```
        advise (LLOG_DEBUG, NULLCP, "RO-INVOKE.INDICATION/%d:  %s",
                sd, ryo -> ryo_name);

    return lookup (sd, getpwuid (arg -> arg), rox, roi);
}


static int  lookup (sd, pw, rox, roi)
int     sd;
struct passwd *pw;                                              120
struct RoSAPinvoke *rox;
struct RoSAPindication *roi;
{
    int     result;

    if (pw) {
        register struct type_PasswordLookup_Passwd *res = NULL;

        if (xalloc (res, struct type_PasswordLookup_Passwd *) == NULL
                || (res -> name = salloc (pw -> pw_name)) == NULL       130
                || (*pw -> pw_passwd
                        && (res -> passwd = salloc (pw -> pw_passwd)) == NULL)
                || xalloc (res -> uid, struct type_PasswordLookup_UserID *)
                        == NULL
                || xalloc (res -> gid, struct type_PasswordLookup_GroupID *)
                        == NULL
                || (pw -> pw_comment
                        && (res -> comment = salloc (pw -> pw_comment))
                                == NULL)
                || (pw -> pw_gecos                                      140
                        && (res -> gecos = salloc (pw -> pw_gecos)) == NULL)
                || (pw -> pw_dir
                        && (res -> dir = salloc (pw -> pw_dir)) == NULL)
                || (pw -> pw_shell
                        && (res -> shell = salloc (pw -> pw_shell))
                                == NULL))
            result = error (sd, error_PasswordLookup_congested, (caddr_t) NULL,
                    rox, roi);
        else {
```

```
            res -> uid -> arg = pw -> pw_uid;
            res -> gid -> arg = pw -> pw_gid;
            res -> quota = pw -> pw_quota;

            if (RyDsResult (sd, rox -> rox_id, (caddr_t) res, ROS_NOPRIO, roi)
                    == NOTOK)
                ros_adios (&roi -> roi_preject, "RESULT");
            result = OK;
        }

        free_PasswordLookup_Passwd (res);
    }
    else
        result = error (sd, error_PasswordLookup_noSuchUser, (caddr_t) NULL,
                rox, roi);

    return result;
}


/* ERROR */

static int  error (sd, err, param, rox, roi)
int         sd,
            err;
caddr_t     param;
struct RoSAPinvoke *rox;
struct RoSAPindication *roi;
{
    if (RyDsError (sd, rox -> rox_id, err, param, ROS_NOPRIO, roi) == NOTOK)
        ros_adios (&roi -> roi_preject, "ERROR");

    return OK;
}


/* U-REJECT */

static int  ureject (sd, reason, rox, roi)
```

```
int       sd,
          reason;                                                    190
struct RoSAPinvoke *rox;
struct RoSAPindication *roi;
{
   if (RyDsUReject (sd, rox -> rox_id, reason, ROS_NOPRIO, roi) == NOTOK)
          ros_adios (&roi -> roi_preject, "U-REJECT");

   return OK;
}
```

Figure 11.4: Responder for the Password Lookup Service

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