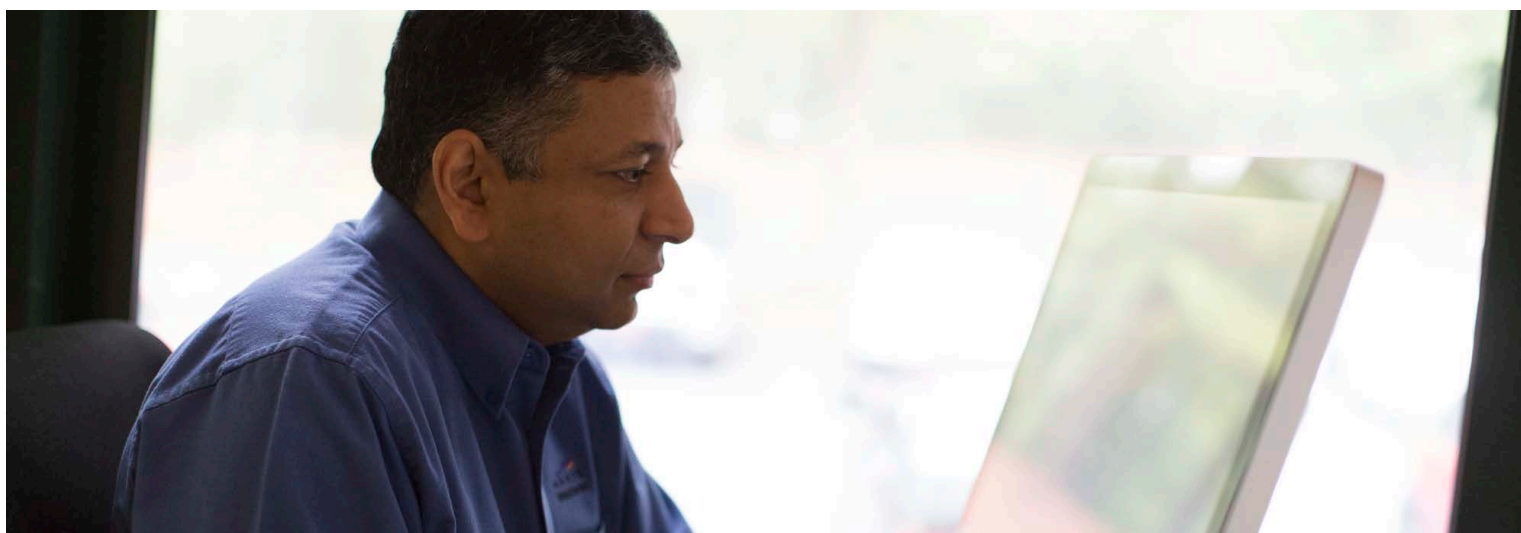


Custom Software Development

ARRIS Global Services



SERVICES OVERVIEW

Service providers today face increasingly high subscriber expectations requiring increasingly complex operational capabilities. Meanwhile, the competitive environment demands a rapid response to new challenges and opportunities. Often the solution requires new software to automate processes, improve the user experience, integrate disparate systems or provide actionable analytics. Many times the expertise to provide this software development is not available within the service provider's operations, or if it is, would be better focused on other strategic priorities.

ARRIS Global Services' software engineering team has extensive experience – specific to the service provider industry – with projects successfully delivered for cable, IPTV, OTT and Wi-Fi operators. Turn to ARRIS for standalone software development capabilities in the areas of Video Workflow Automation, Multi-screen portals, OSS/BSS and Assurance systems, Network Management tools, and application/solution integration/migration. As a master Systems Integrator, ARRIS also calls on this software development team to deliver tools and modules as part of complex solution integration projects.

ARRIS's Software Development team is unique in that it offers unmatched technology skills and tools that are laser-focused on the unique challenges of broadband service providers.

The team brings strong technology skills in enterprise grade server software development using Java and Ruby on Rails, QA Automation and test simulators development using Javascript and PERL, and Cloud deployment strategies using Dockerization and DevOps methodologies. We use these skills and capabilities for architecting, developing, delivering and deploying software solutions comprising of custom modules, adapters, middleware and tools. We do so by following industry-standard Agile processes certified by ISO9001:2008, with rock-solid product quality delivered following customer deployment requirements.

What sets ARRIS apart is it's ability to adopt and use customer-preferred tools, adapt to customer-preferred methods and work collaboratively with the customer, sharing priorities, tracking progress and making adjustments as needed – to achieve the desired results.

SAMPLE SOFTWARE DEVELOPMENT PROJECTS

Project	Summary and Value
Custom Adapters	<ul style="list-style-type: none"> Helped the operator launch its new service on time with an available VOD library by automating the content preparation and delivery as well as handling license expiration. Automated daily ingestion of VOD assets to improve daily volumes, reduce human errors and free up resources. Offered a configurable workflow engine to support introduction of new streaming protocols beyond HLS with no code changes.
Custom Adapters	<ul style="list-style-type: none"> Improved automation of operations and reduced 3rd party vendor dependencies by providing a unified API to allow operator's video stream planning application to manage channels interfacing with over 1,500 transcoders across all the customer transcoder facilities: <ul style="list-style-type: none"> Abstracted both Elemental and Envivio transcoder interfaces with a unified API managing multiple transcoding profiles. Enhanced the API Server by abstracting both operator's packager and Puppet database with a unified API.
Stream Controller & VOD Product Controller Software	<ul style="list-style-type: none"> Ensured 24x7 availability of a rendering farm to produce more than 200 video streams controlled by The Weather Channel. Provided an adaption and management layer between The Weather Channel backend CMS and Active Video CloudTV. Continuously produced and offered a library of up-to-date and localized VOD assets for customized individual user experiences by monitoring Active Video CloudTV output and creating and managing VOD Assets in Anevia Nea Cache. Ensured a continuous delivery stream of individualized content or weather emergency feed to the clients by providing the front end of an origin server.
Bulk Ingestor Tool	<ul style="list-style-type: none"> Rapidly addressed a gap in the overall nDVR solution to avoid modifications of operator's OSS/BSS systems to meet nDVR introduction timeline: <ul style="list-style-type: none"> Pushed existing channels configuration to ARRIS nDVR from operator's OSS/BSS systems. Provided on demand channel provider to support OSS/BSS provisioning error scenarios.
Wi-Fi Portals	<ul style="list-style-type: none"> Allowed operator to have several Wi-Fi portals (public, hospitality, MDU, etc.) available on different devices/browsers. Provided a quick turnaround for new property deployment through configurable portal framework.
Wi-Fi NMS Solution	<ul style="list-style-type: none"> Simplified operations by delivering a centralized monitoring solution using Skyline Dataminer, providing an integrated view of the network and subscriber statistics at different levels: <ul style="list-style-type: none"> Implemented visualizations via Google Maps, Logical and physical views of Wi-Fi network, real-time monitoring of SLAs, periodic automated report generations.
Log Archive Server	<ul style="list-style-type: none"> Allowed operator to collect and aggregate log data in real-time from their devices to enable pro-active and real-time troubleshooting from the device level all the way to the network level. Ensured logs could be gathered during mass failures and other STORM events. Avoided overload of the main deployed ACS platform (ARRIS ECO Manager).
Support Gateway	<ul style="list-style-type: none"> Allows rapid connection to customer devices deployed at more than 250 customer sites to address trouble tickets Supports proactive, automatic monitoring of devices on the operators networks to identify possible issues before they create an outage.

SOFTWARE DEVELOPMENT ASSETS

SCRUM Project Management:

- Atlassian Jira
- IBM RTC and RQM

Source Code and Build Management:

- GIT, GERRIT
- SVN
- Bamboo
- Maven
- Jenkins

Development Ecosystems:

- IBM/Aspera Orchestrator
- Skyline Dataminer

Database Management:

- Oracle
- MySQL
- PostgreSQL
- Microsoft SQL Server
- Apache Cassandra

SOFTWARE DEVELOPMENT ASSETS

Deployment Management and DevOPS:

- Docker
- Kubernetes
- Chef
- Puppet
- Ansible

Quality Management:

- SonarQube
- Cobertura
- Findbugs
- Jbehave

Cloud Ecosystems:

- Amazon Webservives (AWS)
- Microsoft Azure

MVC Application Frameworks

- Angular JS
- Twitter Bootstrap
- Spring

CUSTOMER CARE

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