

Agenda

- Target Market Segments
- Product Overview
- Pricing and Sales Opportunities
- Product Compatibility
- System Migrations and Expansions
- System Flexibility
- Critical Dates and Quote Process
- Jeopardy Challenge
- Questions and Answers
- Detailed Comparisons of Capacities and Features

Presenter notes are included in this presentation, please view slides with the notes turned on for reference.

ARC 4000 Value Message

The ARC 4000 master site offers customers the benefits of the ASTRO 25 Trunking platform in a single master site cabinet.

The solution is designed to meet the needs are our small system customers with entry level mission critical communication needs.

The physically smaller footprint allows customers to optimize the cost of ownership in areas such as:

- Physical space requirements
- Heating/Air Conditioning needs
- Power supply

The ARC 4000 is compatible with many of the sub-systems found on the currently shipping ASTRO 25 7.X Master Site, including:

- CENTRACOM Gold Elite
- MCC 7500
- QUANTAR Sites
- G-Series Sites
- Telephone Interconnect
- MOSCAD
- All ASTRO 25 Subscribers

Recognizing the changing needs of communities and on site operations



Motorola's ASTRO 25 System Solutions:

- Provide both entry level or expanded feature solutions
- Greater feature flexibility
 - Integration of new technology
 - Coverage expansion as needed





• Smooth migration to multi site solution





Introducing ASTRO 25 Master Site in a cabinet:

ARC 4000 Hardware Layout

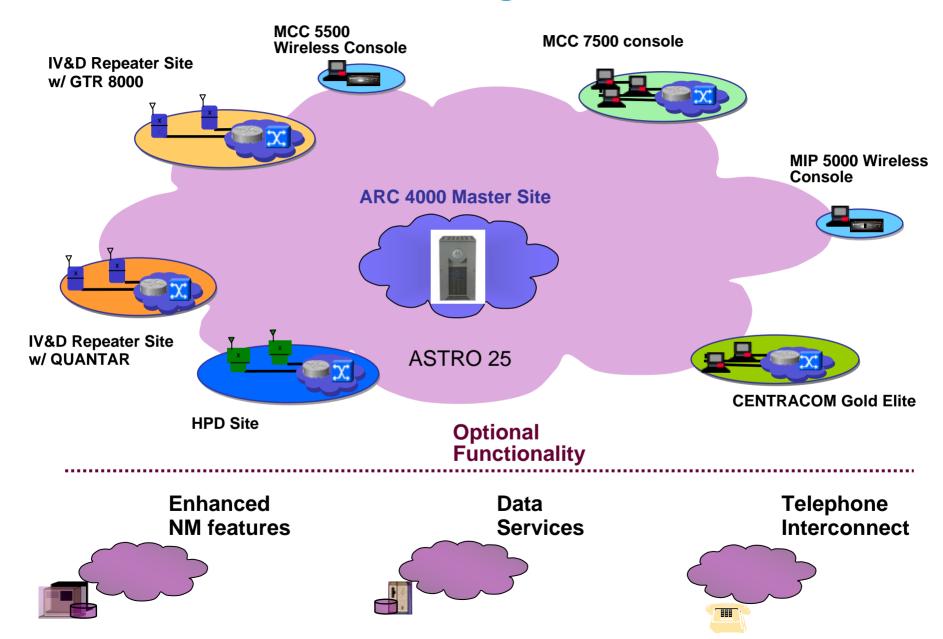
- ASTRO 25 master site for small systems:
 - Master site in a cabinet
 - 1-12 Repeater Sites
 - 1 to 120 Channels
 - 1 to 5 Console Sites
 - 10 operator positions
 - ASTRO 25: All voice features supported including:
 - Private Call
 - MultiGroup Call
 - Call Alert
 - Emergency Call
 - ASTRO 25 Data Sub-systems:
 - All Integrated Data services:
 - OTAR Over the Air Rekey
 - Personnel Location GPS based location
 - POP25 Over the Air Radio Programmi
 - High Performance Data
 - 3 HPD Channels per site



ASTRO 25 Trunking with an ARC 4000 Master Site: Benefits

- ASTRO 25 Market Leader:
 - Seamless mobility between sites
 - Mission Critical IP technology
 - System Behavior and Resilience during Crisis
- Superior Call Management
 - Dynamic Regrouping
 - Selective Radio Inhibit
 - AllStart / FastStart Call Set Up
- Secure Voice Encryption
 - End to End Encryption
 - Over the Air Rekeying
 - Key Variable Loaders for on site key loading
 - Numerous encryption algorithms to choose from
- Motorola System Integration
 - Site and coverage design
 - System build and test in Schaumburg
 - Coverage testing
- Motorola Service
 - 24X7 monitoring
 - Advanced parts replacement
 - Centralized call center

ASTRO 25 Integrated Network



ARC 4000 Master Site Configurations

Key

ORANGE: Data Hardware - Optional

Blank

Non-Redundant Hardware Required

Redundant - Optional

Switch #2 (HP 2650)
Switch #1 (HP 2650)
Consolidated Router #2 (S6000)
Consolidated Router #1 (S6000)
Router Patch Panel
Border Router (S6000 opt.)
GGSN Router (S6000 opt.)
VPN
Terminal Server (16 Port)
ZC Server #2 (T2000)
ZC/NM Server #1 (T2000)
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Blank Blank Blank Blank Blank Blank Blank Blank PDR Server (DL360)

Non-Redundant Configuration

Potential Customer Opportunities

- Universities
- Manufacturing Facilities
- Stadiums / Arenas

Redundant Configuration

Potential Customer Opportunities

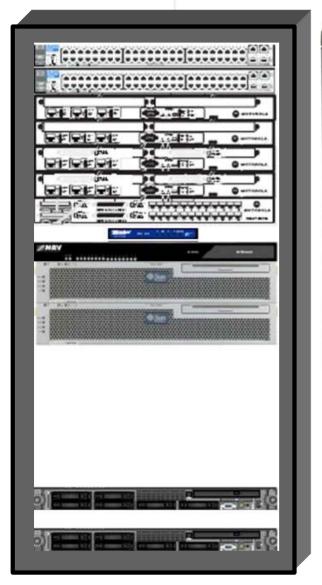
- Correctional Facilities
- Small Rural Communities
- Airports
- Water Ports
- Utilities

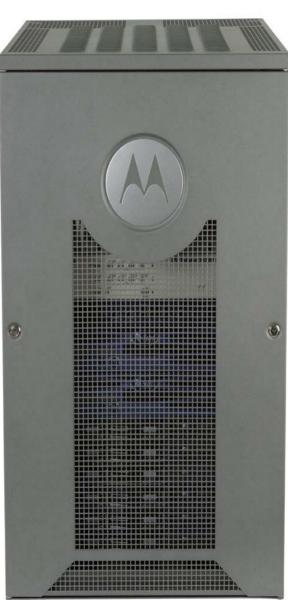
Integrated Voice and Data

Potential Customers Opportunities

- Up sell IV&D on either Redundant or Non – Redundant configurations
- Users who want to:
 - Reprogram radios over the air
 - Need access to personnel location on radio users
 - Rekey radios over the air

ARC 4000 Cabinet





ARC 4000 Cabinet Specifications

Physical Characteristics	Approximate
Height	51.5 inches / 1330 mm
Width	23.5 inches / 600mm
Depth	38.5 inches / 980 mm
Weight (Empty / Loaded)	120lbs / 550lbs

- Final placement of hardware may differ
- Final availability of blank rack units may differ
- Each box = 1 RU, except T2000 Servers = 2RU

Bringing the latest products to our customers



MCC 7500 IP Wireline Dispatch Console

- Intuitive, Easy-to-Use GUI reduces simplifies operations and reduces stress
- Easy to change screen configurations to meet changing needs
- Similar GUI as Gold Elite minimizes learning curve



GTR 8000

- Expandable Site Subsystem
- Supports up to 6 base radios
- 43RU Schroff cabinet or 7.5 ft open rack



SUN Netra T2000

- Zone Controller & Network Management Operation
- Running Solaris 10
- Offering "container" OS operations
- Allows customers to decrease physical space requirements
- Ensures investment in newest hardware platform



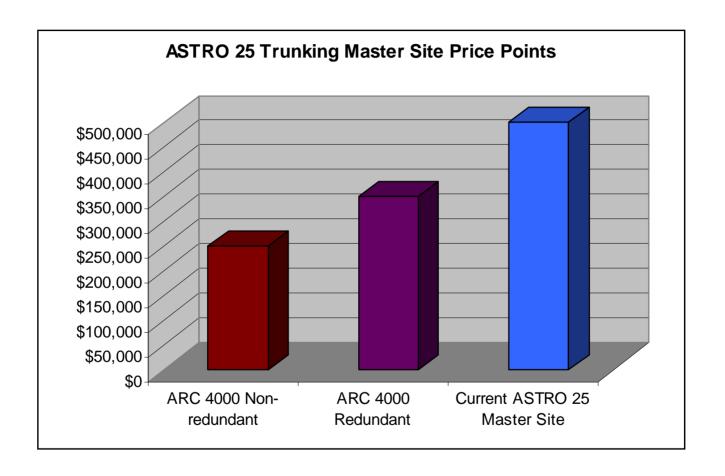
HP DL 360

- ARC 4000 Packet Data Gateway
- Allows customers to decrease physical space requirements
- Ensures investment in newest hardware platform

ASTRO 25 with ARC 4000 Capabilities and Advantages

Capabilities	Packaged master site design that optimizes space and costs	Ability to grow system over time; scalable from 1 to 12 repeater sites	User interfaces that are similar to previous solutions	Latest product technology and a system lifecycle that provides multi year support
Advantages	Replacement of single site analog SMARTNET system with ASTRO 25 Trunking platform	Allows customers to adjust to the changing needs of their users	Decreases training investment as users migrate to leading edge technology	Confidence that today's investment will carry forward for long term communication needs

ASTRO 25 Master Site NSBD Pricing ARC 4000 vs. Current 7.X



Pricing Based On:

- 1, 500 Subscriber Unit Licenses
- 2. Console Operator License for 5 Op Positions

Does not include the price of the console positions or subscriber themselves

ARC 4000 vs. Current Master Site High Level Comparison

High Level Comparison	ARC 4000 Master Site	Current ASTRO 25 Master Site	
System Size	Small Systems 1 to 12 Repeater Sites 1 to 120 Channels No simulcast	Small to Nation Wide 1 to 700 channels per zone 1 to 100 sites per zone Repeater and Simulcast	
Frequency Bands	700MHz, 800MHz UHF • 380 to 520MHz VHF •136 to 174MHz	700MHz, 800MHz UHF • 380 to 520MHz VHF •136 to 174MHz	
Encryption Types	DES-OFB / DES-XL AES DVI-XL / DVP-XL ADP	DES-OFB / DES-XL AES, DVI-XL / DVP-XL ADP	
Trunking Control Channel Rate	9600 bps	9600 bps	
Redundant Design	Non-redundant and Redundant	Redundant	
Dispatch Solutions	CENTRACOM Gold and MCC 7500	CENTRACOM Gold and MCC 7500	
Data	IV&D (HPD Q4 2007)	IV&D and HPD	
Data Applications	OTAR, POP25, Outdoor Location	OTAR, POP25, Outdoor Location	
Subscribers	All ASTRO 25 Subscribers & Data Devices	All ASTRO 25 Subscribers & Data Devices	
Information Assurance	Entry Level	NIST, DIACAP	

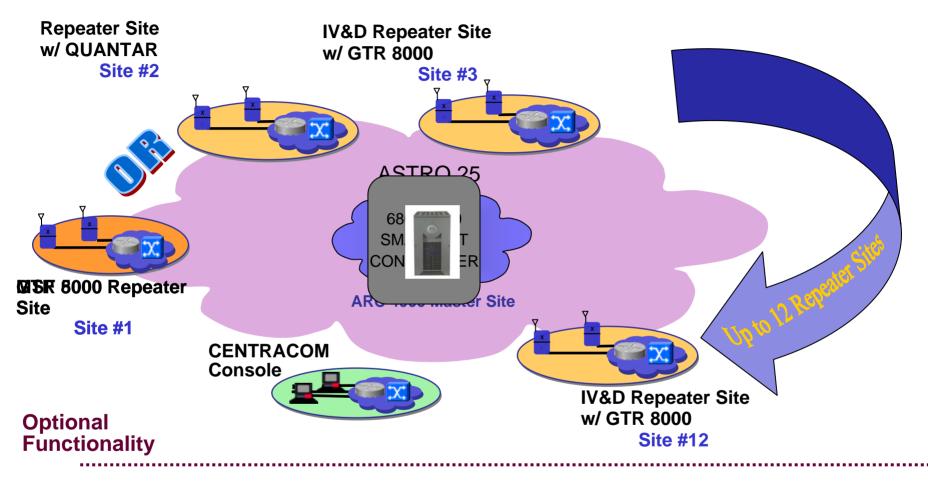


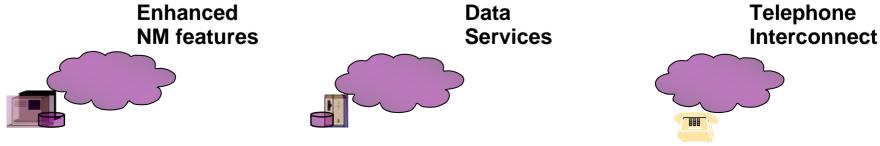
Customer Needs for Long Term System Strategies

Customers across the mission critical market place need:

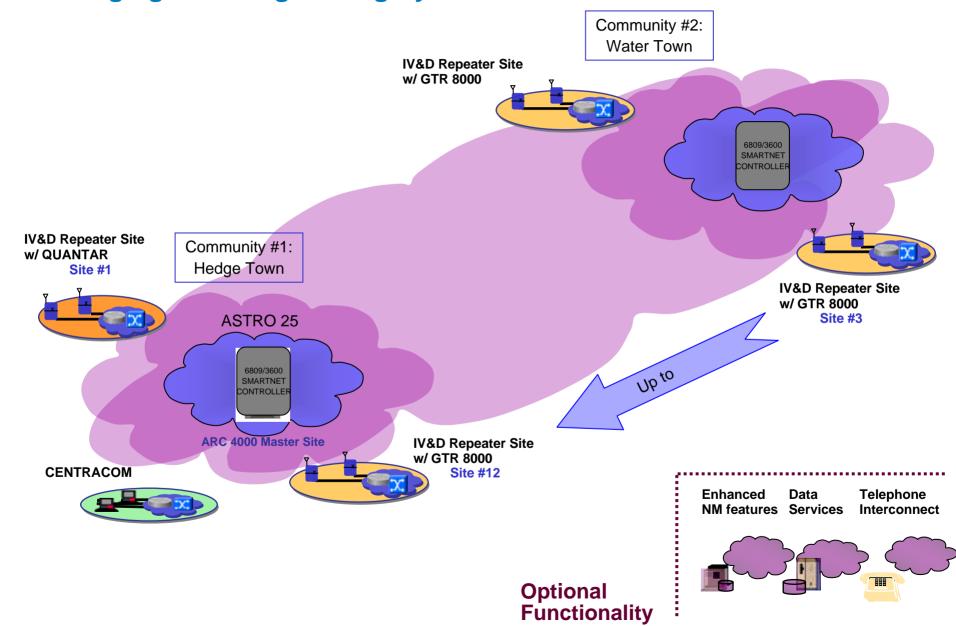
- -To know that their investment:
 - Allows for reuse of currently fielded equipment
 - Will expand for future growth w/ minimum expanse
 - Allows for integration of future development of features and services
 - Supports ease of training to move forward with operations

Single Site Analog SMARTNET System Migration to ASTRO 25





ASTRO 25 with ARC 4000 Expansion Scenario #3: Merging Two Neighboring Systems

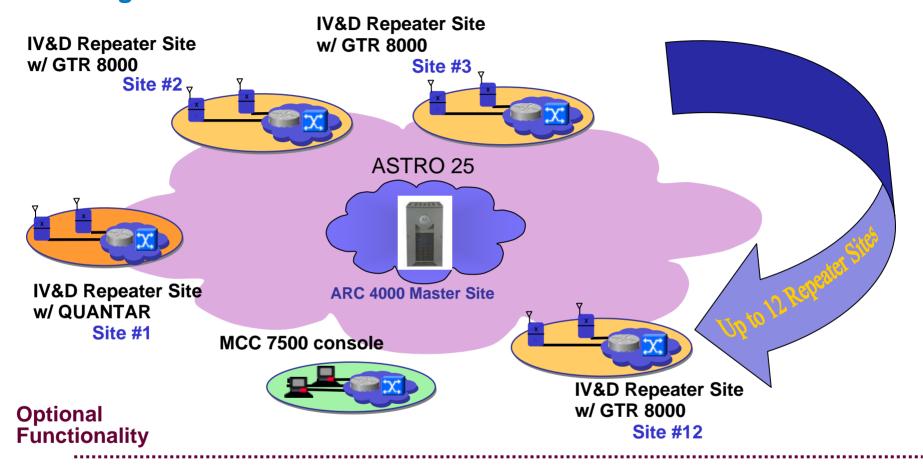


EXPANDING YOUR
SYSTEM AT YOUR PACE



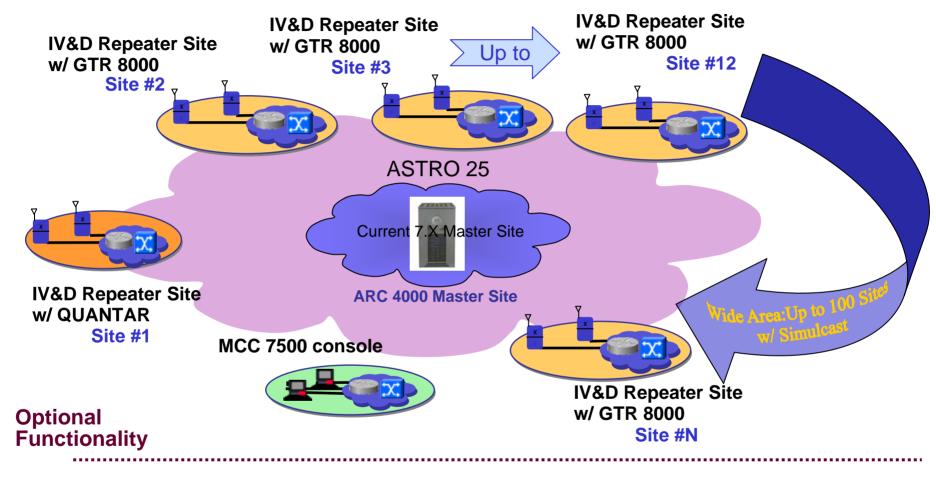
ARC 4000 DELIVERS

ASTRO 25 with ARC 4000 Expansion Scenario #1: Adding Sites





ASTRO 25 with ARC 4000 Expansion Scenario #2: Expand beyond 12 sites – prior to H1 2009







Motorola's Subscriber Portfolio!

Fully compatible with all ASTRO 25 Subscribers

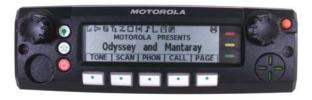












Dispatch Operation Alternatives

- CENTRACOM Gold Elite (Fielded)
 - AEB, CEB, MGEB
 - Depending on status upgrade to software and hardware may be needed
- MCC 7500 (New Sales)
- Both solutions allow integration of conventional channels
- System supports:
 - Up to 5 wireline console dispatch sites
 - 10 CENTRACOM Console ops
 - 10 MCC 7500 Console ops
 - A combination of CENTRACOM / MCC 7500 as long as the max ops does not exceed 10
 - All 10 ops at one dispatch location or 10 ops across all 5 dispatch sites
- Wireless
 - MCC 5500
 - MIP 5000



ASTRO 25 Site Design

ARC 4000 uses the same site design as the ASTRO 25 platform

• 1 to 12 Repeater Sites

- 1 to 120 Channels
 - · Maximum of 28 Channels per site

Site can be:

- Co-located with master site
- Remotely located
 - Connection via E1/T1 links
 - · Non-redundant links only

Fielded QUANTAR stations

- Depending on status software and hardware updates needed

Shipping new from the factory

- QUANTAR
- GTR 8000
 - Expandable Site Subsystem Provides 1 or 2 to 6 channels per cabinet
 - · Integrated site controller
 - · RFDS (combiners) and site switch: built into the cabinet

System can support:

- QUANTAR and GTR 8000 stations at the same site
- GTR 8000 can replace QUANTAR stations that fail



ASTRO 25 RF Deployable Site

What is it?

- Fully-integrated site solution "on wheels" used for rapid response to Mission Critical Networks
- Pre-Ordered, Pre-Configured, Tested, Ready for Urgent Deployment
- Compatible with the ARC 4000

When could it be used?

- Add Capacity: Large Scale Events
- Add Coverage: Remote Coverage For Emergency Incidents
- Disaster Planning: Natural Disaster, Terrorist acts, etc

What are some possible configurations?

- Backhaul on wheels: Loss of T1/microwave
- RF site on wheels: Loss of remote/RF site
- Master site on wheels: Loss of entire master site

Things you may not have known ...

- Withstands extreme weather (120 mph winds, salt, sand, lightning)
- Quick and easy deployment -- 1 Person in under 30 minutes for the RF Site on Wheels
- Flexible Transportation -- can be hitched to an **F350** (or equivalent 3/4 ton or larger truck) or even a **helicopter** !?!



NEW! Digital Vehicular Repeater System (DVRS)

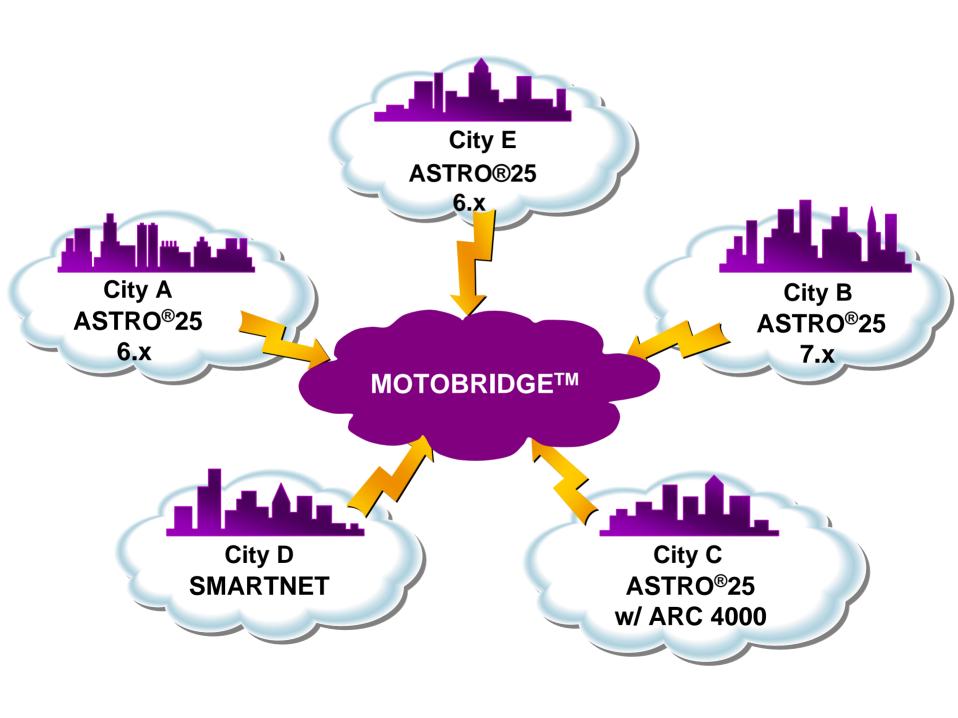
First APCO 25 Digital Vehicular Repeater System

- A co-developed Futurecom/Motorola product
- A cost-effective and portable solution to expand radio coverage
- Allows operation in-band or between 2 different frequency bands (cross-band)
- Available in the following bands:
 - VHF: 136-174MHz (VHF)
 - UHF: 380-403MHz, 403-430MHz, 450-470MHz, 470-512MHz
 - 700: 764-806MHz800: 806-869MHz



• Key Features:

- Portable ID-pass-Through
- End-To-End Encryption
- OTAR
- Multiple DVRs On Scene
- AVRA (Automatic Vehicular Repeater Activation)
- Remote Activation from System Console
- Off, Local, System Modes
- Simplex or Duplex (Analog and Digital)
- Remote Steering:
 - Modes (Off/Local/System)
 - Slave/Master
 - Talkgroup
- In-Car Monitor
- Enhanced Multiple Talk Group Operation
- Compatible with the following Mobiles:
 - XTL5000 (O5 Control Head)
 - XTL5000 (O3 Control Head)
 - XTL2500





Do You Have Opportunities:

Customer has access to Homeland Security funding for P25 Interoperable communications?



ASTRO 25 Trunking meets their needs and small systems can be designed with the ARC 4000 Master Site.

Customer is a single site analog customer ready to transition to P25 operation?



The ARC 4000 Master Site is a perfect fit, with only 1 cabinet and proven voice / call processing functionality.

Customer whose community is experiencing accelerated growth?



The ARC 4000 Master Site allows customers to purchase to the leading edge mission critical communication system, with the ability to expand.

Do You Have Opportunities:

Customer needs to invest in a P25 system today and may join a regional system in the future or build their system into a regional hub?



The ARC 4000 Master Site allows customers to purchase to the leading edge mission critical communication system, with the ability to expand.

Customer has a DataTAC system and is ready to replace their system?



Work with your Regional BDM to take advantage to the Blast Off promotion – allowing the customer to receive credit for their DataTac Equipment.

Customer has large community coverage needs, including in building?



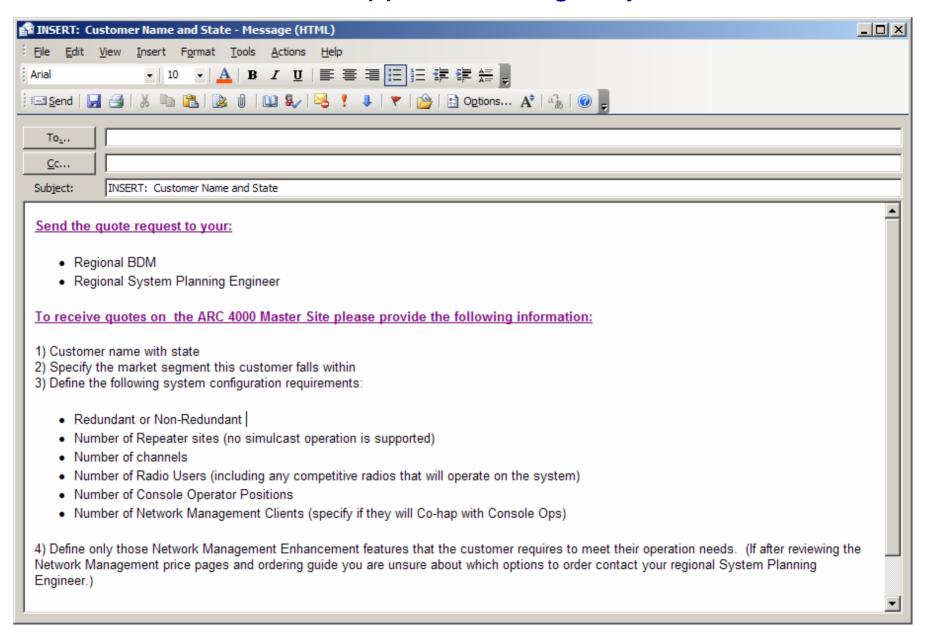
The ASTRO 25 Wide Area Master Site with Simulcast operation will meet all their needs.

ARC 4000 Master Site for ASTRO 25: Shipping to your customers

- Presentations to sales
 - Began: February 15, 2007
- Begin Quoting to Customers
 - TODAY
- Begin Accepting Orders
 - May 8, 2007
- Systems can begin shipping
 - In Q3 2007
- Opportunity to Deliver Earlier?
 - Work with Regional BDM
- Need more information:
 - Sales
 - Contact Regional BDM
 - Engineering
 - Contact Regional System Planning Engineer



To Receive Support for Budgetary Quotes





JEOPAROU!	JEOPAROU!	JEUPAROU!	JEOPARDY!	JEOPAROU!
\$200	\$200	\$200	\$200	\$200
\$400	\$400	\$400	\$400	\$400
\$600	\$600	\$600	\$600	\$600
\$800	\$800	\$800	\$800	\$800
\$1000	\$1000	\$1000	\$1000	\$1000

Product Compatibility	Target Customers	Second Base	Capacity	Brand Message
	\$200	\$200	\$200	\$200
\$400	\$400	\$400	\$400	\$400
\$600	\$600	\$600	\$600	\$600
\$800	\$800	\$800	\$800	\$800
\$1000	\$1000	\$1000	\$1000	\$1000

The ASTRO 25 Trunking system with an ARC 4000 Master Site supports which of Motorola's wireline dispatch solutions?

What Are The CENTRACOM GOLD ELITE and MCC 7500?

Product Compatibility	Target Customers	Second Base	Capacity	Brand Message
	\$200	\$200	\$200	\$200
\$400	\$400	\$400	\$400	\$400
\$600	\$600	\$600	\$600	\$600
\$800	\$800	\$800	\$800	\$800
\$1000	\$1000	\$1000	\$1000	\$1000

Product Compatibility	Target Customers	Second Base	Capacity	Brand Message
	\$200	\$200	\$200	\$200
\$400		\$400	\$400	\$400
\$600	\$600	\$600	\$600	\$600
\$800	\$800	\$800	\$800	\$800
\$1000	\$1000	\$1000	\$1000	\$1000

The proper ASTRO 25 system solution to propose to state prison accounts.

What is the ASTRO 25 Trunking solution with the ARC 4000 master site?

Product Compatibility	Target Customers	Second Base	Capacity	Brand Message
	\$200	\$200	\$200	\$200
\$400		\$400	\$400	\$400
\$600	\$600	\$600	\$600	\$600
\$800	\$800	\$800	\$800	\$800
\$1000	\$1000	\$1000	\$1000	\$1000

Product Compatibility	Target Customers	Second Base	Capacity	Brand Message
	\$200	\$200	\$200	\$200
\$400		\$400	\$400	\$400
\$600	\$600		\$600	\$600
\$800	\$800	\$800	\$800	\$800
\$1000	\$1000	\$1000	\$1000	\$1000

The two types of base stations that can operate on an ASTRO 25 system with an ARC 4000 master site

What Are The:
GTR 8000
and
QUANTAR?

Product Compatibility	Target Customers	Second Base	Capacity	Brand Message
	\$200	\$200	\$200	\$200
\$400		\$400	\$400	\$400
\$600	\$600		\$600	\$600
\$800	\$800	\$800	\$800	\$800
\$1000	\$1000	\$1000	\$1000	\$1000

Product Compatibility	Target Customers	Second Base	Capacity	Brand Message
	\$200	\$200	\$200	\$200
\$400		\$400	\$400	\$400
\$600	\$600		\$600	\$600
\$800	\$800	\$800		\$800
\$1000	\$1000	\$1000	\$1000	\$1000

When using the ARC 4000 master site the total number of console operator positions

What is 10?

Product Compatibility	Target Customers	Second Base	Capacity	Brand Message
	\$200	\$200	\$200	\$200
\$400		\$400	\$400	\$400
\$600	\$600		\$600	\$600
\$800	\$800	\$800		\$800
\$1000	\$1000	\$1000	\$1000	\$1000

Product Compatibility	Target Customers	Second Base	Capacity	Brand Message
	\$200	\$200	\$200	\$200
\$400		\$400	\$400	\$400
\$600	\$600		\$600	\$600
\$800	\$800	\$800		\$800
\$1000	\$1000	\$1000	\$1000	

The ARC 4000 is a product choice available on what Motorola System Solution?

What is ASTRO 25 Trunking?



QUESTIONS AND ANSWERS



High Level Comparison

	піді	n Level Companson	
High Level Comparison	SMARNET	ARC 4000 Master Site	Current ASTRO 25 Master Site
System Size	SN II+ - 28 channels 10 site Simulcast SN/ASTRO – 28 channels No Simulcast	Small Systems 1 to 12 Repeater Sites 1 to 120 Channels Simulcast - Future	Small to Nation Wide 1 to 100 Sites per zone 1 to 700 Channels per zone Repeater and Simulcast
Frequency Bands	800MHz, 900MHz UHF • 380 to 520MHz VHF •136 to 174MHz	700MHz, 800MHz UHF • 380 to 520MHz VHF •136 to 174MHz	700MHz, 800MHz UHF • 380 to 520MHz VHF •136 to 174MHz
Encryption Types	DES-XL DVI-XL / DVP-XL	DES-OFB / DES-XL AES DVI-XL / DVP-XL ADP	DES-OFB / DES-XL AES, DVI-XL / DVP-XL ADP
Trunking Control Channel Rate	3600 bps	9600 bps	9600 bps
Redundant Design	Non-redundant and Redundant	Non-redundant and Redundant	Redundant
Dispatch Solutions	CENTRACOM Gold	CENTRACOM Gold and MCC 7500	CENTRACOM Gold and MCC 7500
Data	via TIMI/TDC	IV&D (HPD Planned – Q4 2007)	IV&D and HPD
Data Applications	TDC – Trunked Data Controller	OTAR, POP25, Outdoor Location	OTAR, POP25, Outdoor Location
Subscribers		All ASTRO 25 Subscribers & Data Devices	All ASTRO 25 Subscribers & Data Devices
Information Assurance	N/A	Entry Level	NIST, DIACAP

Master Site Functionalities

Functionality	SMARTNET	ASTRO 25 ARC 4000 Master Site	ASTRO 25 7.X Current Master Site
IV&D	N/A	Yes	Yes
HPD	N/A	No (Q4 2007)	Yes
Data Applications	TDC	OTAR, Outdoor Location, POP25	OTAR, Outdoor Location, POP25
Customer Network Interface	N/A	Yes (1)	Yes (10)
Console Op Roaming Profiles	N/A	No	Yes
MOSCAD Interface to FullVision	N/A	Yes	Yes
Status Messaging	Yes	Yes	Yes
Voice E 2 E Encryption on MCC 7500	N/A	Yes	Yes
Information Assurance	N/A	Manual downloads of Anti Virus updates for NM and MCC 7500 Clients	NIST, DIACAP
NM Application Reliability	N/A	1 Server Supports all NM Apps	1 server for each NM App
Redundancy			
Zone Controller	N/A	Non Redundant and Redundant	Redundant Only
Gateway Routers	N/A	Non Redundant and Redundant	Redundant Only
Site Links	Non-Redundant Only	Non-Redundant Only	Non Redundant and Redundant
Site Routers	N/A	Non Redundant and Redundant	Non Redundant and Redundant

System Level Capacities

System / Network Management Capacities	SMARTNET	ARC 4000 Master Site Capacity Per Zone	7.X Full Master Site Capacity Per Zone
Zones	N/A	1	7
Total System Channels	28 x # of Simulcast sites	1 to 120	700 per Zone
Repeater Sites	10 max	12 max	100
Simulcast /Receiver Voting Sites	Yes	Not Supported	Supported
Channels per Repeater Site	28	28	28
Talkgroups	4096/2 – using Priority Monitor	500	16,000
Individual IDs	64,000	10,000	64,000
Combined Total NM Simultaneous Sessions	N/A	3	32
Max. Simultaneous Dynamic Report Application Users	N/A	3	5
Max. Simultaneous Zone Watch Application Users	N/A	3	5
Max. Simultaneous Zone Historical Reports Application Users	N/A	3	10

Wireline Console Capacities

Wireline Dispatch Capacities	SMARTNET (CENTRACOM only)	ARC 4000 Master Site Capacity Per Zone	7.X Full Master Site Capacity Per Zone
Analog Conventional Channels through interface to the MCC 7500	N/A	100	700
Analog Conventional Channels through interface to the CENTRACOM Gold	Defined through AEB	100	Defined through AEB
Max. Dispatch Sites	32 (CEB)	5	55
Max Dispatch Ops	@400	10	250
Max Dispatch Ops per Dispatch Site	30	10	50
Analog Conventional Channels per Console Operator Position	60	60	71
Affiliated Talkgroup IDs per Console Operator Position	120	60	71
Simultaneous Audio Sessions per Console Operator Position	120	60	72

Network Management Operation

Functionality	SMARTNET	ASTRO 25 ARC 4000 Master Site	ASTRO 25 7.X Full Master Site
Network Management Backup	SAC backup to HD	DVD Only	Tape Only
Simultaneous NM Sessions	N/A	3	32
System Statistics Server	Yes (Site Lens)	No	Yes
Live Database Upgrades	N/A	No	Yes
CADI	Yes	No	Yes
Dynamic Shared Services	N/A	No	Yes
Inter Zone Operation	N/A	No	Yes
Home Zone Mapping	N/A	No	Yes
Info Vista	N/A	No	Yes
Life Database Upgrades	N/A	No	Yes

Data Operation

Integrated Data Capacities	ARC 4000 Master Site Capacity Per Zone	7.X Full Master Site Capacity Per Zone
Customer Network Interfaces	1	10
IV&D Data Users	2,000	20,000
Max. Messages per hour – System (Public Safety Profile)	300,000	300,000
Max. Messages per Hour - Site	15,000	15,000
Max. Messages per Hour - Channel	5,000	5,000
Max. Data Channels per Site	3	3