Imagine What’s Possible

Personalization. It’s what builds stronger, longer customer relationships.

Cisco® Connected Mobile Experiences lets you connect to your customers and deliver relevant content that’s personalized for their preferences and real-time indoor location. These experiences are decidedly different in different industries. A shopper in a retail store clearly values a different experience than a hotel guest or hospital patient. The value of Connected Mobile Experiences is the ability to personalize that experience for the customer and provide a business innovation platform to customize the experience by industry.

Following is a sampling of what’s possible with this innovative Cisco technology and the growing ecosystem of third-party app providers. While not all of the apps are built to deliver these capabilities, the essential location data, interfaces, and developers’ tools are. Your imagination is the only limit.

Retail

Customers want personalized service. Cisco Connected Mobile Experiences provides retailers with new tools to analyze individual customers and provide content and services that are both personalized and relevant. This content is based on the customer’s preferences and their real-time context, including location within the store and information requests.

Big Buy Electronics Store

Shopper Facing

- Brian wants to buy an HDTV for his home. He travels to Big Buy Electronics Store where he’s a loyal shopper. When he enters Big Buy, he’s welcomed with a greeting via push notification from his loyalty app on his personal, Wi-Fi-enabled mobile device (such as a smartphone or tablet): “Welcome back Brian. What would you like to find today?”
- Brian types “HDTV” into his loyalty app. The loyalty app presents Brian with a list of five different options:
  - HD TV Home Theater (providing services and sound system — a higher-margin product for the retailer)
  - HD TV for Your Living Room
  - HD TV Recorder
  - HD TV Accessories (such as cables and mounting brackets)
  - HD TV for Your Auto
- Brian selects “HD TV for Your Living Room” and the loyalty app shows him a map and plots his position in the store using a blue dot
- Brian follows the map to the HDTV department
- Once at the HDTV department, the loyalty app automatically detects his location and provides him with a comparison between LED, LCD, and plasma televisions
- Brian decides he’d like the 50-inch LED HDTV. The loyalty app provides him with a list of necessary elements — mounting bracket, cables, and external speakers. The loyalty app gives Brian the information he needs to determine the capacity of the mounting bracket and the cables he needs and suggests he adds them to his next stop on the map
- Brian decides he’d like a particular speaker set. However, there are none on the shelves. An online lookup of store’s inventory shows that there are none in the store, but the loyalty app gives Brian the option to pick it up at another store that is 12 miles away or order online and have it delivered to his house. The app has saved his credit card info in his profile and Brian uses it to arrange for the speaker set to be delivered to his home
- After Brian pays at the register, his loyalty app offers him a free month subscription to his favorite streaming media service and also delivers his receipt on the mobile application
Store Facing

• Using the same technology that enabled Brian to get the help and services he needed, the Big Buy Electronics store is able to make the store layout more efficient and provide an improved customer experience.

• The store continually captures, aggregates, and stores customer paths through the warehouse floor. Beyond the basics of determining the most common paths, the store is also able to take action based on those paths:
  - They can place complementary products close to each other.
  - They can place common, multiuse items at the intersection of the most common paths for customers that use the items.
  - They can offer customized promotions and notifications based on a customer’s current location and movement in the store.
  - They can anticipate lines based on customer movements and move floor personnel to cash registers faster.

• When Brian walks in the front door and fires up his loyalty app, the store adds to its history of Brian and of similar shoppers looking for outdoor lighting. Based on these past histories, the store can determine actions Brian might take next and can proactively provide him with content and personalized promotions.

• Brian was able to get his questions answered using the content supplied by the store. However, if Brian had taken longer, the store could have notified a clerk to go to Brian’s location and answer his questions before he became confused or frustrated.

• When Brian ordered his HDTV, the warehouse was notified. Based on Brian’s location, the in-store traffic, and orders waiting to be processed, the back-office personnel queued Brian’s order to make sure it was at the register at the specified time. The solution can even confirm Brian’s receipt of the transformer by tracking his location and the transaction.

Hospitality

Service is the hallmark of world-class hospitality. Cisco Connected Mobile Experiences enables hotels and resorts to provide the right service at the right time to help ensure a personalized and unrivaled experience for their guests.

Las Vegas Starstruck Resort

Guest Facing

• Katy and Ren arrive in Las Vegas for Ren’s work conference, and they decide to stay a few extra days for some personal time. They are members of the Starstruck Loyalty Club, and when they enter the resort, the Wi-Fi network detects their arrival through location services and sends a notification that welcomes them back to the resort.

• It’s a busy holiday weekend, and there is a long line of travelers waiting to check in. Their Starstruck Loyalty app puts them in a virtual front-desk queue and offers them a complimentary cocktail in a nearby lounge.

• On the way to the lounge, Katy and Ren pass an interactive digital sign with a resort schedule of activities, happy hour deals, and conference details.

• After a few minutes, they are notified that their room is available, and they check in using their phone app.

• As part of the mobile check-in process, they receive a notification with an embedded barcode that they use to bypass the front desk and get their room key from a kiosk. They then proceed to their room.

• As frequent guests of the Starstruck resort, Katy and Ren have saved their preferences to the loyalty app. When they leave the lobby and head to their room, their presence is detected and the room is reset to those preferences. The radio station is switched, and the volume is reset. The automated drapes are partially opened. And the temperature presets are activated. Room service is notified that they are in the room, and extra towels, as per Katy’s usual request, are automatically sent to the room.

• Since Ren is at the resort for a work conference, he receives a notification to his phone from the conference sponsor. The notification loads the conference itinerary and a map of the convention floor and provides directions to locations on Ren’s itinerary. Ren also receives a mobile barcode that he uses to get his badge at the attendee registration table.

• Ren tracks other attendees from his workgroup through his conference app. He can see where everyone is at the conference and when they will meet next. As conference attendees, Ren and his group can access a portal that lets them log in with their work accounts. After authentication, they get automatic access to the Internet for any of their devices and direct corporate access to their work network through the “office extension experience”.

© 2013 Cisco and/or its affiliates. All rights reserved. Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)
• After the conference, Katy and Ren head to the gaming floor for a little predinner
gambling. They typically play craps or blackjack. However, the craps tables are very
crowded and so, upon arrival at the floor, Katy receives an offer for a complimentary
cocktail and $5 in chips at the blackjack tables. Katy and Ren go to the blackjack
tables and scan their smartphone barcode for the chips. A cocktail waitress quickly
arrives with two complimentary mai tais, their favorite
• Ren checks on the availability of dinner reservations through his phone. The soonest
available seating is at Vikingsholm, a Norwegian restaurant. Always up for something
new, they make reservations. When their table is ready, they receive a notification
with turn-by-turn directions
• After dinner, Katy and Ren head back to the gaming floor. As they pass the Tiki Bar,
Katy receives a notification that a new act, The Mambo Kings, is opening in the
lounge, and if they go now, they will get free VIP entrance. They decide to see the
show
• Later, Katy and Ren return to their room. Again, as they enter, the room is reset
with their evening preferences – new radio station, new temperature, and just-right
drapes

Resort Facing
• The Starstruck Resort continually captures, aggregates, and stores the paths most
commonly used by guests throughout the day. Beyond the basics of determining the
most common paths, the resort is also able to take action based on those paths
  - The resort can understand how guests move through the property through time
    (time series analysis)
  - It can determine congested areas and offer incentives to redistribute guests
  - It can project event attendance based on historical guest traffic and provide
    incentives for early arrivals or alternate events
  - It can shift staffing to different gaming tables, restaurants, pools, and lounges
    based on historical trends and current occupancy rate
• When Katy and Ren arrive, the resort is able to detect their loyalty app and, with
their prior permission, push notifications to them. The resort analyzes traffic and
is able to see how many guests are currently in line for check-in. The solution can
streamline the registration process, optimize staffing, and boost customer loyalty by
offering Katy and Ren a complimentary round of cocktails while they wait
• Starstruck uses digital signs to generate additional revenue by offering advertising
space for local and/or conference sponsors
• The solution and its policy engine can differentiate Wi-Fi bandwidth and mobile
digital content – even by location – and provide a revenue stream by charging more
for premium access and by creating personalized and tailored mobile experiences
• Starstruck can generate further revenue through conference or local sponsorships
  that place logos directly on guests’ mobile apps
• The solution can determine when Katy and Ren have entered their room. Accessing
preferences in their profile, the solution can reset the automated systems of the
room to their preferred settings. When Katy and Ren leave the room, the systems
can then be reset to low-energy-consumption settings, providing a personalized
experience and greater energy savings
• While Ren and his colleagues are at the convention, the resort can analyze the exact
number of attendees, the attendee flow patterns through the convention center, and
the time spent at various booths. This information is reported back to the convention
sponsors after the event to help them prepare for future events
• The solution analyzes the traffic patterns on the gaming floor and can help the resort
boost revenues in three ways. First, the resort can use the historical information
to place high-revenue games in the areas with the highest traffic. Second, it can
provide incentives to spread out traffic and maximize utilization of gaming venues.
And finally, the solution can direct guests to different amenities
  • Again, the solution detects that Katy and Ren have taken seats at the blackjack table
    and used their $5 incentive. Based on their profile preferences, a cocktail waitress
delivers their preferred mai tais directly to their seats
  • The solution can analyze traffic patterns in surrounding venues and encourage Katy
    and Ren to try a new restaurant that has availability for additional reservations
  • After dinner, the solution again determines that there is room for more guests in
    the music lounge. Knowing that Katy and Ren prefer music venues, the solution can
    provide them an incentive to attend the venue. After the show, the solution can push
    a discount to encourage Katy to purchase venue merchandise. When Katy wears the
    shirt she purchases, she provides advertising to help boost future attendance for the
    nightclub act
  • The solution detects when Katy and Ren return to their room and resets the
    automated room systems for their late-night preferences

© 2013 Cisco and/or its affiliates. All rights reserved. Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks.
Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)
Airports and Transportation

Experienced travelers have long said that the journey is the reward. Cisco Connected Mobile Experiences enables transportation systems to transform the travel experience from a simple layover to a highly personalized experience that rewards travelers with more value for their time.

Estland International Airport, Eastland

Traveler Facing

• Johann arrives at the Eastland International Airport for a flight to Europe. Upon entering the terminal, his airline loyalty app automatically offloads him from the 4G cell network to the airport Wi-Fi and then greets him. The app informs Johann that there is a line at the check-in counters and offers him complimentary curbside baggage dropoff.

• After dropping off his luggage, Johann checks the status of the airport security lines. He sees that the line in Terminal B has the shortest wait. He clicks the airport map and gets directions to the line.

• Before Johann reaches his gate, the airline loyalty app informs him that his flight has been delayed. Because the delay may be lengthy, he is offered free access to the VIP club with 50 percent off business services. Johann clicks the map and gets turn-by-turn directions to the club.

• As dinnertime approaches, Johann checks the airport directory for the wait times at nearby restaurants. The Cranky Clam has no wait, and Johann is partial to seafood. He gets turn-by-turn directions to the seafood and chili café.

• During dinner, Johann receives notification that his gate has changed and a new departure time has been assigned. Johann is about to order dessert when the app notifies him that boarding is about to start. Johann pays the tab and uses the map to quickly navigate to the new gate.

• When Johann arrives at the new gate, his airline loyalty app offers to contact Johann’s destination hotel to notify them of his late arrival and to reschedule his van pickup.

Airport Facing

• The Eastland International Airport continually captures, aggregates, and stores passenger paths through the airport. Beyond the basics of determining the most common paths, the airport is also able to take action based on those paths:
  - They can determine congested areas and adjust airline schedules to spread out the crowds.
  - They can project terminal crowds based on historical passenger traffic and adjust staffing to accommodate more passengers.
  - They can provide shop and restaurant incentives to departing passengers to increase revenue.

• The airport solution detects Johann upon his arrival. Analyzing current congestion, the solution can determine which option will speed Johann’s check-in process and best alleviate crowding at the ticket counters.

• The solution’s real-time analytics make it possible to provide accurate information about wait times. The indoor location capabilities show Johann the best route to the shortest line.

• Because he opted in, the airline loyalty app can push flight status to Johann. When there is a delay, the solution proactively communicates with Johann so he doesn’t get frustrated by having to wait at the gate. The app can also determine the current number of members in the VIP club and can offer Johann access without causing overcrowding. In addition, the app can push an offer of business services to increase potential revenue for an underutilized service.

• The airport solution can continually analyze crowding and provide Johann with information that spreads the crowds out and boosts more effective utilization of all airport facilities.

• When there is a change in flight status — including departure time and gate — the loyalty app can proactively push a notification to Johann to minimize the number of passengers who arrive at the gate late and delay departure.

• By understanding that Johann has checked in but is not at the gate, the loyalty app can send a reminder so that Johann doesn’t miss his flight or hold up departure.

• Detecting that Johann has arrived at the departure gate, the loyalty app offers to alert Johann’s destination hotel — one of the airline’s travel partners — of his late arrival. The added service boosts Johann’s loyalty for the airline and the hotel.
Healthcare
Satisfied patients tend to be happier patients. Cisco Connected Mobile Experiences enables healthcare providers to personalize patient care, streamlining the care delivery process for greater efficiency while making patients happier with the experience.

Pleasant Valley Sunday Hospital

Patient Facing
- Roger arrives at the Pleasant Valley Sunday Hospital emergency room after injuring his wrist in a softball game. He’s been a longtime patient of Pleasant Valley and uses its smartphone app for most of his medical needs. When he arrives at the ER, the app greets him by name and offers an online form for check-in
- While Roger waits his turn, the mobile app offers him extended bandwidth so he can watch videos while he waits. Within 15 minutes, he is called to a treatment room. Inside the waiting room, Roger’s video stream is terminated so as not to disrupt medical treatment
- The doctor arrives and examines Roger’s wrist. He suspects a small fracture and prescribes an x-ray. The order is electronically sent to radiology
- Roger follows the app’s interactive maps to radiology. His presence is detected and correlated to the doctor’s orders. Roger is offered the option to check in using his app. Again, while in the waiting room, Roger can access premium bandwidth and is offered a tutorial video on wrist fracture treatments
- After 15 minutes, Roger’s wrist is x-rayed. The results are electronically transferred to the doctor
- Roger follows the online app’s interactive maps back to the ER, where he is greeted again and placed into the follow-up queue
- The doctor sees Roger again and, as suspected, informs Roger that he has a slight break in his wrist. The doctor applies a wrist splint and prescribes pain killers. The order is electronically sent to the pharmacy
- Roger receives a notification that his prescription is ready, and he uses the mobile app’s interactive maps to navigate to the pharmacy
- As he leaves the pharmacy, Roger is sent a notification to schedule a physical therapy appointment for a month later

Hospital Facing
- Pleasant Valley Sunday Hospital continually captures, aggregates, and stores patient and staff routes through the medical facility. Beyond the basics of determining the most common paths, the hospital is also able to take action based on those paths
  - They can determine congested areas and offer incentives to redistribute patients and medical resources
  - They can project ER patient flows based on historical traffic and schedule staff accordingly
  - They can track patients to minimize wait times, minimize the risk of overlooking a patient, and ensure faster response to medical emergencies, should a patient experience a medical event between facilities
- Pleasant Valley’s online app detects Roger’s arrival at the ER. After analyzing his profile, the solution determines that he doesn’t have an appointment and, other than frequent sports injuries, has no outstanding health issues
- The solution analyzes the number of patients in the waiting room. It’s a crowded Saturday night, so the solution is able to streamline Roger’s check-in process using his existing profile
- Wait times for patients are monitored to ensure that no one gets forgotten in the waiting or treatment rooms
- The solution’s interactive maps make it easier for Roger to navigate to the other facilities within the hospital, such as radiology and the pharmacy. He’s satisfied with the quality of care because there are fewer delays due to late-arriving patients
- By tracking the movements of patients, including Roger, through the entire facility, Pleasant Valley is able to adjust patient flows, medical resources, and staffing to minimize waits and medical risks. If a patient is late arriving at a facility, staff can be dispatched to ensure that the patient is all right

Higher Education
Every student is an individual. Cisco Connected Mobile Experiences honors that difference and enables higher education institutions to provide services that are as individual as the students themselves.
North Ipswich Township Western Institute of Technology

Student Facing

- Janet, a senior technology student, is attending a lecture on physics at North Ipswich Township Western Institute of Technology. As a forward-looking university, it has issued all students tablets, and the professor is presenting his lecture by broadcasting wirelessly to those tablets.
- At the conclusion of the lecture, Janet leaves the hall. The video feed is immediately disconnected, and the tablet’s text capabilities are enabled. She receives a note from the administrative offices asking her to clear up a question about her pending graduation.
- Upon entering the administrative offices, Janet is granted access to her student file. She shares her student record with the counselor and clears up the outstanding question.
- Heading to the student union, Janet receives a notification from the Fighting Nitwits football team. It’s nearing kickoff with a crosstown rival, the South Harbor Sludge, and tickets are still available. Janet buys a ticket and charges it to her student account.
- At the stadium, Janet checks her tablet to see which of the entrances has the shortest line. She veers right to the east entrance. Once inside, she uses the interactive maps installed on her tablet and navigates to the seat she just purchased.
- In the rush, Janet forgot to eat lunch, so when she receives a notification that stadium concessions are offering 30 percent off nachos in the west club, she’s all in. She orders a double portion of nachos and pays for the meal using her student account. She uses the interactive maps to navigate to the club and picks up the nachos at the pickup counter.
- The Fighting Nitwits win big, scoring 63 points. Spanky’s Pizza, a team sponsor, gives a free small pizza to everyone attending the game when the team scores more than 50 points. The pizza restaurant wirelessly sends a barcode coupon to everyone in attendance.
- Looking forward to sharing the victory with friends, Janet checks her friend-finder app and sets up a meeting outside the stadium. Janet, now with five friends, checks her tablet to see which of the on-campus restaurants has seating for six.

Educational Institution Facing

- North Ipswich Township Western Institute of Technology continually captures, aggregates, and stores student and staff paths through campus and buildings. Beyond the basics of determining the most common paths, the university is also able to take action based on those paths.
  - They can determine congested areas and schedule classes and events to stagger traffic through the choke points.
  - They can estimate student flows based on historical traffic and schedule staff accordingly.
  - They can make information or content available only where it is needed.
- Using an app loaded on all university-issued tablets, the institution is able to determine Janet’s location. She can access the lecture when she’s in the lecture hall. Video feeds are terminated outside the hall to make sure only enrolled students can access the material. Similarly, email and text notifications can be turned off so as to eliminate the potential for interruption during class.
- Using location and student profiles, the institution is able to give Janet access to lecture content in the lecture hall and student records in the administrative offices — but nowhere else. Professors and administrative staff have different permissions.
- Janet’s club memberships and activity preferences are stored in her profile. Using this information, the university can send Janet information about activities that interest her. This keeps Janet engaged in the school and can make sure underattended events, such as today’s football game, can be promoted in real time.
- By tracking the tablet’s Wi-Fi signals, the school is able to determine the most crowded locations on campus and can route students to other entrances to better utilize staff and facilities. In case of emergency, the institution can also determine where staff and students are and can deploy personnel to ensure their safety.
- Using the interactive maps, the institution is able to help students navigate to locations they may not be familiar with, including new classrooms or facilities.
- Campus concessions are able to determine overstocked products and can push promotions to nearby students to help boost revenue and minimize wasted stock. Similarly, team sponsors can push coupons and services to students based on their location and, with permission, preferences.
- Location services enable Janet to determine the location of her friends and to identify a central meeting place for everyone.
Government

Effective government is built upon the shoulders of individuals. Cisco Connected Mobile Experiences enables local, state, and national government agencies to empower the citizens they serve with individualized service and content based on personal needs.

First Circuit National Court

Citizen Facing

- Sandy and Stuart are the plaintiffs’ lead attorneys in a product liability suit to be tried in First Circuit National Court. Upon arriving at the court, they see a sign notifying them of free, on-premises Wi-Fi. Stuart logs in to the Wi-Fi network.
- Across the bottom of his web browser, Stuart sees a banner providing several mobile service options while he is at National Court. Stuart clicks “Today’s Schedule” and finds the courtroom and time where he and Sandy are supposed to present. He sees that their opening arguments have been delayed by 30 minutes.
- On the banner, Stuart sees an icon for an interactive exhibit of key cases decided in the First Circuit National Court. Using his smartphone, he downloads the exhibit map and follows the exhibit map. At each display, he and Sandy receive a push notification, via the interactive app, that offers commentary on the content.
- When it is time to proceed to the courtroom, Stuart clicks the schedule icon and selects the “map to location” option in his browser. He receives turn-by-turn directions to the courtroom. Once inside, Stuart is provided access to the in-room video link so he can share a presentation during his opening arguments.
- Before Sandy and Stuart present, the defense attorney requests a delay. All three lawyers go to the judge’s chambers; using the court’s online scheduling app, they pick a new court date for two months later.
- Stuart and Sandy use the interactive map for turn-by-turn directions back to the lobby.

Court Facing

- First Circuit National Court can continually capture, aggregate, and store visitor paths through its courtrooms, administrative offices, and judges’ chambers. Beyond the basics of determining the most common paths, the court is also able to take action based on those paths:
  - They can determine congested areas and schedule security and trials to stagger traffic through the choke points.
  - They can determine resource use based on historical traffic and schedule staff accordingly.
  - They can make information or content available only where it is needed.
  - They can combine data from several locations spread throughout the National Court system.
- The solution detects the presence of Stuart and Sandy as well as the attributes of Stuart’s smartphone. Sensing that his smartphone has no embedded Mobility Services Advertisement Protocol (MSAP) client or loyalty app, the solution uses a browser-based approach to communicate the availability of local services.
- From a banner inserted in Stuart’s browser, the court can provide access to interactive schedules, maps, mobile apps, and other court resources. The interactive schedules include real-time updates and interactive mapping.
- The web banner provides an app that enables Stuart and Sandy to view a display of historical court cases. Not only can the app provide content based on the art Stuart and Sandy are viewing, it can also track their dwell times and clicks to determine which of the displays get the most views and interest from all visitors. As a result, the court can determine which stories are most interesting to visitors.
- The mobile app can determine that Stuart accessed the schedule of events on the web banner and that he is still on the premises. When the event that Stuart selected is ready, the court can push a notification to Stuart but can avoid pushing one to someone who accessed the list earlier but is no longer in the building.
- The mobile app can determine where Stuart and Sandy are and can grant them access to content that is pertinent to that location. In this instance, Stuart can be granted access to the presentation system in the courtroom where he is scheduled to present. The access can be terminated as soon as the location changes.

For more information, visit www.cisco.com/go/cmx.