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Odoo Warehouse Management

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Topics

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Configuration

Operating

Special Cases

Conclusion

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Use Case

Bert's store needs to adapt for growth

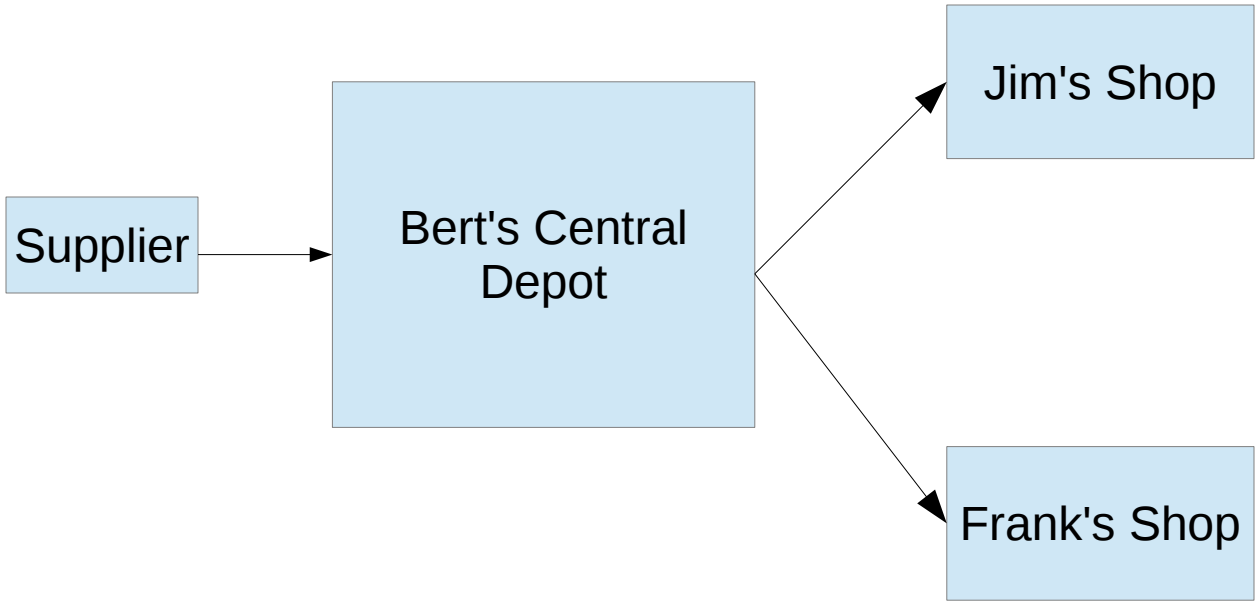
Use Case Scenario

Bert has a little shop with vegetable green Lego bricks and other Lego bricks.

His shop is growing, but growth is limited by his shop being far from the city.

He decides to work together with his friends Jim and Frank who will open shops in the city. Bert's shop would function as a central depot.

Use Case Scenario



Use Case Scenario : Products

Vegetable Bricks: CROSSDOCK

Regular Bricks : 2-step in / pick-pack-ship out

Coffee : produced

Coffee Beans : needed to produce the coffee

Configuration

Warehouses and routes

Configuration

Traceability

Traceability

- [x] Track lots or serial numbers
- [x] Expiry date on serial numbers
- [x] Use packages: pallets, boxes, ...
- [ ] Manage owner on stock

Accounting

Accounting

- [ ] Generate accounting entries per stock movement
- [ ] Create and open the invoice when the user finish a delivery order
- [ ] Calculate landed costs on products

Location & Warehouse

Logistic

- [x] Generate procurement in real time
- [x] Manage multiple locations and warehouses
- [x] Manage advanced routes for your warehouse

Minimum days to trigger a propagation of date change in pushed/pull flows. 0

Products

- [ ] Allow to define several packaging methods on products

Configuration

Use Case | Configuration | Operating | Operating | Conclusion

Warehouse Name

Routes

Bert's Central Depot

Short Name WHB

Address

Warehouse Configuration

Incoming Shipments

- Receive goods directly in stock (1 step)
- (•) Unload in input location then go to stock (2 steps)
- Unload in input location, go through a quality control before being admitted in stock (3 steps)

Outgoing Shippings

- Ship directly from stock (Ship only)
- Bring goods to output location before shipping (Pick + Ship)
- (•) Make packages into a dedicated location, then bring them to the output location for shipping (Pick + Pack + Ship)

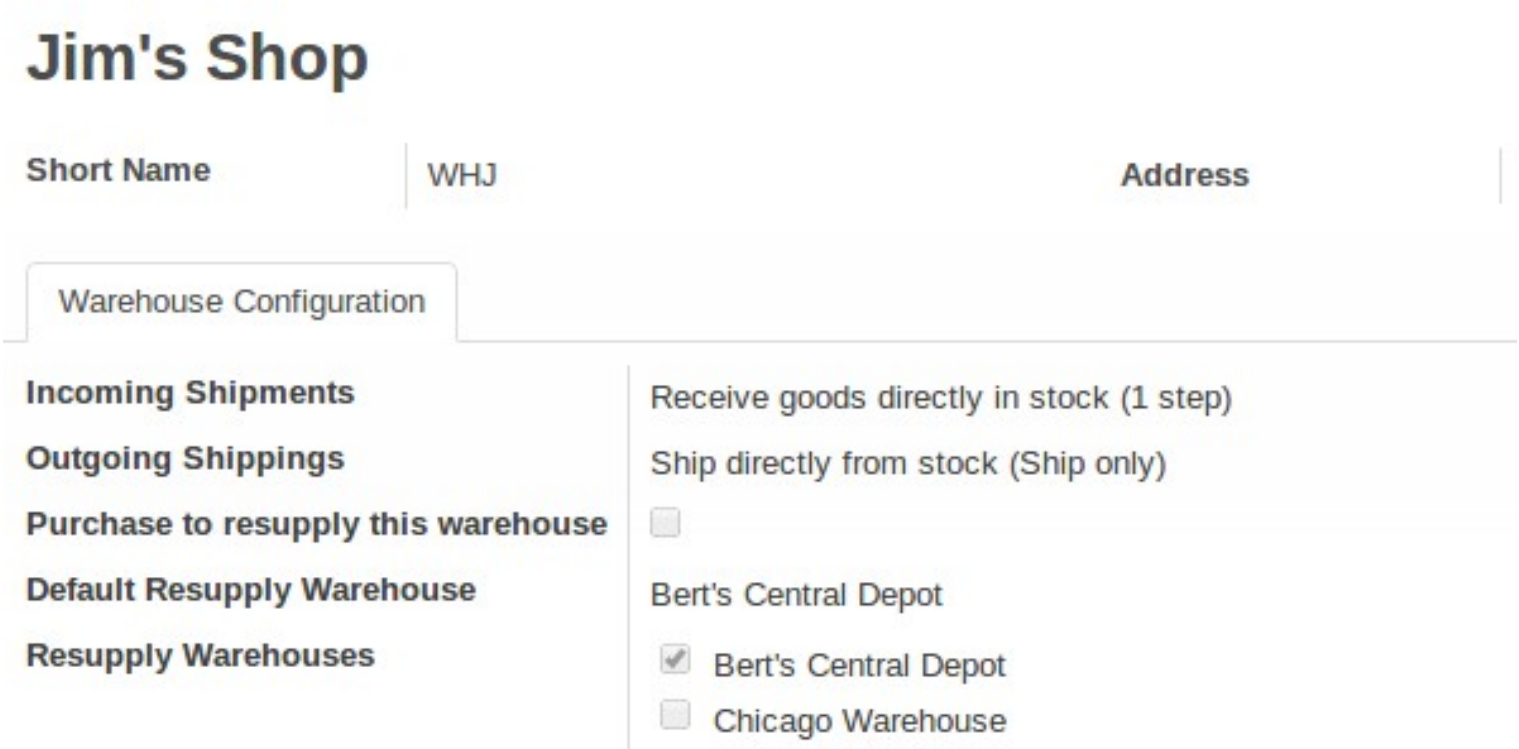
Purchase to resupply this warehouse ☑

Default Resupply Warehouse

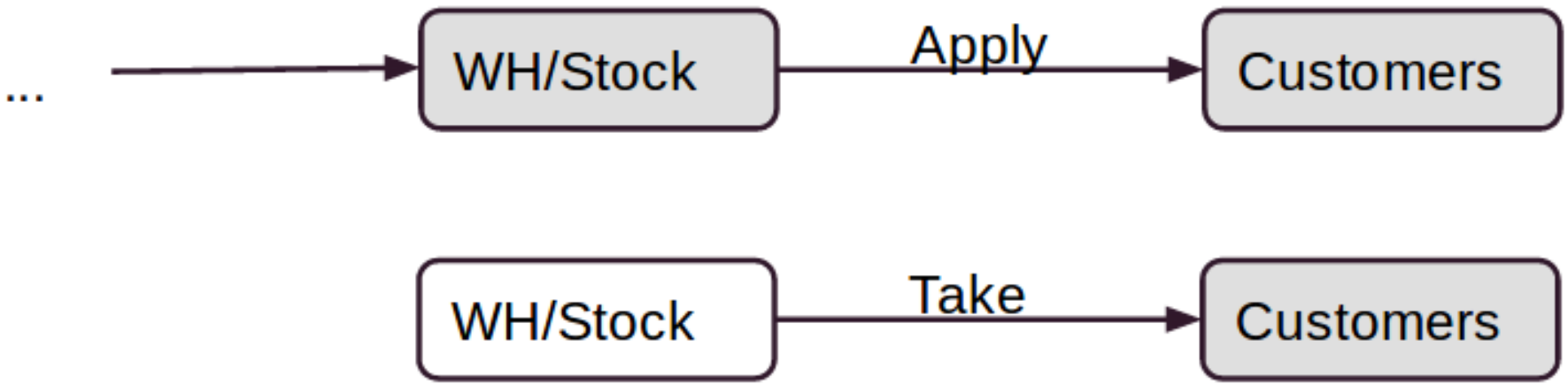
Resupply Warehouses

☐ Chicago Warehouse

Configuration



Pull rules



Push rules

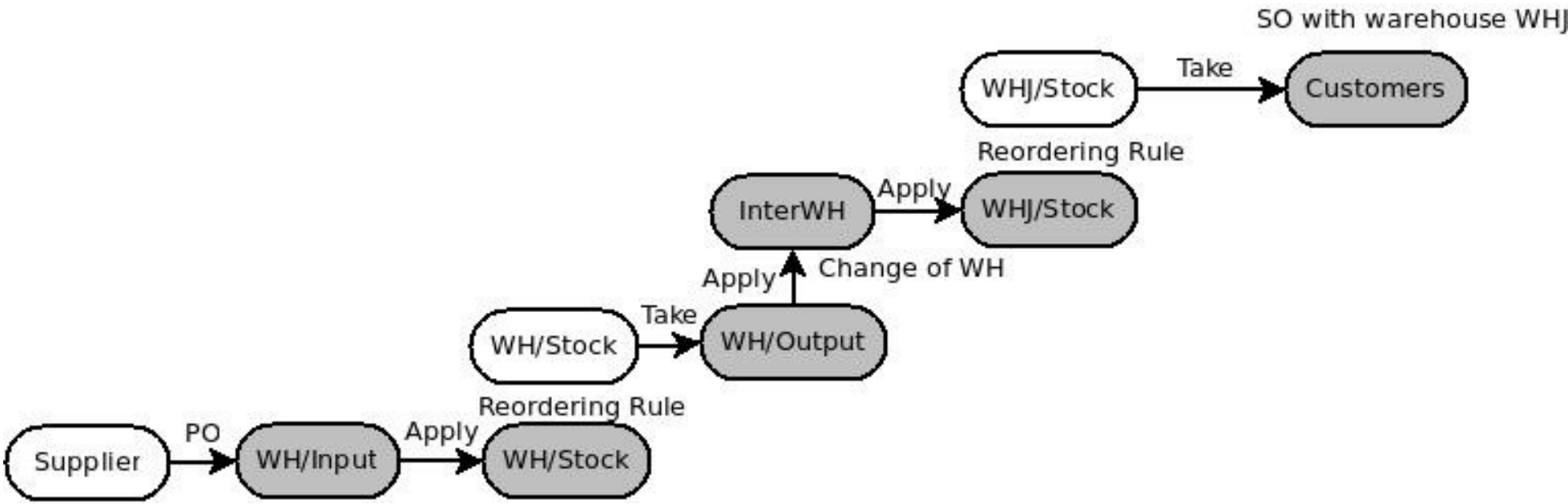
- Manual Purchase Order :

- Apply push rule in WH/Input

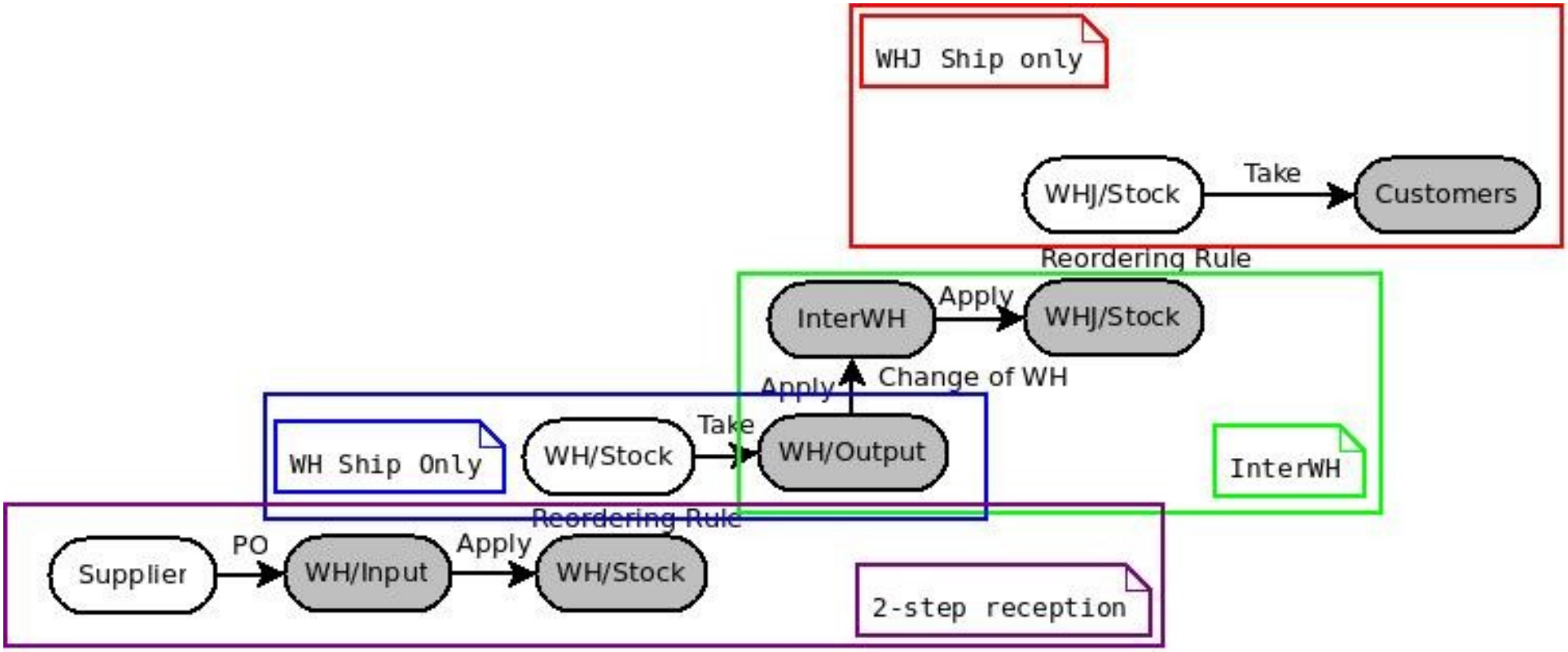
Pull and push into routes

- Pull and push are bundled into routes that can be applied on :
  - Procurement (Sale order)
  - Product and product categories
  - Warehouse

Example interWH route

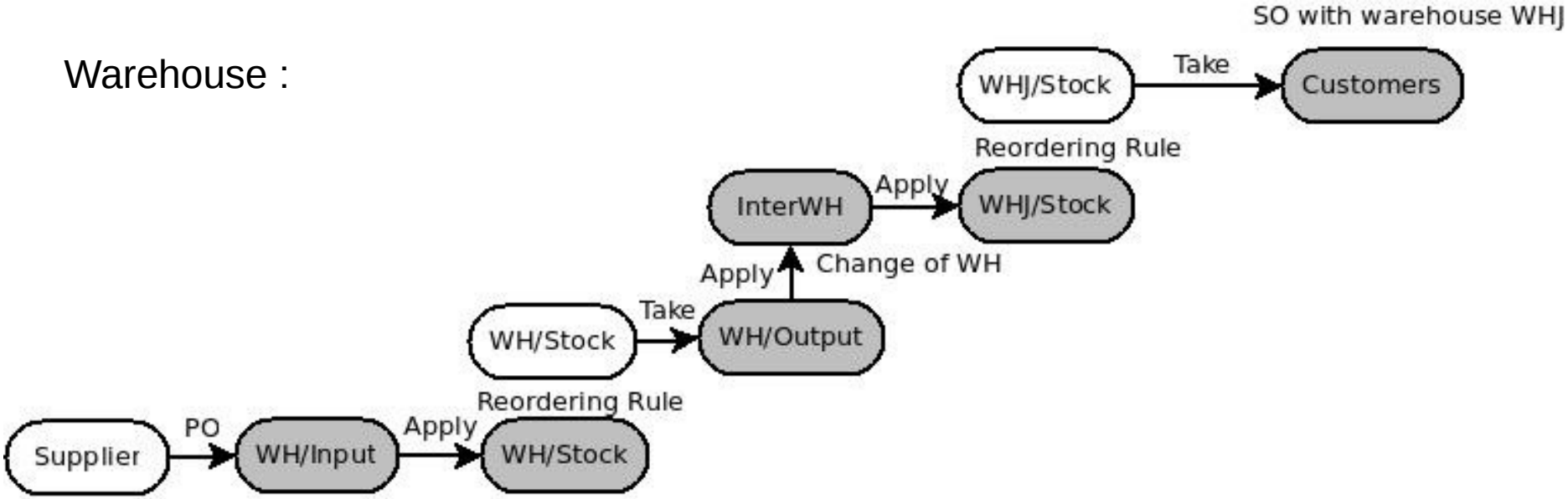


Example interWH route

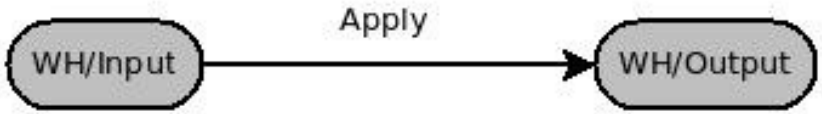


Example interWH + crossdock

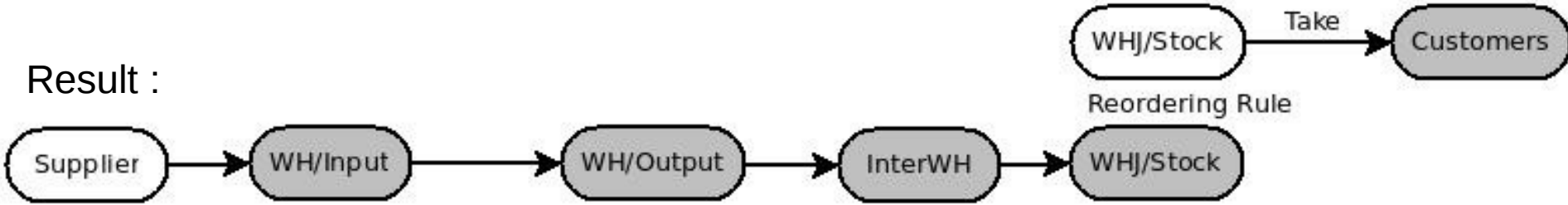
Warehouse :



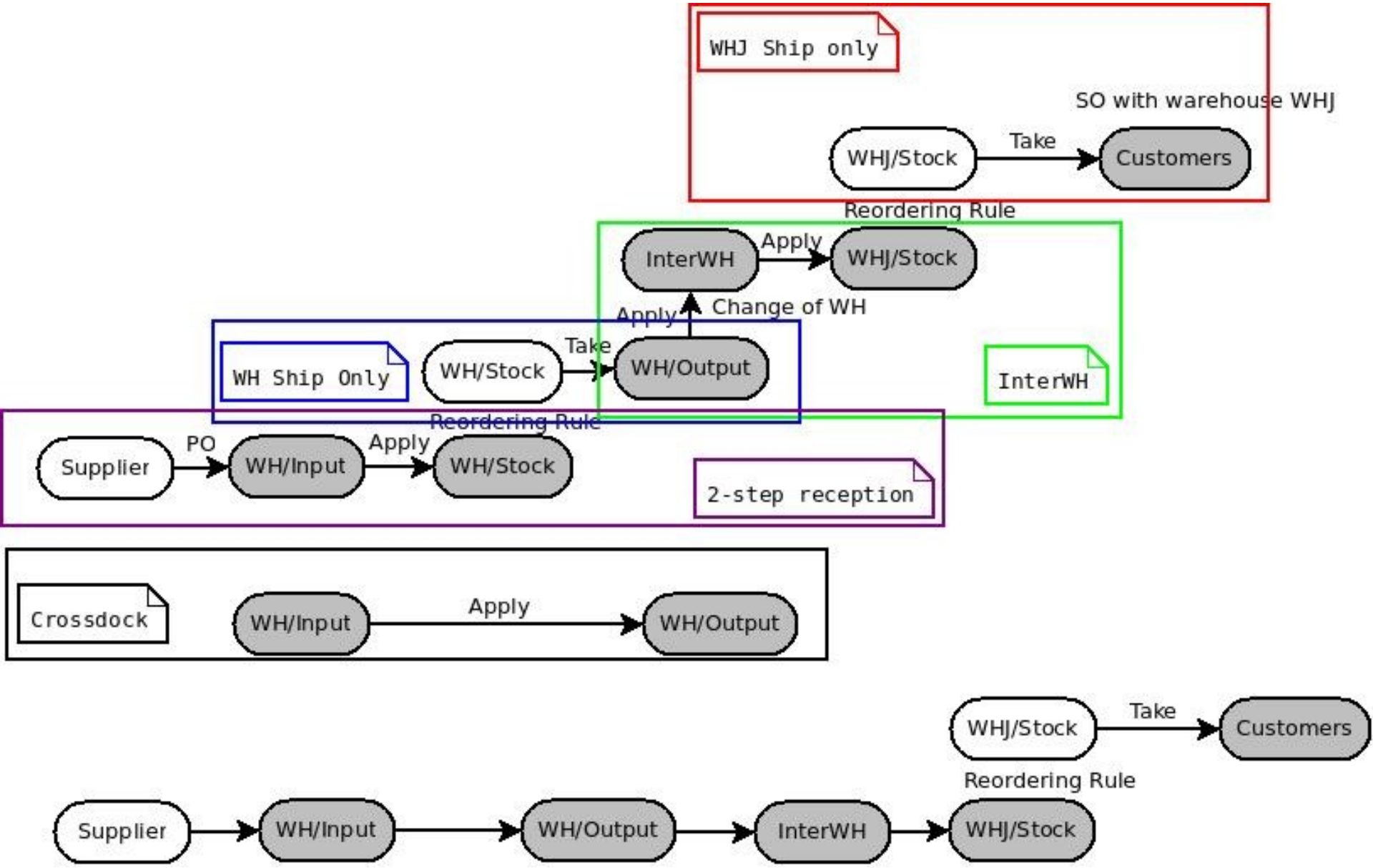
Product :



Result :



Example interWH + crossdock



Routes

- Benefits :
  - Integrated supply chain management and warehousing
  - Simpler configuration than push/pull only
  - Consistent also for dropshipping
  - Easy configuration of base config in warehouse form
  - Very practical for creating Proof of Concepts

Features Comparison

Warehouse config

- ✔ Simple to understand
- ✔ Can tackle a lot of basic cases already
- ✖ Not for more complicated situations

Routes config

- ✔ You can do complex routes without any developments
- ✔ Ideal for Proof of Concepts
- ✖ Not that easy to understand

You can start with the warehouse configuration and continue on the configuration the system created

In our use case

- Vegetable products get crossdock route
- Reordering rules (procurement groups)
- Need to define putaway strategy :
  - Regular products => Stock / Regular Products
  - Components => Stock / Components
  - Finished products => Stock / Finished Products

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Operating

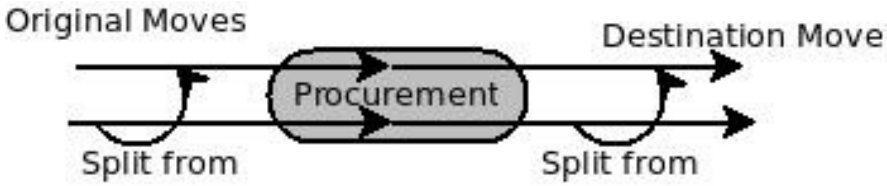
Making sure our operators can do their work

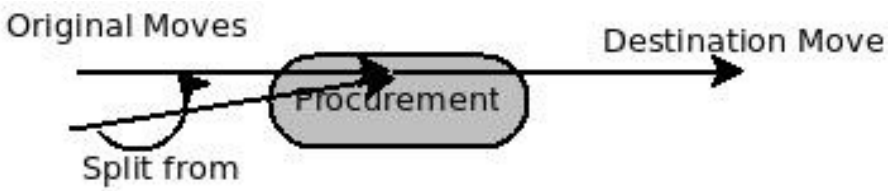
From 3 to custom picking types

Back orders and splitting of moves

- Moves :
  - Determine 'parent location flow' based on pull/push rules
  - Cancelling splitting them will mostly be propagated
    - Cancelling moves : forward direction
    - Cancelling procurements : backwards direction
  - Should not contain anything anymore with lots/packing
- Pickings
  - Are a 'related' to the moves in them : moves get created and a picking is assigned afterwards
  - Moves can easily be transferred to another picking, for example when creating backorders

- Splitting moves :
  - We keep track of the move it was split from (e.g. to check if stock needs to come from original moves)
  - Procurements and moves have a destination move and original moves
    - In case of split propagation (forward) the destination of the move will alter, but not the procurement's
    - Needs to work without procurements with push rules also





- Reservation of stock has custom domain
  - Has to come from original moves
  - Has to come from returned move
- Picking :
  - Ready to Transfer :
    - When all quants (stock) are reserved
  - Partially Available
    - When the move type of the picking is direct and at least some stock is available
- Removal Strategy : FIFO/LIFO/FEFO

- Take some product / Take entire pack
- Preparing pack operations for the picking:
  - Are created based on quants reserved :
    - Location from / quantities / lots / packs from
  - Will be put somewhere according to putaway strategy
  - Take entire packs as much as possible
- Bar code interface :
  - Warehouse operator can decide otherwise

- Finished Products ↔ Components traceability
  - Produce wizard based on stock reserved instead of moves
- Simplified : no picking before
- MTO if from component in MTO route, otherwise MTS

- All logic towards extra moves, backorders, splitting, reservation of stock,... is already handled by the system
- Easy custom development :
  - Grouping of moves in pickings allows easy development of batch picking, dock & yard management, ...
  - Creating own putaway and removal strategies
- FIFO, LIFO, FEFO

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Special Cases

Special Cases

- Negative stock
- Returns
- Multi-company and owner (see next slide)
- Packaging

Inter company rules

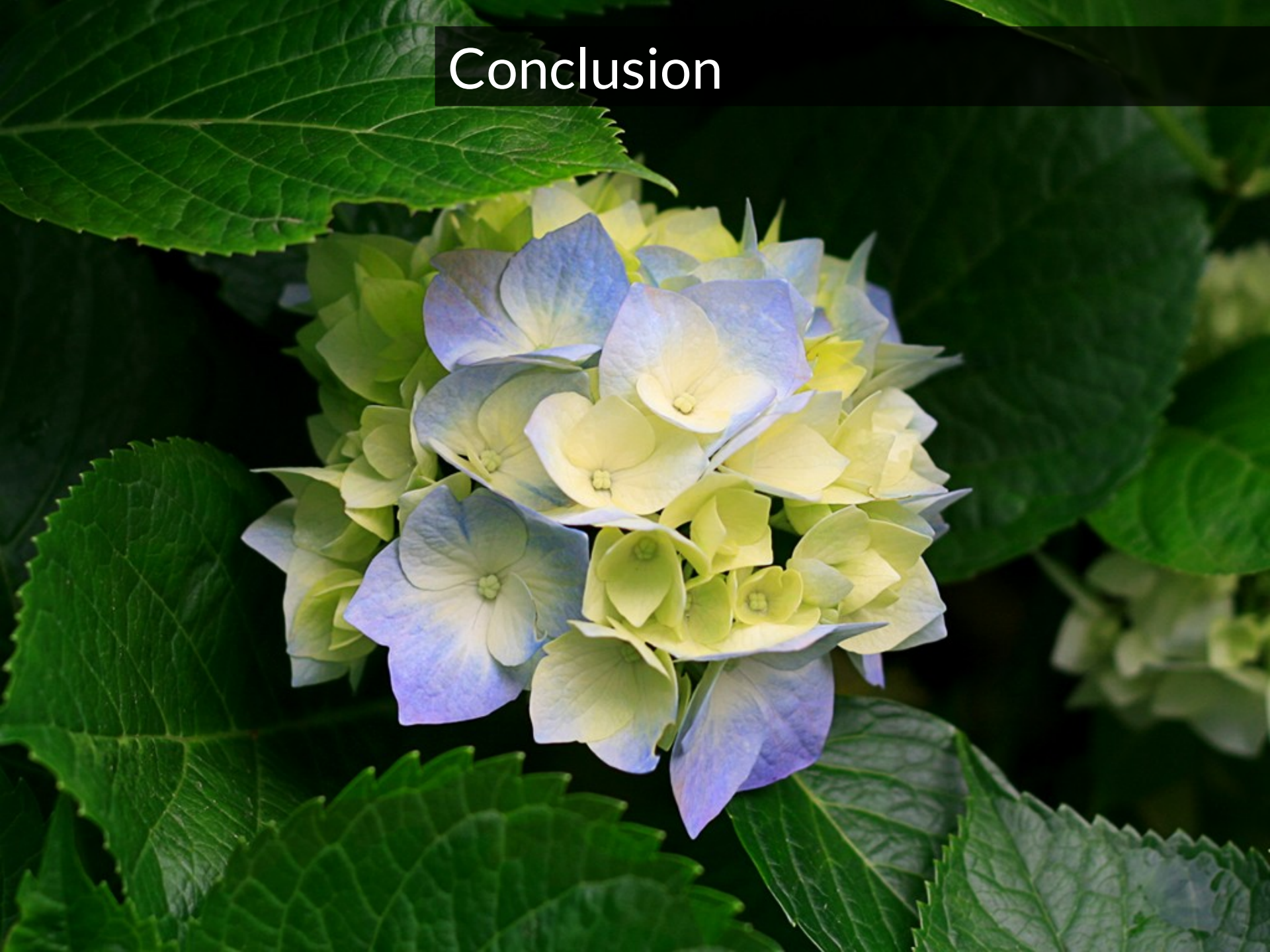
- Intercompany vs Intracompany interwarehouse location
- Real-time valuation : when changing company
- Locations / warehouses are related to a company, but « owner » makes it possible to store something of someone else

Logistic Unit vs. Packaging

- Logistic unit : pallet, box of certain dimensions

- Packaging : how one product can be arranged

Conclusion



Conclusion

> The Odoo Warehouse Management System fulfills the simplest needs in an intuitive way, fulfills complex needs by default and is the platform of choice for development of the most complex needs.

From the announcement of this talk

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Customer References

Used by 2.000.000 users worldwide

Thank You

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