The firewall rules need to allow **bi-directional** traffic for the following WCC Servlet HTTP ports (or HTTPS if using SSL) between WCC servers and any host that is running a browser connection to WCC.

The firewall rules need to allow **bi-directional** traffic on the following ports as noted:

| Application | Port | Notes |
| --- | --- | --- |
| CA-wcc | 8080 |  |
| CA-wcc-services | 10132 |  |
| CA-wcc-db | 1527 |  |
| Event Bus | 7004 | The Event Bus routes event information to the various applications in CA WCC. |
| CA EEM | 5250 | Anything that needs to talk to EEM:  EEM Servers 🡨🡪WCC Servers  EEM Servers 🡨🡪WAAE Application Servers  EEM is managed through a Browser UI on this port.  EEM Servers🡨🡪Browser hosts that need to access EEM  NB: *The WCC UI has a link to EEM. If not using Active Directory, users need to access EEM to change the password on the EEM user id they use to access WC. The browser will get 404 error if from WCC EEM link if this port is not open* |
| CA EEM Failover Port  CA Directory Services Agent (DSA) | 509 | *Only used if WCC HA*. Open between all WCC Servers   * *NB: It is a strange port in that there is a TCP 509 and sometimes a UDP 509.  Often this port is changed because it is below 1024 and may be in use by some service.* |
| CA Workload Automation AE Application Server / Scheduler | 7163 | CSAM port.  Application Servers 🡨🡪WCC servers  Application Servers 🡨🡪AE Client Utilities hosts  *NB: Which hosts have the AE Client Utilities is firm specific. CU is usually installed with the AE Agent. There may be some users that request installation of AE Client Utilities on their desktop.* |
| CA Workload Automation AE Application Server / Scheduler | 9000 | Port 9000 is a virtual port and usually does not require firewall rules (goes through 7163). However if port multiplexing is disabled on the WA AE server, must enable rules between  Application Servers 🡨🡪WCC Servers  Application Servers 🡨🡪AE Client Utilities hosts  *NB: Which hosts have the AE Client Utilities is firm specific. CU is usually installed with the AE Agent. There may be some users that request installation of AE Client Utilities on their desktop.* |
| CA Workload Automation AE Application Server Auxiliary | 7500 | AE Agent 🡨🡪Application Servers  AE Agent 🡨🡪 Scheduler Servers |
| CA Workload Automation AE Scheduler Auxiliary | 7507 | AE Agent 🡨🡪Application Servers  AE Agent 🡨🡪 Scheduler Servers |
| CA Workload Automation AE Agent | 7520 | AE Agent 🡨🡪Application Servers  AE Agent 🡨🡪 Scheduler Servers  NB: *this port must be configured to permit ping to agent by both long and short name* |
| CAI CCI | 1721 | Need for cross-platform scheduling between WA AE and Event Manager 🡨🡪 Scheduler Servers |
| MSSQL | 1433 | MSSGL DB server 🡨🡪Application Servers  *NB:1433 is default Oracle DB port. Replace w/ port used if not default.* |
| Oracle | 1523 | Oracle DB server 🡨🡪Scheduler Servers  *This is a persistent connection.*  *NB: 1521 is default Oracle DB port. Replace w/ port used if not default.* |
| WCC Monitoring Database | 1527 | WCC is usually configured with a Derby Database on the local WCC Server and does not require firewall rules.  If using an external database (Oracle, SQL,Sybase) or the Derby database is located on another WCC server:  DB Server 🡨🡪WCC Servers  *NB: 1527 is the default WCC Derby Monitoring Database. Replace w/ port used if not default.* |
| WCC Reporting Database | 1627 | WCC is usually configured with a Derby Database on the local WCC Server and does not require firewall rules.  If using an external database (Oracle, SQL,Sybase) or the Derby database is located on another WCC server:  DB Server 🡨🡪WCC Servers  *NB: 1627 is the default WCC Derby Reporting Database. Replace w/ port used if not default.* |
| JAWS Server | 1521, 5000, ***or*** 1433 | Jaws Server 🡨🡪 JAWS DB Server  Jaws Server 🡨🡪 WA AE DB Server |
| JAWS Client | 1099  *(standard RMI port)* | End User PC 🡨🡪 Jaws Server |