

```

public String generateUrlString(String serverHostname) {
    initUrlString(serverHostname, Constants.AD_HANDLER);

    setApiVersion("6");

    final ClientMetadata clientMetadata =
ClientMetadata.getInstance(mContext);
    addBaseParams(clientMetadata);

    setMraidFlag(true);

setExternalStoragePermission(mIsStorePictureSupported);

    return getFinalUrlString();
}

```

```

protected void addBaseParams(final ClientMetadata clientMetadata) {
    setAdUnitId(mAdUnitId);

    setSdkVersion(clientMetadata.getSdkVersion());
    setDeviceInfo(clientMetadata.getDeviceManufacturer(),
        clientMetadata.getDeviceModel(),
        clientMetadata.getDeviceProduct());
    setBundleId(clientMetadata.getAppPackageName());

    setKeywords(mKeywords);

    setLocation(mLocation);

    setTimezone(DateAndTime.getTimeZoneOffsetString());

    setOrientation(clientMetadata.getOrientationString());
    setDeviceDimensions(clientMetadata.getDeviceDimensions());
    setDensity(clientMetadata.getDensity());

    final String networkOperator =
clientMetadata.getNetworkOperatorForUrl();
    setMccCode(networkOperator);
    setMncCode(networkOperator);

    setIsoCountryCode(clientMetadata.getIsoCountryCode());
    setCarrierName(clientMetadata.getNetworkOperatorName());

    setNetworkType(clientMetadata.getActiveNetworkType());

    setAppVersion(clientMetadata.getAppVersion());

    appendAdvertisingInfoTemplates();
}

```

```

protected void setLocation(@Nullable Location location) {
    Location bestLocation = location;
    Location locationFromLocationService =
LocationService.getLastKnownLocation(mContext,
    MoPub.getLocationPrecision(),
    MoPub.getLocationAwareness());

    if (locationFromLocationService != null &&
        (location == null ||
locationFromLocationService.getTime() >= location.getTime())) {
        bestLocation = locationFromLocationService;
    }

    if (bestLocation != null) {
        addParam(LAT_LONG_KEY, bestLocation.getLatitude() + "," +
bestLocation.getLongitude());
        addParam(LAT_LONG_ACCURACY_KEY, String.valueOf((int)
bestLocation.getAccuracy()));
        addParam(LAT_LONG_FRESHNESS_KEY,

String.valueOf(calculateLocationStalenessInMilliseconds(bestLocatio
n)));

        if (bestLocation == locationFromLocationService) {
            addParam(LAT_LONG_FROM_SDK_KEY, "1");
        }
    }
}

```

```

protected void addParam(String key, String value)
{
    if (TextUtils.isEmpty(value)) {
        return;
    }

    mStringBuilder.append(getParamDelimiter());
    mStringBuilder.append(key);
    mStringBuilder.append("=");
    mStringBuilder.append(Uri.encode(value));
}

```