



# Genesys Certification Study Guide

## Genesys Certified Professional 8 System Consultant, Genesys SIP Server (GCP8 - CSIP)

Exam Code	GCP8-CSIP (Prometric code: GE0_807)
Product Supported:	This exam supports Genesys SIP Server software version 8.04. Candidates using an earlier version of SIP Server are advised to contact their local Genesys Training Center before registering for this exam.
Type of Exam	Written, multiple-choice, true/false, questions
Length	100 questions
Passing Score	70%
Exam Language	English-only
Timing	<p>150 minutes (or 2 hours 30 mins) for candidates in English-speaking countries to complete the exam questions. Candidates in non English-speaking countries are provided with 180 minutes or 3:00 hrs.</p> <p>(English-speaking countries include: North America, UK, Ireland, Australia and New Zealand. Candidates in all other countries are automatically provided with the additional 30 minutes to complete the exam questions.)</p> <p>Prior to starting the exam questions, you are also provided with an additional 15 minutes to complete the Candidate Agreement and another 15 minutes, if needed, to complete a pre-exam tutorial. (This time is separate from the time allocated for the exam questions.)</p> <p>Candidates who require any special accommodation can request 30 additional minutes to take their exam, but they must make the request before completing their exam registration. This also applies to non-native English speakers who register for exams in English-speaking countries. Please contact the Prometric Special Accommodations department with your request:</p> <p><a href="mailto:specialconditions@thomson.com">specialconditions@thomson.com</a></p> <p>or call: +1-800-967-1139.</p>
Exam Location	Prometric Testing Centers worldwide
Exam Price	Check with Genesys before registration for current price information. Prices may vary depending on country where exam will be delivered.
Exam Discounts	<p>You may be eligible to receive an exam discount on your exam fees if you have completed any of the recommended preparatory training courses, if your company has prepaid your exam fees or if your company qualifies for exam discounts.</p> <p>Please contact a Genesys University representative before you complete your registration to find out if you are eligible for an exam discount.</p>
Exam Registration	<p>Exam candidates must first contact their local Genesys Training Center before registering for an exam. The Genesys Training Center will collect your exam fees and give you a certification voucher code to use when registering for your exam on the Prometric web site: <a href="http://www.prometric.com">www.prometric.com</a></p> <p>You will be asked to log-in or complete a profile for a New User. You may select a date, time and location for your exam. You should enter the exam voucher</p>

code when you complete your Payment Information during exam registration. Be sure to check the expiration date of your exam voucher code.

### Eligibility and Target Audience

The Genesys Certified Professional (GCP) program is open to current Genesys customers, partners and employees only. Passing the exam is only one part of the certification process. Genesys will need to verify that you are eligible for Genesys Certification before we can issue you a certificate and recognize your status as a Genesys Certified Professional. If you have any questions regarding your eligibility, please contact your local Genesys University training center.

The GCP8-CSIP certification exam is based on the Genesys SIP 8.0X training curriculum and the tasks that a SIP 8 System Consultant performs for SIP 8 Installation and Configuration. This certification validates the candidate's comprehensive understanding of the Genesys SIP Server solution components related to architecture, deployment models, configuration and installation, basic usage, call flows of Genesys SIP Server, and Genesys Media Manager, and monitoring a Genesys SIP Server solution.

### Target Audience

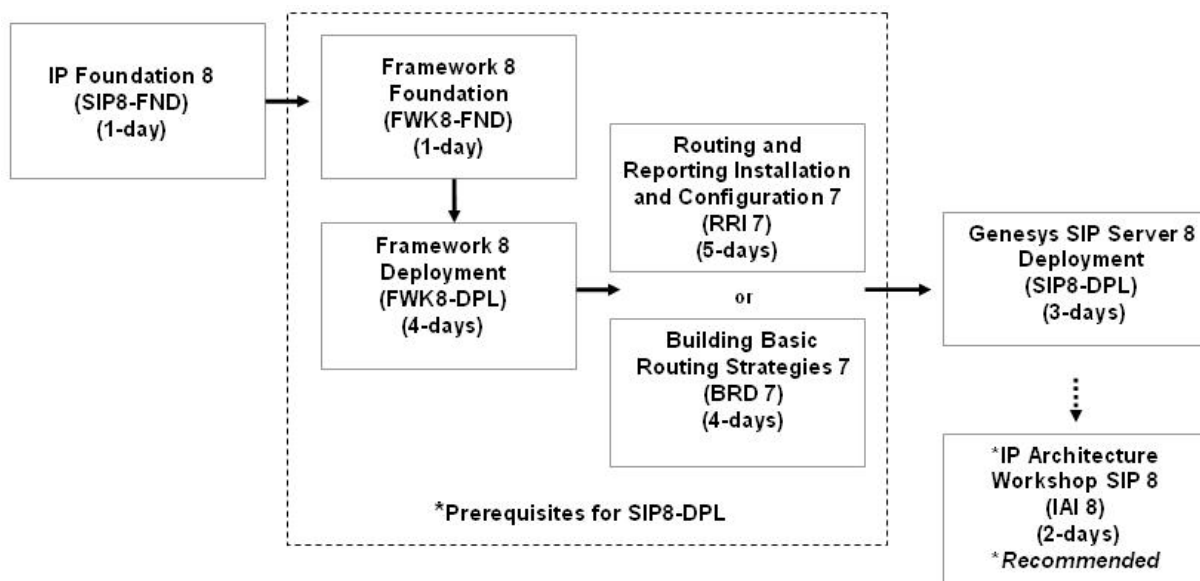
System Consultants who perform as system administrators, solution integrators, and any other technical role involved in planning, installation, configuration, monitoring and maintenance of Genesys SIP Server solutions.

### Preparing for the Exam

Genesys University highly recommends that candidates seeking certification follow the certification preparatory track. The preparatory track, coupled with hands-on experience will increase the probability of passing the exam. You are not required, however, to complete the training courses prior to taking the certification exam. If you feel you have considerable, real-world experience using Genesys SIP Server and/or Genesys Stream Manager products, then you may register and take the exam at any time.

In either case, Genesys University encourages you to review the materials described in this study guide to help you prepare for the GCP8 – CSIP exam.

### Genesys Certification Roadmap for the GCP8 – CSIP Exam



## Certification Preparatory Track

- “IP Foundation 8” (SIP8-FND) – 1 day course
  - Covers IP Telephony, SIP protocol, and an overview of SIP Servers
  - The prerequisite for SIP 8-FND is Framework 8-FND. A basic understanding of IP Telephony and SIP Protocol is a plus.
- “Genesys SIP Server Deployment” (SIP 8-DPL) – 3 day course
  - Covers the purpose, architecture, deployment models, configuration and installation, basic usage, and call flows of Genesys SIP Server and Stream Manager.
  - Prerequisites for SIP8-DPL are:
    - Framework 8 Foundation (FWK 8-FND)
    - Framework 8 Deployment (FWK 8-DPL)
  - Other recommended courses are: Routing and Reporting Installation and Configuration (RRI 7) or Building Basic Routing Strategies (BRD 7)

In addition, it is also recommended that candidates review or attend the following preparatory training:

- “IP Architecture Workshop SIP 8” (IAI 8) – 2 day course
  - Covers architecture in the IP environment and how to design and size a solution, including large-scale, multi-site, multi-product deployments

## Reference Materials Available

Your training course materials are an excellent source of information for exam review. Other Genesys reference materials you can use for exam preparation are available from the Genesys website:

- Genesys Tech Support Website: <http://genesyslab.com/support/home/index/>
  - Select Documentation and search by product and major release
  - Genesys SIP Server Deployment Guide 8.0 is especially useful to prepare for this exam
- Genesys Documentation Library CD (good resource for architecture, planning, deployment, and system monitoring)
  - The Documentation Library CD is distributed in Genesys training classes or from Genesys directly

## Exam Study Topics

### GCP8 - CSIP Exam Topic Categories

The GCP8 - CSIP exam topics are organized into six topic categories with descriptions of the corresponding knowledge and skill sets that represent the tasks required by a System Consultant when installing, implementing and supporting a Genesys SIP Server solution. These knowledge and skill sets might be obtained from the SIP 8-FND, SIP 8-DPL and IAI 8 training courses, Transfer of Information (TOI) presentations, a sales presentation, reading technical documentation or working with SIP Server at a foundation level.

1. SIP Server Product Overview / General Architecture
  - Overview of IP Technology and SIP
  - Describe VoIP protocols (signaling protocols and media protocols)
  - Describe the main components of a VoIP network as they relate to SIP
  - Describe gateways, soft switches, application servers, and SIP endpoints and describe their role in a voice interaction flow
  - Describe the basics of the SIP protocol and SDP
  - Describe Overview of Genesys IP Products and the role of the Genesys SIP Server
  - Overview of Genesys SIP Solution Components
  - Determine when to use Network SIP Server (primarily for Policy Based Load Distribution)
2. Designing A SIP Server Solution

- Describe the key features and benefits of the Genesys SIP Server
  - Inbound/Outbound Calls
  - Associate an ACD Queue with a Routing Point
  - No Answer Supervision
  - Endpoint Service Monitoring
  - Call Treatments
  - Call Transfer and Conference
  - Regular and Emergency Call Recording
  - Call Supervision
  - Remote Supervision (including support for Multi-Site Supervision)
  - Music and Announcements
  - Personal Greeting (including Whisper)
  - Preview Interactions
  - Presence Subscription
  - Instant Messaging
  - Remote Server Registration
  - Class of Service (including Trunk capacity configuration)
  - Mapping SIP Headers and SDP Messages (including support for Blocking SIP headers, OPTIONS messages)
- Describe SIP Server Deployment modes:
  - SIP Stand Alone
  - Integrated with a third party softswitch
  - Open standard SIP architecture
- Describe SIP Deployment Considerations
  - Overall deployment components
  - Licensing
  - Software and hardware requirements
  - Explain Interoperability Conditions
  - HA & Scalability Considerations
  - Sizing
  - SIP Server Scaling and Performance
  - QoS
- Describe SIP Server Integrations
  - Genesys Voice Platform Integration
  - Outbound Integration
  - Softswitch Integration
  - Video
  - Asterisk Voice Mail Integration

### 3. Deployment

- OS Support
- SIP Server Installation
  - Run Setup Program for SIP Server Installation
  - Start SIP Server
  - Verify SIP Server has started
- Deploying A Network SIP Server
  - Create new Network SIP Server
  - Configure Routing Point for Network SIP Server
- Network SIP Server Installation
  - Run Setup Program for Network SIP Server Installation
- SIP Server as a T-Server
- SIP Server Configuration
  - Set Permissions
  - Connect SIP Server to Router(s)
- How to deploy SIP Server
  - Configure SIP endpoints
  - Configure SIP Server Connections

- Create DNs
    - Create Agents (Logins, Groups, Assign Logins)
    - Configure New Application
  - High Availability Configuration
    - Microsoft NLB configuration and scripting
    - Unix virtual IP configuration and scripting
  - Mapping SIP Headers
    - Authenticating INVITES
    - SIP to T-Lib mapping and T-Lib to SIP Mapping
  - Configuring Call Transfers
    - Call Transfers
    - 1PCC and 3PCC call transfer
  - Configuring Conference Calls
    - Multipoint Conferencing Unit (MCU)
    - 1PCC and 2PCC conference calls
    - Push video
  - Configuring Dialing Services
  - Configuring Auto-Agent
  - Configuring Multi-Site Call Type Tracking
4. Deploying Media Server
- Genesys Media Server Features
    - Music and Video on Hold
    - Music in Queue
    - DN Types
  - Genesys Media Server Deployment
    - Configuring Genesys Media Server Applications
    - Overview of Supported Codecs
    - Call Treatments
    - Call Transfer
    - Call Conference
    - Call Supervision
    - Call Recording
    - Personal Greetings
  - Overview of Stream Manager
5. Using SIP 8
- Using A SIP Softphone
    - Registering a softphone in SIP
  - Agent Configuration
    - Associating an ACD Queue with a Routing Point
    - Performing Call Transfers
    - Describe what gcti DNs are used for
    - Describe how Emulated Agents are used
    - Describe how and when to configure Business Call Parameters
    - Describe how to configure After Work Calls
    - Describe when SIP classifies call categories
  - Class of Service
6. Monitoring SIP Server 8 Deployment
- Call Supervision
    - Session monitoring
    - Call Supervision modes
    - Remote Supervision
    - Multi-site Supervision
  - Recording Configuration

- Recording DN
- Emergency recording
- Trunk site and agent side recording
- Monitoring SIP Messages
  - Monitor call flow diagrams with SIP messages and TLib messages
- Reading SIP Logs
  - Using SIP Log Visualizer
  - Reading SIP Log File
- Maintaining Configuration

### How Do I Know What to Study?

The exam includes questions from all the topic areas. Some topics have more questions presented than others. Review the GCP8-CSIP Exam Study Topics using your Genesys Training Course materials or the Genesys SIP Server 8.0 Deployment Guide.

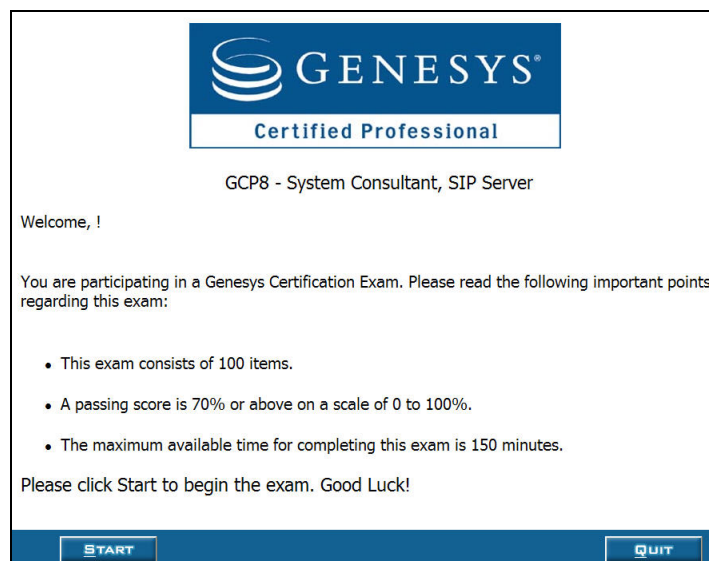
### Arriving at the Prometric Test Center

You should plan to:

- Arrive early at the test center (try to be at least 15 minutes early in order to complete your sign-in paperwork).
- Bring two (2) forms of ID with you to the test center
- Leave your belongings in your car or outside the test center
- Leave your cell phone and any notebooks outside the testing area
- Sign the Prometric Security Agreement

### Starting and Finishing Your Exam

A test center staff member may log you into your exam or you may be given a login and password to log yourself into your exam.



- Next, the Prometric testing program will then present an optional Prometric Exam Tutorial before starting the exam questions. This is a timed tutorial (note the “Remaining Time: XX:XX min” in the upper right portion of your screen.) The tutorial covers useful, general tips:
  - Exam user interface

- How to move through screens

**Welcome to the tutorial**

This tutorial provides a series of screens that orient you to the computer testing environment. This will give you an opportunity to try each feature before using it in questions that will be scored. You will be instructed on how to use the mouse and the different parts of the screen.

You may use the tutorial for 15 minutes. Notice the "Time remaining" box in the upper right corner of this screen. A similar display will appear during the actual exam. In the upper left corner is a box that shows where you are in the series of questions (or in this case, screens of the tutorial). Other screen features are described later in the tutorial.

**Click on the 'Next' button OR press the 'Alt' + 'N' keys to continue.**

**To end this Tutorial at any time and start the exam Click on the 'End' button OR press the 'Alt' + 'D' keys.**



- When the Genesys Certification Exam starts, you will be asked to Review/Agree to the Genesys Candidate Agreement before starting your questions.
- When you start the exam questions, your timer will restart. You will be provided with 2 hours 30 mins (in English-speaking countries) or 3 hours (in non English-speaking countries).

NOTE: The **END** button will exit you from the Tutorial.

Select the **Review** buttons at the bottom of the screen at any time to view a list of the exam questions you have completed and those you have not. If you select the **Exit** button from the Review screen, a popup window will ask you to confirm that you wish to exit the exam.

You can return to the exam questions by double-clicking on any of the question numbers listed.

Questions	Marked	Incomplete	Complete
# Question 94			Yes
# Question 95			Yes
# Question 96			Yes
# Question 97		Yes	
# Question 98			Yes
# Question 99			Yes
# Question 100			Yes
# Question 101			Yes
# Question 102			Yes
# Question 103			Yes
# Question 104			Yes
# Question 105			Yes
# Question 106			Yes
# Question 107			Yes
# Question 108		Yes	
# Question 109			Yes
# Question 110		Yes	
# Question 111			Yes
# Question 112			Yes
# Question 113			Yes
# Question 114		Yes	
# Question 115			Yes

**Genesys Certified Professional - System Consulta...**

You have incomplete (unanswered) questions. If you choose to end, these questions will be marked as incorrect. Do you wish to end?

**Double-click a question to return to the exam**

Symbols Key


▶ = Marked question    ◻ = Completed question    ◻ = Incomplete question



- To finish your exam:
  - Click **Exit** from Review Screen. (Wait 1-2 minutes while system calculates your score.)

NOTE: If you have not answered any questions, the system will mark these as incorrect. If you run out of time during the exam, the exam will stop.

Tell your Test Center proctor when you finish the exam. Be sure to ask the proctor for your printed score report. Your score report will contain a list of the exam topics, the total number of questions presented to you from each topic, and the number of questions you got correct.

			
<b>Examination Score Report</b> GCPS - System Consultant, SIP Server			
Candidate Name: Test Taker		Exam Code: [SeriesID]	
Candidate ID: 111-11-1111		Testing Site: 9999	
Registration ID: [Invoice]		Date: Tuesday, May 03, 2011	
Your Score: 70		Grade: Pass	
Passing Score: 70%			
Section	Number of Items Correct	Total Number of Items	Percent Correct
Product Overview and General Architecture	10	15	67%
Designing A SIP Solution	17	26	65%
Deploying SIP Server	16	22	73%
Deploying Media Server	14	20	70%
Using SIP	6	7	86%
Monitoring SIP Solution	7	10	70%
<b>Total</b>	<b>70</b>	<b>100</b>	<b>70%</b>
This examination was delivered by Prometric.			

**Sample Questions** (*Sample Questions will be reviewed prior to final copy*)

The sample questions below are additional questions that have not been used in the actual exam, but are representative of typical questions that an exam candidate may face.

Select the answer that best answers the question or completes the statement.

1. When planning a Genesys SIP Server 8 deployment, there are multiple potential music sources that can be used instead of Genesys Stream Manager and Genesys Media Server. True or False?
  - A. True
  - B. False
  
2. If a SIP 8 configuration enables recording on more than one device in the call, recording will start on both devices at the same time once either of the devices signals **EventEstablished**. True or False?
  - A. True
  - B. False
  
3. In SIP 8, once SIP Server exceeds 150% of the configured **overload-ctrl-dialog-rate**, what will happen to all traffic? (Choose 1)
  - A. all traffic will continue but an error message is triggered warning of the overload rate
  - B. all traffic will be rejected once it exceeds 150% of the configured overload rate
  - C. nothing will happen to the traffic until it exceeds 200% of the configured overload rate
  - D. nothing will happen to the traffic as the **overload-ctrl-dialog-rate** does not control the rate of traffic



4. In SIP Server 8, if the **auto-logout-timeout** option is set to false, SIP Server will not log out agents when they are in which of the following agent states? (Choose 4)
- A. Inactive
  - B. Ready
  - C. NotReady/ACW
  - D. NotReady/AuxWork
  - E. NotReady/LegalGuard
  - F. when Agent is in any state
5. SIP Server 8 uses the H.323 protocol when communicating with Media Server. True or False?
- A. True
  - B. False

### Answers to Sample Questions

- 1. A
- 2. B
- 3. B
- 4. BCDE
- 5. B

For more information about Genesys Certification, please contact your local Genesys University training center or click here:

[http://www.genesyslab.com/about/training/certification\\_programs.asp](http://www.genesyslab.com/about/training/certification_programs.asp)

