



# ICE Server 3.0.0

Release notes for prerelease

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## 1 New & Improved

These changes add new features or improve the functionality of existing ones:

- Cloud: Update Elastic Search sync jobs. (ICE-12045)
- Server: Implement Elasticsearch Sync Job. (ICE-12020)
- Cloud: Disable ICE Desktop chart by default in ICE 3.0. (ICE-11194)
- Consolidate Paging methods in Cassandra DAO layer. (ICE-11150)
- Server: Create Postgres DAO for CallDetailRecord (CallDetailRecordDAO). (ICE-11081)
- Server: Implement AlertDaoPostgres and AlertResponseDaoPostgres. (ICE-10833)
- PersonGroupDAO layer changes as a result of entity attribute updates. (ICE-11071)
- Server: Create tests for auditlog templates. (ICE-10789)
- Server: Create a new implementation of ClusterServiceDao. (ICE-11048)
- Server: Create Postgres DAO for Platform Client (PlatformClientDAO). (ICE-11053)
- Server: Implement Instalation Id Init Command for Postgres. (ICE-11043)
- Server: Create Postgres DAO for Assembly Point (AssemblyPointDAO). (ICE-11025)
- Desktop: Implement login window changes for smartcard login. (ICE-10822)
- Cloud: Add DC info as an environment variable to all ICE Arcus pods. (ICE-11044)
- Server: Create Postgres DAO for External Server. (ICE-10836)
- Server: Implement RoleDaoPostgres. (ICE-10678)
- Server: Implement Default Roles Init Data Migration. (ICE-10830)
- Server: Clean Up LicenseFeatureKey enum. (ICE-10730)
- Cloud: Mirror minio buckets in geo. (ICE-9345)
- Create a custom handlebar helper to look up an entity's name by a given id. (ICE-10735)
- Server: Make deviceId optional for GetLatestPresence. (ICE-10807)
- Server: Implement EntityTemplateDaoPostgres. (ICE-10787)
- Server: Update oculus to include a HMAC value when calling "/piv-login". (ICE-10753)
- Server: Add targetHost Parametr For Pre-Signed URL generation. (ICE-10717)
- Testing strategy for Postgres DAO implementation. (ICE-10743)
- Server: Update ShiroSessionLicenseOwnerCleanupTask to automatically include all the LicenseFeatureType that is LicenseConsumerType.SESSION. (ICE-10708)
- Server: Update "piv-login" handler to validate HMAC value. (ICE-10702)
- Server: ModelManager Initdata Clashes With PostgresModelManager. (ICE-10749)
- StartupResourceCleaner needs to cleanup floating licenses such as WORKFLOW\_ADMINISTRATOR and PATCH\_ADMINISTRATOR. (ICE-10707)
- Server: Implement R\_\_1\_DefaultOrganization in com.dillonkane.ice.db.initdata. (ICE-10584)
- Server: Authenticate with LDAP server with an admin username/password and be able to search the given username (principal name). (ICE-10426)

- Server: Clean up ‘client-bridge’ code. (ICE-10694)
- Server: Merge Postgress Configuration To Develop. (ICE-10512)
- Configure and implement custom handlebar helpers in history-service to accommodate audit log descriptions for certain events. (ICE-10626)
- Server: Remove obsolete ExternalServerProcessor classes. (ICE-10640)
- Server: Refactor Page\*Handler that uses “limit” and “token”. (ICE-10594)
- Server: Revise dependencies part 2. (ICE-10564)
- Server: Refactor ExternalServerProcessor subclasses. (ICE-10548)
- Server: Add Piv Login Functionality to Oculus. (ICE-10556)
- Server: Implement PageKenwoodNexedgeGroups. (ICE-10563)
- Server: Add organization level configuration to enable/disable “piv-login” feature. (ICE-10541)
- Server: Functional tests. (ICE-10523)
- Server: Create a KenwoodNexedgeRadioSystemProcessor to contain custom logic for create/delete of a KenwoodNexedgeRadioSystem entity. (ICE-10500)
- Server: Clean Up Dependencies. (ICE-10519)
- Server: Properly handle deleting a DFSIG radio gateway entity. (ICE-10498)
- Server: Create a KenwoodNexedgeRadioGatewayProcessor to contain custom logic for create/delete of a KenwoodNexedgeRadioGateway entity. (ICE-10499)
- Server: Create a new Authentication mechanism to allow access to ‘piv-login’ endpoint by only specifying a username without the password. (ICE-10407)
- Server: Fix KenwoodNexedgeRadioGroup xml. (ICE-10526)
- Server: Update FixedStationProcessor.preCreate() to only allow IPs for host address. (ICE-10494)
- Server: Remove unnecessary dependencies. (ICE-10481)
- Server: Update Auditlog Current Index Mapping. (ICE-10482)
- Server: Audit logs API formatting improvement. (ICE-10363)
- Server: Remove the code generation logic for the old format based on if capability and type is included in GeneratorUtils.MIGRATED\_NAMESPACES or GeneratorUtils.MIGRATED\_TYPES. (ICE-10428)
- Server: Update ListAllExternalServersHandler to support ‘serverType’ parameter. (ICE-10430)
- Server: Design to support auditlog to capture user login/logout/reconnect events. (ICE-10342)
- Server: Migrate remaining type definitions to the new format. (ICE-10313)
- Server: Make “serverAddress” field optional in creating “dfsig:CreateDFSIGRadioGateway”. (ICE-10390)
- Server: Enhance Elasticsearch Model Manager. (ICE-10399)
- Server: Task to clean up auditlog report files. (ICE-10245)
- Update cert-cli tool to support local certificate overrides (–insert). (ICE-10357)
- Server: Fix transformers tests. (ICE-10341)

- Server: Remove unused libraries using GPL license. (ICE-10320)
- Server: Support for Kenwood NEXEDGE channel license. (ICE-10301)
- Server: Remove unused capability definitions. (ICE-10312)
- Server: Implement “nexedge:PageChannelsWithKenwoodNexedgeGroup” handler. (ICE-10045)
- Server: Migrate data from “profile” field to “customConfig” field in external\_server table. (ICE-10281)
- Server: Implement “nexedge:Remove” handler. (ICE-10232)
- Migrate Workflow entity handlers to use the new format. (ICE-10287)
- Migrate SchedulerService handlers to use the new format. (ICE-10306)
- Implement “person:transmitPriority” attribute on Person capability. (ICE-10297)
- Server: Implement “nexedge:AssignNexedgeRadioTalkGroup” handler. (ICE-10226)
- Server: Create task to clean auditlogs older than 1y. (ICE-10244)
- Cloud: Create container for history-service. (ICE-9854)
- Migrate Webhook entity handlers to use the new format. (ICE-10286)
- Server: Add “radio\_talk\_group\_id” and “radio\_talk\_group\_type” in Channel DAO. (ICE-10227)
- Server: Rename ‘default’ attributes in type definitions. (ICE-10294)
- Migrate TextMessageSession entity handlers to use the new format. (ICE-9861)
- Server: PageTextMessages requests permissions. (ICE-10274)
- Server: Enhance “type” code generation so that it supports inheritance. (ICE-5441)
- Server: Capture actor data for Create Person related events for audit logging. (ICE-10264)
- Create handler for “nexedge:CreateNexedgeRadioTalkGroup” API. (ICE-10005)
- Allow an admin to remove a “managed” person. (ICE-10215)
- Finalize GenerateAuditLogReport and test. (ICE-10220)
- Migrate Reflector entity handlers to use the new format. (ICE-9859)
- Make “person:email” optional and “person:username” required. (ICE-10214)
- Implement “extser:CreateExternalServerV2” handler. (ICE-10088)
- Migrate Patch entity handlers to use the new format. (ICE-9857)
- Create library for reading CAC/PIV smartcard. (ICE-9991)
- Server: Define KenwoodNexedgeRadioSystem. (ICE-9924)
- Add a new role “NexedgeRadioGateway” to be assigned to the Kenwood radio gateway external server. (ICE-10175)
- Implement Export to CSV for Audit logging. (ICE-10024)
- Flutter: Allow usage of Cornea of 2+ instances. (ICE-9881)
- Define KenwoodNexedgeRadioGroup table structure and implement DAO layer. (ICE-9999)
- Migrate ExternalServer entity handlers to use the new format. (ICE-9855)
- Implement handler for “nexedge:CreateNexedgeRadioSystem”. (ICE-10003)
- Migrate Person entity handlers to use the new format. (ICE-9858)

- Migrate License entity handlers to use the new format. (ICE-9856)
- High Level Design For Job Processing. (ICE-9936)
- Migrate Role entity handlers to use the new format. (ICE-9860)
- Create a functional test for enabling MelpeCodec license feature. (ICE-9969)
- Set up functional tests for 'history-service'. (ICE-9940)
- Elasticsearch index design for audit logging. (ICE-9508)
- Create Job table. (ICE-9876)
- Add "features" element to SessionInfo upon login when MELPE\_CODEEC feature is turned on for the organization. (ICE-9657)
- Functional test for 'Role' handlers. (ICE-9903)
- Create a PlatformClientCache component to lookup any PlatformClientEnabled entity's name. (ICE-9870)
- Refactor 'Role' components. (ICE-9907)
- Implement a skeleton for PageAuditLogsHandler. (ICE-9770)
- Mapping mechanism to use proper template for particular event. (ICE-9761)
- Capture actor entity in all broadcast events for audit log purposes. (ICE-9771)
- Add "chan:melpeCodec" attribute to the channel capability. (ICE-9806)
- Re-design Audit Log API. (ICE-9826)
- ModelManager tasks order. (ICE-9827)
- Create a cleanup task for orphaned telephony channels. (ICE-9768)
- Eliminate all references to Bintray from all Arcus builds. (ICE-9804)
- Arcus: Detach Cornea implementation files from being imported directly from Flutter. (ICE-9779)
- Merge release/2.1.4 back to develop branch. (ICE-9734)
- Dao skeleton for audit log entity. (ICE-9722)
- Arcus: High-level API design for audit logging. (ICE-9507)
- Create a new history-service container for audit log. (ICE-9537)
- Flutter: Add setting to enable/disable verbose logging. (ICE-9687)
- Migrate dfsig handlersutilizing new code generation approach. (ICE-9604)
- Migrate [ipphone](#) handlers utilizing new code generation approach. (ICE-9663)
- Implement one device only login per user. (ICE-9495)
- "PatchAdmin"/"WorkflowAdmin" role is assigned to a user, but he is not able to create a patch. (ICE-9533)
- Change the bucketName from the organizationId to a configurable parameter in FileDataManager. (ICE-9549)
- Update LDAPAuthenticationSource to replace "ldapSearchFilter" with default value when it is null or empty string. (ICE-9548)
- Add MELPE\_CODEEC feature key to LicenseFeatureType and make sure the upload license works

- fine with a new license file with this feature key. (ICE-9521)
- Design the ability to add/remove InstantPermission to the AuthroizationContext based on certain events. (ICE-8849)
- Optimize/Speedup functional tests in ipphone-bridge. (ICE-8876)
- Cloud: Create ingress for minio presigned links. (ICE-8897)
- Refactor handlers classes for Organization. (ICE-9362)
- ICE Desktop (Web) - Get the app working via NGINX Ingress. (ICE-9313)
- Design and Implement the ability to include the “triggeredBy” person in some of the workflow actions. (ICE-9346)
- Optimize/Speedup functional tests in client-bridge. (ICE-8874)
- Merge release/2.1.4 to develop - 1. (ICE-9464)
- Add high defaults for modelmanager timeouts. (ICE-9311)
- Refactor handlers classes under com.dillonkane.ice.provisioning.services.persongroup. (ICE-9331)
- Add “dfsigLoadBalanceMechanism” attribute to OrganizationConfig type. (ICE-9281)
- Remove PersonTokenDAO and PersonTokenManager. (ICE-9214)
- Add “reportedStatus” attribute to ExternalServer entity. (ICE-9186)
- Enhance “person:PagePersonsEs” to support a random Geofence filter. (ICE-8846)

## 2 Fixes

These issues have been resolved in this version of the product:

- Server: Send ValueChange Event To Actor and Mutated Person. Discovered in 3.0.0. (ICE-11258)
- Server: The text messaging chat can be continued with deleted user and channel. Discovered in 3.0.0. (ICE-9968)
- Cloud: CDR in grafana shows no data after upgrade with default last 6 hours option. Discovered in 2.2.0. (ICE-9958)
- Cloud: Increase modelmanager job backoff limit for multi-node Geo installation. Discovered in 2.2.0. (ICE-10724)
- Server: ReleaseStaleLicenseAssignmentsHandler needs to handle WORKFLOW\_ADMINISTRATOR and PATCH\_ADMINISTRATOR. Discovered in 2.2.0. (ICE-10685)
- Arcus Dart: fix two imports. Discovered in 2.2.0. (ICE-10525)
- Server: Remove “patch:” from eventSubscriptions for Patch role. Discovered in 2.1.2-Hotfix3. (ICE-10310)
- Server: pagechannelswithFS missing daniels-fs and chan1. Discovered in 2.2.0. (ICE-9982)
- Server: Missing base:added/deleted for channels. Discovered in 2.2.0. (ICE-10073)



- Patch/Reflectors lose connection to ICE Server and never reconnect. Discovered in 2.1.2. (ICE-9366)

### 3 Known Issues

These are issues known to exist in the product:

#### **3.0.1 Grafana Call Detail Records (CDRs) are not synchronizing between Data Centers (DC) in Geo-Redundant ICE Server implementations. (ICE-10340)**

**3.0.1.1 Conditions** Grafana is configured to see CDRs from both DCs.

**3.0.1.2 Workaround** Download the CDRs from both DCs for a complete call activity report.

#### **3.0.2 After server upgrade, prior default Rallypoint no longer appears as channel default (ICE-10332)**

**3.0.2.1 Conditions** ICE server upgrade to 2.2.0.

**3.0.2.2 Workaround** Define default Rallypoint in telephony channel defaults.

#### **3.0.3 When creating a patch using the “Create and Activate” command in ICE Desktop, sometimes the patch will not function. (ICE-8561)**

**3.0.3.1 Conditions** This issue may occur intermittently when sufficient latency exists in processing the patch creation command. Users may find this issue more common in geographically redundant systems or when the ICE Server is under heavy user load. This issue only occurs when using “Create and Activate;” manually creating, then activating a patch will not experience this issue.

**3.0.3.2 Workaround** Deactivate the patch in ICE Desktop, then re-activate it by clicking the “Activate” button.

**3.0.3.3 Additional information** This issue is caused by a patch that is created, but then not properly activated (despite the user interface indicating the patch was made active).

### **3.0.4 IP Phone usage on the license management page may be inaccurate after a server upgrade or reboot. (ICE-8458)**

**3.0.4.1 Conditions** If a user remains logged in (does not logout, so session continues) to the ICE IP Phone XML client prior to a server upgrade or reboot, then on their next login that user may take up multiple licenses for the session.

### **3.0.5 Deleting a static reflector from ICE Desktop does not cause the reflector to shut down or otherwise stop operating. (ICE-8405)**

**3.0.5.1 Workaround** System administrators should stop the reflector process (by killing its Docker container) prior to deleting the reflector in the ICE Desktop application if they intend for the reflections provided by the entity to stop.

**3.0.5.2 Additional information** When a static reflector has been deleted for ICE Server the reflector process associated with the deleted entry “coasts”—that is, the reflector will continue to operate in whatever state and configuration existed at the moment it was deleted. It will receive no further configuration updates from the server but will not automatically terminate, either.

### **3.0.6 The Cassandra Kubernetes pod restart count continuously increments after a fresh installation or upgrade of ICE Server, but there is no loss in service. (ICE-6576)**

**3.0.6.1 Conditions** This occurs only after performing an ICE Server installation onto a Kubernetes cluster or upgrading an existing system in a geographically-redundant configuration. This problem is not seen on single-site deployments (single-node or multi-node).

It affects systems whose link between data centers is slow enough that database schema updates take longer than the built in timeout allows for. A slow persistent storage system—or one under heavy load—may manifest this issue, too.

**3.0.6.2 Workaround** Run these commands in `cqlsh` (replacing `dc` and `replica` values as appropriate):

```
DROP KEYSPACE reaper_db;  
CREATE KEYSPACE reaper_db  
  WITH REPLICATION = {  
    'class' : 'NetworkTopologyStrategy',  
    'dc1': 1  
  };
```

Allow the reaper to finish its schema updates, then in `cqlsh`:

```
ALTER KEYSPACE reaper_db
WITH REPLICATION = {
  'class' : 'NetworkTopologyStrategy',
  'dc1' : 1,
  'dc2' : 1
}
```

Finally, on each node in `dc2`, run `nodetool rebuild - dc1`

### 3.0.7 Poor audio quality is observed when an ICE user calls another ICE user through a PSTN “dial call”. (ICE-4027)

**3.0.7.1 Conditions** When two users are assigned dial numbers and one user dials another user’s device through the soft-phone feature in the app, the established call will exhibit lower audio quality than expected.

This issue is not exhibited when a user makes a “private call” to another user. That is, only user-to-user calls placed by dialing a phone number are subject to this limitation.

**3.0.7.2 Workaround** Instant Connect users should call each other through the private calling mechanism by searching for the user’s name in the directory and clicking the adjacent telephone icon.

**3.0.7.3 Additional information** This issue is caused by double-encoding “loopback” audio traffic as it enters and leaves the ICE Telephony system.

This document describes changes introduced between build c4aa2a0 to b7dc0f1.