

TRAINING GUIDE

Tablet: Cradle to Mobile Offline

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Tablet Cradle to Mobile - Offline

The Android tablet application supports a disconnected mode that allows data to be taken offline, collected and edited, and synced back to the server when a connection is available. Full functionality discussed in this section is only available for customers with Lucity 2014r2 and who are using the latest release of the Android Tablet application.

Contents

User Interface - Going Disconnected	2
Example 1	
Example 2	4
Going Offline	5
Work Orders and Requests Offline	6
Adding new work orders and requests	6
Editing Data Offline	
Parts Inventory Prompting	9
Error handing and resolution	10
Conflict Resolution	10
Documents while offline	11
Inventory and Inspections Offline	11
GIS Offline	11
Troubleshooting or inspecting offline data status	13
Configuring for Offline Mobile Use	14
Views/Data	14
Configuring what data is potentially available to offline users	14
Configuring how often your users get updates	15
Performance Considerations	16
GIS	18
Configuring Feature Services	18
Tile Caches	20

User Interface - Going Disconnected

When a user goes offline, the tablet application downloads a cache of all of the inventory data so that it is available while the user is offline. The tablet application also reviews the user's dashboard for any Work Order or Request data that is marked for offline use and downloads that as well.

Downloading and processing the inventory datasets for offline use can be time consuming depending on the processor on the tablet and therefore is optimized to only download updates when needed. The following diagrams show some example workflows:

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Example 1

Tablet User #1 does not need current inventory data. The data will download the first time and may not download again for a month or 3 months or even a year. The system knows this based on his login. It will check each time he goes offline but if he does not need an update, it will not download an update to the inventory data.



Example 2

Tablet User #2 is working on a project where he needs weekly updates to the Parks dataset on his tablet. All data will download the first time. The system will check each time he goes offline to see if the Parks dataset is older than 1 week. If it is, it will download it when he goes offline.



Going Offline

To go Offline, click the "Go Offline" button on the dashboard. This will start downloading data from the mobile server including a cache of inventory data as well as work order and request data that was marked for offline use on the user's dashboard.

Going Offline
In order to work offline you'll need to download data locally
*
10%
Downloading Data Chunks (This may take a while)
Cancel

Downloading Offline Data	
 ✓ Electric ☆ Storm Skip Sewer Common Work Water Park Stroot 	
Cancel	Skip Remaining

- There are several stages of download, it downloads the Work Order and Request data live from the server
- It persists this to local disk
- It downloads some setup data like the relationships between categories and work flow setup codes
- It downloads cached inventory datasets (these are not live; they are cached at 2a by default). It only downloads these if the setup indicates that they are needed (or that an update is needed) for the current user.
- It clears existing data that should either no longer be accessible or that is being updated.
- It writes the cached inventory datasets locally to disk (this is the most time consuming portion of the sync and the speed of this task is strongly affected by the tablet hardware). The best performing tablets seem to the Nexus tablets.

The data that is downloaded includes views, forms, picklists, work orders, requests, and inventory data. No inspections are downloaded.

It is possible to skip downloads to save time. If the Work item is not allowed to download, it will not update the work views. If there is not an existing set of work view data already downloaded to the device, work orders and requests will be un-useable in the field.

When everything successfully downloads, the dashboard changes to show a "Go Online" button:

S S S S 🔤 🖬 🛟 🗅	Sooard (Offline)	So online Mark Modules	22 AM
Offline	Open Work Orders and Requests		
	All Requests entered this month (18) Park Work Orders (30)		
		O Items Ready for	Save
		ţ)	\sim

Only dashboard items that are marked for mobile offline use will appear in the dashboard. Currently mobile offline dashboard only supports data drills and asset trees. In Lucity 2015 SPO and earlier, only Work Orders and Requests are supported and only data drills (no asset trees).

Once offline, it is not possible to log out or to change clients. Users can exit the app. Re-opening the app opens it in offline mode and does not require a password. It is recommended that tablets be configured with lock screen passcodes to protect data.

The data that is downloaded as a part of the offline cache can range from 500MB to several GB depending on the size of the data on the server and what programs are configured to download to the device. We recommend allotting at least 1 GB for each primary Lucity system that will be on the device (Sewer, Work, Water, Parks, Streets, Storm, Facilities/Fleet/Equip, Electric, GIS). These data caches are shared across users on a device. (Note: GIS offline maps are not shared; however GIS Tiled caches can be shared if they are side-loaded).

Work Orders and Requests Offline

Existing work orders and requests are only accessible from the dashboard. It is not possible to access this data from the modules menu. Work Orders and requests can be added through a view launched from a data drill, or from a view launched from the modules menu, or from GIS.

Toolkits and the Create Work Order and Create Request view buttons are not supported offline. Picklists for work order assets in the work order and request and PM forms are also not currently available offline (although the asset data can be manually entered if the user knows the asset id).

Adding new work orders and requests

Adding Work Orders and requests offline is very similar to online. Most of the custom business logic and defaulting does not occur until the data has been saved to the server, however. For example, if a

user selects a problem with a default task, that default task will not be automatically populated while offline. The user can either manually select the task or leave it blank and it will populate when the work order is pushed online.

Park Work Orders			🛅 📀 🔍	E
ark Work Orders				
PrivateID:	Work Order #:	Category Text: Park Court	Main Task Text:	
Address:	Street Name:	Problem Text: Miscellaneous Problem	Reason Text:	
Lead Worker Text:	Assigned Crew Text:	Supervisor Text:	Status:	
Status Text:	Status Date:	Start Date:	End Date:	
Comment Fromact 2014 sd Request:				
PrivateID: 8773	Work Order #: 2014-00874	Category Text: Park	Main Task Text:	_
Address:	Street Name: AMBER	Problem Text:	Reason Text:	
Lead Worker Text:	Assigned Crew Text:	Supervisor Text:	Status: 2	
Status Text: New Work Order	Status Date: 07/31/2014	Start Date:	End Date:	
Comment From				
Bequest:				

This work order was added offline from the Parks data drill:

Once added, the work order is automatically added to the Parks data drill (even if it does not meet the criteria for that drill, the offline app does not have enough info to know this). However, the count on the Parks drill is not updated. The count will continue to show the original server side accurate count at the time of download. The work order is also added to the work orders collection accessed from the Modules menu. The new work order will continue to be displayed in the data drill and in the modules menu until the user goes online, then goes offline again. At that point, the work order will no longer appear in the modules menu and will only appear in the data drill if it meets the criteria defined on the server for the data drill.

Notice that the text for records added offline are green.

Continuing on creating this work order, one task and one material were added. The task start and end dates were populated, the resources start and end dates were left blank.

⟨ ⊣ ⊢ Tasks			•	Q	Q,	:
<u>Park Work Orders</u> > <u>New</u> > Tasks						
PrivateParentID: Task Text: Bee Problem ER # of Units:	PrivateID: Start Date: 08/25/2014 Actual Labor Hours:	Seq No: End Date: 08/25/2014 Task Supervisor Text:	Ta Ui	ask: ERB DM:	U05	
Aterials			b	Q	Q,	
Park Work Orders > <u>New</u> > <u>Tasks</u> >	<u>New</u> > Materials					
PrivateParentID:	PrivateID:	Material: pkmsc	Material T	ext: Park Miso Mat	cs - cellanec erials	ous
UOM: Resource Comment:	Units: 5	Unit Cost:	Total C	ost:		
Notes:						

Going back to the dashboard, the dashboard will show how many items are offline and need to be saved to the server due to changes made. In this case, there are 3 (the work order, the task, and the material resource).

🗕 🛟 🖾 🖾 😸 🔁			💐 🛜 📕 10:40 AM
Lucity Mobile - Dash	board (Offline)		MAP MODULES
Offline	Open Work Orders and Requests		
	All Requests entered this month (18) Park Work Orders (30)		
			3 Items Ready for Save
		Ų	\sim

Clicking the "3 Items Ready to Save" button will push these changes to the server (but will not download any new data from the server).

Once the data is pushed to the server, the dates on the material are populated on the server based on the task dates (along with unit of measure and other defaulted values based on the data entered on the forms).

Even if the work order or request does not meet the user's dashboard criteria, the offline work order will remain available to the user since the user has not gone back online.

Editing Data Offline

Editing data offline is very similar. The following work order was edited while offline. The text for work orders with offline edits is blue:

Park Work Orders			2	0,	1
Park Work Orders					
PrivateID: 8792 Address:	Work Order #: 2014-00893 Street Name:	Category Text: Park Court Problem Text: Miscellaneous Problem	Main Task Text: Reason Text:		
Lead Worker Text: Status Text: New Work Order Comment Fromact 2014 sd Request:	Assigned Crew Text: Status Date: 08/25/2014	Supervisor Text: BRIAN LEWIS Start Date:	Status: 2 End Date:		
PrivatelD: 8773 Address: Lead Worker Text: Status Text: New Work Order Comment From Request:	Work Order #: 2014-00874 Street Name: AMBER Assigned Crew Text: Status Date: 07/31/2014	Category Text: Park Problem Text: Theft Supervisor Text: Start Date:	Main Task Text: Reason Text: Status: 2 End Date:		

After editing a work order, the dashboard shows 1 item ready to save:



This offline edit can be pushed to the server by clicking this button, or the data will be pushed to the server when the user goes online by clicking the "Go Online" button on the dashboard. Since going back offline again can take a few minutes, the user is warned before going online:

You are about to go back online. Are you sure you want to continue?	
No	Yes

In this case, the user's work orders (and requests) will be pushed online and when the user later goes offline, the requests and work orders will only be available if they meet the criteria in one of the user's data drills.

Parts Inventory Prompting

If adds or edits in materials and fluids require information about where parts should be taken, users will be prompted to select a warehouse when taking records online.

Items Requiring Attention			
Tap an item in the list to resolve the issue. If you wish to discard your changes for a given record tap the X icon on its left.			
X Work Order Resources - Materials Add			
Cancel Retry			

Selecting the material will open the materials form and will display a prompt



So the user can select a part location.

Notes:____

Error handing and resolution

Errors are handled in a similar manner. When a user error is encountered that cannot be caught offline (like breaking a rule with end date and start date), the Requires Attention dialog will include the relevant record. When the user taps on the item it will open the form for the user and show the error:

Cannot save, object is invalid: WorkOrder (2014-00897):	
WorkOrder Task (BSENG Blue Stake Inquiry from an	
Engineering Firm): WorkOrder Employee Resource (BRIAN ADKINS Employee): Start date can not be after end date	
Abrino Employee). Start date carnot be alter end date.	

The user can fix the error and click save. To continue reviewing any remaining conflicts, navigate back to the dashboard.

Conflict Resolution

If two users edit the same data on the same record, a conflict can occur. These also appear as items requiring attention during the online push.

Items Requiring Attention		
Tap an item in the list to resolve the issue. If you wish to discard your changes for a given record tap the X icon on its left.		
X Work Orders 2014-00897		
Cancel	Retry	

A dialog is displayed allowing the user to choose how to handle the conflict:

Conflict Resolution				:
The record you changed was also changed by someone else.	We attempted to merge your changes but the red fields we	re in conflict. Please select which values you'd like to use, then	n press save.	
Work Order #: Status: Status Date:	Nicole 2014-00897 (2) New Work Order 08/26/2014	Nicole 2014-00897 (2) New Work Order 08/26/2014		
Status Time:	12:19 AM	🗹 12:19 AM		
Category: Document Available: Problem:	(01000) Admin false (CSINFOADM) Info - Administrative	(01000) Admin false (CSINFOADM) Info - Administrative		
Main Task:	(CSINF001) Info Calls Solid Waste	(CSINF017) Gate Arrivals		
Comment From Request:	_			
Cause:		🗹 (04) Road Call / Drive Up		
Assigned By: Assigned Date: Assigned Time: Assigned Cirew:	08/03/2014	08/03/2014		
Supervisor:	(140) SHANE HARPO	(140) SHANE HARPO		
Priority: Account #: Proj No - Acct: Project Text: Start Date: Start Time: End Date: End Time: Override Problem: Override Vordue: Override Casteride Override Casteride Override Casteride Override Casteride Override Casteride Override Casteride	false false false false	(5) To Fit Schedule false false false false false		

Place a check next to the value you want to keep and click Save.

Documents while offline

Documents can be attached to new or existing records while offline. Existing documents are not available while offline.

Attaching documents works the same offline as online. Unlike the online version however, documents added offline require a description entered by the user.

Documents added offline are available during the current offline session for all modules.

1 🗕 📑 🚱 ⊾ 🇰 🖙 🛟 🗈 🛙	Ŷ			11:3	3 AM
Carle Park Work Orders			5	0,	1
Park Work Orders					
PrivatelD: Address: Lead Worker Text: Status Text: Comment From Request:	Work Order #: Street Name: Assigned Crew Text: Status Date:	Category Text: Facility Building Problem Text: fire alarm Supervisor Text: Start Date:	Main Task Text: Reason Text: Status: End Date:		
PrivateID: 8773 Address:	Work Order #: 2014-00874 Street Name: AMBER	Category Text: Park Problem Text: Theft	Main Task Text: Reason Text:		

Pushing the edits to the server will save the documents to the server and will leave the documents on the tablet for use locally while offline. Going online will also save the documents to the server, but when the user goes offline again, the documents will no longer be available. This is true of all modules (including inventory and inspections).

Inventory and Inspections Offline

Inventory data can only be accessed from the modules menu. No inspection data is sent to the field, but inspection data can be collected while out in the field (as can inventory data, if desired, but GIS editing is not available).

Inspections and inventory are pushed to the server and saved just like requests and work orders. However, inspections and inventory will stay cached offline on the device even after synched to the server until the relevant dataset is scheduled to be updated. For example, a user who is collecting Sign Inspections and has the Street dataset scheduled to update on the tablet monthly will accumulate up to 30 days of offline Sign Inspection data on the tablet. Documents are not kept locally on the device for inspections and inventory once the user goes online, however.

GIS Offline

GIS data is not taken offline during the "Go Offline" process. GIS offline data is managed separately from the Lucity data. When launching the map from an offline dashboard, the system will check to see if there is an available offline map. If there is not one, the user must take a map offline to continue. A network connection is required to take a map offline.

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To take a map offline, select "Take Map Offline" from the menu. Select an extent (either the current extent or a bookmarked extent) to take offline. Bookmarked extents are recommended. It is easier to keep track of what extent was downloaded.

Take Map Offline				
This will download all features for the current map in your current extent. The number of features you can select may be limited by the server.				
Please choose an extent to take offline				
Use Current Extent				
Cancel	Download New Map Data			

The system will download any necessary data (and load any side-loaded tiled maps as needed) and display the offline map to the user. The ArcGIS Server instance will limit how many features are downloaded. This is configured in ArcGIS Server and is limited to 1000 features for the service. There is no control over which 1000 features are returned and if an extent has more than 1000 features there is no notification that not all features were downloaded.

Depending on how the maps and map services are designed in Lucity Administration tools it is theoretically possible for the maps to look different offline than online. Offline maps do not support advanced symbology, data joins, plus other features that online maps can use. You also may make the decision not to include all map services in the offline map.

Once a map is available offline, it can be re-used without downloading again. If a map has already been downloaded for the device, the prompt for taking a map offline will provide information about what map is already available offline and ask the user what should be done:

An offline m	ap already exists on the dev	ice. Would you like to use			
this data or download new data from the server? Downloading new data will download all features for the current map in your current extent. The number of features you can select may be limited by the server.					
Map Name: ACT 2014 Bookmark Name: ball fields Last downloaded: 08/25/2014 09:01 PM					
Please choo	se an extent to take offline i	f downloading new data.			
Use Current E	ktent				

Maps are stored on a user by user basis on the device.

Most features from the online map work the same offline. There are a functionalities not supported offline. Some of these limitations are:

- Offline maps do not support searching for addresses
- Show in map will not show addresses. It will only show XY points and assets.
- Offline maps do not support redlining
- Offline maps do not currently support the relationships tool (viewing related inspections, viewing related work orders)

Troubleshooting or inspecting offline data status

To get information about the status of offline data (non-GIS) on a tablet, an interface for inspecting the offline metadata is available. To get to this, go to the View Logs on the menu. Once in the Logs view, click the View Troubleshooting Tools Menu

8 🖂 😒	L 🗒 🛟 Ó						📉 🗊 🖥 9:42 AM
	ALL	EXCEPTIONS	NOTES	REST	TIMING		CLEAR LOG
Download Offline Inventory						View Tro	oubleshooting Tools
HttpGet - 304: http://iosdev.lucity	Not Modified .net/LucityMobi	d leServer/DataCad	che/Equip				

This is available online or offline. It provides 3 options:

rk.js
Additional Tools
Open Data Inspector
Clear ALL Offline Inventory Caches
Clear an Offline Inventory Cache
Court

The Data Inspector is for Lucity support and development purposes and is not documented for use by end users.

The Clear Offline Inventory Cache options provide metadata about the caches currently stored locally and allows one cache to be forcibly refreshed on the next go offline process.

I	Clear Which Inventory Cache?
q	Electric - Last Updated: Fri, 22 Aug 2014 07:05:22 GMT
etr Pai	Storm - Last Updated: Sat, 23 Aug 2014 03:22:32 GMT
Va	Sewer - Last Updated: Sat, 23 Aug 2014 03:24:20 GMT
Vo	Common - Last Updated: Sat, 23 Aug 2014 03:24:42 GMT
e	Water - Last Updated: Sat, 23 Aug 2014 03:30:12 GMT
stc	Park - Last Updated: Sat, 23 Aug 2014 03:31:32 GMT
vc	Street - Last Updated: Sat, 23 Aug 2014 07:27:49 GMT
at	Equipment - Last Updated: Sat, 23 Aug 2014 14:31:34 GMT
Da	Work - Last Updated: Mon, 25 Aug 2014 15:52:26 GMT

Configuring for Offline Mobile Use

Views/Data

Starting with Lucity 2014r2, in addition to Work Order data going offline, inventory data can also go offline. Each night the Lucity Services instruct the Lucity Mobile Server to cache inventory data locally on the server. All records in all inventory modules which have views defined are cached to the server. These static cache files are later downloaded, as needed, by tablets when they go offline.

Configuring what data is potentially available to offline users

In Lucity 2015 we added support for an Offline flag on views. This can greatly improve your go offline speed by allowing you to configure exactly which views should be available offline. This allows Lucity to skip caching data that you do not need available for your offline users.

Å	View	Builder – 🗖 🗙
View Name Alternate View Name	Sewer Node	
Step 1: Select a Grid	Type Field Ties sts mplates ent Grid uction Assets	Step 2: Select a Grid Sewer Node New Grid Edit Grid Step 3: Select a Form for Grid (optional) Sewer Node Form New Form Edit Form Preview Help Mouse over a control to see its description.
✓ Offline Mobile ✓ This is the default	view for the Sewer Nodes	Save Cancel

This flag is configured on a view and grid basis.

Ă				Grid Builder				_ □	x
Grid Name Grid Type Description	Sewer Node Field Ties Sewer Node Field Ties	¥	Caption	Sewer Node Field Ties		Page Size	10		*
Column Edi									
Column Editor Available Columns Created By Creation Date Time Field Tie Rec # Last Modified By Last Modified Date Last Modified Time		Selected Columns Sequence number Field tie text		Properties		numb e JM			
Help Mouse ove	r a control to see its descrip	otion.				H	eader ext to display a olumn in the gr Mar	it the top of th id. nage Buttons	e

Configuring how often your users get updates

The frequency of tablet downloads is controlled by the Mobile Offline Cache Setup module (under the General menu). This is accessible in Lucity Web, Lucity Mobile, and Lucity Desktop. In order to use this module in Lucity Web and Lucity Mobile a view must be imported or created for the module.

Notes:_____

-		lυ	city	Home Mobile Off	Menu	<u>Favorites</u>	Open Views	Modules			
	\overleftrightarrow						Mobile C	Offline Cachin	g Setup		
	į.	- 1	r- 📀 🕻	2			Mobile Cac	he Setup 淤			10 🔻
			Cache Rec #	Name	Interval Text						
	÷	P	9	Electric	Monthly						
	÷	P	8	Storm	Monthly						
	÷	P	7	Sewer	Monthly						
	÷	P	6	Common	Monthly						
	÷	P	5	Work	Weekly						
	÷	P	4	Water	Monthly						
	÷	P	3	Park	Monthly						
	÷	P	2	Street	Monthly						
	÷	P	1	Equipment	Monthly						

By default all tablets will get all databases monthly. It is important to review and change this to fit the workflows required. Monthly is probably, in many cases, too frequent. Tablets which do not need access to datasets should be configured to not download the datasets.

To configure what is downloaded on a user or group basis, add an override record to the Mobile Cache Setup Detail child of Mobile Offline Caching Setup. These will override the global parent values. The bottom screen cap, Park is configured to download Monthly for all users except Nicole. Nicole gets the data weekly.

- P	3	Park	Monthly		
	Mobile Cach	e Setup Deta	il (1)		
		csV			Mobile Cache Setup Detail 📈
		Type Text	Name	Interval Text	
	Ē	User	Nicole	Weekly	

One of the picklist options for Interval is "Never". This allows an administrator to optimize and not send down datasets that a user or group of users will not need. Downloading too many datasets will cause the tablet to take a long time to go offline and will put unnecessary load on the web server.

Performance Considerations

The performance of the Go Offline process is strongly correlated to the processor and memory available on the tablet. Writing to disk is the most expensive activity during a Go Offline process. Slow or older tablets can take 10 to 20 times longer than newer faster tablets at writing information to disk. Keep this in mind when deciding which tablets will use offline data, how much offline data to push to the tablets, and how often the offline data is updated.

Additional optimizations that can be made include the following (in order of importance):

• Remove views which are not used or un-assign forms and child views from them or remove the Offline mobile flag.

- Do not add value lookups to forms unless they are needed. Remove value lookups from inventory and inspection forms that are not used or are not important. The default imported forms for Lucity have many fields which may not be necessary for your workflow.
- Remove fields from forms that are not used.

Notes:_____

G/S

Configuring GIS for use with offline maps requires deploying feature services and raster tile packages (if desired).

Configuring Feature Services

Feature Services have special requirements for offline usage. They must have Sync enabled.

This is an example of a feature service configured for offline use:

	Service Editor X
Connection: arcgis on localho	ost_6080 (admin) Service Name: parks
Connection: arcgis on localho General Parameters Capabilities Mapping Feature Access Pooling Processes Caching Item Description	Dest_6080 (admin) Service Name: parks Feature Access REST URL: http://localhost:6080/arcgis/rest/services/parks/FeatureServer SOAP URL: http://localhost:6080/arcgis/services/parks/MapServer/FeatureServer Operations allowed: Create Delete Query Allow update of true curves Operations allowed on features with no 2-values, set 2-value to: Operations allowed on features created by other users : Operations allowed on features created by other users : Operations allowed on features created by other users : Advanced Options
	OK Cancel

Prior to deploying this feature service:

- Global Ids were added to the datasets
- Data archiving was enabled on the datasets
- Symbology was simplified in the project
- Joins were removed
- Some changes were made to ensure that all layers in the map service were in a consistent state (either all versioned or all un-versioned; in the above example they are all versioned).
- The ArcMap project database connection was switched to a user with edit permissions to the geodatabase
- Switched operational (non-tile cache) services to use the same spatial reference for all operational services

• The analyze tool was run in ArcMap as a part of the map service creation and all issues were resolved that were critical

Another consideration is the map service is the number of features returned. This can be bumped up if desired:

Service Editor											
Connection: arcgis on loc	alhost_6080 (admin) Service N	lame: parks									
General Parameters Capabilities Mapping Eachure Access	Parameters Document Location Original Document: Anti-Aliasing Anti-Aliasing:	D:\arcgisserver\resou	rces\parks.mxd	None							
Pooling	Text Anti-Aliasing:			Force	~						
Processes	Properties										
Caching	Maximum number of re	ecords returned by the se	rver:	1000							
Item Description				Advanced							
	Cluster Choose the cluster hos	sting the service:		default	¥						
	Output Directory Directory:	<u>.</u>	arcgisserver\directorie	es\arcgisoutput	v						
				ОК	Cancel						

Keep in mind that if the server is returning more features, the offline map process will be slower and will generate more load on the server.

Once a feature service is configured, the map service in Lucity Admin should be configured for the new offline feature service:

GIS	Map Services												
	Name		Order	Opacity	Base Map?	Tiled?	Has Feature Service?	Disable Local Caching	Require Logon?	L Pass	N U	Offline Mobile Feature Service Url	Pr
	image	jis/rest/services/rasterimageservice/ImageServer	1										
	SecureInfrastructureWithCred	D/arcgis/rest/services/InfrastructureNewDemoSecure/MapS	3							t ***			
	SecureBaseMapWithCred	J/arcgis/rest/services/parcelsTiledSecure/MapServer	0			V				t ***			
	SecureInfrastructure	Varcgis/rest/services/InfrastructureNewDemoSecure/MapS	3						•	t. ***			
	SecureBaseMap)/arcgis/rest/services/parcelsTiledSecure/MapServer	0		•	V							
	InfrastructureNewDemo	J/arcgis/rest/services/InfrastructureNewDemo/MapServer	5										1
►	Parks	Varcgis/rest/services/parks/MapServer	6									http://demo.lucity.net:6080/arcgis/rest/services/parks/FeatureServer	
	QA Tablet Parcels)/arcgis/rest/services/parcels/MapServer	2										ŗ
	QA Tablet Demo)/arcgis/rest/services/NewDemo/MapServer	4										
	QA World	e.com/arcgis/rest/services/World Street Map/MapServer/	1		~								

If a feature service url is provided, Lucity will assume that the map can be taken offline with the provided feature service url.

Tile Caches

It is possible to side load tile caches on the device to provide a basemap. For details on creating tile cache tpk files, see Esri documentation. Once a tpk is created, it can be copied to the tablet. Create a folder in a consistent hive on the android file system and store the tpk in the same location on each device.

Here the tile cache is being copied to a new folder created on the root of the tablet called "LucityMobileSideLoad".



In Lucity Admin, the tiled service used in the map is updated with the location of this tiled cache stored locally: %root%/LucityMobileSideLoad/raster.tpk

The direction of the slashes in the above relative path are important.

ar a cli S Map Services													
	Name		Order	Opacity	Base Map?	Tiled?	Has Feature Service?	Disable Local Caching	Require Logon?	L Pas	s M	Offline Mobile Feature Service Url	Proxy Url
	image	pis/rest/services/rasterimageservice/ImageServer	1		V								
	SecureInfrastructureWithCred	Varcgis/rest/services/InfrastructureNewDemoSecure/MapS	3							t. ***			
	SecureBaseMapWithCred	Varcgis/rest/services/parcelsTiledSecure/MapServer	0			2				t. ***			
	SecureInfrastructure	Varcgis/rest/services/InfrastructureNewDemoSecure/MapS	3						2	t. ***			
	SecureBaseMap	Varcgis/rest/services/parcelsTiledSecure/MapServer	0		◄	V							
	InfrastructureNewDemo)/arcgis/rest/services/InfrastructureNewDemo/MapServer	5										
	Parks	D/arcgis/rest/services/parks/MapServer	6									http://demo.lucity.net:6080/arcgis/rest/services/parks/FeatureServer	
	QA Tablet Parcels)/arcgis/rest/services/parcels/MapServer	2										
	QA Tablet Demo)/arcgis/rest/services/NewDemo/MapServer	4										
	QA World	s.com/arcgis/rest/services/World_Street_Map/MapServer/	1		V						Г		
•	QA Base Map	D/arcgis/rest/services/RasterTiled/MapServer/	0									%root%/LucityMobileSideLoad/raster.tpk	
	LucityConv_25]/arcgis/rest/services/Markup2/FeatureServer									-		
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When going offline, the Lucity application will look for side loaded maps and load them for use on the device with an offline map.