The Utility of Compound Wireless Services*

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* **The ideas presented are protected by a patent application.**

The Utility of Compound Wireless Services

Outline:

1. Introduction & background
2. Some terminology
3. Service categories
4. Examples
5. Build facilities & example
6. Conclusion

The Utility of Compound Wireless Services

1. Introduction & background

1.1. Programming Compound Wireless (Mobile Communication) Services (CWSs)

1.2. The wireless roller coaster ride

1.2.1. Data investment

1.2.2. Voice still the “killer ap”

1.3. Broadway show

1.4. Middletown, NJ

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2. Some terminology

2.1. What if I could create a sequence of services that includes –

2.1.1. Location service - determines present location of a wireless terminal

2.1.2. Traffic information retrieval - retrieves traffic information from state police and other sources for a specified region

2.1.3. Travel route computation - computes the fastest route, based on constraints, between the present wireless terminal location and a designated destination (e.g., airport)

2.2. Fundamental wireless service

2.3. Compound wireless service

2.4. Wireless terminal (for telecommunications)

2.5. Message services (SMS &MMS)

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3. Service categories

FUNDAMENTAL WIRELESS SERVICES

1. Receivethe location of a wireless terminal/ telephone
2. Send/receive a still picture
3. Dial a recorded wireless terminal/ telephone number
4. Send/receive a recorded message; i.e., image, textual, or audible, etc.
5. Receive a traffic report for a region
6. Receive weather information for a region
7. Determine a best travel route according to selected criteria; i.e., fastest, shortest, etc.
8. Receive departure/arrival information for one or more flights; i.e., delay, gate #, terminal Id, etc.
9. Send/receive data to/from sensors for smoke alarms, cameras, etc. (image, textual, or audible)
10. Execute/invoke a service conditioned on a remote event
11. Connect to a prescribed IP service provider
12. Execute/invoke a transaction on the web; i.e., move to a web address, log into a web application, etc.
13. Perform data base activities in a remote computer; i.e., send/receive/edit data to/from a permitted data base

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UTILITY SERVICES

1. Invoke a service
2. Stop compound service
3. Determine if equality exists
4. Determine if inequality exists
5. Determine if greater than
6. Determine if less than
7. Determination of an event
8. Execute a pause
9. Create a parameter
10. Assign a value
11. Overwrite a value
12. Display a value
13. Announce a value
14. Create a data base
12. Store data into a data base
13. Delete data in a data base
12. Perform arithmetic operations (+, -, etc.)

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COMPOUND WIRELESS SERVICES

Compound Services

Built by Subscribers/Users

Compound Services

Made Available By Wireless Service Providers

Compound Services

Made Available By Manufacturers/ Suppliers

Compound Services

Made Available By Third Party Applications Providers

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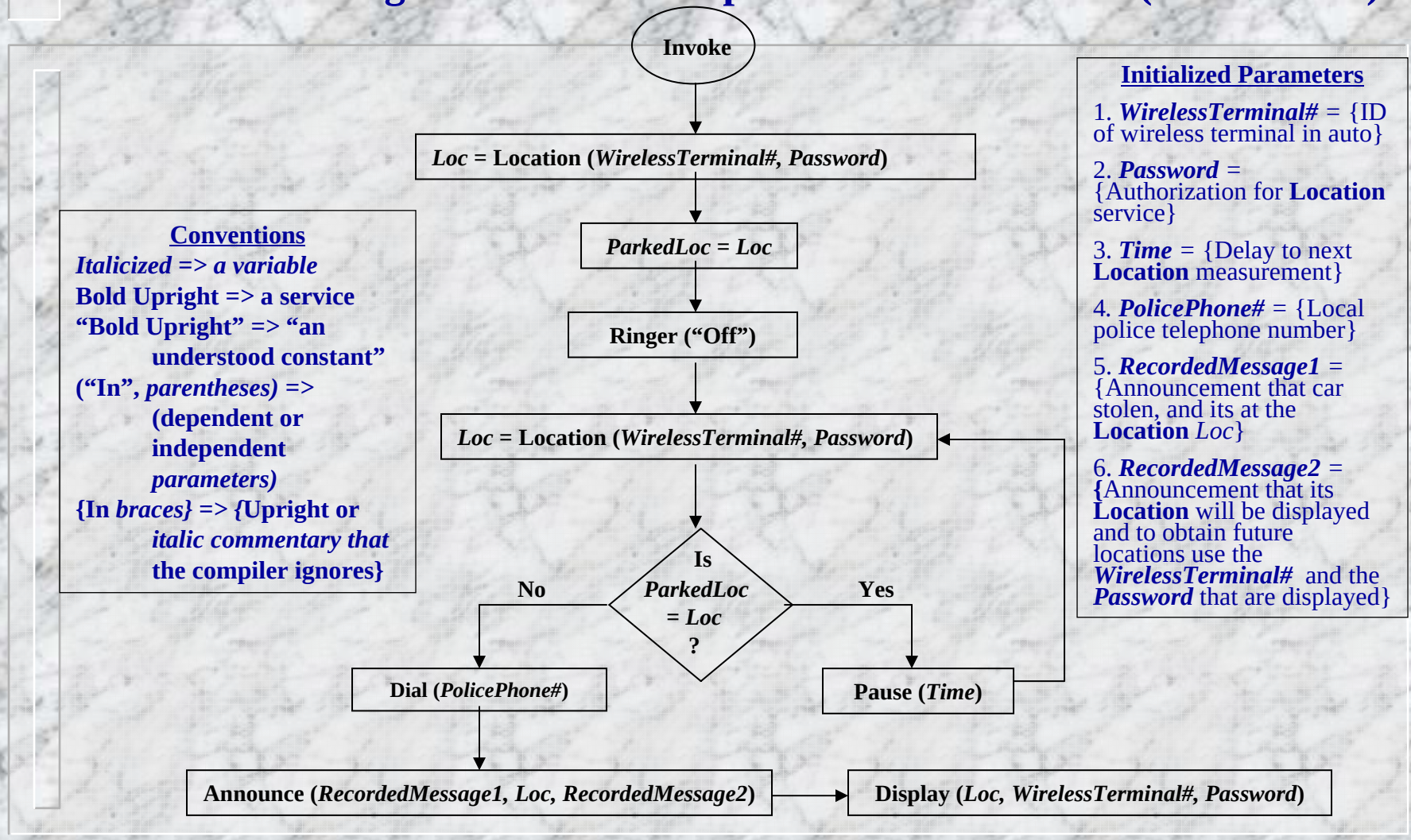
4. Examples

4.1. Police tracking of stolen car compound wireless service (TrkStlnCar).



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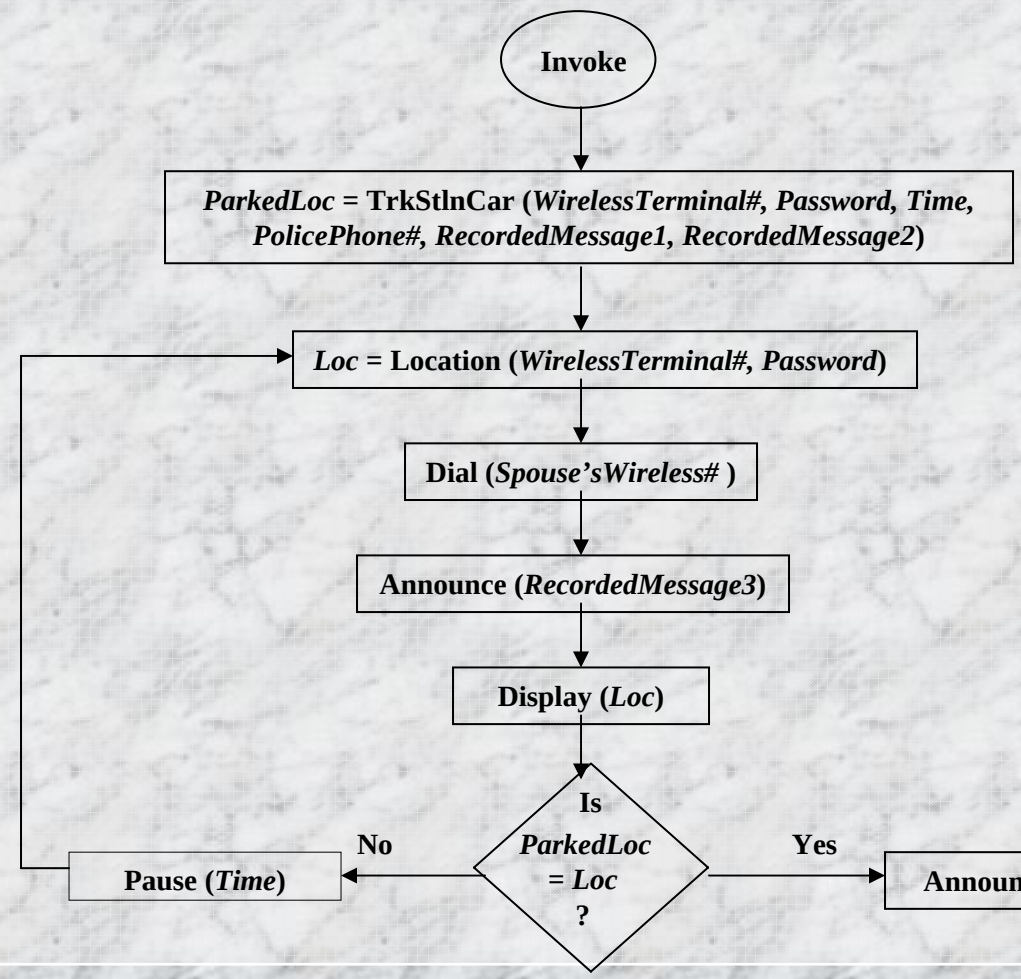
4. Examples

4.2. Embellishments to TrkStlnCar CWS (EmbTrkStlnCar).



Initialized Parameters

1. ***WirelessTerminal#*** = {ID of wireless terminal in auto}
2. ***Password*** = {Authorization for **Location** service}
3. ***Time*** = {Delay to next Location measurement}
4. ***PolicePhone#*** = {Local police telephone number}
5. ***RecordedMessage1*** = {Announcement that car stolen and its **Location** follows}
6. ***RecordedMessage2*** = {Announcement to call following ***WirelessTerminal#*** and provide its ***Password*** to obtain future car Locations}
7. ***Spouse'sWireless#*** = {Spouse's wireless terminal number}
8. ***RecordedMessage3*** = {Announcement of car's present **Location** will be displayed}
9. ***RecordedMessage4*** = {Announcement that car is at its parked location signifying an error}

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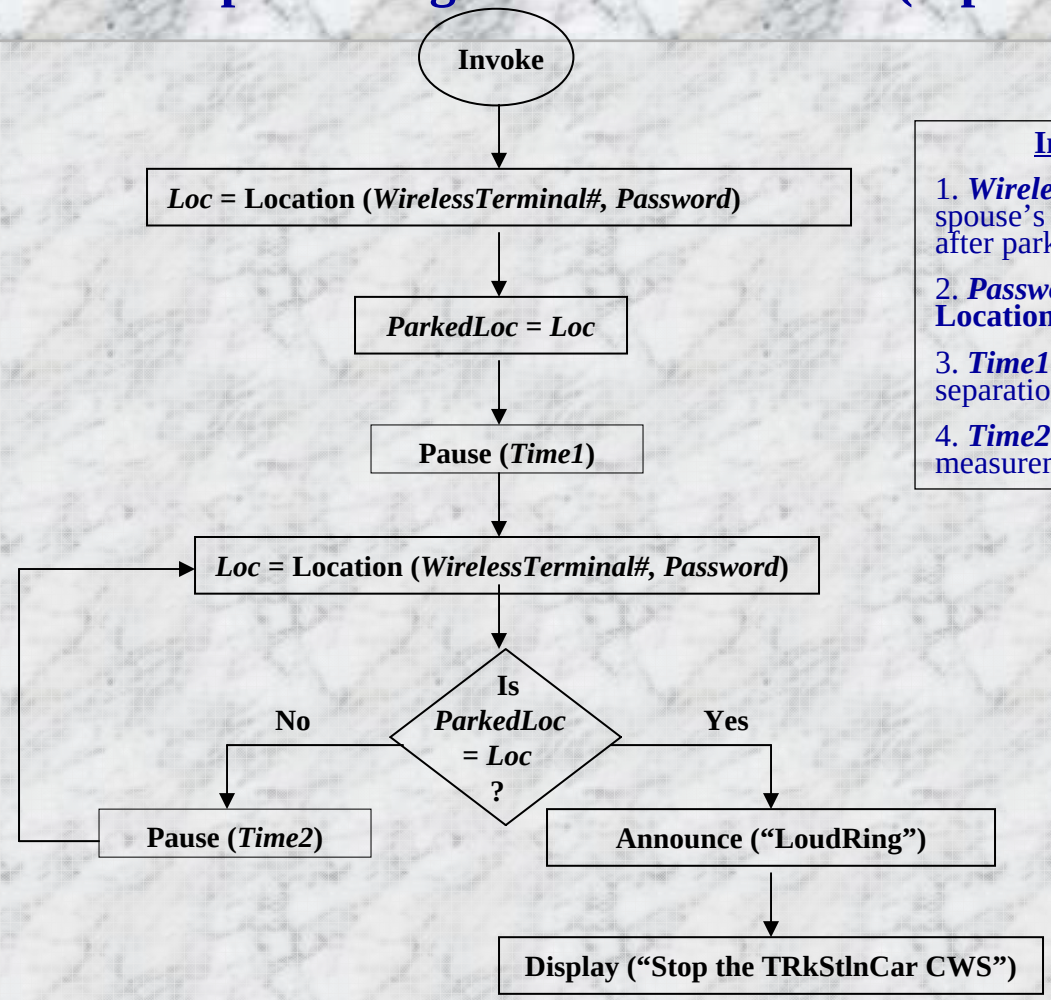
4. Examples

4.3. Reminder to stop tracking of stolen car CWS (StpTrkStlnCar).



Initialized Parameters

1. ***WirelessTerminal#*** = {ID of spouse's wireless terminal to be taken after parking auto}
2. ***Password*** = {Authorization for **Location** service}
3. ***Time1*** = {Delay to allow physical separation from car **Location**}
4. ***Time2*** = {Delay to to next **Location** measurement}

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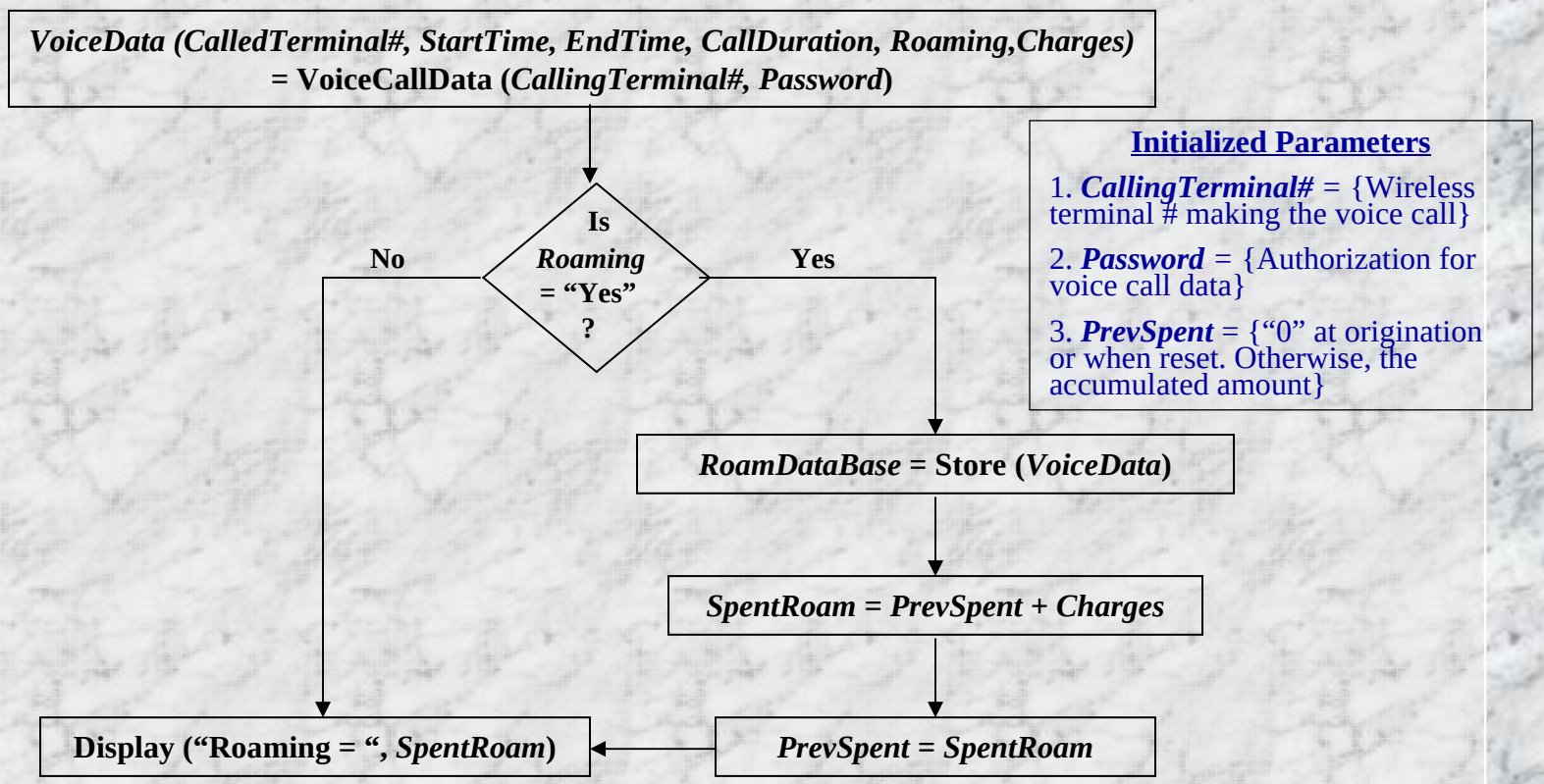
4. Examples

4.4. Roaming charges CWS.



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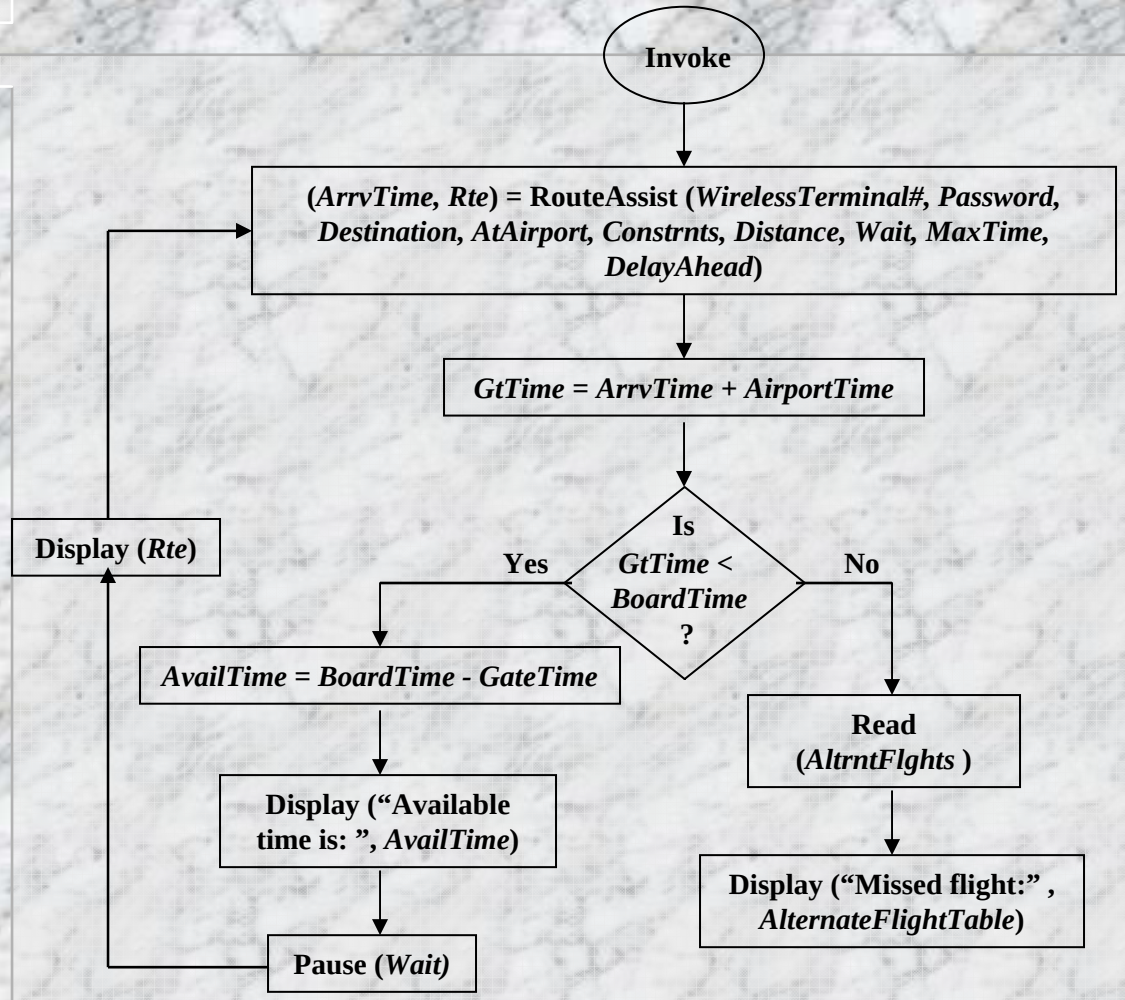
4. Examples



Initialized Parameters

WirelessTerminal# = {Phone # of terminal being carried}

Password = {Permission to acquire location}

Destination = {Location of airport}

AtAirport = {An announcement indicating arrival at airport}

Constrnts = {Constraints applied to route; e.g., quickest route}

Distance = {Permitted deviation from route}

Wait = {Amount of time within a computation loop}

MaxTime = {The latest safe arrival time at the airport}

DelayAhead = {A road delay announcement}

AirportTime={Estimated time from arrival to gate}

BoardTime={One hour before flight time}

AlternateFlightTable= {Alternate flights downloaded by the travel agent}

4.5. Business meeting departure CWS.

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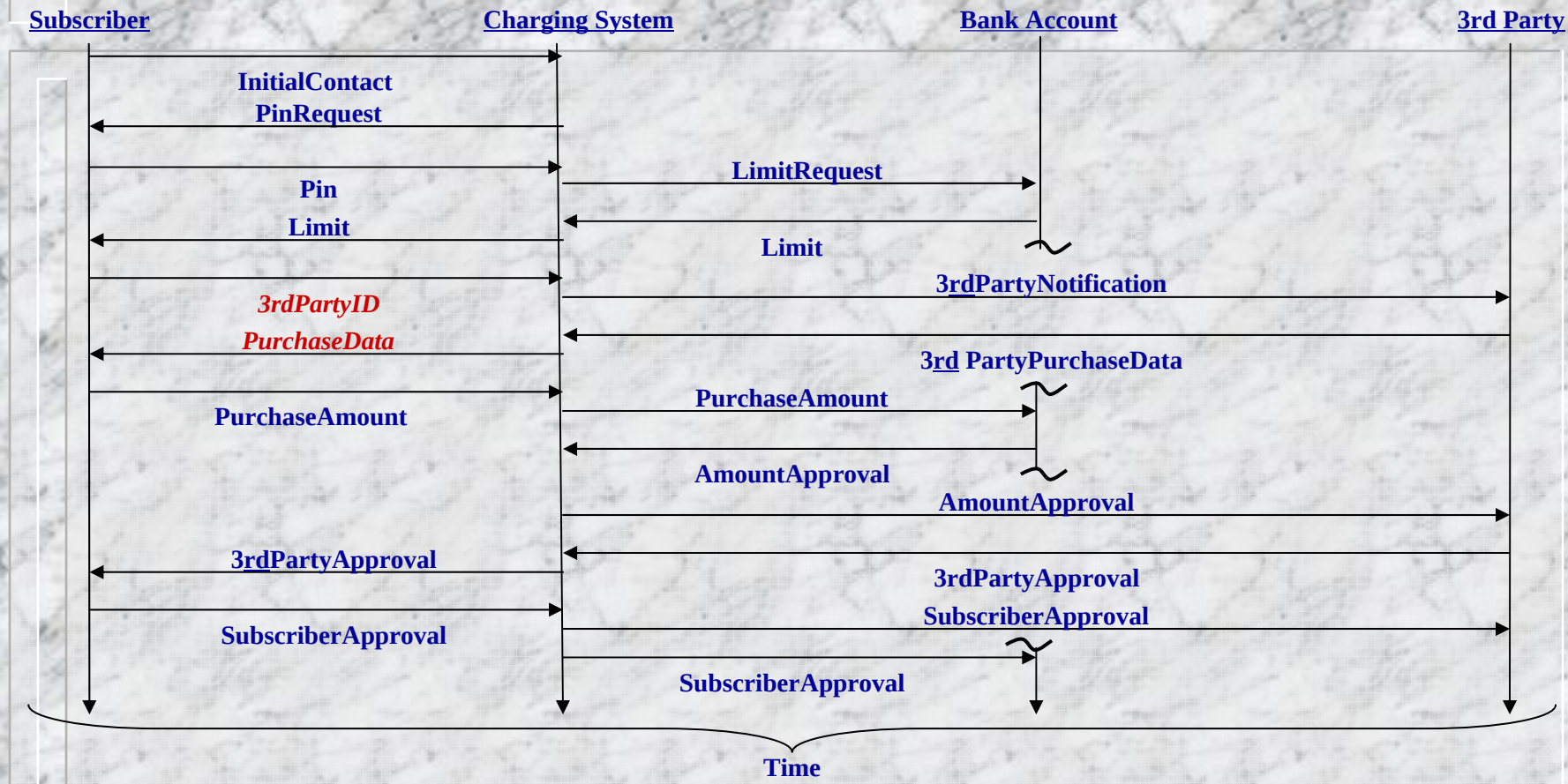
4. Examples



4.6.1. Wireless credit/debit card payment fundamental service (WrlssCrtCrd).

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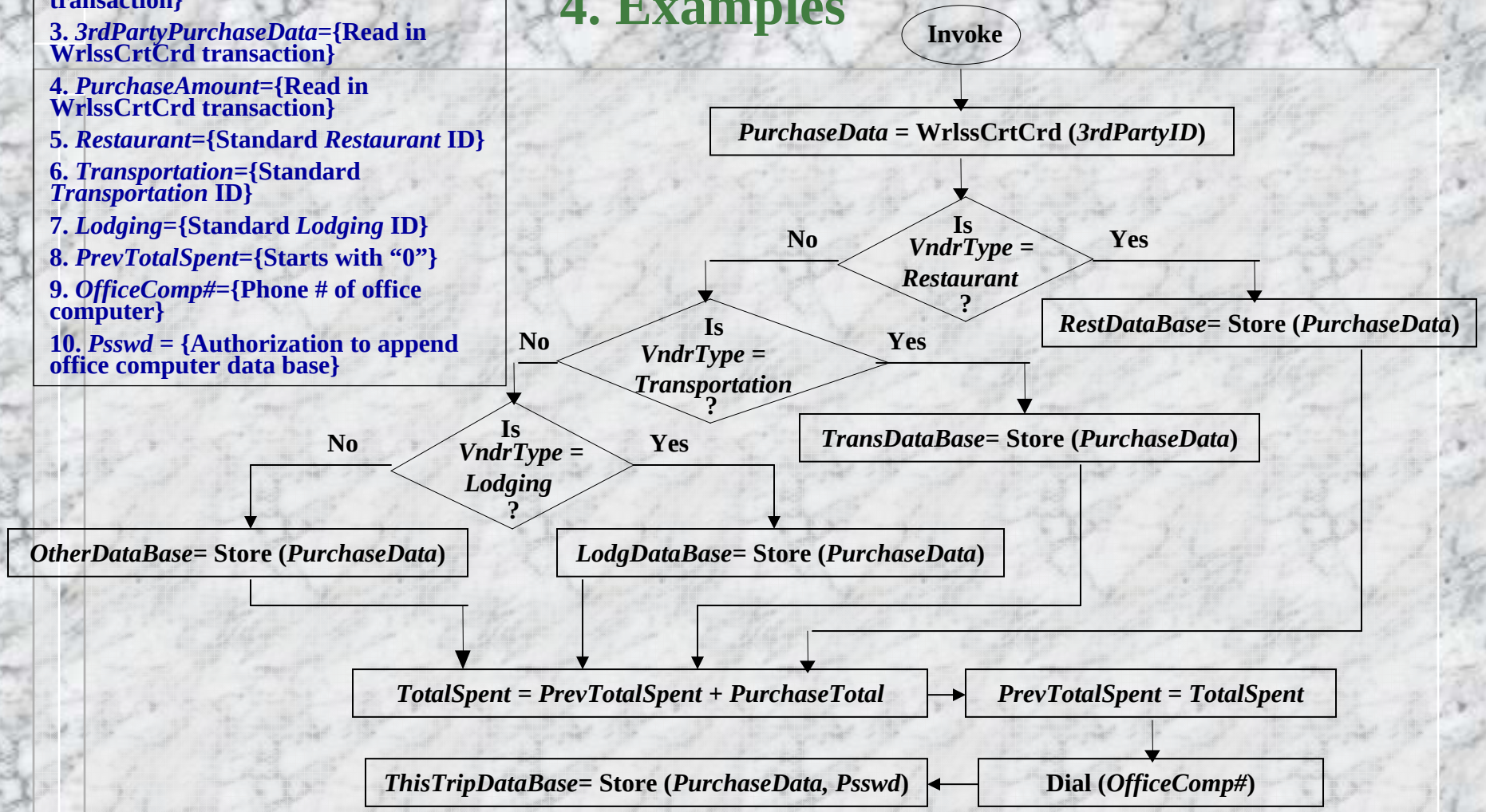
4. Examples

Initialized Parameters

1. *3rdPartyID*={Read in WrlssCrtCrd transaction}
3. *3rdPartyPurchaseData*={Read in WrlssCrtCrd transaction}
4. *PurchaseAmount*={Read in WrlssCrtCrd transaction}
5. *Restaurant*={Standard *Restaurant* ID}
6. *Transportation*={Standard *Transportation* ID}
7. *Lodging*={Standard *Lodging* ID}
8. *PrevTotalSpent*={Starts with "0"}
9. *OfficeComp#*={Phone # of office computer}
10. *Psswd* = {Authorization to append office computer data base}



4.6.2. Expense account CWS.

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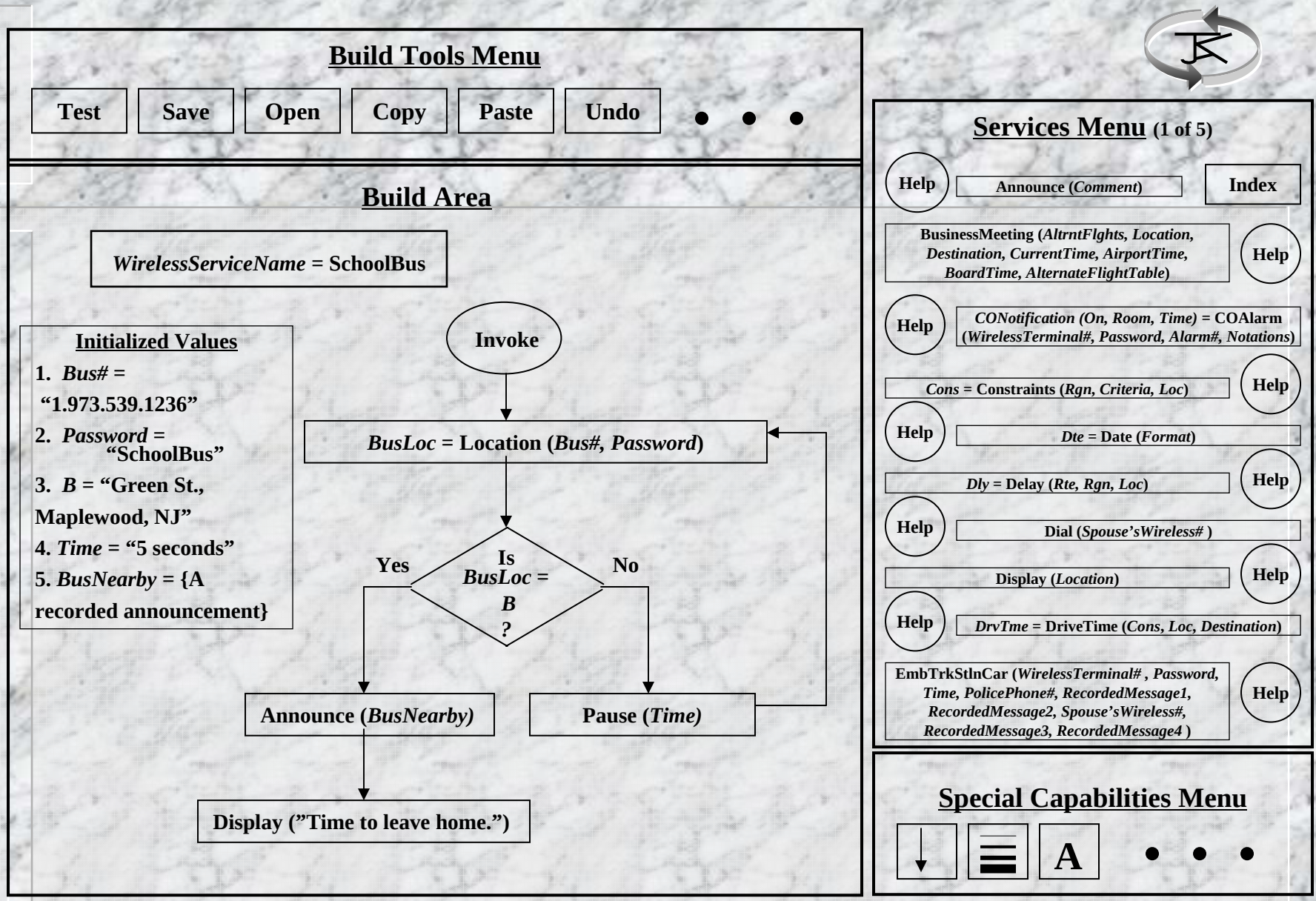
5. Build facilities & example

5.1. Facilities features (select & drag, services menu, special capabilities menu, tools menu)

5.2. PC versus wireless terminal

5.3. School bus compound wireless service



5.4. Build layout for completed school bus CWS.

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6. Conclusions

6.1. Voice still the “killer ap”
6.2. Excess data capacity
6.3. Compound wireless services => data “killer aps”
6.4. Flat rate vs. per use
6.5. Problematic?
6.6. I’d like to hear your ideas --

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