notes, technical briefs and other resources to help engineers working on the cutting edge of technology.

Please visit www.tektronixcommunications.com

Contact Tektronix:

Please visit www.tektronixcommunications.com

Phone:
 1-800-833-9200 option 1
 +1-469-330-4000

Locate your nearest
 Tektronix representative at
www.tektronix.com/contactus