



Additional Requirements

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High Availability Login Profiles

Important Notes About High Availability Login Profiles

- You can use the High Availability login profile tables in this section to configure the upper and lower client re-login values for your presence redundancy group. You configure the upper and lower client login values by choosing **Cisco Unified CM IM and Presence Administration > System > Service Parameters**, and choosing **Cisco Server Recovery Manager** from the Service menu.
- By configuring the upper and lower client re-login limits on your presence redundancy group based on the tables we provide here, you can avoid performance issues and high CPU spikes in your deployment.
- We provide a High Availability login profile for each IM and Presence Service node memory size, and for each High Availability deployment type, active/active or active/standby.
- The High Availability login profile tables are calculated based on the following inputs:
 - The lower client re-login limit is based on the Server Recovery Manager service parameter "Critical Service Down Delay", for which the default is 90 seconds. If the Critical Service Down Delay is changed then the lower limit must also change.
 - The total number of users in the presence redundancy group for Active/Standby deployments, or the node with highest number of users for Active/Active deployments.
- You must configure the upper and lower client re-login limit values on both nodes in a presence redundancy group. You must manually configure all these values on both nodes in the presence redundancy group.
- The upper and lower client re-login limit values must be the same on each node in the presence redundancy group.
- If you **rebalance** your users, you must reconfigure the upper and lower client re-login limit values based on the High Availability login profile tables.

Use High Availability Login Profile Tables

Use the High Availability login profile tables to retrieve the following values:

- **Client Re-Login Lower Limit** service parameter value
- **Client Re-Login Upper Limit** service parameter value.

Procedure

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- Step 1** Choose a profile table based on your virtual hardware configuration, and your High Availability deployment type.
- Step 2** In the profile table, choose the number of users in your deployment (round up to the nearest value). If you have an active/standby deployment, use the node with the highest number of users.
- Step 3** Based on the Number of Users value for your presence redundancy group, retrieve the corresponding lower and upper retry limits in the profile table.
- Step 4** Configure the lower and upper retry limits on IM and Presence Service by choosing **Cisco Unified CM IM and Presence Administration > System > Service Parameters**, and choosing **Cisco Server Recovery Manager** from the Service menu.
- Step 5** Check the Critical Service Down Delay value by choosing **Cisco Unified CM IM and Presence Administration > System > Service Parameters** and choosing **Cisco Server Recovery Manager** from the Service Menu. The default value is 90 seconds. The lower retry limit should be set to this value.
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Example High Availability Login Configurations

Example 1: 15000 Users Full UC Profile - active/active deployment

You have 3000 users in your presence redundancy group, with 2000 users on one node, and 1000 users on the second node. For an unbalanced active/active deployment, Cisco recommends you use the node with the highest number of users, in this case the node with 2000 users. Using the 15000 users full US (4 vCPU 8GB) active/active profile, you retrieve these lower and upper retry values:

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
2000	120	253



Note The upper retry limit is the approximate time (seconds) it takes for all clients to login to their backup node after a failover occurs.



Note The lower limit of 120 assumes the **Critical Service Down Delay** service parameter is set to 120.

Example 2: 5000 Users Full UC Profile - active/active deployment

You have 4700 users on each node in your presence redundancy group in an IM-only deployment. Cisco recommends that you round up to the nearest value, so using the 5000 users full US (4 vCPU 8GB) active/active profile you retrieve the lower and upper retry value based on a number of users value of 5000:

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
5000	120	953

Single Cluster Configuration

500 Users Full UC (1vCPU 700MHz 2GB) Active/Active Profile

Table 1: User Login Retry Limits for Standard Deployment (500 Users Full UC Active/Active)

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
Full UC		
100	120	187
250 (default)	120	287
IM only		
500	120	453

500 Users Full UC (1vCPU 700MHz 2GB) Active/Standby Profile

Table 2: User Login Retry Limits for Standard Deployment (500 Users Full UC Active/Standby)

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
Full UC		
100	120	187
250 (default)	120	287
500	120	453
IM only		
750	120	620
1000	120	787

1000 Users Full UC (1vCPU 1500MHz 2GB) Active/Active Profile

Table 3: User Login Retry Limits for Standard Deployment (1000 Users Full UC Active/Active)

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
Full UC		
100	120	153
250	120	203
500 (default)	120	287
IM only		
750	120	370
1000	120	453

1000 Users Full UC (1vCPU 1500MHz 2GB) Active/Standby Profile

Table 4: User Login Retry Limits for Standard Deployment (1000 Users Full UC Active/Standby)

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
Full UC		
100	120	153
250	120	203
500 (default)	120	287
750	120	370
1000	120	453
IM only		
1250	120	537
1500	120	620
1750	120	703
2000	120	787

2000 Users Full UC (1vCPU 1500Mhz 4GB) Active/Active Profile

Table 5: User Login Retry Limits for Standard Deployment (2000 Users Full UC Active/Active)

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
Full UC		
100	120	153
500 (default)	120	287
1000	120	453

2000 Users Full UC (1vCPU 1500Mhz 4GB) Active/Standby Profile

Table 6: User Login Retry Limits for Standard Deployment (2000 Users Full UC Active/Standby)

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
Full UC		
100	120	153
250	120	203
500 (default)	120	287
750	120	370
1000	120	453
1250	120	537
1500	120	620
1750	120	703
2000	120	787

5000 Users Full UC (4 GB 2vCPU) Active/Active Profile

Table 7: User Login Retry Limits for Standard Deployment (5000 Users Full UC Active/Active)

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
Full UC		
100	120	137
500	120	203
1000	120	287

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
1500	120	370
2000	120	453
2500 (default)	120	537
IM only		
3000	120	620
3500	120	703
4000	120	787
4500	120	870
5000	120	953
6000	120	1120
6250	120	1162

5000 Users Full UC (4 GB 2vCPU) Active/Standby Profile

Table 8: User Login Retry Limits for Standard Deployment (5000 Users Full UC Active/Standby)

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
Full UC		
100	120	137
500	120	203
1000	120	287
1500	120	370
2000	120	453
2500 (default)	120	537
3000	120	620
3500	120	703
4000	120	787
4500	120	870
5000	120	953
IM only		

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
6000	120	1120
7000	120	1287
8000	120	1453
9000	120	1620
10000	120	1787
11000	120	1953
12000	120	2120
12500	120	2203

15000 Users Full UC (4 vCPU 8GB) Active/Active Profile

Attention To achieve maximum client login throughput on a 15000 user system, Cisco recommends a minimum of 2.5GHz CPU clock speed.

Table 9: User Login Retry Limits for Standard Deployment (15000 Users Full UC Active/Active)

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
Full UC		
100	120	127
500	120	153
1000	120	187
1500	120	220
2000	120	253
2500	120	287
3000	120	320
3500	120	353
4000	120	387
4500	120	420
5000 (default)	120	453
6000	120	520
7000	120	587

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
7500	120	620
IM only		
8000	120	653
9000	120	720
10000	120	787
11000	120	853
12000	120	920
12500	120	953

15000 Users Full UC (4 vCPU 8GB) Active/Standby Profile

Attention To achieve maximum client login throughput on a 15000 user system, Cisco recommends a minimum of 2.5GHz CPU clock speed.

Table 10: User Login Retry Limits for Standard Deployment (15000 Users Full UC Active/Standby)

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
Full UC		
100	120	127
500	120	153
1000	120	187
1500	120	220
2000	120	253
2500	120	287
3000	120	320
3500	120	353
4000	120	387
4500	120	420
5000 (default)	120	453
6000	120	520
7000	120	587

Expected Number of Active Users	Lower Retry Limit	Upper Retry Limit
8000	120	653
9000	120	720
10000	120	787
11000	120	853
12000	120	920
13000	120	987
14000	120	1053
15000	120	1120
IM only		
16000	120	1187
17000	120	1253
18000	120	1320
19000	120	1387
20000	120	1453
21000	120	1520
22000	120	1587
23000	120	1653
24000	120	1720
25000	120	1787

XMPP Standards Compliance

The IM and Presence Service is compliant with the following XMPP standards:

- RFC 3920 Extensible Messaging and Presence Protocol (XMPP): Core RFC 3921 Extensible Messaging and Presence Protocol (XMPP): Instant Messaging and Presence
 - XEP-0004 Data Forms
 - XEP-0012 Last Activity
 - XEP-0013 Flexible Offline Message Retrieval
 - XEP-0016 Privacy Lists
 - XEP-0030 Service Discovery

- XEP-0045 Multi-User Chat
- XEP-0054 Vcard-temp
- XEP-0055 Jabber Search
- XEP-0060 Publish-Subscribe
- XEP-0065 SOCKS5 Bystreams
- XEP-0066 Out of Band Data Archive OOB requests
- XEP-0068 Field Standardization for Data Forms
- XEP-0071 XHTML-IM
- XEP-0082 XMPP Date and Time Profiles
- XEP-0092 Software Version
- XEP-0106 JID Escaping
- XEP-0114 Jabber Component Protocol
- XEP-0115 Entity Capabilities
- XEP-0124 Bidirectional Streams over Synchronous HTTP (BOSH)
- XEP-0126 Invisibility
- XEP-0128 Service Discovery Extensions
- XEP-0160 Best Practices for Handling Offline Messages
- XEP-0163 Personal Eventing Via PubSub
- XEP-0170 Recommended Order of Stream Feature Negotiation
- XEP-0178 Best Practices for Use of SASL EXTERNAL
- XEP-0220 Server Dialback
- XEP-0273 SIFT (Stanza Interception and Filtering Technology)