

Statistics Web Services

API Reference Guide

April 1, 2015

The Statistics Web Services enable developers to build secure applications to obtain from Five9 domains statistical data about session initialization, chat, domain limits, agent monitoring, campaigns, statistics, and user information.

About Five9

Five9 is the leading provider of cloud contact center software, bringing the power of the cloud to thousands of customers and facilitating more than three billion customer interactions annually. Since 2001, Five9 has led the cloud revolution in contact centers, delivering software to help organizations of every size transition from premise-based software to the cloud. With its extensive expertise, technology, and ecosystem of partners, Five9 delivers secure, reliable, scalable cloud contact center software to help businesses create exceptional customer experiences, increase agent productivity and deliver tangible results. For more information visit www.five9.com.

Trademarks

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What's New

This table lists the changes made in the last six releases of this document:

Release	Changes
April 2015	<ul style="list-style-type: none"> Added version 4 of the Statistics Web Services API. Renamed a supervisor permission: CampaignManagementResetDialerDCP is now called CampaignManagementResetAbandonCallRate.
February 2015	<ul style="list-style-type: none"> Clarified the description of columnNames in getStatistics.
July 2014	<ul style="list-style-type: none"> Clarified ConcurrentModificationFault and WrongCampaignTypeFault.
June 2014	<ul style="list-style-type: none"> Added sections about the Web Services API versions. For more information, see Web Services Platform and Differences Among API Versions. Added these data types: <ul style="list-style-type: none"> campaignState campaignType supervisorPermission supervisorPermissionType wsUserLimits Added these exceptions: <ul style="list-style-type: none"> CampaignNotFoundFault CampaignStateUpdateFault ConcurrentModificationFault DispositionNotFoundFault UserLimitReachedFault WrongCampaignStateFault WrongCampaignTypeFault Added these methods: <ul style="list-style-type: none"> Campaigns closeSession getMyPermissions getUserLimits Updated loginStation.

Release	Changes
	<ul style="list-style-type: none"> Updated these data types: <ul style="list-style-type: none"> getStatisticsUpdate: updated the value of <code>longPollingTimeout</code> from 2000 to 5000 ms. apiOperationType statisticsUpdate viewSettings
August 2013	<ul style="list-style-type: none"> Re-branded the guide with the new Five9 logo. Corrected an error in the timeZone property of the <code>viewSettings</code> data type: the offset for the example should be -7h instead of 7h. Under getStatisticsUpdate, added 2000ms as the recommended value for <code>longPollingTimeout</code>. Under Requesting Statistics, added a note about tracking multiple types of statistics at the same time.

Chapter 1

About the Five9 Statistics Web Services API

The Five9 Statistics Web Services API enables developers to build secure applications to obtain real-time statistical data from Five9 domains to send to wallboard displays, custom agent desktops, workforce management systems. Some of this data appears in the Supervisor desktop of the Virtual Contact Center (VCC), for example:

- Agent statistics
- Automatic Call Distributor (ACD) status
- Campaign state
- Outbound campaign manager
- Outbound, inbound, and autodial campaign statistics

This guide is intended for developers who understand these technologies and protocols:

- Client-server architecture
- Web Services
- SOAP and HTTP protocols
- XML
- JSP, ASP, CGI, Perl, or other Web server programming languages
- Call center integration and configuration

Web Services Platform

Your client send Web service requests that are acknowledged by Five9 with a Web services response. Your client needs to check periodically for the status and outcome of the operations requested. The Web services API contains the XML-encoded SOAP methods used to communicate with your client application.

Five9 recommends the most recent version. The other versions are still supported but are not recommended. *Five9username* is the user name of the administrator:

Note In the rest of this guide, the new features are highlighted.

- **Version 4:** For the features available in the 9.0 release and if you use the Five9 iPad application, use this version.


```
https://api.five9.com/wssupervisor/v4/
SupervisorWebService?wsdl&user=<Five9username>
```

- **Version 3:** For the features available in the 8.2 release, use this version if you use the Five9 iPad application so that the supervisor may have the permissions to manage campaigns.

```
https://api.five9.com/wssupervisor/v3/
SupervisorWebService?wsdl&user=<Five9username>
```

- **Default version:**

```
https://api.five9.com/wssupervisor/
SupervisorWebService?wsdl&user=<Five9username>
```

To ensure that connections are secure, send all requests by Transport Layer Security protocol (HTTPS) or VPN (IPSec or SSH) to this URL:

```
https://api.five9.com/wssupervisor[/<version>]/SupervisorWebService/
```

Differences Among API Versions

The versions are identical except for the differences listed in this table.

	Version 4	Version 3	Default
Data Types			
apiOperationType (VIVRCREATESESSION)		New	
campaignState		New	
campaignType		New	
CampaignManagementResetAbandonCallRate	New		
CampaignManagementResetDialerDCP	Obsolete		
statisticsUpdate (addedObjects)		New	
supervisorPermission		New	
supervisorPermissionType		New	
viewSettings (idleTimeOut)		New	
wsUserLimits		New	New
Methods			
forceStopCampaign		New	

	Version 4	Version 3	Default
getDispositionsNames		New	
getMyPermissions		New	
getUserLimits		New	New
loginStation (idleTimeOut)		New	
loginStation (appType)			New
resetCampaign		New	
resetCampaignDispositions		New	
startCampaign		New	
stopCampaign		New	
Exceptions			
CampaignNotFoundFault		New	
CampaignStateUpdateFault		New	
ConcurrentModificationFault		New	
DispositionNotFoundFault		New	
UserLimitReachedFault		New	New
WrongCampaignStateFault		New	
WrongCampaignTypeFault		New	

Basic Access Authentication

Your HTTPS requests must provide valid Five9 credentials for basic access authentication, which is used by the Web Services API to enforce access control. With HTTP basic authentication, the user name and password are encoded in Base 64.

These credentials included in the header should be those of a user with an administrator role. Five9 recommends that you create several administrator users reserved for Web Services if you plan to send multiple concurrent requests. Otherwise, if you try to use the same user name and password for multiple concurrent requests, your requests are denied, and you receive an exception.

In your client, construct your authorization header as follows:

- 1 Concatenate the user name and password, for example:
`ExampleUsername:ExamplePassword`
- 2 Encode the string in base 64, for example:
`RXhhbXBsZVVzZXJOYW11OkV4YW1wbGVQYXNzd29yZA==`
- 3 In your code, enter the Authorization header with the value Basic <base64-encoded string>.

Example Web Services header with encoded user name and password

```
POST https://api.five9.com/wssupervisor/SupervisorWebService HTTP/1.1
Accept-Encoding: gzip,deflate
Content-Type: text/xml; charset=UTF-8
SOAPAction: ""
Authorization: Basic RXhhbXBsZVVzZXJOYW11OkV4YW1wbGVQYXNzd29yZA==
```

Chapter 2

Requesting Web Services

This chapter describes how to initialize a session and request statistics and other services.

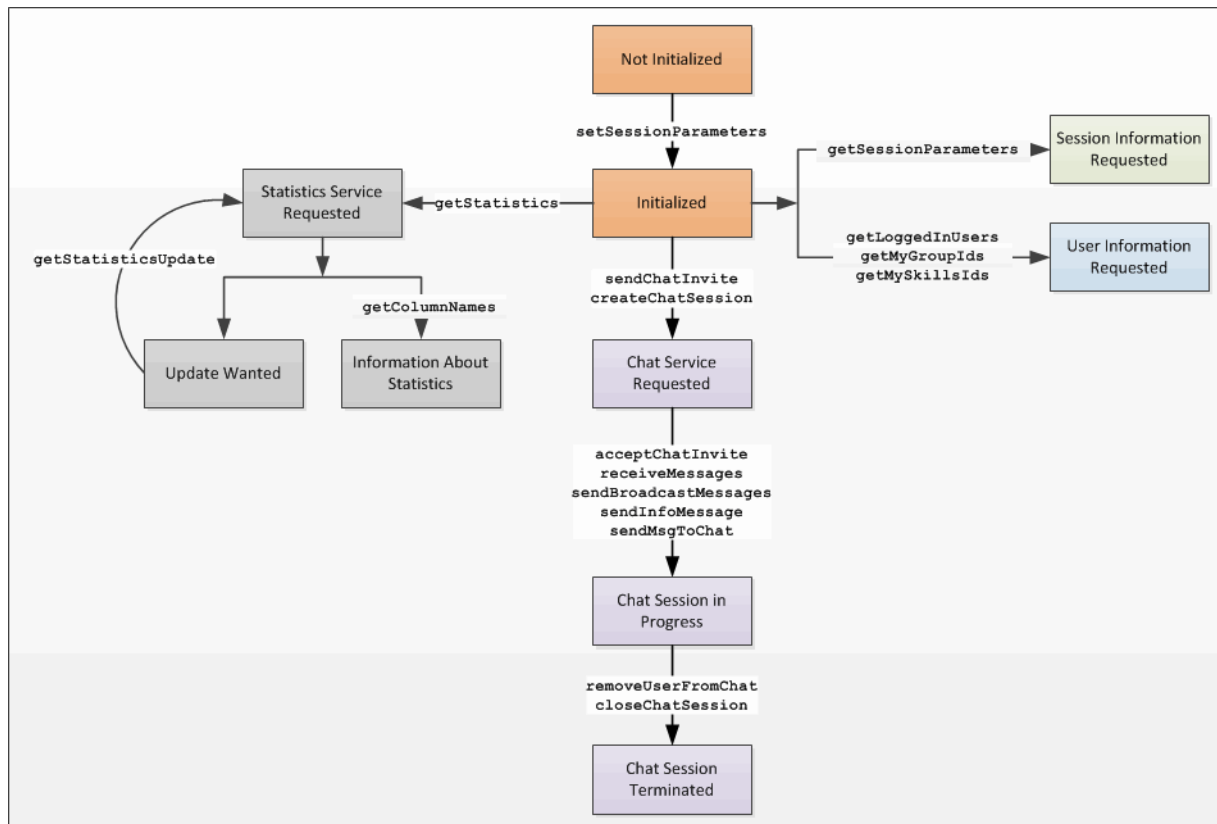
Initializing a Session

You need to create a session before calling these methods:

Feature	Methods
Session Information	closeSession
Campaigns	forceStopCampaign getDispositionsNames resetCampaign resetCampaignDispositions startCampaign stopCampaign
Chat	acceptChatInvite closeChatSession createChatSession receiveMessages removeUserFromChat sendBroadcastMessages sendChatInvite sendInfoMessage sendMsgToChat
Connection information	getSessionParameters
Statistics	getColumnNames getStatistics getStatisticsUpdate

Feature	Methods
User information	getLoggedInUsers getMyGroupIds getMyPermissions getMySkillsIds getUserLimits

To create a session, use [setSessionParameters](#). This diagram shows the process.



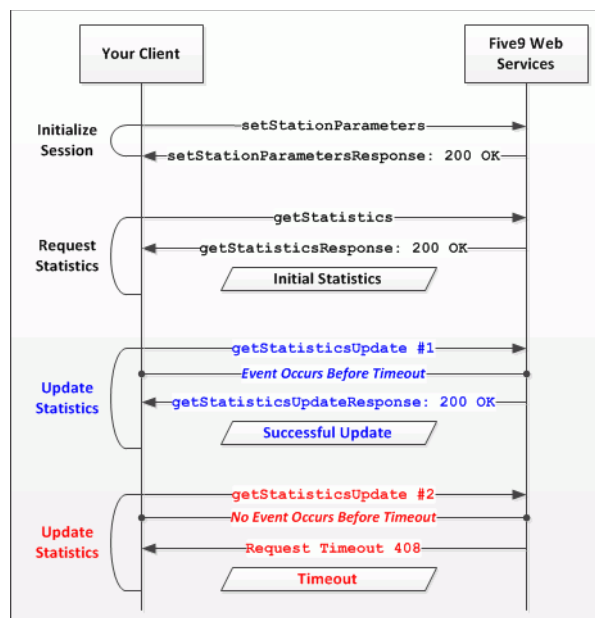
After you receive the response, you can call these services:

- **Chat:** You can start by creating a chat session. While a session is in progress, you can send invitations and send and receive messages. You can terminate a chat session with either a single user or a group of users.
- **Connection information:** To obtain information about the current connection, call `getSessionParameters`.

- **Statistics:** When you call `getStatistics`, the time stamp of the request is tracked. To maintain the state and to prevent a session time-out due to inactivity, request updates with `getStatisticsUpdate` in a loop, using the previous time stamp as input. To obtain more information about the data, call `getColumnNames`.
- **User information:** You can obtain detailed information about the logged-in users, the groups to which users belong, and the skills assigned to them. For example, you can use this information to send messages to specific users before starting a chat session.

Requesting Statistics

Before requesting statistics, you need to initialize a session as described in the previous section. This figure shows the interaction between your client and the Five9 Web Services.



To create a session, call `setSessionParameters`. The `setSessionParametersResponse` service includes a 200 OK HTTP success code. To obtain the data that you need, call `getStatistics`. The response contains a 200 OK HTTP success code and your set of statistics.

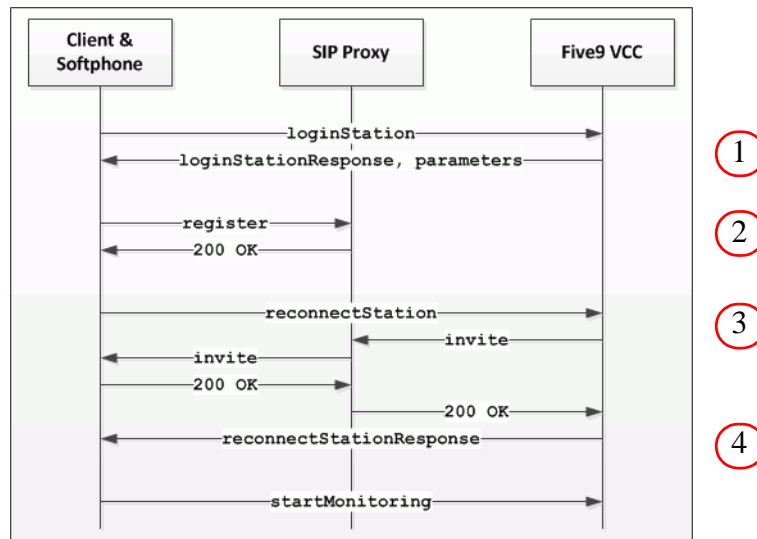
To request updates, call `getStatisticsUpdate`, which has a long-polling time-out parameter. Updates to the Supervisor Web Services server are sent in batches every one to six seconds, depending on the size of your domain. These are the possible results:

- Successful update: If an event occurs before the time-out, as in **#1 in blue**, the server sends updated values to your client.
- Unsuccessful update: If no update occurs before the time-out, as in **#2 in red**, the server responds with a time-out message.

To track multiple types of statistics at the same time, configure your client to send `getStatisticsUpdate` requests for each type in succession, waiting for one request to be finished before sending the next one.

Starting a Monitoring Session

This process enables a softphone connected to a Session Initiation Protocol (SIP) proxy to establish a VoIP connection with an active call. The SIP proxy routes the requests and responses between your client and Five9. With VoIP, the SIP phone is implemented as a softphone that provides the traditional call functions of a telephone, such as dial, answer, reject, hold, and transfer. During a call, a supervisor can listen, speak, or interrupt. This diagram shows the process.



- 1 Start by calling `loginStation`. The response contains the SIP parameters to establish a softphone connection.

- 2 Send a register message to the SIP proxy to indicate the IP address and URLs for the calls. The proxy replies with an 200 OK HTTP success code.
- 3 Call `reconnectStation`. To establish a media session between the three parties, Five9 sends `invite` to the proxy who forwards it to your client. After receiving a successful message from both, Five9 sends `reconnectStationResponse` with the connection option for your client. When the connection to the softphone station is established, the supervisor hears three dial tones.
- 4 Call `startMonitoring`.

Chapter 3

Methods

This chapter contains these groups of methods:

[Session Information](#)

[Chat](#)

[Domain Limits](#)

[Agent Monitoring](#)

[Campaigns](#)

[Statistics](#)

[User Information](#)

Session Information

This section contains the method that you need to use to start a session before using the methods listed in [Initializing a Session](#).

[closeSession](#)

[setSessionParameters](#)

closeSession

Use this method to forcibly end a session.

closeSession. This method contains no parameters.

closeSessionResponse. This method contains no parameters.

setSessionParameters

Use this method to create a session, specifying the parameters that you need first. To change the settings in the future, call this method again with different parameters. For an example request and response, see [setSessionParameters](#).

[setSessionParameters.](#)

Parameter	Type	Description
viewSettings	viewSettings	Parameters used to calculate certain statistics. Corresponds to the options found in the View tab of the VCC.

[setSessionParametersResponse.](#)

Parameter	Type	Description
return	viewSettings	Options specified for the set of data.

Chat

Use these methods to create and manage chat sessions and messages.

acceptChatInvite	sendBroadcastMessages
closeChatSession	sendChatInvite
createChatSession	sendInfoMessage
receiveMessages	sendMsgToChat
removeUserFromChat	

acceptChatInvite

Use this method to accept an invitation to a chat session.

[acceptChatInvite.](#)

Parameter	Type	Description
chatId	string	ID of the chat session.
accepted	boolean	Whether to accept or reject the invitation.

[acceptChatInviteResponse.](#) This method contains no parameters.

closeChatSession

Use this method to close a chat session.

[closeChatSession](#).

Parameter	Type	Description
chatId	string	ID of the chat session.

[closeChatResponse](#). This method contains no parameters.

createChatSession

Use this method to create a chat session.

[createChatSession](#). This method contains no parameters.

[createChatResponse](#).

Parameter	Type	Description
chatId	string	ID of the chat session.

receiveMessages

Use this method to obtain a list of available messages in a chat session. For an example request and response, see [receiveMessages](#).

[receiveMessages](#).

Parameter	Type	Description
previousTimestamp	long	Time of the previous update (Epoch time in milliseconds). For the initial call, the time stamp is 0.
longPollingTimeout	long	Number of milliseconds to wait for changes before closing a connection.

[receiveMessagesResponse](#).

Parameter	Type	Description
return	wsChatMessages	Information about chat messages.

removeUserFromChat

Use this method to remove a user from a chat session.

[removeUserFromChat](#).

Parameter	Type	Description
chatId	string	ID of the chat session.
user	wsRoledId	Information about the role of an agent or supervisor.

[removeUserFromChatResponse](#). This method contains no parameters.

sendBroadcastMessages

Use this method to broadcast messages to several users.

[sendBroadcastMessages](#).

Parameter	Type	Description
type	broadcastType	Information about the group of users targeted by the broadcast messages.
specId	long	Optional ID of the group.
text	string	Content of the broadcasted message.

[sendBroadcastMessagesResponse](#). This method contains no parameters.

sendChatInvite

Use this method to send an invitation to chat after you have created a session. For more information about initialization, refer to [Initializing a Session](#).

[sendChatInvite.](#)

Parameter	Type	Description
chatId	string	ID of the chat session.
user	wsRoleId	Information about the role of an agent or supervisor.

[sendChatInviteResponse.](#) This method contains no parameters.

sendInfoMessage

Use this method to send a message to a user.

[sendInfoMessage.](#)

Parameter	Type	Description
user	wsRoleId	Information about the role of an agent or supervisor.
text	string	Content of the message.

[sendInfoMessageResponse.](#) This method contains no parameters.

sendMsgToChat

Use this method to send a message to all users in the specified chat session.

[sendMsgToChat.](#)

Parameter	Type	Description
chatId	string	ID of the chat session.
text	string	Content of the message.

[sendMsgToChatResponse.](#) This method contains no parameters.

Domain Limits

For security reasons, Five9 has implemented default limits for each type of Web Services request. If you require higher limits for some types of requests, contact Five9 Customer Support.

Types of API Requests with Examples	Maximum		
	Minute	Hour	Day
QueryChangedStatistics Requests that set one or more values or that create or delete an object. Example: <code>getStatisticsUpdate</code>	30	1200	24000
QueryStatistics Requests that impact a single record. Examples: <code>setSessionParameters</code> and <code>getStatistics</code>	2	15	240

getCallCountersState

Use this method to obtain your domain's request limits.

[getCallCountersState](#). This method contains no parameters.

[getCallCountersStateResponse](#).

Parameter	Type	Description
return	limitTimeoutState	Collection of limits for different request types.

Agent Monitoring

This section contains the methods used to monitor agents:

[getMonitoringSupervisors](#)
[getSessionParameters](#)
[loginStation](#)
[reconnectStation](#)
[startMonitoring](#)
[stopMonitoring](#)

getMonitoringSupervisors

Use this method to obtain a list of supervisors that are currently monitoring the specified agent.

[getMonitoringSupervisors.](#)

Parameter	Type	Description
agentName	string	Agent's name.

[getMonitoringSupervisorsResponse.](#)

Parameter	Type	Description
return	monitoringSupervisor [0..unbounded]	Names of the supervisors.

getSessionParameters

Use this method to obtain information about the current session.

[getSessionParameters.](#) This method contains no parameters.

[getSessionParametersResponse.](#)

Parameter	Type	Description
return	viewSettings	Options specified for the session.

loginStation

Use this method to initialize a voice session and obtain technical information about a SIP station.

loginStation.

Parameter	Type	Description
stationName	string	ID of the station.
forceLogoutSession	boolean	Whether to log out a second agent or supervisor who is attempting to log into a station already in use.
appType	string	Used by iPad applications.
idleTimeOut	int	Maximum inactivity allowed for the supervisor session from 60–1800 seconds (30min). If omitted, the default value is 180 seconds (3 min).

Version 3

loginStationResponse.

Parameter	Type	Description
return	stationParameters	Information about the SIP parameters needed to establish connection.

reconnectStation

Use this method to obtain information about the connection options for the softphone.

[reconnectStation](#). This method contains no parameters.

reconnectStationResponse.

Parameter	Type	Description
return	connectStationResult	Type of connection established, such as voice, digital, or fax.

startMonitoring

Use this method to start the monitoring session of an agent by a supervisor. For an example request and response, see [startMonitoring](#).

[startMonitoring](#).

Parameter	Type	Description
agentName	string	Name of agent to monitor.
monitoringMode	monitoringMode	Type of monitoring used by supervisor.

[startMonitoringResponse](#).

Parameter	Type	Description
agentName	string	Name of agent to monitor.

stopMonitoring

Use this method to stop monitoring an agent.

[stopMonitoring](#).

Parameter	Type	Description
agentName	string	Name of monitored agent.

[stopMonitoringResponse](#). The response contains no parameters.

Campaigns

This section contains the methods used to manage campaigns.

[forceStopCampaign](#)
[getDispositionsNames](#)
[resetCampaign](#)
[resetCampaignDispositions](#)
[startCampaign](#)
[stopCampaign](#)

forceStopCampaign

Version 3

Use this method to force a campaign to stop.

[forceStopCampaign.](#)

Parameter	Type	Description
campaignName	string	Name of campaign.

[forceStopCampaignResponse.](#) This method contains no parameters.

getDispositionsNames

Version 3

Use this method to obtain a list of dispositions.

[getDispositionsNames.](#) This method contains no parameters.

[getDispositionsNamesResponse.](#)

Parameter	Type	Description
return	string [0..unbounded]	List of dispositions.

resetCampaign

Version 3

Use this method to clear the dialing results of the outbound campaign so that the records can be redialed.

[resetCampaign.](#)

Parameter	Type	Description
campaignName	string	Name of campaign.

[resetCampaignResponse.](#) This method contains no parameters.

resetCampaignDispositions

Version 3

Use this method to reset the dispositions of the campaign list records that match the dispositions. Calls that occurred during the `dateTime` interval are reset so that the contacts can be dialed again if their disposition included in the list of dispositions.

[resetCampaignDispositions.](#)

Parameter	Type	Description
campaignName	string	Name of campaign.
dispositions	string [0..unbounded]	List of dispositions to reset.
after	dateTime	Start time of the call interval. The start time is not included in the interval.
before	dateTime	End time of the call interval. The end time is not included in the interval.

[resetCampaignDispositionsResponse.](#) This method contains no parameters.

startCampaign

Version 3

Use this method to start a campaign.

[startCampaign.](#)

Parameter	Type	Description
campaignName	string	Name of campaign.

[startCampaignResponse.](#) This method contains no parameters.

stopCampaign

Version 3

Use this method to stop a campaign.

[stopCampaign.](#)

Parameter	Type	Description
campaignName	string	Name of campaign.

[stopCampaignResponse.](#) This method contains no parameters.

Statistics

This section contains the methods used to gather statistics:

[getColumnNames](#)
[getStatistics](#)
[getStatisticsUpdate](#)

getColumnNames

Use this method to obtain a list of field names for a specific type of statistic.

[getColumnNames.](#)

Parameter	Type	Description
statisticType	statisticType	One of the available sets of data.

[getColumnNamesResponse.](#)

Parameter	Type	Description
return	row	Names of the available fields.

getStatistics

Use this method to request information about a specific type of data. This method contains all the data at once with the time stamp of the request, which can be used to request updates. Because the amount of data can be large, Five9 suggests that you use this method sparingly. Instead, to obtain regular updates, use [getStatisticsUpdate](#). For an example request and response, see [getStatistics](#).

[getStatistics.](#)

Parameter	Type	Description
statisticType	statisticType	One of the available sets of data.
columnNames	row	List of columns to return. If you omit this parameter, all columns are returned. Be sure that your code can accommodate changes in the number of returned columns if you omit the parameter. For example, the number of columns can change if you add custom dispositions to your domain or when Five9 makes software changes to the VCC.

[getStatisticsResponse.](#)

Parameter	Type	Description
return	statistics	Array of rows of data.

getStatisticsUpdate

Use this method to check for changes in the statistics. For real-time statistics, call this request in a long-polling loop. For an example request and response, see [getStatisticsUpdate.](#)

[getStatisticsUpdate.](#)

Parameter	Type	Description
statisticType	statisticType	One of the available sets of data.
previousTimestamp	long	Time of the previous update (Epoch time in milliseconds).
longPollingTimeout	long	Number of milliseconds to wait before closing the connection when no changes occur. Five9 suggests 5000 ms or more.

[`getStatisticsUpdateResponse.`](#)

Parameter	Type	Description
return	<code>statisticsUpdate</code>	Changed values indicated by the names and columns of the items.

User Information

This section contains the methods used to find detailed information about users:

[`getLoggedInUsers`](#)
[`getMyGroupIds`](#)
[`getMyPermissions`](#)
[`getMySkillsIds`](#)
[`getUserLimits`](#)

[`getLoggedInUsers`](#)

Use this method to obtain the properties of the logged-in users.

[`getLoggedInUsers.`](#) This method contains no parameters.

[`getLoggedInUsersResponse.`](#)

Parameter	Type	Description
return	<code>wsUserRoleId</code> [0..unbounded]	Properties of the logged-in users.

[`getMyGroupIds`](#)

Use this method to find a list of groups to which the user belongs. For example, you might use this information to send broadcast messages.

[`getMyGroupIds.`](#) This method contains no parameters.

[getMyGroupIdsResponse.](#)

Parameter	Type	Description
return	wsAgentGroup [0..unbounded]	List of groups to which the user belongs.

getMyPermissions

Version 3

Use this method to find a list of user permissions.

[getMyPermissions.](#) This method contains no parameters.

[getMyPermissionsResponse.](#)

Parameter	Type	Description
return	supervisorPermission [0..unbounded]	List of groups to which the user belongs.

getMySkillsIds

Use this method to obtain a list of the user's skills.

[getMySkillsIds.](#) This method contains no parameters.

[getMySkillsIdsResponse.](#)

Parameter	Type	Description
return	wsSkill [0..unbounded]	List of the user's skills.

getUserLimits

New in all versions

Use this method to obtain information about users.

[getUserLimits.](#) This method contains no parameters.

[getUserLimitsResponse.](#)

Parameter	Type	Description
return	wsUserLimits	Properties of the logged-in users.

Chapter 4

Data Types

The data types that are described are specific to the Five9 methods used in the requests and responses:

[Chat](#)
[Agent Monitoring](#)
[Softphone Connection](#)
[Campaigns](#)
[Statistics](#)
[User Information](#)

For information on primitive data types, refer to www.w3.org/TR/xmlschema-2/.

Chat

These data types are used by the chat session methods:

[broadcastType](#)
[wsChatMessage](#)
[wsChatMessages](#)
[wsChatMessageType](#)

broadcastType

This data type contains the skills of the possible recipients of the broadcasted message.

Name	Type	Description
ALL	string	All agents, administrators, and supervisors (including self).
MY_SKILLS	string	All agents who have the same skills as the sender.

Name	Type	Description
SPEC_SKILL	string	All agents who have a specific skill that is part of the supervisor's skills for the specified group ID.
MY_AGENT_GROUPS	string	All agents in same agent groups as the supervisor.
SPEC_AGENT_GROUP	string	All agents in the specified agent group ID that is part of the supervisor's groups of agents.

wsChatMessage

This data type contains information about a chat message.

Name	Type	Description
chatId	string	ID of a chat session.
from	wsRoledId	Information about the user who sent the message.
participants	wsRoledId [0..unbounded]	Information about the users currently in the chat room (see PARTICIPANT_RESP , element of wsChatMessageType).
text	string	Content of the message.
timestamp	long	Date and time (Epoch time in milliseconds).
type	wsChatMessageType	Information about the type of chat message.

wsChatMessages

This data type contains information about chat messages.

Name	Type	Description
messages	wsChatMessage [0..unbounded]	Information about a message.
timestamp	long	Date and time (Epoch time in milliseconds).

wsChatMessageType

This data type contains the possible events associated with chat messages.

Name	Type	Description
BROADCAST	string	Broadcast.
INFO	string	Message sent from user to another.
REQUEST	string	In the VCC chat window, supervisor clicks Request Chat With User. To accept, the user clicks Enter Chat. In the API, call the <code>acceptChatInvite</code> method.
INVITE	string	In the VCC chat window, the user clicks the + sign to invite another user. To accept, the recipient clicks Join Chat. In the API, call the <code>acceptChatInvite</code> method.
INVITE_CANCELLED	string	Invitation canceled. Process as chat exit.
ACK	string	Ignored by server; not received by API.
NACK	string	User invited to chat rejected the invitation.
TIMEOUT	string	User invited to chat does not respond before the time-out
KICK	string	Leader removed user from chat.

Name	Type	Description
BROADCAST_TO_SKILL	string	Broadcast to users of the same skill group, excluding the supervisor.
BROADCAST_TO_AGENT_GROUP	string	Broadcast to users of the same agent group, excluding the supervisor.
CHAT	string	Message sent to a chat group.
ARRIVED	string	User who sent the message joined the chat session.
LEAVE	string	User who sent the message left the chat session.
END	string	Chat leader ended the chat session.
KILLED	string	Chat session ended by another supervisor.
PARTICIPANT_REQ	string	Request list of chat participants. This message is sent to the Web Services API.
PARTICIPANT_RESP	string	Response to PARTICIPANT_REQ. List of participants (element of <code>wsChatMessage</code>) in the chat session. This message is sent to the Web Services API to inform the client when a chat has more than two participants.
HELP_REQUEST	string	Request for help from another user. The recipient creates a chat session and invites the sender.
UNKNOWN	string	

Agent Monitoring

This section contains the data types used by the supervisor monitoring methods:

[monitoringMode](#)
[monitoringSupervisor](#)

monitoringMode

This data type lists the monitoring options available to supervisors. The options corresponds to those in the Supervisor VCC. For a detailed description of the features, see the [Supervisor's Guide](#).

Name	Type	Description
Silence	string	Can listen to the call but cannot be heard by the agent or the customer who, in turn, cannot hear the supervisor.
BargeIn	string	Can speak with the customer. Use this value when the supervisor needs to help but not take over the call from the agent. The agent stays on the line and selects a disposition when the call is finished.
Whispering	string	Can speak to the agent without being heard by the customer. Use this value when coaching agents or assisting with difficult calls.

monitoringSupervisor

This data type provides the properties of the supervisor currently monitoring a specific agent.

Name	Type	Description
mode	monitoringMode	Information about the monitoring mode.
supervisorName	string	Name of the supervisor.

Softphone Connection

This section contains the data types used by the softphone connection methods:

[codec](#)
[codecParameters](#)
[connectStationProblem](#)
[connectStationResult](#)
[cryptoSuite](#)
[stationParameters](#)

codec

This data type contains the list of voice and VoIP protocols that are used to convert analog voice signals to digital. The sound quality and required bandwidth vary among the options. Use the values that are appropriate for you.

Name	Type	Description
G711U	string	Used in North America and Japan.
G711A	string	Used in Europe and in the rest of the world.
G729	string	Used in VoIP applications where bandwidth must be preserved, such as conference calls.
G723	string	Used for speech. Superseded by G726.
GSM	string	Used by digital cellular networks for mobile phones.
G726	string	Used for speech.
ILBC	string	Used for narrow-band speech.

codecParameters

This data type contains information about the station to which the softphone user is logged in.

Name	Type	Description
codecs	codec [0..unbounded]	Information about the voice and VoIP codecs for the station.
cryptoSuites	cryptoSuite [0..unbounded]	Information about the encryption and authentication algorithms.
disableNAT	boolean	Whether or not to disable network address translation.
noSilenceSuppression	boolean	Whether or not to suppress silence.
ptime	int	Non-zero attribute for a media stream in the SIP protocol; packet interval that the answerer would like to receive.
rfc2833pType	int	Value of RFC2833 dynamic payload type.
useSRTP	boolean	Whether to use the SRTP protocol.

connectStationProblem

This data type contains the possible types of connection problems of [ReconnectStationFault](#).

Name	Type	Description
HARDWARE_TIMEOUT	string	Time-out.
OPERATOR_INTERCEPT	string	Operator intercepted
DIAL_ERROR	string	Dialing error
RESOURCE_UNAVAILABLE	string	Resource is unavailable
BUSY	string	Busy signal.
NO_ANSWER	string	No answer
NO_DIALTONE	string	No dial tone detected

Name	Type	Description
HANGUP	string	Party hung up.
UNKNOWN_ERROR	string	Unknown error.

connectStationResult

This data type contains the possible connection options.

Name	Type	Description
CONNECT	string	Connected.
CONNECT_VOICE	string	Voice.
CONNECT_ANSWR_MACHN	string	Answering machine.
CONNECT_DIGITAL_PHONE	string	Digital phone.
CONNECT_FAX	string	Fax.
CONNECT_RINGBACK	string	Ringing tone.

cryptoSuite

This data type contains the possible base-64-encoded string values that describes the encryption and authentication algorithms used for secure transport.

Name	Type	Description
AES_CM_128_HMAC_SHA1_80	string	SRTP default AES Counter Mode cipher and HMAC-SHA1 message authentication with an 80-bit authentication tag.
AES_CM_128_HMAC_SHA1_32	string	Identical to AES_CM_128_HMAC_SHA1_80 except that the authentication tag is 32 bits.
F8_128_HMAC_SHA1_80	string	Identical to AES_CM_128_HMAC_SHA1_80 except that the cipher is F8.

stationParameters

This data type contains the SIP parameters needed to establish a connection.

Name	Type	Description
backupProxy	string	Backup proxy server of the station.
codecParameters	codecParameters	Parameters associated with the codec.
name	string	Station ID.
password	string	Password.
proxy	string	Proxy server of the station.

Campaigns

This section contains the data types used by the campaign methods.

campaignState

Version 3

This data type contains the possible states of campaigns.

Name	Type	Description
NOT_RUNNING	string	Campaign not currently active.
STARTING	string	Campaign being initialized.
RUNNING	string	Campaign currently active.
STOPPING	string	Campaign currently stopping.
RESETTING	string	Campaign being reset: all dialing results of the outbound campaign are cleared so that all records can be redialed.

campaignType

Version 3

This data type contains the types of campaigns.

Name	Type	Description
OUTBOUND	string	Calls made by a dialer to customers in lists created by administrators. These calls are passed to agents who process the calls.
AUTODIAL	string	Numbers are dialed automatically to phone numbers in a list. The campaign uses call-progress detection to determine whether the call was received by an answering machine or a person.
INBOUND	string	Calls received from customers originate from a DNIS. The calls are processed according to the rules set in the IVR Script of the campaign.

Statistics

This section contains the data types used by the statistics methods:

[apiOperationType](#)
[callCounterState](#)
[itemUpdate](#)
[limitTimeoutState](#)
[rollingPeriod](#)
[row](#)

[statistics](#)
[statisticsRange](#)
[statisticsUpdate](#)
[statisticType](#)
[values](#)
[viewSettings](#)

apiOperationType

This data type contains the possible types of operation. However, only `QueryStatistics` and `QueryChangedStatistics` apply to the Statistics Web Services API.

Name	Type	Examples
Query	string	getListsInfo
Modify	string	addSkillToCampaign
Upload	string	createCampaign
SingleUpload	string	addRecordToList
ReportRequest	string	runReport
RetrieveReport	string	getReportResult
AsynchronousUpload	string	asyncAddRecordsToList
QueryStatistics	string	getStatistics
QueryChangedStatistics	string	getStatisticsUpdate
Web2CampaignUpload	string	Not used.
VIVRCreateSession	string	No specific method.
Version 3		

callCounterState

This data type describes the maximum number and count of requests sent for a specific operation type in a specific time period.

Name	Type	Description
limit	long	Limit of the operation.
operationType	apiOperationType	Type of operation.
value	long	Number of requests already sent in that time interval.

itemUpdate

This data type contains the information about the updated item.

Name	Type	Description
columnName	string	Column name.
columnValue	string	Updated value of the item.
objectName	string	Name of updated item.

limitTimeoutState

This data type contains the maximum number and count of requests sent for a specific operation type in a specific time period.

Name	Type	Description
callCounterStates	callCounterState [0..unbounded]	Array of the different API requests and their limits and counts for that time period.
timeout	long	Time period in seconds to which the limits apply.

rollingPeriod

This data type specifies the time range for certain real-time statistics.

Name	Type	Description
Minutes5	string	
Minutes10	string	
Minutes15	string	
Minutes30	string	
Hour1	string	
Hour2	string	
Hour3	string	

Name	Type	Description
Today	string	

row

This data type contains the values of a single row of data.

Name	Type	Description
row	values	List of the values in the row.

statistics

This data type contains the data for a certain type of statistics.

Name	Type	Description
columns	row	List of column names.
rows	row [0..unbounded]	Two-dimensional array containing the values that correspond to the column names.
timestamp	long	Interval for aggregate statistics returned in <code>getStatisticsResponse</code> . Used as the last time stamp in <code>getStatisticsUpdate</code> .
type	statisticType	Available type of data.

statisticsRange

This data type specifies the time range for certain statistics.

Name	Type	Description
RollingHour	string	
CurrentDay	string	

Name	Type	Description
CurrentWeek	string	
CurrentMonth	string	
Lifetime	string	
CurrentShift	string	

statisticsUpdate

This data type contains the values changed during the time interval.

Name	Type	Description
addedObjects Version 3	row	List of agents, skills, or campaigns added to the statistics data set.
dataUpdate	itemUpdate [0..unbounded]	Values of the changed items.
deletedObjects	row	List of items removed from the data set.
lastTimestamp	long	Time of the request (Epoch time in milliseconds), which can be used in the next request for updated data as <code>previousTimestamp</code> .
previousTimestamp	long	Time of the previous request (Epoch time in milliseconds).
type	statisticType	One of the available types of data.

statisticType

This data type lists the available types of data. The data corresponds to what is visible in the Supervisor's desktop.

Name	Type	Description
AgentState	string	Status of each agent.
AgentStatistics	string	Statistics for each agent.

Name	Type	Description
ACDStatus	string	Information about skill group queues.
CampaignState	string	Current status of all campaigns.
OutboundCampaignManager	string	Information about outbound campaigns that are running.
OutboundCampaignStatistics	string	Statistics about outbound campaigns.
InboundCampaignStatistics	string	Statistics about inbound campaigns.
AutodialCampaignStatistics	string	Statistics about autodial campaigns.

values

This data type contains a single row of data. The time is in milliseconds.

Name	Type	Description
data	string [0..unbounded]	List of the values in the column or row. For the list of possible values, see the Supervisor's Guide .

viewSettings

This data type contains the time settings used to calculate certain statistics.

Name	Type	Description
appType	string	Used by iPad applications.
forceLogoutSession	boolean	Whether to log out a second agent or supervisor who is attempting to log into a station that is in use.
idleTimeOut	int	Maximum inactivity allowed for the supervisor session from 60–1800 seconds (30min). If omitted, the default value is 180 seconds (3 min).

Version 3

Name	Type	Description
rollingPeriod	rollingPeriod	Time range used to calculate aggregate statistics in Outbound Campaign Manager; corresponds to Campaign Manager Rolling Period in the Supervisor VCC.
shiftStart	int	Starting time for the day's shift in milliseconds, starting at midnight. Used to calculate certain statistics. Example: 8 AM $8\text{h} \times 60\text{m} \times 60\text{s} \times 1000\text{ms} = 28,800,000\text{ms}$
statisticsRange	statisticsRange	Time interval for aggregate statistics.
timeZone	int	Time zone offset in milliseconds since midnight. Example: PST (-7h GMT) $-7\text{h} \times 60\text{m} \times 60\text{s} \times 1000\text{ms} = -25,200,000\text{ms}$

User Information

This section contains the data types used by the user information methods:

[supervisorPermission](#)
[supervisorPermissionType](#)
[userRole](#)
[wsAgentGroup](#)
[wsRoledId](#)
[wsSkill](#)
[wsUserLimits](#)
[wsUserRoledId](#)

supervisorPermission

Version 3

This data type contains the list of possible user permissions.

Name	Type	Description
type	supervisorPermissionType	Name of supervisor permission.
value	boolean	Whether the permission is assigned to the supervisor.

supervisorPermissionType

Version 3

This data type contains the list of possible user permissions in the Supervisor's desktop or other areas of the VCC.

Name	Type	Description
Users	string	Can view the Users tab in the Supervisor desktop.
Agents	string	Can monitor the status of agents (logged out, on break, on a call) and view agent statistics and ACD queues.
CallMonitoring	string	Can listen to agents' calls (silent monitoring).
Stations	string	Can view station IDs assigned to their domain.
ChatSessions	string	Can view active chat sessions.

Name	Type	Description
Campaigns	string	<p>Can view the Campaigns tab and other information. Can set these values for the <code>StatisticType</code> parameter of the <code>getStatistics</code> and <code>getStatisticsUpdate</code> methods:</p> <ul style="list-style-type: none"> • <code>CampaignState</code> • <code>OutboundCampaignManager</code> • <code>OutboundCampaignStatistics</code> • <code>InboundCampaignStatistics</code> • <code>AutodialCampaignStatistics</code>
CampaignManagement	string	<p>Can be enabled for any of the single campaign management permissions at the bottom of this table:</p> <ul style="list-style-type: none"> • <code>CampaignManagementStart</code> • <code>CampaignManagementStop</code> • <code>CampaignManagementReset</code> • <code>CampaignManagementResetDispositions</code> • <code>CampaignManagementResetListPositions</code> • <code>CampaignManagementResetDialerDCP</code> Version 3 • <code>CampaignManagementResetAbandonCallRate</code> Version 4
AllSkills	string	If false, only the skill data assigned to the user is returned.
BillingInfo	string	Can access the Billing Portal.
BargeInMonitor	string	Can speak with the customer. Use this value when the supervisor needs to help but not take over the call from the agent.
WhisperMonitor	string	Can speak to the agent without being heard by the customer. Use this value when coaching agents or assisting with difficult calls.

Name	Type	Description
ViewDataForAllAgentGroups	string	Can access all agent groups. When the permission is disabled, the supervisor can access only agent groups of which the supervisor is a member.
ReviewVoiceRecordings	string	Can access voicemail messages and recordings associated with each agent that the supervisor can access.
EditAgentSkills	string	Can add and remove skills and change skill levels for agents that the supervisor can view.
NICEEnabled	string	Can use the NICE feature.
CanAccessDashboardMenu	string	Can access the Dashboard menu in the supervisor desktop.
CampaignManagementStart	string	Can start a campaign.
CampaignManagementStop	string	Can stop a campaign.
CampaignManagementReset	string	Can reset a campaign.
CampaignManagementResetDispositions	string	Can reset the dispositions of a campaign.
CampaignManagementResetListPositions	string	Can reset the dialing list position for outbound and autodial campaigns.
Version 4 CampaignManagementResetAbandonCallRate	string	Can reset the dialer's <i>abandoned call rate percentage</i> previously known as <i>dropped call percentage</i> .
CanViewTextDetailsTab	string	Can view and log into the Text Details tab, which provides access to the social media, email, and chat.
CanAccessShowFields	string	Can use the View > Show Fields menu to set the layout of the application.

userRole

This data type contains the list of possible user roles.

Name	Type	Description
Agent	string	Agent role.
DomainSupervisor	string	Supervisor role.
DomainAdmin	string	Administrator role.

wsAgentGroup

This data type contains the group to which the agent belongs.

Name	Type	Description
id	long	ID of the agent's group.
name	string	Name of the group.

wsRoleId

This data type contains the role of the agent or supervisor.

Name	Type	Description
role	userRole	Role of the user.
userId	long	ID of the user for monitoring or chat sessions.

wsSkill

This data type contains information about the agent's skill.

Name	Type	Description
id	long	ID of the agent's skill.
name	string	Name of the skill.

wsUserLimits

New in all versions

This data type contains information about the supervisor and iPad licenses for your domain.

Name	Type	Description
mobileLimit	int	Number of iPad licenses purchased for your domain.
mobileLoggedIn	int	Maximum number of simultaneously running iPad applications.
supervisorLimit	int	Number of supervisor licenses purchased for your domain: maximum number of users with the Supervisor role.
supervisorsLoggedIn	int	Maximum number of simultaneously running supervisor desktop and iPad applications.

wsUserRoleId

This data type contains the role of the supervisor.

Name	Type	Description
supervisorName	string	Name of the supervisor.
roleId	wsRoleId	Role and ID of the supervisor.

Chapter 5

Exceptions

All error messages contain at least the message parameter, which is a string that describes the exception. Some exceptions contain additional parameters, which are described in the table.

Name	Description											
AccessDisallowedFault	Your domain does not have access to the Five9 Configuration Web Services. To request access, contact Five9 Support.											
AgentMonitorFault	Agent is already monitored or cannot be monitored. Occurs when VCC cannot allow agent to be monitored by supervisor. Many reasons are possible, for example: agent is already being monitored, or supervisor is not connected to station.											
	<table><tr><th>Name</th><th>Type</th><th>Description</th></tr><tr><td>agentName</td><td>string</td><td>Name of agent.</td></tr><tr><td>monitorError</td><td>string</td><td>Name of station.</td></tr></table>	Name	Type	Description	agentName	string	Name of agent.	monitorError	string	Name of station.		
Name	Type	Description										
agentName	string	Name of agent.										
monitorError	string	Name of station.										
AgentNotFoundFault	Agent name is invalid.											
	<table><tr><th>Name</th><th>Type</th><th>Description</th></tr><tr><td>agentName</td><td>string</td><td>Name of agent.</td></tr></table>	Name	Type	Description	agentName	string	Name of agent.					
Name	Type	Description										
agentName	string	Name of agent.										
CampaignNotFoundFault	Campaign name is invalid.											
Version 3	<table><tr><th>Name</th><th>Type</th><th>Description</th></tr><tr><td>campaignName</td><td>string</td><td>Name of campaign.</td></tr></table>	Name	Type	Description	campaignName	string	Name of campaign.					
Name	Type	Description										
campaignName	string	Name of campaign.										
CampaignStateUpdateFault	Campaign state cannot be updated, for example: you cannot stop a campaign that is not running.											
Version 3	<table><tr><th>Name</th><th>Type</th><th>Description</th></tr><tr><td>campaignName</td><td>string</td><td>Name of campaign.</td></tr><tr><td>details</td><td>string</td><td>Reason for the failure.</td></tr></table>	Name	Type	Description	campaignName	string	Name of campaign.	details	string	Reason for the failure.		
Name	Type	Description										
campaignName	string	Name of campaign.										
details	string	Reason for the failure.										

Name	Description									
chatFault	Problem occurred with one of the chat methods.									
ConcurrentModificationFault	Specified object is already being modified by another client.									
Version 3										
ConfigurationChangedFault	System error.									
DispositionNotFoundFault	Attempting to get, remove, or rename a disposition that does not exist in the domain.									
Version 3	<table><tr><th>Name</th><th>Type</th><th>Description</th></tr><tr><td>dispositionName</td><td>string</td><td>Name of disposition.</td></tr></table>	Name	Type	Description	dispositionName	string	Name of disposition.			
Name	Type	Description								
dispositionName	string	Name of disposition.								
IncorrectArgumentFault	Request contains incorrect argument name or value, or non-parameterized scripts contain parameters.									
InvalidAccountFault	Invalid account.									
MissedArgumentFault	Required argument is missing from the request.									
OperationsLimitExceededFault	Maximum number of Web Services requests for the 24-hour period has been exceeded.									
	<table><tr><th>Name</th><th>Type</th><th>Description</th></tr><tr><td>limit</td><td>long</td><td>Maximum number of requests.</td></tr><tr><td>operationType</td><td>string</td><td>Type of operation.</td></tr></table>	Name	Type	Description	limit	long	Maximum number of requests.	operationType	string	Type of operation.
Name	Type	Description								
limit	long	Maximum number of requests.								
operationType	string	Type of operation.								
ReconnectStationFault	Problem occurred with the requested station.									
	<table><tr><th>Name</th><th>Type</th><th>Description</th></tr><tr><td>problem</td><td>connectStationProblem</td><td>Details about the problem.</td></tr><tr><td>stationName</td><td>string</td><td>Name of station.</td></tr></table>	Name	Type	Description	problem	connectStationProblem	Details about the problem.	stationName	string	Name of station.
Name	Type	Description								
problem	connectStationProblem	Details about the problem.								
stationName	string	Name of station.								
ServerFault	Web Services server error.									
ServiceUnavailableFault	Web Services are not available.									
SessionClosedFault	System error.									

Name	Description		
SessionNotInitializedFault	Session not started.		
StationNotFoundFault	Requested station cannot be found.		
	Name	Type	Description
	stationName	string	Name of station.
StationNotLoggedInFault	loginStation has returned a fault or has not yet been used.		
StatisticsNotRequestedFault	getStatistics not requested. Do so before using getStatisticsUpdate.		
UnknownColumnFault	Column does not exist for this type of data.		
UnknownTimestampFault	Time stamp specified is incorrect for this session.		
UserAlreadyLoggedInFault	User ID is already logged in.		
UserLimitReachedFault	Maximum number of users reached for the domain.		
New in all versions			
WrongCampaignStateFault	Campaign is not in the correct state for the action requested. For example, you cannot delete, reset, or rename a campaign or dispositions while the campaign is running.		
Version 3	Name	Type	Description
	actualState	campaignState	Specified state.
	campaignName	string	Name of campaign.
	desiredState	campaignState	Campaign state that should be specified.

Name	Description												
WrongCampaignTypeFault	Incorrect campaign type. For example, outbound campaign requests should contain types that apply to outbound campaigns.												
Version 3													
	<table><tr><th>Name</th><th>Type</th><th>Description</th></tr><tr><td>actualType</td><td>campaignType</td><td>Specified campaign type.</td></tr><tr><td>campaignName</td><td>string</td><td>Name of campaign.</td></tr><tr><td>desiredTypes</td><td>campaignType [0..unbounded]</td><td>Campaign types to specify.</td></tr></table>	Name	Type	Description	actualType	campaignType	Specified campaign type.	campaignName	string	Name of campaign.	desiredTypes	campaignType [0..unbounded]	Campaign types to specify.
Name	Type	Description											
actualType	campaignType	Specified campaign type.											
campaignName	string	Name of campaign.											
desiredTypes	campaignType [0..unbounded]	Campaign types to specify.											
WSChatException	General error returned by the VCC for chat messages.												

Appendix A

Examples

This appendix contains example request and responses for these methods:

[setSessionParameters](#)

[getStatistics](#)

[getStatisticsUpdate](#)

[startMonitoring](#)

[receiveMessages](#)

setSessionParameters

This example returns the settings for a session.

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:ser="http://service.supervisor.ws.five9.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <ser:setSessionParameters>
      <viewSettings>
        <forceLogoutSession>yes</forceLogoutSession>
        <rollingPeriod>Minutes30</rollingPeriod>
        <shiftStart>28800000</shiftStart>
        <statisticsRange>CurrentWeek</statisticsRange>
        <timeZone>-25200000</timeZone>
      </viewSettings>
    </ser:setSessionParameters>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header/>
  <env:Body>
    <ns2:setSessionParametersResponse xmlns:ns2="http://
service.supervisor.ws.five9.com/">
      <return>
        <viewSettings>
          <forceLogoutSession>yes</forceLogoutSession>
          <rollingPeriod>Minutes30</rollingPeriod>
          <shiftStart>28800000</shiftStart>
          <statisticsRange>CurrentWeek</statisticsRange>
          <timeZone>-25200000</timeZone>
        </viewSettings>
      </return>
    </ns2:setSessionParametersResponse>
  </env:Body>
</env:Envelope>
```

getStatistics

This example returns three columns and one row of statistics about one agent.

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/
envelope/" xmlns:ser="http://service.supervisor.ws.five9.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <ser:getStatistics>
      <statisticType>AgentStatistics</statisticType>
      <columnNames>
        <values>
          <data>Username</data>
          <data>Full Name</data>
          <data>Total Calls</data>
        </values>
      </columnNames>
    </ser:getStatistics>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header/>
  <env:Body>
    <ns2:getStatisticsResponse xmlns:ns2="http://
service.supervisor.ws.five9.com/">
      <return>
        <columns>
          <values>
            <data>Username</data>
            <data>Full Name</data>
            <data>Total Calls</data>
          </values>
        </columns>
        <rows>
          <values>
            <data>jsmith</data>
            <data>John Smith</data>
            <data>12</data>
          </values>
        </rows>
        <timestamp>1295893918397</timestamp>
        <type>AgentStatistics</type>
      </return>
    </ns2:getStatisticsResponse>
  </env:Body>
</env:Envelope>
```

getStatisticsUpdate

This example returns detailed updated statistics about the performance of agents.

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/
envelope/" xmlns:ser="http://service.supervisor.ws.five9.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <ser:getStatisticsUpdate>
      <statisticType>AgentStatistics</statisticType>
      <previousTimestamp>25000000</previousTimestamp>
      <longPollingTimeout>5000</longPollingTimeout>
    </ser:getStatisticsUpdate>
  </soapenv:Body>
```

```
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header/>
  <env:Body>
    <ns2:getStatisticsUpdateResponse xmlns:ns2="http://
service.supervisor.ws.five9.com/">
      <return>
        <dataUpdate>
          <columnName>averageWrapTime</columnName>
          <columnValue>24981</columnValue>
          <objectName>updatedObject</objectName>
        </dataUpdate>
        <dataUpdate>
          <columnName>totalAgentCalls</columnName>
          <columnValue>1</columnValue>
          <objectName>updatedObject</objectName>
        </dataUpdate>
        <dataUpdate>
          <columnName>No Dispositions</columnName>
          <columnValue>1</columnValue>
          <objectName>updatedObject</objectName>
        </dataUpdate>
        .
        .
      <deletedObjects>
        <values>
          <data>deleted10</data>
          <data>deleted11</data>
          <data>deleted12</data>
        </values>
      </deletedObjects>
      <lastTimestamp>1295894116286</lastTimestamp>
      <previousTimestamp>1295893918397</previousTimestamp>
      <type>AgentStatistics</type>
    </return>
  </ns2:getStatisticsUpdateResponse>
</env:Body>
</env:Envelope>
```

startMonitoring

This example returns the name of the agent that a supervisor wants to monitor silently.

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:ser="http://service.supervisor.ws.five9.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <ser:startMonitoring>
      <agentName>AgentNumber1</agentName>
      <monitoringMode>
        <value>Silence</value>
      </monitoringMode>
    </ser:startMonitoring>
  </soapenv:Body>
</soapenv:Envelope>
```

Response

```
<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header/>
  <env:Body>
    <ns2:startMonitoringResponse xmlns:ns2="http://service.supervisor.ws.five9.com/">
      <agentName>AgentNumber1</agentName>
    </ns2:startMonitoringResponse>
  </env:Body>
</env:Envelope>
```

receiveMessages

This example returns information about a chat message sent by a supervisor to an agent.

Request

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/" xmlns:ser="http://service.supervisor.ws.five9.com/">
  <soapenv:Header/>
  <soapenv:Body>
    <ser:receiveMessages>
```

```

        <previousTimestamp>20000</previousTimestamp>
        <longPollingTimeout>500000</longPollingTimeout>
    </ser:receiveMessages>
</soapenv:Body>
</soapenv:Envelope>

```

Response

```

<env:Envelope xmlns:env="http://schemas.xmlsoap.org/soap/envelope/">
  <env:Header/>
  <env:Body>
    <ns2:receiveMessagesResponse xmlns:ns2="http://
service.supervisor.ws.five9.com/">
      <return>
        <messages>
          <chatId>123ABC</chatId>
          <from>
            <role><userRole>DomainSupervisor</userRole></role>
            <userId>Supervisor111</userId>
          </from>
          <participants>
            <role><userRole>Agent</userRole></role>
            <userId>Agent12</userId>
          </participants>
          <text>messageContent</text>
          <timestamp>29379294</timestamp>
          <type>CHAT</type>
        </messages>
        <timestamp>29379294</timestamp>
      </return>
    </ns2:receiveMessagesResponse>
  </env:Body>
</env:Envelope>

```