### Exam Study Guide

**Genesys Certified Support Professional 8 Consultant, CIM Troubleshooting (GCS8 - CCTS)**

<table>
<thead>
<tr>
<th>Exam Code</th>
<th>GCS8-804</th>
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<tr>
<td><strong>Product Supported:</strong></td>
<td>This exam supports Genesys CIM Troubleshooting version 8. Candidates using an earlier version of CIM are advised to contact their local Genesys Training Center before registering for this exam.</td>
</tr>
<tr>
<td><strong>Type of Exam</strong></td>
<td>Multiple choice and multiple select questions</td>
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<tr>
<td><strong>Certification Level</strong></td>
<td>Professional level</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>75 questions (75 points possible)</td>
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<tr>
<td><strong>Passing Score</strong></td>
<td>72% correct (54 points = 72%)</td>
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<tr>
<td><strong>Exam Language</strong></td>
<td>English-only</td>
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<tr>
<td><strong>Timing</strong></td>
<td>GCS8-804: The exam is timed for 100 minutes. GCS8-804e: The exam is timed for 120 minutes for test takers whose first language is not English</td>
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<tr>
<td><strong>Exam Location</strong></td>
<td>Kryterion online or exam testing centers worldwide</td>
</tr>
<tr>
<td><strong>Exam Price</strong></td>
<td>Check with Genesys University Training Registration for current price information. Prices may vary depending on country where exam will be delivered. You will need to obtain an exam voucher code which will be used during the payment process. Check if your company has prepaid your exam fees or if your company qualifies for exam discounts.</td>
</tr>
<tr>
<td><strong>Exam Registration</strong></td>
<td>Exam candidates must first contact their local Genesys Training Center before registering for an exam. The Genesys Training Coordinator will collect your exam fees and give you a certification voucher code to use when registering for your exam. 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. Use the exam voucher number in the field Promotion Code during exam registration. Be sure to check the expiration date of your exam voucher code.</td>
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<tr>
<td><strong>Exam Reschedule</strong></td>
<td>If you need to reschedule your exam, please do so no less than 72 hours from the scheduled date and time in your region. Penalty fees will incur for exams rescheduled less than 3 days before the scheduled date and time.</td>
</tr>
<tr>
<td><strong>Canceling Exam</strong></td>
<td>You can cancel your scheduled exam however, please keep in mind that the voucher number is for one-time use. You will not be able to use the same voucher number if you schedule an exam after you cancel a prior appointment. It is recommended to reschedule an exam rather than cancel it.</td>
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Eligibility and Target Audience

The Genesys Certified Professional (GCS) 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 Support Professional. If you have any questions regarding your eligibility, please contact your local Genesys University training center.

The GCS8 – Consultant for CIM Troubleshooting (CGS8 – CCTS) certification is primarily targeted at consultants, system administrators and approved subcontractors worldwide that assist Genesys partners and customers in troubleshooting their Genesys CIM Platform configuration. This certification validates the candidate’s comprehensive understanding of the Genesys Framework 8 architecture and support practices. The exam covers Inbound Voice Routing 8 and Solution Reporting 8 components related to inbound routing of voice interactions. A Genesys Certified Support – System Consultant for CIM8 Troubleshooting is recognized as having achieved a foundation knowledge in basic troubleshooting and maintenance of Genesys inbound voice products.

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 Inbound Voice products (specifically CIM Platform 8), then you may register and take the exam at any time.

In either case, Genesys University encourages you to review the materials in this Study Guide to help you prepare for the GCP8 – CCTS exam.

Genesys Certification Roadmap for the GCS8 – CCTS Exam

The main preparatory course for candidates seeking the GCS8-CCTS certification is the Customer Interaction Management 8 Troubleshooting Workshop (CIM8-TS). The CIM8-TS workshop course has several prerequisites: The Framework 8 Foundation (FWK8-FND), Framework 8 Deployment (FWK8-DPL) and Interaction Routing and Solution Reporting 8 Deployment (IRR8-DPL).

Candidates should check the Genesys University Training web page or contact your local Genesys University office for information on the availability of the recommended training courses.
GCS8 – CCTS Certification Preparatory Track

Genesys Certified Professional v8 – System Consultant, Inbound Voice (GCP8-CCTS)

- **Framework 8 Foundation** (FWK 8-FND) – 1 day
- **Framework 8 Deployment** (FWK 8-DPL) – 4 days + 1 week Post Training Lab
- **Inbound Voice Routing and Solution Reporting 8 Deployment** (IRR 8-DPL) – 5 days
- Customer Interaction Management Platform Troubleshooting Workshop 8 (CIM8-TS) – 4 days

Note: Selected Genesys University courses are available as an Instructor-led (ILT) or online Virtual Classes (VC). Refer to the Genesys University Master Course List for a description of these offerings.

GCS8-CCTS Exam Topics

The GCS8-CCTS exam topics are organized into four topic categories that represent the tasks required by a Consultant when troubleshooting a Genesys Customer Interaction Management Platform. The required knowledge and skill sets might be obtained from the CIM8-TS workshop course. The emphasis and number of questions for each topic category varies depending on the troubleshooting tasks typically performed by a Genesys Consultant.

1. Component Overview

Demonstrate an understanding of the Genesys CIM Platform 8 architecture and T-Server troubleshooting

- Component Overview
  - Explain the relationship between T-Server, Stat Server and Universal Routing Server
  - Describe the common options these server applications share
  - Connections and Connection Issues
  - Licensing Issues
  - ADDP

2. T-Server and ISCC

- T-Server:
  - Identify where to find T-Server reference information
  - Explain how the T-Server performs its functions
  - Identify T-Server particular logging options
- T-Server Internals
  - Explain the mechanisms that allow T-Server to maintain connections and provide real-time information exchange in the system
- T-Server Role
  - Explain T-Server’s role in relation to other Genesys products
  - Describe the nature of T-Server’s interactions with other connected products
  - Explain the T-Server log file at startup
- T::Library Call Model
  - Explain the T-Server Call Model
  - Explain the Party state machine
- Requests and Events
  - Explain Request and Event types
  - Explain Event and Request messaging in the T-Server log
  - Recognize common associated attribute data
- **Stuck Calls**
  - Recognize and describe stuck calls
  - Know the various options for handling stuck calls
- **Inter Server Call Control (ISCC)**
  - List Inter-Server Call Control requests and events and explain how they work
  - Locate ISCC messages in the T-Server log

### 3. Stat Server

Demonstrate the ability to understand and troubleshoot common issues related to Stat Server
- **Stat Server**
  - Learn where to find Stat Server reference information
  - Explain how the Stat Server performs its functions
  - Identify Stat Server particular logging options
- **The Stat Server Action and Status Model**
  - Explain the Stat Server Action and Status Model
  - Define the terms related to the parameters of a statistical request
- **Stat Server API**
  - Explain the Stat Server application programming interface (API)
- **The Stat Server log file**
  - Explain the characteristics of the Stat Server log file

### 4. Universal Routing Server

Demonstrate the ability to understand and troubleshoot common issues related to Universal Routing Server
- **Universal Routing Server**
  - Explain the purpose of the Router
  - Describe URS specific logging options
- **URS Log Analysis**
  - Describe the subsystems of URS
  - Explain log message structure
- **URS Requests**
  - Describe the Request messaging generated by the Router
  - Troubleshoot common routing errors
- **URS Strategy Execution**
  - Use the URS log to analyze steps in strategy execution
- **URS Logging and Performance**
  - Understand logging and performance issues
- **URS Interaction Distribution**
  - Describe how URS prioritizes interaction distribution
  - Describe how URS determines target status from Stat Server

### 5. Orchestration Platform

Demonstrate ability to understand and troubleshoot common issues related to Orchestration Platform.
- **Orchestration Server**
  - Understand ORS Architecture features:
    - Persistent Storage
    - Clusters
- Super Nodes and Master Super Nodes
- Failover

- ORS Logging
  - Startup activities
  - Reading the configuration
  - Start functional modules
  - Process clusters and start Persistence Manager
  - Elevating a node to Master Super Node (MSN)
  - Additional ORS logging options

- Orchestration – Executing a Routing Application
  - Understand simple routing application flow
  - Detail processing of a voice interaction
    - Voice call
    - Session added to IDX
    - Claim Process
    - Session Creation
    - SCXML Compilation
    - SCXML Application Execution
    - Session Started
    - Invoking URS
    - Processing Events
    - Routing Done
    - Final State
    - Events While Session Ending
    - End of Session
    - Events on Agent DN
    - Final Clearing for Session
  - Review of Sample Logs

- ORS Problem Scenarios
  - Failure Scenarios
    - ORAS will not start
    - Vector delays on Route Points
    - IPD is not defined (No Interaction ID)
    - SCXML is not found
    - SCXML is corrupted
    - Force Route

- Orchestration Platform: CIM Component Troubleshooting
  - Identify routing problems in relation to
    - ORS
    - URS
    - Stat Server
Exam Study Guide

Practice Questions (Answers provided at the end of this document)
The sample questions below are not used in the current exam, but they are representative of typical questions.

1. Typically, the most likely reason that T-Server would fail to start is inability to connect to the License Manager.

   True            False

2. T-Library (or T-Lib) messages...
   A. are the communication protocol used by T-Server and clients
   B. allow requests to be sent from T-Server to its clients
   C. consist of Events and Requests
   D. have categories such as General, Registration, Call-Handling, and Transfer/Conference

3. Which of the following is(are) valid Event Distribution Types? Choose 3.
   A. send_to_client
   B. distribute_event
   C. distribute_request
   D. distribute_response

4. If T-Server is unable to fulfill a request, it sends back EventError with the same AttributeReferenceID as the request.

   True            False

5. In general, a T-Server log...
   A. Shows requests from clients
   B. Shows messages sent to the PBX
   C. Shows messages received from the PBX
   D. Shows events sent to clients

6. Select the option that is NOT a statistic “type” identified for Stat Server?
   A. Average
   B. Percentage
   C. Maximum/Minimum
   D. Persistence
   E. Summary

7. Actions can be classified based on the DN type.

   True            False

8. A “Statistic” is a returned value of a Metric, measured against configured Objects IDs.

   True            False
9. Which is NOT a supported object type in Stat Server?
   A. RegularDN
   B. Agent Group
   C. Queue
   D. Route Point
   E. Port

10. Which one of the following is NOT a valid method for a Stat Server Request?
    A. OpenServer()
    B. OpenStat()
    C. PeekStat()
    D. CollectStatInfo()
    E. GetProfile()
    F. They are all valid.

11. PeekStat is a request to get the value of a statistic.
    True  False

12. Match the Stat Server log file Message Type to its description.
    A. [Init]
    B. [Client]
    C. [Server]
    D. [SQL]
    E. [Action]
    1. Shows requests/events
    2. Shows database requests
    3. Lists durable actions for DNs
    4. Shows configuration changes and startup initialization
    5. Shows messages from T-Server

13. According to this log entry. Multiple calls are waiting in the Queue.
    True  False

14. The verbose option and the _____________ section of the URS application work in conjunction
    with each other.

15. Lowering the logging level of the verbose option results in efficiency gains in performance of
    URS, but may hamper troubleshooting efforts.
    True  False
16. Place the stages of URS call routing in the correct sequential order.
   A. Select a target.
   B. Request target's current state.
   C. Wait for confirmation (EventRouteUsed).
   D. Send RequestRouteCall.
   E. Identify number and location for routing.
   F. Start strategy.
   G. Receive EventRouteRequest.
   H. Wait for target availability.

   1. Step 1
   2. Step 2
   3. Step 3
   4. Step 4
   5. Step 5
   6. Step 6
   7. Step 7
   8. Step 8

17. In target specification, a RequestRouteCall will always indicate the DN selected for routing in AttributeOtherDN.

   True   False

18. A routing strategy does not determine the candidate targets.

   True   False

19. URS's ability to route interactions is affected by its ability to get statistical information from Stat Server.

   True   False

20. In order to best resolve routing difficulties, what does Genesys recommend that you have available? (Check all that apply)
   A. URS log (mandatory)
   B. Stat Server log (preferable)
   C. T-Server log (mandatory)
   D. DB Server log (for Xdata)
   E. Message Server log (mandatory)
   F. The routing strategy (sometimes useful)

21. Persistent storage is accomplished through the use of Apache Cassandra.

   True   False

22. This log segment shows that a Super Node is elevated to Master Super Node status.

   True   False
23. If there’s an error in the SCXML document, the Orchestration session will still be created and will continue processing the SCXML after the point of the error.

   True          False

24. When the routing state is entered, ORS invokes which component to handle the routing?

25. This log segment shows that ORS is retrieving the SCXML document.

   True          False

26. You can use Composer to help find syntax errors in SCXML documents.

   True          False
Answers to Practice Questions

1. correct_answer = "t"
2. correct_answer = "a,c,d"
3. correct_answer = "a,b,d"
4. correct_answer = "t"
5. correct_answer = "a,b,c,d"
6. correct_answer = "d"
7. correct_answer = "t"
8. correct_answer = "t"
9. correct_answer = "e"
10. correct_answer = "d"
11. correct_answer = "t"
12. correct_answer = "4,1,5,2,3; b,d,e,a,c"
13. correct_answer = "t"
14. correct_answer = "verboselevels"
15. correct_answer = "t"
16. correct_answer = "3,4,8,7,6,2,1,5; g,f,a,b,h,e,d,c"
17. correct_answer = "t"
18. correct_answer = "f"
19. correct_answer = "t"
20. correct_answer = "a,b,c,d,f"
21. correct_answer = "t"
22. correct_answer = "t"
23. correct_answer = "f"
24. correct_answer = "URS or Universal Routing Server"
25. correct_answer = "t"
26. correct_answer = "t"

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
Answers to Sample Questions

1. B, C, F
2. False
3. C, E
4. True

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