

VRP Manager Approval

Installation and user guide - approving register requests from a phone

Some functions at the register need a manager's password (security right **Func. Pswd**), for example voiding a receipt. When no manager is at the register, the cashier can now **request approval**. The managers get an email with a link, open it on their phone, and approve or decline. The register continues as soon as the answer arrives.

1. CASHIER

Starts a function that needs a manager and taps *Request approval* with a short note.

2. EMAIL

The managers receive "Approval needed" with an *Open to Approve or Decline* button.

3. MANAGER

Opens the link on the phone (signed in once, remembered) and taps Approve or Decline.

4. REGISTER

Continues automatically. The override is recorded in the manager's name.

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1. Installation

1.1 Requirements

- A Windows machine in the store (normally the store server or back-office PC) with VRP installed in `c:\pos` - it needs `vrp.ini`, `VRPSearch.dll` and access to the store's SQL Server. No IIS is needed: the approval site is a Windows service, like rpPOSWeb.
- The `SecurityRemoteRequest` table in the database. It is created by **rpValid7**.
- Email set up in VRP (the `aosmtp*` INI settings), the same settings VRP already uses to email receipts and reports.
- The current `VRPSearch.dll` on every register (it sends the email with the link), and the current rpPOSWeb on stores that use the web register.

1.2 Getting the files

The service ships in the regular VRP update (`rpexe7.exe`). After the update, `c:\pos` contains:

File	What it is
<code>rpManagerApprovalService.exe</code>	The approval site. The phone pages are built into the exe.
<code>rpManagerApprovalService.exe.config</code>	Its default settings. Replaced by every update - do not edit it (see 1.6).
<code>rpServices.exe</code>	The Service Manager, used to install it (opened from VRP Setup).

1.3 Installing the service (Service Manager)

1. On the store server, open the VRP main program (**rpPOS7**), click the **Setup** button, then click **Service Manager**.
2. Select the line **Manager Approval (phone)** (path `c:\pos\rpManagerApprovalService.exe`, Windows service name `rpManagerApproval`). Its status shows *Not Installed*.
3. Click **Install Service** and answer **Yes**. The Service Manager then:
 - reserves the address `http://+:8129/` for the service,
 - opens TCP port **8129** in the Windows firewall,
 - registers the service (automatic, delayed start, so SQL Server is up first).
4. When it says *Install Completed*, two questions follow:

- **Address of the approval site** - the address the managers' phones use to reach this machine. This goes into the link in the email (INI `ManagersApprovalLink`), for example `http://192.168.1.212:8129` .
- **Managers' email addresses** - who receives the requests (INI `SecurityRequestEmail`). Separate several addresses with a comma or a semicolon.

5. If the line shows *Stopped*, click **Start Service**. It should now show *Running*.

To remove it later: stop the service, then select the line and click **Remove Service**.

1.4 INI settings

The Service Manager fills in the first two. They can also be changed in the INI setup (area *Security*).

Setting	Meaning	Example
<code>SecurityRequestEmail</code>	Who receives the approval emails. Comma or semicolon separated. <code>N/A</code> or empty = no email (a manager can still answer in the desktop <code>rpManagerApproval</code> program).	<code>owner@store.com,</code> <code>mgr@store.com</code>
<code>ManagersApprovalLink</code>	The approval site's address as the phone sees it . The email link is built from it.	<code>http://192.168.1.212:8129</code>
<code>ssrlocation</code> (+ <code>SSRIP</code> , <code>SSRDB</code>)	Where requests are stored: <code>L</code> local (default), <code>H</code> on the hub, <code>O</code> on another server. Usually left empty.	<code>L</code>
<code>aosmtp...</code>	The email server settings VRP already uses.	

1.5 Which functions ask for approval

Nothing new to set up: the existing VRP security rights decide it. For each function and user:

Right	At the register
Allowed (A)	The user can do it. Nothing is asked.
Func. Pswd (F)	A manager has to approve - by typing their user and password at the register, or with Request approval .
Not allowed (N)	Refused. No approval is possible.

Example used in this guide: the function `POSVoid` (*Void a Receipt*) is set to **Func. Pswd** for the cashier **BOB**. When Bob voids a receipt, a manager's approval is required.

The manager who approves must themselves have **Allowed** for that function. A manager without it sees the request marked *You can't authorize this* and has no Approve/Decline buttons.

1.6 Approving from outside the store

With a store address such as `http://192.168.1.212:8129`, the link only works on a phone that is on the store's network (Wi-Fi). For managers who approve from anywhere:

1. Give the store a public address (a DNS name or the store's public IP), and forward that port on the store's router to the server, port 8129.
2. **Use https.** Over plain http the manager's VRP password crosses the internet unprotected. Either bind a certificate to a port and set `HttpsPrefix` (below), or put the service behind a reverse proxy that handles https.
3. Set `ManagersApprovalLink` to the public address, for example `https://approvals.mystore.com`.

Store-specific settings go in `c:\pos\rpManagerApprovalService.local.config` - create it if needed. It overrides the shipped config and updates never replace it. Restart the service after changing it.

```
<appSettings>
  <add key="HttpsPrefix" value="https://+:8130/" />
  <add key="RememberDays" value="90" />
</appSettings>
```

Setting	Meaning	Default
<code>Prefix</code>	Address and port the service listens on.	<code>http://+:8129/</code>
<code>HttpsPrefix</code>	Second, encrypted address. Needs a certificate bound to that port.	empty
<code>ConnectionString</code>	Use a different database than <code>vrp.ini</code> (e.g. when requests are on the hub).	empty
<code>RememberDays</code>	How long "Remember me" keeps a phone signed in (renewed while used).	90
<code>SessionHours</code>	Sign-in length without "Remember me".	12
<code>PendingHours</code>	Older pending requests are not listed.	24

MaxFailedLogins / LockoutMinutes	Wrong passwords before a lockout, and its length.	5 / 15
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1.7 Checking the installation

1. On a phone on the store Wi-Fi, open the `ManagersApprovalLink` address. The **Manager Approval** sign-in page appears.
2. Sign in with a manager's VRP user and password. The list *Waiting for approval* appears (empty is fine).
3. The service writes a daily log in `c:\pos\logs\rpManagerApproval_YYYYMMDD.log`: start-up, sign-ins and every approve/decline.

2. How to use the manager's approval

2.1 Cashier's side

Web register (rpPOSWeb) - phone, tablet or PC

1. Start the function as usual - here, Bob voids receipt 1047. The **Supervisor approval** window opens.
2. If a manager is standing at the register, they type their user and password and tap **Approve**, as before.
3. Otherwise, under *or ask a manager who is not here*, type a **note for the manager** - what and why (at least 5 characters) - and tap **Request approval**.
4. The window shows *Request sent to the managers. Waiting for an answer....* Leave it open.
5. **Approved:** the void goes through by itself, and a message shows who approved it and their reply.
Declined: the window comes back with the manager's reason. The cashier can request again, or a manager can type their password.
6. To give up, tap **Cancel request** (or close the window). The request is withdrawn from the managers' list.

Supervisor approval [icon] [X]

Void a Receipt (posvoid)

SUPERVISOR

PASSWORD

Approve

or ask a manager who is not here

NOTE FOR THE MANAGER

Customer paid with the wrong card - void receipt 1047 and ring again

Request approval

1. The supervisor window with a note for the manager. Tap **Request approval**.

Supervisor approval [icon] [X]

Void a Receipt (posvoid)

Request #9 sent to the managers. Waiting for an answer...

Cancel request

2. Waiting for an answer. **Cancel request** withdraws it.

Approved by Jerry Blake: OK this time - void it

Supervisor approval [icon] [X]

Void a Receipt (posvoid)

Approved by Jerry Blake - OK this time - void it. Continuing...

3. Approved - the void continues by itself.

Declined by the manager: Do a return instead

Supervisor approval [icon] [X]

Declined by the manager: Do a return instead

SUPERVISOR

PASSWORD

Approve

or ask a manager who is not here

NOTE FOR THE MANAGER

What and why

Request approval

4. Declined - the manager's reason is shown.

Desktop register (rpPOS7)

1. When a function needs a manager, the password window opens with the function's name in the title.
2. Type the reason in the **request** box - at least 5 characters, otherwise VRP asks for a message to the manager.
3. Make sure the box with the managers' email address is ticked, and click **Request Approval**. The button changes to *Request Sent, Awaiting Response*.
4. **Approved:** the window closes by itself and the function continues. **Declined:** a message shows *Declined* with the manager's reply.

On both registers the approval is used for that one action only, and is recorded in the password-override log (`PWDOVERRIDE`) in the manager's name - exactly as if the manager had typed their password at the register.

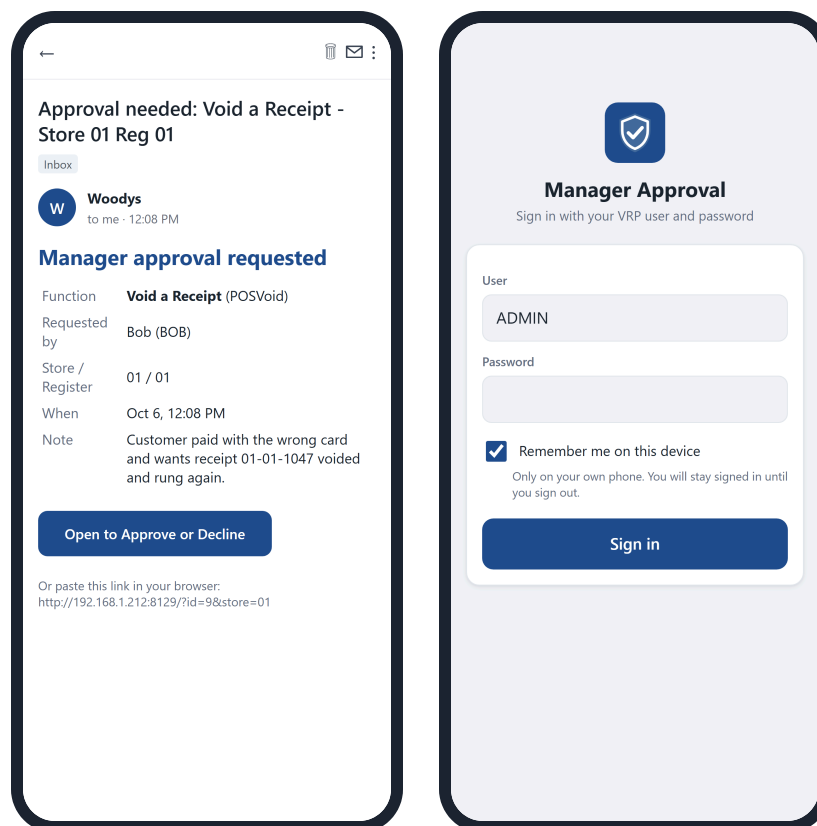
2.2 Manager's side

Receiving the request

Each request arrives as an email *Approval needed: <function> - Store <store> Reg <register>* showing who asked, where, when and their note. Tap **Open to Approve or Decline**.

Signing in - once per phone

The first time, sign in with your **VRP user and password**. Leave **Remember me on this device** ticked on your own phone: you will not be asked again (for 90 days, renewed every time you use it). Changing your VRP password signs you out everywhere. Untick it on a shared device - the sign-in then ends when the browser closes.



1. The email. Tap **Open to Approve or Decline**.

2. First time only: sign in. **Remember me** keeps this phone signed in.

Approving or declining

1. The link opens the request: the function, who asked, store, register, how long ago, and their note.
2. Optionally type a **message back to the register** (for example *OK this time* or *Do a return instead*). The cashier sees it.

3. Tap **Approve** or **Decline**. A confirmation shows and the register gets the answer within seconds.

Request Jerry Blake

Void a Receipt
Function POSVoid · Request #9

Requested by **Bob (BOB)**
Store **01**
Register **01**
When **Oct 6, 12:08 PM (2 min ago)**

THEIR NOTE
Customer paid with the wrong card and wants receipt 01-01-1047 voided and rung again.

Message back to the register (optional)
OK this time - void it

Decline Approve

All pending requests

3. The request, with an optional message back. Tap **Approve** or **Decline**.

Request Jerry Blake

✓ Approved by Jerry Blake
Oct 6, 12:09 PM

Void a Receipt
Function POSVoid · Request #9

Requested by **Bob (BOB)**
Store **01**
Register **01**
When **Oct 6, 12:08 PM (2 min ago)**

THEIR NOTE
Customer paid with the wrong card and wants receipt 01-01-1047 voided and rung again.

RESPONSE
OK this time - void it

All pending requests

4a. Approved - shown with your name and message.

Request Jerry Blake

✗ Declined
Oct 6, 12:09 PM

Void a Receipt
Function POSVoid · Request #9

Requested by **Bob (BOB)**
Store **01**
Register **01**
When **Oct 6, 12:08 PM (2 min ago)**

THEIR NOTE
Customer paid with the wrong card and wants receipt 01-01-1047 voided and rung again.

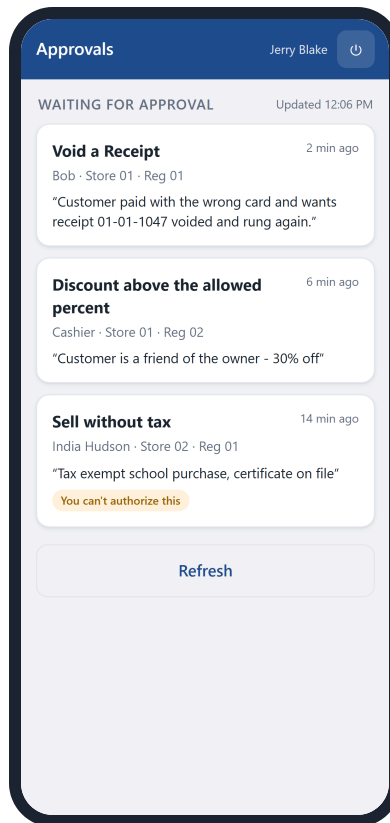
RESPONSE
Do a return instead

All pending requests

4b. Declined - the register shows your reason.

All pending requests

Opening the address without a link (or tapping **All pending requests**) lists everything waiting from the last 24 hours, newest first. It refreshes by itself every 15 seconds. Tap a request to open it.



5. Pending requests. *You can't authorize this* marks functions your user has no right to.

Good to know

- **Add it to the home screen** (browser menu → *Add to Home screen*) to open the list like an app.
- **First answer wins.** If two managers answer the same request, the second one sees *This request was already answered.*
- A request older than 30 minutes is marked: the register may have stopped waiting.
- The **power button** at the top right signs you out of that phone.
- The desktop **rpManagerApproval** program still works and shows the same requests.
- Five wrong passwords lock that user out of the site for 15 minutes.

3. Troubleshooting

What happens	What to check
No email arrives	<code>SecurityRequestEmail</code> is set (not <code>N/A</code>); the VRP email settings work (send a receipt by email); on the desktop, the email box was ticked. The web register says when the email could not be sent.
The link does not open on the phone	The phone is on the store Wi-Fi, or <code>ManagersApprovalLink</code> is a public address (see 1.6); the service is <i>Running</i> in the Service Manager (rpPOS7 → Setup → Service Manager); port 8129 is open in the firewall.
The request is not in the manager's list	It is older than 24 hours, already answered, or was cancelled at the register. With <code>ssrllocation</code> H or O, the service must point at the same database (<code>ConnectionString</code>).
<i>You can't authorize this</i>	The manager's user does not have Allowed for that function in VRP security.
<i>Too many failed attempts</i>	Wait 15 minutes, or restart the service.
Service does not start	See <code>c:\pos\logs\rpManagerApproval_YYYYMMDD.log</code> . Most often SQL cannot be reached, or the <code>SecurityRemoteRequest</code> table is missing (run <code>rpValid7</code>). For diagnosis run <code>c:\pos\rpManagerApprovalService.exe /console</code> .
All phones must sign in again	Expected after <code>%ProgramData%\VRP\rpManagerApprovalService\signing.key</code> is deleted, or when the service moves to another machine.