

## Course Outline

<b>Security Center 5.x: Advanced Video Configuration and Troubleshooting</b>	
<b>Code</b>	SC-OTC-002 (5.x)
<b>Duration</b>	3 days
<b>Target audience</b>	Technicians, Administrators, and IT Professionals
<b>Prerequisites</b>	<p>Genetec's technical certification training (either SC-OTC-001 or, SC-STC-001)</p> <p>Genetec's advanced technical certification (SC-ETC-001)</p> <p>CCNA (or equivalent) is recommended.</p>
<b>Objectives</b>	<p>To equip the participant with a deeper understanding of Security Center's video architecture with an emphasis on troubleshooting, thereby increasing autonomy and decreasing reliance on Genetec's support:</p> <ul style="list-style-type: none"> <li>• Understand and apply logical troubleshooting methodology</li> <li>• Understand Security Center's server architecture</li> <li>• Understand Security Center's video streaming architecture</li> <li>• Understand the basics of the RTSP protocol</li> <li>• Use built in troubleshooting tools</li> <li>• Use command-line IP utilities and Wireshark to diagnose networking issues</li> <li>• Use Wireshark to diagnose video streaming issues</li> <li>• Understand and configure SQL server to accept outside connections</li> <li>• Understand the Genetec server console and run debug traces</li> <li>• Understand the Genetec Security Desk console and run debug traces</li> <li>• Understand the Diagnostic task and configure the Genetec Harvester tool</li> <li>• Understand the Genetec servers' default logging options</li> </ul>
<b>Certification</b>	An open-book certification exam will be given at the end of this course.

Topic	Description
<b>Module 1 :</b> <i>Introduction</i> (1 hours)	<ul style="list-style-type: none"> <li>• What to expect from this course</li> <li>• Troubleshooting methodology</li> <li>• GTAC and GTAP</li> <li>• Documentation online</li> </ul>
<b>Module 2 :</b> <i>Architecture review</i> (3 hours)	<ul style="list-style-type: none"> <li>• Role based architecture</li> <li>• Processes</li> <li>• Default video streaming architecture</li> <li>• Archivers</li> <li>• Redirectors and Network view</li> </ul>
<b>Module 3 :</b> <i>The Network</i> (4 hours)	<ul style="list-style-type: none"> <li>• Networking review</li> <li>• The Media Router</li> <li>• Multicast requirements</li> <li>• Command line IP utilities</li> <li>• NIC configurations</li> <li>• Config Tool's built in troubleshooting tools</li> <li>• RTSP Basics</li> </ul>
<b>Module 4:</b> <i>Built in Tools</i> (3 hrs)	<ul style="list-style-type: none"> <li>• Server Watchdog</li> <li>• The Diagnostic task and Harvester Tool</li> <li>• Default server logs</li> <li>• Video File Analyzer tool</li> <li>• Diagnostic keyboard shortcuts</li> <li>• Remote health monitoring</li> <li>• Windows Task Manager, Performance Monitor &amp; Resource Monitor</li> </ul>
<b>Module 5:</b> <i>Packet capturing</i> (3 hrs)	<ul style="list-style-type: none"> <li>• Capturing packets</li> <li>• Identifying the root causes of packet loss</li> <li>• Overview of packet capturing techniques</li> <li>• Capture filters</li> <li>• Display filters</li> <li>• HTTP capture settings</li> <li>• Following TCP streams</li> <li>• Decode video stream as UDP</li> </ul>
<b>Module 6 :</b> <i>The databases(s)</i> (2 hrs)	<ul style="list-style-type: none"> <li>• Security Center's databases</li> <li>• Role to database connections</li> <li>• Genetec Service user and SQL connection(s)</li> <li>• Configuring SQL for remote access</li> <li>• SQL Management Studio (Express)</li> <li>• Single-user vs Multi-user modes</li> </ul>
<b>Module 7 :</b> <i>The console(s)</i> (4 hrs)	<ul style="list-style-type: none"> <li>• Server Console             <ul style="list-style-type: none"> <li>○ Directory Console traces</li> <li>○ Archiver Console traces</li> <li>○ Media router console traces</li> <li>○ Access Manager console traces</li> </ul> </li> <li>• Security Desk Console</li> <li>• Config Tool Console</li> </ul>